

**ANNUAL REPORT
(JULY 2014 TO JUNE 2015)**

THE 29th ANNUAL REPORT
2014 – 2015



THAPAR UNIVERSITY
(Formerly Thapar Institute of Engineering & Technology)
THAPAR TECHNOLOGY CAMPUS
PATIALA – 147 004

PRESIDENT

Shri Gautam Thapar

CHAIRMAN, BOARD OF GOVERNORS

Shri Rajeev R. Vederah

VICE CHAIRMAN

Shri J.S. Neerav

DIRECTOR

Prof. Prakash Gopalan

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PREFACE

It is with great pleasure that I present this annual report of Thapar University giving a brief account of the activities and services carried out during the period 2014-2015. This year has been yet another year full of new activities, initiatives and services. The participatory approach and flexibility, which are the characteristics of the academic programmes and work culture of the University, have earned for itself recognition at the national level.

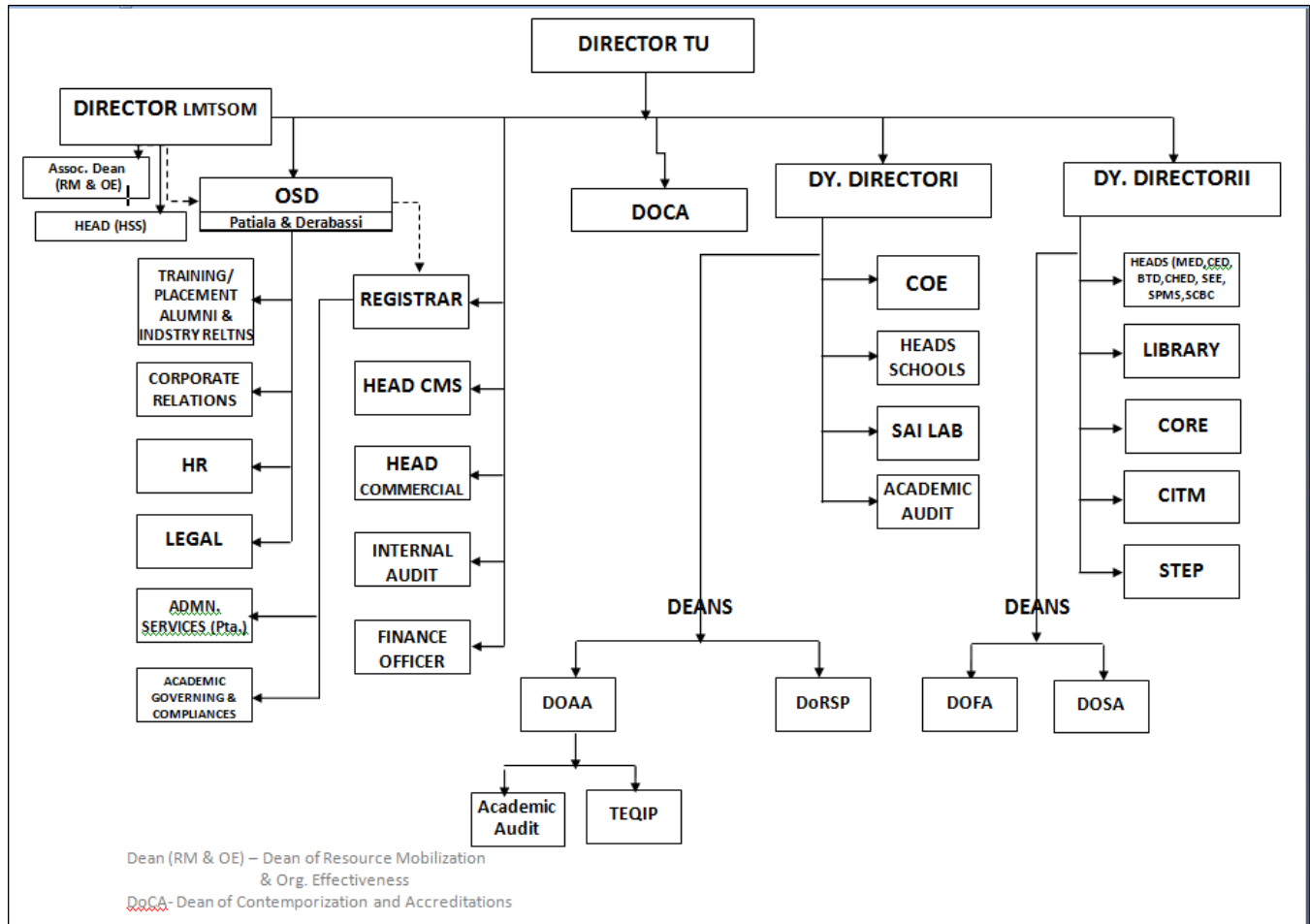
The opening up of societies and their economies in the current phase of globalization, and emerging communication technologies have brought about significant changes in all aspects of social life. Higher education, as a subsystem, has not remained unaffected by these processes. Universities and academia across the world are facing transactional competition. Hence, we review our academic curriculum and adopt quality control measures. In fact, our University has undergone formal grading and accreditation to validate our image as a leading academic institution.

The exalted position that the University enjoys is largely due to the hard work put in and distinctions achieved by its students, faculty, staff and alumni. I have full confidence that the University will continue to inspire the present and coming generations of Thaparians in their progress to attain new altitudes and explore new territories of knowledge.

I wish to take this opportunity to thank profusely the chairpersons and members of the statutory bodies of the University for the unstinted and continued guidance. I express my deep sense of gratitude to our faculty, staff and students for their cooperation in furthering the progress of the University to achieve its goals.

(Prakash Gopalan)

Organizational Chart



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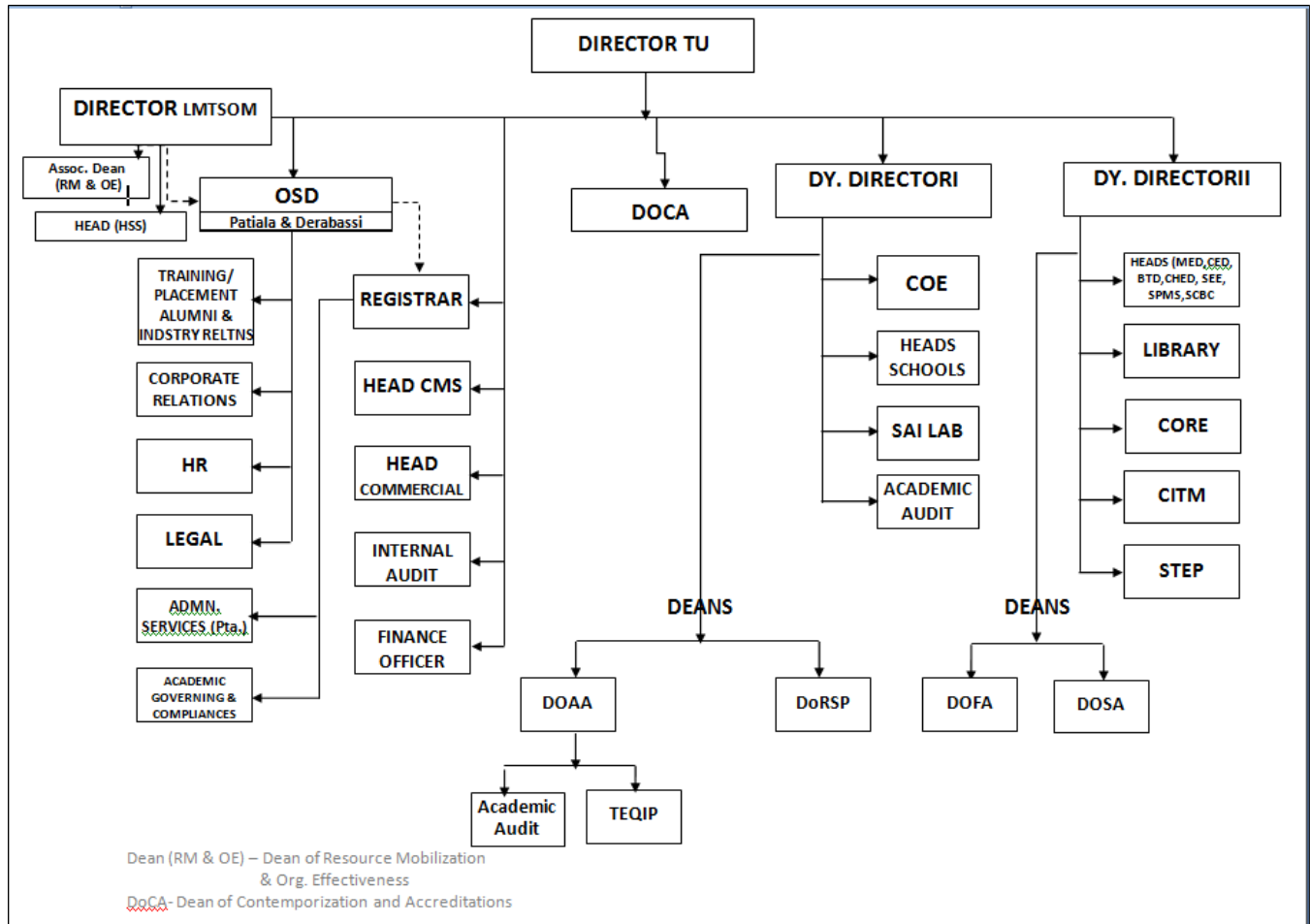
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EXECUTIVE SUMMARY

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1.0 INTRODUCTION

Thapar University in Patiala, Punjab is one of India's finest institutions and a steady source of highly skilled manpower to Corporate India. The success of the university, backed by one of India's most diversified conglomerates, the Avantha group, lies mainly on cutting-edge research, enviable infrastructure and smart institute-industry linkages.

Cutting-edge research is at the heart of the university, which believes that original research has to be the backbone of engineering education. Thaparians had over 350 published research papers in SCI Journals in 2014-15 and over 100 sponsored research projects are currently ongoing in different disciplines. With research focused in niche areas of engineering and sciences, Thapar University has over 2,500 published research papers in peer-reviewed journals under its belt.

Another front where Thapar University scores big is infrastructure. Its sprawling campus is home to over 80 teaching and research laboratories in engineering and sciences. Majority of the students reside on campus in impressive fully equipped hostels. The already impressive infrastructure will be further bolstered by a research park for incubation.

Thapar University has forged strong linkages with industry to impart a practical dimension to technical training. A semester internship in industry is a testimony of project led teaching. Over 150 companies which include some of the leading corporate are a regular feature at Thapar University placements. The university is poised to become a global centre for quality technical education and research and is embarking upon a major contemporization and expansion of its education systems in partnership with leading global institution(s).

The University offers academic programmes at the undergraduate level leading to BE/BTech degree and 2+2 credit transfer program (International Engineering Program) in collaboration with Trinity College, Dublin. At the postgraduate level leading to MCA, MSc, MBA, ME/M.Tech, MPhil degrees and at the doctoral level, PhD and DSc degrees. The salient features of the programmes are semester-wise credit system letter grades, continuous evaluation of the students' performance, course-wise promotion and the flexibility to allow the students to select courses and move at an optimum pace suited to their ability, capacity and interest.. Most of the BE programmes of the University are also accredited by the National Board of Accreditation (NBA).

Vision

To be recognized as an exemplary leader committed to excellence in education, research and innovation that meets the needs of the global community.

- An Institution grounded in rigor and relevance
- Innovative, Integrative and Inclusive
- Engineering education grounded in rigorous Mathematical, Physical, Biological and Social sciences
- Business Education grounded in rigorous Mathematical and Behavioral sciences
- Relevant blend of theory and practice
- Higher Education with global relevance

Mission

- To provide a scholarly and professional environment that enables faculty, students and staff to make lasting contributions to the advancement of knowledge

- To be dynamic, innovative and flexible in devising academic programmes, structures and mechanisms.
- To produce globally competent graduates having creative skills and ethical values
- To carry out cutting-edge research and development for the benefit of society

Quality Policy

Thapar University is committed for creation, archiving and dissemination of knowledge in Science, Engineering and Technology for the service to the humanity. We undertake to carry out high quality research in the frontiers of technology as well as develop professionally groomed manpower with sound knowledge and skill, respect for profession, social and national values and ethics. This commitment is translated into practice through:

- Ensuring topical and relevant curriculum;
- Adept delivery mechanism;
- Professional and intellectual fulfillment of faculty and staff;
- Carrying our quality research in the frontiers of technology
- Involving all stake holders in growth and development of the University;
- Continuous augmentation and renewal of infrastructure and facilities;
- Creating congenial and conducive work environment.

2.0 ACADEMIC UNITS OF THE UNIVERSITY

The academic units of the University are Departments, Schools and Centres. Role of the Departments is to conduct undergraduate, postgraduate, and doctoral programmes in relevant engineering/technological disciplines, while the Schools cater for only postgraduate and doctoral programmes. The Centres are special inter-disciplinary units serving the University as a whole. As of date, the academic units of the University are:

A. DEPARTMENTS

- Bio-Technology
- Chemical Engineering
- Civil Engineering
- Computer Science & Engineering
- Electrical & Instrumentation Engineering
- Electronics & Communication Engineering
- Mechanical Engineering

B. SCHOOLS

- Chemistry & Bio-Chemistry
- Humanities and Social Sciences
- Mathematics
- Physics & Material Science
- Energy and Environmental Sciences

C. CENTRES

- Central Library
- Central Workshop
- Centre for Industrial Liaison and Placement (CILP)
- Centre of Relevance and Excellence (CORE) in Agro and Industrial Biotechnology.
- Centre for Information and Technology Management (CITM)
- Health Centre

3.0 ACADEMIC PROGRAMMES

The University as of date offers 15 undergraduate programs, 4 International Engineering credit transfer programs, 5 integrated programs and 29 post graduate programs besides the doctoral program in each discipline.

Undergraduate

- Biochemical Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Computer Engineering (honours in computer animation and gaming)
- Computer Engineering (honours in machine learning and data analytics)
- Electrical Engineering
- Electronics & Communication Engineering
- Electronics & Computer Engineering
- Electronics (Instrumentation & Control) Engineering
- Mechanical Engineering
- Mechanical Engineering (Production)
- Mechatronics Engineering
- Metallurgical & Materials Engineering
- Software Engineering and Management

International Engineering Program (2+2 credit transfer program)

- Computer Engineering
- Civil Engineering
- Electronics & Communication engineering
- Mechanical Engineering

Integrated Programs

- Civil Engineering - MBA
- Computer Engineering - MBA
- Electrical Engineering - MBA
- Electronics & Communication Engineering - MBA
- Mechanical Engineering - MBA

Postgraduate

- | | |
|--|---|
| – CAD/CAM Engineering | – Information Security |
| – Structural Engineering | – Biotechnology |
| – Civil Infrastructure Engineering | – Metallurgical & Materials Engineering |
| – Electronics & Communication | – Environmental Science & Technology |
| – Wireless Communications | – Energy Technology and Management |
| – Production Engineering | – VLSI Design |
| – Software Engineering | – Chemical Engineering |
| – Electronic Instrumentation & Control | – M.Sc. (Biotechnology) |
| – Computer Science & Engineering | – M.Sc. (Chemistry) |
| – Power Systems | |

- Thermal Engineering
- Computer Applications
- Power Electronics and Drives Master of Business Administration
- M.Sc. (Mathematics and Computing)
- M.Sc. (Physics)
- M.Sc. (Microbiology)
- M.Sc. (Environmental Science)
- MA- Economics
- MA- Psychology

PhD in all disciplines

4.0 ACADEMICS

New Programs, revised enrolment and amendment in Academic Regulations

The University approved the following new programs to be started from session 2015-16

- B.Tech- Biotechnology
- BE- Electronics & Computer Engineering
- BE- Metallurgical & Materials Engineering
- BE-MBA in Computer Engineering, Electrical Engineering, Electronics & Communication Engineering and Mechanical Engineering
- International Engineering Program with Trinity in Computer Engineering, Civil Engineering, Electronics & Communication Engineering and Mechanical Engineering
- ME- Power Electronics and Drives
- MA- Economics and Psychology

The University also revised the enrolment in the programs from the session 2015-16. The academic regulations of the University have been revised. Ph.D. regulations have been completely revised. New grades have been introduced.

Review of Curriculum

An Academic Review of the engineering programs was undertaken by a 15 member high level academic team from Trinity College Dublin during the first week of November 2014. The objective of the review was to identify the gaps between the current performance levels of TU and those levels which would be needed to bring the University into the top ten for the university rankings of India resulting in TU rising to a university of significance on the global stage. The academic review covered review of curriculum, research, staffing, infrastructure, governance, academic and administrative decision making, strategic and implementation planning encompassing much of the entire academic culture of the University. The findings report set out a path, by means of a set of recommendations, to achieve a closing of the performance gap. There were also some observations and recommendations which were core to the contemporisation process. A substantial overall plan for change was prepared. In order to kick start this process of developing an overall plan, an operational document as a first step listing a broad implementation plan for effecting the necessary changes was developed. The operational document has 91 action points and that required a sustained effort from all of us to achieve the goals of the Contemporization programme. The department faculty members and outside subject experts are members of various academic bodies such as Department Academic Affairs Committee, Board of Studies, Senate Undergraduate Committee and the Senate. The members provide feedback on academic and curriculum matters as members of these committees. Faculty members also routinely provide feedback and suggest improvements to the academic program at formally scheduled faculty meetings as well as other discussions forums with the department head and other meetings convened by the

Dean/Director. Faculty members also write their self-appraisal forms for the year and provide suggestions for improvement of the program.

TU has adopted the learning outcomes approach to switch the focus from content based education and has shifted towards greater reliance on self-directed learning, mini-project within the modules, research-led teaching, use of project work and assignments. TU offers design or application-based engineering projects. Research led teaching has been evolved in terms of course content. All academic staff are encouraged and trained to develop courses associated with their research area and bring in cutting edge research ideas from their own research and of other eminent researchers. This is being achieved by involving the students in research activities which in many cases may mean re-exploring research findings which are already known. The students are introduced to the whole ethos of research in terms of what is called as “State of Art” and how research is conducted. The students are imparted skills to use information sources and also equip them to design and conduct experiments. The students are trained for research based (engineering) problem solving.

The curriculum at TU has been harmonized with Trinity College Dublin to produce engineers who would be capable of meeting these goals and is reviewed and updated periodically to ensure continued relevance. The scheme and syllabus of all programs is being reviewed as per the feedback from all stakeholders of the program. The focus of such revisions is to update the existing curriculum in accordance with the regulatory framework and bringing this more in line with the requirements of the industry. The system has an in-built flexibility for the changes. Changes in the curriculum can be implemented at any point of time.

BOS of all UG and PG courses have already been conducted to revise the schemes and syllabi.

Computerization of Academic and other activities

Thapar University, Patiala has implemented e-solutions software for its academic and other related activities including human resource management and financial management. Academic activities, such as, conduct of mid semester test and end semester examination, central repository of marks and grades of the students, assigning the grades to the students by faculty members and students reaction survey have been implemented using this software. Online facility for registration information, date-sheet, seating plan and duty chart has been provided to all the concerned through Web-Kiosk. On-line quizzes have been started for core courses. Computerized DMCs of students are sent to the parents.

Report on accreditation

Self-Assessment Report for 06 PG and 04 UG programs was submitted to NBA under the Tier 1 (as per Washington Accord) during the year. The visit of the NBA team is expected in November 2015.

Annual Academic Prize distribution Function

The academic prize distribution function was held on October 30, 2014. This year, 128 medals & prizes were awarded to the students on the basis of their performance during the session 2013-14. Out of these 128, 56 were the girl students. 52 students had won the medal and out of these, 20 medals were won by girls.

Convocation 2014

The 28th Convocation of the University was held on November 24, 2014. Dr. Patrick Prendergast, Provost of Trinity College Dublin was the Chief Guest on this solemn occasion to address and encourage the graduating students. Dr Patrick Prendergast was elected by academic staff and student representatives as the 44th Provost of Trinity College Dublin in August, 2011, after having served as the Vice-Provost & Chief Academic Officer (2008-2011) and Dean of Graduate Studies (2004-2007).

CAPSL

As part of the Contemporisation Programme, Thapar University will set up a Centre for Academic Practice and Student Learning (CAPSL) similar to the 'Trinity's CAPSL unit. Through this centre, TU will expose the 'entire faculty to in-house learning modules including e-learning during the next 3-5 years. As a first step towards setting up the CAPSL centre, two senior academic developers visited Thapar University in May 2015 to provide a series of introductory workshops on higher education pedagogy and awareness training for senior academic staff. CAPSL has one senior academic developer from Trinity and two e-Learning technologists: continuous professional development (CPD) modules and certified programmes are delivered by CAPSL staff, which are supported by Trinity academics and other staff. A number of specific needs have been identified (i) Training of all Thapar academic staff, (ii) Awareness training of senior staff (iii) Training of trainers.

The existing curriculum has been adapted to reflect the specific academic needs of Thapar faculty. A mentoring programme of 4 weeks is provided and successful candidates are awarded a Special Purpose Certificate Academic Practice. Trinity in consultation with Thapar will agree the core modules that will form part of the special purpose certificate. The training of all academic staff and on-going professional development will be instrumental in establishing the culture necessary for the CAPSL Centre to grow and contribute meaningfully to the contemporization programme. In the first instance, at least two academic staff at Associate Professorial level or above will be identified to lead this programme at Thapar. These staff could spend time in Trinity working with and shadowing CAPSL staff on training programmes. They will also take the Special Purpose Certificate in Academic Practice. CAPSL will develop a bespoke training programme for these staff, which can be rolled out to other Thapar staff in due course. The two staff will begin to assist Trinity staff in the delivery of training at Thapar in the academic year 2016-17 and onwards.

6.0 FACULTY

The largest constraint in the growth of higher education is lack of faculty. The University makes special efforts for recruitment and retention of quality faculty. The desired profile of the faculty at all levels has been clearly defined. The positions have been publicized widely through print and electronic media. The impact of the change has been clearly visible through larger interest among prospective faculty to join the University. Better qualified faculty members have applied. A meticulous process of evaluation that includes seminar presentation and personal interviews with a carefully chosen panel of experts is adopted. All full time positions offered had Ph D degrees. To provide impetus to the effort and facilitate selection and induction of highly qualified faculty members at the entry and

higher levels, we now entertain applications throughout the year. The details of faculty recruitment (new recruitments –external) and internal promotions during the year are as under.

Fresh Recruitment

Designation	Applications Received	Applications Shortlisted	Joined
Professor	29	02	00
Associate Professor	79	03	00
Assistant Professor	1219	175	22
Visiting Assistant Professor (From IITs)	130	Appeared = 76 Selected = 12	05 (2 out of these selected for regular position)
Lecturer (C)	847	104	27+6*

Internal Promotions

Designations	Departments	Number
Professor	CED -1, CHED-1, BTD-2, SCBC-1, SEE-1	06
Associate Professor	CED-4, CHED-1, MED-1, SCBC-1, SPMS-2	09
Assistant Professor (8.5 K)	CED-1, SEE-1, SoM-2, SPMS-3, LMTSoM-2	09
Assistant Professor (8 K)	CHED-1, CSED-1, ECED-1, EIED-1, MED-1, SoM-1, LMTSoM-3	09

The academic performance of the faculty is monitored through the student's response survey. The research performance has been measured through research funding received, research publications and number of PhDs and Masters Students supervised. The performance of the faculty has been ranked through a rigorous process and superior performance is rewarded through a unique performance incentive scheme.

6.0 STIMULATING RESEARCH, DEVELOPMENT AND CONSULTATION

As compared to the last few years, this year saw an increase in the research activities, wherein more funds were received for sponsored projects, higher number of Ph. D. students got registered and resource generation through consultancy also increased. Out of the sponsored projects received from various funding agencies (UGC, AICTE, DST and DOE, etc), 18 were completed during the year under review and 127 projects are ongoing and progressing towards their completion. 21 new projects were received during the year 2014 – 2015. The total funding received during the year was Rs. 466.35 Lacs. During the year, 345 technical papers were published in reputed national and international journals listed in SCI/SSCI, and several research papers were presented/ published in conferences, seminars and workshops.

Sponsored Projects	2011-12	2012-13	2013-14	2014-15
Received	37	56	25	21
Ongoing	89	116	106	127
Completed	15	09	17	18
Funds Sanctioned (Rs. in lakh)	613.07	871.88	467.49	466.35

Publications	2011-12	2012-13	2013-14	2014-15
In International Journals listed in SCI/SSCI with Impact Factor	302	320	345	460
In Non SCI Journals	220	276	164	226
In seminars, conferences and workshops	258	245	276	160

b) Short Term Courses

30 training programmes/short term courses/workshops/conferences were organized by various Departments during the year. Faculty members of the University attended a large number of short term education programmes in various technical Universities in the country.

d) Library

University Library is housed in a centrally air conditioned spacious premises covering an area of 25,000 square feet. It has 117475 collections with 87133 books (reference books, course materials, text books), 2539 print theses, 4284 standards, 4973 bound volumes of journals, educational and career development aids, video etc. Theses are available on D-Space server and can be accessed from anywhere on the globe. From 2006 onwards all the PhD and Master theses are uploaded on D-Space. During the year library subscribed to about 6358 e-journals, 2184 e-books and 78 print journals. E-journals are received under UGC-Infonet program and directly from supplier/publishers. Budget for books and journals for the financial year was Rs.75 lakh on print and e-journals and Rs.75 lakh on purchase of books.

Library remains open 24X7 throughout the year, including holidays. Most of the library operations are automated. Library catalogue (OPAC) can be searched from anywhere and subscribed e-resources can be searched from the Campus only.

e) Graduation

Statement of degrees to be awarded

Sr. No.	Programme/Discipline	Number of students graduating
1	PhD	31
2	M.Tech (Regular & Part-Time)	430
3	ME (Regular & Part-Time)	
4	Post Graduate Diploma	2
5	Master of Computer Applications (MCA)	143
6	MSc (Biotechnology)	17
7	MSc (Chemistry)	8
8	MSc (Mathematics& Computing)	8
9	MSc (Physics)	9
10	MBA	78
11	Industrial Engineering (BE [IE] MBA)	
12	BE/BTech	846
13	B.Sc. (Physics)	2
14	B.Sc. (Mathematics)	2
15	BCA	1
	Total	1577

36 students received medals/ awards for their outstanding and meritorious/academic, scholastic and all round performance.

f) Campus Placement

In the academic year 2014-15, 185 companies visited TU and 979 students were offered jobs through campus placement. In BE, Bio-Tech 17 out of 23, Civil 48 out of 63. Chemical 52 out of 53, Computer Sc. 168 out of 170, Electronics Communication 97 out of 101, Electrical 55 out of 59, Instrumentation & Control 56 out of 60, Mechanical 96 out of 100 & MCA 59 out of 91 students securing CGPA 6.00 and above got placed through campus interviews. The overall placement being 90% for CGPA greater than 6.00 and 80% over all in all the BE Branches & MCA. Apart from BE and MCA students, 203 master's students (ME & M.Tech) also got placement through campus interviews, making it 63% overall in Master's of Engineering. Also 24 students from MBA Industrial and 31 students from MBA got placement through Campus interviews (Annexure-I&II). The above data is updated till August 31, 2015. Also result from 15 organizations are awaited and 21 organizations have already confirmed to visit for campus interviews for the students already passed in the year June, 2015. Organizations are still visiting our campus for the students those have already passed out from our University, and hence the percentage mentioned above is likely to improve.

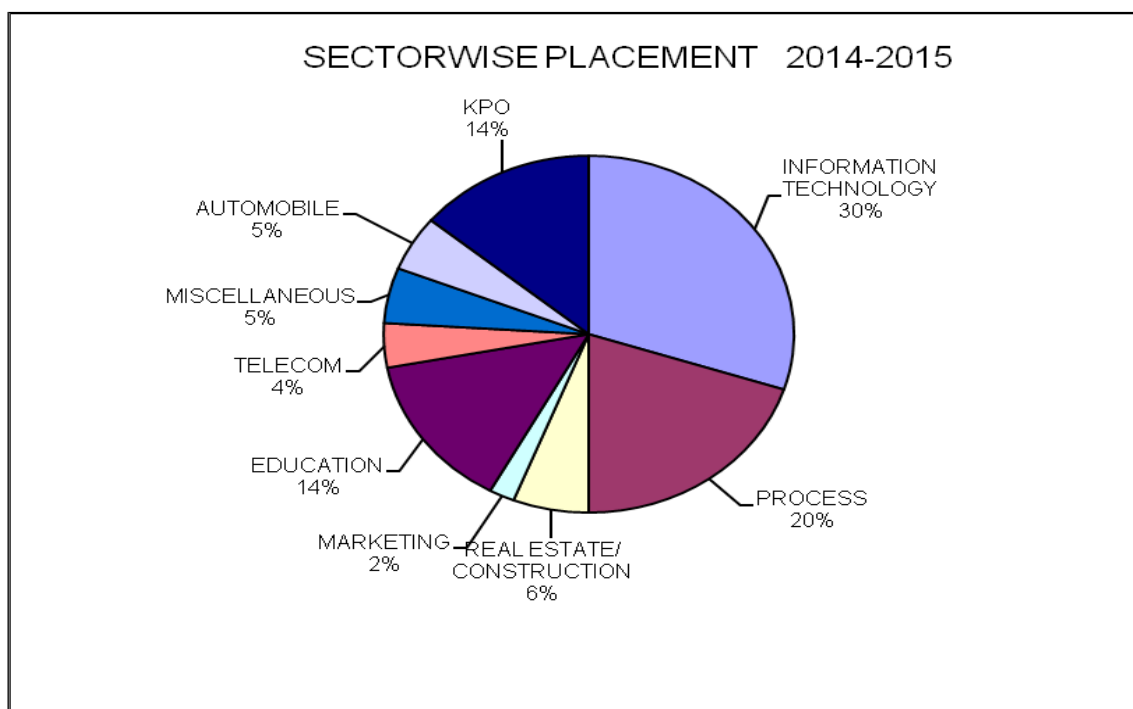
Apart from regular visitors, 28 organizations including five start-ups visited the campus for first time for campus interviews. Major are Expedia India, Zomato.com, Axtria India, Hike Ltd., Belzabir Software Design, Lenskart.com, Chic mic, Gofers, Magic Software, Royal Enfield, Snapdeal.com, SML Isuzu, Myntra.com, Atkins Group, MphRx, Cubastion Consulting, Saviynt, VISA, Practo, Autoninja etc. etc.

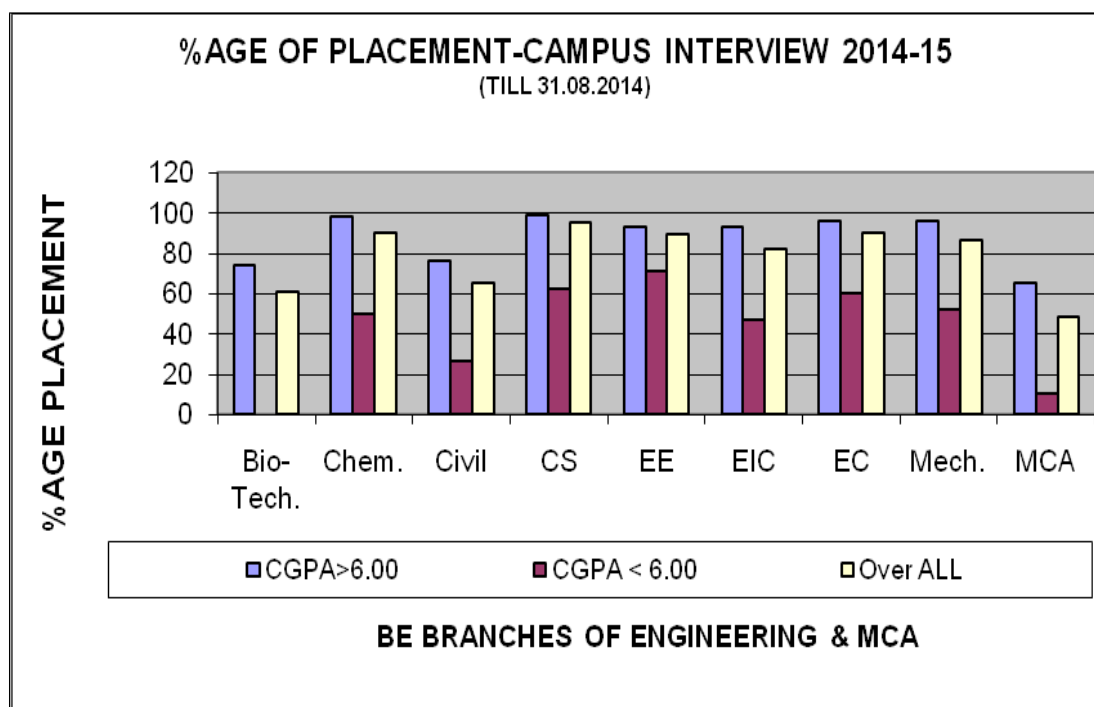
Major organizations visited for campus interviews are

D.E.Shaw (I) Software Microsoft India Cadence Design Systems Free Scale semiconductors ST Microelectronics Oracle Corporation Informatica Corporation Sandisk Corporation Amadeus Software Labs ZS Associates Deloitte Consulting Futures First Info Services	Tata Consultancy Services IBM India L & T UOP Maruti Suzuki (I) Ltd. Tata Motors Reliance Industries Havells India Schneider Electric Hindustan Unilever Ltd. Crompton Greaves Ltd.
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The maximum CTC offered for the year 2014-15 is Rs. 18.60 lakhs p.a. offered to 02 students from D.E. Shaw India Software.

Average CTC offered to BE/B.Tech./MCA, ME/M.Tech, MBA being Rs. 5.30, 3.71, 4.67 lakhs p.a. respectively.





All the final year students were counselled and prepared, through special lectures on career selection and preparation for campus interviews by industrial experts as well as by the faculty of the university. They were given special tips for appearing in the campus interviews, through mock group discussions as well as personal interviews. Members of faculty from different departments were present during these interviews.

Feedback on various aspects regarding courses, curriculum, communication skills and performance of students was obtained from organizations, which had come for campus recruitment.

Project Semester

Final year Civil, Bio-technology & Chemical Engineering students were sent to Industry for the Project Semester from July-December, 2014. CILP was instrumental in arranging the slots for the students.

CILP extended all help in finding Project Semester slots for the pre final year students of Mechanical, Industrial and Mechatronics Engineering during January to June, 2015. Also CILP helps in finding project semester slots for the final year students of BE-Electrical, Electronic Instrumentation & Control, Electronics Communication & Computer Science during January to June, 2015. CILP also extended help in finding slots for System

Development Project (SDP) for final year MCA students and also for thesis work for Post Graduate students.

Summer Training Programme

Summer training of 6 to 8 weeks was arranged in industrial organizations for B.E. 2nd year students of Electrical & Electronics Communication Engineering, Electronics (Instrumentation & Control) Engineering, Electrical Engineering, Chemical Engineering and Computer Science and Engineering branches.

CILP extended all help in finding training slots for the MBA students for two month training in industry during May - July, 2015.

7.0 STUDENTS ACTIVITIES

SPORTS

The list of achievements for the year 2014-15 is:

- Thapar University's basketball (men) team **Runners up in the 'RannNeeti 14' invitational** tournament, organized by IIT Mandi from September 19 to 21, 2014.
- The Chess (men) team got **first position**, in Inter-Engineering University tournament organized by NIT Kurkshetra from September 14 to 15, 2014.
- The Badminton Women teams got **Third position** in Inter Engineering University tournament organized by NIT, Jalandhar from September 14 to 15, 2014.
- The Table-Tennis Men team won **Gold Medal for two consecutive years** in Inter-Engineering University tournament held at PEC University Chandigarh from October 10-11, 2014.
- Our Table Tennis Women's team won **Bronze Medal** in Inter-Engineering University tournament held at PEC University Chandigarh from October 10-11, 2014.
- Our Football (Men) team got **Bronze Medal** at the Inter Engineering University Football Tournament held at Thapar University Patiala.
- Our Basketball Women team won **Gold Medals for two consecutive years** in Inter-Engineering University Basketball tournament held at NIT, Jalandhar from February 13-14, 2015.
- Our Basketball Men team won **Silver Medals** in Inter-Engineering University Basketball tournament held at NIT, Jalandhar from February 13-14, 2015.

In addition to winning laurels at the Inter-Engineering and Invitational tournaments, our university teams also participated and performed admirably at the various All India Inter-University tournaments as well. Some of the participations are as under:

- Our Cricket Men team participated in the Inter University cricket Tournament held at University of Delhi from 27-31 Oct. 2014.
- Our Football Team participated in the Inter University Football Tournament held at Panjab University Chandigarh from 2-8 Dec. 2014.

- Our Lawn Tennis Men Team participated in the Inter University Tournament held at DCRUST Murthal from 24-29 Oct. 2014.
- Our Basketball Men team Participated in the Inter University Tournament held at PTU Jalandhar from 21-25 Dec. 2014.
- Our Table Tennis Men team participated in Inter University Tournament held at UTU Dehradun from 18-21 Dec. 2014.
- Our Shooting Men Team participated in All India Inter University Shooting Championship held at Punjabi University Patiala from 2-5 January 2015.

ARANYA 2015

The annual technical festival of Thapar University, Patiala, was a three day long extravaganza that aimed at bringing the best talents from all over northern India to a single platform. Started in the year 2006, the golden jubilee year of the University, ARANYA has gained more and more popularity with the passage of time and has become one of the most 'looked forward to' events of the year. The ninth edition was organized from 14th – 16th November, 2014. This year more than 50 technical events were organized during this year's program touching all the engineering streams, spread over three days. For the first time in the history of the technical festival a Para sports event was also organized under the guidance of Mr. Pradeep Raj. A very good participation was there in all the events, wherein the students from various institutes like PEC, NIT's and some IIT's descended on campus to participate in various technical events. Students from all around the nation compete with each other to achieve excellence. This year's technical festival was a unique blend of Tech Events, Workshops, Guest Lectures, Awareness campaign (Swachh Bharat) and Sports activity. Then after full day of hard core competition the students were enthralled with techno-cultural events like 'Wheel chair dance show & Laser Show on 14th November, a live performance by Legendary Punjabi Artist GurdasMaan on the 15th of November, 2014".

URJA 2015: THE INAUGURAL SPORTS FESTIVAL

URJA, the inaugural national level sports festival of Thapar University in which more than 20 institutes from all over the country participated, was held from April 14 to April 16, 2015. Organized on the theme of "Let us play for a drug-free world", the three-day event witnessed around 500 students vying for top honors across eight sporting events, including athletics, badminton, basketball, chess, football, lawn tennis, table tennis and volleyball. Teams from Punjab Engineering College, Chandigarh; Chitkara University, Baddi and Rajpura; NIT, Kurukshetra; NIT, Jalandhar; MaharshiDayanad University, Rohtak; JAYPEE, Solan; Maharishi Markandeshwar University, Mullana; South Point Engineering College, Sonapat; LPU, Jalandhar; BRCM, Bhiwani; NSIT, Delhi; SLIET, Longowal; ITM, Gurgaon; ACIET, Amritsar; UCOE, Patiala; and IMS, Ghaziabad were amongst the participating teams in the tournament. RehanPoncha, an Arjuna awardee and a five-time national swimming record holder, also delivered a motivational lecture to the participants in the auditorium as a pre-build-up to the opening ceremony.

8.0 INTERNATIONAL / NATIONAL COLLABORATION

To remain in the forefront on the scientific and technology development and to share the experience and knowledge, the University is actively involved in collaborative programmes with international organizations/universities. A number of collaborative works are under

operation with Universities, Labs and other organizations. The University has several MoUs with reputed University abroad. MOUs have been signed between the University and other Industries/Institutions. Some of these are listed as under:

- Trinity college, University of Dublin
- Wipro Technologies, Bangalore
- Secure Net Technologies
- Crompton Greaves Ltd. Mumbai.
- ISA Group Lille, FRANCE
- Brown University, USA
- Microsoft Edvantage Program
- EC-Council, USA
- Infosys Campus Connect
- Naveen Jindal School of Management, the University of Texas at Dallas,
- Royal Melbourne Institute of Technology
- EFREI engineering school of information & Digital Technology, Paris, France.
- University of Florida

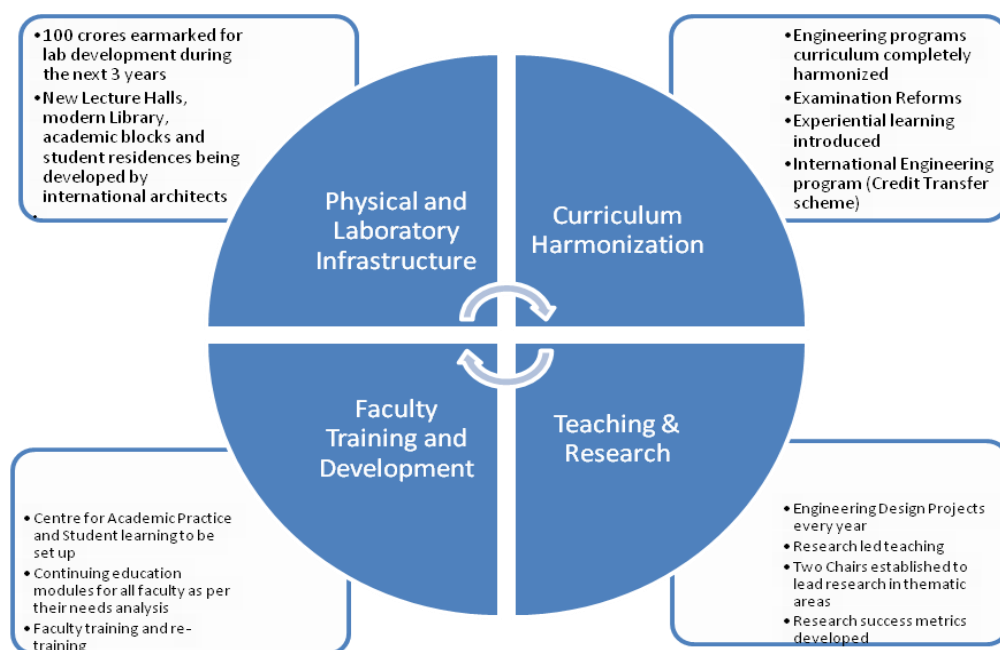
Several other MOU's are operational between various departments.

1.0 Contemporization Programme – Thapar University

MoU between Thapar University and Trinity College Dublin, the University of Dublin



In line with its mission to provide world class educational experience by incorporating global best practices in its format, Thapar University has embarked on a Contemporization Program under academic mentorship of Trinity College Dublin, the University of Dublin, Ireland. The Contemporization Program has been designed to deliver a research inspired, outcome based educational experience to the students in partnership with Trinity, an international university of repute. The unique collaboration has been contemplated to give students a flavour of international educational experience, prepare them for professional careers, and expose them to state of the art facilities and cutting edge research in the fields of engineering and science. The broad scope of this collaboration covers all the major academic and research activities of Thapar University including developing a outcome based teaching pedagogy, research orientation including supporting lab infrastructure, academic curriculum harmonization, physical Infrastructure, faculty training and development, and develop new joint programs. The broad scope of the agreement is depicted in the figure below.



As a first step towards embarking on this journey to contemporize the academic systems and processes at Thapar University, an Academic Review of the engineering departments at Thapar University was completed by a team of experts from Trinity College Dublin in November 2014 on our request. Trinity submitted a detailed written report about the findings. The objective of the review was to identify the gaps between the current performance levels of Thapar and the targeted levels which would take Thapar education systems to a significantly higher paradigm. The review process covered review of curriculum, research, staffing, infrastructure, governance, academic and administrative decision making, strategic and implementation planning encompassing much of the entire academic culture of the University. The findings report set out a path, by means of a set of recommendations, to achieve a closing of the performance gap. There were also some observations and recommendations which are core to the contemporisation process. An overall plan for change was then prepared. For implementing the findings of the academic review, as a first step the harmonization of curriculum was taken up to bring it up to date with global standards.

Curriculum Harmonization

The curriculum of the undergraduate engineering programs has been harmonized in line with Trinity with an objective is to create a mini-Trinity at Thapar University where not only the top students but all students are exposed to a harmonized curriculum. The Trinity curriculum places greater emphasis on research inspired and project led teaching which has been incorporated at Thapar. For this purpose, Thapar deputed a team of its senior faculty to Trinity to understand and implement a modern engineering curriculum. Some of the significant changes made in the curriculum is introduction of three large engineering design projects during the first two years followed by a capstone and an individual research project during the later years. Thapar has adopted the learning outcomes approach for teaching with greater reliance on self-directed learning, mini-projects within the courses, research-led teaching, use of project work and assignments. Most of the first two years of curriculum across of undergraduate programs will remain the same and the specialized courses will be taken up during the later years.

The academic agreement between Thapar University and Trinity will also give students admitted to undergraduate engineering programs at Thapar University the opportunity to study at Trinity. Eligible students will pursue the first two years of their course in India before transferring to Ireland in years 3 and 4 of the degree program, subject to meeting the required academic requirements. On completion of the degree, qualified students can apply to pursue a Masters qualification at Trinity by completing one additional year at Trinity.

Pedagogy

The teaching pedagogy employed for the engineering programmes offered at Thapar University reflect the long held ethos that engineering education should be broad-based to enable graduates to develop throughout their professional careers, finding solutions for as yet unseen challenges. The partnership with Trinity focuses on strategies to deliver a research inspired, outcome based educational experience to the students at all levels. This is a major shift in focus from the current content-oriented imparting of engineering education to a project-based and outcome-oriented educational experience. The new teaching pedagogy lays emphasis on applying engineering skills through relevant engineering design projects, improving team-working skills and awareness of issues relating to ethics and professionalism. Also, all academic staff is encouraged to bring in cutting-edge research ideas from their own research into their teaching

Thapar University will sponsor two high impact Chair Professors (research) positions at Trinity in thematic research areas of interest to both partners. The Professors would spend time both at Thapar and Trinity and would lead a major research effort which will culminate into setting up of a State of the Art research centre at Thapar in the next five years. The thematic areas will be inter-disciplinary and would involve several other academic staff. The teams would focus on attracting large research funding and publications in high impact journals.

Thapar is also setting up a Research Committee to establish a structured PhD program, form inter-disciplinary research groups, encourage/ support the academics to publish, take research students, raise research funding and feed this knowledge into advanced undergraduate and postgraduate courses and oversee the setting up of a major Research Centres. The committee will review the metrics for measurement of research output (Publication quantity and quality, PhD student(s) produced, research funding raised, measures of innovation and impact).

The committee will identify research thematic areas in consultation with TCD which will be pursued during the next 5 years.

A Thapar-shaped education

- Paradigm Shift



CONTEMPORARY



OUTCOME BASED



HARMONIZED
CURRICULUM



RESEARCH INSPIRED



TEAMWORK



PROJECT LED

Copyright 2013-2014

Faculty Training and Development

As part of the Contemporisation Programme, Thapar University is also setting up a Centre for Academic Practice and Student Learning (CAPSL) which is similar to the Trinity's CAPSL unit. Through this centre, TU will expose the 'entire faculty to in-house learning modules including e-learning during the next 3-5 years. An academic needs' analysis is currently underway based on the questionnaire which has been administered to all academic staff. The Senior Academic Developer from Trinity will act in a consultancy role to help Thapar establish the CAPSL centre that will have the skills, knowledge and ability to assist Thapar to achieve its institutional mission and strategic goals. As the centre gets established the CAPSL unit will draw from academic staff across different disciplines with specific interest in and knowledge of different aspects of higher education pedagogy. CAPSL will have one senior academic developer from Trinity and two e-Learning technologists: continuous professional development (CPD) modules and certified programmes will be delivered by CAPSL staff, which will be continuously supported by Trinity academics and other staff. A number of specific needs have been identified (i) Training of all Thapar academic staff, (ii) Awareness training of senior staff (iii) Training of trainers to enable self-sufficiency. The training programmes will be developed based on core needs identified. Trinity staff and associates will deliver this programme at Thapar during the academic year. Each module will comprise 2 two-hour workshops and assessment exercises: participants will be provided with all necessary materials. The existing curriculum will be adapted to reflect the specific academic needs of Thapar faculty. A mentoring programme can also be provided. Participants will be required to submit a teaching portfolio for assessment, which will be developed over the course of the year and will relate to their teaching and learning. Successful candidates will be awarded a Special Purpose Certificate Academic Practice. Trinity in consultation with Thapar will agree the core modules that will form part of the special purpose certificate.

The training of all academic staff and on-going professional development will be instrumental in establishing the culture necessary for the CAPSL Centre to grow and contribute meaningfully to the contemporisation programme.

Laboratory and Physical Infrastructure

Thapar University has developed a business plan, wherein the University will improve the laboratory and physical infrastructure at Thapar University. In order to modernize the Institution, Thapar team has developed a modernization plan for the important teaching and research laboratories in consultation with Trinity. Thapar University has also hired world class foreign architects to develop key academic infrastructure that would include lecture hall complex, library, CAPSL centre, student residences and other academic blocks. Face lifting and modernization of older buildings has also been planned in a major way. Thapar University is also engaging services of a consultant to implement a international ERP system to manage and govern the academic and administrative functions.

An Innovation Centre/Venture Lab would be set up at TU to run accelerator program open to teams of Thapar students (undergrad and postgrad) with an early-stage business idea. This unique incubator will provide coaching, expert advice, seed funding and access to space and facilities needed to test out and launch new ventures. The program will support students in developing investor-ready ventures and will be supported by a network of Thapar alumni and friends.

Examination Reforms

Thapar University is also initiating reforms in the way, examinations are conducted world wide. In the contemporary set up, the concerned instructor will prepare the question paper along with model solutions to each question and will seek feedback from a faculty colleague from the cognate area. The same will then be sent for vetting to an outside expert (Trinity in this case). After the conduct of the examination, the marks are uploaded on an academic software which generates an excel sheet listing the marks obtained by each student in all the subjects. An examination board is then convened consisting of internal and at least one external member who reviews sample answer scripts, projects and the marks obtained by the students.

Key components of TU Contemporization

- Curriculum Harmonization
- Pedagogy (Project led, outcome based)
- Research Output (Publications, funding, PhD etc)

Academics & Research
(Weight 50%)

Faculty Training
(Weight 25%)

- Centre for Academic Practices
- Certification courses for academic staff

- New Computer Sc. Block
- New boys and girls residences
- Lab infrastructure
- New Lecture Halls & Library

Physical and Lab Infrastructure
(Weight 25%)

2.0 ADMINISTRATIVE BODIES

Board of Governors

The Board of Governors is the principal executive body of the University, and is responsible for direction and control of the affairs of the University. It exercises the powers of the University not otherwise provided in the Memorandum of Association and Rules & Regulations. It creates, keeps in abeyance or abolishes any post or cadres; lays down the qualifications, experience and emoluments; defines duties and conditions of service of staff; appoints academic, administrative and technical staff; regulates and enforces discipline amongst employees; adopts the Annual Report and Annual Accounts; approves the Budget Estimate and Development Plans; manages & regulates the finances, accounts, investments, property and all other administrative affairs; fixes admission fee, scholarships, prizes, emoluments etc; and oversees all other matters related to the University. The details about the members of the Board of Governors of the University are provided in Annexure – I(a)

Planning & Monitoring Board

The Planning & Monitoring Board has been constituted for preparing development plans of the University, monitoring the implementation of approved plans of the University and schemes sanctioned by U.G.C. and other agencies, and for considering all those matters which have been referred to it by the Board of Governors. The details about the members of the Planning and Monitoring Board are provided in Annexure – I(b)

Senate

The Senate is the principal academic body of the University and exercises general supervision over the academic work, promotes research activities, maintains proper standards of examination, frames and revises curricula and syllabi of courses, makes proposals for institution of research, specialized studies, libraries, laboratories etc. and all other academic matters related to the University. The details about the members of the Senate are provided in Annexure – I(c)

Finance Committee

The Finance Committee has been constituted for preparing the Budget estimates and Annual Accounts of the University. The Finance Committee has fixed the limits of total recurring and non-recurring expenditures based on the income and resources of the University. The details about the members of the Finance Committee are provided in Annexure – I(d)

Staff Affairs Committee

The Staff Affairs Committee has been constituted to review the staff structure, suggestions regarding revision of cadre, creation of new posts, minimum qualification and experience of staff including promotion cases, recruitment policies, procedure for recruitment and all other matters related to the staff of the University. The details about the members of the Staff Affairs Committee are provided in Annexure – I(e)

Building & Works Committee

This committee looks after all major construction works under the direction of the Board, and minor works within the grant placed at the disposal of the University. It is responsible for the enlistment of suitable contractors and acceptance of tenders and preparation of estimates of cost of buildings and other works i.e. capital, minor repair or maintenance. The details about the members of the Building and Works Committee are provided in Annexure – I(f)

3.0 ADMINISTRATIVE APPOINTMENTS

Deans & Heads

S.No.	Name	Designation	Department
1	Dr. Prakash Gopalan	Director	Directorate
2	Dr. R.S. Kaler	Deputy Director-I	
3	Dr. Susheel Mittal	Deputy Director-II	
4	Dr. S.S. Bhatia	Dean, Academic Affairs	
5	Dr. Maneek Kumar	Dean, Student Affairs	
6	Dr. R.K. Sharma	Dean, Faculty Affairs	
7	Dr. O.P. Pandey	Dean , Research and Sponsored Projects	
8	Dr. Ajay Batish	Dean, Contemporization & Accreditation	
9	Dr. M.S. Reddy	Associate Dean, Mobilisation & Organisation Effectiveness	
10	Dr. Kulvir Singh	Associate Dean, Strategy	
11	Dr. D. Gangacharyulu	Controller of Examination	
12	Dr. Dinesh Goyal	Head	DBT
13	Dr. Raj Kumar Gupta	Head	CHED
14	Dr. Naveen Kwatra	Head	CED
15	Dr. Deepak Garg	Head	CSED
16	Dr. Ravinder Agarwal	Head	EIED
17	Dr. Sanjay Sharma	Head	ECED
18	Dr. S.K. Mohapatra	Head	MED
19	Dr. Padmakumar Nair	Director	LMTSOM
20	Dr. Bonamali Pal	Head	SCBC
21	Dr. (Mrs.) Santha Kumari	Head	SHSS
22	Dr. Manoj Sharma	Head	SPMS
23	Dr. A.K. Lal	Head	SOM
24	Dr. A.S. Reddy	Head	SEE
25	Dr. Maninder Singh	Head	CITM
26	Dr. Susheel Mittal	Acting Head	CL
27	Dr. Ajay Batish	Head	CW
28	Dr. Ravi Kiran	Head	ARO

New Appointments

S.No.	Name	Designation	Deptt.	Date
1.	Dr. Surya Prakash	Assistant Professor	EIED	7.7.2014
2.	Dr. Rajesh Kumar Sharma	Asstt. Prof. (Cont.)	SMCA	7.7.2014
3.	Mr. Hemant Kumar	Lecturer (Cont.)	SEE	11.7.2014
4.	Ms. Amita Kumari	Lecturer (Cont.)	EIED	14.7.2014
5.	Dr. Vineet Srivastava	Assistant Professor	MED	15.7.2014

6.	Dr. Raj Nandkeolyar	Asstt. Prof. (Cont.)	SMCA	17.7.2014
7.	Dr. Soumen Basu	Assistant Professor	SCBC	18.7.2014 (AN)
8.	Dr. A. Venkatasubramanian	Assistant Professor	SEE	21.7.2014
9.	Dr. Sachin Kumar	Asstt. Prof. (Cont.)	SMCA	28.7.2014
10.	Dr. Anil Gaur	Asstt. Prof. (Cont.)	SMCA	4.8.2014
11.	Mr. Chandrakant Tiwari	Lecturer (Cont.)	EIED	6.8.2014
12.	Mr. Tapas Choudhury	Lecturer (Cont.)	EIED	26.9.2014
13.	Mr. Tapas Choudhury	Lecturer (Cont.)	EIED	26.9.2014
14.	Dr. Mukesh Singh	Assistant Professor	EIED	1.10.2014
15.	Mr. Heaven Singh	Lecture (Cont.)	CED	20.11.2014
16.	Dr. Rajendra Kumar Dhayal	Assistant Professor	SCBC	30.12.2014
17.	Dr. Bhasker Gupta	Assistant Professor	ECED	1.1.2015
18.	Dr. Prashant S. Rana	Lecturer (Adhoc)	CSED	1.1.2015
19.	Dr. Ravinder S. Joshi	Lecturer (Adhoc)	MED	5.1.2015
20.	Dr. Dharamjeet Singh	Lecturer (Adhoc)	SHSS	7.1.2015
21.	Dr. Anupam Sharma	Lecturer (Adhoc)	SHSS	7.1.2015
22.	Ms. Navdeep Dhillon	Lecturer (Adhoc)	SHSS	7.1.2015
23.	Dr. Vishal Srivastava	Visiting Asstt. Prof.	EIED	8.1.2015
24.	Ms. Kanchan	Visiting Associate Prof.	LMTSM	16.1.2015
25.	Mr. Sanjiv Dhir	Practice Associate Prof.	LMTSM	29.1.2015
26.	Dr. Tarkeshwar C. Patil	Visiting Assistant Prof.	EIED	30.4.2015

Resigned

S.No.	Name	Designation	Deptt.	Date
1.	Dr. Ram Jiware	Asstt. Prof.	SMCA	2.6.2014
2.	Mr. Parminder S. Reel	Asstt. Prof.	ECED	30.6.2014
3.	Dr. Dhanesh Garg	Lecturer (cont.)	SMCA	10.7.2014
4.	Dr. Kalyan Kumar De	Professor	LMTSOM	31.7.2014
5.	Mr. Vijender Kumar	Lecturer (cont.)	SMCA	14.8.2014
6.	Dr. Bhojaraju Gunjal	Deputy Librarian	Central Library	8.8.2014
7.	Ms. Rupali Arora	Lecturer (Cont.)	CSED	24.10.2014
8.	Dr. Abhijit Ganguli	Associate Prof.	DBT	18.12.2014
9.	Dr. S.K. Mahla	Asstt. Prof. (Cont.)	SEE	31.12.2014
10.	Dr. Dipaloy Datta	Asstt. Professor	CHED	1.6.2015
11.	Dr. Harish Kumar Singla	Asstt. Professor	SHSS	12.6.2015
12.	Dr. Rajesh Kumar Sharma	Assistant Professor (Cont.)	SOM	15.6.2015
13.	Dr. Vikas Pratap Singh	Assistant	CED	26.6.2015

		Professor		
14.	Dr. Tarkeshwar Patil	Visiting Assistant Professor	EIED	30.6.2015

Retirement

Sr. No.	Name	Designation	Department	Date of Retirement
1.	Mr. Harbans Lal	Helper	CITM	30.6.2014
2.	Mr. Karnail Singh	Chowkidar	Registry	30.9.2014
3.	Dr. N.K. Verma	Sr. Professor	SPMS	30.6.2015

4.0 ACADEMIC WORKING

Academic Calendar

The University follows a formal academic calendar for each year and is divided into two semesters. The total number of instruction days, excluding examination days, was 90 in both the semesters. The details of the same have been provided in Annexure – II.

Award of Degrees and Medals

A total of 1577 (as on 16.10.2015) number of students graduated during the year and will be awarded degrees during the convocation to be held on November 2, 2015. Details of the degrees to be awarded is given in Annexure – III. List of medals to be awarded during the convocation is given in Annexure- IV.

Admissions

Admissions to the first year of B.E. programme were made on the basis of their merit in the Joint Entrance Examination conducted by Central Board of Secondary Education (C.B.S.E.).

Credit Transfer Program

Thapar University has embarked on a Contemporarisation Program under academic mentorship of Trinity College, Dublin, University of Dublin, Ireland. Under this program Thapar University through its Center for International Relations announced a credit transfer International Engineering program with Trinity College Dublin, University of Dublin (TCD). This program focuses on delivering a research inspired, outcome based educational experience to the students in partnership with TCD, an international university of repute.

The academic agreement between Thapar University and Trinity College Dublin will give students admitted to undergraduate International Engineering Program (IEP) at Thapar University (TU) the opportunity to study at Ireland's leading university, Trinity College Dublin. Eligible students will pursue the first two years of their course in India before transferring to Ireland in years 3 and 4 of the degree program, subject to meeting the required academic requirements. On completion of the degree, qualified students can apply to pursue a Masters qualification at Trinity College Dublin by completing one additional year at Trinity. This unique program is designed to give students international experience, prepare them for professional careers, and expose them to state of the art facilities and cutting edge research in the fields of engineering. The program provides an opportunity for engineering undergraduates to secure a degree from Trinity College Dublin, consistently ranked in the

top 100 world universities by the QS World University Rankings. Trinity accepts the credits earned by the students during the first two years of their study at Thapar University subject to their meeting the minimum academic standards. TU will also specifically enrol 40 students from the current year particularly to do the last two or three years (in case of integrated BE/ME program) of their education at TCD from 2017.

Admissions to Master's programme were made on the basis of online entrance test conducted by the University. The admissions to the Doctoral programme were made twice during the year in July and December through an interview conducted by the PhD admission committee of the respective departments. The details of PhD students on roll is given at Annexure-V

Review of Curriculum

The University follows a continuous review system of the curriculum. As such, the system has an in-built flexibility for the changes. The minor changes in the curriculum, based on the feed-back from the stakeholders, can be implemented at any point of time. The inputs from all the stake holders have been considered in this revision process.

An Academic Review of the engineering programs was undertaken by a 15 member high level academic team from Trinity College Dublin during the first week of November 2014. A detailed report about the findings of the review was received later that month. The objective of the review was to identify the gaps between the current performance levels of TU and those levels which would be needed to bring the University into the top ten for the university rankings of India resulting in TU rising to a university of significance on the global stage. The academic review covered review of curriculum, research, staffing, infrastructure, governance, academic and administrative decision making, strategic and implementation planning encompassing much of the entire academic culture of the University. The findings report set out a path, by means of a set of recommendations, to achieve a closing of the performance gap.

TU has adopted the learning outcomes approach to switch the focus from content based education and has shifted towards greater reliance on self-directed learning, mini-project within the modules, research-led teaching, use of project work and assignments. TU now offers design or application-based engineering projects. Research led teaching has been evolved in terms of course content. All academic staff are encouraged and trained to develop modules associated with their research area and bring in cutting edge research ideas from their own research and of other eminent researchers. This is being achieved by involving the students in research activities which in many cases may mean re-exploring research findings which are already known. The students are introduced to the whole ethos of research in terms of what is called as "State of Art" and how research is conducted. The students are imparted skills to use information sources and also equip them to design and conduct experiments. The students are trained for research based (engineering) problem solving.

Faculty awards for Excellence

The University offers Faculty awards for Excellence, which rewards outstanding teaching and research carried out by faculty members and their contribution to the University activities. A brief detail of awards is as under:

Faculty awards for Excellence are decided on the basis of: -

- Teaching Quality- 10% of the faculty (Minimum 15).

- Academic Research- (Publication in SCIE/SSCI/HSCI Journals only)
- Projects/Consultancy (Minimum amount in research projects/ consultation/ testing is Rs. 5.00 lakh collectively and consultancy and testing assignment to be considered only if minimum amount per assignment is Rs. 10,000 and minimum amount for testing per assignment is Rs. 3000)
- Contributions to University activities (to be given sparingly)

Awards are divided amongst following categories: Engineering (All Engineering branches except Bio-Technology), Sciences (All School and Bio Technology), Humanities (LMTSOM & SBSBS)

The Awards for Excellence in any of the attribute is given to the faculty member on the condition of achieving minimum 60% SRS in teaching. Academic research and Projects/Consultancy award is given to each 5% (total 15) of faculty in Engineering, Science, and Humanities is awarded. In Teaching, minimum of 15 faculties are awarded and the exact number is to be decided by the committee. In University Contributions, 6 awards are given.

Research and Development

As compared to the last few years, this year saw an increase in the research activities, wherein more funds were received for sponsored projects, higher number of Ph. D. students got registered and resource generation through consultancy also increased. Out of the sponsored projects received from various funding agencies (UGC, AICTE, DST and DOE, etc), 18 were completed during the year under review and 127 projects are ongoing and progressing towards their completion. 21 new projects were received during the year 2014 – 2015. The total funding received during the year was Rs. 466.35 Lacs. During the year 2014, 578 and 2015 till date, the number is 385 (Scopus Data for 2014) technical papers were published in reputed national and international journals listed in SCI/SSCI, and several research papers were presented/ published in conferences, seminars and workshops.

Details of sanctioned, ongoing and completed projects are given at Annexure VII.

5.0 STUDENT ACTIVITIES

NATIONAL & INTERNATIONAL ACTIVITIES

I) ARANYA – THE TECHNICAL FESTIVAL OF THAPAR UNIVERSITY, PATIALA, NOVEMBER 14 TO 16, 2014

ARANYA the annual technical festival of Thapar University, Patiala, was a three day long extravaganza that aimed at bringing the best talents from all over northern India to a single platform. Started in the year 2006, the golden jubilee year of the University, ARANYA has gained more and more popularity with the passage of time and has become one of the most 'looked forward to' events of the year. The ninth edition was organized from **14th – 16th November, 2014**. Mr. DivyaSoni, the Overall Student Coordinator of this year's edition, informed that in this year's ARANYA more than 50 technical events were organized during this year's program touching all the engineering streams, spread over three days. For the first time in the history of the technical festival a Para sports event was also organized under the guidance of Mr. Pradeep Raj.

Dr. Anil Kumar Verma, was the Faculty Advisor of ARANYA 2014. A very good participation was there in all the events, wherein the students from various institutes like PEC, NIT's and some IIT's descended on campus to participate in various technical events. Students from all around the nation compete with each other to achieve excellence. This year's technical festival was a unique blend of Tech Events, Workshops, Guest Lectures, Awareness campaign (Swachh Bharat) and Sports activity. Then after full day of hard core competition the students were enthralled with techno-cultural events like 'Wheel chair dance show & Laser Show on 14th November, a live performance by Legendary Punjabi Artist GurdasMaan on the 15th of November, 2014".

The Director of Thapar University, Prof. Prakash Gopalaninaugurated the event and expressed his satisfaction in the efforts being put up by the students and faculty of the university in organizing this technical festival on Thapar University Campus. He said, "Events like ARANYA are an excellent breeding ground for young and dynamic leaders who will take the nation forward".

EVENT REPORT ON ROBOCLASH 2014:

Robotics Society organized a robotics based competition on November 10, 2014 in Aranya 14'. Brilliantly designed mobile robots competed on the arena to cross the obstacles and collect the balls to score the points. The event was time trial based. The event was a huge success. All the participants and the spectators were thrilled and enthusiastic about the event. The organizing team had put in a lot of efforts to make this event a success.

II) URJA 2015: THE INAUGURAL SPORTS FESTIVAL



URJA, the inaugural national level sports festival of Thapar University in which more than 20 institutes from all over the country participated, was held from April 14 to April 16, 2015. Organized on the theme of "Let us play for a drug-free world", the three-day event witnessed around 500 students vying for top honors across eight sporting events, including athletics, badminton, basketball, chess, football, lawn tennis, table tennis and volleyball.

Teams from Punjab Engineering College, Chandigarh; Chitkara University, Baddi and Rajpura; NIT, Kurukshetra; NIT, Jalandhar; MaharshiDayanad University, Rohtak; JAYPEE, Solan; Maharishi Markandeshwar University, Mullana; South Point Engineering College, Sonepat; LPU, Jalandhar; BRCM,

Bhiwani; NSIT, Delhi; SLIET, Longowal; ITM, Gurgaon; ACIET, Amritsar; UCOE, Patiala; and IMS, Ghaziabad were amongst the participating teams in the tournament.



RehanPoncha, an Arjuna awardee and a five-time national swimming record holder, also delivered a motivational lecture to the participants in the auditorium as a pre-build-up to the opening ceremony.





Commenting on the initiative taken by Thapar University to organise a national-level sports festival at such a large scale for the first time, Thapar University Director Prof Prakash Gopalan said, “This sports meet is part of our effort to channelize the energies of youngsters and promote excellence. The message we want to send across is that sports can go a long way in curbing the menace of drugs. Sport ensures the all-round development of students by inculcating in them values like discipline, responsibility, self-confidence and accountability.”

The closing ceremony of URJA was organized on the evening of April 20, where Arjuna awardee and Commonwealth Games gold medalist in boxing Mr. Akhil Kumar was the chief guest. The prize distribution ceremony was followed by a traditional Bhangra and Gidda performance by Thapar University students.

III) FORMULA STUDENT, GERMANY 2014:

In August 2014, team of 29 students led by Mohammed Zijah, from Thapar University participated in Formula Student Germany in Hockenheim, Germany. There were 74 teams participating in the event in combustion category. They secured an overall rank of 68. Ranking in each division was as follows:

Total Teams	74
Overall Position	68
Cost	70
Business Presentation	38
Engineering Design	58
Acceleration	-
Autocross	-
Endurance	-
Penalty	0
Total Points Scored	126

IV) SPICMACAY SOCIETY

GATKA PERFORMANCE: The 'SPICMACAY' society organized a 'GATKA' performance on 29th October 2014 in SBOP lawns. GATKA is an ancient Sikh martial Art which was developed by GURU GOBIND SINGH JI . It includes use of sword and various other Weapons for defence and attack. Aranya 2k14 played an important role in publicizing this event. A large number of students came to see this performance which made this event a huge success.



SPIC-MACAY NIGHT

"SPIC MACAY Night" was organized on 22 January, 2015 in Auditorium. It was night mainly focused on depicting and showcasing the true values and culture of our nation. There were several events including cultural dress showcase, folk dance, poetry & singing. It was a unique event in itself as in this event we tried our best to motivate our fellows to remain in touch with Indian culture. After the performances there was playing of Dhol .The audience were enchanted after dancing on Dhol-beats. All credits to hard work of SPICMACAY team, this event was a huge success



SPIC MACAY- SITAR EVE

The SPIC MACAY Sitar Eve was organized on 28 January, 2015 in Auditorium. In this event, there was a Sitar performance by Sitar Maestro Pt. PrateekChowdhari, a well renowned artist of our nation. Honourable Director of our University presided as Chief Guest in eve along with Dean of student Affairs and our esteemed teachers. All applauded the performance and it was also a good interactive session, which worked as icing on the cake.

V) THAPAR MOVIE CLUB

CineYouth kick started on 27 Feb 2015 at 6 P.M in the Auditorium in presence of DOSA, Deputy Director, Dr. Manmohan Chhibber, the team members and the audience. It started with the lightning of lamp followed by speeches by Dr. Manmohan Chhibber, Dr. Maneek Kumar, DOSA, and Dr. Susheel Mittal, Deputy Director and vote of thanks by the OEC. After this, the theme for the 24 hour film project was given to the students followed by play “Armed robbery for Dummies”.

The various competitions organized under the event Cine Youth included the following:

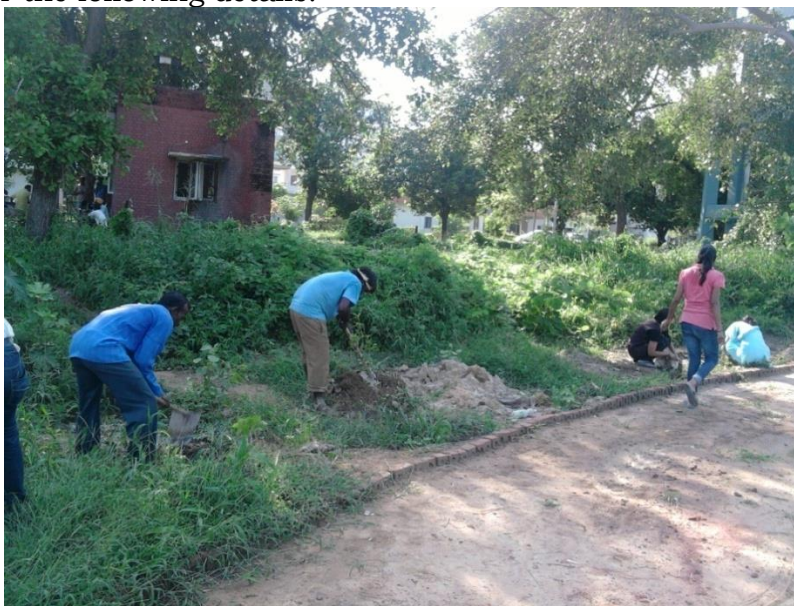
- **Photography Competition-** Photographs taken by students were posted on our Facebook page under different genres and the winner was decided based on the photography skills.
- **How It Should Have Ended?** – This competition was for the hidden directors or script writers, to add a different perspective to a particular scene of an existing movie. Entries were received in form of text paragraphs and the winner was decided based on the creativity and thinking.
- **Still Cinema-** This competition lets students create a story by showcasing series of pictures, each describing a particular scene. It was held in C-Hall and a good turnout was observed. The winner was decided based on the creativity and thinking.

- **Vines-** In this competition, the participant had to make a 10-60 seconds video to describe a situation or scene usually comic. Entries were posted online on our Facebook page and winner was decided based on popularity of the video.
- **24 Hour Film Project-** Students were given a topic after the inauguration ceremony on which they had to create a movie within 24 hours. Many enthusiastic movie makers from Thapar and from other colleges took part in this competition. The theme given to them was- 'Why so Serious?' The movies were showcased in C-Hall on final day and the winner was announced then.
- **Minimalistic Poster Design-** This competition is based on the idea that a complex concept can be explained with the help of basic shapes and designs. The competition took place in C-Hall. Participating teams were given a movie or a phrase each to make a minimalist on without the usage of internet. This tested their creative and solving skills and winner was decided on this basis only.
- **Guest Lectures:** We had Rana Ranbir, a famous Punjabi cinema artist to enlighten the crowd. A short film depicting the conditions of farmers in Punjab was showcased and discussed upon in the C-Hall in presence of DOSA on 1 March 2015. Rana Ranbir specifically emphasized upon the use of 'Mother tongue' and the advantages of reading books. It was a very informative session overall with everybody appreciating each and every word said by him.

SOCIAL ACTIVITIES

I) NATIONAL SERVICE SCHEME (NSS)

Objective: One day camp was organized to create interest among the B.E. first year students during the frosh week. Trees were planted along the road leading to hostel PG, near old polytechnic building and on the divider of the road leading to FRA & FRB. Total 85 trees were planted as per the following details.



Report On NSS One Day Camp

NSS Unit 8 & 9 organized a one day camp i.e. a **Quiz Competition to celebrate 68th Independence Day "Bharat koJano"** on 13th August, 2014 at 5:00 pm in Auditorium. The Quiz was based on our India's Rich Culture and History and was conducted in mother tongue HINDI. Even the quiz paper was typed in Hindi with different sets. The total numbers of participants were around 140 (70 teams in total). The team comprises of two members. There were 20 girls and 120 were boys. Exciting prizes and certificates were given to first ten teams. First year students also participated in quiz competition. Pictures of the event are attached.





i) Mega Blood Donation Camp at Thapar University, 235 units of blood donors donated blood.

Patiala, Punjab 28th August, 2014

Thapar University, organized a mega blood donation camp in its campus under the banner of National Service Scheme. A team of highly qualified doctors from Rajindra Hospital observed and conducted the proceedings of the camp. The camp was partially supported by State Bank of Patiala. Dr. Prakash Gopalan, Honorable director, Thapar University alongwith Dr. Ashwini Sharma, Ex-Professor, Thapar University jointly inaugurated the event. Dr. SeemaBawa (Dean, Student Affairs), Dr. R. S. Kaler (Dean RPG), Dr. Ravinder Agarwal (Head EIED), Mr. ParagNijhawan (Program Coordinator, NSS), Mr. Karun Verma (Program Officer, NSS), Mr. SouvikGanguli (Program Officer, NSS)and Mr. Sanjay Dhull (Manager, SBoP, TIET Branch) were present on the occasion. 235donors donated the blood in support of noble cause in the camp.

The enthusiastic volunteers of the unit did a commendable job of planting 50 plus fruit trees inside the campus on the first day. The fruit trees of Mango & Bel were planted on the first day. Faculty members, namely, Prof. Girish Jaswal, Prof. PiyushVerma, Prof. Karminder Singh, Prof. Harjot Singh, Prof. RudraRameshwar, Prof. VipulGupta, Prof. Gurparkash Singh, Prof. Gaurav Goyal, Mr. Ripneet Singh and Mr. Chopra planted the first trees.



The best way to find yourself is to lose yourself in the service of others” –
Mahatma
Gandhi

When we start caring about people around, we start sharing love and emotions. When, we start sharing, we extend a helping hand and grow together to make a strong nation. In this process, somewhere we find our self, the true meaning of our existence comes in front of us. At the end of life we will not be judged by how many diplomas we have received how much money we have made, how many great things we have done. We will be judged by "I was hungry, and you gave me something to eat, I was naked and you clothed me. I was homeless, and you took me in". With this spirit of serving and sharing, the unit proceeded with its mission to serve the residents of Behra village. Around 35-40 residents were served with winter caps, clothes and eatables with love and affection by the volunteers.



i) Day 5, September 12: Visit to cottages in Behra Village

The volunteers proceeded to serve the residents of Behra village. They distributed winter caps, clothes, shoes, food and sweets to the needy to two places in the village, one with 20-25 odd residents and the other with around 35-40 odd residents. The volunteers felt that it made us realize how important it is to extend a helping hand to people to make them realize their true potential and hence uncover the true potential of India.

ii) Day 6, September 13: Visit to Classes I, II and III of Government Elementary School, Village Behra

The volunteers distributed mugs, plates, eatables, winter caps, notebooks and stationary to the little children and made them aware of the good habits and importance of cleanliness.

iii) Day 7, September 14: Visit to Classes IV and V of Government Elementary School, Village Behra

The soul is healed by being with children.

The volunteers were delighted to meet 105 students of classes IV and V of the Government Elementary school at Behra village. They distributed umbrellas, plates, winter caps, notebooks, pencils, scales and other stationary items along with biscuits, cakes and chocolates to them.

1. Child Labour and Child Abuse 14th November, 2014 7AM onwards. (Approx. 150 Volunteers participated in this event)

This Children's Day was special. It was the 125th birth anniversary of our beloved Prime Minister Pandit Jawaharlal Nehru. And to make it more special NSS Unit of Thapar University decided to celebrate it with tiny tots and future of our new India.

Around 30 unit members visited Government Elementary School, Derabassi to meet students of class 1,2,3,4 and 5. Unit distributed sweets, snacks, stationeries to the young kids present there and also spread the message of love, cleanliness and joy to everyone out there.

Blood Donation Camp Report

Inauguration ceremony was organized on 5 the December 2014 at 10.00 a.m. in the Auditorium of Thapar University, Patiala. Dr. Ravinder Aggarwal, Head Electrical & Instrumentation Engineering Department inaugurated the camp in the presence of Mr. Pawan Sharma Branch Operation Manager, HDFC Bank and the NSS Coordinators Mr. SouvikGanguly and Dr. DwarikaNathRatha and the volunteers. Total No. donors were 102 out of which 97 are the male donor and 5 are the female donor. More them 50 volunteers helped in organized this blood donation camp.

iv) Review of NSS Events

1. **MEDICAL CAMP:** Organized by NSS , Date: 18/02/2015, Venue: E BLOCK
Timings: 4:30 pm to 7:00 pm

Significance: This camp was organized with the help of A.P healthcare and trauma centre, Patiala. A team of doctors and nurses visited our campus and performed medical checkups and distributed medicines to patients. This camp was organized on the occasion as part of celebration of NSS week.

The Motive and Activities: This camp was having motive to provide medical assistance to medical concern to the needy. A team of doctors having specialization in ENT and medicine conducted the camp. They examined the patients and provided medicines to needy people free of cost.

Response: About 100 persons were registered for the camp including staff, faculty and students. Date: 19/02/2015

The Motive and Activities: This camp was having motive to provide medical assistance to medical concern to the needy. A team of doctors having specialization in orthopedics and physiotherapy conducted the camp. They examined the patients and provided medicines to needy people free of cost.

Response: About 70 persons were registered for the camp including staff, faculty and students.

2. **EYE CHECKUP CAMP :** Organized by NSS, Date: 20/02/2015, Venue: AUDI HALL, Timings: 9:00 am to 1:00 pm

Significance: This camp was organized with the help of Patiala based eye hospital “KAKKAR EYE HOSPITAL AND LASIK LASER CENTRE, ITO ROAD, PATIALA”. A team of doctors and nurses visited our campus conducted free eye checkups and recommended medicines to visitors.

The Motive and Activities: This camp was conducted to provide free eye checkup and medical advice to the needy and make them aware of protection of eyes from day to day allergies.

Response: The beneficiaries include faculty, staff and students.

Workshop on Disaster Management: Organized by NSS, Date: 21/02/2015

Awareness on drug de-addiction: Organized by NSS, Date: 22/02/2015

Swachh Bharat Abhiyan: Organized by NSS, Date: 23/02/2015

Blood donation camp: Organized by NSS, Date: 24/02/2015

173 units of blood were collected. Ms. Perneet Kaur was chief Guest to motivate the donors.

NSS SEVEN DAYS CAMP :

NSS Units of Thapar University organized a seven days camp from 06-Apr-2015 to 12-Apr-2015. The major agenda of this camp was social awareness about environment, health, cleanliness, education to underprivileged and tree plantation.

Day 1 (6th Apr, 2015)

On day 1 of the NSS Seven Days Camp, an Eye Check-up and Dental checkup was organized where free eye and dental check-up was done for all students, workers, staff, faculty members and their families. The camp was organized in the university premises in the C-Hall from 9AM – 3:00PM. Dr. Maneek Kumar (DoSA) along with Mr. Parag Nijhawan (Program Coordinator NSS) inaugurated the event. A team of doctors from Global Eye Hospital, Patiala and Dr. Shivani from Dental clinic were invited for the cause. 150 registrations were made for the eye and dental check-up.

Day 2 (7th Apr, 2015)

On day 2 a play on drugs awareness “KOI DEYO JAWAAB” was organized in auditorium on 7th Apr, 2015. This play was staged by Kala Kriti Patiala. The agenda behind this play was to make youth aware about the after effects of drugs. Dr. Susheel Mittal, Deputy Director Thapar University along with other faculty members was present in this event.

Day 3 (8th April, 2015)

A blood donation camp was organized by NSS, Thapar University Patiala on Apr 08, 2015 in auditorium. The camp was inaugurated by Dr. Prakash Gopalan, Director, Thapar University Patiala. The team of doctors and assistants headed by Dr. Sukhwinder Singh had come from Rajindra Hospital Blood Bank. They guided the volunteers and donors about the prerequisites and procedure. The students, staff and faculty members were there among donors. Both male and female students had participated in the event with a very high motivation. A total of 111 units of blood were collected. Refreshment was distributed to the donors. Certificates of appreciation were also given to the donors.

Day 4 (9th April 2015)

NSS team got a privilege to visit Mata Khevi Orphanage and Old Age Home near Patiala on 09th April, 2015. The visit was planned to share some happiness and joy and spend quality time with all the children and elders. Some performances were presented by the volunteers along

with the senior citizens. Their smile, blessings and spirit of living was a great motivation for all the volunteers.

Day 5 (10th April, 2015)

On day five of the NSS Seven Days Camp, the volunteers organized a drawing, singing and poem recitation competition for the children of various age groups belonging to the workers of different hostels of the university. Around 65 children took part in this competition. The major aim to organize this event was to provide a platform to the children of the workers and to motivate them for their precious and hidden talent. The event started with introduction of all the children. It was followed by the singing and poem recitation competition. The volunteers then distributed drawing sheets, pencils, erasers, colors, etc. to all the participants. Refreshments were served to all the children after the competition. Various prizes were also distributed among the winners of both the competitions. The success of the event was defined by the smile on the face of every child.

Day 6 and 7(11th and 12th April 2015)

NSS Student volunteers were involved in major cleanliness drive organized in collaboration with Paryavaran Society on 11th and 12th April 2015. Cleanliness, painting and beautification of roundabout was done at Cafe Coffee Day circle, Bhupindra road, Patiala. On this occasion Ms. Sanmeet Kaur (NSS Program Officer Unit XI, Thapar University), volunteers from Paryavaran society and student volunteers of NSS unit XI were present. A tree plantation campaign was also conducted on Nabha Road Patiala. Around 50 saplings were planted on the roadside.

The camp ended with a great satisfaction on volunteers' faces. They organized and took part in every event with a great zeal and enthusiasm. Every event was planned for some social cause and was a great success.







II) PARYAVARAN WELFARE SOCIETY:

Tree Plantation Drives: Rapid constructions and mushrooming of housing colonies have led to the depletion of green cover in many parts of our country. The importance of trees in purifying the air, reducing global warming, preventing soil erosion, conservation of water, maintaining the ecological balance, providing natural resources as medicines, habitats for faunal species, providing nutrients to the soil etc. is well known. Unfortunately, the overall green cover, not just in Patiala but in other parts of the country is also reducing and as a consequence of this, pollution is increasing at an alarming rate. Increasing the green cover by tree plantation is one of the easiest yet effective measures towards reducing this imbalance.

During the July to September 2014, PWS carried out tree plantation drives at different locations **within theThapar University** and nearby areas of district Patiala like **Central divider Sirhind road, Central divider Rajpura road** and **Power house colony**.

So if you want to save our mother earth from further destruction please do contribute because your little contribution is the only thing that is needed for the big cause of conservation.



III) YOUTH UNITED:

YU Public Health Mission (PHM) aims to aware the underprivileged population about various issues concerning health and eventually providing them with solutions to health related problems through self-initiated camps, drives, dispensaries and hospitals.

In one such initiative taken by the Youth United Society, on 11th October 2014, under the “DaanUtsav” they organized a one day free medical camp at Pingalwada Ashram near

Aggarsain Hospital, Rajpura Road, Patiala for mentally and physically challenged people and children and also for the old age. The health camp was organized with the objective of providing free medical examination and check-up. Nearly 60 inmates of the Pingalwada attended the camp.

A team of renowned Sadbhavna Hospital under the guidance of Dr. Gurmeet conducted this health camp providing free medications for the sufferings. The checkup team included physician and medicine doctors', and was accompanied by Youth United team and also the caretakers of Pingalwada, who provided the detailed information of each member. The children and the other members too were very enthusiastic and attentive which further lead the doctors to concluding that more camps like this will be taken up in the nearby future.

Refreshments mainly oranges, apples, bananas, healthy and seasonal fruits were distributed to the inmates and also to the caretakers of Pingalwada Ashram as well as the doctors' team. Later on Medicines were distributed. The list of medicines was taken from the hospital team earlier, which helped, in the smooth procedure of distribution of medicines prescribed by the doctor.

Members of Youth United told the inmates the necessity of cleanliness and made them aware about common health problems and their prevention.

Expanding the horizon outside Thapar University was a great start and great experience for YU members. The event was a huge success. The authorities of Pingalwara Ashram as well as the doctors were happy with the initiative of Youth United. No. of members visited: 20



IV) 5TH NATIONAL ORGANIC FARMING CONVENTION, NITTTR, SECTOR 26, CHANDIGARH:

The **5th National Organic farming convention** was held at NITTTR, Sector-26, Chandigarh on 28th February and 1st and 2nd of March, 2015. The event was organized by NITTTR and

several NGO's such as OFAI, ASHA and KVM. Haryana CM, Mr. Manohar Lal inaugurated the convention and released a book on **organic farming**. A team of 14 students along with the faculty Dr. Mandeep Singh from Thapar University participated in the convention.

The convention included multiple sessions that were aimed for the betterment in the area of farming and environment. Six different sessions were held at different venues simultaneously on 28th of February and 1st of March. Our team of 14 students under Dr. Mandeep Singh actively participated in the session-“GMO CROPS”. The students confronted their opposition to the genetic modification in our food. They also stood firmly against the GMO field trials stating them as a threat to safety of the food chain.

A conference on “MAINSTREAMING AGRO-ECOLOGY” was also organized by Society for Agro Ecology, India on 1st and 2nd March, 2015. The conference was mainly lead by group of scientists and professionals to elaborate the restoration of the agrarian landscape and a sustainably prosperous rural local economy. Various articles on crop system and physiology, ecological economics of agriculture, food system, S and T policy related to agriculture, soil biology in agro-ecosystems, ecosystem service provisions, organic/integrated farming system and nutrition, hunger and agro-ecosystems, socio-economic impacts were presented.

Haryana governor Prof KAPTAN SINGH SOLANI was invited as the chief guest in the event. The governor directed the farmers to go for eco-friendly farming techniques. He also instructed that no one is authorized to adulterate our natural resources and no compromises with the practices that lead to degradation in human health shall be tolerated. He warned the policy makers of agricultural universities not to promote unhealthy fertilizers and pesticides, failing which their authentication will be terminated.

The convention was an amalgam of various cultures of India as 27 states marked their participation. Farmers from various parts of the country came to bring upon a change in the society of agriculture. The students interaction with various famous personalities like Mr. Nandan Saxena (National Film award winner), Dr. Devinder Sharma (food and trade policy analyst), Dr. G V Ramanjaneyulu (Executive Director, CSA), Ms. Kavita Kuruganti (social activist), Dr. Raj Rup Fuliya (additional Chief Secretary (IAS Retd.), Govt of Haryana), Mr. Prakash Singh Raghuvanshi (Indian farmers, distributes organic seeds for free), Dr. Debal Deb (rice conservationist, ecologist, founder of BASUDHA farm), MR. Umendra Dutt (Executive Director, Kheti Virasat Mission), Mr. Gurpreet Dabrikhana (photojournalist and activist who covered the Punjab story in satyamev jayate) and many more, was truly productive. The team was motivated upon meeting the dedicated reformers and also volunteered in conducting various sessions with them.

The visit to this convention was undoubtedly successful. We would like to thank Dr. Mandeep Singh, President, Spiritual Scientist Alliance for giving us an opportunity to be a part of such a remarkable event, for being the pillar of constant motivation amongst us and guiding us step by step towards optimism.

We are immensely thankful to Dr. Maneek Kumar (Dean of students affairs) for supporting the visit of 14 students and a faculty, from Thapar University to the 5th National Organic Farming Convention, NITTTR CHANDIGARH.

We would also like to thank Dr. Prakash Gopalan (Director of Thapar University) for nurturing Spiritual Scientist Alliance.

V) PRATIGYA SOCIETY:

Pratigya is a movement started in 2005, aiming for all round development of underprivileged children. It is a team of students that basically teaches underprivileged kids from classes' 1st to 12th and diploma students. Pratigya team nourishes the children of 4th class staff of TU, the construction site labourers and students from nearby colonies. Pratigya not only lays stress on teaching but also on extra-curricular activities like drawing competition, Rangoli making, kite flying, sports day etc.

The volunteers are the students of Thapar University from B.E. all years as well as MSc, M. Tech and MBA. Proper timetable is maintained for the process and regular attendance is taken and tests are conducted. Our faculty advisors viz. Dr. AnoopVerma, Dr. Prateek Bhatia and Dr. SeemaBawa supervise all process and workings of the society.

Regular classes: Giving education is our top priority and we try our best to help kids of Pratigya society in every way possible. Regular classes are held in B-Block (ground floor) from Monday to Friday at 5:00pm. On an average 100 kids from various backgrounds come to us for studying and we try our best to provide as much knowledge to them as possible.

New Concepts Introduced:

- Extra English workout:

After classes some work material, like comprehensions, word meanings, phrases, etc... are given to students in order to enhance their skills in English language.

- Point system:

On basis of students attendance, performance in tests and participation in extracurricular activities, certain points are given to students . According to their performance in class and points, students are given prizes which not only adds to their motivation but also helps in boosting their confidence significantly.



TECHNICAL ACTIVITIES**I) OWASP:**

13th October, 2014, we started off with events for the semester. Dr. Maninder Singh, Associate Professor, CSED, Thapar University, was invited to give a seminar on Information Security. Dr. Maninder Singh talked about the threats that we face in our day-to-day lives, the bigger picture of computer security and how a common person can keep himself secure in the age on internet. 14th October, 2014 had Dr. SastryTumuluri, IT Advisor and CISO, Government of Haryana on campus, who talked about web applications and its security. The seminar was made compulsory for 2nd and 3rd year B.E. Computer Engineering.

The finals of .ex were organized on 5th Nov' 14, online at www.owasptsc.in. Mr. NamardeepSood, Mr. ArushNagpal and Mr. Gaurav Maadan secured the first position. 5th Nov' 14, we also invited, Ms. Tarunpreet Bhatia, Lecturer, CSED, Thapar University, to present a seminar on Secure Coding. Briefly the seminar was about security awareness and ways to overcome security vulnerabilities that can be found in algorithms coded in C/C++. A memento was presented to Ms. Tarunpreet Bhatia by Dr. Maninder Singh, President, OWASPTthapar Student Chapter. 6th Nov' 14, we invited, Mrs. Karamjit Kaur, Lecturer, CSED, Thapar University and Ms. Maggi Bansal, Lecturer, CSED, Thapar University to conduct a workshop on Python language. The basics of python were covered in this 6hr long workshop. Certificates were awarded to all the participants of the workshop.

SecurA with collaboration of Linux User Group, Thapar University also organized TUCTF, a computer hacking event where the participant had to find flaws in the computer code, exploit the flaws and obtain a flag. Mr. RajatSharda won this event. A power band was given away as the first prize and a pen drive for the runner up.

II) MOCK PLACEMENT BY SAIC:

Student Alumni Interaction Cell (SAIC),Thapar University came up with an idea which benefitted every student of 3rd n 4th year, MOCK PLACEMENT. As the name suggests, Mock Placement was a simulation of the actual Placement scenario with a series of written test followed by GD's and finally the Interview. This event would not have been possible without the support & guidance of Mr. H. S. Bawa (Placement Head) judging the GD rounds. This event was collaborated with Bulls Eye who provided the students with questionnaire. Question paper included aptitude related questions as well as technical questions (branch specific).

The event started just like the actual placement procedure. Dr. Maneek Kumar (DOSA) addressed the students with the presentation of the recruiting company, **Illudentes Inc.** Along with that an interactive talk on how to Crack the Placement process, regarding every aspect of written tests, group discussions, personal interviews; and the useful tips and techniques from a highly experienced Alumni member currently working in Bullseye was also given.



THAPAR UNIVERSITY ALUMNI ASSOCIATION BUILDING MEMORIES ENGINEERS, STUDENTS, EDUCATIONISTS, INDUSTRIALISTS





III) INSTITUTION OF ENGINEERS (INDIA):

5 events were held during the session in 2014 (August-October) by the students chapter of Institution of Engineers(India).The list of which is as given below:

- 1) Participation in Frosh Week
- 2) Recruitment
- 3) NAT
- 4) SHAASTRA 2k14 Plc scada workshop
- 5) Soldering Workshop

FROSH WEEK

The Institution of Engineers (India) Thapar Chapter held on 19th August 2014 a stall at the society fair under the Frosh week event, which aimed at introducing the newly admitted students to all the societies in the Institution.

The IEI society displayed its projects initiated by IEI members at the stall and explained their working to the students. Members of the team guided the Students about the functioning of the society and various events, which the society organizes.

Student showed a keen interest in joining the IEI society. We received more than 300 entries of the students on the same day willing to join the society.



RECRUITMENT

The students who filled the recruitment form to enter the Institution Of Engineers (India) Thapar Chapter were divided in four different sections based on their areas of interest namely Technical, Event management, publicity and designing.

Interviews were taken at the E Block for the respective departments. Students participated enthusiastically and a few out of many were selected after the interview. The selection criteria for Technical went further ahead, students selected after interview were asked to clear a test to enter the technical department of the society.

NAT

The Institution of Engineers (India), Thapar Chapter conducted an aptitude test on 27th August 2014, which was open for all streams and all years. The test aimed at testing the general aptitude of the participants.

Students were required to team up in pairs for the quiz. They participated in it enthusiastically and we received more than 350 entries. Participants appreciated the test and made this event a huge success. Our society president Dr. Gagandeep Kaur motivated the students with few words at the end of the event.

Results were declared within two working days, it was a close call but we had clear winners. The top two teams were awarded with the certificate of winning and the prizes by the President of our society, Dr. Gagandeep Kaur.



SHAASTRA 2k14 PLC SCADA WORKSHOP

The Institution of Engineers (India), Thapar Chapter organized a 2-day workshop on PLC and SCADA in collaboration with the IIT MADRAS SHAASTRA 2015 at the C hall on 11-12 October 2014. Technical experts from INNOVIAN TECHNOLOGIES carried out the 2 days, 16 hours event.

Software was provided to the participating students. A small competition was held and 2 teams were selected for the next round to be held at IIT MADRAS. Our respected Dean of student's affairs Dr. Maneek Kumar presented a token of gratification to the guests.

Each participant was given a certificate of merit. This event, which was held in the convention hall, ended with a vote of thanks and encouraging words by the dean of student affairs and our society president Dr. Gagandeep Kaur.



SOLDERING WORKSHOP

The Institution of Engineers (India), Thapar Chapter organized a soldering workshop for society members on 13th, 14th & 16th October 2014 from 5pm to 7pm. This was our first step towards making our own robots.

Soldering was taught on a general-purpose printed circuit board (PCB). Members arranged materials and various components required along with the soldering iron and members were taught basic soldering techniques by their seniors. All the circuit diagrams of circuit to be designated were shown to everybody. A good discussion was held about all the ins and outs of those circuits. Minute details of soldering and disordering were discussed and question related to soldering were discussed.

The students faced lots of difficulties but as the time passed by they looked comfortable with it. So we ended the workshop on a positive note. The 3-day workshop was held in F-block in Room no. F-106 of the academic building. The workshop was interactive and very useful for first year and second year students (members).

Technotron 1.0 Date: 2nd -10th Feb We, the members of Institution of Engineers (India), Thapar Chapter organized a fest Technotron consisting of various formal and informal events.

Natural Aptitude Test (NAT) Date: 4th February, 2015. Venue: C Hall We, the members of Institution of Engineers (India), Thapar Chapter conducted NAT, a quiz based on general reasoning and ability questions on 4th February 2015 for the students of all branches. The Quiz was conducted with an intention to acknowledge the students the level of their aptitude by competing with other Thaparians. The students were excited to participate as they got the platform to assess their aptitude level acquired till date. A total of 60 teams (each consisting of two students) registered for the Quiz competition. The time limit for the quiz was of 30 minutes. The winners were awarded with prizes in order to encourage them to participate in many such events coming up in future and show their maximum participation.

SOLDERING WORKSHOP Date : 4th -5 thfeb Venue : E101 A workshop was conducted by Institution Of Engineers (India) Thapar University Chapter from 4th -5th February, 2015) in Thapar University. Soldering was taught on a general purpose pointed circuit board (PCB). All the circuit diagrams of circuit to be designated were shown to everybody. Soldering roots, PCB's, soldering wire and all the required components were given to each of them. All the teams were made to practice soldering on their reflective PCB's. On the 2nd day of our workshop, soldering was the main motto of the day. A dedicated three hour session was put forward in soldering. A DTMP circuit diagram was shown to all and was asked to implement that on PCB through soldering technique they learned and acquired on the day.

Guest lecture on career development and placement Date : 5th feb Venue : C Hall We, the members of Institution of Engineers (India), Thapar Chapter conducted a guest lecture on 5th february,2015. Mr. Sanmeet Sandhu, a corporate counsellor who is presently working with Bull's Eye was invited and he taught students a lot about how to make a good Resume and present themselves during placements and interviews. Around 100 students participated in the guest lecture and got to learn a lot. Students liked the lecture a lot and wanted more lectures of this type in future. A Memento was given away by Dr. Gagandeep Kaur, the President of the society to the guest

Workshop on C programming Date : 5th -6 thfeb Venue : E102 A workshop was conducted by Institution Of Engineers (India) Thapar University Chapter from 5th and 6th February, 2015) in Thapar University. Workshop was delivered by Mr.Aneesh Garg from HCL technologies. Around 50 students participated in the workshop. Dr.Gagandeep Kaur, President of IEI society honored the guest.

Workshop on Matlab Date: 7th – 8th February, 2015.Venue: TAN Auditorium A workshop was conducted on MATLAB by Institution Of Engineers (India) Thapar University Chapter from 7th and 8th February, 2015) in Thapar University's tan audi in association with TRYST-2015 (IIT Delhi). The sessions of 6-7 hours in two days were conducted to enhance image processing. The students were taught about NUMERICAL

Technotrivia Date: 9th February, 2015. Venue: C Hall We, the members of Institution Of Engineers (India), Thapar Chapter conducted NAT, a technical quiz based on electrical and electronic subjects on 9 th February 2015 for the students of EIC, ECE and ELE. The Quiz was conducted with an intention to judge and enhance the understanding level of concepts. The students were excited to participate as they got the platform to assess their knowledge level acquired till date. A total of 40 teams (each consisting of two students) registered for the

Quiz competition. The time limit for the quiz was of 30 minutes. The winners were awarded with prizes in order to encourage them to participate in many such events coming up in future and show their maximum participation.

IV) CREATIVE COMPUTING SOCIETY:

The Creative Computing Society, one of the most active & elite societies of Thapar University aims to garner creativity and talent & propagate awareness regarding various tech-related knowledge throughout the ingenious minds of Thapar and beyond. Creative Computing Society helped students in realizing their potential by providing them a platform where they could show their skills and also a platform for learning and increasing their technical skills.

Web Development: Your task is to create a website that showcases our festivals and culture in their true sense. ./.a.out(knight coders): Knight Coders is one of the biggest programming contests held in the college. With a right mix of math, algorithms, data structures and programming, this contest has something to offer for everyone. If you love coding, then this is the right place to be.

V) ASHRAE SOCIETY

ASHRAE TU Student Chapter organised an audio-visual quiz with an objective of enhancing technical skills of students. It was conducted in the college campus itself on 15th October, 2014 with 60 registered participants. These 60 participants were in groups of two.

Quiz consisted of a screening round, picture round, video round and finally the rapid fire round. Screening round was of written objective type with 14 questions to be answered in 10 minutes. After calculating the scores of this round only the highest scoring 4 teams qualified for next rounds. In picture round, teams were asked 8 questions and time given to answer each question was 20 seconds. In video round, a video was shown to each team and 4 questions were asked related to that video which were to be answered in 30 seconds each. In rapid fire round, 6 questions were asked and 10 seconds were given to each team to answer a question.

The participants enjoyed the quiz and had a good experience.

The winning team was of Varun Bansal and Vinay Mohinder Singh. They won a cash prize of one thousand six hundred rupees.

VI) SOMIE SOCIETY

1. Event during Froshweek

An event was held during froshweek for the first year students on 31 July 2014 (from 5.00 p.m. to 5.30 p.m.) in the university auditorium. An introduction to SOMIE was given to the students, with the help of an audio-visual quiz and videos about engineering were also shown to motivate the students about the engineering career.

2. SOMIE in Society Fair 2014

The event was a promotional event of society SOMIE for the newly admitted batch (2014-2018) where every minute detail about the society was presented to all the enthusiastic freshers. Every detail of the events organized or to be organized were introduced to the students.

Next a VISUAL LOGO QUIZ was organized in an interesting and innovative manner. Logos of different automobile brands and some vehicles were stuck on the dart board. Participants were to hit the logo with the dart. If they were successful in guessing the logo correctly, they were awarded with chocolates. There was a huge rush at the

SOMIE counter. Students were enthusiastic about joining SOMIE. Around 200 students registered for the society's future events.

Hon'ble Director of the University, Dr. P.Gopalan and former Dean of Student Affairs Dr. SeemaBawa also visited the SOMIE stall. The hard work of the students and active participation in the events was appreciated and they were motivated to carry on and come up with more such interactive sessions in the future.

3. Guest Lecture

An invited expert lecture was organized by SOMIE on 1 Oct., 2014 at 10:00 am in the Mechanical Engineering Department Seminar Room. Dr. I.V. Singh, Associate Professor, IIT, Roorkee talked to the students of M.E. CAD/CAM Engineering and enlightened them in the area of XFEM and Meshfree FEM.



VII) ROBOTICS SOCIETY

Robotics society successfully organized the ROBO-WEEK in the month of February 2015. This event was specially organized to motivate students about robotics and to take their doubts in various aspects of robotics. More than 60 students from various disciplines had participated.



Our experienced faculty members delivered expert lectures providing interactive sessions to gain more out of the topics discussed. Mr. Ankush Kansal, Assistant professor, Department of Electronics & Communication Engineering, talked about advances in electronics systems that are used in modern electronics applications on 02/02.2015. Dr. Ashish Singla, Assistant professor, Department of Mechanical Engineering, who is also an expert in field of robotics enlighten the students by this expert talk about advanced robotics application and control on 03/02/2015. Mr. R. K. Duvedi, Assistant professor, Department of Mechanical Engineering, touched the mechanical aspect of robotics design and application in his expert talk which has given students a broad idea of different mechanical configurations of robots and their design considerations on 04/02/2015. Another expert lecture was given by Dr. M. D. Singh, Assistant professor, Department of Electrical & Instrumentation Engineering, on 5/02/2015. He addressed the students on advanced robotics control.





VIII) ECON CLUB ORGANIZES THE LOGO HUNT

Thapar University: The University's Econ Club recently organized a Logo Hunt for the students in which 200 logos were placed all around the campus creating a great zeal and enthusiasm in the 160 participants that took part in the hunt.

The event was a big success and a large number of students showed a keen interest to take part in it to make themselves aware of the newest logos in use. The Logo Hunt provided a fun learning experience to those who participated in the hunt.

The Econ Club Team gave their whole support and managed the event very smoothly. A lot more is under the hood to come under the club's banner.



EVENT REPORT- SOCIETY FAIR

Thapar University has been famous for its intensive culture of co-curricular activities and academic focus beyond the syllabus, all of which is carried out with the existence and functioning of the societies assigned for various fields in regards to the same. The seniors pass on the baton for functioning of the same to their juniors towards their passing year and thus this has become an innate part of the university's culture.

With the arrival of the fresh breed of Thaparians, introducing them to the concept of societies is very necessary. For this purpose a society fare is organized every year, wherein the fresher's choose to join societies on the basis of their interests and talents, carrying forward the tradition of talent appreciation in the university.

Thapar University had its society fair for the batch of 2014-18 held on August 19th 2014 in the SBOP lawns. There were several societies managing their stalls, promoting themselves and registering students.

The **Econ Club** like every other society made the best effort to promote itself and be able to recruit a smart set of people for better functioning of the club in the future. Every student that came to the stall was properly explained the importance of having knowledge of finance and economics apart from their technical curriculum. The econ club team members worked really hard to explain the needful to the students and make them realize how important it is for them, the result of which was an overwhelming response at the stall.

Overwhelming response at the stall: The club members even went a step ahead of the others by conducting a basic economics quiz for the whole crowd present there, the results of which were evident of the lack of economics based knowledge in today's techies, which is inevitable for monetary and professional aspects. The club talked about its past events and future strategies with the prospective recruits. The event concluded with an overwhelming response to the econ club society.

IX) AIESEC SOCIETY

GLOBAL VILLAGE 2k14 Organised By AIESEC in Thapar University AIESEC: AIESEC is an international, non-political, independent, not-for profit organization run by students and recent graduates of institutions of higher education. AIESEC has, each year since 1948, worked to fulfill the mission of developing young people to meet the challenges of the world, our countries and local communities. By empowering them with the necessary skills and understanding of the forces shaping the world around them, we create a powerful group of future leaders with a strong sense of social responsibility and a desire to act. Our vision for the organization when we started off was "Peace and Fulfilment of Humankind's Potential" and it still remains the same. About Global Village: Global Village is an event showcased by AIESEC where interns from different countries across the globe come together to exchange cultures and traditions with the people. AIESEC aims at facilitating global experience as a vision to promote oneness among each and every individual in the world. This is done by exchange programs across different countries. The international experience as well as the cultures and traditions of countries are brought together at one place through the event, Global Village. The main purpose of the event is sensitizing the people towards other cultures and traditions and providing them an insight about a country's profile through realities usually not mentioned in books. 23rd August, 2014 at Playways School: Global Village was conducted by AIESEC in Playways Senior Secondary School, Patiala. The students and a total of 35 interns from various countries together put up country specific exquisites and souvenirs on display for all the spectators. The school children could instantly relate to the countries culture as taught to them in the curriculum. The event was graced by the benign presence of various Ministers of Punjab and other Corporates. With a footfall of more than 2000 people, the event was a huge success. The day-long fun activities, a grandiose exhibition of diversity, music and dance added colours to the entire event. 26th August, 2014 at Thapar University: Global Village was conducted by AIESEC in Thapar University for the third consecutive time in the University Campus itself. Around 1500 people attended the event in University where 10 interns from 7 countries showcased cultures of their respective countries. From food to art, tradition to currency, music to dance, the lifestyle was discussed by the interns with the spectators. Also the people shared similar traditions in India as well as Punjab with the interns. The event was also marked with a thrilling drum performance by one of the interns and yet another mesmerized the audience with a melodious song in her language

CULTURAL AND LITERARY ACTIVITIES**I) FROSH WEEK 2014 – A WELCOME START FOR FRESHERS' BATCH AT THAPAR UNIVERSITY, PATIALA:**

Thapar University, 26th August 2014 – Frosh Week is the time at the beginning of the academic year during which a variety of events are held to orient and welcome new students. This fiesta is an opportunity for the freshers to find their bearings in a new environment, while being introduced to the nurturing traditions and culture of the campus. Setting up a second home away from their parents can be a daunting experience but Frosh Week will ensure that this process is as comfortable as possible.

Proem 2014, preceded frosh Week and was organized on similar lines. Proem was organized from July 28 to August 1, 2014. It had lectures by eminent teachers and professionals on topics ranging from 'Art of Communication' to 'Enjoy life: It is an adventure'. There were yoga sessions for the students in the morning and throughout the day various workshops on painting, theatres, debating etc. were organized for the first year entrants. The Proem ended with a cultural program compiled by the first year students on August 1, 2014. Frosh Week started off with Society Fair on 19th August: A platform for all societies in the University to showcase their achievements and attract students. This was the third society fair to be organised since the start of Frosh Week concept.

A session from Spiritual Scientist Alliance was organised on 20th August at TAN Auditorium. The interactive session based on Better Living was conducted by Dr. Mandeep Singh. This was followed by Run for A Cause on 21st August, 2014, where students were given inspirational talk by Dr. Maneek Kumar, about a prevailing social issue Drug Abuse. Then the students then took part in the subsequent intra university marathon, which started off from the Directorate and ended at Hostel H. In the evening, students were also given a chance to showcase their creativity in the form of a graffiti based on social and environmental issues like global warming, child labour, drug abuse etc in the event Paint for A Cause.

Events planned for 22nd August were Reverse Engineering, a fun based interactive quiz which will be technology oriented along with basic engineering oriented followed by a Karaoke Eve where the freshers sang their hearts out without any fear.

Frosh Week society organised a Patiala city tour on Saturday, 23rd August where freshers were taken to various memorable locations in the city so as to familiarise them to their new home. The tour included locations such as DukhNivaran Sahib, Sheesh Mehal, NIS Patiala, Baradari gardens and so on.

Sunday, 24th August was also fun filled day for the freshers. An interactive session by Frosh Week team followed by a session by Counsellor ParokshSujayji and an award ceremony for all the winners of previously organised Sports mania, Run for A Cause, Paint for a Cause and Scavenger Hunt. The day was brought to a close by organizing a Movie Eve, where a movie selected by freshers themselves was showcased.

Frosh Week 2014 completed on Monday, 25th August with a session by influential speaker Mr. Smarth Bali and followed by another Karaoke Eve.

Frosh Week as a whole has been and will always be a wholesome learning experience filled with fun and interaction for the freshers.

II) TUMUN SOCIETY

Thapar University Model United Nations on the 14th-15th February 2015, Thapar University hosted one of the biggest possible Model United Nations conferences of the North India - TUMUN 2015. An MUN is a simulation of the actual proceedings that take place in the world organisation, United Nations (UN). The participants are designated as the delegates of various countries and international bodies. An added popular committee was the AIPPM i.e. the All India Political Party Meet that is much like an Indian Parliament session where the delegates designate the various ministers and political figures of India. There were four committees in all with the following agendas-

- 1. UN General Assembly:** Measures to prevent terrorists from acquiring conventional weapons and weapons of mass destruction.
- 2. UN Security Council:** Crisis committee.
- 3. UN Office Of Drug and Crime:** Criminal justice reforms in post conflict states with special emphasis on extradition.
- 4. All India Political Party Meet:** Question of religious conversions and border security issues with Pakistan.

Thapar University Model United Nations

The conference had a burgeoning response and participation with 200 delegates in total. Out of these, there were around 70 from outside hailing from UPES, Dehradun, PEC Chandigarh, Punjabi University Patiala, Delhi University, St. John's School Chandigarh and various other prestigious institutes. The delegation had people with an experience of as much as 70 MUNs and the Executive Board of the conference who chaired the committees were as much experienced. The TUMUN society had worked hard and well organised the event. From hospitality to public relations, from logistics to delegate affairs; everyone had their work divided and executed it efficiently. Also regular workshops prior to the event were conducted to familiarize the students with the rules and procedures of the formal debate and tackle the conference. The entire auditorium broke into applause when the president of the society, Dr. Gurwinder Kaur came to the opening ceremony and motivated everyone. The two day long conference saw 14 hours of rigorous debate and discussion, along with logical and heated arguments and fine deliberation over national and international affairs. All committees managed to produce a sound resolution that is the main motive behind an MUN. The conference had big names such as Dunkin Donuts, Click Technologies and Red Bull attached to it

III) LITERARY SOCIETY

Literary Society is dedicated to providing a platform for literary expression and creativity to the students of Thapar University. With its eight sub-societies which include ones focused on writing, dramatics, quizzing, to name a few, the student audience the society caters to is vast and varied. Whereas the society gives an opportunity to showcase one's talent at various competitive events – the crowning glory of which is the inter-year literary festival, Elixir – it also disseminates literary knowledge and culture through various club meetings organized throughout the year, allowing members to grow and learn side by side.

Major Events

Induction Ceremony

Apart from its stall in the annual Society Fair, and conducting workshops during Froshweek, Literary Society held its induction ceremony, as is tradition. The event saw enthusiastic participation from first year, for whom the event is primarily organized in order to introduce them to various sub-societies of LitSoc and let them know the plan for the rest of the year. There was a short quiz, presentations by various societies, a spontaneous theatre event, among others.

Elixir 2014

Pitting four years – first, second, third and post-graduates – against each other, Elixir 2014 presented a high-point of the society's activities, with overwhelming participation in the opening ceremony and beyond. With many events packed across exhilarating four days, the pulse of the festival could be felt throughout the campus, with the cafeteria and the surrounding areas turning into battlegrounds of publicity. Events included plays, a Kavi-Sammelan, movie-making, debating, writing, and quizzing, to name a few – all topped off with a comic showcase play, *The Importance of Being Earnest* to bring the event to a close. The theme of Elixir was Harry Potter and the years were divided into four great wizards of the wizarding world. Elixir was eventually won by the third year.

Acumen 2014

Acumen 2014 proved the crowning glory of literary activities in the even semester as teams were grouped according to hostels, this time to the theme of comic superheroes. The four days of the festival saw enthusiastic participation from all four teams in as many as thirty events spread across four days, which included debates, plays, parody plays, quizzes and the like. One feature that set apart Acumen 2014 was the introduction of cosplays – which involve dressing up as comic book characters and performing – as a part of publicity for the very first time. It added colour and flair to the competition on a never before seen level, rendering the maiden cosplay a vibrant success. It was the combined might and enthusiasm that edged out the rest to take the trophy in what was hailed as the most closely contested literary festival in years.

Club Activities

Scrabble and Pictionary

Muse, LitSoc organized a Scrabble cum Spell Bee tournament in the month of August'14 for freshers and sophomore students. The first day of the event was a preliminary round which included rounds of Spell Bee with different difficulty levels, while the second day of the event was a sole scrabble game. Top four participants of each category on first day met again on the final day and played scrabble, and after an intense and engaging war with words, winners from each category were declared.

Debating Events: Freshman, Sophomore, and Challenger's Debate

DebSoc kept up its usual itinerary of training students in the art of debating, group discussions, and other speaking events as well as organizing the annual Freshman and Sophomore debates which saw enthusiastic participation. Their innovative idea of having a challenger's debate in the even semester, saw various debaters challenging the freshman debate winner from their year. A popular event, it garnered a lot of participants, and speakers able to prove their mettle left the tournament with pen-drives as rewards.

Open Mike

The first open mike was organized by Thapar Poetry Society in the odd semester and it was successful in garnering the attention of many performers and introverted artists who wanted their views to be heard. The event was a great success and was even attended by the Dean of Student Affairs, Dr. Maneek Kumar. Two more open mikes were organized in the even semester, one by Anubhooti and the other by the Poetry Society at Barista. The open mike organized in Barista was attended by over 70 people and this one of a kind event was a definite success.

TQC: Ex-Quiz-Eat in Kababchi

Thapar Quizzing Society continued its tradition of having an amalgamation of cuisine and quizzing at Kababchi in the odd semester. The winning team was provided with a free meal and six teams having four members each participated in it. In addition to it, TQC organized SPAM quiz and Biz quizzes in both the odd and the even semesters.

MatribhashaDiwas and RashtriyaShikshaDiwas

The RashtriyaShikshaDiwas was commemorated by the Anubhooti Society by organizing a Hindi presidential debate on various issues plaguing the education system today. MatribhashaDiwas was celebrated on 23th February as a tribute to the national language, Hindi. Attended by over 50 students and several faculty members, it included VaadVivad (a Hindi parliamentary debate), a KaviSammelan, and a Hindi literature quiz.

Workshops

Cineastes, the movie making society of Thapar University organized various workshops, both in the even as well as the odd semesters, to train interested students in the art of photography and film-making. In addition, Cineastes also organized a photography walk on 1st March 2015, which saw participants stroll about in Nirvana in the peaceful early morning hours, clicking pictures of nature at its pristine best.

Thapar Theatre Club showcased two plays in Elixir and Acumen, executing them to perfection after months of preparation. Taking place after the closing ceremonies of both major literary festivals, the showcase plays have always been a benchmark for theatrical arts in the college.

Apart from their flagship events and competitions, the various sub-societies convened multiple times in a semester – a sound literary exchange being the hallmark of every meeting, whether it be the book discussions in Muse meets, or intense intellectual exchanges between members of the Debating Society.

IV) MUSIC AND DRAMATIC SOCIETY

The most awaited cultural night, Mudra 2k14 was held on 14th October, 2014 in the open air theatre of Thapar University. The event was honoured by the benign presence of the director, Dr. Prakash Gopalan, The Dean Of Student Affairs, Dr. Maneek Kumar and the President of Mudra society, Dr. D.P. Singh.

The event started with the lighting of the lamp by these dignitaries and honouring them with mementos. The students enthralled the audience by their performances which were a perfect amalgamation of western and Indian cultures. The event consisted of classical dance, western dance, folk and classical music, band performances, fashion show, short plays conveying social messages as well as traditional Punjabi dances.



(BHANGRA), (FASHION SHOW), (DANCE N SINGING EVENTS)

The students worked hard from auditioning to practicing ,thus finally giving their best on stage and leaving everyone mesmerized. The discipline team took good care of the decorum that was to be maintained while the program was going on and made the event a success. Mudra society has been improving every year and this time they proved it by their excellence in performance, discipline and management . Mudra 2k14 has made a benchmark for the cultural events to come and has raised the status of Mudra society manifold.



A much awaited event under the Mudra Society calendar, Sur Nite was organised on 12th November 2014 to showcase the musical talent of the University. The event was organised under the guidance and presence of President of Mudra Society, Dr. D. P. Singh.

The Bi-annual musical night, SUR saw its 7th edition which involved a plethora of vocalists and instrumentalists taking the stage to perform songs transcending various genres and cultures. The songs ranged from the jurisdiction of folk and traditional like a soul-wrenching performance of qawwali to the very western music of International Artists.

The discipline team took good care of the decorum that was maintained throughout the event as the night was attended by over 600 people in the Auditorium and had over 22 performances with over 50 artists involved in it. By the end of it all, the audience reaction proved that the hard work, time and patience put in by the participants for the event made it a grand success.



V) FINE ARTS AND PHOTOGRAPHY SOCIETY

CARD MAKING AND CANDLE DECORATION: The competition on Card Making and Candle Decoration was organized by FAPS on 12th February in K lawns. Around 20 teams (2-3 students in each team) participated in both the competitions. Students from first year to final year from BE, ME and MCA showed their talents in art and craft. The theme of card making was Valentine Day. The competition started at 5:30 and students were given two hours to show their talent. Meanwhile refreshments was provided to all the students and organizing members. At the end Results were announced and prizes worth Rs.2000/-were given to the winners.

LANTERN MAKING COMPETITION: Lantern making competition was organized by FAPS for the students of Thapar University, on 28th Jan 2015 in K-lawns. The event was organized to give students a chance to showcase one's creativity and skills in lantern making.

About 45 students participated earnestly and enthusiastically in the competition. They came up with amazing artwork. Some beautiful and eye catching lanterns were made by the students. Materials which were required for making the lanterns were provided by our FAPS society. Registration was totally free of cost. Proper refreshments were also provided during the competition.

The judgment was done by Dr. Ravi Kiran, President, FAPS. The winners were awarded with Certificates and prizes worth Rs.1000. After the competition Lanterns were kept all around the K-Lawn and flying lanterns were given to all participants. Everyone together flew the lantern high up in the sky, ending the event in possibly the best way anyone can.





MASK MAKING COMPETITION: A mask making competition was organized on 28th Jan 2015 in K-Lawns for all the students of Thapar University. The event was organized to explore and encourage creativity in students and offer them a platform to show their skills in mask making.

About 40 students participated earnestly and enthusiastically in the competition. They came up with amazing artwork. A variety of face and eye masks were made by students which were appreciated by one and all.

Materials which were required for making the mask were provided by our FAPS society itself. Registration was totally free of cost. Refreshments were also provided during the competition. The final judgment was done by the President of FAPS society, Dr. Ravi Kiranmaam. The winners were given certificates and prizes worth Rs.1000.

PAPER BAG MAKING COMPETITION: Paper bag making competition was organized on 29th Jan 2015 in k-lawn for the students of Thapar University. The event was organized to explore creativity among the students. The competition brought about immense artistic creativity.

About 30 students in team of 2 or 3 participated with great enthusiasm. A variety of paper bags came up in a really creative manner and the creativity of the students was really appreciable.

Materials which were required for making the mask were provided by our FAPS society. Registration was totally free of cost. Proper refreshments were also provided during the competition.

The competition was judged by respected Dr. Ravi Kiran. The winners were given certificates and prizes worth Rs.500/-, as a token of appreciation. This fun filled event witnessed an enthusiastic participation of the students.



PAPER QULING WORKSHOP,FAPS: A workshop on Paper Quilling, Origami, and Kirigami was organised by FAPS on 9th and 10th February. It started with Paper Quilling which was taken by Hardika and Himanshu who explained the basic technique of paper quilling and took it to an advance level.

Around 35 students attended the workshop in which students from first year to final year were present from all courses BE, ME and MCA and showed the great talent in paper quilling by making many beautiful patterns using quilling. It was then preceded by Origami where different objects were made by different types of paper folding. Refreshment was given to all attendees and organizers.

Next day Kirigami, a Japanese art of origami was explained by Hardika by making beautiful patterns by paper cutting and paper folding.



Microsoft Student Chapter

Mr. Vinay Arora, Assistant Professor from Computer Science & Engineering Department

Inspirus2k is a technical fest conducted under the crown of Microsoft Student Chapter (MSC). **Mr. Vinay Arora**, Assistant Professor from Computer Science & Engineering Department is currently leading this society and having the post of the President. **Mr. Gursimranjit Singh**, student 2nd Yr CSE is the student coordinator and playing an active role. The concept of this kind of fest has been started from the year 2014, in which society conducts its technical events.

Now, in 2015 MSC has conducted **Inspirus2k15** and the details related to various events are as given below:

29th January

Compu-Quest: This event is a quiz based on latest technologies introduced in recent years. Questions in this quiz are related to the knowledge about the technology that dominates our modern lives. Approx. 200 students have registered for this event.

30th January

Brain Wizard: This event is based on the knowledge of mathematics and its application in the engineering. Approx. 180 students have registered for this event.

31st January & 1st February

Workshop on **WordPress** and **Moodle**: This is related to the web site designing. Wordpress and Moodle are the important components of any web package. This workshop will give insight related to the latest styles of web page designing. Approx. 120 students have registered for this event.

2nd February

Workshop on **Web Crawler** and **Search engines**: This is related to the working and internals of a search engine and the functionality of a web crawler. This is important for M.E. students as they can get an idea from this event for carrying their thesis work. Approx. 100 students have registered for this event.

3rd February

Workshop on e-Money: This workshop will provide the basic information related to online money making while grabbing online projects available on internet. Approx. 80 students have registered for this event.

4th February

Anti-coding (Coding Event): This event incorporates the assignments dealing with the concepts of object oriented approach and its application. Approx. 230 students have registered for this event.

5th February

Code Sense (Coding Event): This event incorporates the assignments dealing with the concepts of object oriented approach and various alternatives for writing an optimized code. Approx. 250 students have registered for this event.






ISTE STUDENT CHAPTER THAPAR UNIVERSITY

India Society for Technical Education (I.S.T.E.)- Student Chapter Thapar University successfully organized the Grand Challenges video contest in association with IUCEE, Indo-US Collaboration for Engineering Education in the mid October, 2014. In this the students were given a time of a week and they were expected to submit a 3 Minute Video on how to solve one of the below mentioned Grand Challenges, deadline for which was October 17, 2014.

1. Make solar energy economical.
2. Provide access to clean water.
3. Restore and improve urban infrastructure.

IUCEE (Indo US Collaboration for Engineering Education) was founded in 2007 by a group of engineering educators and industry leaders with the objective of improving the quality of engineering education in preparing students to address the challenges facing the world.

Top 3 winners across India of this contest were to be sponsored to the Global Student Forum and World Engineering Education Forum which was to be held in Dubai in December. We received many entries from the students. The best entry from our university came from the team of Angad Kapoor and Anmol Jawa, students of 2nd year electrical branch. They were awarded with a Micro-Controller Kit and a certificate of recognition by our society President- Dr. Rajesh Khanna.



ISTE Student Chapter Thapar University

Presents

GRAND CHALLENGES VIDEO CONTEST

Submit a 3 Min Video

How to solve one of the following challenges-

1. Make Solar Energy Economical
2. Provide access to clean water
3. Restore and improve urban infrastructure

DEADLINE: 16TH OCTOBER '14

Top 3 winners from India will be sponsored to the Global Student Forum and World Engineering Forum in Dubai in December '14

For Registration and submission Contact:-
 Rajat Sahore(8437910709)
 (Gen Secretary ISTE)

Designed By Pranav Navar



SPIRITUALITY FOR JOYFUL LIVING 17.4.2015

We started SSA year with a session named 'Spirituality for joyful living' for joyful living which was taken by Swami Pitambranandji Maharaj (Ex-secretary Rama Krishan Mission) which enlightened the Thapar family on this topic.



He gave the idea of Living a happy and joyful life by anger management, patience and enhancing yourself with knowledge. The event was attended by the students as well as the faculty on 9th April 2014 at 5 p.m., the duration of the event was about 2 hours.

THREE MONKS IN THAPAR

This was the skill enhancement workshop held on 27th April 2014 in Meditator's Enclave at 5:15 p.m. for students of Thapar University which was organized for the first time and was taken by Swami Anupamaanandji Maharaj, Swami Nirantaranandji Maharaj and Swami Brahmeshanandaji Maharaj. In this the topic of the session was relationship matters, going beyond the stress of underperformance, achieving what you want. The discussion jotted in the points that are going to be helpful for the betterment of their future.

KIRTAN SMAGAM

This event was held on 15th January 2015 on the eve of Prakash Purab of Shri Guru Gobind Singh Ji in collaboration with Youth Welfare Club in which all the students, faculty and the Thapar staff was invited. The event started at 4:15 p.m. with the welcome of Shri Guru Granth Sahib Ji followed by Path Shrisukhmani Sahib, Kirtan by Thapar students, Bhai Gurmeetsingh Ji, Bhai Pritpal Singh Ji, Bhai Randhir Singh Ji, Bhai Apardeep Singh Ji; Ardaas and Hukamnama and then the event was concluded by bidding Adieu to Shri Guru Granth Sahib Ji. At the end Langar was served to all the devotees.

SWAROOP

Swaroop was the sequence of seminars conducted for the Thapar students. The sessions were conducted in Activity Room 2, COS complex (Meditators' Enclave). This includes expert talk on Spirituality which helped students to explore their inner self & life that was given by Acharyamitra Paroksh Sujay, a well known counselor. In this session the topics covered were life, ego, anger, god and stability. The duration of these sessions was about 2 hours (from 5:30 p.m. to 7:30 p.m.). The seminars also covered the aspect of life which we miss in our daily routine i.e. meditation and various Yogic activities.

5TH NATIONAL ORGANIC FARMING CONVENTION

The **5th National Organic farming convention** was held at NITTTR, Sector-26, Chandigarh on 28th February and 1st and 2nd of March, 2015. The event was organized by NITTTR and several NGO's such as OFAI, ASHA and KVM. Haryana CM, Mr Manohar Lal inaugurated the convention and released a book on organic farming. A team of 14 students along with the faculty Dr. Mandeep Singh from Thapar University participated in the convention. The convention included multiple sessions that were aimed for the betterment in the area of farming and environment. Our team of 14 students under Dr. Mandeep Singh actively participated in the sessions.



UNNATI – An Education Initiative

It was an initiative taken for the development of education in the rural areas, this was done in collaboration with SEC, LMTSM. In this the volunteers and members of society visited the school and rural areas and helped them in various ways. setting the help desks, providing the better supportive material to study, stationery, books, and the electricity equipment for the rooms in schools. They also motivated the students for their future.

UHVE WORKSHOP

Universal Human Values and Ethics Workshop was held on 14th and 15th Feb. 2015 in Meditator's Enclave from 10 a.m. to 5 p.m. for day 1 and 10 a.m. to 3 p.m. for day 2. This was solely for faculty and PhD. Students. The idea of the workshop was to spread the message of the values that is right understanding and relationship to as much as students possible. That's why teachers were targeted as efforts by a single teacher can reach large number of students at one time. The seminar was taken by Mr. Kumar Sambhav, expert from Noida and Mr. Jitendra Narula, expert from Jalandhar. The session was ended with the determination that everyone will tell the learning's to as much as people one could.

5TH NATIONAL ORGANIC FARMING CONVENTION ,NITTTR, SECTOR 26, CHANDIGARH

The **5th National Organic farming convention** was held at NITTTR, Sector-26, Chandigarh on 28th February and 1st and 2nd of March, 2015. The event was organized by NITTTR and several NGO's such as OFAI, ASHA and KVM. Haryana CM, Mr Manohar Lal inaugurated the convention and released a book on **organic farming**. A team of 14 students along with the faculty Dr. Mandeep Singh from Thapar University participated in the convention.

The convention included multiple sessions that were aimed for the betterment in the area of farming and environment. Six different sessions were held at different venues simultaneously on 28th of February and 1st of March. Our team of 14 students under Dr. Mandeep Singh actively participated in the session-“GMO CROPS”. The students confronted their opposition to the genetic modification in our food. They also stood firmly against the GMO field trials stating them as a threat to safety of the food chain.

A conference on “MAINSTREAMING AGRO-ECOLOGY” was also organized by Society for Agro Ecology, India on 1st and 2nd March, 2015. The conference was mainly lead by group of scientists and professionals to elaborate the restoration of the agrarian landscape and a sustainably prosperous rural local economy. Various articles on crop system and physiology, ecological economics of agriculture, food system, S and T policy related to agriculture, soil biology in agro-ecosystems, ecosystem service provisions, organic/integrated farming system and nutrition, hunger and agro-ecosystems, socio-economic impacts were presented.



SPORTS ACHIEVEMENTS:

The list of achievements for the year 2014-15 is:

- Thapar University's basketball (men) team **Runners up in the 'RannNeeti 14' invitational** tournament, organized by IIT Mandi from September 19 to 21, 2014.
- The Chess (men) team got **first position**, in Inter-Engineering University tournament organized by NIT kurkshetra from September 14 to 15, 2014.
- The Badminton Women teams got **Third position** in Inter Engineering University tournament organized by NIT, Jalandhar from September 14 to 15, 2014.

- The Table-Tennis Men team won **Gold Medal for two consecutive years** in Inter-Engineering University tournament held at PEC University Chandigarh from October 10-11, 2014.
- Our Table Tennis Women's team won **Bronze Medal** in Inter-Engineering University tournament held at PEC University Chandigarh from October 10-11, 2014.
- Our Football (Men) team got **Bronze Medal** at the Inter Engineering University Football Tournament held at Thapar University Patiala.
- Our Basketball Women team won **Gold Medals for two consecutive years** in Inter-Engineering University Basketball tournament held at NIT, Jalandhar from February 13-14, 2015.
- Our Basketball Men team won **Silver Medals** in Inter-Engineering University Basketball tournament held at NIT, Jalandhar from February 13-14, 2015.

In addition to winning laurels at the Inter-Engineering and Invitational tournaments, our university teams also participated and performed admirably at the various All India Inter-University tournaments as well. Some of the participations are as under:

- Our Cricket Men team participated in the Inter University cricket Tournament held at University of Delhi from 27-31 Oct. 2014.
- Our Football Team participated in the Inter University Football Tournament held at Panjab University Chandigarh from 2-8 Dec. 2014.
- Our Lawn Tennis Men Team participated in the Inter University Tournament held at DCRUST Murthal from 24-29 Oct. 2014.
- Our Basketball Men team Participated in the Inter University Tournament held at PTU Jalandhar from 21-25 Dec. 2014.
- Our Table Tennis Men team participated in Inter University Tournament held at UTU Dehradun from 18-21 Dec. 2014.
- Our Shooting Men Team participated in All India Inter University Shooting Championship held at Punjabi University Patiala from 2-5 January 2015.

Basketball (M)	12	Inter Engg. Uni.	13-14 Feb 15	NIT Jalandhar	2nd Position
Basketball (W)	12	Inter Engg. Uni.	13-14 Feb 15	NIT Jalandhar	1st Position
Basketball (M)	10	Invitation Sangrm,15	20-22 March15	IIT Roorkee	3rd Position
Basketball (M)	10	Invitation Sangrm,15	20-22 March15	IIT Roorkee	
Table Tennis Boys	4	Invitation Sangrm,15	20-22 March15	IIT Roorkee	
Table Tennis Girls	4	Invitation Sangrm,15	20-22 March15	IIT Roorkee	2nd Position
Cricket	16	Inter Engg. Uni.	10-12 April 15	PEC Chandigarh	1st Position

Lawn Tennis Boys	05	Inter Engg. Uni.	24-25 April.15	Thapar Uni.Pta.	2nd Position
Lawn Tennis Girls	04	Inter Engg. Uni.	24-25 April.15	Thapar Uni.Pta.	1st Position
Athletics (M & W)	20	Inter Engg. Uni.	24-25 April.15	Thapar Uni.Pta.	Overall Winner
Celeste Goel (W)	01	Inter Engg. Uni.	24-25 April.15	Thapar Uni.Pta.	Best Athlete

MISCELLANEOUS ACTIVITIES:

WORKSHOPS ON PRESENTATION AND INTERVIEW SKILLS

Thapar University has engaged Mr. Smarth Bali for conducting the workshops on presentation and interview skills for the University students. Smarth will conduct these workshops to bridge the gap between university and corporate. He is a global communications specialist as well as a corporate coach and trainer. He has worked in India, USA and Canada, and across several industries.

He has initiated two programs that will cover a gamut of essential soft skills for students:

1. Presentation Skills (Two days) to be organized over the weekend
2. Interview Skills (Two days) to be organized over the weekend

The above two programs will in general cover the following fundamental salient components:

- Communication in verbal and nonverbal skills
- Public speaking
- Grooming
- Listening
- Persuasion

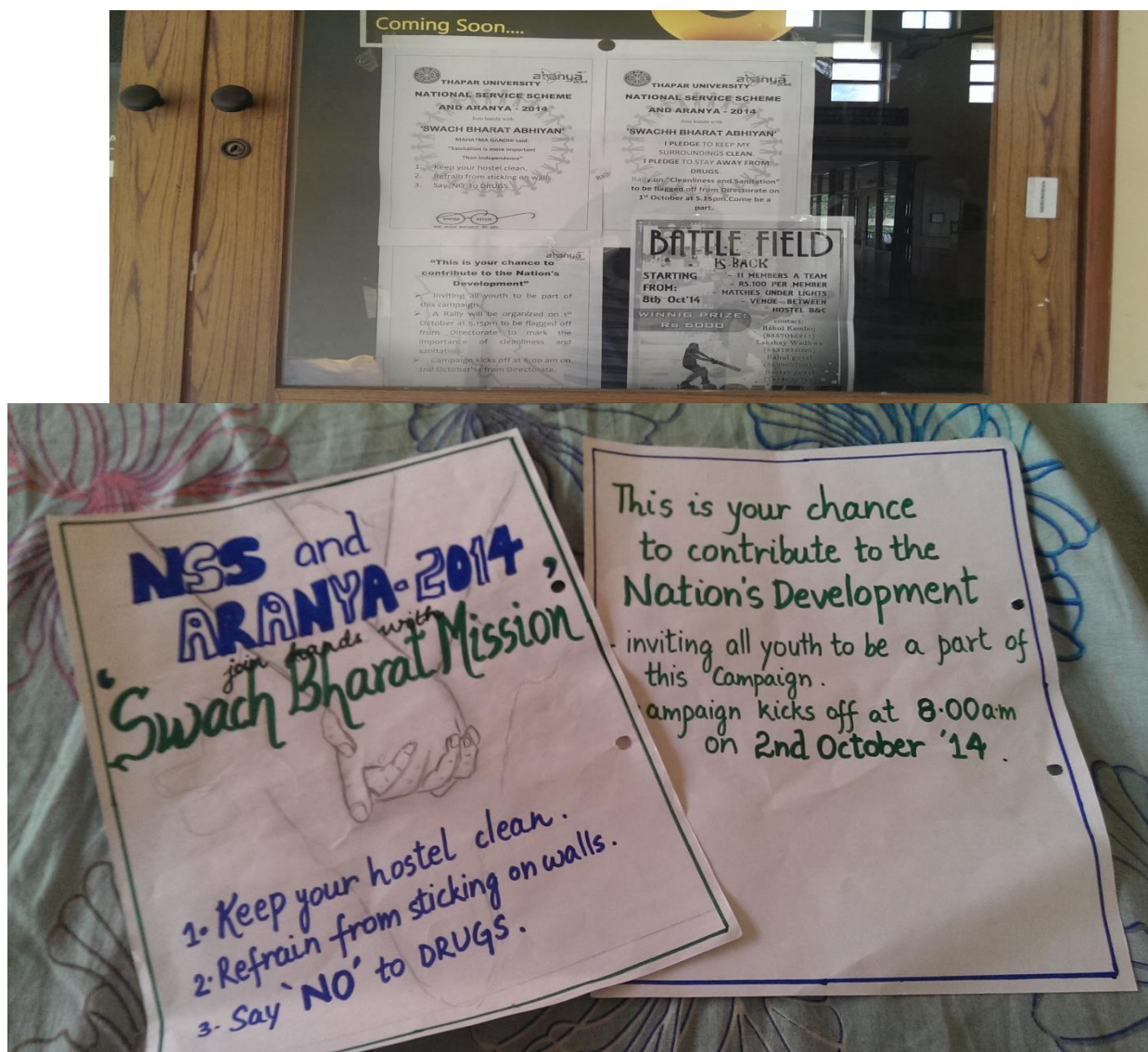
For the academic session 2014-15, this workshop has been made open to all the pre-final year students of BE/B. Tech and M.C.A students.



SWACHH BHARAT ABHIYAN



29th-30th September 2014: NSS team member's alongwith Aranya team members started to work upon the publicity of the events planned for the campaign "SWACHH BHARAT ABHIYAN". Banner regarding the same was designed and was given to the printing shop for printing. Handmade posters as well as printed posters were put on, on all the notice boards in the academic area, hostels as well as in the campus shopping complex. Apart from this mouth to mouth publicity and publicity on various social networks such as Facebook and Whats app was done.



Our Honorable Prime Minister Narendra Modi started the biggest cleanliness drive "SWACHH BHARAT ABHIYAN". The ideology behind this is that by 2019, on Gandhi's 150th birth anniversary, every city, town and village is to be 'clean', that is, they will have pucca toilets for all, safe drinking water, waste disposal systems and clean roads & lanes.

Following the pathway led by our Prime Minister, NSS, Thapar University in collaboration with Aranya tech fest team took the initiative to launch the "SWACHH BHARAT ABHIYAN" in Thapar technology campus. The abhiyan kicks off on 1st October 2014 with motivating speech by our Honorable Director Prakash Gopalan and Dr. Maneek Kumar (Dean Of Student Affairs), followed by 'The Pledge' to keep the surroundings clean and to stay away from drugs was taken. Then after the awareness rally was launched starting from the directorate to Nirvana Park. There was active participation of different faculty members, NSS members of different units, Aranya Team members and other students. After the rally, a token of gift by our respected director was given to the organizing members.

On the next day that is on 2nd October 2014, on auspicious birthday of Mahatama Gandhi, the cleanliness drive was launched at Nirvana Park road. The faculty members including Head of departments, students, security guards and workers gathered there for the launch of

"SWACHH BHARAT ABHIYAN". Our respected Director, wield the broom across the road and started the drive followed by dean of student affairs and HOD of Electrical & Instrumentation Engineering Department Dr. Ravinder Aggrawal and all faculty members, students and workers. Plastic wastes and other disposable items were collected from the roads. Sweeping of the road was done and then after the cutting of the grasses with the help of saw and machine was carried out. Each and every Hostel cleaning campaign was led by the respected Hostel faculty in-charge and Manager. Students cleaned their room and sweeping and washing of Hostel corridors was done. The campaign ends with a thanking speech by the NSS Programme Coordinator Mr. Parag Nijhawan addressing the Director, DOSA and HODs; and congratulating the students for the success of the campaign.

LMTSoM Student Activities round the year (2014-15)

Programs of Centre for Strategy, Sustainability and Society (CSSS)

The L.M. Thapar School of Management, Derabassi Campus (Thapar University) has instituted various in-house center of excellence, namely Centre for Strategy, Sustainability and Society (CSSS) in association with Environment and Sustainability Club (ESC) to support the underprivileged sections of the society and community.

The LMTSM Derabassi Campus also assists the above centers and clubs to participate in community engagement activities by conducting workshops on different themes listed as follows:

- Bicycle Rally under Clean and Green Derabassi Campaign - '*Education Awareness Program*' and '*Door-to-Door Awareness Camp*' have been organized in Rural Areas (Behra and Fathepur Village, Near LMTSM Derabassi Campus) - jointly organized by ESC and CSSS on **January 26, 2015**. (Past event) The objective of this campaign was to spread awareness among common people in the rural areas adjoining LM TSM Campus in Dera-Bassi through special activity - 'Bi-cycle Rally'. The student volunteers of the Environment & Sustainability Club of SSS along with faculty and staff volunteers from LM TSM organized a community engagement activity to take the 'Green Dera-Bassi' message forward. The students engaged in a discussion with the rural citizens on the ways & means through which every individual can contribute towards this mission.
- Workshop on '*Clean India - Green Industry*' at LMTSM Derabassi Campus - jointly organized by CSSS and ESC on **February 05, 2015**. (Past event)
- Celebrating '*Earth Day*' at LMTSM Derabassi Campus- jointly organizing by ESC and CSSS on **April 22, 2015**. (Forthcoming event)
- Celebrating '*World Environment Day*' at LMTSM Derabassi Campus - jointly organizing by ESC and CSSS on **June 05, 2015**. (Forthcoming event)

LMTSM business fest : A platform to test and hone management skills

- ***'Nimaya 2K15', the three-day business fest that began on April 3, included a gamut of activities ranging from inter-college competitions on business management and cultural programmes to a Higher Education Summit and a Social Entrepreneurship Forum***
- ***Luminaries from various leading North Indian universities participate in Higher Education Summit***

- ***The first business fest of its kind to be organised in northern region, Nimaya will witness exciting contests between teams from various colleges, including IIT Delhi, IIT Bombay, University of Petroleum and Energy Studies, Dehra Dun, PEC and PU***
- ***Social Entrepreneurship Forum provides budding social entrepreneurs, students a chance to learn the art of running social enterprises from established social entrepreneurs, NGOs***

Serving as an ideal platform to test and hone the skills of management students, the LM Thapar School of Management (LMTSM), the business school of Thapar University, Patiala, organised an exclusive three-day business fest “Nimaya 2K15” that began on April 3, 2015. The fest included a gamut of activities ranging from various inter-college competitions on business management and cultural programmes to a Higher Education Summit and a Social Entrepreneurship Forum.

The first business fest of its kind to be organised in the northern region, Nimaya, as its name suggests, would enable students to “explore the “unknown” in the process of preparing themselves for their future roles in an uncertain business world.

The highlight of the opening day, where Patiala MP Dharamvir Gandhi was also present, was a Higher Education Summit in which luminaries from various leading universities across North India participated. Prominent among them were Prof Yoginder S. Verma, Vice-Chancellor, Central University of Himachal Pradesh, Dr Paramjit S. Jaswal, Vice-Chancellor, Rajiv Gandhi National University of Law, Patiala, Dr KL Johar, former Vice-Chancellor, Guru Jambheshwar University, Hisar, Haryana, Prof Bhupinder Brar of Panjab University’s Political Science Department, Prof Rajesh Gill of Panjab University’s Sociology Department, Dr Arun Sharma, an IAS officer from Himachal Pradesh, Prof Tandon, former chairman, University Business School, Panjab University, and former PEC Director Dr GD Bansal.

The three-hour marathon Summit, which addressed various issues and challenges concerning higher education and its linkages with industry, was followed by a Nukkad Natak (Street Play), cultural programmes and a movie night to add to the entertainment quotient of students.

“This business fest showcases the ideals of the ‘New India’ our business school stands for—ethical decision making, inclusive human resources management, sustainable strategy development and social and commercial entrepreneurship. We intend to take this forward by creating an ideal interface between the society, industry and academia,” said LMTSM Director Dr Padmakumar Nair.

The second day of the fest witnessed various inter-college competitions and a Social Entrepreneurship Forum where established social entrepreneurs like Arunachalam Murgurutham and B. Subramaniam taught the art of running social enterprises to budding social entrepreneurs and students through innovative ways and share their experiences.

The events with a real flavour of the industry included Paragon People (Human Resource), Sosa Wars (Operations), Striders (Information Systems), Moves of the Goldman (Finance), Markeeto (Marketing), Design Innovation Challenge (Biomimicry), Twist-O-CSR and many more. These events will witness exciting contests between teams from various colleges of the region and other parts of the country, including IIT Delhi, IIT Bombay, University of Petroleum and Energy Studies, Dehra Dun, Punjab Engineering College (PEC), University Business School (UBS), Panjab University, University Institute of Applied Management Studies (UIAMS), Panjab University, LMTSM and Thapar University.

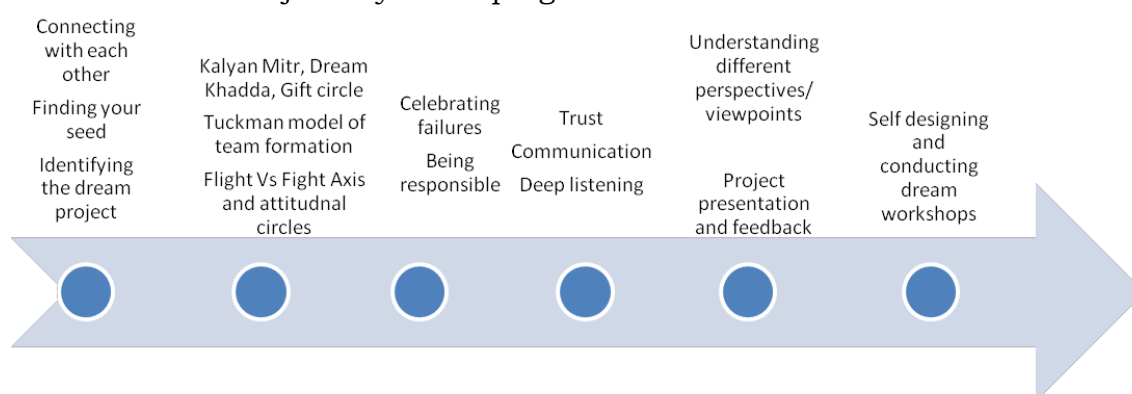
You Lead Workshop by Anubhavshala: In House Personal Leadership Program for Students

You Lead is a platform where we make an effort of peeping into our own self, getting comfortable with the discovered self and taking responsibility for our actions and its consequences. It's a program which triggered varied questions so as to get clarity of who we are and what we really want. We believe that if one is at peace with one's self, he/she will take complete ownership of his/her actions (walk the talk) and will in turn be in harmony with the surrounding thereby resolving all the above mentioned challenges.

Program Objectives:

- To facilitate adolescents / adults in finding opportunities out of problems and enabling them to become responsible for the choices they make
- To assist students/teachers in gaining trust by facilitating the aspect of initiating the action (Being the change)
- Co creating a safe environment where there is complete freedom to express without being judged

Program Flow: The whole journey of the program is shown below:



The schedule of three day workshop (March 20-22, 2015) was as follows:

Day 1: Theme: Connecting, breaking the ice, knowing each other, listening to different perspectives Activities like community cooking, community music, community walks, night sky watching

Day 2: First half: Gift Circle, sharing the gift, students designing and leading workshops/games for parents and teachers Second half:

Identifying the challenges, Dialogues on various issues pertinent to the community, shramdaan

Day 3: Community giving (spreading the culture of giving, sharing our gifts) - shramdaan, Closure, Key takeaways, Plans going forward

CIIE and Thapar School of Management: hosts 'Network Expansion Workshop' at Dera Bassi

Social Entrepreneurship is one of the few possible aspects that is being pondered over to bridge the gap between the various strata of society that is being plagued by severe developmental issues and increasing social and regional inequalities. The 'Network

Expansion Workshop' hosted by L M Thapar School of Management was part of the pioneering series of workshops being conducted by CIIE in collaboration with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). This workshop was an attempt to provide a platform to the support organizations and social enterprises to meet and explore synergies.

The two day workshop opened February 21, 2015 with the support organisations like NGOs, Foundations, Business Incubators, Industrial Body, Academic Institutions and other big enterprises exploring the need of social enterprises and their role and importance in developing the social enterprises from the idea phase to scaling phase. While the social enterprises tried to build their capacities through the session on 'Service Blueprinting', the support organizations looked into different social entrepreneurs already running their enterprises.

The first day concluded with a session where the support organizations tried to design an ecosystem around the attending social enterprises in different sectors. It also helped the support organizations discover and offer the support it can provide to various social enterprises and its needs. The second day focused on networking through structured and unstructured meetings.

This maiden initiative in this region has laid a strong foundation for strengthening of ecosystem for social enterprises of this region.

Ankurit-2015: A SEED MONEY COMPETITION

"Ankurit-2015", a SEED MONEY COMPETITION, was organised by Venture Lab, Thapar University to foster entrepreneurship and help early stage start-ups to kick-start their business venture at LM Thapar School of Management, Derabassi Campus, Near Chandigarh on February 28, 2015

Through this event, we supported passionate individuals who have a credible business idea and a clear intent to set up an enterprise. Total Seed money worth Rs.5 lakhs was provided to successful candidates who are at preliminary stage of venture creation for sustaining them during the conceptualization phase. Along with that, office like space was offered to these start-ups at Venture Lab-Thapar, the newly established state-of-the-art incubation centre of Thapar University.

Details & updates regarding the event, are as follows:

Process:

Step I:	Participant(s) will submit Executive Summary of Business Idea along with their credentials. (Template attached with this mail)	February 12, 2015
Step II	The shortlisted 30 teams will be provided half day competency building workshop in collaboration with the Center for Innovation Incubation & Entrepreneurship (CIIE), IIM - Ahmedabad	February 18, 2015
Step III	15 Finalists would be called to present detailed Business Plan to the panel of Judges for the grant of Seed Money.	February 28, 2015

The Event was judged by a panel of experts including: angel investors, successful entrepreneurs and a commendable chartered accountant.

Participation: We received entries from institutes like: Narseemonjee Institute of Management Studies(NMIMS), Mumbai; IIT (Delhi), BITS Pilani; NIIT University, Thapar University and corporate early age start-ups. The start-ups are from various fields like

education, travel, legal, health etc. and have immense potential to make it a huge success. Venture Lab-Thapar is helping early stage start-ups and entrepreneurial minds to shape their journeys fruitfully.

Results:

Startup	Description	Institution	Position	Seed Grant Given
edulyft's	edu lift aims to clear the clutter of chaotic test preparation routines	BITS Pilani	1	Rs.1,50,000
bananamedia	Banana Media shows how can notebooks be used as a marketing tool?	IIT (Delhi)	2	Rs.1,00,000
Srjna	Experiential learning to enable students to learn and understand the concepts rather than mugging them up	IIT (Delhi)	3	Rs.1,00,000
Bhooka.in	Help people discover the new varieties of street food. Table reservation and food pre-ordering is a feature that no website is having till date, which saves a lot of time.	Thapar University	4	Rs.50,000
Acha tutor	Helps find the right kind of tutors for your needs with acha tutor at your rescue.		5	Rs.50,000
eWools	Portal for marketing hosiery and woolen garments from Ludhiana		6	Rs.50,000

Establishment of Venture Lab - Thapar

Thapar University in collaboration with the Venture Lab International of the University of Twente, the Netherlands has conceptualised Venture Lab-Thapar, with a focus on developing holistic entrepreneurial ecosystem that will work towards bringing back the entrepreneurial spirit of Punjab and the surrounding areas by providing technological, financial, infrastructural and strategic support to budding social and commercial entrepreneurs from within and outside Thapar University.

Areas of focus for the Venture Lab include: Social Enterprise, Technology led enterprises, Product Co-Creation Concept with community and Agri-value chain Enterprise. Venture Lab has begun operations only recently and wishes to develop an incubation model that helps it achieve its multi-pronged vision.

Start-up Weekend at LMTSM to give head start to wannabe entrepreneurs

Highlights:

- LM Thapar School of Management hosted a start-up workshop being conducted by Startup Weekend, a global grassroots movement of active and empowered entrepreneurs, from March 21 to 23
- The three-day marathon 'Startup Weekend Chandigarh' workshop will provide an opportunity to the participants to connect with over 1.5 lakh entrepreneurs who have

launched over 8,000 start-ups around the world through Startup Weekend, an initiative of a US-based NGO

Being conducted for the first time in the region north of Delhi, the Startup Weekend is a university event focused on promoting entrepreneurship among students of various universities of Punjab; working professionals, freelancers also taking part. Providing an incredible launch pad to aspiring entrepreneurs, the LM Thapar School of Management (LMTSM), the business school of Thapar University, Patiala, facilitated a start-up workshop that was conducted by Startup Weekend, a global grassroots movement of active and empowered entrepreneurs.

It focused on promoting entrepreneurship among students of various universities of Punjab. While 60% of the participants are students, the remaining comprise working professionals, freelancers and other aspiring entrepreneurs.

Startup Weekend, an initiative of UP Global, a non-profit organisation headquartered in Seattle, Washington. This largest community of passionate entrepreneurs with over 1,100 past events in more than 550 cities across 125 countries is on a mission to inspire, mentor and empower individuals, teams and communities to launch successful ventures.

The workshop enabled would-be entrepreneurs to learn what it means to launch ventures through rigorous grooming, mentoring and coaching by successful entrepreneurs. The participants pitched their start-up ideas and received feedback from their peers. Teams were formed around the top ideas, as determined by popular vote, which was followed by an extensive exercise of business model creation, coding, designing and market validation. The workshop culminated with presentations in front of local entrepreneurs, providing another opportunity for critical feedback.

The speakers and mentors at the workshop include **professionals from the Punjab government, leaders of start-ups like Zomato, EcoCabs and YuvaShaala, and companies which** have raised angel funding and gone on to form accelerators, like The Morpheus, 500 Startups, Y Combinator and Microsoft Accelerator.

LM TSM associated with this prestigious start-up workshop as facilitators because the concept gels with our mission of cultivating a spirit of social and commercial entrepreneurship among our students so as to turn job seekers into job creators.

Baseline survey of four villages to identify health needs: in order to develop appropriate interventions

Baseline survey of four villages was done with the help of LM TSM students in the month of Feb.15, 2015 Based on the findings, the activities in the communities similar to work done by Avantha Foundation at other AF sites will be planned by April 2015 and we will be ready to launch it in May 2015.

Avantha Foundation provided technical as well as monitoring support to team. LM TSM students are involved on voluntary basis. Orientation and training of the students on baseline was conducted on 7th -8th Feb.15 and the baseline survey started from 9th Feb 2015.

10 students (half male and half female) with attitude to social works conducted the survey in the four opted villages. These students were trained by Dr. Lalita Mahajan, Expert on health initiative from Avantha Foundation.

Adoption of Village Behra:

Vehra village in the vicinity has been adopted by LM TSM for various social development initiatives. Monetary help is provided to every family of the village for supporting them when a marriage ceremony is solemnised. Students of LMTSM go to teach in the government school to teach.

Regular engagement is in place with villagers by training them for health, agriculture and other issues of concerns to the population of the village.

A Special Camp of NSS Unit 12

NSS Unit 12, consisting of students of LM Thapar School of Management, has been organizing a special camp and some one-day activities each year. In the academic year 2014-15, the camp was organized at village Behra which houses the LM Thapar School Of Management in the Derabassi campus of Thapar University between September 8-14, 2014. More than 50 volunteers of the unit participated in the special camp. The enthusiastic volunteers planted 121 fruit trees, including 32 mango, 6 billpatra, 31 guava, 22 amla and 20 jamun and 10 Beri trees, in the two-day plantation drive. They donated winter caps, clothes, woolens and footwear to around 50 gardeners, safai karamcharis and mess staff. They also served them with tea, cakes and biscuits. They visited a labour colony and residents of the Behra village. They met 30-40 laborers and 35-40 residents and distributed winter caps, clothes and eatables to them. They also visited the Government Elementary School in Behra village. They distributed umbrellas, mugs, plates, eatables, winter caps, notebooks and stationary to the little children in classes II to V and made them aware about cleanliness, hygiene and other good habits.

In another activity, children's day was celebrated in the Government Elementary School in Behra village by distributing sweets, snacks, stationary items to children of classes 3, 4 and 5. Message of Swachh Bharat was reinforced.

A blood donation camp was also organized on March 26, 2015 at LM Thapar School of Management – with collaboration of P.G.I.M.E.R under the supervision of Dr. Anita, The Head of Department, Department of Transfusion Medicine, P.G.I. Chandigarh. 66 persons, 36 students, 3 faculty members and others from non-teaching staff, donated their blood for the cause.

6.0 FINANCE AND FUND SUPPORT

THAPAR UNIVERSITY, PATIALA				
BALANCE SHEET AS AT 31ST MARCH, 2015				
SN	PARTICULARS	SCH. NO	AS AT 31.03.2015 ₹ (‘000)	AS AT 31.03.2014 ₹ (‘000)
A	SOURCE OF FUNDS:			
1	Capital Fund	1	3,050,438	2,773,975
2	Specific Donation	2	154,538	154,696
3	Grants Account	3	71,162	71,065
4	Projects & Fellowships	4	4,508	46,395
5	Industry Partners Fund		7,050	7,050
6	Security and Earnest Money	5	111,681	112,979
7	Current Liabilities	6	429,942	343,475
8	Provisions	7	363,085	336,426
	Total		4,192,404	3,846,061
B	APPLICATION OF FUNDS			
1	Fixed Assets	8	3,575,252	3,175,421
	Less: Accumulated Depreciation		1,281,439	1,016,723
			2,293,813	2,158,698
2	Work-in-Progress	9	-	51,034
3	Current Assets	10	1,844,097	1,417,299
4	Loans & Advances	11	20,383	183,547
5	Security Deposits	12	1,049	886
6	Grants recoverable	13	32,780	32,779
7	Scholarship receivable (SCs post matric)		282	1,818
	Total		4,192,404	3,846,061
			0	(0)
<p>Subject to our report of even date For S C Vasudeva & Co. Chartered Accountants Firm Reg. No. 000235N</p> <p><i>Sanjiv Mohan</i> Sanjiv Mohan (Partner) M. No:086066</p> <p><i>Finance Officer</i> Finance Officer Thapar University PATIALA-147004</p> <p><i>Registrar</i> Registrar Thapar University Patiala-147</p> <p><i>Chairman, BOG</i> Chairman, BOG</p>				

THAPAR UNIVERSITY, PATIALA

INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED AS AT 31ST MARCH, 2015

SN	PARTICULARS	SCH. NO	AS AT 31.03.2015 ₹ (('000))	AS AT 31.03.2014 ₹ (('000))
A	INCOME			
1	Tuition Fee	14	535,945	345,561
2	Other Academic Fee	15	95,251	79,463
3	Hostel Income	16	168,700	177,796
4	Interest Income	17	137,462	123,881
5	Income from facilities	18	66	2,329
6	Income from Enterprise activities		5,137	6,894
7	Miscellaneous income	19	47,950	41,188
	Excess of expenditure over income		191,535	265,022
	Total		1,182,046	1,042,133
B	EXPENDITURE			
1	Establishment Expenses	20	553,509	468,936
2	Scholarship Expenses		48,713	33,874
3	Contribution to Projects/Core		5,813	30,236
4	Student activities & Welfare expenses	21	5,303	4,713
5	Facility expenses	22	1,681	1,458
6	Other Operating Expenses	23	269,469	226,734
7	Accrued Interest written off		-	2,720
8	Depreciation	8	264,716	209,803
9	Provisions for Gratuity		1,265	39,863
10	Provisions for Leave Encashment		31,576	23,796
	Total		1,182,046	1,042,133

Subject to our report of even date
For S C Vasudeva & Co.
Chartered Accountants
Firm Reg. No. 000235N


Sanjiv Mohan
(Partner)
M. No:086066




Finance Officer
Thapar University
PATIALA-147004


Registrar
Thapar University
PATIALA-147004

Chairman, BOG

DEPARTMENTS

DEPARTMENT OF BIO-TECHNOLOGY

CHEMICAL ENGINEERING DEPARTMENT

CIVIL ENGINEERING DEPARTMENT

COMPUTER SCIENCE & ENGINEERING DEPARTMENT

ELECTRICAL & INSTRUMENTATION ENGINEERING DEPARTMENT

ELECTRONICS & COMMUNICATION ENGINEERING DEPARTMENT

MECHANICAL ENGINEERING DEPARTMENT

DEPARTMENT OF BIO-TECHNOLOGY

Section 1

1. Academic Programs

Department of Biotechnology at Thapar University is running M.Sc. Biotechnology since 1999, B.Tech. Biotechnology since 2003 and M. Tech Biotechnology since 2012. B.Tech Biochemical engineering was initiated from 2014 with the support from Department of Chemical Engineering. From 2015 M.Sc Biochemistry initiated by School of Chemistry and Biochemistry is jointly supported by Department of Biotechnology.

2. Thrust areas of research

The focus research area are applied microbiology and biotechnology, Plant biotechnology, transgenics and plant tissue culture, bioremediation, microbial concrete, pollution abatement and natural products / bioactive molecules from microbial and plant sources, cancer biology, immunoinformatics, food microbiology and food safety. Technologies on fly ash utilization in forestry plantation, biofertiliser production, neem insecticide production, biowaste recycling through vermicomposting and microbial decomposition, bioherbicides, clonal propagation of Jatropha, Poplar, Eucalyptus, and micropropagation of Potato and some medicinal plants, removal of heavy metals from waste water using biowaste from fermentation industry has been demonstrated and transferred to industries.

3. Brief description of ongoing research activities

Ongoing research is focused on finding immunogenic peptides as candidate for vaccine design against virus and cancer exploring immunomodulatory and anticancer compound and bioactive molecules from biodiversity (microbes, plants and plant-microbe interactions) for the development of therapeutic interventions. Another focus is on the identification of novel cancer biomarkers for understanding susceptibility in lung and breast cancers. Another focus is on selection of elite clones of *Bacopa monnieri* and development of biotechnological tools for the production of bacosides and development of blight resistance cultivars of Indian potatoes. Green synthesis of nanoparticles for application in agriculture and as antimicrobial agents, sourcing metal tolerant genes from ectomycorrhizal fungi using metatranscriptomic approaches, biocement and microbial concrete, development of green polymers for water borne pathogen detection and treatment are other areas of interdisciplinary research.

4. New Plans and Projects

New plans are working with Tel Aviv University, Israel in the area of modern agriculture and food security and find more opportunities for ongoing PhD students and post-doctoral fellows. Collaborative research project with NIPER has been recommended by the task force of DBT under the call for proposals on Fungal networking for medicinal agents.

5. Major acquisitions during the year and new laboratory development

One laboratory space with new space for head of department in BC link block was acquired in addition to rooms for faculty.

6. Departmental Achievements

- Papers published in SCI Journals: 29
- Papers published in Non SCI Journals: 9
- Papers published in conferences: 7
- Sponsored Research Projects New : Number of Projects and Amount : 2 ; 139.97 Lacs
- Sponsored Research Projects Ongoing : Number of Projects and Amount : 10; 138.82 Lacs
- Consultancy Projects : Number of Projects and Amount (in Rs Lac): Nil
- Patent : Filed/Granted: Nil
- Seminar/Conference/Workshop organized: 1
- Short Term courses organized: 1
- Doctoral Degree Awarded: 18
- Lectures by visiting experts: 04
- Visits abroad by faculty members: 1
- Awards and Honors: Nil

7. Activities round the year (2014-15)

1. Fresher's welcome and Farewell to the outgoing students was organized on July 31, 2014 and May 01, 2015 respectively.
2. Operon tech fest was organized
3. Cricket match was also organized
4. Industrial visit to IHBT, Palampur and Verka Milk Plant, Patiala was organized
5. Workshop on Art of Science Communication was organized on March 25, 2015

Section 2:**1. List of faculty****Professor**

S.No	Name	Qualification & Specialization
1.	Dinesh Goyal	M.Sc, Ph.D Microbiology, bioremediation, algology
2.	M.S. Reddy	M.Sc, Ph.D Plant-microbe interactions/ Molecular Biology
3.	Niranjan Das	M.Sc, Ph.D Plant Molecular Biology
4.	Sanjai Saxena	M.Sc, Ph.D Plant-microbe interaction, natural products, drug discovery
5.	Moushumi Ghosh	M.Sc, Ph.D Environmental Biotechnology

Associate Professor

S.No	Name	Qualification & Specialization
1	Dr Manju Anand	M.Sc, Ph.D Plant Tissue Culture
2	Dr Anil Kumar	M.Sc, Ph.D Plant Biotechnology, Plant Genetic Manipulations

Assistant Professor

S.No	Name	Qualification & Specialization
1.	Vikas Handa	M.Sc, Ph.D Genetic and Epigenetic Gene Regulation
2.	M.Vasundhara	M.Pharm, Pharmaceutical Technology
3.	Manoj Baranwal	M.Sc, Ph.D Immunology
4.	Siddharth Sharma	M.Sc, Ph.D Cancer Biology
5.	Shekhar Agnihotri	M.Tech, Ph.D Bioprocess Technology, nanotechnology
6.	Jyoti Rani	M.Sc, Ph.d Food Science & Technology

2. List of research publications in SCI/Impact Factor journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
1	Efficacy of in vitro and native Tylophora indica leaf extract against hyperglycemic mice induced with alloxan through	International Journal of Chemical and Pharmaceutical Analysis , 2015, 2 (2): 88-92	Aruna Bhatia, Manju Anand, Rupali Singla	3.362

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	oral administration.			
2	Genetic transformation of endo-1,4-b-glucanase (Korrigan) for cellulose enhancement in Eucalyptus tereticornis.	Plant Cell Tissue & Organ Culture DOI 10.1007/s11240-015-0774-7 (2015)	Aggarwal D, Kumar A, Reddy MS	2.125
3	(2014). Influence of Agrobacterium rhizogenes strains on hairy root induction and 'bacoside A' production from Bacopa monnieri (L.) Wettst. Acta Physiologiae	Plantarum 36:2793–2801 (2014)	Bansal M, Kumar A, Reddy MS	
4	Enhancement of taxol production from endophytic fungus Fusarium redolens.	Biotechnology and Bioprocess Engineering 64:1413 – 1422 (2014)	Garyali S, Kumar A, Reddy MS	1.278
5	Characterization and upregulation of bifunctional Phosphoglucosyltransferase/Phosphomannomutase enzyme in an exobiopolymer overproducing strain of Acinetobacter haemolyticus	Microbiological Research Vol:181 Pg :8-14	Kaur, T., Ghosh, M.	1.939
6	MG606 produces a novel, phosphate binding exobiopolymer	Carbohydrate polymers, Vol 132 72-79	Kaur, T., Ghosh, M.	3.916
7	Antimicrobial efficacy and in vivo toxicity studies of a quaternized biopolymeric flocculant	Journal of Water and Health Vol(4):656-62.th,	Khaira, G.K., Ganguli, A. and Ghosh M.	1.172
8	Rapid inactivation of Salmonella by a quaternized biopolymeric flocculant	Water Science & Technology: Water Supply 14,1:31–37	Khaira, G.K., Ganguli, A. and Ghosh M	1.212
9	Characterization and Optimization of an Anti-Aeromonas Bacteriocin Produced by Lactococcus	Journal of Food Processing and Preservation 38 (3), 935-	Kumar M., Jain AK, Ghosh M.,	0.938

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	lactis Isolated from Hukuti Maas, an Indigenous Fermented Fish Product	947	Ganguli A.	
10	Application of biopolymer produced from metabolic engineered <i>Acinetobacter</i> sp. for the development of phosphate optoelectronic sensor	Composite Interfaces. 21, 143-151	Kaur, T., Sharma, J., Ganguli, A. and Ghosh, M.	0.701
11	<i>Muscodor strobilii</i> , a new endophytic species from South India	Mycotaxon, 128(1), 93-104, 2014	Vineet Meshram, Sanjai Saxena, Neha Kapoor	0.64
12	<i>Muscodor darjeelingensis</i> , a new endophytic fungus of <i>Cinnamomum camphora</i> collected from north eastern Himalayas	Sydowia, 66(1), 55-67, 2014	Vineet Meshram, Sanjai Saxena, Neha Kapoor	1.021
13	Potential Xanthine Oxidase inhibitory activity of endophytic <i>Lasioidiplodia pseudotheobromae</i>	Appl Biochem Biotechnol, 173(6), 1360-1374, 2014	Neha Kapoor, Sanjai Saxena	1.74
14	Diversity and lipase inhibitory activity of endophytic fungal species associated with <i>Aegle marmelos</i> : A bioresource for potential pancreatic lipase inhibitor	Symbiosis, 64 (3), 149-157, 2015	Mahiti Gupta, Sanjai Saxena, Dinesh Goyal	1.438
15	<i>Muscodor tigerii</i> sp. nov. Volatile antibiotic producing endophytic fungus from North-eastern Himalayas.	Ann Microbiol., 65, 47-57, 2015	Sanjai Saxena, Vineet Meshram, Neha Kapoor	0.990
16	Potential pancreatic lipase inhibitory activity of an endophytic <i>Penicillium</i> species	J Enzyme Inhib Med Chem, 30(1), 15-21, 2015	Mahiti Gupta, Sanjai Saxena, Dinesh Goyal	2.332
17	Influence of Exopolymeric Materials on	Appl Biochem Biotechnol 175:3531-3541, 2015	Bains A, Dhami NK,	

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	Bacterially Induced Mineralization of Carbonates		Mukherjee A, Reddy MS	1.687
18	Genetic transformation of endo-1,4- β -glucanase (Korrigan) for cellulose enhancement in <i>Eucalyptus tereticornis</i>	Plant Cell Tiss Organ Cult 122: 363-371, 2015	Aggarwal D, Kumar A, Reddy MS	2.125
19	Effects of Phosphate-Solubilizing Bacteria, Rock Phosphate and Chemical Fertilizers on Maize-Wheat Cropping Cycle and Economics	Pedosphere 25: 428-437, 2015	Gurdeep Kaur, M.S. Reddy	1.5
20	Physico-mechanical characterization and biodegradability behavior of polypropylene/poly(L-lactide) polymer blends	J Polym Eng 35: 407-415, 2015	K Jain, G Madhu, H Bhunia, P K. Bajpai, G B. Nando, M S. Reddy	0.5
21	Influence of Agrobacterium rhizogenes strains on hairy root induction and bacoside A production from <i>Bacopa monnieri</i> (L.) Wettst.	Acta Physiol Plant 36: 2793-2801, 2014	M Bansal A Kumar M.S. Reddy	1.524
22	Differential expression of metallothioneins in response to heavy metals and their involvement in metal tolerance in the symbiotic basidiomycete <i>Laccaria bicolor</i>	Microbiology 160: 2235-2242, 2014	L Prasanna, R Marmesse., L Fraissinet-Tachet, M.S. Reddy	2.835
23	Biomineralization of 2,3,4,6-tetrachlorophenol by <i>Bacillus</i> sp. and <i>Staphylococcus</i> sp. isolated from secondary sludge of pulp and paper mill	Bioremediation Journal 18: 93-99, 2014	Karn SK, M. S. Reddy	0.714

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
24	Construction of sized eukaryotic cDNA libraries using low input of total environmental metatranscriptomic	BMC Biotechnology 14: 80, 2014	RK Yadav, F Barbi, A Ziller, P Luis, R Marmesse L Fraissinet-Tachet, M. S. Reddy	2.592
25	Class I patatin genes from potato (<i>Solanum tuberosum</i> L.) cultivars: molecular cloning, sequence comparison, prediction of diverse cis-regulatory motifs, and assessment of the promoter activities under field and <i>in vitro</i> conditions	In Vitro Cell. Dev. Biol.- Plant 50 :673-687 (2014)	Raghavendra Aminedi, Niranjana Das	0.981
26	Functional genetic variants in pre-miR-146a and 196a2 genes are associated with risk of lung cancer in North Indians	Future Oncology. (2015) 11(15), 2159-2173	Kushaldeep Kaur Sodhi, Charu Bahl, Navneet Singh, Digamber Behera Siddharth Sharma	2.477
27	Lignocellulosic biomass characteristics for bioenergy application: an overview	Environmental Engineering and Management Journal 2015 (Accepted).	Nadeem Akhtar, Kanika Gupta, Goyal, D, Arun Goyal	1.1
28	Biodiversity of cellulase producing bacteria and their application	Cellulose Chemistry and Technology (2014). (Accepted)	Akhtar, N., Aanchal, Goyal, D. & Goyal, A.	0.9
29	Mineralogical comparison of coal flyash with soil for use in agriculture	Journal of Material Cycles and Waste Management 2014 DOI 10.1007/s10163-014-	Rajinder Kaur and Goyal, D	1.4

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
		0323-1		

3. List of research publications in Non-SCI/Non-Impact journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
1	Podophyllotoxin content in rhizome and root samples of Podophyllum hexandrum Royle Populations from Indian Himalayan region.	Journal of Medicinal Plants Research 9: 320-325 (2015)	Pandey H, Kumar A, Palni LMS, Nandi SK
2	Production of bacoside A, a memory enhancer from hairy root cultures of Bacopa monnieri (L.) Wettst.	Journal of Applied Research on Medicinal and Aromatic Plants(Accepted; 2015)	Bansal M, Kumar A, Reddy MS
3	Optimization of fermentation parameters for bioconversion of corn to ethanol using response surface methodology.	Journal of Petroleum & Environmental Biotechnology doi.org/10.4172/2157-7463.1000178 (2014)	Walia NK, Sekhon KK, Cameotra SS, Chaudhary DP, Srivastava P, Kumar A
4	Cardiovascular Disease Prediction based on Physical factors using Quantum Neural Network.	International Journal of Information Processing 8 (3): 83, 2014	Renu Narain, Sanjai Saxena and Achal Kumar Goyal
5	Resveratrol: Biological activities and therapeutic potential	Journal of Pharmaceutical Technology, Research and Management 2 (2): 145-157, 2014	Sanjai Saxena and Anugya Srivastava
6	Mycorrhizal fungi in extreme environments and their impact on plant growth	Kavaka 42: 123-130, 2014	B Khosla, M.S.Reddy
7	New records of Cantharellus species from the northwestern Himalayas of India	Mycology 4: 205-220	D Kumari, RC Upadhyay, M.S.Reddy
8	Nutrient availability for Eucalyptus	Journal of soil and	Jala Kohli, S and

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
	tereticornis and Acacia auriculiformis tree plantations in a coal flyash amended ultisol.	water conservation (2014) 13 (3):274-280	Goyal D
9.	Multiparametric influence of flyash as a soil ameliorant and its influence on soil microbial properties-A Review.	Journal of soil and water conservation (2014) 13 (2):55-63.	Jala Kohli, S and Goyal D.

4. Publication of papers in conference proceedings and other publications

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
1	Callus induction and organ regeneration from the leaf and stem segments of <i>Cissus quadrangularis</i> Linn.-An important medicinal plant.	18 th Punjab Science Congress, Desh Bhagat University, Mandi Gobindgarh, 7- 9 Feb, 2015.pp.84	Tejinder Kaur, Pargat Singh and Manju Anand
2	Studies on Biopolymeric Material-Cryptosporidium Interactions for Developing Detection/Treatment Systems in Water	(International Society for Biomedical Polymers & Polymeric Biomaterials Orlando, Florida 8-10 July, 2015	Sharma, V., Bridle, H., Ghosh, M.
3	A permeabilized whole cell bioprocess for efficient transformation of limonin,	10th European Symposium on Biochemical Engineering Sciences and 6th International Forum on Industrial Bioprocesses in collaboration with ACS, Lille, France, Sept 8-10, 2014.	M Ghosh
4	Current understanding on tuber development, and recent advances on some strong tuber-expressed genes in potato (<i>Solanum tuberosum</i> L.)”	National Conference on ‘Science: Emerging Scenario & Future Challenges-III’ Him Science Congress Association (HSCA), HP at Vallabh Government College, Mandi, Himachal Pradesh 11-12 April 2015; Page No. 47	Niranjan Das

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
5	Some advances in the understanding of invertases in potato (<i>Solanum tuberosum</i> L.)	International Symposium on 'New Perspectives in Modern Biotechnology' Society for Applied Biotechnology, The Accord Hotel, Puducherry 23-25 March 2015; Page No. 30	Niranjan Das & Vijay Kumari
6	Molecular studies on tuber-expressed and sucrose-inducible genes from Indian potato (<i>Solanum tuberosum</i> L.) cultivars	International Conference on 'Frontiers in Biological Sciences (InCoFIBS-2015)', Department of Life Science, National Institute of Technology, Rourkela 22-24 January, 2015; Page No. 50	Niranjan Das & Raghavendra Aminedi
7	Physico-chemical characterization of leaf litter biomass for effective renewable bioenergy production	30 th International Conference on Solid waste Technology and Management (ICSW-2015). March 15 - 18, 2015. Philadelphia, USA.	Akhtar, N., Goyal, Dinesh & Goyal, A.

5. List of various faculty members who attended various conferences/ workshops/ short-term programs

S. No.	Name of Faculty member	Name of the Conference	Place and Dates
1	Sanjai Saxena	National Symposium on Mycological Research: Emerging Trends, Applications & Prospect & 41st MSI meeting	Punjabi University, Patiala, Feb 23-24, 2015
2	Sanjai Saxena	DAE-BRNS Life Science Symposium -2015 Advances in Microbiology of Food, Agriculture, Health and Environment	Mumbai, Feb 3-5, 2015
3	Niranjan Das	International Conference on 'Frontiers in Biological Sciences (InCoFIBS-2015)'	Department of Life Science, National Institute of Technology, Rourkela 22-24 January, 2015

S. No.	Name of Faculty member	Name of the Conference	Place and Dates
		Chaired the following Sessions:	
		'Environmental Sciences and Evolutionary Biology' 'Biomaterials and Nanotechnology'	
4	Niranjan Das	International Symposium on 'New Perspectives in Modern Biotechnology'	Society for Applied Biotechnology, The Accord Hotel, Puducherry 23-25 March 2015
5	Niranjan Das	National Conference on 'Science: Emerging Scenario & Future Challenges'	Him Science Congress Association (HSCA), Vallabh Govt. College, Mandi, HP 11-12 April 2015

6. List of ongoing sponsored projects

S.No.	Name of the Project	Year of sanction	Funding Agency	Project Cost (Lacs)	Principal Investigator
1	Gene resources from contaminated sites	2012	IFCPAR	56	M.S. Reddy L. Fraissinet-Tachet
2	Application of nano zeolite for removal of novel contaminants from waste water (Co-PI)	2013	UGC	11.72	Moushumi Ghosh
3	Deveopment of treatment and regeneration technology for phytoestrogen from waste water	2014	CSIR	14.3	Moushumi Ghosh
4	Green polymers for water borne pathogen detection and treatment	2014	DST-UKIERI	23.57	Moushumi Ghosh
5	Genetic transformation of selected clones of Populus deltoids for cellulose enhancement in wood.	2012	CSIR	20.0	Anil Kumar

6	In Silico and In vitro approach to identify immunogenic peptides of H1N1 Virus as a target for Vaccine design	2013	DST	23.6	Manoj Baranwal
7	Association of Single Nucleotide Polymorphisms and Methylation status in the Wnt and AhR signaling pathways with risk for occurrence of Lung Cancer in a North Indian Population	2012	I.C.M.R	27.5	Siddharth Sharma
8	Cloning and characterization of genes of Glutathione biosynthesis in ectomycorrhizal fungi	2014	DBT	29.5	Dr. M.S Reddy
9	Durability enhancement and prevention of damages in RC structures using bacteria	2014	DST	53.9	Dr. M.S Reddy
10	Development of photonic crystal biosensor for detection of foodborne pathogens	2014	DBT	33.0	Dr. R.S. Kaler & M.S. Reddy

7. List of completed sponsored projects

S. No.	Name of the Project	Funding Agency	Project Cost(Lacs)	Principal Investigator
1	Genetic transformation of selected clones of Populus deltoids for cellulose enhancement in wood. (: PI, 20.0 Lakhs) April 2012	CSIR	20.0 lakhs	Anil Kumar
2	Selection of elite clones of Bacopa monniera (L.) Wettst. and production of bacosides using biotechnological approaches. (PI 10.0 Lakhs) March 2011- Feb 2014	UGC	10.0 lakhs	Anil Kumar
3	Technological Development of Biopolymer overproducing variants of Acinetobacter implicated in phosphate enrichment in water	UGC	7.60	Dr. Moushumi Ghosh

S. No.	Name of the Project	Funding Agency	Project Cost(Lacs)	Principal Investigator
4	Isolation, characterization of novel fibrinolytic molecules from endophytic fungi for anti-thrombotic therapy	CSIR	12.00	Sanjai Saxena

8. List of faculty members who have delivered invited lectures/talks etc. at various levels

S. No.	Name of faculty member	Title of the expert talk/lecture	Forum with date and venue
1	Manju Anand	Plant tissue culture-its development and applications	Govt. Mohindra College, Patiala, Oct, 2014
2	Niranjan Das	Tuber-expressed and sucrose-inducible genes in potato (<i>Solanum tuberosum</i> L.): Isolation, sequence analyses and functional characterization of their promoters	Seminar Series; Department of Biotechnology, NIT-Durgapur West Bengal 17 September 2014
3	Niranjan Das	Molecular studies on tuber-expressed and sucrose-inducible genes from Indian potato (<i>Solanum tuberosum</i> L.) cultivars	InCoFIBS-2015 Department of Life Science, National Institute of Technology, Rourkela 24 January, 2015; Invited talk under the session 'Agricultural, Food and Nutritional Sciences'
4	Dinesh Goyal	Microbial Technologies for sustainable agriculture	UGC-Academic staff College, GNDU, Amritsar on June 24, 2015
5	Dinesh Goyal	Heavy metal remediation	UGC-Academic staff College, GNDU, Amritsar on June 24, 2015
6	Dinesh Goyal	Innovations in Microbial Technology	Plenary lecture at National Conference at DAV University, Jalandhar on April 18, 2015

9. Special lectures delivered by invited scholars/experts from outside TU

S. No.	Name of the Expert with Designation	Title of the Expert Lecture	Date and Venue
1	Prof. Daniel Chamovitz TAU, Israel	Plant Science :An Overview	11.12.2014 Thapar University
2	Prof. Ruplal Department of Zoology, University of Delhi, Delhi	Modifying rifamycin polyketide backbone in Amycolatopsis mediterranei to produce a novel analog 2,4-desmethylrifamycin	25.04.2015 Thapar University
3	Prof. VC Kalia, CSIR-IGIB, Delhi	Jamming the silent killer's communication system: Potential antimicrobial drug targets	25.04.2015 Thapar University
4	Prof. Y Singh, CSIR-IGIB, Delhi	Drug targetting	25.04.2015 Thapar University
5	Prof. Tim Miller, ASM, USA	Art of science communication (Virtual mode)	25.04.2015 Thapar University

10. List of ongoing Ph. D. Thesis

Sr. No.	Title of Ph.D Project	Supervisor (s)	Status
1	Isolation and characterization of pancreatic lipase inhibitors from endophytic fungi	Dr. Dinesh Goyal, Dr. Sanjai Saxena	Thesis Submitted
2	Enhanced production of microbial exocellular biopolymer for removal of phosphate from water	Dr. Moushumi Ghosh	Thesis Submitted
3	Sequential Microbial-Photocatalytic process for degradation of Nenicotinoid pesticide	Dr. Anita Rajor, Dr. Amrit Pal Toor	Thesis Submitted

4	Studies on fibrinolytic agents(s) from endophytic fungi	Dr. S. Saxena	Near completion in next six months
5	Fem A Based Drug Design for Potentiating of B-Lactam Antibiotics Against Methicillin Resistant Staphylococcus Aureus	Dr. S. Saxena	Near completion in next six months
6	Isolation & characterization of Xanthine oxidase inhibitor (s) from Endophytic Fungi	Dr. S.Saxena	Near completion in next six months
7	Bioaccessibility and bioactivity of selenium in cereals form seleniferous soils)	Dr. N. Tejo Prakash	Near completion in next six months
8	Development of Cardiovascular Disease Prediction System	Dr. S. Saxena	Near completion in next six months
9	Biotechnological approaches for development of blight resistance in selected Indian cultivars of potato	Dr. Anil Kumar Dr. M.S.Reddy	Ongoing
10	Development of Polypropylene-Polylactide Blends and their Degradation by Bacterial Isolates	Dr. M.S. Reddy Dr. H. Bhunia	Ongoing
11	Studies on genetic diversity and micropropagation of elite clones of <i>Jatropha curcas</i> L	Dr. N. Das	Ongoing
12	Immunogenic peptide identification in HINI virus as target for vaccine design	Dr. Manoj Baranwal	Ongoing
13	Study of the genetic polymorphism and Methylation profile in the Wnt signaling pathway with risk for occurrence of Lung Cancer in North Indian Population	Dr. Siddharth Sharma	Ongoing
14	Mechanisms of biofilm inhibition in <i>Sphingomonas</i> spp	Dr. Moushumi Ghosh	Ongoing

15	Synthesis of ZnO Nanoparticles and its impact on biomass production	Dr. Dinesh Goyal	Ongoing
16	Computational insights for discovery of potential inhibitors against bacterial pathogens causing pneumonia	Dr. M.S.Reddy	Ongoing
17	Gene resources from Copper polluted soil ecosystem using metatranscriptomic approach	Dr. M.S.Reddy	Ongoing
18	Single Nucleotide Polymorphism in the Base Excision Repair and Double Strand Break Repair pathway genes in lung cancer patients and their correlation with clinical outcomes	Dr. Siddharth Sharma	Ongoing
19	Genetic transformation of selected clones of <i>Populus deltoides</i> for cellulose enhancement in wood	Dr. Anil Kumar Dr. M.S.Reddy	Ongoing
20	Functional biodiversity of eukaryotic microbial communities living in heavy metal polluted soil	Dr. M.S.Reddy	Ongoing
21	Bacterial Production of Gamma-Aminobutyric Acid and its Recovery by Reactive Extraction	Dr. Moushumi Ghosh	Ongoing
22	In vitro Antibacterial and Cytotoxic studies of Engineered Copper Nanoparticles	Dr. Dinesh Goyal Dr. B.N.Chudasma	Ongoing
23	Anti inflammatory responses of bio available Se from Se-rich cereal grains	Dr. N.T.Prakash Dr. Siddharth Sharma	Ongoing

24	Whole cell catalysed generation of alkyl esters from acid oils	Dr. N.T.Parkash Dr. Ranjana Prakash	Ongoing
25	Glutathione metabolism and proteome analysis of ectomycorrhizal fungi in response to heavy metal stress	Dr. M.S.Reddy	Ongoing
26	Banana sap, a resource material for bioethanol production and other value added products	Dr. M.S.Reddy	Ongoing
27	Isolation and screening of endophytic fungi for resveratrol production	Dr. Sanjai Saxena	Ongoing
28	Plant Molecular Biology	Dr. N.Das	Ongoing
29	Purification and characterization of gluten hydrolysates and its impact on plant growth	Dr. Dinesh Goyal	Ongoing
30	Bioremediation of pesticides using bio-nanotechnological approaches	Dr. Dinesh Goyal	Ongoing
31	Immunology	Dr. Manoj Baranwal	Ongoing
32	Cancer Biology	Dr. Siddhartha Sharma	Ongoing
33	Plant Molecular Biology	Dr. N.Das	Ongoing
34	Microbiology	Dr. Dinesh Goyal	Ongoing
35	Microbiology	Dr.Dinesh Goyal	Ongoing
36	Microbiology	Dr. M.S.Reddy	Ongoing

37	Computational analysis of transcriptome and metabolic pathways of malaria parasite <i>Plasmodium falciparum</i>	Dr. M.S.Reddy	Ongoing
38	Development of a Rapid Test for Detection of Progesterone in Biological Samples to Diagnose Fertility and Pregnancy Related Problems	Dr. Vikas Handa Dr.G. Lakshmi Kumari	Ongoing
39	Isolation and characterization of bioactive molecules from endophytic fungi	Dr. Anil Kumar	Ongoing
40	Development of biodegradable waste recycling system	Dr. Dinesh Goyal Dr. R.S. Saini	Ongoing
41	Development of xylanase based pulp bleaching process	Dr. N. Tejo Prakash Dr. Ranjana Prakash	Ongoing
42	Correlation Studies on Ambient Particulate Matter and Meteorological parameters	Dr. Susheel Mittal Dr. Gurfran Beig	Ongoing

11. List of completed Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1	Studies on rhizospheric bacteria of Phragmites in constructed wetlands	Dinesh Goyal
2	Development of fly ash based blue green algal inoculants for rice crop production	Dinesh Goyal
3	Bioconversion of agricultural waste biomass for ethanol production	Dinesh Goyal
4	Calcifying bacteria mediated cementation for improvement of building materials	M.S. Reddy & Abhijit Mukherjee
5	Diversity of taxol producing endophytic fungi from <i>Taxus</i>	Anil Kumar, MS

S. No.	Title of the Thesis	Name of the Supervisor(s)
6	baccata and process optimization for taxol production. Evaluation and production of bacosides from the selected elite clones of <i>Bacopa monnieri</i> (L.) Wettst.	Reddy Anil Kumar, MS Reddy
7	Studies on microbial phosphate solubilization and development of inoculum formulations	M S Reddy
8	Diversity of <i>Suillus</i> species associated with conifer trees in North Western Himalayan region of India	MS Reddy
9	Molecular cloning and functional characterization of patatin gene promoters from potato cultivars	Niranjan Das
10	Molecular cloning, characterization and inhibition studies on sucrose-phosphate synthase (SPS) gene functions in the Indian potato cultivars	Niranjan Das
11	Studies on microbial prospecting for exobiopolymeric flocculants	Moushumi Ghosh
12	Enhanced production of microbial exocellular biopolymer for the removal of phosphate from water	Moushumi Ghosh
13	Micropropagation of some edible Bamboo species and molecular characterization of regenerated plants	Manju Anand and Anil Sood

12. List of M. E./M. Sc. Thesis/dissertations

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
1	Role of T cells in women with recurrent pregnancy loss	Dr. D N. Rao Dr. Manju Anand
2	Adsorptive removal of Bisphenol A by activated carbon and its regeneration study	Dr. Moushumi Ghosh Dr. Dipaloy Datta
3	Adsorptive removal and regenerative study of Biochanin A: An endocrine disrupter	Moushumi Ghosh Dipaloy Datta
4	Evaluation of protective biopolymers for cosmeceutical applications	Moushumi Ghosh

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
5	Evaluation of cytotoxic and freeradical scavenging activities of <i>Cinnamomum zeylanicum</i> bark extracts	Manoj Baranwal
6	Prediction of conserved peptides containing multiple T and B cell epitopes in Ebola virus glycoprotein	Manoj Baranwal
7	Peptides containing multiple CD4 ⁺ and CD8 ⁺ T cell of H5N1 and H3N2 Influenza virus nucleoprotein	Manoj Baranwal
8	Isolation and screening of endophytic fungi for oil production	Sanjai Saxena
9	Isolation and screening of vinblastine from endophytic fungi	Sanjai Saxena
10	Screening and purification of resveratrol from endophytic fungi	Sanjai Saxena
11	Evaluation and characterization of L-ascorbic acid encapsulated chitosan microspheres	M.Vasundhara
12	Release characteristics of ascorbic acid encapsulated chitosan treated alginate microspheres	M.Vasundhara
13	Telomere length a biomarker for aging	M.Vasundhara Mritunjay Singh
14	Cloning and characterization of cobalt tolerance genes by metatranscriptomic approach (M.Tech.)	M. S Reddy
15	Cloning and characterization of dicer like protein from the ectomycorrhizal fungus <i>Laccaria bicolor</i> (M. Tech)	M. S Reddy
16	Cloning and characterization of metallothionein genes in ectomycorrhizal fungi <i>Suillus himalayensis</i> and <i>Suillus indicus</i> (M. Sc.)	M. S Reddy
17	Cloning and characterization of metallothionein genes of <i>Suillus sibiricus</i> an ectomycorrhizal fungus (M. Sc.)	M. S Reddy

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
18	Curcin proteins of biodiesel crop (<i>Jatropha curcas</i> L.): Cytotoxic effects of the crude curcin extract, and molecular approaches for isolation of curcin genes	Niranjan Das
19	Fructokinases (FRKs) of potato (<i>Solanum tuberosum</i> L.): Sequence analyses of FRK cDNAs, and studying amplicon profiles in the cultivars using FRK-specific oligonucleotide primers	Niranjan Das
20	Carbohydrate-directed Synthesis of Silver and Copper Nanoparticles, and their Antibacterial Property	Niranjan Das & Bonamali Pal
21	Production and purification of recombinant buffalo leukemia inhibitory factor (rbulif) from stably transfected cos-1 cells	Niranjan Das & Sudarshan Kumar
22	Functional role of ccnd1 gene polymorphism (g870a) in modifying susceptibility towards lung cancer risk and overall survival of lung cancer patients treated with double platinum therapy	Siddharth Sharma
23	Synergistic association of CYP1A1 and CHRNA5 D ³⁹⁸ N genetic variants towards increased susceptibility for Lung Cancer in North Indian Population	Siddharth Sharma
24	Removal of hexavalent chromium from aqueous solution by leaf litter biomass	Dinesh Goyal
25	Enzymatic hydrolysis of starchy waste for bioethanol production	Dinesh Goyal
26	Composting of organic waste for use in agriculture	Dinesh Goyal
27	Microbial synthesis of nanoparticles and its effect on nitrogen fixing cyanobacteria	Dinesh Goyal
28	Biodiesel production from waste lignocellulosic materials using in-house oleaginous yeast	Dinesh Goyal
29	Annexin II and P 11 – Expression, Purification and Biophysical Characterization	Prof Awadesha Surolia & Dr Vikas Handa

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
30	Development of PVA-Carrageenan based scaffolds and evaluating its efficacy on osteosarcoma upon cryopreservation	Dr Bismita Nayak & Dr Vikas Handa
31	In vitro Propagation and encapsulation of PLBs for the production and evaluation of synthetic seeds of newl bread hybrids of <i>Cymbidium mastersii</i> x <i>C. alofolium</i>	Anil Kumar
32	Encapsulation of de nove differentiated shoot buds and somatic embryos of <i>Bacopa monnieri</i> and evaluation of clonal fidelity of regenerated plants	Anil Kumar

13. List of equipment procured

S. No.	Name of Laboratory	Name of Equipment	Make/Model	Date of Purchase	Amount
1	Head Room	OHP	01	Sharp	23/04/15
2	Head Room	Dell Optiplex9030	01	Dell	23/03/15
3	Office room	Printer/copier/scanner	01	HP	25/11/14
4	Sem./Instrument Room	High speed centrifuge+ Accessories	01	Thermo Scientific	23/02/15
5	Sem room, RL-1 bioinfo lab, Dr. Shekhar, Dr. Jyoti Rani	Dell Monitors 18.5"	12	Dell	27/01/15
6	Head Room & PL-1	Split AC	02	IFB	22/06/15

14. List of training programmes/ short term courses/workshops/conferences organized

S. No.	Title of the Programme with sponsoring agency	Name of the Coordinators	Dates and Venue
1	Art of Science Communication American Society of Microbiology, USA	Dinesh Goyal	25.4.2015 Thapar University

15. Information regarding foreign visits

S. No.	Name of faculty	Host University/ Organization	Nature of work	Month and Year of visit
1	Moushumi Ghosh	Lille, France	Conference	September 7-10, 2014

16. List of organizations where students undertook project semester/Summer Training

S. No.	Organization	S. No.	Organization
1	MSU, Baroda	13.	NRCPB, IARI, Delhi
2	IOCL., R&D centre, Faridabad	14.	CSIR-IGIB, South campus Delhi
3	Nectar life sciences, Derabassi	15.	JNU, New Delhi
4	Roots analysis Pvt.Ltd., Mohali	16.	IGBMC-CNRS, France
5	Orbit Biotech. Pvt. Ltd., Mohali	17.	Alembic Pharm. Ltd., Solan, HP
6	Linus lifecare Pvt. Ltd., Solan	18.	BISR, Jaipur
7	IHBT, Palampur	19.	AES Labs Pvt. Ltd., Noida
8	PU, Chandigarh	20.	Pepsico India Holdings Pvt. Ltd., Gurgaon
9	TERI, New Delhi	21.	Panacea Biotech Pvt. Ltd., Lalru, Punjab
10	IHBT, Palampur	22.	Sutra analytics, Noida
11	CIPHET, Ludhiana	23.	Univ. of Sheffield, UK
12	CSIR-IGIB, Delhi	24.	TT Consultants, Chandigarh

CHEMICAL ENGINEERING DEPARTMENT

The department of chemical engineering was successful in getting 6 sponsored projects (worth 91.12 lacs). In addition, DST has also sanctioned a grant of Rs. 210 lacs under FIST scheme to augment the research facilities in the department. The University's appreciable funding has also been received for strengthening of various laboratories and establishing new IPA laboratory.

The faculty of the department has published 29 research papers in SCI Journals, and filed one Indian patent and one International patent (jointly with Reliance Industries Limited). Prof. Rajeev Mehta received National award for Technology Innovation in Petrochemicals & Downstream Plastics Processing Industry, specifically for the innovation in "Chemical fixation of carbon dioxide and propylene oxide to polypropylene carbonate and polycyclic carbonate".

Number of full time Ph.D. students has increased to 17, majority of them are getting fellowships from sponsored projects (DST, NRB, CSIR, DAE-BRNS) or Government fellowship programs. A new student chapter of American Institute of Chemical Engineers (AIChE) has been established in the department.

The placement of the undergraduate students has been excellent and almost all the final year students securing CGPA 6 and above have been placed in companies like Reliance, UOP, ACC, MU Sigma Business Solution, TCS, Infosys, IBM (India), Jindal Steel Works, Simon India, Ranbaxy Laboratories, Flour Daniel, IOL Chemicals and Pharmaceuticals Ltd.

Section 1

1. Academic Programs

B.E. Chemical Engineering
M.Tech. Chemical Engineering
Ph.D. Chemical Engineering

2. Thrust areas of research

Adsorption, Bioprocessing, Catalysis, Computational fluid dynamics, CO₂ capture and sequestration, Polymers, Polymer nanocomposites, Divided wall and reactive distillations, FCC modeling and simulation, Heat Transfer and Heat pipes, Industrial pollution abatement, Membrane separations, Molecular modeling, Nanofluids.

3. Brief description of ongoing research activities

- a. A Center of Excellence (CoE) in Environment and Energy Management (Phase-II) was started with a grant of Rs. 4.98 crores funded by NPIU, MHRD, New Delhi (under TEQIP-II, 1.2.1 Scheme).
- b. At present the department is pursuing research in the following areas.

- i. Carbon Capture and Sequestration (CCS): Research activities in this area include polymer production using carbon dioxide, development of adsorbent(s) for CO₂ adsorption, bio-sequestration of CO₂ using algae & cyanobacteria.
- ii. Heat transfer and heat transfer enhancement: Use of nanofluids in heat transfer applications, experimental and numerical studies on heat transfer from semicircular cylinders, heat pipes.
- iii. Polymers and polymer nanocomposites: Synthesis of biodegradable polymers and their nanocomposites; Studies on STF - nanoclay based composites for personal armour systems.
- iv. Modeling and simulation: FCC, Reactive distillation, Heat Transfer, Divided wall and extractive distillations, CFD, molecular modeling and simulation
- v. Reaction Kinetics & Catalysis: Transalkylation of alkyl aromatics over modified zeolite catalyst, hydrogen generation from hydrides, catalytic oxidation of furfural to furoic acid, kinetic studies of advanced oxidation processes (AOPs) for wastewater treatment.
- vi. Separation processes: Application of natural adsorbents and preparation of ceramic membranes for wastewater treatment.
- vii. Application of radioactive materials: Study of hydrodynamics and RTD using radio tracer, Radiation grafting of polymers to improve biodegradability.

4. Activities round the year (2014-15)

The following two patents have been filed.

Sr. No.	Author(s)	Title of Patent	Patent Number	International/ Indian
1	Reddy, S.A., Sengupta, S., Dongara, R., Das, A.K., Amte, V., Yadav, A.H., Bajpai, P.K., Bhunia, H.	Stabilized inorganic oxide supports and adsorbents derived therefrom for carbon dioxide capture (filed)	866/MUM/2014	Indian
2	Reddy, S.A., Sengupta, S., Dongara, R., Das, A.K., Amte, V., Yadav, A.H., Bajpai, P.K., Bhunia, H.	Stabilized inorganic oxide supports and adsorbents derived therefrom for carbon dioxide capture (filed)	PCT/IN2015/050636	International

- Harmonization of B.Tech. Chemical Engineering curriculum with Trinity College, Dublin.

- An expert talk on “Development of Novel Carbon Nanotubes Supported Catalysts for Fisher-Tropsch and Higher Alcohol Synthesis” was delivered by Dr. Ajay K. Dalai, Professor, University of Saskatchewan, Canada, on June 5, 2015.
- An expert talk on “New Process/Product Development: Key Factors for Success” was delivered by Dr. Asit K. Das, Head, Refining R&D Centre, Reliance Industries Limited, Jamnagar, Gujarat, on June 6, 2015.
- Experimental facility for CO₂ adsorption on solid adsorbents has been set up.
- A biodegradability test setup has been developed.
- Strong interaction with industry through collaborative research projects and joint guidance of PhDs (HPCL R&D, Bangalore; Reliance Industries Limited, Hazira; Setia Paper Mills, Muktsar; CGL, Mumbai; IOLCP, Barnala; Trident, Barnala).

5. New Plans and Projects

- A number of research proposals are submitted and to be submitted to different funding agencies like CSIR, DST, DRDO, BRNS etc. to strengthen ongoing research in the department.
- Setting up of Radio tracer application laboratory is planned.
- Recently, three projects on radio tracer application for RTD measurements in industrial processes have been sanctioned by DAE-BRNS. The procurement of facilities related to these are planned.
- Utilization of DST-FIST grant for the upgradation of research facilities.
- Strengthening of industry-institute interaction through collaborative projects.

6. Major acquisitions during the year and new laboratory development

The Department got additional space for housing the research equipment, under graduate laboratories and CoE in Environment and Energy.

7. Departmental Achievements

- Papers published in SCI Journals :29
- Papers published in Non SCI Journals :03
- Papers published in conferences :18
- Sponsored Research Projects
Number of Projects and Amount (in Rs Lac) : 3 projects, 24.5 Lac
- Sponsored Research Projects Ongoing
Number of Projects and Amount (in Rs Lac) : 6 projects, 91.12 Lac
- Consultancy Projects
Number of Projects and Amount (in Rs Lac) :2 project, 6.50 Lac
- Patent : Filed/Granted : 02 filed
- Lectures by visiting experts : 03
- Visits abroad by faculty members : 02
- Awards and Honors : 02

Section 2:**1. List of faculty****Distinguished Professor**

S.No	Name	Qualification & Specialization
1	Dr. Pramod K. Bajpai	Ph.D., Reaction Engineering, Bioprocessing

Professors

S.No	Name	Qualification & Specialization
1	Dr. D. Gangacharyulu	Ph.D., Heat transfer and Energy
2	Dr. Rajeev Mehta	Ph.D., Polymers
3	Dr. Haripada Bhunia	Ph.D., Polymers, Industrial Pollution Abatement

Associate Professors

S.No	Name	Qualification & Specialization
1	Dr. Raj Kumar Gupta	Ph.D., Modeling & Simulation, Reaction Engg., Heat Transfer, Membrane Separations
2	Dr. Sanghamitra Barman	Ph.D., Reaction Engg and Mass Transfer

Assistant Professors

S.No	Name	Qualification & Specialization
1	Dr. Sanjeev Kumar Ahuja	Ph.D., Process Modeling
2	Dr. Vikas Kumar Sangal	Ph.D., Modeling & Simulation, Industrial Pollution Abatement
3	Mr. Parminder Singh	M.E. (Ph.D. pursuing), Thermodynamics
4	Mr. Rakesh Kumar Gupta	M.Tech. (Ph.D. pursuing), Chemical Engineering
5	Dr. Jai Prakash Kushwaha	Ph.D., Environmental Engineering
6	Dr. Vijaya Kumar Bulasara	Ph.D., Membrane separation, Adsorption, Reaction engineering
7	Dr. Avinash Chandra	Ph.D., Computational Fluid Dynamics, Heat Transfer, Essential Oil (perfume and fragrances) process development, Non-Newtonian fluid mechanics
8	Dr. Sudhir Kumar Singh	Ph.D., Molecular Modelling & Simulation, Phase transitions and thermodynamic properties at nanoscale, Adsorption

S.No	Name	Qualification & Specialization
9	Dr. Neetu Singh	Ph.D., Chemical Engineering
10	Dr. Manoj Kumar	Ph.D. Optical Naomaterials, Catalysis and Biosensing
11	Dr. Raj Kumar Arya	Ph.D., Chemical Engineering

Lecturer (Ad-hoc/Contractual)

S.No	Name	Qualification & Specialization
1	Mr. Alok Garg	M.Tech. (Ph.D. pursuing), Wastewater treatment, AOP

2. List of research publications in SCI/Impact Factor journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
1	A review on sugar industry wastewater: sources, treatment technologies, and reuse	Desalination and Water Treatment 2015; 53 (2); 309-318	J. P. Kushwaha	1.173
2	Modeling and evaluation of electro-oxidation of dye wastewater using artificial neural networks	RSC Advances; 2015; 5; 34663-34671	P. Kaur, V. K. Sangal, J. P. Kushwaha	3.840
3	Design of Binary Polymeric Coatings for Minimizing the Residual Solvent Part I: Experimentation	Drying Technology, 33, 92 – 102, 2015	Chitresh Kumar Bhargava and Raj Kumar Arya	1.723
4	Drying of Ternary Polymeric Solution Coatings – Comparative Simulation Study	Progress in Organic Coatings, 78, 155 – 167, 2015	Raj Kumar Arya and Chitresh Kumar Bhargava	2.600
5	Generalized Pinch Analysis Scheme Using MATLAB	Chemical Engineering & Technology, 38, 530 – 536, 2015	Kshitij Tiwari, Sumit Agrawal, and Raj Kumar Arya	2.442
6	Simulation of a Plant Scale Reactive Distillation Column for Esterification of Acetic	Computers and Chemical Engineering 73, 70-81, 2015	Singh D., Gupta Raj Kumar, and Kumar V.	2.452

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
Acid				
7	Experimental investigation on heat transfer analysis of conical coil heat exchanger with 90° cone angle”,	Heat and Mass Transfer, Volume 51, Issue 3, pp 373-379, March 2015.	Purandare Pramod S., Lele Mandar, Gupta, R.K.	0.946
8	Experimental Studies of Industrial-Scale Reactive Distillation Finishing Column Producing Ethyl Acetate	Industrial and Engineering Chemistry Research, 53, 10448–10456, 2014.	Singh D., Gupta R.K., and Kumar V.,	2.235
9	Discontinuity Analysis for the Treatment of Nonlinear Lumped-Parameter Systems for Singular Inputs	Theor. Found. Chem. Eng., 49, 512-521, 2015.	Ahuja S.	0.576
10	Experimental Investigation on Adsorption of Amido Black 10B Dye onto Zeolite Synthesized from Fly Ash	Chemical Engineering Communications, Vol. 202 (1), p. 123–130 (January 2015)	A. Garg, M. Mainrai, V.K. Bulasara, S. Barman	1.104
11	Preparation of low-cost microfiltration membranes from fly ash	Desalination and Water Treatment, Vol. 53 (5), p. 1204–1212 (February 2015)	G. Singh, V.K. Bulasara	1.173
12	Adsorption characteristics of jackfruit leaf powder for the removal of Amido black 10B dye	Environmental Progress & Sustainable Energy, Vol. 34 (2), p. 461–470 (March 2015)	A.K. Ojha, V.K. Bulasara	1.403
13	Optimization of Photocatalytic Process Parameters for the Degradation of Acrylonitrile Using Box Behnken Design	Desalination and Water Treatment, 2015, 55 (6) 1501-1508	Priyanka Singh, Amit Dhir, V. K. Sangal	1.173
14	Development of Nitrogen Enriched Nanostructured Carbon Adsorbents for CO ₂	Journal of Environmental Management, 162, 20-	Goel , C., Bhunia, H., Bajpai, P. K.	2.723

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	Capture	29, 2015		
15	Synthesis of Nitrogen Doped Mesoporous Carbons for Carbon Dioxide Capture	RSC Advances, 5, 46568 – 46582, 2015	Goel , C., Bhunia, H., Bajpai, P. K.	3.840
16	Mesoporous carbon adsorbents from melamine-formaldehyde resin using nanocasting technique for CO ₂ adsorption	Journal of Environmental Sciences, 32, 238-248, 2015	Goel , C., Bhunia, H., Bajpai, P. K.	2.002
17	Physico-mechanical characterization and biodegradability behavior of polypropylene/poly (L-lactide) polymer blends	Journal of Polymer Engineering, 35(5), 407-415, 2015	Kimi Jain, Gaurav Madhu, H. Bhunia, Pramod K. Bajpai, M. Sudhakar Reddy and G. B. Nando	0.456
18	Effects of adsorbent preparation method for CO ₂ Capture from flue gas using K ₂ CO ₃ Al ₂ O ₃ adsorbents	Energy & Fuels; 29, 87–97, 2015	Sengupta, S., Amte, V., Dongara, R., Das, A., Bhunia, H., Bajpai, P.K.	2.790
19	Improvement in Regeneration Properties and Multi-cycle Stability for K ₂ CO ₃ /Al ₂ O ₃ Adsorbents for CO ₂ Removal from Flue Gas	Energy & Fuels, 28 (8), 5354–5362, 2014	Surajit Sengupta, S. Reddy, R. Dongara, A. Das, H. Bhunia, P.K. Bajpai	2.790
20	Mechanical and Morphological Properties of High Density Polyethylene and Polylactide Blends	Journal of Polymer Engineering 34, 813-821, 2014	Gaurav Madhu, Haripada Bhunia, Pramod K Bajpai, Veena Choudhary	0.456
21	Kinetics of Thiophene Hydrodesulphurization: Pore Diffusional Effects	Energy Technology, 2014, 2, 1-4	Sudip K. Ganguly, Nishant Vohra, Neetu	2.824

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
			Varun, Gautam Das, and Haripada Bhunia	
22	Ring Opening Polymerization of Lactide in a Monomode Microwave using Stannous Octoate and Dibutyltin Dimethoxide Catalysts	Journal Of Macromolecular Science – Part A PAC 51(4), 350-361, 2014	P. Singla, <u>R.Mehta</u> , D. Berek, S.N. Upadhyay	0.740
23	The effect of O ⁶⁺ and Si ⁷⁺ ion beam irradiations on poly (lactide-co-glycolide) (50:50) copolymer	Polymer Science Series B Vol. 56, Issue 5, 657-663, September 2014	Manpreet . Kaur, Rajeev . Mehta, Surinder Singh	0.633
24	Microwave Assisted In-situ Ring-opening Polymerization of Polylactide/Clay Nanocomposites: Effect of Clay Loading	Applied Clay Science 95, 67-73, 2014	P. Singla, <u>R.Mehta</u> , S.N. Upadhyay	2.703
25	Silver ion beam irradiation effects on poly(lactide-co-glycolide) (PLGA)/Clay nanocomposites	Applied Physics A: Materials Science and Processing Volume 117, Issue 4 (2014), Page 2241-2249	Manpreet Kaur, Surinder Singh, Rajeev Mehta	1.694
26	Synthesis and mechanical properties of Polyurethane/Clay nanocomposites	Journal of Optoelectronics and Advanced Materials, Vol.16 (9-10), 2014, 1126-1130	Pooja Puri, Rajeev Mehta, Sunita Rattan	0.563
27	Synergistic Effects of Clay and GNPs on Electrical and Mechanical Properties of PU/GNP/OMMT Ternary Composite	Journal of Optoelectronics and Advanced Materials, Vol. 17, No. 3-4, March – April 2015, p. 477 - 483	Pooja Puri, Rajeev Mehta, Sunita Rattan	0.563
28	Pristine and amino functionalized carbon nanotubes reinforced glass fiber epoxy composites	Composites Part A: Applied Science and Manufacturing Vol. 76, 2015, 92-101	Mohit Garg, Shruti Sharma, Rajeev Mehta	3.012
29	Synthesis of xylene over cerium modified large pore zeolite: a kinetic study	Indian Journal of Chemical Technology, Vol. 21, 2014, 379-385.	Ruchika Thakur, S. Barman, R.K. Gupta	0.513

3. List of research publications in Non-SCI/Non-Impact journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
1	Study of Design Improvement of Intake Manifold of Internal Combustion Engine	International Journal of Engineering Technology, Management and Applied Sciences, Volume 3, Special Issue, ISSN: 2349-4476, March 2015, pp. 234-242	Sachin Singla, Sumeet Sharma and D. Gangacharyulu
2	Coding, evaluation, and optimum selection of nanofluid in plate heat exchanger using MADM approach	International Journal of Engineering Sciences & Technology (IJEST), Volume 6, Number 8, August 2014, ISSN : 0975-5462, pp 527-539	Sandeep Kumar, Sumeet Sharma and D. Gangacharyulu
3	Review on thermal properties of nanofluids and factors affecting the same	International Journal of Engineering Sciences & Technology (IJEST), Volume 6, Number 8, August 2014, ISSN : 0975-5462, pp 502-519	Parul Sharma, Sumeet Sharma and D. Gangacharyulu

4. Publication of papers in conference proceedings and other publications

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
1	Hydrogen generation from NaBH ₄ /Al ₂ O ₃ nanoparticles/H ₂ O with CoCl ₂ as catalyst,	Proceedings of IEEE 10th Conference on Industrial Electronics & Applications (ICIEA 2015), June 15-17, 2015, Auckland, New Zealand, pp 757-761	1
2	A Comparative Study of Major Socio-economic Factors for BRICS Countries and United States and Recommendations for Future Energy Mix for India	College of Science and Technology, Royal University of Bhutan, Thimphu, Bhutan. 15th -17th June 2015	2
3	Simulation Analysis of Drying of Ternary Solution Coatings	CHEMCON 2014, Dec 27-30, UICET Chandigarh, Punjab, India	3
4	A Simple and Practical	CHEMCON 2014, Dec 27-30, UICET	4

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
	Approach For Determining Pinch Temperatures and Utility Requirement Using MATLAB	Chandigarh, Punjab, India	
5	Effect of dimensionality on vapor-liquid phase Transition	DAE Solid State Physics Symposium; Thapar University Patiala. American Institute of Physics (AIP) Conf. Proc. 2014, Vol-86, P-1591	5
6	Mixed convection heat transfer from a semi-circular cylinder placed in a vertical channel to air	CHEMCON-2014, Punjab University, Chandigarh, INDIA, December 27-30, 2014 Paper ID:FM-0031	6
7	Forced convection heat transfer from a confined semi-circular cylinder	CHEMCON-2014, Punjab University, Chandigarh, INDIA, December 27-30, 2014 Paper ID:HT-0018.	7
8	Forced convection heat transfer in agitated vessel equipped with 4-blade pitched turbine	CHEMCON-2014, Punjab University, Chandigarh, INDIA, December 27-30, 2014 Paper ID:HT-0022.	8
9	Extarction of essential oil from Curcuma Longa L.	CHEMCON-2014, Punjab University, Chandigarh, INDIA, December 27-30, 2014 Paper ID:BC-0007.	9
10	Investigation of extraction of Nicotinic Acid using TBP and TOA dissolved in a binary mixture	CHEMCON-2014, Punjab University, Chandigarh, INDIA, December 27-30, 2014 Paper ID:PI-0017.	10
11	Turbulent Heat Transfer in Agitated Vessel Equipped with Pitch Blade Turbine	CHT-15: 6 th International Symposium on Computational Heat Transfer, Rutgers University, New Brunswick, NJ, USA, May 25-29, 2015. Paper ID: CHT-15-046.	11
12	Adsorption kinetics of carbon dioxide on	CHEMCON 2014 (67th Annual Session of Indian Institute of Chemical Engineers),	12

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
	copper benzene-1,3,5-tricarboxylate meta-organic framework	Panjab University, Chandigarh, 27-30 December 2014, Pap. AS/0066 (p. 80-81).	
13	Oxo-biodegradable HDPE/PLA blends: preparation, characterization and biodegradability	CHEMCON 2014 (67th Annual Session of Indian Institute of Chemical Engineers), Panjab University, Chandigarh, 27-30 December 2014, Pap. PE/0022 (p.1303-1304).	13
14	Radiation Grafting of Polyolefins	National Conference on Technological Advances in Chemical, Petroleum & Natural Gas Engineering, Chandigarh University, April, 10-11, Pap. ACPNe 9 (p. 30)	14
15	Kinetics study of carbon dioxide capture on copper benzene-1,3,5-tricarboxylate meta-organic framework	National Conference on Technological Advances in Chemical, Petroleum & Natural Gas Engineering, Chandigarh University, April, 10-11, Pap. ACPNe 9 (p. 32)	15
16	Processing of polymer composites containing carbon nanotubes	International conference on polymer composites, 19-20 Dec 2014, Invited Lecture, NITK Surathkal	16
17	Mechanical properties of polymer nanocomposites	International conference on polymer composites, 19-20 Dec 2014, NITK Surathkal	17
18	The Study of Physical Properties of the Ceramic Membranes Based on Their Carbonate Composition	CHEMCON 2014 (67 th Annual Session of Indian Institute of Chemical Engineers), Panjab University, Chandigarh, 27-30 December 2014, Paper ID: MS/0027	18

5. List of various faculty members who attended various conferences/ workshops/ short-term programs

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
1	D. Gangacharyulu	IEEE 10th Conference on Industrial Electronics & Applications (ICIEA 2015)	June 15-17, 2015, Auckland, New Zealand
2	Neetu Singh	CHEMCON-2014	Punjab University, Chandigarh 27th -30th Dec 2014
3	Rakesh Kumar Gupta	STP: Advances in computational heat transfer	IITD, 21-23 May 2015
4	Dr. Raj Kumar Arya	Short Term Course on Advances in Computational Heat Transfer	Department of Mechanical Engineering, IIT Delhi , India, May 21 – 23,
5	Dr. Sudhir K Singh	CHEMCON 2014	Dr. S.S. Bhatnagar University Institute of Chemical Engineering & Technology, Punjab University, Chandigarh; December 27-30, 2014.
6	Dr. V K Sangal	Short Term Course on Nanotechnology: Basics and Applications in Chemical Engineering	IIT Roorkee, June 22 - 26, 2015.
7	Dr V K Sangal	CHEMCON-2014	Punjab University, Chandigarh, Dec 27-30, 2014
8	Dr. Avinash Chandra	CHEMCON-2014	Punjab University, Chandigarh, INDIA, December 27-30, 2014
9	Dr. Avinash Chandra	CHT-15, 6th International Symposium on Computational Heat Transfer	Rutgers University, New Brunswick, NJ, USA, May 25-29, 2015.

6. List of ongoing sponsored projects

S. No.	Name of the Project	Year of sanction	Funding Agency	Project Cost (Rs in Lacs)	Principal Investigator
1	Application software development to evaluate thermal performance of tube type, air to air heat exchangers for caca high rated electrical motors	2014	CG Global R&D, Kanjur Marg, Mumbai	13.5	Dr. D. Gangacharyulu and Dr. Rajiv Sharma
2	Acetonitrile dehydration by using salt/organic compound	2014	Thapar University Patiala	5.0	Neetu Singh
3	Tailoring of Nanostructure for Reversible Hydrogen Storage: Molecular Simulation as a Guiding Tool	2013-2015	UGC	6.0	Sudhir K Singh
4	Investigation of Hydrodynamics and RTD of Pulp Digester Using Radiotracer Technique	DAE-BRNS, BARC, Mumbai	2014-17	21.38	Dr. Avinash Chandra Dr. H. Bhunia Dr.P.K. Bajpai
5	Synthesis and characterization of high capacity adsorbents for CO ₂ capture	DST	2014-17	25.34	Dr. H. Bhunia Dr.P.K. Bajpai
6	Development of non-ecotoxic polyolefins with controlled environmental degradation by using high energy radiation and pro-oxidants	DAE-BRNS, BARC, Mumbai	2014-17	19.90	Dr. H. Bhunia Dr.P.K. Bajpai

7. List of completed sponsored projects

S.No.	Name of the Project	Funding Agency	Project Cost (Rs in Lacs)	Principal Investigator
1	Investigation of Hydrodynamics and RTD of Pulp Digester Using Radiotracer Technique	DAE-BRNS, BARC, Mumbai	21.38	Dr. Avinash Chandra
2	Solvent Free Microwave Assisted Extraction of Essential Oil from Turmeric	UGC	6.0	Dr. Avinash Chandra
3	Modified steam distillation process for cleaner production of essential oil from turmeric	Thapar University	1.0	Dr. Avinash Chandra
4	Preparation and Characterization of Polylactide(PLA) - Polyethylene Blends and its Degradability Studies	CSIR	17.5	Dr. Haripada Bhunia Dr. Pramod K. Bajpai
5	Study regarding qualitative and quantitative analysis of the sludge accumulated in the bed of Buddha Nallah at various locations along with thickness of the sludge above the permeable surface	PPCB, Punjab	4.5	Dr. Pramod K. Bajpai Dr. Haripada Bhunia

8. Consultancy/Testing assignments completed/ongoing

S. No.	Name of the Project	Name of the Faculty members involved	Amount Generated
1	Development of Kinetics based model for FCC unit	Dr. Raj Kumar Gupta (Completed)	5.5 lakh
2	Material balance calculations and ETP Equipment sizing for M/S ChemCad Laboratories Limited, District- Nagar, Punjab	Dr. Raj Kumar Gupta SAS (ongoing)	1.0 lakh

9. List of faculty members who have delivered invited lectures/talks etc. at various levels

S. No.	Name of the faculty member	Title of the expert talk/lecture	Forum with date and venue
1	Dr. Raj Kumar Gupta	Fluidization and Liquid Mixing	Chandigarh University, Gharuan, Punjab, April 28, 2015

10. Special lectures delivered by invited scholars/experts from outside TU

S. No.	Name of the Expert with Designation	Title of the Expert Lecture	Date and Venue
1.	Dr. Ajay K. Dalai, Professor and Canada Research Chair in Bioenergy and Environmentally Friendly Chemical Processing, University of Saskatchewan, Canada	Development of Novel Carbon Nanotubes Supported Catalysts for Fisher-Tropsch and Higher Alcohol Synthesis	June 5, 2015 CILP Seminar Hall
2	Dr. Asit K. Das, Head, Refining R&D Centre Industries Limited, Jamnagar, Gujarat	New Process/Product Development: Key Factors for Success	June 6, 2015 CILP Seminar Hall

11. List of ongoing Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1.	Hydrogen Storage via Chemical hydrides	Dr. D. Gangacharyulu & Dr. P. K. Bajpai
2.	Studies on nanofluids in radiators	Dr. D. Gangacharyulu & Dr. V. K. Bulasara
3.	Studies on Heat Transfer and Pressure drop characteristics of nanofluids in micro-channels	Dr. D. Gangacharyulu
4.	Studies on heat transfer characteristics of Nanofluids in heat pipes	Dr. D. Gangacharyulu & Dr. Sarit Kumar Das, IITM
5.	Drag reduction of lubricating oils	Dr. D. Gangacharyulu & Dr. V. K. Bulasara
6.	Electrochemical treatment of pharmaceutical	Dr. J. P. Kushwaha; Dr.

S. No.	Title of the Thesis	Name of the Supervisor(s)
	wastewater	Neetu Singh
7.	Dehydration of acetonitrile by using organic compounds and salt	Dr. Neetu Singh; Dr. J. P. Kushwaha
8.	Novel nanopocomposite preparation and application in wastewater treatment	Dr. V. K. Sangal; Dr. J. P. Kushwaha
9.	Textile wastewater treatment by Electro-Fenton method	Dr. J. P. Kushwaha; Dr. V. K. Sangal
10.	Preparation and characterization of composite membranes for treatment of some wastewater	Dr. Raj Kumar Gupta Dr. V.K. Bulasara
11.	Adsorption of EDCs from wastewater	Dr. S. Barman & Dr. V. K. Bulasara
12.	Modeling and Optimization of Photocatalytic Degradation of Textile Waste Water	Dr V K Sangal & Dr P K Bajpai
13.	Simulation and Parametric studies on Reactive Dividing Wall Distillation Column	Dr V K Sangal
14.	Experimental and Numerical Studies on Heat Transfer from Semi-circular Cylinders	Dr. R. K. Gupta, Dr. Avinash Chandra
15.	CFD Analysis of Mixing Vessels	Dr. Avinash Chandra
16.	Investigation of Hydrodynamics and RTD of Pulp Digester	Dr. Avinash Chandra, Dr. H. Bhunia
17.	Experimental and simulation studies on reactive distillation column	Dr. R.K.Gupta Dr.Vineet Kumar
18.	Development and characterization of nanostructured carbon adsorbents for carbon dioxide capture	Dr. P. K. Bajpai Dr. H. Bhunia
19.	Studies on degradability of high density polyethylene (HDPE) – polylactide (PLA) blends	Dr. P. K. Bajpai Dr. H. Bhunia
20.	Source apportionment studies to identify particulate matter from crop residue burning affecting human health	Dr. Susheel Mittal

12. List of completed Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1	Studies on CO ₂ capture using adsorption from simulated refinery flue gas	Prof. Pramod K. Bajpai Prof. Haripada Bhunia Dr. Asit Kumar Das (RIL)

13. List of M. E./M. Sc. Thesis/dissertations

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
1	Experimental studies on entrainment characteristics of alumina-water nanofluids	Dr. D. Gangacharyulu & Dr. V. K. Bulasara
2	Adsorption of Indole and ortho-phenylenediamine on activated carbon	Dr. J. P. Kushwaha; Dr. V. K. Sangal
3	Microwave in-situ polymerization of PLA/CNT and study of its electrical conductivity	Mehta R. and Ahuja S.
4	Removal of copper from aqueous solutions using reactive extraction	Dr. Dipaloy Datta, Dr. Avinash Chandra
5	Removal of methylene blue by advanced oxidation using Fenton's reagent and microfiltration	Dr. R.K. Gupta, Dr. Manoj Kumar
6	Carbon dioxide adsorption on metal organic framework Basolite C300	Prof. Pramod K. Bajpai Prof. Haripada Bhunia

14. List of equipment procured

S. No.	Name of the equipment	Make	Name of laboratory	Date of Purchase	Amount (Rs Lacs)
1	Semi-circular heat exchanger set-up	Fabricated as per own design	CRE lab	2015	3.45
2	Water Bath With Shaker	Spectra lab Mumbai	Research Lab	29/11/14	1,20,000/-
3	Rheometer	Anton Paar	Research Lab	24/2/15	9,86,860/-
4	Homogenizer (T-	IKA	Research	25/5/15	94,762.5/

S. No.	Name of the equipment	Make	Name of laboratory	Date of Purchase	Amount (Rs Lacs)
	18)		Lab		-
5	Thermal Imaging Camera	FLIR-E6	Research Lab	01/5/15	2,26,183/-
6	Laser (MD-III)	CNI-Laser	Research Lab	21/4/15	86,276/-
7	Kinematic Mount and accessories	New Age Instruments & Materials, Gurgaon	Research Lab	21/4/15	95,409.75/-
8	Micro Syringe pump	E-Spin	Research Lab	16/5/15	91,200/-
9	Peristaltic Pump	Miclins	Research Lab	27/5/15	56,591.63/-
10	Othmer type VLE Apparatus	JSGW Ambala	Research Lab	29/6/15	66,291/-
11	Magnetic Stirrer With Hotplate (2 Nos)	Remi	IPA Lab	14/3/15	12,573/-
12	Magnetic Stirrer (3 Nos)	IKA	Research Lab	22/4/15	1,39,995/-
13	High Speed Centrifuge	Benchtop	IPA Lab	28/4/15	94,999/-
14	Muffle Furnace (2no.) (Max Temp:1100°C & 1500°C)	Jupitor Engg. Works New Delhi	Research Lab	15/5/15	1,59,469/-
15	Ultrasonic Bath	IKA	IPA Lab	06/5/15	1,45,125/-
16	Projector(PG-ST90X)	Sharp	Computer Lab	20/3/15	60,000/-

15. Computing facilities in the Department

S. No.	Details of the Hardware/Software	Name of the Laboratory
1	HP Z640 Workstation	Computer Lab
2	HP 23FI Backlit LED	Computer Lab
3	Dell OptiPlex 9030 AIO(4 Nos)	Computer Lab
4	HP AIO Desktop TS-2J-P0101N (GCH)	Computer Lab

16. Information regarding foreign visits

S. No.	Name of the faculty	Host Organization	University/	Nature of work	Month and Year of visit
1	Dr. D. Gangacharyulu	IEEE, Auckland, New Zealand		International Conference	June 15-17, 2015
2	Dr. Neetu Singh	College of Science and Technology, Royal University of Bhutan, Thimphu, Bhutan		International Conference	June 2015
3	Dr. Avinash Chandra	Rutgers University, New Brunswick, NJ, USA		International Conference	May, 2015

17. List of Awards and recognitions

S. No.	Name of the faculty	Award / Fellowship/ Nominations	University/ Organization	Month and Year
1	Dr. Rajeev Mehta	National award for Technology Innovation in Petrochemicals & Downstream Plastics Processing Industry	Ministry of Chemicals & Fertilizers, Government of India	Feb 21, 2015
2	Dr. Avinash Chandra	Foreign Travel Grant for Participating in, CHT-15, USA	SERB, DST	May, 2015
3	Dr. Avinash Chandra	Foreign Travel Grant for Participating in CHT-15, USA	CICS	May, 2015

18. List of organizations where students undertook project semester/Summer Training

S. No.	Name of the Organization
1	National Fertilizers Ltd., Nangal, Ropar, Punjab
2	TRIDENT Group, Barnala, Ludhiana, Punjab
3	SHARU Steels Pvt. Ltd., Ludhiana, Punjab
4	IIP, Dehradun, UK
5	Glaxo Smith Kline Consumer Healthcare Ltd., Nabha, Punjab
6	TBRL, Ramgarh Range, Haryana
7	Dept. of Chemical Engg , IIT Delhi
8	Hindustan Unilever Ltd., Rajpura, Patiala
9	BECHTEL Corporation, Udyog Vihar, Phase-4, Gurgaon, Haryana
10	SIEL Chemical Complex, Sardargarh, Rajpura, Patiala
11	Dept. of Chemical Engg, IIT Kanpur
12	Petrofac Engineering Services India Pvt. Ltd., Gurgaon, Haryana
13	Kumar Organic Products Ltd., Jayanagar, Bangalore
14	Guru Gobind Singh Super Thermal Plant, Ropar, Punjab
15	ONGC, Mumbai
16	IOCL, R & D Centre, Faridabad, Haryana
17	Ind-Swift Ltd. & (R & D Labs), Mohali, Punjab
18	EIL, Bhikaji Cama place, New Delhi
19	EIL,R&D Centre, Gurgaon, Haryana
20	Khanna Paper Mills Ltd., Fatehgarh Road, Amritsar, Punjab
21	Max Speciality Films Ltd., SBS Nagar, Ropar, Punjab
22	Centre for fire explosion and environmental safety, DRDO, Timarpur, Delhi
23	Kribhco Shyam Fertilizers Limited, Shahjahanpur, UP
24	Reliance industries limited, Vadodara, Gujrat

S. No.	Name of the Organization
25	SAIL, Bokaro Steel Plant, Bokaro, Jharkhand
26	Pepsico India Holding Pvt., Ltd., Sangarur, Patiala
27	Mohan Goldwater Breweries Ltd, Mohan Meakin Road, Daliganj, Lucknow, U.P
28	Haldor Topsoe India Pvt. Ltd, Faridabad, Haryana
29	PEPSI, Varun Beverages, Greater Noida U.P.
30	Uflex Ltd. (Chemical division), Noida U.P
31	MAN Bus Sp Z.O.O, Poland
32	NV Distilleries, Rajpura, Patiala
33	Reliance industries limited, Raigad, Maharashtra





CIVIL ENGINEERING DEPARTMENT

The Department of Civil Engineering with its modern infrastructure and state of the art facilities for research offers programs leading to a Bachelors' Degree in Civil Engineering, a Masters of Engineering Degree in Civil – Structures and Doctor of Philosophy in Civil Engineering. With a number of scholars registered for their doctoral thesis in the department, it has already created a niche for itself in this part of the country and is striving to be among the top ten civil engineering departments of the country.

Although the department is 59 years old but it is very young in its spirit with the average age of the faculty around 38 years. The department has kept pace with the changing times by modernizing and upgrading its infrastructural and research facilities. More than 70% faculty members of the department are Ph.D and remaining members are in the advanced stage of completing the same. The faculty members of the department published 35 research papers in journals and conferences at national as well as international forum, and delivered lectures at reputed institutes/organizations. The faculty members were involved in various testing and consultancy projects amounting more than 56 lakhs. The department also augmented its laboratories by adding equipment worth nearly 1.0 crore through funding from the university and research projects. The Department of Civil Engineering has been continuing as a Safety Consultant by National Highways Authority of India (NHAI) in the state of Himachal Pradesh & Jammu for Development, Construction and Post COD Maintenance Phase. Also the Department of Civil Engineering acts as a coordinator, State Technical Agency of Pradhan Mantri Gram Sadak Yojana (PMGSY) to scrutinize the DPR's. This year the Department has organized successfully the 7th National Conference on Wind Engineering in association with Indian Society of Wind Engineering.

Section 1

1. Academic Programs

BE Civil Engineering
ME Infrastructure Engineering
ME Structural Engineering
PhD Civil Engineering

2. Thrust areas of research

Structural Health Monitoring
Sustainability in Concrete & Concrete Technology
Ground Water Hydrology & Dispersion Studies
Sediment dynamics and River Engineering
Pavement Management System

3. Brief description of ongoing research activities

Detection of Corrosion by Acoustic Emission and Ultrasonic Techniques

In search for an effective method for early detection of rebar corrosion in concrete, the capability of acoustic emission (AE) technique in detecting a weak stress wave makes it a strong candidate for NDE. The primary advantage AE offers over other conventional NDE techniques is that it can directly detect the process of a flaw growth. The use of AE is very attractive because it is highly sensitive to cracks and crack propagation. When corrosion products are formed on a corroding rebar, they swell and apply confining pressure on the surrounding concrete. Micro cracks are formed and stress waves will be generated during the expansion process where the pressure is high enough to break the interface layer. Growth of micro cracks is directly related to the amount of corrosion. By detecting the AE event rate and their amplitude, the degree of corrosion can be interpreted. This project explores the feasibility of using AE technique in conjunction with ultrasonic guided waves for complete rebar corrosion detection

Investigation of Progression of Corrosion in Submerged Plates by Non-Contact Ultrasonic Techniques

Structural health monitoring and damage detection has been an important area of concern in the design, operation, maintenance and repair of many military and civil naval structures and equipment. Ship structures while in service are likely to be subject to age related deterioration such as corrosion wastage, fatigue cracking or mechanical damage (e.g., local denting) which can give rise to significant issues in terms of safety, health, environment and financial expenditures. Ocean going ships, including naval warships, have a propensity to travel globally and as such they experience the extremes of marine environments which have often been noted to accelerate the decline in the material state of a ship operating, for example, in the Gulf countries. Tropical marine environments as experienced in Indian conditions are far more corrosive than cold European climates because the temperature has a significant impact on the rate of corrosion. Focus of the contemporary research is the investigation of corrosion and its progression in plate specimens simulating ship hulls in uncoated, paint coated and cathodically protected states using ultrasonic guided waves. The effectiveness of the guided wave technique for corrosion monitoring in various states of ship hull structures (as in actual conditions in ships) will be compared with the existing corrosion measuring techniques like UT thickness gaging meters etc.

Health Monitoring of Structures using Fibre Optic Sensors

Structures are constructed to serve specific functions during their design life. These structures must satisfy both strength and serviceability criteria throughout their expected design life. However, some deterioration and damages begins to occur immediately after the construction and continues further. For the purpose of assuring safety, it is necessary to monitor the damage for its occurrence, and its location and the extent of damage. Undetected damage may potentially lead to more seismic damage under future earthquakes and eventually to catastrophic failure. Hence, rapid structural damage detection is essential.

Fiber optic sensors have been deployed successfully in the supervision of structures. Mainly due to their small size they are enable to be widely used in structural elements. In facts,

advances in the production of optical fibers made possible the recent development of innovative sensing systems for the health monitoring of civil structures. Fiber optic sensors show high sensitivity and accuracy in strain, stress, temperature measurement in several structures. By embedding fiber optic sensors in structures (e.g. buildings, bridges and pipelines) it is possible to obtain real time data on structural changes such as stress or strain. Being durable, stable and insensitive to external perturbations, they are particularly interesting for the long-term health assessment of civil structures.

Lateral and longitudinal hydrodynamic dispersion through rigid and flexible vegetation

The contaminants discharged into the river or channel transports into the downstream along with the water. The efficient management of any water body requires the knowledge of the fate of pollutants. The proper management of water body during accidentally spilling of contaminants requires the knowledge of time of travel, dispersion and peak concentrations of contaminants in that channel. Dispersion is a natural phenomenon caused by the velocity gradient inside the array of vegetation in wetlands. So objective of this work is the experimental study of the effects of different parameters on the lateral and longitudinal hydrodynamic dispersion coefficients separately for rigid and flexible vegetations having different configurations.

4. Activities round the year (2014-15)

7th National Conference on Wind Engineering

21-22 Nov, 2014

5. New Plans and Projects

- Starting new program: M Tech in Water Resources Engineering & Environmental Management
- Research Projects from Various Funding Agencies
- Up gradation of existing infrastructure

6. Major acquisitions during the year and new laboratory development

- Total Station
- Core cutting Machine
- Thin film oven testing
- Sieve Shaker
- DPR 300/900V Pulser Receiver System
- Wall Thickness Gage Echometer
- SAMOS AE 8 channel system with AE preamplifiers and AE Sensors
- Model of Bending Moments in a Beam STR-2
- Model of Three Pinned Arch

7. Departmental Achievements

- Papers published in SCI Journals • 16
- Papers published in Non SCI Journals • 14
- Papers published in conferences • 05
- Sponsored Research Projects Ongoing • 10 projects worth Rs 278.75 Lacs
- Seminar/Conference/Workshop organized • 02
- Lectures by visiting experts • 07
- Visits abroad by faculty members • 04
- Awards and Honors • 04

Section 2:**1. List of faculty****2.****Senior Professor**

S. No	Name	Qualification & Specialization
1	Dr. Rafat Siddique	B. E., M. E., Ph. D, PDF (Structural Engineering)

Professor

S. No	Name	Qualification & Specialization
1	Dr. Maneek Kumar	B. E., M. E., Ph. D (Structural Engineering)
2	Dr. Naveen Kwatra	Ph.D, Structural Engineering

Associate Professors

S. No	Name	Qualification & Specialization
1.	Dr. Sarbjit Singh	Ph.D, Water Resources Engineering
2.	Mr. Rajesh Pathak	ME, Geotechnical Engineering
3.	Dr. Prempal Bansal	Ph.D, Structural Engineering
4.	Dr. Shweta Goyal	Ph.D, Structural Engineering
5.	Dr. Shruti Sharma	Ph.D, Structural Engineering
6.	Dr. Dwarikanath Ratha	Ph.D, Water Resources Engineering

Assistant Professors

S. No	Name	Qualification & Specialization
1.	Mrs. Neena Garg	ME, Transportation Engineering
2.	Mr. Tanuj Chopra	ME, Transportation Engineering
3.	Dr. Richa Babbar	Ph.D, Water Resources Engineering
4.	Dr. Tapas Karmaker	Ph.D, Water Resources Engineering
5.	Dr. Gurbir Kaur	Ph.D, Structural Engineering
6.	Dr. Heaven Singh	Ph.D, Structural Engineering

Lecturers (Ad-hoc)

S.No	Name	Qualification & Specialization
1	Mr. Shiva Chidambaram	ME, Structural Engineering
2	Dr. Aditya Parihar	Ph.D, Geotechnical Engineering
3	Mr. Sahil Garg	ME, Structural Engineering
4	Ms. Priya Goel	ME, Structural Engineering

2. List of research publications in SCI/Impact Factor journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
1.	Retrofitting of Exterior RC Beam-Column Joints Using Ferrocement Jackets	Earthquakes and Structures, An International Journal, Paper Accepted	Bansal, P.P Kumar, M. and Dar, M.A.	1.138
2.	Mechanical properties of Styrene-Butadiene-Rubber latex (SBR) and Vinyl-Acetate-Ethylene (VAE) polymer modified ferrocement	Journal of Polymer Materials-An International Journal	Ghai, R., Bansal, P.P., Kumar, M.	0.192
3.	Utilization (recycling) of iron and steel industry by-product (GGBS) in concrete: Strength and durability properties	Journal of Material Cycles and Waste Management, Volume 16, July 2014, pp. 460-467	Siddique, R.	0.831
4.	Strength, permeability and microstructure of self-compacting concrete containing rice husk ash	Bio-systems Engineering (Elsevier), Vol. 130, Feb2015, pp. 72-80	Chopra, D., Siddique, R., and Kunal	1.367
5.	Compressive strength, drying shrinkage and chemical resistance of concrete incorporating coal bottom ash as partial or total replacement of sand	Construction and Building Materials (Elsevier), October 2014, Volume 68, pp. 39-48	Singh, M., Siddique, R	1.834

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
6.	Local Micro Mechanics of Moisture Diffusion in Fiber Reinforced Polymer Composites	International Journal of Heat and Mass Transfer(Elsevier), Volume 76,Sep 2014, pp. 199-209	Jain, D., Mukherjee, A., Kwatra, N.	2.522
7.	Topological disorder of microstructures in fiber reinforced polymer composites: Diffusion response	Journal of Reinforced Plastics and Composites Dec2014	Jain, D., Mukherjee, A., Kwatra, N.	1.188
8.	Effect of fibre topology on hygro-mechanical response of polymer matrix composites	International Journal of Heat and Mass Transfer, ELSEVIER Vol. 86 2015, 787-795	Jain, D., Mukherjee, A., Kwatra, N.	2.522
9.	A digraph permanent approach to evaluation and analysis of integrated watershed management system	Journal of Hydrology, 525, 188-196.	Ratha, D. and Agrawal, V.P.	3.05
10.	Stochastic erosion of composite banks in alluvial river bends	Hydrological Processes. 29, 1324-1339	Karmaker, T and Dutta, S.	2.696
11.	Pollution risk assessment based on QUAL2E-UNCAS simulations of a tropical river in Northern India	Environmental monitoring and assessment, October 2014, Volume 186, (10), 6771-6787	Richa Babbar	1.679
12.	Ultrasonic guided waves for monitoring the setting process of concretes with varying workabilities	Construction and Building Materials (Elsevier), Vol. 72, Dec 2014, pp. 358-366	Sharma, S., Mukherjee, A.	1.834
13.	Monitoring freshly poured concrete using ultrasonic waves guided through reinforcing bars	Cement and Concrete Composites (Elsevier), Vol. 55, Jan 2015, pp. 337-347	Sharma, S., Mukherjee, A.	2.76

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
14.	Pristine and amino functionalized carbon nanotubes reinforced glass fiber epoxy composites	Construction and Building Materials 72(1), 2014, pp. 358-366.	Sharma, S., Mukherjee, A.	2.265
15.	Mean & Design fatigue lives of steel fibre reinforced concrete containing cement based materials	Magazine of concrete Research	Kaur, G., Singh, S.P. and Kaushik, S.K.	0.912
16.	Acoustic emission vis-à-vis electrochemical techniques for corrosion monitoring of reinforced concrete element	Construction and Building Materials; Volume 68, October 2014, Pages 326-332	Patel S., Karkare B., Goyal S.,	3.0

3. List of research publications in Non-SCI/Non-Impact journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
1	Finite Element Modelling of CFRP Retrofitted RC Beam-Column Joints	International Journal on Emerging Technologies, Vol 5(2), September 2014, pp 31-39	Varinder Singh, Prem Pal Bansal, and Maneek Kumar
2	Experimental studies on strength and ductility of ferrocement jacketed RC beam-column joints	International Journal of Civil And Structural Engineering, Vol 5(3), 2015, pp 199-205	Varinder Singh, Prem Pal Bansal, and Maneek Kumar
3	Analysis of backward facing step with transition	Frontiers of Structural and Civil Engineering, Springer, 9 (1), 71-81	Ratha, D. and Sarkar, A.
4	Reliability based design optimization of concrete mix proportions using generalized ridge regression model	Int. J. Sci. Eng. 8(1), Doi:10.12777/ijse 8.1.26-37 Pp 26-37	R. Aggarwal, Maneek Kumar, R. K. Sharma, M. K. Sharma
5	Predicting Compressive Strength of Concrete	International journal of Engineering and Applied Sciences	R. Aggarwal, Maneek Kumar, R. K. Sharma, M. K.

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
		(Accepted)	Sharma
6	Predicting compressive strength of concrete for varying workability using regression models	International Journal of Engineering & Applied Sciences (IJEAS) Vol.6, Issue 4(2014). Akdeniz University, Turkiye pp 10-22	Palika Chopra, R. K. Sharma, Maneek Kumar
7	Effect of partial replacement of sand with municipal solid waste ash on the strength of concrete	Indian Concrete Journal, Vol.88, No. 10, Oct. 2014, pp 65-73	Manoj, Sanjay Sharma, Maneek Kumar
8	Abrasion resistance and strength properties of concrete containing municipal solid waste ash	Indian Concrete Journal, Vol.89, No. 3, Mar. 2015, pp 22-29	Manoj, Sanjay Sharma, Maneek Kumar
9	Exploratory factor analysis of service quality dimensions for higher educational institutes: A students perspective	Global journal of Management and Business Research, Vol 14 issue 8, version 1 pp 39-48	Gurbinder Singh, Maneek Kumar
10	Dynamic behavior of Coal Ash	Journal of Geotechnical Engineering, Vol. 1(2), 7-11, 2014	Rajesh Pathak
11	Utilization of Ash as a structural fill in low lying areas	International Journal of Scientific Engineering and Technology, Vol.3(8), 1088-1090, 2014	Rajesh Pathak A. Bhardwaj
12	Effect of Reinforcement on Bearing Capacity of Sand	Journal of Geotechnical Engineering, Vol. 1(3), 1-5, 2014	Rajesh Pathak Harvinder Singh
13	Stability and Flow Characteristics of Dense Bituminous Macadam (Grade 2) Mix Using Waste Plastic	Global Journal of Engineering Research and Technology Volume 5, Number 1 (June 2015), pp. 43- 49	Shubham Bansal Tanuj Chopra Sovina Sood

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
14	Influence of Material Properties of Reinforced Concrete Element on Acoustic Emission due to Corrosion	Concrete Research Letters; Vol. 6 (1) 2015; pp 11-20	Patel S., Karkare B., Goyal S.,

4. Publication of papers in conference proceedings and other publications

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
1.	Analysis of lift coefficient in flow past an airfoil,	7th National Conference on Wind Engineering, Thapar University Patiala, 21-22 Nov 2014	Sharma, A., Ratha, D., and Kumar, S.
2.	Evaluation of interference factor among tall buildings using genetic algorithm	7th National Conference on Wind Engineering, Thapar University Patiala, 21-22 Nov 2014	Bakshi, S K. & Kwatra, N.
3.	Wind damage to trees at Visakhapatnam by cyclone Hudhud	7th National Conference on Wind Engineering, Thapar University Patiala, 21-22 Nov 2014	Kotamrazu, M., Gairola, A & Kwatra, N.
4.	Wind effect on tall RCC Chimneys: A review	7th National Conference on Wind Engineering, Thapar University Patiala, 21-22 Nov 2014	Singh, S. & Kwatra, N
5.	Corrosion Monitoring in Infrastructures Using Ultrasonic Wave Propagation	23rd Australian Conference on the Mechanics of Structures and Materials- ACMSM23, 9-12th Dec 2014, Byron Bay, Australia.	Sharma, S, Sharma, S. Mukherjee, A

5. List of various faculty members who attended various conferences/ workshops/ short-term programs

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
1.	Rajesh Pathak	IGS Workshop on Forensic Geotechnical Engineering	GNEDC Ludhiana. Oct 10-12 October, 2014

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
2.	Tanuj Chopra	IGS Workshop on Forensic Geotechnical Engineering	GNEDC Ludhiana. Oct 10-12 October, 2014

6. List of ongoing sponsored projects

S.No.	Name of the Project	Year of sanction	Funding Agency	Project Cost (Rs in Lacs)	Principal Investigator
1.	Optimization Techniques for design of Ultra-High Performance Concrete Mixes	2013	AICTE	7.5	Dr. Maneek Kumar, Dr. Naveen Kwatra
2.	Special Assistance Program (DRS-Phase-III), Structural Health monitoring of RC buildings for earthquakes using guided waves & vibration diagnostics	2013	UGC-SAP	73.0	Dr. Maneek Kumar, Dr. Naveen Kwatra Dr. N. Tejo Prakash
3.	Resistance properties of coal-water slurry flowing through local piping fittings	2012	UGC	6.44	Dr. Dwarikanath Ratha
4.	Lateral and longitudinal hydrodynamic dispersion through rigid and flexible vegetation	2012	DST	14.34	Dr. Dwarikanath Ratha
5.	Ultrasonic Guided Wave Approach for monitoring setting and hardening of concrete	2012	UGC	5.33	Dr. Shruti Sharma, Dr. Sandeep K. Sharma
6.	Detection of Corrosion by Ultrasonic and Acoustic Emission Techniques	2012	DST	42	Dr. Shruti Sharma, Dr. Sandeep Sharma
7.	Investigation of corrosion and its progression in ship hulls	2013	NRB	24.64	Dr. Shruti Sharma, Dr. Sandeep Sharma

S.No.	Name of the Project	Year of sanction	Funding Agency	Project Cost (Rs in Lacs)	Principal Investigator
8.	Utilization of cement kiln dust in concrete after removal of alkalinity and metal toxicity with microbes	2012-15	DST, New Delhi	27.0	A. Rajor, R. Siddique
9.	FRP Stay-in-place Structural Form work for Concrete Floors	2012	DST WOS-A	24.9	Ms. Reema Goyal
10.	Durability enhancement and prevention of damages in RC structures using bacteria	2014	DST	53.6	Dr. Shweta Goyal

7. List of completed sponsored projects

S.No.	Name of the Project	Funding Agency	Project Cost(Lacs)	Principal Investigator
1	Service life prediction of RC structures	UGC	11.6	Dr. Shweta Goyal

8. Consultancy/Testing assignments completed/ongoing

S. No.	Name of the Project	Name of the Faculty members involved	Amount Generated (Lacs)
1.	Geotechnical Investigation for various projects	Rajesh Pathak	1,50,000
2.	Road Safety Consultancy Services for four Laning of Kiratpur Sahib – Nerchowk section of NH-21 from km 73.200 to km 186.500 in the state of Himachal Pradesh for development, Construction and Post COD operation and Maintenance phase.	Naveen Kwatra Maneek Kumar Rajesh Pathak Prempal Bansal Tanuj Chopra	50,00,000 (Continuing from Last year)
3.	Road Safety Consultancy Services for four Laning of Jammu-Udhampur Section of NH-1A from km 15.000 to km 67.000 in the state of Jammu and Kashmir for development, Construction and Post COD operation and Maintenance phase.	Naveen Kwatra Maneek Kumar Rajesh Pathak Prempal Bansal Tanuj Chopra	35,00,000(Continuing from Last year)
4.	Design and Vetting of various structures	Dr Naveen Kwatra	29,61,013

S. No.	Name of the Project	Name of the Faculty members involved	Amount Generated (Lacs)
5.	Structural material testing	Dr Maneek Kumar Dr Prem Pal Bansal Structural Engineering Group	23,99,233

9. List of faculty members who have delivered invited lectures/talks etc. at various levels

S. No.	Name of the faculty member	Title of the talk/lecture	expert	Forum with date and venue
1.	Dr. Maneek Kumar	Managing Yourself and Communicating Well		February 5, 2015, Patiala Industries Association, Patiala
2.	Dr. Maneek Kumar	Life lessons from self-management		February 12, 2015, Workshop on soft skills at Punjabi university, Patiala
3.	Dr. Maneek Kumar	Stress Management work place	at	February 16, 2015, Skill Management Workshop for Teachers at Punjabi university, Patiala
4.	Dr. Maneek Kumar	Save Energy		June 5, 2015, Keynote address on the event of Environment Day celebrated by Punjab Pollution Control Board, at Jalandhar
5.	Tanuj Chopra	Structural design of runway pavements	of	Punjab Institute of Technology, Mohali, in October 2014
6.	Tanuj Chopra	Highway Economics		Punjab Institute of Technology, Mohali, in May 2015

10. Special lectures delivered by invited scholars/experts from outside TU

S. No.	Name of the Expert with Designation	Title of the Expert Lecture	Date and Venue
1.	Dr. S K Dev, Professor, IIT Guwahati	Passive Structural Control using Fibre-Reinforced-Elastomeric- Pads: Experimental Studies and Numerical Simulations	29 July 2014, Thapar University
2.	Dr. G T Bitsuamlak, University of Western Ontario	New full scale wind and wind driven rain testing approaches	21-22 Nov 2014, Thapar University

S. No.	Name of the Expert with Designation	Title of the Expert Lecture	Date and Venue
		for wind damage mitigation	Patiala
3.	Prem Krishna, IIT Roorkee	Wind effect on tension structures – An overview	21-22 Nov 2014, Thapar University Patiala
4.	S. Arunachalam , J.P winds engineering application centre JUET, Guna	Further studies on across-wind response of tall circular chimneys.	21-22 Nov 2014, Thapar University Patiala
5.	Dr. Mohan Rao Senior Scientist CRRI, New Delhi	Traffic Control Devices & Safety Needs of Different Road Users	May 23, 2015 Thapar University
6.	Mr. Sudershan K Popli Addl. General Manager, Rites Limited, Gurgaon	Road Safety Experiences in South Asia and Other Regions	May 23, 2015 Thapar University
7.	Mr. Divyarth Dikshit Sr. Bridge Engineer	Construction Practices	May 23, 2015 Thapar University

11. List of ongoing Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1.	Retrofitting of RC Beam Column Joints Using ferrocement Jacketing	Dr. Prem Pal Bansal, Dr. Maneek Kumar, Dr. S.K.Kaushik
2.	Strengthening of shear deficient Reinforced Concrete Beams Using Polymer Modified Ferrocement	Dr. Prem Pal Bansal, Dr. Maneek Kumar
3.	Modelling the Behavior of reinforced Concrete Beam retrofitted using ferrocement	Dr. Prem Pal Bansal, Dr. Naveen Kwatra
4.	Experimental design for Concrete Mix Proportioning Using Some Industrial By- Products	Dr. Prem Pal Bansal, Dr. Maneek Kumar
5.	Optimization of High Performance Concrete Mixes using Nano-Silica	Dr. Prem Pal Bansal, Dr. Maneek Kumar
6.	Migrating Inhibitors for Preventing Carbonation induced Corrosion of Reinforced Concrete	Dr. Shweta Goyal

S. No.	Title of the Thesis	Name of the Supervisor(s)
		Dr. Maneek Kumar
		Dr. B. Bhattacharjee, IIT, Delhi
7.	Evaluation of Microbial Bio herbicides for Eichhornia Crassipes to Rejuvenate Water Bodies of Punjab	Dr. Maneek Kumar Dr. Sanjai Saxena
8.	Development of Pavement Management System (PMMS) for Urban Roads	Dr. Naveen Kwatra Dr. Manoranjan Parida (IIT, Roorkee)
9.	Corrosion Monitoring of Reinforcing Steel in Concrete using Acoustic Emission Technique and Electrochemical Techniques.	Dr. Shweta Goyal, Dr. Bilavari Karkare
10.	Data Driven Tools for Dynamic Analysis of Building Frames	Dr. Naveen Kwatra Dr. S. N. Londhe
11.	FRP Structural Stay-In-Place Formwork for Concrete Slabs	Dr. Shweta Goyal, Dr. Abhijit Mukherjee
12.	Strength and Thermal Properties of Roller Compacted Concrete for Rigid Pavements	Dr. Shweta Goyal, Dr. B. Bhattacharjee, IIT, Delhi
13.	Performance Characteristics of Concrete Incorporating Copper Slag	R. Siddique, S.K Jain
14.	Microbial treatment of Cement Kiln Dust for utilization in concrete	R. Siddique, Anita Rajor
15.	Utilization of Coal Bottom Ash as Partial Replacement of Fine Aggregate in Concrete	R. Siddique
16.	Performance Characteristics of Self-Compacting Concrete Containing Iron Slag	R. Siddique
17.	Strength and Durability Properties of Self-Compacting Concrete Incorporating Rice Husk Ash and Metakaolin	R. Siddique
18.	Development of Various Hinge Models of RCC Frame for Pushover Analysis	Dr. Naveen Kwatra Dr. Pankaj Agarwal

S. No.	Title of the Thesis	Name of the Supervisor(s)
19.	Experimental Design of Concrete Mix Proportioning Using Some Industrial By-Products	Dr. Maneek Kumar Dr. Prem Pal Bansal
20.	Behavior of Reinforced Concrete Stiffened Skew Slab	Dr. Naveen Kwatra Dr. Harvinder Singh
21.	Performance of Beam-Column Joints in Concrete Filled Steel Tubular Frames	Dr. Naveen Kwatra Dr. Shruti Sharma
22.	Health Monitoring of RC beam –column joints and frames retrofitted with GFRP using Acoustic Emission Techniques	Dr. Naveen Kwatra Dr. Shruti Sharma
23.	Analysis of flow characteristics of slurry transportation system	Dr. Dwarikanath Ratha & Dr. Satish Kumar
24.	Simulation of runoff induced soil erosion and its impact on water quality from a watershed in Shivalik Foot-hills	Dr. Sarbjit Singh & Dr. Richa Babbar
25.	Acoustic emission vis-à-vis electrochemical techniques for corrosion assessment in RC elements	Dr. Shweta Goyal Dr. Bilabari Karkare
26.	Effect of coal bottom ash on strength and durability properties of concrete	Dr. R. Siddique

12. List of M. E./M. Sc. Thesis/dissertations

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
1.	Effect of Waste plastic on the strength characteristics of the subgrade for the flexible pavement	Mr. Rajesh Pathak Mr. Tanuj Chopra
2.	Coorelation of CBR with Index Properties of Soil	Mr. Rajesh Pathak Mr. Tanuj Chopra
3.	Mechanical Properties of Fluoropolymer Modified Mortar	Dr. Prem Pal Bansal
4.	Effect of Silica fume and nano-silica as cement replacement material on strength properties of Pavement Quality Concrete (PQC)	Dr. Maneek Kumar Mr. Tanuj Chopra

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
5.	Development of Ultra-High Performance Concrete using mineral admixtures and steel fibres	Dr. Maneek Kumar
6.	Optimization of Controlled Low Strength Materials using spent foundry sand, GGBS, fly ash and CKD	Dr. Maneek Kumar Dr. Shweta Goyal
7.	Properties of cement mortar containing GGBS and subjected to carbon dioxide curing	Dr. Shweta Goyal
8.	Properties of bacterial silica fume concrete	Dr. Rafat Siddique
9.	Bond strength of steel bars embedded in concrete containing recycled fine & coarse aggregates	Dr. Gurbir Kaur
10.	Effect of reinforcement corrosion on static & dynamic behaviour of RC Beam	Dr. Shruti Sharma Dr. Naveen Kwatra
11.	Analysis of cable stayed bridges for flutter with gyroscopic active control device as torsional damper	Dr. Naveen Kwatra
12.	Monitoring setting and hardening of concrete using acoustic emission and guided waves techniques	Dr. Shruti Sharma
13.	Durability properties of concrete containing fine & coarse recycled aggregates	Dr. Gurbir Kaur
14.	Strength and durability properties of bacterial rice husk ash concrete	Dr. Rafat Siddique
15.	Strength and durability investigation of cement mortar partially replaced with nano clay and carbon nano-fibers	Dr. Shruti Sharma Dr. Naveen Kwatra
16.	Monitoring of actively protected FRP wrapped RC structures from corrosion using guided waves	Dr. Shruti Sharma
17.	Effect of application of corrosion inhibitor on properties of concrete	Dr. Shweta Goyal

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
18.	Influence of bacteria on compressive strength and durability of concrete made with cement by-pass dust	Dr. Rafat Siddique
19.	Effect of partial replacement of cement with waste marble powder in cement paste	Dr. Shweta Goyal Dr. Rafat Siddique
20.	Mechanical and durability properties of self compacting concrete containing fly ash and steel fibers	Dr. Rafat Siddique
21.	Bond strength of concrete containing recycled concrete aggregates and recycled plastic aggregates	Dr. Gurbir Kaur

13. List of equipment procured

S. No.	Name of the equipment	Make	Name of the laboratory	Date of Purchase	Amount (Rs Lacs)
1.	Total station (3No)	Trimble	Survey lab	March 2015	12.0
2.	Core Cutting Machine		Transportation Lab	January 2015	1.24
3.	Thin film oven testing		Transportation Lab	January 2015	0.4
4.	Sieve Shaker		Structural Engg. lab	June 2015	0.25
5.	DPR 300/900V Pulser Receiver System	Karl Deutsch	Dynamics Lab	30/7/2014	4.7
6.	High and Low Frequency Trnsducers	Karl Deutsch	Dynamics Lab	30/7/2014	3
7.	Wall Thickness Gage Echometer	Karl Deutsch	Dynamics Lab	30/7/2014	1.5
8.	SAMOS AE 8 channel system with AE preamplifiers and AE Sensors	MISTRAS GROUP, USA	Dynamics Lab	7/2/2014	17.23
9.	Universal Test Frame STR-1	Advance Tech International, UAE, Sharjah	Structural Mechanics Lab	30/9/2014	0.75
10.	Model of Bending Moments in a Beam	Advance Tech International, UAE, Sharjah	Structural Mechanics Lab	30/9/2014	1.5

S. No.	Name of the equipment	the Make	Name of the laboratory	Date of Purchase	Amount (Rs Lacs)
	STR-2				
11.	Model of Three Pinned Arch STR-9	Advance Tech International, UAE, Sharjah	Structural Mechanics Lab	30/9/2014	1.5
12.	Model of TwoPinned Arch STR-10	Advance Tech International, UAE, Sharjah	Structural Mechanics Lab	30/9/2014	1.5

14. Computing facilities in the Department

S. No.	Details of the Hardware/Software	Name of the Laboratory
1.	StarDAQ and Geostar Software for CBR, Unconfined Compression, Direct Shear and Triaxial Test	Transportation Engineering
2.	ATENA Software	
		CAD LAB
3.	Geomatica Software (10 user)	
		CAD Lab
4.	Fluent Software (1 user)	
		CAD Lab
5.	Haested Methods Software	
		Water Resource Lab
6.	STAAD Pro 2006 (3 User)	
		CAD LAB
7.	STRAP (Structural Analysis Software) 5 Users	
		CAD LAB
8.	COSMOS (FEM based Analysis Software) 2 Users	
		CAD LAB
9.	BEASY (FEM based Analysis Software) 2 Users	
		CAD LAB
10.	SCADDS, R.C. Design Suite 5 Users	
		CAD LAB
11.	SCADDS, R.C. Drafting Suite 5 Users	
		CAD LAB

S. No.	Details of the Hardware/Software	Name of the Laboratory
12.	SCADDS, Bridge Super CAD Suite 5 Users	CAD LAB
13.	PRIMAVERA Contractor P6 (std.)(10 Users)	CAD LAB
14.	Desktop (20 No)	CAD LAB

15. List of training programmes/ short term courses/workshops/conferences organized

S. No.	Title of the Programme with sponsoring agency	Name of the Coordinators	Dates and Venue
1.	7 th National Conference on Wind Engineering (Sponsored by TEQIP, BMTPC, Esscom India Ltd)	Dr. Naveen Kwatra, Dr. Shruti Sharma and Dr. Dwarikanath Ratha	21-22 Nov 2014 at Thapar University
2.	Road Safety Audit Workshop for NH-1A sponsored by NHAI	Mr. Tanuj Chopra	May 23, 2015 Thapar University

16. Information regarding foreign visits

S. No.	Name of the faculty	Host University/ Organization	Nature of work	Month and Year of visit
1.	Dr. Maneek Kumar	Trinity College Dublin	Workshop on India-Ireland Concrete Research Initiative	August 2014
2.	Dr. Maneek Kumar	Doha (Qatar), Kuwait, Muscat (Oman), Dubai (UAE)	India Education Fair	January 2015
3.	Dr. Naveen Kwatra	Trinity College Dublin	Collaboration Program	Jan 2015, March 2015, June 2015
4.	Dr. Shweta Goyal	Trinity College Dublin	Workshop on India-Ireland Concrete Research Initiative	August, 2014

17. List of Awards and recognitions

S. No.	Name of the faculty	Award / Fellowship / Nominations	University/ Organization	Month and Year
1.	Naveen Kwatra	E P Nicolaides Prize for paper titled “ Finite Element Modeling of Reinforced Concrete Corners under Opening Bending Moment”	The Institute of Engineers (India)	2014
2.	Dr. Maneek Kumar	Member, Board of Studies of Engineering	Kurukshetra University, Kurukshetra	July 2013 for two years
3.	Dr. Maneek Kumar	Member, Board of Studies of Engineering	MM Engineering College, Mullana, Ambala	April 2013 for two years
4.	Dr. Naveen Kwatra	Member, Board of Studies of Engineering	HPTU, Hamirpur	

18. List of organizations where students undertook project semester/Summer Training

S. No.	Name of the Organization
1	DLF Home Developers Ltd Garden City Sector -91 Gurgaon
2	Omaxe Pvt. Ltd. SCO 139-140 Sec-8C Chandigarh
3	L&T RAMBOLL BUILDING NO. -5, TOWER-b FLOOR-17 DLF CYBER TERRACE PHASE-III, GURGAON
4	Engineers India Limited, Bhikaiji Cama Place , New Delhi
5	Future Dedicated Freight Corridors Ltd (Indian Railways Unit)5th floor Pragati Maidan Metro Station Building complex New Delhi
6	Ananta Medicare Limited , Agro food Park Road, SGNR Rajasthan
7	Janta Land Promoters Ltd, Sector-82 Mohali, SCO-39-42
8	FEMC-PRATIBHA JV Ltd, INA METRO STATION, New Delhi

S. No.	Name of the Organization
10	Aravali Power Company, Pvtl Ltd (Apcpl), Tharli , Dist-Jhajjar, Haryana Indira Gandhi Super Thermal Power Project.
11	L & T Construction Pvt Limited, 12/4 Delhi Mathura Road, Near Sarai Khawaja, Faridabad
12	SAANVI INFRASTRUCTURE PVT LIMITED A 88 , Sector 70, Nodia
13	Ananta Medicare Limited , Agro food Park Road, SGNR Rajasthan
14	Era Infra Engg. Ltd. C-56/41, Sector -62, Noida Site at Shashtri Park New Delhi
15	Bridecon Infra Consultants 402-A D-Mall Netaji Subash Place, Pitampura, New Delhi
16	Janta Land Promoters Ltd, Sector-82 Mohali, SCO-39-42
17	PWD, Punjab, Judicial court complex, Sector 76, Mohali
18	L&T Constructions Pvt Limited , SUCG JV CC-27, DELHI
19	Skeleton Construction Pvt. Ltd A-75 2nd floor, Sector 5, Noida
20	Chief Engineer (NZ-1) CPWD, Kendriya Sadan, Sector 9A, Chandigarh
21	Skeleton Construction Pvt. Ltd A-75 2nd floor, Sector 5, Noida
22	Bridecon Infra Consultants 402-A D-Mall Netaji Subash Place, Pitampura, New Delhi
23	M/ s Cobal Engineers & Consultants, Sangrur, Punjab
24	L&T-SUCG JV CC-27, DELHI
25	HCC Samsung JV, DDA Park Near Distit Center, Janakpuri New Delhi 110058
26	DLF Valley Panchkula , Kalka Pinjore Urban Complex Sect-3, Panchkula
27	Era Infra Engg. Ltd. C-56/41, Sector -62, Noida Site at Shashtri Park New Delhi
28	Unitech Limited Unitech House L-Block South City-I, Gurgaon
29	ERA INFRA ENGINEERING LTD, C 56/41 Sector 62, Near Fortis Hospital, Noida Site at New Delhi
30	L&T RAMBOLL, BUILDING NO. -5, TOWER-b FLOOR-17 DLF CYBER TERRACE PHASE-III, GURGAON
31	Smart Tech Design Solutions, Pvt Limited SCO-34, Sector 24A Gurgaon

S. No.	Name of the Organization
32	SAANVI INFRASTRUCTURE PVT LIMITED A 88 , Sector 70, Nodia
33	EMMER_MGF Palm gardens, Near Manesor toll, sector-83, Gurgaon
34	EMMER_MGF Palm gardens, Near Manesor toll, sector-83, Gurgaon
35	Stup Consultants Pvt. Ltd VISHAL TOWERS DISTRICT CENTRE Janakpuri New Delhi
36	Ramboll India Pvt. Ltd. Level-17, Tower B, Building No. 5, Phase III, Gurgaon
37	Unitech Limited Unitech House Gurgaon Soth City-5, Haryana 122001
38	B&R office ludhiana
39	Sheladia Associates Inc. USA JV Aarvee Associates 38, Vardhman Nagar, B/H Minaxi Petrol Pump Main Mandia Road, Pali Rajasthan
40	Haryana Irrigation and water Housing Deptt. Sector-5, Panchkula
41	C.P.W.D. Chandigarh. Site - Incubation Centre sec 75 Mohali
42	VINTECH -35 pamposh enclave G.K.I, N. DELHI
43	L&T RAMBOLL BUILDING NO. -5, TOWER-b FLOOR-17 DLF CYBER TERRACE PHASE-III, GURGAON
44	N.C.C.Limited Bhopal
45	ITBA Project Chandigarh Airport Larsen & Toubro Limited International Trade Tower E-Block 14th Floor & Block Nehru Place Dew Delhi
46	VINTECH C-35 Pamposh Enclave, Gurbir Kaur1 New Delhi
47	SMEC India Pvt. Ltd. House No. 18 Lane 16, tawi vihar, JAMMU
48	FSS-FSS Techno Consultant Sec 38,s.c.o. 301-302, Chandigarh
49	EMMER_MGF Palm gardens, Near Manesor toll, sector-83, Gurgaon
50	Haryana Irrigation and water Housing Deptt. Sector-5, Panchkula
51	Jhabna Power United 6th & 7th floor, Vitika City Point MG Road, Gurgaon
52	M/S Ram Kumar Bansal (Govt. Contractor) # 13327, Nandev Marg, st. No. 10, Bathinda
53	M/S Ram Kumar Bansal (Govt. Contractor) # 13327, Nandev Marg, st. No. 10,

S. No.	Name of the Organization
	Bathinda
54	Tez Engineering & Infrastructures Pvt. Ltd, New Court Road. Mansa
55	CBRI IIT ROORKEE
56	Executive Engineer, Construction Durroi No., II Kapurthala
57	ERA INFRA ENGINEERING LTD, C 56/41 Sector 62, Near Fortis Hospital, Noida Site at New Delhi
58	Sadbhav Engineering ltd, Flat No. 412-GF, Omaxe City Near KV Jhajjar Bye Pass Road, Rohtak
59	Semac Consultants Pvt. Ltd, 258/634 Lane No. 3, Westend Marg Saidullajab New Delhi and BHOPAL
60	L&T Constructions Pvt Ltd , Faridabad
61	Nagarjuna Construction Company (NACC), Limited NCC House Madhapur, Hyderabad Site at Allahabad
62	PWD (B & R) Bathinda
63	Sadbhav Engineering ltd, Flat No. 412-GF, Omaxe City Near KV Jhajjar Bye Pass Road, Rohtak

COMPUTER SCIENCE & ENGINEERING DEPARTMENT

The Department of Computer Science and Engineering offers 4-year B.E. programmes, in Computer Science and Engineering. it also offers M.E. in Computer Science and Engineering, Software Engineering, ME Information Security, ME Computer Science and Engineering, ME Software Engineering, M.Tech in Computer Science and Application and MCA. The Department has an active Doctoral programme.

At the undergraduate level, the Department lays emphasis on Software Engineering, Algorithm Analysis and Design, Operating Systems, Computer Graphics, Database and inform

ation Systems Engineering and Networking Technologies. The Department provides exposure to emerging technologies as well as futuristic technologies like Cloud computing and High Performance Computing. The research area of the Department is in the field of Software Engineering, Cloud Computing, Theoretical Computer Science, Data Mining, information systems and computer networking.

The Focus of the department is on state of the art projects to be done by our BE and ME students, excellent teaching learning process, better alumni relations, good Industry attachment program through project semester and outcome based education.

Section 1

1. Academic Programs

B.E. Computer Engineering

BE Computer Engineering (Honors in Machine Learning and Data Analytics)

BE Computer Engineering (Honors in Computer Animation and Gaming)

BE Software Engineering and Management

ME Computer Science and Engineering

ME Software Engineering

ME Information Security

M. Tech. Computer and Applications

Master of Computer Applications

2. Thrust areas of research

Smart Cities

Machine Learning

Gaming and Animation

Big Data and Cloud computing

Software and its Engineering

Theory of Computation

Networks

Security and Privacy

Computer Systems Organization

Information Systems

Human Centered Computing

Computing Methodologies

3. Brief description of ongoing research activities

Department has increased the SCI/SCIE publication count to 125. Capstone project has been introduced at BE and ME level and students have been motivated to come with projects which have some deliverable components. Part time PhD has been completely banned. TCD faculty will participate in department research as part of TCD-TU partnership under which TCD faculty will act as co-supervisor in some of the on-going or fresh PhD scholars.

4. Activities round the year (2014-15)

We are the 1st department in Thapar University where the activities related to the project semester are fully automated. This has been achieved fully in yr. 2014-2015 by IAP coordinator Mr. Vinay Arora and Mr. Mohit Kumar (Student B.E. CSE 2015 batch). Faculty and Industry Co-ordinators can fill the marks of the students online through the designed portal. Weekly research seminar on every Wednesday on latest topics by experts/researchers and academicians. Department has successfully launched contemporization program with Trinity College Dublin under which 30 students of CSED will complete their BE by staying 2 years in TU and two years in TCD. Department has a special cell for Women in Engineering to uplift and enhance the visibility of girl students and faculty in research and academics

5. New Plans and Projects

To successfully implement contemporization program with TCD. To motivate students to make real time capstone project having value and worth in national and international domains.

Department faculty is executing many sponsored research projects from MHRD, DST, UGC, AICTE, TCS etc. Two Research Projects have been successfully completed and six more Research Projects are ongoing. We are planning to get more research projects in upcoming fields.

6. Departmental Achievements

• Papers published in SCI Journals	:	33
• Papers published in Non SCI Journals	:	35
• Papers published in conferences	:	60
• Sponsored Research Projects Ongoing:		
Number of Projects and Amount (in Rs Lac):		06; 121.83
• Consultancy Projects:		
Number of Projects and Amount (in Rs Lac):		01, 9.43
• Seminar/Conference/Workshop organized	:	01
• Short Term courses organized	:	03
• Doctoral Degree Awarded	:	15
• Lectures by visiting experts	:	12
• Visits abroad by faculty members	:	03
• Awards and Honors	:	20

Section 2:**1. List of faculty****Professor**

S.No	Name	Qualification & Specialization
1	Dr. R. K. Sharma	PhD, Machine Learning, NLP and Statistical Computing
2	Dr. Seema Bawa	Ph.D., M.Tech. Parallel, Distributed and Cloud Computing

Associate Professor

S.No	Name	Qualification & Specialization
1	Dr. Deepak Garg	Ph.D., Data Structures, Algorithms and Data Mining
2	Dr. Rajesh Kumar	Ph.D., Software Engineering & Computer Networks
3	Maninder Singh	Ph.D. Network Security, Cyber Security Intelligence
4	A K Verma	BE(CSE), ME(CS), PhD(CS) Wireless Networks and Security
5	Dr. Inderveer Chana	B.E.(CS), M.E.(SE), PhD(CS), Clouding Computing, Software Engineering
6	Neeraj Kumar	PhD, Routing and Security Issues in Wired/Wireless Networks

Assistant Professor

S.No	Name	Qualification & Specialization
1	Dr. V. P. Singh	Ph. D, Soft Computing, Computer Networks, Computer Forensics and Cyber Law.
2	Dr. Rinkle Rani	PhD, Networks, Databases and Algorithms
3	Dr. Shalini Batra	Ph. D. (Machine Learning, Web Semantics, SNA)
4	Dr. Parteek Kumar	PhD & Natural Language Processing
5	Dr. Shivani Goel	Ph. D. , Artificial Intelligence, Algorithms, Software Engineering and Software Reuse
6	Dr. Rajiv Kumar	Ph. D.
7	Dr Ajay Kumar	Ph.D., Theoretical Computer Science and Software Testing
8	Dr. Sushma Jain	Ph.D. , Artificial Intelligence, Network architectures, Network protocols and Network algorithms.
9	Anil Vashistha	B.E.
10	Vinod Kr. Bhalla	M.E., Next Generation World Wide Web, Software and its Engineering
11	Karun Verma	M. E. Computer Science & Engineering (IT) ,Human-centered computing, Computing methodologies
12	Ravinder Kumar	M. Tech., B.E. Combinatorial Optimization, Approximation Algorithm and Mathematical Programming

13	Ashima Singh	M.Tech. (CS), Pursuing PhD, Software Engineering, Software Components and Reuse, Agile Software Development
14	Vineeta Bassi	B.E., M.E. Software Engineering
15	Sumit Miglani	M.E., Wireless Computer Networks, Web Technologies, Mobile Agents
16	Ashish Aggarwal	M.E(Computer Science), Software and its engineering
17	Anju Bala	M.Tech & Computer Science and Engineering, IT
18	Rajkumar Tekchandani	M.Tech(CSE) , Programming, Software Engineering and Computer Graphics
19	Dr. Maninder Kaur	Mtech(CSE),Ph.D.(Computer Engineering
20	Rupali Bhardwaj	Ph.D., Multimedia Security
21	Vinay Arora	M.Tech., B.Tech., Computer Science & Engineering
22	Dr. Shingara Singh	Ph.D., Image Processing, Information Security
23	Sunita Grewal	M.Tech., Software Engineering
24	Dr. Sanmeet Kaur	PHD, Network security, Software Engineering
25	Dr. Sharad Saxena	Ph.D.
26	Dr. Ashutosh Mishra	PhD, Software Engineering, Data Mining, Intelligent Computing Methods
27	Dr. Damandeep Kaur	Phd (computer Science) , High Performance Computing, Software Engineering
28	Dr. Jhilik Bhattacharya	PhD, Computer Vision & Image Processing
29	Dr. Vijay Kumar	Ph.D. & Metaheuristic Techniques, Data Clustering
30	Dr. Prashant Rana	PhD, Machine Learning, Data Mining, Soft Computing, Bioinformatics.

Lecturers (Ad-hoc)

S.No	Name	Qualification & Specialization
1	Anju Sharma	Ph. D.
2	Anshu Singla	M.C.A.
3	Geeta Kasana	M.C.A.
4	Palika Chopra	MCA & Neuro-Computing Techniques, Database Management System
5	Karamjit Kaur	M.E.. (CSE), B.E. (CSE), Pursuing Ph. D
6	Rupinder Kaur	M.E. Software Engg., Pursuing Ph. D
7	Pratima Singla	MCA,M.Phil (Computer networks and C)
8	Sukhchandani	M.E., Pursuing Ph. D
9	Harkiran Kaur	M.E. (SE), B.Tech (CSE), Pursuing Ph. D
10	Shatrughan Modi	ME (Software Engineering)
11	Pritpal Singh,	Ph.D. & Soft Computing
12	Tarunpreet Bhatia	ME (CSE), B.Tech (CSE), Pursuing Phd

13	Ashish Girdhar	M.Tech (Computer Science & Applications))
14	Rajan Preet Kaur	M.E. (CSE)
15	Anika	B Tech (CSE), Master of Engineering (CSE), Recommender Systems
16	Husanbir Sing Pannu	PhD, MS, BTech

2. List of research publications in SCI/Impact Factor journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
1	A Novel Hierarchical Technique for Offline Handwritten Gurmukhi Character Recognition	Nat Acad Sci Letters 37(6), 567-72, 2014	Munish Kumar; M K Jindal; R K Sharma	0.24
2	Efficient Feature Extraction Techniques for Offline Handwritten Gurmukhi Character Recognition	National Academy Science Letters 7(4), 381-91, 2014	Munish Kumar; M K Jindal; R K Sharma	0.24
3	QoS-Aware Data Dissemination for Dense Urban Regions in Vehicular Ad Hoc Networks	Mobile Network and Applications	Amit Dua, Neeraj Kumar, Seema Bawa	1.04
4	Web presence of Indian Digital Culture	Preservation, Digital Technology & Culture (PDTC), 2015, 44(2), De Gruyter Saur, pp 62- 68. Springer	Seemu Sharma, Hitashi Lomash, Seema Bawa	0.963
5	A Survey on Zero-Day Polymorphic Worm Detection Techniques	IEEE Communications Surveys & Tutorials, Vol.16, Issue:3, pp:1520-1549, 2014	Ratinder Kaur, Maninder Singh	6.94
6	Data Mining Based Integrated Network Traffic Visualization Framework for Threat Detection	Neural Computing and Applications, Springer, Vol. 26, Issue:1, pp: 117-130	Amit Kumar Bhardwaj Maninder Singh	1.56
7	An empirical evaluation of a three-tier conduit framework for multifaceted test case classification and selection using fuzzy-antcolony optimisation approach	Software: Practice And Experience DOI: 10.1002/spe.2263 (2014).	Manoj Kumar, Arun Sharma, Rajesh Kumar	0.9
8	A Cooperative Network Framework for Multi-UAV Guided Ground Ad Hoc Networks	Journal of intelligent and Robotic Systems, Volume 77, Issue 3-4, pp 629-652,	Vishal Sharma, Rajesh Kumar	1.0

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
9	Structured P2P Overlay of Mobile Brokers for Realizing Publish/Subscribe Communication in VANET	Scientific World Journal, Vol 2014, 12 pages, 2014. dx.doi.org/10.1155/2014/136365	Tulika Pandey, Deepak Garg, MM Gore	1.7
10	Hybrid Approach using SVM and MM2 in Splice Site Junction Identification	Current Bioinformatics Vol. 9, No. 1, pp. 76-85, Bentham Science, 2014	Srabanti Maji, Deepak Garg	2.017
11	Intelligent text classification system based on self-administered ontology	Turkish Journal Of Electrical Engineering & Computer Sciences, Faith University, Turkey, 10.3906/elk-1305-112 Vol. 23, Issue 2015, pp. 1393-1404	Manoj Manuja, Deepak Garg	0.568
12	A secure temporal-credential-based mutual authentication and key agreement scheme with pseudo identity for wireless sensor networks	Information Sciences, 321, 263-277, 2015	Debiao He, Neeraj Kumar, Naveen K. Chilamkurti	4.038
13	A systematic review on heterogeneous routing protocols for wireless sensor network	Network and Computer Applications, 53, 39-56, 2015	Sudeep Tanwar, Neeraj Kumar, Joel J. P. C. Rodrigues	2.229
14	Robust anonymous authentication protocol for health-care applications using wireless medical sensor networks.	Multimedia Systems, 21, 49-60, 2015	Debiao He, Neeraj Kumar, Jianhua Chen, Cheng-Chi Lee, Naveen K. Chilamkurti, Seng-Soo Yeo	0.619
15	An Intelligent Context-aware Congestion Resolution Protocol for Data Dissemination in Vehicular Ad Hoc Networks	Mobile Networks and Applications, 20, 181-200, 2015	Amit Dua, Neeraj Kumar, Seema Bawa, Joel J. P. C. Rodrigues	1.045
16	Load Balancing and Job Migration Algorithm : Survey of Recent Trends	Wireless Personal Communication, Volume 79, Issue 3, ISSN print 0929-6212, ISSN online 1572-834X, pp: 2089-2125	Neeraj Kumar Rathore and Inderveer Chana,	0.979

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
17	A Novel Strategy for Automatic Test Data Generation Strategy using Soft Computing Technique	Frontiers of Computer Science, Springer, Sep 2014	Priyanka Chawla, Inderveer Chana, Ajay Rana	0.405
18	QRSF: QoS-aware resource scheduling framework in cloud computing	The Journal of Supercomputing, Vol. 71, no. 1, pp: 241-292, 2015.	Singh, Sukhpal, and Inderveer Chana	0.841
19	Intelligent failure prediction models for scientific workflows	Expert Systems with Applications 42, no. 3 (2015): 980-989	Bala, Anju, and Inderveer Chana	1.92
20	A hyper-heuristic approach for resource provisioning-based scheduling in grid environment	The Journal of Supercomputing, Springer, 20 January, 2015	Rajni Aron, Inderveer Chana and Ajith Abraham	0.841
21	Autonomic Fault tolerant Scheduling for Scientific Workflows in Cloud Computing	Concurrent Engineering: Research and Applications, Volume 22, Issue 4, Pages 1–13 Sage Publishers	Bala, Anju, and Inderveer Chana	0.531
22	A secure authentication scheme with anonymity for session initiation protocol using elliptic curve cryptography	Multimedia Tools Appl. 74, 3477-3488, 2015	Ze Zhong Zhang, Qingqing Qi, Neeraj Kumar, Naveen Chilamkurti, Hwa-Young Jeong	1.346
23	A strongly secure pairing-free certificateless authenticated key agreement protocol suitable for smart media and mobile environments.	Multimedia Tools Appl. 74, 6365-6377, 2015	Hang Tu, Neeraj Kumar, Jongsung Kim, Jungtaek Seo	1.346
24	On the security of a certificateless online/offline signcryption for Internet of Things.	Peer-to-Peer Networking and Applications 8, 881-885, 2015	Wenbo Shi, Neeraj Kumar, Peng Gong, Naveen Chilamkurti, Hangbae Chang	0.632

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
25	An improved authentication protocol for session initiation protocol using smart card.	Peer-to-Peer Networking and Applications 8, 903-910, 2015	Hang Tu, Neeraj Kumar, Naveen Chilamkurti, Seungmin Rho	0.632
26	Secure pseudonym-based near field communication protocol for the consumer internet of things.	IEEE Trans. Consumer Electronics 61,56-62, 2015	Debiao He, Neeraj Kumar, Jong-Hyoun Lee	1.045
27	Critical applications in vehicular ad hoc/sensor networks.	Telecommunication Systems 58, 275-277, 2015	Neeraj Kumar, Al-Sakib Khan Pathan, Elias Procópio Duarte Jr., Riaz Ahmed Shaikh	0.705
28	Collaborative-Learning-Automata-Based Channel Assignment With Topology Preservation for Wireless Mesh Networks Under QoS Constraints.	IEEE Systems Journal 9, 675-685, 2015	Neeraj Kumar, Jong-Hyoun Lee	1.980
29	Managing Data in healthcare information systems: many models, one solution	IEEE Computer, Vol. 48, No. 3, pp 52-59, 2015	Karamjit Kaur, Rinkle Rani	1.44
30	An Efficient Certificateless Aggregate Signature Scheme for Vehicular Ad-Hoc Networks	Discrete Mathematics & Theoretical Computer Science, Vol 17, No 1 (2015), pp. 317-338	Avleen Kaur, Shalini Batra	0.38
31	Protein structure prediction ($\text{RMSD} \leq 5 \text{ \AA}$) using machine learning models	Int. J. Data Mining and Bioinformatics, 2015, [In Press]	Y Pathak, PS Rana, PK Singh and M Saraswat	0.66
32	Automatic Unsupervised Feature Selection Using Gravitational Search Algorithm	IETE Journal of Research, Vol. 61, pp. 22-31, 2015	Vijay Kumar, Jitender Kumar Chhabra and Dinesh Kumar	0.185

3. List of research publications in Non-SCI/Non-Impact journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
1.	Modified Single Pass	International Journal of Innovative	Mamta Mittal; V P

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
	Clustering with Variable Threshold Approach	Computing, Information and Control 11(1), 375-86, 2014	Singh; R K Sharma
2.	Validation of k-means and threshold based clustering methods	International Journal of Advancements in Technology, 5(2), 153-60, 2014	Mamta Mittal; VP Singh; R K Sharma
3.	Predicting gender using IRIS images	Res Journal of Recent Sciences 3(4), 20-26, 2014	Atul Bansal; R Agarwal; R K Sharma
4.	Regression models for the prediction of compressive strength of concrete with and without fly ash	International Journal of Latest Trends in Engg and Tech, 3(4), 400-6, 2014	Palika Chopra; Maneek Kumar; R K Sharma
5.	Predicting compressive strength of concrete for varying workability using regression models	International Journal of Engg and Applied Sciences, 6(4), 10-22, 2014	Palika Chopra; Maneek Kumar; R K Sharma
6.	Segmentation of isolated and touching characters in offline handwritten Gurmukhi script documents	International Journal of Information Tech and Comp Science, 2, 58-63, 2014	Munish Kumar; M K Jindal; R K Sharma
7.	A Query-Context oriented Approach to Semantic Search on Web	International Journal of Artificial Intelligence and Knowledge Discovery Vol.5, Issue 1, Jan 2015.	Vikas Jindal, Seema Bawa, Shalini Batra
8.	Web presence of Indian Digital Culture	Digital Technology and Culture, June 2015, De Gruyter	Seemu Sharma, Hitashi Lomash, Seema Bawa
9.	An Intelligent Context-aware Congestion Resolution Protocol for Data Dissemination in Vehicular Ad Hoc Networks	Mobile Netw Appl (2015) 20:181–200 DOI 10.1007/s11036-015-0588-1, Published online: 18 March 2015	Amit Dua, Neeraj Kumar, Seema Bawa
10.	Service-Oriented Middleware for Multi-UAV Guided Ad Hoc Networks	IT Convergence Practice, 2(3), pp. 24-33, 2014.	Vishal Sharma Rajesh Kumar
11.	A Secure Opportunistic service dissemination over Flying Ad Hoc Networks.	ACM security Symposium , IIT Delhi Feb. 2015	Vishal Sharma Rajesh Kumar

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
12.	Feasibility of Public Key Cryptography in Wireless Sensor Networks.	International Journal of Theoretical Physics and Cryptography, Vol. 7, 2014.	Mandal Murari, Gaurav Sharma, Suman Bala, and Anil K. Verma.
13.	Modified Single Pass Clustering with Variable Threshold Approach	International Journal of Innovative Computing, Information and Control, pg375-386, 11(1), 2015	Mamta Mittal, R.K.Sharma and V. P. Singh
14.	A Constraint Guided Progressive Sequential Mining Waterfall Model for CRM	CIT Journal of Computing and Information Technology, pp. 45-55 Vol 22 2014	Bhawna Mallick, Deepak Garg, P S Grover
15.	Recommender System using Collaborative Filtering and Demographic Characteristics of Users	International Journal of Recent and Innovative Trends in Computing and Communication (IJRITCC) ISSN 2321-8169	Shano Solanki and Shalini Batra
16.	Data Mining – Techniques, Methods and Algorithms: A Review on Tools and their Validity	International Journal of Computer Applications, Vol. 113, No. 18, pp. 22-29, March 2015(Impact factor 0.715).	Mansi Gera, Shivani Goel
17.	Image Super Resolution using Fusion of Images	International Journal of Image and Data Fusion, Vol. 6, pp. 1-11, 2015 DOI:10.1080/19479832.2015.1046954	Chirag Garg, Singara Singh, Kasana
18.	Reducing Mutation Testing Endeavor using the Similar Conditions for the same Mutation Operators Occurs at Different Locations	Appl. Math. Inf. Sci., 8(5) 2389-2393, 2014	Tannu Singla, Ajay Kumar, Sunita Garhwal
19.	A Cuckoo Search based Approach for solving Standard Cell Placement Problem	Journal of VLSI Design Tools & Technology, 4, 1-7, 2014	Maninder Kaur, Amanpreet Singh
20.	Recognition of Multi-Stroke Based Online Handwritten Gurmukhi Aksharas	Proceedings of the National Academy of Sciences, India Section A: Physical Sciences, Springer, 2015, 85, 159-168	Kumar, R.; Sharma, R. K. & Sharma, A.
21.	Enhancement of Compatibility and Performance of Component Based Softwares by Deactivating Non-	European Journal of engineering and technology	Jasneet Chawla and Ashima Singh

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
	Participating / Non-Functional Components		
22.	Cost reduction techniques of CBSE Software while retaining high performance	International Journal of Business Management and Scientific Research	Neeraj Gupta and Ashima Singh
23.	A Survey on Regression Test Techniques of Component-Based Softwares	International Journal of Advanced Research in Computer Science and Software Engineering.	Jasneet Chawla and Ashima Singh
24.	Scrutinize: Fault Monitoring for Preventing System Failure in Cloud Computing	International Journal of Innovations & Advancement in Computer Science IJIACS, PP: 211-219, Volume 4, 2015.	Anu and Anju Bala
25.	Fault Tolerance Against Crash Failures of Name Nodes of Hadoop By Using Load balancing Techniques	International Journal of Engineering Research and Technology, Volume 8, 2015	Rajeev Kapoor, Ms. Anju Bala
26.	A proactive framework for automatic detection of zero-day HTTP attacks on educational institutions.	Computer Fraud & Security, 2015(2), 10-16.	Sanmeet Kaur, & Maninder Singh
27.	Reducing Mutation Testing Endeavor using the Similar Conditions for the same Mutation Operators Occurs at Different Locations	Appl. Math. Inf. Sci., 8(5) 2389-2393, 2014	Tannu Singla, Ajay Kumar, Sunita Garhwal
28.	Video compression using steganographic Techniques	International Journal of Innovations & Advancement in Computer Science, Vol. 4,40-46, May 2015.	Sachin Meena and Jhilik Bhattacharya
29.	HCI System for Windows Application	International Journal of Innovations & Advancement in Computer Science , Vol. 4,47-53, May 2015	Kapil Yadav and Jhilik Bhattacharya
30.	Differential Search for Multiobjective Problems	Procedia Computer Science, Vol. 48, pp. 22-28, 2015	Vijay Kumar, Jitender Kumar Chhabra and Dinesh Kumar
31.	Comparative Analysis of	International Journal of Computer	Dhulfiqar Hazim,

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
	MySQL and MongoDB : A Case Study of Hospital Management System	Technology and Applications, Volume 5 Issue 4, July-August 2014, pp. no. 1515-1526.	Karamjit Kaur
32.	Comparative analysis of ECC and RSA for Document-oriented database MongoDB	International Journal of Computer Technology and Applications, Volume 5 Issue 4, July-August 2014, pp. no. 1555-1560.	Saurabh Singh, Karamjit Kaur
33.	Steganography Technique for JPEG2000 Compressed Images using Histogram in Wavelet Domain	International Journal of Security and its Applications, Vol 8, Issue 6, pp. 211-224, 2014.(Scopus indexed)	Geeta Kasana, Kulbir Singh and Satvinder Singh Bhatia,
34.	Energy Efficient Load Balanced Multipath Routing in MANET	International Journal Of Engineering And Computer Science, vol. 4, pp. 12557-12562, 2015.	Simranjeet Kaur, Suveg Moudgil, Tarunpreet Bhatia
35.	Simulation Analysis of MANET Routing Protocols under Different Mobility Models	International Journal of Wireless Communications and Network Technologies, vol. 4, pp. 1-8, 2015.	Munish Sharma, Manish Kansal, Tarunpreet Bhatia

4. Publication of papers in conference proceedings and other publications

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
1.	Performance Analysis of Zone Based Features for Online Handwritten Gurmukhi Script Recognition using Support Vector Machine	International Conf on Systems Engineering330; pp.747-53; 2014 UNLV, USA, Springer Int Publishing	Karun Verma; R K Sharma
2.	Offline Handwritten Gurmukhi Character Recognition System using RBF-SVM	International Workshop on Doc Analysis and Recognition; 2014; IISc Bengaluru	Munish Kumar;MK Jindal; R K Sharma
3.	Performance Analysis of NoSQL Databases having Hadoop Integration	International Conference on Emerging Research in Computing, Information, Communication and Applications (ERCICA-14), Elsevier, 1-2 Aug, 2014	Aayush, Seema Bawa
4.	Experimental Comparison of Three Scheduling	IEEE International Conference of Cloud Computing in Emerging	Goyal, S.; Bawa, S.; Singh, B

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
	Algorithms for Energy Efficiency in Cloud Computing	Markets (CCEM), 2014.pp:1-6, DOI: 10.1109/CCEM .2014. 7015491	
5.	An opportunistic cross layer design for efficient service dissemination over flying ad hoc networks (FANETs)." -	In Electronics and Communication Systems (ICECS), 2015 2nd International Conference on, Coimbatore, pp. 1551-1557. IEEE, Feb.-2015.	Vishal Sharma Rajesh Kumar
6.	A Secure Opportunistic service dissemination over Flying Ad Hoc Networks.	ACM security Symposium , IIT Delhi Feb. 2015	Vishal Sharma Rajesh Kumar
7.	Multilingual text summarization with UNL	International Conference on Advances in Computer Engineering and Applications (ICACEA), March 2015.	Sherry, Parteek Bhatia,
8.	Adaptive probabilistic skip graph	IEEE International Advance Computing Conference, June 2015	Amit Goyal, Shalini Batra
9.	Progressive Alignment using Shortest Common Supersequence	International Conference on Advances in Computing, Communications and Informatics (ICACCI-2014) at Galgotias College of Engineering, Noida IEEE Xplore pp.1113-1117, September 24-27, 2014	Ankush Garg, Deepak Garg
10.	Bootstrap Sequential Projection Multi Kernel Locality Sensitive Hashing	International Conference on Advances in Computing, Communications and Informatics (ICACCI-2014) at Galgotias College of Engineering, Noida IEEE Xplore pp. 213-218 September 24-27, 2014	Harsham Mehta, Deepak Garg
11.	Maximal pattern matching with flexible wildcard gaps and one-off constraint	International Conference on Advances in Computing, Communications and Informatics (ICACCI-2014) at Galgotias College of Engineering, Noida IEEE Xplore pp. 1107-1112 September 24-27, 2014	Anu Dahiya, Deepak Garg
12.	Applying Data Mining Techniques in Job Recommender System for	International Conference on Advances in Computing, Communications and Informatics	Anika Gupta, Deepak Garg

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
	Considering Candidate Job Preferences	(ICACCI-2014) at Galgotias College of Engineering, Noida IEEE Xplore pp.1458-1465	
13.	Evaluating Quality Score of New Advertisements	International Conference on Advances in Computing, Communications and Informatics (ICACCI-2014) at Galgotias College of Engineering, Noida IEEE Xplore pp.13-17 September 24-27, 2014)	Sohil Jain, Deepak Garg
14.	Multistage learning model for better learning: A cognitive science perspective	2014 IEEE International Conference on MOOC, Innovation and Technology in Education (MITE), at Thapar University, Patiala IEEE Xplore 386 - 389 on December 19-20, 2014	Shivani Goel, Deepak Garg
15.	Variable Bid Fee: An Online Auction Skill Bidding Prevention Methodology	5th IEEE International Advance Computing Conference (IACC-2015) at BMS College of Engineering, Bengaluru, Karnatka, India IEEE Xplore pp. 381-386 June 12-13, 2015	Dhanmeet Kaur, Deepak Garg
16.	Wormhole and Sybil Attack In WSN: a Review	INDIACOM 2015:09th INDIACOM, 2nd IEEE International Conference on Computing for Sustainable Global Development, pp. 216-220, 2015. http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7100491	Svarika Goyal, Tarunpreet Bhatia and A.K.Verma,
17.	Jellyfish Attack in MANETs: A Review”	IEEE International Conference On Electrical, Computer and Communication technologies (ICECCT),SVS College of Engineering, Coimbatore, Tamilnadu , India, pp. 1373-1377, 2015.	Kaur Simran, Kaur Rupinderdeep, Verma A.K,
18.	Preventing Faults: Fault Monitoring and Proactive Fault Tolerance in Cloud Computing	ICT4SD-2015, Ahmedabad, India (July 2015), Springer AISC series.	Anu and Anju Bala
19.	Multi-level Priority Based Task Scheduling	ICT4SD-2015, Ahmedabad, India (July 2015), Springer AISC series.	Dr. Anju Bala and Dr. Inderveer

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
	Algorithm for Workflows in Cloud Environment		Chana
20.	Heart Disease Prediction Model in Cloud Environment	ICT4SD-2015, Ahmedabad, India (July 2015), Springer AISC series.	Anju Bala, Shikhar Malhotra, Nishant Gupta and Naman Ahuja
21.	Fingerprint recognition password scheme using BFO	International Conference on Advances in Computing, Communications and Informatics (ICACCI, Sept. 2014), pg 1942-1946	Harpreet Singh, Brar; V. P. Singh
22.	Detection of alphanumeric shellcodes using similarity index	International Conference on Advances in Computing, Communications and Informatics (ICACCI, Sept. 2014), pg 1573-1577	Nidhi Verma; Vishal Mishra and V. P. Singh
23.	A 3 level model for implementing MOOC in India	2nd IEEE International Conference on MOOCs Innovation and Technology in Education (IEEE-MITE 2014), Thapar University, Patiala pp. 132-137	Aman Sharma, Rinkle Rani
24.	Analysis and Visualization of Twitter Data using R	The 1 st International Conference 'INBUSH ERA 2015' Theme: Futuristic trends in computational analysis and knowledge management Amity University Greater Noida On 25 - 27 February, 2015	Aman Sharma, Rinkle Rani
25.	IoT solutions for 3-D visualization of Twitter data	IEEE IACC-2015, BMS College of Engineering, Bangalore 12-13 June, 2015 pp. 839-843	Aman Sharma, Rinkle Rani
26.	Analysis and Visualization of Professional's LinkedIn Data	Springer International Conference on Emerging Research in Computing, Information, Communication and Applications Nitte Meenakshi Institute of Technology, Bangalore ERCICA-2015 31 July - 01 August, 2015	Puneet Garg Rinkle Rani Sumit Miglani

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
		pp. 1-9	
27.	Big Data: An Introduction, Challenges & Analysis using Splunk	International conference on Advances in Computer Science and Information Technology (ACSIT), pp. 464-468, April 2015.	Satyam Gupta, Rinkle Rani
28.	Performance analysis of LEACH and its variants	Electronics and Communication Systems (ICECS), 2015 2nd International Conference on, IEEE, Karpagam College of Engineering, Coimbatore, 26-27th Feb, 2015, pp. 630-634.	Simmi Kansal, Tarunpreet Bhatia, Shivani Goel
29.	Trust based energy efficient routing in LEACH for wireless sensor network	In Proceedings of 2015 Global Conference on Communication Technologies (GCCT 2015), IEEE, Noorul Islam University, Tamil Nadu 23-24th April, 2015, pp. 361-365.	Arzoo Miglani, Tarunpreet Bhatia, Shivani Goel
30.	Intelligent Agent in Scheduler Cum Emailer Application	Second international Conference on Emerging Research in Computing, Information, Communication and Applications, ERCICA 2014, organized by NITTE, Bangalore on 2-3 August, 2014, ISBN: 978951072621, pp. 260-266(Elsevier).	Rupal Bansal, Shivani Goel
31.	Speech Emotion Classification using EEMD, SVM and ANN	Second international Conference on Emerging Research in Computing, Information, Communication and Applications, ERCICA 2014, organized by NITTE, Bangalore on 2-3 August, 2014, ISBN: 978951072621, pp. 336-341(Elsevier)	Manisha, Shivani Goel
32.	Multistage Learning Model for Better Learning: A Cognitive Science Perspective	IEEE international Conference on MOOC, Innovation and Technology in Education 2014, Organized by Thapar University, Patiala, Dec 19-20, 2014, pp. 386-389	Shivani Goel, Deepak Garg
33.	A Comprehensive Study on Clustering Approaches for Big Data Mining	International Conference on Electronic and Communication Systems (ICECS), organized by Karpagam College of Engineering,	Divya Pandove, Shivani Goel

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
		Coimbtore, 26-27th Feb, 2015, pp. 1333-1338	
34.	A Model for Predicting the Eligibility for Placement of Students Using Data Mining Technique	International Conference on Computing, Communication and Automation 2015, Galgotia University, Greater Noida, UP, 15-16 May, 2015, pp. 114-117 (IEEE Explore)	Mansi Gera and Shivani Goel
35.	CSAAES: An Expert System for Cyber Security Attack Awareness	International Conference on Computing, Communication and Automation 2015, Galgotia University, Greater Noida, UP, 15-16 May, 2015, pp. 242-245, IEEE Explore	Cheshta Rani and Shivani Goel
36.	Challenges and Issues in Underwater Acoustics Sensor Network	International Conference on Parallel Distributed and Grid Computing (PDGC2014), December 11-13, 2014, Solan, pp 251-255	Himanshu Jindal, Sharad Saxena, Singara Singh Kasana
37.	A Noval Image Zooming Approach using Wavelet Coefficients	Recent Cognizance in Wireless Communication & Image Processing (ICRCWIP2014), January 16-17, 2015, Jaipur.	Himanshu Jindal, Singara Singh Kasana, Sharad, Saxena
38.	Tree Based Energy Efficient Routing Scheme for Body Area Network	International Conference on Advances in Computer Engineering and Applications (ICACEA, IMS Engineering College, Ghaziabad, India, March 2015, pp.140-147	Priya Juneja and Sushma Jain
39.	Fuzzy Based Expert System for Diabetes Diagnosis and Insulin Dosage Control	International Conference on Computing, Communication and Automation (ICCCA), Galgotias University, Noida, 2015, pp. 262-267	Neeru Lalka and Sushma Jain
40.	Selecting a set of appropriate metrics for detecting code clones	2014 Seventh International Conference on Contemporary Computing (IC3), Noida, Aug. 7, 2014 to Aug. 9, 2014, pp. 484-488.	Geetika Bansal ,Rajkumar Tekchandani
41.	An approach to rank code clones for efficient clone management	2014 International Conference on Advances in Electronics, Computers and Communications (ICAIECC), Bangalore, 10-11 Oct. 2014, 1 - 5	R.Garg, Rajkumar Tekchandani
42.	A Hybrid Approach to	In Proceedings of International	Surbhi Sonika ,

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
	Detect Code Clones	Conference on Emerging Research in Computing, Information, Communication and Applications (ERCICA), India, August 2014.	Rajkumar Tekchandani
43.	Enhanced MFCC algorithm using look up table and Kaiser window	Proceedings of Second IRF International Conference on 10th August 2014, Cochin, India, pp.144-149.	Vikram Ojha, Rajkumar Tekchandani.
44.	Automated Leukaemia Detection Using Microscopic Images	Procedia Computer Science, Volume 58, 2015, Pages 635-642	Ashutosh Mishra, Nimesh Patel
45.	Multi agent paradigm used to complexity measure for perfective software maintenance	Computer Science and Engineering (APWC on CSE), 2014 Asia-Pacific World Congress, Fiji, 2014. IEEE Xplore: DOI: 10.1109/APWCCSE.2014.7053834	Ashutosh Mishra, Vinayak Srivastava
46.	Securing mobile agent's information in ad-hoc network	CONFLUENCE-2014 pp. 442-446, (IEEE), Amity University, Noida	Jasleen Kaur, Sharad Saxena, Mohd Abuzar Sayeed
47.	Challenges and issues in underwater acoustics sensor networks: A review	International Conference on Parallel, Distributed and Grid Computing (PDGC), pp. 251-255, PDGC-2014 (IEEE), JAYPEE Univ. Solan	Jindal Himanshu, Saxena Sharad, Singh Singara
48.	Acoustic communication characteristics in UWDBCSN	International Conference on Parallel, Distributed and Grid Computing (PDGC), pp. 251-255, PDGC-2014 (IEEE), JAYPEE Univ. Solan	Saxena Sharad, Mehta Deepak, Kaur Jasminder, Jindal Himanshu
49.	A Survey- Academic Demolition via Internet Addiction	2nd International Conference on Computing for Sustainable Global Development (INDIACom-2015), pp 210-215 (IEEE), Bharti Vidyapeeth, New Delhi	Vishal Kohli, Sharad Saxena, Jagdish Patni
50.	Dependency Mapper and ACO based Efficient Job Scheduling and Load Balancing in Green Clouds	IC3I, Mysore, Nov.27-29	Supriya Kinger, Anju Sharma
51.	SQL2Neo: Moving Health-	Advance Computing Conference	Manpreet Singh,

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
	care Data from Relational to Graph Databases	(IACC), 2015 IEEE International , vol., no., pp.721,725, 12-13 June 2015 doi: 10.1109/IADCC.2015.7154801	Karamjit Kaur
52.	Integration of Computer Engineering and heterogeneous databases Applications (ICACEA), 2015 International Conference on Advances in, vol., no., pp.1033,1038, 19-20 March 2015 doi: 0.1109/ICACEA.2015.7164859	Binny Garg, Karamjit Kaur	
53.	Jellyfish Attack in MANETs: A Review	ICECCT 2015, Coimbatore (IEEE)	Simranpreet Kaur, Anil Kumar Verma, Rupinderdeep Kaur
54.	A Context Sensitive Thresholding Technique for Automatic Image Segmentation	ICCIDM 2014 Conference, VSSUT, Odhisa, India, December 20-21(2014),Computational Intelligence in Data Mining - Volume 2,Smart Innovation, Systems and Technologies Volume 32, 2015, pp 19-25	Anshu Singla, Swarnajyoti Patra.
55.	Bringing closer to the Cultural Roots through Cultural Computing: Detailed Analysis of movie ‘Chaar Sahibzaade’	National Conference on Advances in Engineering, Technology & Management (AETM’15) MMU Ambala, 4th April 2015, pp 09-14	Harkiran Kaur, Kawaljeet Singh, Tejinder Kaur
56.	Topic sensitive web page ranking through. Graph database	Third International conference on emerging research in computing, information, communication and applications ercica-2015, NITTE Meenakshi Institute of Technology Yelahanka, bangalore-560 064. India, 31st July 2015, pp 519-527	Alok Gupta, Harkiran Kaur, Shalini Batra
57.	Wormhole and Sybil Attack in WSN: A Review	INDIACOM 2015:09th INDIACOM, 2nd IEEE International Conference on Computing for Sustainable Global Development, Bharati Vidyapeeth, New Delhi, 11 - 13 March 2015. pp. 166-170.	Svarika Goyal, Tarunpreet Bhatia, A.K Verma
58.	A Hybrid Approach for	International Conference on Future	Vijay Kumar,

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
	Data Clustering using Expectation-Maximization and Parameter Adaptive Harmony Search Algorithm.	Computational Technologies, Singapore, 2015, pp.61-67.	Jitender Kumar Chhabra and Dinesh Kumar
59.	Swarm Intelligence and Flocking Behaviour	ICAET-2015, BGIET, Sangrur, Date: 20-21 March 2015,	Himani , Ashish Girdhar
60.	Chapter titled "Trust Calculation using Fuzzy Logic in Cloud Computing"	Book titled "Handbook of Research on Security Considerations in Cloud Computing"	Ms. Rajanpreet Kaur Chahal, Dr. Sarbjeeet Singh

5. List of various faculty members who attended various conferences/ workshops/ short-term programs

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
1.	R K Sharma	International Conference on Systems Engineering	UNLV, August 19-21, 2014
2.	Dr. Shivani Goel	IEEE international Conference on MOOC, Innovation and Technology in Education 2014	Thapar University, Patiala, Dec 19-20, 2014
3.	Dr. Shivani Goel	Workshop on "Research methodology"	School of Humanities and Social Sciences, Thapar University, Patiala, 20-21st March, 2015
4.	Parteek Bhatia	UNL School	Geneva, Switzerland July 21st to 25th, 2014 fully sponsored by UNDL Foundation, Geneva
5.	Vinay Arora	Faculty enablement Program on Foundation Program 4.0 (STP)	Education, Training and Assessment, Infosys, Chandigarh, 15th -19th December 2014
6.	Dr. Ashutosh Mishra	5-days Workshop on "Big data Analytics"	16-20th February, 2015 at Infosys, Pune.
7.	Dr. Ashutosh Mishra	3-days National workshop on GPU programming and Applications 2014	12th-14th, September 2014 at Indian Institute of Technology, Guwahati, Assam, India.
8.	Dr. Ashutosh Mishra	10 days International Summer School on Machine Learning	3rd- 13th June, 2014 at Thapar University, Patiala

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
9.	Dr. Ashutosh Mishra	Algorithms and Data Analysis 2 days Microsoft Faculty Connect Summer Symposium	26-27th June, 2014 at Microsoft, Gurgaon, India.
10.	Karamjit Kaur	Neo4j Schema Extraction Algorithm	Public Health Symposium on "Health Informatics: Opportunities and Challenges" held at PGIMER, Chandigarh on 7th & 8th March, 2015.
11.	Karamjit Kaur	Collaborating Heterogeneous Data-stores in Health-care Information Systems	10th IEEE International Conference on Collaborative Computing: Networking, Applications and Worksharing, Miami, Florida, USA 22-25 October 2014.
12.	Karamjit Kaur	Moving from Relational to Non-relational Databases	International Conference of Women Engineers and Scientists, Los Angeles, California, USA 23-25 October 2014.
13.	Karamjit Kaur	Polyglot Joins in Cloud	Grace Hopper Conference of Women in Computing, Phoenix, Arizona, USA 8-10 October 2014.
14.	Harkiran Kaur	Faculty Development Program on Cloud Infrastructure Services conducted by EMC Corporation	Manav Rachna International University, Faridabad from 14/07/2014 to 18/07/2014
15.	Harkiran Kaur	2 days workshop on Research Methodology organized by School of Humanities and Social Sciences	Thapar University Patiala on March 20-21 2015.
16.	Sukhchandan	EMC2 Workshop on Cloud Infrastructure Services (FDP)	Manav Rachna International University Aravalli Campus, Faridabad, 14- 18 July

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
17.	Tarunpreet Bhatia	Faculty Enablement Program on Cloud Infrastructure Services by EMC Academic Alliance.	2014. Manav Rachna International University, Faridabad, 14-18th July, 2014.
18.	Tarunpreet Bhatia	Faculty Enablement Program on Agile Software Development conducted by Infosys Limited.	Infosys, Chandigarh from 3-7 February, 2014.
19.	Ashish Girdhar	ICAET-2015	BGIET, Sangrur, Date: 20-21 March 2015

6. List of ongoing sponsored projects

S. No.	Name of the Project	Year of sanction	Funding Agency	Project Cost (Rs in Lacs)	Principal Investigator
1.	Development of OHWR System for Punjabi	2010	MoCIT	60.23	RK Sharma
2.	Collaborative Mobility Aware Reliable Data Dissemination in Vehicular Ad Hoc Networks	2012	Tata Consultancy Services	14.2	Seema Bawa, Neeraj Kumar
3.	Energy Aware Resource Scheduling for Cloud Computing	2012-13	UGC	11.68	Dr. Inderveer Chana
4.	A Framework for Secure Vehicular Communication Systems	2012	TCS	14.2	Shalini Batra
5.	Framework for Enabling Data Portability between Heterogeneous Cloud Storage Platforms	April 2013	UGC	8.60	Dr. Rinkle Rani
6.	Green Cloud Computing Framework for Efficient and Robust Management of Resources	2013	UGC	12.92	Anju Sharma

7. List of completed sponsored projects

S.No.	Name of the Project	Funding Agency	Project Cost(Lacs)	Principal Investigator
1.	Development of Prosodically Guided Phonetic Engine for Searching Speech Database in Indian Languages	MoCIT	30.015	R K Sharma
2.	To Investigate the Constrained Optimized Routing and Channel Assignment for the Next Generation Urban Monitoring System using Wireless Mesh Networks	UGC	6 Lakhs	Dr. Neeraj Kumar

8. Consultancy/Testing assignments completed/ongoing

S. No.	Name of the Project	Name of the Faculty members involved	Amount Generated
1.	Information Security @ Desidoc	Maninder Singh	9.43 lacs

9. List of faculty members who have delivered invited lectures/talks etc. at various levels

S. No.	Name of faculty member	Title of the expert talk/lecture	Forum with date and venue
1.	Rajesh Kumar	Makespan Optimization in clouds using Ant colony optimization	One week PTU Sponsored Faculty Development Programme entitled “Optimization and Security in Information and Computing Technology” from June 01 – June 05, 2015 at ACET Amritsar
2.	Dr. Seema Bawa	Cloud Computing and Big Data Analytics	Faculty development Program on ‘Cloud Computing and Big Data’, at Chandigarh University, Chandigarh, 25 July, 2014.
3.	Dr. Seema Bawa	Leading to Empowerment	Educator’s Meet: Manthan – Leading to Empowerment, Organised by Punjab Technical University Jalandhar, Sep 19, 2014.
4.	Dr. Seema Bawa	ICT in Education and Research	Seminar on “Role of ICT in Education, Research and Innovation” held at Department of Computer Science and Applications, Panjab University, Chandigarh, 21st November, 2014.
5.	Dr. Seema	Need of NOSQL	One day Workshop on Big Data Analytics, at PTU Jalandhar, March 27, 2015.

S. No.	Name of faculty member	Title of the expert talk/lecture	Forum with date and venue
	Bawa	databases; Big Data Analytics techniques	National Conference at NITTR Chandigarh, on March 31, 2015
6.	Dr. Seema Bawa	Self Management for better Engineering & research	Faculty Development Program, at Chandigarh University, June 28, 2015.
7.	Dr. Deepak Garg	Web Intelligence and Machine Learning	Manav Rachna College of Engineering, Faridabad, Haryana on July 5, 2014
8.	Dr. Deepak Garg	Algorithm Complexity for Beginners	Rayat Bahra Institute of Engineering and Biotechnology, Mohali, Punjab on July 9, 2014
9.	Dr. Deepak Garg	Tips for Conference Organizers	BMS College of Engineering, Bengaluru, Karnataka on September 06, 2014
10.	Dr. Deepak Garg	Machine Learning and Web Intelligence	IEEE All Kerala Student Congress at College of Engineering, Trivandrum, Kerala on September 27, 2014
11.	Dr. Deepak Garg	Corruption Vigilance: Technology as a Enabler	Diesel Locomotive Works, Indian Railways, Patiala, Punjab on October 31, 2014
12.	Dr. Deepak Garg	Data Structure Basics: Importance and Key Ideas	SR Group of Institutions, Lucknow, Uttar Pradesh on November 22, 2014
13.	Dr. Deepak Garg	Creating Intelligent Web Applications	Academic Staff College, Guru Nanak Dev University, Amritsar, Punjab on December 10, 2014
14.	Dr. Deepak Garg	Complexity Analysis of Algorithms	Academic Staff College, Guru Nanak Dev University, Amritsar, Punjab on December 10, 2014
15.	Dr. Deepak Garg	How to prepare for NBA	NC College of Engineering, Israna, Panipat, Haryana on January 10, 2015
16.	Dr. Deepak Garg	Latest trends in Technology related to Computer Science	Aryans Group of Colleges, Banur, Punjab on February 3, 2015
17.	Dr. Deepak Garg	Web Intelligence	Chandigarh University, Gharuan, Punjab on February 3, 2015
18.	Dr. Deepak	MOOCs and their	Maharaja Agarsain University, Barotiwala,

S. No.	Name of faculty member	Title of the expert talk/lecture	Forum with date and venue
19.	Garg Dr. Deepak Garg	Implications of Look Phase of Web Intelligence Life Cycle	Himachal Pradesh on February 9, 2015 Durg Institute of Technology, Durg, Chhatisgarh on June 30, 2015
20.	Dr. Parteek Bhatia	Universal Networking Language: A Web Based Solution to Bridge Language Barriers	National Seminar on Web Based Technologies: Present & the Future, St. Bede's College, Shimla, 30th April 2015.
21.	Dr. Parteek Bhatia	Transactions and Concurrency Control of Databases	PCTE, Ludhiana, 7th April, 2015
22.	Dr. Shalini Batra	Recommender Systems	Sep16, 2014, Chandigarh University, Chandigarh
23.	Dr. Prashant Singh Rana	Python for Bioinformaticians	School of Biotechnology, Jammu University. (17-19 June 2015)
24.	Dr. Prashant Singh Rana	Scientific Writing using Latex	GLA University, Mathura.
25.	Dr. Prashant Singh Rana	Scientific Writing using Latex	CSED, Thapar University. (13-14 July 2015)
26.	Dr. Prashant Singh Rana	Scientific Writing using Latex	CSED, Thapar University. (16-17 July 2015)
27.	Dr. Prashant Singh Rana	Machine Learning using R	CSED, Thapar University. (29 July 2015)
28.	Dr. Sharad Saxena	WSN Applications and Research Challenges	8 July 2015, Chandigarh University, Chandigarh.
29.	Dr. Sharad Saxena	WWW Evolution and Future Perspective	6 August 2015, Chandigarh Group of Colleges, Chandigarh
30.	Anju Sharma	Green Cloud Computing	NIT Goa 20th March, 2015
31.	Harkiran Kaur	Intelligent Glance at Business Intelligence	Weekly Expert Lecture Series at CSED Thapar University Patiala on 1st April 2015

10. Special lectures delivered by invited scholars/experts from outside TU

S. No.	Name of the Expert with Designation	Title of the Expert Lecture	Date and Venue
1.	Mr Harsh Pandey, Instructor	CCNA, CCNP certifications	13-Aug-14, C-Hall, Thapar Univeristy
2.	Mr. Balakrishna Shettt, Visiting Prof.	What is Mathematics	20-Aug-14, C-Hall Thapar Univeristy
3.	Mr. Vivek Mudgil CEO	Entrepreneurship to make India Sone Ki Chidiya	22-Aug-14, C-Hall Thapar Univeristy
4.	Dr. Durga Toshniwal Assoc Prof.	Time Series Data Mining: Issues and Challenges	27-Aug-14, C-Hall Thapar Univeristy
5.	Dr. Robin Doss Reader	RFID Security for wireless networks	15-Oct-14, C-Hall Thapar Univeristy
6.	Deepti Bathula Assist. Prof.	Intro to Neuro Imaging	29-Oct-14, C-Hall Thapar Univeristy
7.	Dr. Kamlesh Gupta	Security in wireless networks	12-Nov-14, C-Hall Thapar Univeristy
8.	Prof Mayank Dave Professor	Content Based networks	13-Nov-14, C-Hall Thapar Univeristy
9.	Dr. Sudershan Iyengar	Crowd Sourcing	19-Nov-14, C-Hall Thapar Univeristy
10.	Prof Vijay Kumar Professor	Consistency in mobile database	4-Dec-14, C-Hall Thapar Univeristy
11.	Prof Sartaj Sahni Professor	Embedded hardware and applications	4-Mar-15, C-Hall Thapar Univeristy
12.	Prof S. Tamaraselvi Professor	Recent trends in IT	8-Apr-15, C-Hall Thapar Univeristy
13.	Mr Harsh Pandey, Instructor	CCNA, CCNP certifications	13-Aug-14, C-Hall, Thapar Univeristy

11. List of ongoing Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1.	Efficient Detection and Interpretation of Clusters in High Dimensional Databases	R K Sharma; V P Singh
2.	Improving Quality of Service through Buffer Optimization in VoIP Networks	R K Sharma; Sakshi Kaushal
3.	Neuro-Computing Techniques for Prediction of Compressive Strength of Concrete	R K Sharma; Maneek Kumar
4.	Iris Recognition System for Some Clinical Applications	R K Sharma; R Agarwal
5.	Efficient Preprocessing, Feature Extraction and Post Processing Algorithms for Recognition of Online	R K Sharma; Anuj Sharma

S. No.	Title of the Thesis	Name of the Supervisor(s)
	Handwritten Gurmukhi Script	
6.	Speaker Dependent Hindi Speech Recognition	R K Sharma
7.	Reliability Based Single and Multi-Objective Optimization of Concrete Mix Parameters	R K Sharma; Maneek Kumar; M K Sharma
8.	Efficient Hidden Markov Models for Online Handwritten Gurmukhi Script Recognition	R K Sharma
9.	Designing a Framework for Efficient Discovery of Web Services	R K Sharma
10.	Prosody Based Text-to-Speech System for Punjabi Language	R K Sharma; Parteek Kumar
11.	Creating Digital Cultural Archives and Using Social Computing for its effective dissemination	Seema Bawa, Hitashi Lomash
12.	A Framework for Information Retrieval on Semantic Web	Seema Bawa, Shalini Batra
13.	Dynamic and Scalable Data Access and Integration Services for Cloud Computing Environment	Seema Bawa
14.	Efficient Grid GIS Framework for Spatial Data,	Seema Bawa
15.	Sanskrit Language Enconvesion to Universal Networking Language	Seema Bawa
16.	Energy Efficient Resource Scheduling Algorithms for Cloud Computing	Seema Bawa, Bhupinder Singh
17.	A Framework for Data Integrity Checking in Cloud Computing,	Seema Bawa
18.	Scalable Metadata Storage and Retrieval Techniques for very large Distributed Storage Systems,	Seema Bawa
19.	An Efficient and Secure InterCloud framework	Seema Bawa
20.	Efficient Algorithm Design using Geometric Techniques for Resource Location Models	Dr. Deepak Garg
21.	Improved Data Structure for Massive and Dynamic data	Dr. Deepak Garg
22.	Design of framework for Intelligent Particle Filter Based CBIR System	Dr. Deepak Garg ,Prof Aditya Abhayankar
23.	Algorithm for Graph Mining	Dr. Deepak Garg
24.	Efficient Randomized Algorithm for Graph Theoretic Problems	Dr. Deepak Garg
25.	Efficient Approximation algorithms for Resource Location Problems	Dr. Deepak Garg
26.	Efficient Load Balancing Algorithms for Parallel & Distributed Systems	Rajesh Kumar
27.	Some soft Computing Techniques for Quality Prediction in Aspect-Oriented Systems	Rajesh Kumar & P. S. Grover
28.	An Evaluation of Quality of Component-Based Autonomic	Rajesh Kumar

S. No.	Title of the Thesis	Name of the Supervisor(s)
	System	&Avadhesh Kumar
29.	Agent based Efficient Consistency Control and ReplicaManagement in Data Grids	Rajesh Kumar & Anju Sharma
30.	An efficient technique for reusable component clustering	Rajesh Kumar & Rajesh Bhatia
31.	Energy Efficient Resource Scheduling Algorithms in Green Cloud	Rajesh Kumar & Anju Sharma
32.	Soft Computing Based Software Reliability Growth Model	Rajesh Kumar
33.	Network Framework for Multi UAV Guided Ground Adhoc Network	Rajesh Kumar
34.	Energy Efficient Resource Allocation in Green Clouds	Rajesh Kumar & Anju Sharma
35.	DPI based forensic analysis of network traffic using Grid infrastructure	Dr. Maninder Singh
36.	Design and development of an efficient clone detection technique	Dr. Maninder Singh , Dr. Rajesh Bhatia
37.	Mobile Agent Based Regression Test Case Generation	Dr. Maninder Singh , Dr. Rajesh Bhatia
38.	Slicing Technique for Test Path Generation in Concurrent Programs	Dr. Maninder Singh , Dr. Rajesh Bhatia
39.	Development of an Efficient Semantic Code Clone Detection Technique	Dr. Maninder Singh ,Dr. Rajesh Bhatia
40.	Efficient zero day attack detection techniques	Dr. Maninder Singh
41.	Performance Analysis and Traffic Optimization of Wired Networks Using Traffic Metrics	Dr. Maninder Singh ,Dr. V. L. Patil
42.	An Efficient Routing Protocol for VANET	A K Verma
43.	An Enhanced Routing Technique for Wireless Sensor Networks	A K Verma
44.	Secure Routing in FANETs	A K Verma
45.	Design and development of Cross layer frame work in WSN	A K Verma
46.	Design and development of an efficient secure AODV routing protocol	A K Verma, L R Raheja
47.	Dynamic Cache Invalidation in Wireless Environments	Dr. Neeraj Kumar
48.	Efficient Data Dissemination in Vehicular Ad Hoc Network.	Dr. Seema Bawa, Dr. Neeraj Kumar
49.	3. Efficient Secure Data Clustering in Vehicular Ad Hoc Networks	Dr. Neeraj Kumar
50.	An Efficient Technique for Web Classification	Dr. Neeraj Kumar
51.	A Novel Framework for Querying	Dr. Rinkle Rani

S. No.	Title of the Thesis	Name of the Supervisor(s)
	Multiparadigm Database	
52.	A Novel Framework for Analysis of Big Data	Dr. Rinkle Rani
53.	Efficient pattern mining of Big Data using Graphs	Dr. Rinkle Rani
54.	A Framework for Secure Vehicular Communications	Shalini Batra
55.	Efficient IP Traceback for DDoS Attacks in IPv6 Networks	Shalini Batra, Maninder Singh
56.	A Novel Technique for Mobile Agents Protection from Malicious Hosts	Shalini Batra
57.	Big Data Clustering Based Recommendation System Model Through Correlations	Dr. Shivani Goel
58.	A Generic Framework for Improving Software Product Line by Analyzing Feature Model Using an Ontological Rule Based Approach	Dr. Shivani Goel
59.	Developing and Efficient Framework for Image Mining	Dr. Shivani Goel
60.	Development of Efficient Watermarking Techniques for High Efficient Video Coding	Dr Singara Singh, Dr M K Sharma
61.	Procreation of Energy Efficient Topology for Data Transmission in Underwater WNS	Dr. Singara Singh, Dr Sharad Saxena
62.	Development of Efficient Techniques for Fog Removal from Digital Images	Dr Singara Singh, Dr R K Sharma
63.	Development of Efficient Watermarking Techniques in Medical Images	Dr Singara Singh
64.	An efficient framework for privacy preservation for big data applications	Damandeep Kaur
65.	Selection of reusable software components using the expertise of semantic web and intelligent computing methods.	Dr. Ashutosh Mishra
66.	Software Fault Prediction using Intelligent Computing Methods.	Dr. Ashutosh Mishra
67.	Procreation of Energy Efficient Hierarchical Routing Protocol(s) for Wireless Sensor Networks	Dr. Sharad Saxena
68.	Energy Efficient Image Transmission and ReJinement in Wireless Sensor Networks Using lhavelet Coefficients	Dr. Sharad Saxena, Dr. Singara Singh
69.	Dependability Evaluation of Wireless Sensor Networks	Dr. Sharad Saxena
70.	Augmented Map based Intelligent Navigation System	Dr. Jhilik Bhattacharya
71.	Distributed data deduplication techniques for efficient cloud storage system	Dr. Jhilik Bhattacharya
72.	Agent based Efficient Consistency Control and ReplicaManagement in Data Grids	Dr. Inderveer Chana Anju Sharma, Rajesh Kumar

S. No.	Title of the Thesis	Name of the Supervisor(s)
73.	An Efficient and Robust Resource Management Framework in Green Clouds	Anju Sharma, Rajesh Kumar
74.	Development of QoS Metrics for Software-as-a-Service	Anju Sharma, Meenakshi Rana
75.	Energy Efficient Resource Allocation in Green Clouds	Anju Sharma, Rajesh Kumar

12. List of completed Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1.	Recognition of Degraded Gurmukhi Text	R K Sharma; Manish Kumar
2.	Autonomic model for self-healing and self-protection in Grid computing using Multi-agents Completed	Maninder Singh
3.	A Network Security model for attack signature generation, tracking and analysis	Maninder Singh
4.	An integrated network traffic visualization system for network security enhancement	Maninder Singh
5.	Design and Analysis of Software metrics using soft computing approach	Rajesh Kumar & Arun Sharma
6.	Developing Event Based Middleware for Information Dissemination in Vehicular Ad hoc Networks	Dr. Deepak Garg
7.	Semantic Web Mining of Unstructured Data.	Prof. M M Gore
8.	Query Estimation in data streams using Micro-Clustering.	Dr. Deepak Garg
9.	Design and Simulation of Algorithm for K-Center Problem.	Dr. Deepak Garg
10.	Improvement in public key cryptography	Dr. Deepak Garg
11.	Improvement in Performance of RSA Cryptosystem.	Dr. Deepak Garg
12.	Secure Information dissemination in heterogeneous wireless sensor networks	Dr. Deepak Garg
13.	Design and Development of an algorithm for converting parallel regular expression to deterministic finite automata	A K Verma, R B Patel
14.	Design and development of an efficient cryptographic algorithm for WSN	A K Verma
15.	An Efficient Key Management Scheme for Wireless Sensor Network	A K Verma
16.	Design and Development of ACO Based Routing Protocol for MANETs.	A K Verma

13. List of M. E./M. Sc. Thesis/dissertations

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
1.	Automation of Pitch Accent Markings in Punjabi Speech	R K Sharma
2.	Prosodically Guided Phonetic Engine for Punjabi Language	R K Sharma
3.	Recognition of online handwritten Gurmukhi strokes using support vector machine	R K Sharma
4.	Comparative Analysis of MongoDB, Oracle NoSQL and Oracle 12C	Dr. Seema Bawa
5.	Enhancement of Framework for Webservices Security in SOA.	Dr. Seema Bawa
6.	Analyzing Data Leakage using Third Party Connections in Mobile Applications	Maninder Singh, V P Singh
7.	Social Media Spam Detection using Fuzzy String Matching	Maninder Singh
8.	Machine learning approach to malware analysis and reporting	Maninder Singh
9.	Capture, analyze and detect malicious activities in a university network traffic	Maninder Singh
10.	Energy Efficient Routing Protocol for MANETs	Rajesh Kumar
11.	Efficient Scheduler based on Swarm Intelligence to improve QoS of MANETs	Rajesh Kumar
12.	Efficient data dissemination for Topology Management in VANETs	Rajesh Kumar
13.	An Improved Genetic Based Routing Protocol for VANETs	Rajesh Kumar
14.	Variable Bid Fee: An Online Auction Shill Bidding Prevention Methodology	Dr. Deepak Garg
15.	Predicting Employability from User Personality using Ensemble Modelling	Dr. Deepak Garg
16.	A Hybrid Approach to improve the Anomaly Detection Rate Using Data Mining Techniques	Dr. Deepak Garg
17.	Profile Injection Attack Detection in Recommender System	Dr. Deepak Garg
18.	ClickJacking	A K Verma
19.	Improvement of Ered Fec Mechanism Fpor Video Transmission Over WLANs	A K Verma
20.	A Novel Approach for Automatic Facial Expression Classification	A K Verma, Amitava das
21.	Detection and Defense Against Jellyfish Delay Variance Attack In Manets	A K Verma, Rupinder Kaur
22.	A Novel Scheme of Detection and Eradication of Wormhole Attack	A K Verma, Tarunpreet Kaur

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
23.	Battery power and Trust Based Routing Strategy for MANET	Neeraj Kumar
24.	Scalable Congestion Aware Replication Framework for Mobile Ad Hoc Networks.	Neeraj Kumar
25.	Load Balancing Adaptive Scheduling with minimum packet Loss in Wireless Mesh Networks.	Neeraj Kumar
26.	Design and Development of an Efficient Alert Summarization Technique for Cloud Environment	Neeraj Kumar
27.	Enhanced Clustering Mechanism in Wireless Sensor Networks	Neeraj Kumar
28.	Document and Entity Centric Analysis of Google+ Activity Data	Dr. V. P. Singh
29.	Optimization of Component Based Softwares To Achieve Energy Efficient Green Computing	Dr. V. P. Singh
30.	Intrusion Detection System using Machine Learning Models	Dr. V. P. Singh
31.	Analyzing Data Leakage Using Third Party connections in Mobile Applications	Dr. V. P. Singh, Dr. Maninder Singh
32.	Community Detection and Analysis of Twitter Social Data	Dr. Rinkle Rani
33.	Analysis and Visualization of Social Data	Dr. Rinkle Rani, Sumit Miglani
34.	A Novel Approach for SLM GUI Design, Development & Test Suite Automation	Dr. Rinkle Rani
35.	Comparative Analysis of SCM tools and Coexistence with Agile Methodology	Dr. Rinkle Rani
36.	Adaptive Probabilistic Skip Graph	Dr. Shalini Batra
37.	Topic Sensitive Web Page Ranking Through Graph Database	Dr. Shalini Batra
38.	Recommender System using Collaborative Filtering and Demographic Features	Dr. Shalini Batra
39.	Enhancing the Accuracy of Recommender System Using Graph Databases	Dr. Shalini Batra
40.	A Comparative Study of Various Combinatorial Approaches for Minimization of Transmission and Distribution Losses	Dr. Shalini Batra
41.	Framework for Enhancing the Performance of Unit Testing in Java Based Projects	Dr. Shivani Goel
42.	Enhancing Performance And Minimizing Automation Testing Cost And Time By Using A Framework And Efficient Methods	Dr. Shivani Goel
43.	A Framework for Improving Attack Detection Accuracy using Ensemble Methods	Dr. Shivani Goel
44.	An Approach to Improve the Accuracy of prediction using	Dr. Shivani Goel

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
	Ensemble Modeling	
45.	An Energy Efficient and Trust Aware Framework for Secure Routing in LEACH for Wireless Sensor Networks	Dr. Shivani Goel, Ms Tarunpreet Kaur Bhatia
46.	An optimized approach of CH selection for enhancing energy efficiency in Wireless Sensor Networks	Dr. Shivani Goel, Ms Tarunpreet Kaur Bhatia
47.	Optimization of Text Classification Using Supervised and Unsupervised Learning Approach	Dr. Shivani Goel,
48.	Multilingual Text Summarization	Parteek Bhatia
49.	Cross Exchange Arbitrage Algorithm on High Frequency Trading Platform	Parteek Bhatia and Vinay Arora
50.	Natural User Interface using Microsoft Kinect and HTK	Parteek Bhatia and Raj Kumar
51.	A Novel Approach to Color Constancy using Vector Filtered Edge Weighting	Parteek Bhatia and Mr. Amitava Das
52.	Histogram and Vector Quantization based multilevel Reversible Data Hiding Schemes	Dr. Singara Singh
53.	A Multilevel Chaotic Cryptosystem and Authentication Algorithm for Digital Images	Dr. Singara Singh
54.	Image De-noising Using Double Density Dual Tree Complex Wavelet Transform	Dr. Singara Singh
55.	Investigation of various properties of Jumping Finite Automata	Dr Ajay Kumar
56.	Semantic Mutation Testing Tool in Python	Dr Ajay Kumar
57.	Framework for monitoring JMS based Integration Bus	Dr Ajay Kumar
58.	Extending C & K metrics suite to Determine and Analyze the Maintainability of Java Projects	Vinod K Bhalla
59.	Video Search Engine Optimization Technique Using Keyword and Feature Analysis	Vinod K Bhalla
60.	Customization of Black Box Complexity Metric for Component Based Software	Vinod K Bhalla
61.	Solving Standard Cell placement problem using Cuckoo's behavior	Maninder Kaur
62.	Partition Driven standard cell placement using firefly algorithm	Maninder Kaur
63.	Community Detection in Complex Networks using a novel nature inspired algorithmic approach based on Ant Lion Optimizer.	Maninder Kaur

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
64.	Layer-Aware 3D Partitioning in VLSI Circuit using Cuckoo Search Meta-heuristics	Maninder Kaur
65.	Image Steganography Using Improved LSB and EXOR Encryption Algorithm	Vineeta Bassi
66.	Automated Testing For Anti-Patterns for Software Quality Analysing Using AOP	Vineeta Bassi
67.	Reliable Energy Efficient Adaptive Routing Algorithm for Body Area Networks	Dr. Sushma Jain
68.	PSO based Trust management in Wireless Sensor Network	Dr. Sushma Jain, Ms. Sukhchandan Randhawa
69.	Fuzzy Logic for Medical Diagnosis	Dr. Sushma Jain
70.	School Bus Routing and Scheduling Based on Branch and Bound Approach	Dr. Sushma Jain
71.	Detection of Fake Accounts in Social Network	Ravinder Kumar, Raj Kumar Tekchandani
72.	Devanagari Character Segmentation and Recognition	Karun Verma
73.	Word Recommendation System for Devanagari Script	Karun Verma
74.	Spam Filtering using Local-global Bayesian Classifier	Karun Verma, Ravinder Kumar
75.	A Probabilistic Approach for Fault Analysis in Cloud Environment	Dr. Anju Bala
76.	An Efficient Auction Based Resource Allocation Algorithm in Cloud Computing	Dr. Anju Bala
77.	Green Computing Approach to Reduce Power Consumption	Dr. Anju Bala
78.	Consensus Based Ensemble Model for pam Detection	Dr. Anju Bala
79.	Fault Tolerance Approach for Crash Failures In Cloud Environment	Dr. Anju Bala
80.	Scenario Based Software Testing Using UML Activity Diagram	Vinay Arora
81.	Water Quality Sensing With Sensors and Mobile Smart Phone	Dr Sharad Saxena, Sunita Garhwal
82.	Design and Development of Antispammer for SMS Spam Detection	Dr Sanmeet Bhatia, Sunita Garhwal
83.	Effectual Mutation Analysis of Relational Database using Minimal Schemata with Parallelization	Sunita Garhwal
84.	Cloud Service Ranking Based On Quality of Service	Damandeep Kaur
85.	Efficient data retrieval For Privacy Preserved data in Public Cloud	Damandeep Kaur

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
86.	Location Based Context Aware Recommender System through User Defined Rules	Damandeep Kaur
87.	Age group prediction of facial images using different classifiers	Dr. Ashutosh Mishra
88.	Automated Leukemia detection using microscopic images	Dr. Ashutosh Mishra
89.	Prediction of future possible offenders network and role of offenders	Dr. Ashutosh Mishra
90.	A mixed based classifier approach for sentiment analysis	Dr. Ashutosh Mishra, Mr. Sumit Miglani
91.	Intrusion Detection System based on Software Defined Network Firewall	Dr. Sharad Saxena
92.	Energy Efficient Dynamic Multipath Routing Approach to Wireless Sensor Network	Dr. Sharad Saxena
93.	Water Quality Sensing With Sensors and Mobile Smart Phone	Dr. Sharad Saxena
94.	Rough Set Based Feature Selection Method	Dr. Sharad Saxena
95.	Mobile Agent Information Security in Ad-Hoc Networks	Dr. Sharad Saxena
96.	Encoded Depth Panorama based Information Flow in a Multi Agent System	Dr. Jhilik Bhattacharya
97.	Real Time Hand Gesture Recognition Based Interface for Microsoft Word Document Handling	Dr. Jhilik Bhattacharya
98.	Common Functions Library	Dr. Jhilik Bhattacharya
99.	Optimization of Virtual Honeynet with Implementation of Host Machine as Honeywall	Dr. Jhilik Bhattacharya
100.	Innovative Approach to Key Generation with Dual RSA algorithm	Sanmeet Kaur
101.	Improving Detection Rates Using Misuse Detection and Machine Learning	Sanmeet Kaur
102.	A Hybrid Approach for Intrusion Detection using Misuse Detection and Genetic Algorithm	Sanmeet Kaur
103.	Schema Extraction of Document Database MongoDB	Karamjit Kaur
104.	An Efficient Schema Extraction Technique for Graph Databases	Karamjit Kaur
105.	Spreadsheets and Adf - Alternative Approaches to Oracle Forms	Karamjit Kaur

14. List of equipment procured

S. No.	Name of the equipment	Make	Name of laboratory	Date of Purchase	Amount (Rs Lacs)
	Dell Precision T-7810 Workstation E5-2650, 8 GB RAM, 500GB HDD, Dvd RW, 4 Gb k2200 Graphic card, Dell mouse keyboard, Win 8.1 pro (20)	DELL	UG-CAG	13/02/2015	29,40,000/-
	Cintiq Monitor: (20) 22" HD DTK-2200, display with stylus	WACOM	UG-CAG	01/01/2015	45,36,000/-

15. Computing facilities in the Department

S. No.	Details of the Hardware/Software	Name of the Laboratory
1.	IBM SERVER X3650M4 XEON ES 2650 06 CORE, 2.0GHz, 1333MhzFSB/16GB RAM DDR3/3x300 GB HDD/DVDW/ WITH 19" TFT	UG CS LAB
2.	IBM SERVER X 5450 DUAL CORE 3.2 GHz/2x2MB L2 CACHE/ 4 GB RAM/300GB SCSI HDD/CDW/WITH 19" TFT/ WINDOWS 2008 ENTERPRISE EDITION.	
3.	IBM SERVER X 3650 DUAL CORE 3.2 GHz/2x2MB L2 CACHE/4GB RAM/300GBSCSI HDD/1066FSB/CDW/WITH 17" FLAT LCD WITH WINDOWS 2003 R2 ENTERPRISE EDITION (DATABASE SERVER)	
4.	IBM SERVER X 3650 DUAL CORE 3.2 GHz/2x2MB L2 CACHE/4GB RAM/300GBSCSI HDD/1066FSB/CDW/WITH 17" FLAT LCD WITH LINUX (FILE SERVER)	
5.	Sun Sparc Server 10 - Single CPU upgradable to Quad CPU configuration, CDROM20X, CTD, DAT, 64 MB RAM, 2.1 GB, SCSI HDD, 1.44 MB FDD.	
6.	Client Machines LENEVO CORE 2 DUO 2.33 GHz, RAM DDR2 2GB, HDD SATA 160GB, CDR, 17" TFT: 30	
7.	IBM CORE 2 DUO 2.33 GHz, RAM DDR2 2GB,	

S. No.	Details of the Hardware/Software	Name of the Laboratory
8.	HDD SATA 160GB,DVDRW, 17" TFT: 07 IBM DUAL CORE 2.8 GHz, RAM DDR2 2GB, HDD SATA 160GB,DVDR, 17" TFT: 2	
9.	Dell Optiplex 7010 i7 3rd GEN, RAM DDR3 6GB, HDD SATA 500GB, DVDRW, 18.5" TFT: 06	
10.	Dell OptiPlex 9020 i7 3rd GEN, RAM DDR3 6GB, HDD SATA 500GB, DVDRW, 18.5" TFT: 06	
11.	Dell Opti-plex 780 Core 2 Quard,RAM DDR3 3GB, HDD SATA 2500GB,DVDRW, 18.5" TFT: 12	
12.	7 Dell OptiPlex 330 Intel Pentium Dual CPUE2160 1.80 GHzDDR2 1 GB RAM, 160 GB HDD, Optical Mouse, Keyboard, "19" TFT Screen: 02	
13.	Printer Line printer Wipro P-1000: 01	
14.	Storage HP Storage Device 1 Tera Byte: 01	
15.	Software MSDN Academic license (CITM Purchased) Oracle Academic License Antivirus Symantec endpoint	
16.	Projector DLP PROJECTOR XR-10X-L	
17.	Computer Machines Dell Vostro 430 i5, RAM DDR3 4GB, HDD SATA 250GB, DVDRW, 18.5" TFT: 30	ME Information Security LAB
18.	Printer PRINTER HP 4015N	
19.	Networking CISCO 1242 AG-A-K9 NON MODULAR 105ACCESS POINT WITH LOWER INJECTOR	

S. No.	Details of the Hardware/Software	Name of the Laboratory
	& CONSOLE CABLE:02 ANT.AIR.ANT4941 (2.4 GHz) 2.2 DBIDIPole ANT:04 OP-NET MODULER UNIVERSITY PROGRAME:01 CISCO1941-SEC/KP:1941 SEQUIRITY BUNDLE	
20.	Computer Machines Dell Vostro 430 i5, RAM DDR3 4GB, HDD SATA 250GB,DVDRW, 18.5" TFT: 30	ME Computer Science LAB
21.	Printer Hp Laserjet M+602N printer	
22.	Computer Machines Dell OptiPlex 7010 i7 3rd GEN, RAM DDR3 6GB, HDD SATA 500GB,DVDRW, 18.5" TFT: 28	ME Software Engineering LAB
23.	Software Rational Rose Netsim	
24.	Printer Multi-Function Printer SHARP ARM205: 01	
25.	Projector PROJECTOR SONY VPL-CW125	
26.	Project Servers HP Proliant Server ML350e: GEN8, 1xIntel Xeon E52407(2.2GHZ/4-core/10MB/ 80 W) Processor Kit with 18.5"TFT: 02	PhD LAB
27.	HP Proliant DL 180 G6(590638- 371): G6 E5620 1P 8 GB- R P410/256 BBWC/ (1) Intel Xeon E5620(2.40 GHZ/ 4 Core/ 12 MB/ 80W)/ 8MB shared L3 cache/ 8 GB (2x4GB) PC3-10600R-9(RDIMM):01	
28.	Workstation Dell Workstation T-5600intel Xeon,e5 2650,8 GB DDR3,1600 Mhz,500 GB Sata Hdd,nvidia card Gpu Computing,Dvd Rw,1Gb N/W Card/19"LCD ,Window Starter: 15	
29.	HP Workstation:Z220 CMT Intel Core i5- 3470, 3.2 GHZ,6MB 1600 4C 77 W GT1 CPU,	

S. No.	Details of the Hardware/Software	Name of the Laboratory
	8GB DDR3 – 1600 NECC(2x4GB) RAM/ 1TB 7200 RPM SATA 6 G 1ST HDD with 18.5"TFT:01	
30.	Printer Digital Muti-Funtion printer SHARP: 01	
31.	Projector DELL PROJECTOR 4210X/3500 LUMENS/XGA/1280x800/WIRED,WiFi	
32.	DELL POWER EDGE R720 SERVER 2*INTEL XEON E5-2670(15M CATCHE ,2.6GHz) 24GB DDR3 1600Mhz RAM 2*1 TB SAS,HOT PLUG/4.1 GB ETHERNET PORT/NFINEBAND-SINGLE PORT QDR ADAPTER:08	New LAB (Only equipment but not physically installed)
33.	INTERCONNECT SERVER RACK SYSTEM SOFTWARE 24-U RACK 18-P SWITCHES WITH REQUIRED CABLE & ETHERNET SWITCH CABLES & ACCESSORIES:01	
34.	MASTER NODE DELL POWER EDGE RT20 2* INTEL XEON PROCESSOR E2560/16GB DDR3 RAM/1600Mhz/500GB SAS HOT PLUGABE/4*1 GB ETHERNET PORT/2*1GB NVIDIA TESLA M SERIES GP/DVDRW/18.5 TFT:01	
35.	DELL PRECISION T7600 PROCESSOR INTEL XEON ES2650/8GB RAM/8 DIMM SLOT/4CHANNEL (DDR3 1600Mhz)/HDD1*500GBSATA/1*NVIDIA QUADCORE 600 GRAPHICS CARD*1*NVIDIA TESLA C2075 GPU COMPUTING CARD/18.5 LCD/DVDRW:01	
36.	DELL PRECISION T7600 WORK STATION: 04	
37.	Workstation Dell Workstation T-5600intel Xeon,e5 2650,8 GB DDR3,1600 Mhz,500 GB Sata Hdd,nvidia card Gpu Computing,Dvd Rw,1Gb N/W Card/19"LCD ,Window Starter: 30	CML LAB
38.	Computer Machines Dell OptiPlex 330 Intel Pentium Dual CPU	MCA LAB

S. No.	Details of the Hardware/Software	Name of the Laboratory
39.	E2160 1.80 GHzDDR2 1 GB RAM, 160 GB HDD, Optical Mouse, Keyboard, "19" TFT Screen: 02 Dell Optiplex 360 Intel Core 2 Duo CPU E7400 2.80 GHz DDR2 2 GB RAM, 160 GB HDD, Optical Mouse, Keyboard, "19" TFT Screen: 12	
40.	Dell Optiplex380 Intel Core 2 Duo CPU E7500 2.93 GHz DDR2 2 GB RAM, 160 GB HDD, Optical Mouse, Keyboard, "19" TFT Screen: 39	
41.	Computer Machines PCs Configraution (Pentium I5 (3.2 GHz), 4GB RAM, 250GB HDD & USB Keyboard and Mouse) With TFT (18.5"): 30	UG CS-1 A LAB
42.	Projector Hitachi CP-X3030WN Projector: 1	
43.	Computer Machines PCs Configraution (Pentium I5 (3.2 GHZ), 4GB RAM, 250GB HDD & USB Keyboard and Mouse) With TFT (18.5"): 30	UG CS- 1B LAB
44.	Projector Hitachi CP-X3030WN Projector: 01	
45.	Computer Machines PCs Configuration Dell OptiPlex (330) Intel (R)Dual Core (1.80 GHz), 1GB RAM, 150GB HDD & USB Keyboard and Mouse) With TFT (18.5"): 19	UG CS-1C LAB
46.	Lenovo Think Centre E7500, Intel core 2 duo, 2.93 GHz, 2 GB RAM 150 GB HDD USB Keyboardand Mouse) With TFT: 10	
47.	Computer Machines PCs Configuration Dell OptiPlex (330) Intel (R)Dual Core (1.80 GHz), 1GB RAM, 150GB HDD & USB Keyboard	RESEARCH LAB

S. No.	Details of the Hardware/Software	Name of the Laboratory
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and Mouse) With TFT (18.5"): 01

- | | | |
|-----|--|--|
| 48. | Lenovo Think Centre E7500, Intel core 2 duo, 2.93 GHz, 2 GB RAM & 150 GB HDD, USB Keyboard and Mouse) With TFT: 01 | |
| 49. | Printer
HP LaserJet Printer 3055 all in one: 01 | |

16. List of training programmes/ short term courses/workshops/conferences organized

S. No.	Title of the Programme with sponsoring agency	Name of the Coordinators	Dates and Venue
1.	Hands-on workshop on SAP-ABAP	Dr Singara Singh, Mr Khushneet Jindal	01 June 2015 to 26 June 2015
2.	Six Week summer Training Programme on "Java, Oracle", Self-Sponsored	Karun Verma, Varinder Pal Singh	June 01-July 10, 2015, Thapar University, Patiala
3.	6 days workshop on "Mobile Application Development using Android"		June 2nd to 7th, 2014

17. Information regarding foreign visits

S. No.	Name of the faculty	Host University/ Organization	Nature of work	Month and Year of visit
1.	Dr. Deepak Garg	Trinity College, Dublin	Contemporization Program	March, June 2015
2.	Parteek Bhatia	UNDL Foundation, Geneva	UNL School	July 21st to 25th, 2014
3.	Karamjit Kaur	Grace Hopper Conference, Phoenix, Arizona, USA	Research Paper Presentation	October, 2014

18. List of Awards and recognitions

S. No.	Name of faculty	Award / Nominations	Fellowship/ University/ Organization	Month and Year
1.	Maninder Singh	Certified Ethical Hacker v8	EC-Council	Oct 2014
2.	Dr. Deepak Garg	Member, Advisory Committee, International Conference on Recent Advancements in Information Technology (ICRAIT'14)	Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu	July 10-12, 2014
3.	Dr. Deepak Garg	Member, Scientific Advisory Committee of International conference on Soft Computing Techniques for Engineering & Technology (ICSCTET2014)	Graphic Era Hill University, Dehradun, Uttrakhand	August 7-8, 2014
4.	Dr. Deepak Garg	Member, Steering Committee 3rd International Conference on Advances in Computing, Communications and Informatics (ICACCI)	Galgotia University, Greater Noida, Uttar Pradesh	September 24-27, 2014
5.	Dr. Deepak Garg	Member, Advisory Committee, REDSET 2014, a National Conference on Recent Developments of Science, Engineering and Technology	GD Goenka University, Gurgaon, Haryana	October 17-18, 2014
6.	Dr. Deepak Garg	Member, Technical program Committee, International Conference on Computational Intelligence and Communication Networks (CICN 2014)	Rajsthan Vidyapeeth University, Udaipur, Rajsthan	November 14-16, 2014
7.	Dr. Deepak Garg	Member, Advisory Committee, National Workshop on Network, Network Simulation & Information Security (NWNSIS-2014)	Institute of Science & Technology for Advanced Studies & Research ISTAR, Anand, Gujarat	November 24-29, 2014
8.	Dr. Deepak Garg	Member, Technical Program Committee of International Conference on Contemporary	SJCE, Mysore	November 27-29,

S. No.	Name of faculty	Award / Nominations	Fellowship/ University/ Organization	Month and Year
		Computing and Informatics (IC3I)		2014
9.	Dr. Deepak Garg	Member, Steering Committee, 3rd International Conference on Eco-friendly Computing and Communication Systems (ICECCS2014)	NIT Surathkal, Mangalore, Karnataka	December 18-21, 2014
10.	Dr. Deepak Garg	Member, Advisory Board, International Conference on High Performance Computing and Applications (ICHPCA)	CV Raman College of Engineering, Bhubaneswar, Orissa	December 22-24, 2014
11.	Dr. Deepak Garg	Member, Advisory Committee, International Conference on Advances in Computing, Communication and Control ICAC3 biennial conference	Fr. Conceicao Rodrigues College of Engineering, Bandra, Mumbai, Maharashtra	January 23-24, 2015
12.	Dr. Deepak Garg	Member, Advisory Committee, Future Directions in Multidisciplinary Perspective of Computer Science and Information Technology: Scope & Challenges	IIS University, Jaipur, Rajasthan	January 30-31, 2015
13.	Dr. Deepak Garg	Member, Program Committee, 5th Student Research Symposium held with 11th International Conference on Distributed Computing and Internet Technology (ICDCIT 2015)	KIIT University, Bhubaneswar, Odisha	February 5-8 2015
14.	Dr. Deepak Garg	Member, Technical Program Committee, first International Conference on Cognitive Computing and Information Processing (CCIP-15)	JSS Academy of Technical Education, Noida, Uttar Pradesh	March 3-4, 2015
15.	Dr. Deepak Garg	Member, Advisory Board, International Conference on Information, Computation and Communications (ICIC2-2015)	Kalaigarnar Karunanidhi Institute of Technology, Coimbatore,	March 6-7, 2015

S. No.	Name of faculty	Award / Nominations	Fellowship/ University/ Organization	Month and Year
			Tamilnadu	
16.	Dr. Deepak Garg	Member, Technical Advisory Committee at IEEE International Conference on Computing, Communication & Automation	Galgotias University, Greater Noida, Uttar Pradesh	May 15-16, 2015
17.	Dr. Deepak Garg	Member, Technical Program Committee, The Second International Conference on Advances in Computing and Communication (ICACCE-2015)	Tula's Institute of Engineering and Management College, Dehradun, Uttrakhand	April 17-18, 2015
18.	Parteek Bhatia	Winner of Gold medalist for UNL Olympiad-IV for development of EUGENE module for Punjabi Language and Hindi Language conducted by.	UNDL Foundation, Geneva Switzerland	2014
	Parteek Bhatia	Winner of Gold medalist for UNL Olympiad-IV for development of IAN module for Punjabi Language and Hindi Language conducted by Switzerland in year 2014.	UNDL Foundation, Geneva	2014
19.	Karamjit Kaur	Google Global Scholarship for attending Conference held in USA	Google	October 2014

19. List of organizations where students undertook project semester/Summer Training

S. No.	Name of the Organization	S. No.	Name of the Organization
1.	Aa2IT	2.	Limetray
3.	Accenture	4.	Magic Software Pvt. Ltd.
5.	Aldoshik	6.	Mahindra & Mahindra LTD. (Swaraj Division)
7.	Amadeus Software Labs India Pvt Ltd.	8.	MakeMyTrip.com
9.	Apollo Munich	10.	MAQ Software Hyderabad Pvt. Ltd.

S. No.	Name of the Organization	S. No.	Name of the Organization
11.	Ascentx Software Development Services	12.	Microsoft IDC
13.	authorGEN	14.	Nagarro Softwares Pvt. Ltd.
15.	Axind software private limited	16.	Naukri.com
17.	B4S	18.	NewGen
19.	Bharti Airtel Limited	20.	NHPC
21.	BlackNGreen	22.	NU branding
23.	Blackrock Services India Private Limited	24.	Nucleus Software
25.	Bright Lifecare Pvt. Ltd. (HealthKart.com)	26.	Oditi Global Solution Pvt. Ltd.
27.	Bulls Eye	28.	OGS private limited
29.	BYTE MATRIX PVT. LTD.	30.	Oracle Financial Services Software ltd.
31.	Cadence Design Systems	32.	Paxcel Technologies Pvt Ltd
33.	Chic Mic	34.	Punjab Communications Limited
35.	CMC Limited	36.	Routofy Services Pvt. Ltd.
37.	CureOnDelivery	38.	SanDisk Corporation
39.	D.E. Shaw	40.	SAP Labs R&D
41.	DataWeave	42.	Sapient Global Market
43.	EFREI	44.	SapientNitro
45.	Ericsson India Global Services Private Ltd.	46.	Sebiz Infotech Pvt. Ltd.
47.	Ernst & Young LLP	48.	Siemens
49.	Expedia	50.	Snapdeal
51.	Freescall Semiconductor	52.	Softtrix Web Solutions
53.	Geoligence Technologies(Affiliate of Smart Commerce Solutions Pvt. Ltd)	54.	Span Infotech
55.	GingerMind Technologies Pvt Ltd	56.	SS Tech Solutions
57.	Goldfinch Mobile Solutions	58.	STMicroelectronics India Pvt. Ltd
59.	Grofers	60.	STPI
61.	Hadoolytics	62.	Style Monk
63.	HCL	64.	Success Factors
65.	Healthkart	66.	TATA MOTORS
67.	Hike Ltd.	68.	TechSprinters
69.	HP	70.	TouchTalent
71.	IBM	72.	Trantor
73.	IIT-Bombay	74.	TWEETSECRET
75.	impinge solutions	76.	UTrade Solutions
77.	INDIVAR SOFTWARE SOLUTIONS PVT. LTD.	78.	Virtual Engineering Services (P) Ltd.
79.	InfoEdge(naukri.com)	80.	Wipro
81.	Infogain	82.	Xplanck

S. No.	Name of the Organization	S. No.	Name of the Organization
83.	Informatica Corporation	84.	Z.S Associates
85.	Infowiz	86.	Zomato Media Pvt Ltd
87.	Internshala	88.	Zostel
89.	KPMG	90.	ZTE Telecom Lucknow

ELECTRICAL & INSTRUMENTATION ENGINEERING DEPARTMENT

The Department of Electrical and Instrumentation Engineering has been playing a vital role in producing scientists and technologists of highest caliber ever since it was established in the year 1956. The department runs two undergraduate programs, three post-graduate programs and Ph.D. program to cater to the ever challenging needs of technical excellence in all areas of electrical engineering. In addition to the strong undergraduate programs, the department has been playing a pioneering role in producing world class postgraduates and researchers. The infrastructure and lab facilities are upgraded from time to time and provide adequate opportunities for students and researchers to learn and innovate. The department has distinguished faculty, all holding degrees from renowned institutes in India and abroad. The department also undertakes many research projects sponsored by both the government and the industry.

Section 1

1. Academic Programs

BE- Electrical Engineering,
BE- Electronics (Instrumentation & Control)
ME – Power System, Electronics (Instrumentation & Control);
ME – Power Electronics & Drives;
PhD program.

2. Thrust areas of research

Biomedical Instrumentation, Cognitive Engineering, Power System, Electric Drives, Renewable Energy

3. Activities round the year (2014-15)

Four workshops/seminar organized in the department. Ten outside experts have delivered their lectures at EIED, TU. Four faculty members have delivered invited talks.

4. New Plans and Projects

Deptt. to start **ME** – Biomedical Instrumentation

5. Major acquisitions during the year and new laboratory development

A Renewable Energy Lab has been approved and budget is sanctioned [25 lacs]

6. Departmental Achievements

- Papers published in SCI Journals : 17
- Papers published in Non SCI Journals : 34
- Papers published in conferences : 11
- Sponsored Research Projects New :

- Number of Projects and Amount (in Rs Lac) : 06 and 66.89lacs.
- Sponsored Research Projects Ongoing :
Number of Projects and Amount : 08 and 605.89 lacs
- Seminar/Conference/Workshop organized :04
- Doctoral Degree Awarded : 04
- Lectures by visiting experts : 10
- Awards and Honors :01

Section 2: Details

1. List of faculty

Professor

S.No	Name	Qualification & Specialization
1.	Dr. Ravinder Agarwal	Ph.D. , Bio-Medical Instrumentation
2.	Dr. Samarjit Ghosh	Ph.D. , Power System

Associate Professor

S.No	Name	Qualification & Specialization
1.	Dr.Mandeep Singh	Ph. D., Bio-Medical Instrumentation
2.	Ms. Manbir Kaur	M.E., Computer science Ph.D. (Pursuing), Power System Optimisation
3.	Dr. S. K. Jain	Ph. D., Power System

Assistant Professor

S.No	Name	Qualification & Specialization
1.	Dr. Gagandeep Kaur	Ph. D., Artificial Intelligence
2.	Dr. Sunil Kumar Singla	Ph. D., Biometrics & Image processing
3.	Mr. Parag Nijhawan	M. E., Power Systems
4.	Dr. M.D. Singh	Ph. D., Bio-Medical Instrumentation
5.	Ms. Suman Bhullar	M. E., Power Engineering
6.	Dr. Nitin Narang	Ph. D., Power System & Instrumentation
7.	Mr. Nirhowjap Singh	M. E., Embedded System
8.	Mr. Moon Inder Singh	M. E., Bio-Medical Signal Processing
9.	Mr. Shakti Singh	M. E., Energy Studies
10.	Mr. Sauvik Ganguli	M. E., Mechatronics
11.	Dr. Deepti Mittal	Ph. D., Image Processing
12.	Dr. Sangeeta Kamboj	Ph. D., Signal Processing
13.	Dr. Prasenjit Basak	Ph. D., Power System
14.	Dr. Amrita Sinha	Ph. D.,Power System Protection
15.	Dr. Jainy Sachdeva	Ph. D., Biomedical Image Processing
16.	Dr. Santosh Sonar	Ph. D., Power Electronics
17.	Dr. Gyan Ranjan Biswal	Ph. D., Industrial Automation

18.	Dr. Saurabh Bharadwaj	Ph. D., System Identification
19.	Dr. Surya Prakash	Ph. D., Power System
20.	Dr. Mukesh Singh	Ph. D., Energy
21.	Dr. Vishal Srivastava	Ph.D., Instrumentation
22.	Dr. Vikram	Ph.D., Control Systems

Lecturers (Contractual)

S.No	Name	Qualification & Specialization
1.	Ms. Ruchika	M.E., Signal Processing
2.	Ms. Amita Kumari	M.E. Power System
3.	Mr. Shailesh Kumar	M.Tech., Electrical Power System
4.	Ms. Navdeep Kaur	M.E., Power System & Electric Drives
5.	Mr. Jitender	M.E., Power System & Electric Drives
6.	Mr. Tapas Choudhari	M.E. Control System
7.	Mr. Chandra Kant Tiwari	M.E. Control & Instrumentation

2. List of research publications in SCI/Impact Factor journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
1.	A Statistical model to quantify the effect of pollution loading due to field crop residue burning on PFTs of healthy subjects	MAPAN - Journal of Metrology Society of India, vol. 29, 57-65, 2014	Ravinder Agarwal, Amit Awasthi, Susheel Mittal, Nirankar Singh and Prabhat Kumar Gupta	0.8
2.	Determining diabetes using iris recognition system	International Journal of Diabetes in Developing Countries, Feb. 2015 [DOI 10.1007/s13410-015-0296-1]	Atul Bansal, Ravinder Agarwal and R.K. Sharma	0.373
3.	Processing and interpretation of surface electromyogram signal to design prosthetic device	Robotica, vol. 32, pp 1-9, 2014	Karan Veer, Ravinder Agarwal and Amod Kumar,	1.73
4.	Wavelet denoising and evaluation of electromyogram signal using statistical algorithm	International Journal of Biomedical Engineering and Technology, vol. 16, pp 293-305, 2015	Karan Veer and Ravinder Agarwal	0.3
5.	Simultaneous switching noise enabler in high-speed	Instrumentation Science & Technology,	Surender Singh, Ravinder Agarwal	0.8

S. No.	Title of the paper	Name of the Journal with volume, page nos., and year	Name of the authors	Impact Factor
	biomedical systems by integrated plane coupling	Instrumentation Science and Technology, vol. 43, pp 97-510, 2015	and V. R. Singh	
6.	Multiple weighing based method for realizing flow	MAPAN- Journal of Metrology Society of India, vol. 30, no. 2, pp 119-123, 2015	Shiv Kumar Jaiswal, Sanjay Yadav and Ravinder Agarwal	0.8
7.	Investigations on the effectiveness of 12-pulse z-source converter based dstatcom in a Distribution network with dtc induction Motor drive	Ciencia E Tecnica, Vol. 29(7), pp. 142-155, July 2014	Parag Nijhawan and Aayushee Shokhand	0.479
8.	Comparative performance analysis of vsi and zsi Based dvrs in a distribution network with Welding load	Ciencia E Tecnica, Vol. 30(6), pp. 208-225, June 2015	Manila Garg and Parag Nijhawan	0.479
9.	Ultra-short longitudinal spatial coherence length of laser light with the combined effect of spatial, angular, and temporal diversity	Applied Physics Letters, Volume 106, Issue 9, 2015	Azeem Ahmad, Vishal Srivastava, Vishesh Dubey and D. S. Mehta	3.78
10.	Load Frequency Control of Multi-area Power Systems Using Neuro-Fuzzy Hybrid Intelligent Controllers	IETE Journal of Research; DOI: 10.1080/03772063.2015.1024765. Taylor & Francis, Apr-2015	Surya Prakash, and SK Sinha	0.189
11.	Optical Character Recognition Based Speech Synthesis System Using LabVIEW	Journal of applied research and technology Vol. 12, pp. 919-926 Oct.- 2014	S.K. Singla, and R K Yadav	
12.	EEG based Biometric Framework using Time and Frequency domain features	Journal of Medical Imaging and Health Informatics. Vol. 4, no. 4, pp. 593-599, August	Puneet Mishra, and Sunil Kumar Singla	

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
13.	Comparative Analysis of Tuning a PID Controller using Intelligent Methods	Journal of Medical Imaging and Health Informatics. Vol. 11(8), pp. 235-248, 2014	Vikram Chopra and S.K. Singla	
14.	Attention Tunnelling": Effects of Limiting Field of View due to Beam Combiner Frame of Head-up Display	IEEE/OSA Journal of Display Technology Vol. 10(7), pp. 582-589, July, 2014	Vinod Karar and Smarajit Ghosh,	
15.	Optimal selection of wavelet function and decomposition level for removal of ECG signal artifacts	Journal of Medical Imaging and Health Informatics, 2015	Kumar, and Mandeep Singh	
16.	Intuitive approach towards detection of attention tunneling while using a head-up display	Chinese Optics Letters, Volume 13, Issue 8, 081201(2015)	Vinod Karar and Smarajit Ghosh	1.851
17.	Estimation of Tunneling Effect due to Luminance Non-uniformity in head-up Displays	Chinese Optics Letters, Volume 12, Issue 1, 013301	Vinod Karar and Smarajit Ghosh	1.851

3. List of research publications in Non-SCI/Non-Impact journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
1.	"Investigation of Optimal Battery Scheduling with Fuzzy Control,	International Journal of Electronics, Electrical and Computational System (IJEECS) Academic science, Vol. 4, Special Issue, pp-267-274, March 2015	Pooja Chauhan, and Manbir Kaur
2.	Fault Detection in Three Phase Transformer Using Decision Tree	International Journal of Advanced Research in Electrical,	Ravi Shankar Chauhan and Amrita Sinha

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
		Electronics and Instrumentation Engineering, Vol. 4, pp 5490-5496	
3.	Simulation Study on Different Operating Conditions of (Star-Star) Three Phase Transformer	HCTL Open International Journal of Technology Innovations and Research (IJTIR), Vol. 16, pp 1-6.	Ravi Shankar Chauhan and Amrita Sinha
4.	Predicting gender using iris images	Research Journal of Recent Sciences, vol. 3, no. 4, pp. 20-26, 2014	Atul Bansal, Ravinder Agarwal, and R.K. Sharma
5.	Non Invasive technique based evaluation of electromyogram signals using statistical algorithm	International Journal of Advanced Research in Computer Engineering & Technology, vol. 3, pp. 1987-1991, 2014	Tanu Sharma, Karan Veer and Ravinder Agarwal
6.	Neurofeedback as an intervention for brain abilities enhancement	International Journal of Advanced Research in Computer Engineering & Technology, vol. 4, pp. 1884-1886, 2015	Navjot Saini and Ravinder Agarwal
7.	Modeling of power planes for improving EMC in high speed medical system	International Journal of Engineering Research & Technology, vol. 4 , no. 02, pp 628-632, 2015	Surender Singh, Ravinder Agarwal and V.R. Singh
8.	Short term Multi Chain Hydrothermal Scheduling Using Modified Gravitational Search Algorithm	International Journal of Advanced Research in Technology, Engineering and Science Vol:2, Issue:3, pp:1-8	Saurabh Sharma, and Nitin Narang
9.	Integrated PSO-SQP technique for short-term Hydrothermal Scheduling	International Journal of Advanced Research in Computer Engineering, Vol:4, Issue:4, pp:1423-1428	Shashank Gupta, and Nitin Narang
10.	Hybrid GSA-SQP for short term multi-chain hydrothermal scheduling	Advance Research in Electrical and Electronics Engineering,	Saurabh Sharma, and Nitin Narang

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
		vol. 2, issue 10, pp. 108-112.	
11.	Short-term hydrothermal scheduling using dynamic multi-swarm particle swarm optimizer	Advance Research in Electrical and Electronics Engineering, vol. 2, issue 10, pp. 87-91.	Shashank Gupta, and Nitin Narang
12.	Designing of Computer Aided Diagnostic System for the Identification of Exudates in Retinal Fundus Images	Journal of Biomedical Engineering and Medical Imaging, Vol. 2, pp. 29-40, 2015	Santosh Kumar Mishra, Deepti Mittal and Ramesh Kumar Sunkaria
13.	Detection and Classification of Liver Cancer using CT Images	International Journal on Recent Technologies in Mechanical and Electrical Engineering, vo. 2, pp. 93-98, 2015	Abhay Krishan, and Deepti Mittal
14.	Contrast Enhancement Technique for CT Images	Journal of Biomedical Engineering and Medical Imaging, Vol. 2, pp. 44-50, 2014	Kanika Sharma, and Deepti Mittal
15.	Automated Drusen Detection Technique for Age-Related Macular Degeneration	Journal of Biomedical Engineering and Medical Imaging, Vol. 2, pp. 18-26, 2014	Kajal Kumari and Deepti Mittal
16.	Segmentation and Measurement of Exudates in Fundus Images of the Retina for Detection of Retinal Disease	Journal of Biomedical Engineering and Medical Imaging, Vol. 2, pp.27-38, 2014	Jaskirat Kaur and Deepti Mittal
17.	Tumour in Mammogram using Digital Image Processing Techniques	International Journal of Advanced Research in Electronics and Communication Engineering, Vol. 4, pp. 253-258, 2015	Kanchan Sharma and Deepti Mittal
18.	Exudates Segmentation in Retinal Fundus Images For the Detection of Diabetic Retinopathy	International Journal of Engineering Research & Technology, vol. 3, 673-677, 2014	Soumil Chugh, Jaskirat Kaur and Deepti Mittal

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
19.	Drusen Quantification for Early Identification of Age Related Macular Degeneration	Advances in Image and Video Processing Vol. 3, pp. 28-40, 2015	Kajal Kumari, and Deepti Mittal
20.	Stabilization of an X-Y inverted pendulum using adaptive gain scheduling PID controllers	Journal of Engg. Research Vol. 3 No. (2) June 2015 pp. 59-78	Vikram Chopra, Sunil K. Singla and Lillie Dewan
21.	Comparison among some well known control schemes with different tuning methods	Journal of Applied Research and Technology 13 (2015) 409-415	R. Kumar, S.K. Singla and V. Chopra
22.	Neuro-Fuzzy Computational Technique to Control Load Frequency in Hydro-Thermal Interconnected Power System	J. Inst. Eng. India Ser. B. DOI 10.1007/s40031-014-0147-3, ISSN 2250-2106, Published by Springer, 2014.	S. Prakash, and S. K. Sinha
23.	Improved Performance of ZSI based UPFC for Enhanced Power flow in Interconnected System	IOSR Journal of electrical and electronics engineering, Vol. 9(4), , pp. 50-54 July – Aug, 2014	Supreet Kaur Kharoud and Parag Nijhawan
24.	Performance Comparison of VSI Based DSTATCOM and ZSI Based DSTATCOM in A Distribution System Network	IOSR Journal of electrical and electronics engineering, vol. 9(6), , pp. 30-35, Nov-Dec. 2014	Ruban Preet Kaur and Parag Nijhawan
25.	Automatic Feature Extraction in Acceleration Plethysmography	International Journal for Computer Science and Communication, vol. 5, pp. 1-9, 2014	Mandeep Singh and Sakshi Bansal
26.	Wind Energy Stabilization using SVPWM Based Modulated Power Filter Compensator	International Journal of renewable energy research, Vol. 1(6), pp. 433-438 July, 2014	Fatehbir Singh and Shakti Singh

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
27.	Optical Character Recognition Based Speech Synthesis System Using LabVIEW	Journal of applied research and technology Vol. 12, pp. 919-926 Oct.- 2014	S.K. Singla and R K Yadav
28.	Predicting gender using iris images	Research Journal of Recent Sciences, vol. 3, no. 4, pp. 20-26,2014	Atul Bansal, Ravinder Agarwal and R.K. Sharma
29.	Non Invasive technique based evaluation of electromyogram signals using statistical algorithm	International Journal of Advanced Research in Computer Engineering & Technology, vol. 3, pp. 1987-1991, 2014	Tanu Sharma, Karan Veer and Ravinder Agarwal
30.	Neurofeedback as an intervention for brain abilities enhancement	International Journal of Advanced Research in Computer Engineering & Technology, vol. 4, pp. 1884-1886, 2015	Navjot Saini and Ravinder Agarwal
31.	Modeling of power planes for improving EMC in high speed medical system	International Journal of Engineering Research & Technology, vol. 4 , no. 02, pp 628-632, 2015	Surender Singh, Ravinder Agarwal and V.R. Singh
32.	Optimal Sizing and Placement of DG in a Radial Distribution Network using Sensitivity based Method	International Electrical Engineering Journal, Vol. 6, No. 1, pp.1727-1724, 2015	Nitin Singh, Smarajit Ghosh and Krishna Murari
33.	An Effective Technique for Load Flow Solution of Radial Distribution Networks	International Electrical Engineering Journal, Vol. 6, No. 1, pp.1711-1715, 2015	Krishna Murari, Smarajit Ghosh and Nitin Singh
34.	Classification of Heart Sound Signals Using Multi-modal Features	Procedia Computer Science 58, 165-171, 2015	Simarjot Kaur Randhawa, Mandeep Singh

4. Publication of papers in conference proceedings and other publications

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
1.	Investigation of Optimal Battery Scheduling with Fuzzy Control”	International Conference on Emerging Trends of Engineering, science, management and its applications (ICETESMA-15) organised by Academic science at Jawaharlal Nehru University, JNU Convention Center, New Delhi, March 01, 2015 at New Delhi	Manbir kaur and Pooja Chauhan
2.	Generation Adequacy of Power system with Wind Energy Source,	IEEE International conference on Modern electric power systems , Wroclaw, Poland, July 6-9, 2015	Manbir Kaur and Mritunjay Srivastava
3.	An improved method for protection of three phase induction motor using microcontroller.	International Conference on Power, Control and Embedded Systems (ICPCES), Allahabad, 26 th – 28 th Dec. 2014, pp.1-6.	Gagan Garg and Amrita Sinha
4.	Simulation Study on Different Operating Conditions of (Star-Star) Three Phase Transformer	First International Conference on Advances in Engineering and Management Research (ICAEMR), Dehradun, 19th July, 2015, pp. 1-6.	Ravi Shankar Chauhan and Amrita Sinha
5.	Study of power bus coupling in multilayered printed circuit board for enhanced electromagnetic compatibility in biomedical system	First International Conference on Large Area Flexible Microelectronics (ILAFM 2014) Materials, Devices, Systems and Applications, R V College of Engineering, Bangalore, December 18-20, 2014	Surinder Singh, RavinderAgarwal and V.R. Singh
6.	Design of wireless inductive coupling for RF telemetry applications	First International Conference on Large Area Flexible Microelectronics (ILAFM 2014) Materials, Devices, Systems and Applications, R	Manish Mehta Ravinder Agarwal and Kamaljeet Rangra

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
		V College of Engineering, Bangalore December 18-20, 2014	
7.	Identification of muscles for controlling a myoelectric lower limb exoskeleton	First International Conference on Large Area Flexible Microelectronics (ILAFM 2014) Materials, Devices, Systems and Applications, R V College of Engineering, Bangalore December 18-20, 2014	Inderjeet Singh Dhindsa, Ravinder Agarwal and Hardeep Singh Ryait
8.	Enhancement of Cognitive Skills in Sports	International Conference on Emerging Trends in Engineering and Technology, Chandigarh, May 31, 2015, pp. 47-49	Navjot Saini and Ravinder Agarwal
9.	Effect of particulate matters in ambient air on the respiration system of children in Amritsar	National Symposium on Contribution of Metrology & Measurement Standards in Social and Industrial Development, Rashtriya Sanghosthi (MAPIKI 2014), National Physical Laboratory, New Delhi, December 8-9, 2014	Sachin Gupta, Gurpreet Saggi, Susheel Mittal, Ravinder Agarwal and Avnish Kumar
10.	Effect of burning crop residue around Patiala on lung functioning of school children	National Symposium on Contribution of Metrology & Measurement Standards in Social and Industrial Development, Rashtriya Sanghosthi (MAPIKI 2014), National Physical Laboratory, New Delhi, December 8-9, 2014	Gurpreet Saggi, Sachin Gupta, Susheel Mittal and Ravinder Agarwal
11.	Performance of CT metastases and compare their results with others	International conference on Signal Processing And Communication Engineering Systems, K L University, Guntur, Andhra Pradesh, India, K L University, Guntur, Andhra	Abhay Krishan and Deepti Mittal

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
		Pradesh, India, January 2-3, 2015, 380-383.	

5. List of various faculty members who attended various conferences/ workshops/ short-term programs

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
1.	Manbir Kaur	FDP on ABET accreditation	Thapar University, Patiala, during May 15-16, 2015.
2.	Manbir Kaur	Two days TEQIP short term course on Power system Optimisation: Meta Heuristic Techniques,	IIT Delhi, June 4-5, 2015,
3.	Manbir kaur	Two days workshop on Scientific writing using LATEX	Thapar University, Patiala during July 13-14, 2015
4.	Manbir kaur	18th Punjab Science Congress on Innovative trends of Science & technology in Current Scenario, under aegis of Punjab academy of sciences	Desh Bhagat university, Mandi Gobindgarh, Feb 7-9, 2015
5.	Dr. Ravinder Agarwal	First International Conference on Large Area Flexible Microelectronics (ILAFM 2014) Materials, Devices, Systems and Applications	R V College of Engineering, Bangalore, December 18-20, 2014
6.	Dr. Ravinder Agarwal	National Symposium on Contribution of Metrology & Measurement Standards in Social and Industrial Development, Rashtriya Sanghosthi (MAPIKI 2014),	National Physical Laboratory, New Delhi, December 8-9, 2014
7.	Jitender Kaushal	Short term course under TEQIP-II, "Power System Optimization: A Journey	IIT, Delhi, June 5 - 6, 2015

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
8.	Jitender Kaushal	from Conventional to Meta-Heuristic Techniques” National workshop on “Smart Micro-Grids for Autonomous Zero-Net Energy Buildings”	IIT, Mandi, December 14-15, 2014

6. List of ongoing sponsored projects

S.No.	Name of the Project	Year of sanction	Funding Agency	Project Cost (Lacs)	Principal Investigator
1.	Technical Education Quality Improvement Programme (TEQIP)(PHASE – II): Environment management and energy management	2013	UGC	500.00	Dr. P.K. Bajpai, Dr. Ravinder Agarwal, et al
2.	Particulate matter dose relationship with lung function efficiency of children during agriculture crop residue burning episodes	2013	CSIR	39.00	Dr. Susheel Mittal, Dr. Ravinder Agarwal and Dr. Avnish Kumar
3.	Particulate matter dose relationship with lung function efficiency of children during agriculture crop residue burning episodes	2015	DST	33.00	Dr. Ravinder Agarwal and Dr. Hardeep Singh
4.	Development of Fatigue Detection System	2015	DIPAS (DRDO)	9.91	Dr. MD Singh
5.	Development of Wireless embedded system for Health monitoring of ambulatory subjects	2015	DIPAS (DRDO)	9.93	Dr. Mandeep Singh
6.	Application of Neuro-fuzzy Control in Interconnected Power System	2015	TU, (Under SEED Grant Scheme)	4.20	Dr. Surya Prakash
7.	Process Instrumentation of the State-of-the-art Integrated Cooling System for Large	2014	TU, (Under SEED	4.85	Dr. Gyan Ranjan Biswal

S.No.	Name of the Project	Year of sanction	Funding Agency	Project Cost (Lacs)	Principal Investigator
8.	Generators in Power Plants Feasibility Analysis of Photovoltaic system in Patiala Distribution Network in Smart Grid Environment	2015	Grant Scheme) TU, (Under SEED Grant Scheme)	5.00	Dr. Mukesh Singh

7. List of completed sponsored projects

S.No.	Name of the Project	Funding Agency	Project Cost Rs. (Lacs)	Principal Investigator
1	Study and development of above elbow prosthetic arm	DST	26.60	Dr. Hardeep Singh and Dr. Ravinder Agarwal

8. List of faculty members who have delivered invited lectures/talks etc. at various levels

S. No.	Name of the faculty member	Title of the expert talk/lecture	Forum with date and venue
1.	Manbir Kaur	(i) Fundamentals of MATLAB (ii) Power World: A Simulation Tool	IET Student Chapter, Sept. 12-14, 2014 Oct. 7, 2014 Thapar University, Patiala
2.	Dr. Mandeep Singh	Organic Farming Energy Conservation in Pulp and Paper Industry Energy Conservation in Cement Industry	NITTR, Chandigarh, March 2, 2015 Satia Industries Ltd., Mukatsar May 25-26, 2015 Ambuja Cements Ltd. May 29, 2015
3.	Dr. S.K. Jain	Optimization techniques in Engineering R& D	SLIET, Longowal. March 12, 2015
4.	Dr. M.D. Singh	Recent Research Trends In Medical Image Processing And Pattern Recognition	LPU, Jalandhar April 17, 2015

9. Special lectures delivered by invited scholars/experts from outside TU

S. No.	Name of the Expert with Designation	Title of the Expert Lecture	Date and Venue
1.	Dr. Ram Naresh Sharma NIT Hamirpur	Automatic Generation Control	Aug. 08, 2014 Thapar Univ. Patiala
2.	Dr. S.P. Singh IIT Roorkee	Applications of Power Electronics in Conventional and Renewable Generation	Aug. 14, 2014, Thapar Univ., Patiala
3.	Dr. N.P. Padhay IIT Roorkee	Challenges of Distributed Generation in Distributed Networks	Aug. 30, 2014 Thapar University, Patiala
4.	Dr.T.K. Saxena Scientist (F), CSIR (National Physical Laboratory, New Delhi)	Industrial Automation	7th August ,2014 at Venue: F 102
5.	Sh. Susheel Chandra Scientist -F, DRDO-INMAS, Delhi	Cognitive Science	12 PM, 11th August, 2014 Venue: B-309
6.	Dr. Tarikul Islam Professor Jamia Milia Islamia University, New Delhi	Resistive transducers and its Detection Electronics Circuits	13th September, 2014 Venue: C-Hall
7.	Dr.Vijay Sood Associate Professor Department of Electrical, Computer and Software Engineering Faculty of Engineering and Applied Science University of Ontario Institute of Technology, Canada	Smart grid and FACTS modelling	16th December, 2014 Venue: CLIP Seminar Hall
8.	Dr.Sukumar Mishra ProfessorElectrical Engineering Department Indian Institute of Technology, New Delhi	Smart grid	24th March,2015 Venue: C-Hall
9.	Dr.Ajay Agarwal Principal Scientist CEERI, Pilani, Rajasthan	Nano-electronics	30th March,2015 Venue: C-Hall
10.	Dr. Bhim Singh	Renewable Energy Integration	16th May, 2015

S. No.	Name of the Expert with Designation	Title of the Expert Lecture	Date and Venue
	Professor and Head Electrical Engineering Department Indian Institute of Technology, New Delhi	and Usage of FACTS devices.	Venue: TAN Building

10. List of ongoing Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1.	Iris recognition system for some clinical applications	Dr. Ravinder Agarwal Dr. R K Sharma
2.	Design of bio-implantable MEMS inductor for pressure sensing applications	Dr. Ravinder Agarwal Dr. K J Rangra
3.	Study and analysis of SEMG signal for enhancement of above shoulder myoelectric arm functionality	Dr. Ravinder Agarwal Dr. Amod Kumar
4.	Development and analysis of Instrumentation for fluid flow applications	Dr. Ravinder Agarwal Dr. Sanjay Yadav
5.	Myoelectric control of Exoskeleton Knee	Dr. Ravinder Agarwal
6.	Development of Cognitive Skills Enhancement Model for Sports Persons	Dr. Ravinder Agarwal
7.	Stable Optimal Planning of Electric Power Distribution System using Fuzzy Logic	Dr. Smarajit Ghosh
8.	Optimal Capacitor Placement in Radial Distribution Networks	Dr. Smarajit Ghosh
9.	Loss Optimization of Electric Power Distribution Network Using Fuzzy Logic	Dr. Smarajit Ghosh
10.	Load-Flow and Stable Planning of Radial Distribution Networks Using Distributed Generation	Dr. Smarajit Ghosh
11.	Loss Minimization and Allocation of Unbalanced Radial Distribution Network	Dr. Smarajit Ghosh
12.	Optimal Congestion Management in the Deregulated Power System	Dr. Smarajit Ghosh
13.	Development of Artificial Intelligence Based Technique for Minimization of Errors and Response Time in Head Tracking for Head Worn Systems	Dr. Smarajit Ghosh
14.	Enhancing performance of classification techniques for EEG-based brain computer interface	Dr. Mandeep Singh Dr. Amod Kumar
15.	Investigations on finger-tips photo plethysmography signals for detecting pitta dosha	Dr. Mandeep Singh
16.	Development of EEG based emotion classifier	Dr. Mandeep Singh
17.	Hybrid search method for optimization in real parameter space	Dr. J.S Dhillon Dr. D.P Kothari

S. No.	Title of the Thesis	Name of the Supervisor(s)
18.	Novel hybrid algorithm for hydrothermal generation scheduling	Dr. J.S Dhillon and Dr. D.P Kothari
19.	Optimal Placement of Dispersed Generators for Practical Distribution Networks	Dr. Sanjay Kumar Jain
20.	Investigations on Power System Transfer Capability in Electricity Market	Dr. Sanjay Kumar Jain
21.	Single-Phase Power Generation Using Self-Excited Induction Generator	Dr. Sanjay Kumar Jain
22.	Investigations on DFIG based Wind Farm for Grid Connection through Series Compensated Feeder	Dr. Sanjay Kumar Jain
23.	Classification of liver diseases using CT and MR images	Dr. Deepti Mittal
24.	Retinal disease diagnosis through computer aided fundus image analysis	Dr. Deepti Mittal
25.	Development of model order reduction methods for linear system control design	Dr. Gagandeep Kaur
26.	Development of novel hybrid metaheuristic algorithms for identification and control in the delta domain	Dr. Gagandeep Kaur Dr. Prashant Sarkar
27.	Development of biometric verification algorithm using electroencephalogram (EEG)	Dr. Sunil K. Singla
28.	An algorithm development and its validation for physical layer impairment aware routing in WDM network	Dr. Hardeep Singh
29.	Research on operation, control, power quality, protection and stability of microgrid system.	Dr. Prasenjit Basak
30.	Modeling and Control of Micro grid System	Dr. Sunil Kumar Singla
31.	Development of Cognitive skill enhancement Model for sports persons	Dr. Ravinder Agarwal
32.	Applications of Statistical and Soft- Computing Method for Biometric Authentication using Voice	Dr. Sunil Kumar Singla
33.	Design of Humidity sensor For condition monitoring Of Power Transformer	Dr. K.K. Raina
34.	Cause-Effect Modeling of Crop Residue Burning on Urban School Children health	Dr. Ravinder Agarwal
35.	Modeling and Control of a Hybrid Sustainable Energy System	Dr. Ggyan Ranjan Biswal
36.	Vibration Analysis and Control of Hydro Turbine under Variable Excitation	Dr. Ggyan Ranjan Biswal
37.	Design and Control of Micro grid System for Optimum Operation	Dr. Prasenjit Basak
38.	Investigations on Sleep Deprivation Induced Fatigue Detection using Multimodal Fusion	Dr. M.D. Singh
39.	Thin film board gas for Sensor for diabetes mellitus	Dr. Ravinder Agarwal

S. No.	Title of the Thesis	Name of the Supervisor(s)
	applications	

List of Ph. D. Thesis (Submitted for evaluation)

1.	High speed PCB designing for EMC in biomedical systems	Dr. Ravinder Agarwal V R Singh	Dr.
2.	Quality assessment of black tea based on physical parameters using machine vision	Dr. Ravinder Agarwal Amod Kumar	Dr.
3.	Enhanced ischemia classifier for ECG signals	Dr. Mandeep Singh	
4.	Design And Development Of Prosthetic Arm For Above Elbow Amputees	Dr. Ravinder Agarwal Dr. Amod Kumar	

11. List of completed Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1.	Multi-Objective Hydrothermal Generation Scheduling Based on Heuristics	Dr. J.S Dhillon Dr. D.P Kothari
2.	Tunneling Effect Mitigation Through Artificial Neural Network Based Head Up Display Switching System	Dr. Smarajit Ghosh
3.	Development of an intelligent novel algorithm for transformer fault detection using various emission signals	Dr. Y.S. Barar Dr. B.N. Chudasama
4.	Conventional and intelligent control of nonlinear systems	Dr. Sunil K. Singla Dr. Lillie Diwan

12. List of M. E./M. Sc. Thesis/dissertations

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
1.	Loss Minimization by Allocating DG in Radial Distribution Network Using BFOA	Dr. Smarajit Ghosh
2.	Simulation of A Pv Based Microgrid Assisted By Fuel Cell In Indian Scenario	Dr. Presenjit Basak
3.	Fuzzy Based DG Allocation for Loss Minimization in Radial Distribution System	Dr. Smarajit Ghosh
4.	Designing and implementation of an interfacing circuit for condition monitoring of high voltage under ground cables	Mr. Shailesh Kuamr
5.	Solving unit commitment using priority assisted firefly algorithm	Dr. Sanjay K. Jain

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
6.	Z-source inverter for fuel cell application	Dr. Santosh Sonar
7.	Comparative study of Particle swarm and Bee swarm optimization techniques on dynamic economic load dispatch.	Dr. Sanjay K. Jain
8.	Comparative Performance Analysis of VSI And ZSI Based DVRs In A Distribution Network With Welding Load	Mr. Parag Nijhawan
9.	Modeling of DFIG based wind turbine mitigating dynamic behavior under varying load and asymmetrical fault conditions	Dr. Presenjit Basak
10.	Study and analysis of series parallel hybrid electric vehicle	Dr. Santosh Sonar
11.	Controlling of power MOSFET using humidity sensor	Mr. Shailesh Kuamr
12.	Optimal Allocation of DG Using Harmony Search Algorithm In A Radial Distribution System	Dr. Smarajit Ghosh
13.	Optimal power management of Micro-grid using heuristic search technique.	Ms. Manbir Kaur
14.	Three Phase AC To AC Z-Source Converter	Dr. Santosh Sonar
15.	Design of cosine control firing circuit using sinusoidal oscillator	Mr. Shailesh Kuamr
16.	Modeling and simulation of a PV generator and Maximum Power Point Tracking Controller using SIMSCAPE	Dr. Presenjit Basak
17.	Internal fault detection in three phase transformer using machine learning methods	Dr. Amrita Sinha
18.	Design and Implementation Of Quadrilateral Relay Using Microcontroller For Protection Of Transmission Line Equivalent Model	Dr. Amrita Sinha
19.	Reactive Power Loss Minimization in a Radial Distribution System Using BFOA	Dr. Smarajit Ghosh
20.	Hybridization of Modified Gravitational Search Algorithm and SQP for Multi Chain Hydrothermal System	Dr. Nitin Narang
21.	A Hybrid Optimization Technique for Fixed And Variable Head Short-Term Hydrothermal Scheduling	Dr. Nitin Narang
22.	Implementation of intelligent relay using LabVIEW for identification and classification of stator winding faults in three phase induction motor	Dr. Amrita Sinha
23.	Investigation of frequency response of AGC with non linear governor characteristics	Ms. Manbir Kaur
24.	Classification of power quality events using radial basis function neural network	Ms. Manbir Kaur
25.	Parameter Estimation of Induction Motor Using Music Inspired Algorithm	Mr. Souvik Ganguly
26.	Parameter Estimation of Distribution Transformer Using	Mr. Souvik Ganguly

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
	Harmony Search Algorithm	
27.	Energy management of a commercial building using simulation and modelling	Ms. Suman Bhullar
28.	Ayurveda dosh detection and correction using Labview	Dr. Gagandeep Kaur
29.	Neural correlation of attention and its enhancement using meditation	Dr. Mandeep Singh
30.	Real time processing of GPS accuracy enhancement by using DSP techniques.	Dr Sangeeta Kamboj
31.	Microcontroller based wearable health care monitoring system	Dr M.D. Singh
32.	Diabetes mellitus diagnosis expert system.	Dr. Sunil Kumar Singla
33.	Glaucoma screening from color fundus retinal images	Mr. Mooninder Singh
34.	Computer aided diagnosis of age related macular degeneration.	Dr. Deepti Mittal
35.	Enhancement of CT medical images	Dr. Deepti Mittal
36.	Generic wireless module for industrial applications.	Mr Nirbhowjap Singh Dr. Suraj Pardeshi
37.	PPU design for low power and low cost AC drive.	Dr. Jenny Sachdeva and Mr. Ramankant Mahajan
38.	Emotion recognition using EEG signals along arousal axis	Mr. Mooninder Singh
39.	Plant leave classification using artificial neural network	Dr. Jenny Sachdeva
40.	Cognitive abilities enhancement of basketball players	Dr, Ravinder Agarwal
41.	Digital watermarking Technique on Fingerprint Image	Dr. Sunil Kumar Singla
42.	Data analysis of SODAR echogram.	Dr. Ravinder Agarwal Dr. Kriti Soni
43.	Dermatoglyphics: Mapping fingerprints to human behavior and cognition	Dr. Mandeep Singh
44.	Modeling of phasor measurement unit (PMU) using various pahsor estimation techniques.	Dr Sangeeta Kamboj
45.	Memory enhancement using meditation as an intervention.	Dr. Mandeep Singh
46.	Brain tumor classification using CAD system.	Dr. Jenny Sachdeva
47.	Microcontroller based dual axis automatic solar tracking system with homing mechanism.	Dr. Gagandeep Kaur Dr Devender Kumar
48.	Acceleration plethysmography based enhanced pitta classification.	Mr. Mooninder Singh
49.	Level Control of a Steam Drum using Double Feedback Loop Control Strategy along with Set point Filter	Dr. Vikram Chopra
50.	Automatic detection of diabetic macular edema in retinal fundus image.	Dr. Deepti Mittal
51.	Barebones algorithm for FIR filter design.	Mr Nirbhowjap Singh

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
52.	Classification of mammogram images.	Dr. Sunil Kumar Singla
53.	Analysis of ECG signals to classify various heart diseases.	Dr M.D. Singh
54.	Fatigue detection using voice analysis	Dr M.D. Singh
55.	Virtual reality for education	Dr. Gagandeep Kaur
56.	Design simulation and characterization of film bulk acoustic resonator.	Dr. Ravinder Agarwal Dr. Kamaljit Rangra

13. List of equipment procured

S. No.	Name of the equipment	Make	Name of the laboratory	Date of Purchase	Amount (Rs. Lacs)
1.	Workstations Z640 series(2)	HP	Power System Simulation Laboratory	March 2015	4.20 0.60
2.	LED Monitor (55")	Videocon	Power System Simulation Laboratory	March, 2015	
3.	Multifunction Printer 226DN series	HP	Power System Simulation Laboratory	15.3.2015	0.24
4.	MATLAB (R20136 (8.2.0.701) and SIMULINK family Software (Upgradation till march 2016) <ul style="list-style-type: none"> • MATLAB • Control system Tool box(10) • DSP System Toolbox (10) • Image Processing Toolbox (10) • Wavelet Toolbox (10) • Optimization Toolbox (10) • SimPower systems (10) • Signal Processing (10) • Simulink (10) • Simscape (10) 	Mathworks Inc.	Power System Simulation Laboratory	Feb. 2015	5.61
5.	<ul style="list-style-type: none"> • New Add-On's in MATLAB • Fuzzy logic Tool Box (25) • Neural Network Tool box (25) 	Mathworks Inc.	Power System Simulation Laboratory	Feb. 2015	4.26

- Global Optimisation Tool Box (25)

6.	Measurement of vibration and its impact on electrical equipment's.				4.16
7.	Proximity Sensor Module demonstrating both inductive and capacitive Effects.				0.49
8.	Protocol communicator using RS232, GPIB, CAN and HART.				1.24
9.	Piezo-electric effect using Piezo-electric type sensor.				1.41
10.	Piezo-resistive effect using Piezo-resistive type sensor.				1.40
11.	Calibration of a Volt meter and Ammeter using DC potentiometer.				0.33
12.	Calibration of an electronic energy meter.	National Instruments, Bangalore	Instrumentation and Control Lab.	March 2015	1.03
13.	Stress and strain measurement.				4.10
14.	Wheatstone bridge post-office box.				0.91
15.	Kelvin bridge demonstration.				0.78
16.	Maxwell bridge demonstration.				0.92
17.	Capacitance measurement using De Sauty's and Schering bridges.				1.11
18.	1-phase power measurement using CT and PT.				0.50
19.	Study of internal blocks and working of frequency counter.				1.09

20.	Study of internal blocks and working of Digital multimeter.				
21.	PC based Level, pressure and flow measurements.	AdvanceTech, Chandigarh		March 2015	3.66
22.	Robotic arm control training system.				1.76
23.	Temperature measurement using thermocouple sensor and its comparisons with RTD and IC LM35.				1.06
24.	DC Power supply	Keithley	Instrumentation and Control Lab.	March 2015	0.41
25.	True RMS Digital Multimeter x3	Fluke	Instrumentation and Control Lab.	March 2015	0.25
26.	CRO 30 MHz x 3	Scientific	Instrumentation and Control Lab.	March 2015	0.47
27.	DSO with Application demonstrator				0.71
28.	Multifunction Test and Measurement Device (Red Pitara)	RS Components	Instrumentation and Control Lab.	March 2015	0.84
29.	Frequency Counter (1 GHz)				1.35

14. Computing facilities in the Department

S. No.	Details of the Hardware/Software	Name of the Laboratory
1.	MATLAB (R20136 (8.2.0.701) and SIMULINK family Software (Upgradation till march 2016) MATLAB Control system Tool box(10) DSP System Toolbox (10) Image Processing Toolbox (10) Wavelet Toolbox (10) Optimization Toolbox (10) SimPower systems (10) Signal Processing (10) Simulink (10)	Power System Simulation Laboratory

S. No.	Details of the Hardware/Software	Name of the Laboratory
	Simscape (10)	
2.	New Add-On's in MATLAB	Power System Simulation
	Fuzzy logic Tool Box (25)	Laboratory
	Neural Network Tool box (25)	
	Global Optimisation Tool Box (25)	
3.	HP Workstations Z640 series(2)	Power System Simulation
		Laboratory

15. List of training programmes/ short term courses/workshops/conferences organized

S. No.	Title of the Programme with sponsoring agency	Name of the Coordinators	Dates and Venue
1.	One day workshop on PLC , SCADA Systems	Ms. Manbir Kaur	Nov. 16, 2014 Thapar Iniversity, Patiala
2.	One day workshop on "Improvement in Personal Traits for career building" IET Delhi Network (UK)	Ms. Manbir kaur	Oct. 21, 2014 Venue: C-Hall
3.	Two days Workshop on LabView 2013 by National Instruments, Bangalore	Dr.RavinderAgarwal Mr. Mooninder Singh Dr.JainySachdeva Dr.GagandeepKaur	30th June, 2014 and 1st July 2014 Venue : VI Lab
4.	One day workshop on Engineering & Science Innovation Summit in Collaboration with ADCC and National Instruments	Dr. Gyan Ranjan Biswal Dr. Ravinder Agarwal	16th January, 2015 Venue: Auditorium

16. List of Awards and recognitions

S. No.	Name of the faculty	Award / Fellowship/ Nominations	University/ Organization	Month and Year
1.	Ms. Manbir Kaur	Member Fellowship	IET London	2014-15

17. List of organizations where students undertook project semester/Summer Training

S. No.	Name of the Organization
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For B.E. Electrical Engineering

1. IIT Delhi, Dept of Electrical Engg, New Delhi
2. Atrenta India Private Ltd., Noida
3. Bhasin informatics Research and Development Organization, Mohali Chandigarh
4. Blue Star Ltd. Kala Amb. Distt. Sirmour, Himachal Pradesh
5. C&S Electric Limited, C-60, Wing A, Phase II, Noida
6. Degremont India, Unitech Business Park, Gurgaon
7. Delhi Metro Rail Corporation Ltd., Lala Lajpat Rai Marg, Lajpat Nagar-IV, New Delhi
8. Essen Deinki, 22 Industrial Area, Phase II, Chandigarh
9. GHTP, Lehara Mohabbat, Bhatinda
10. Havells India Limited, Plot No. 6, Site IV, Sahibabad Industrial Area, Ghaziabad
11. Havells India Limited, Village-Dharampur, Sai Road, Baddi
12. Hindalco, Village Daheli, Ramtek Road, Mouda, Nagpur, Maharashtra
13. HPSEBL, Gohar
14. HPSEBL, Mandi
15. INMAS, DRDO, Lucknow Road, Timarpur, Delhi
16. Keysight Technologies (Nippon Data Systems Ltd.), Gurgaon
17. M&M Power Services, Chandigarh
18. Nucon Swithgears Pvt. Ltd., Malipur, G.T. Road, Doraha, Ludhiana
19. Power Grid, Faridabad
20. PSPTL, Abhlowal, Patiala
21. Rockwell Automation, Ghaziabad
22. Sankalp Groups, F-30, phase8, Mohali, Chandigarh

S. No.	Name of the Organization
23.	Sapient Consulting Ltd., 135/3, Vijaya Arcade, Lalbagh Road, Wilson Garden, Bangalore
24.	Schnider Electric India Ltd., Gurgaon
25.	Simartech Controls, 9-G, Apparel Park cum Industrial Area, Katha, Baddi
26.	Star Wire Limited, 21/4, Mathura Road, Ballabhgarh, Faridabad
27.	T&T consultants Pvt. Ltd., Chandigarh
28.	Tata Motors, Chinhat Industrial Area, Lucknow
29.	Tata Motors, KIADB Block - 2, Belur Industrial Area, Dharwad
30.	Tata Motors, Pantnagar
31.	TBRL, DRDO, Panchkula
32.	TD Power Systems, Dabaspur, Nelamangla Taluk, Bengaluru

For B.E. Electronics Instrumentation & Control

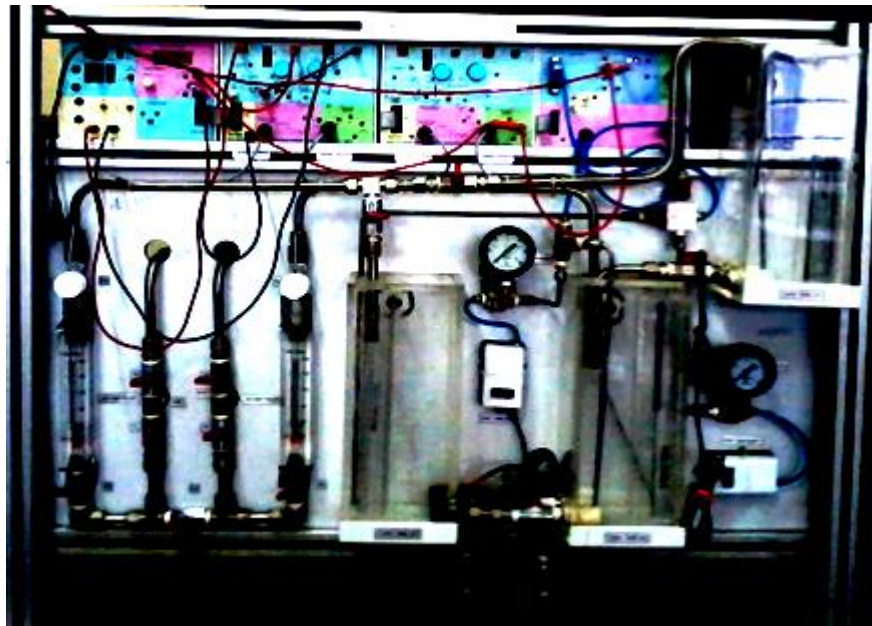
1. Northern Railway Mechanical Workshop
2. IFFCO
3. Guru Hargobind thermal plant
4. 22
5. CSIO
6. Deltron
7. Nectar Lifesciences limited
8. 23/7
9. Andritz Hydro India Pvt Ltd.
10. Starwire (India) Limited
11. Rockwell Automation
12. Cb&I Infinity Tower 4th floor DLF Cyber City
13. Nagarro Softwares

S. No.	Name of the Organization
14.	PL Engineering Ltd
15.	Powergrid corporation of India limited
16.	Road
17.	Siemens Ltd.
18.	AIRCEL(U.P.east circle) 3rd floor Ratan Square
19.	R.D.S.O
20.	Crystal Electric Co. Pvt. Ltd D-113
21.	CMSR Labs
22.	Trelleborg Vibracoustic
23.	Bharat Petroleum Corp. Ltd.
24.	GlaxoSmithKline Consumer
25.	National Fertiizers Limited
26.	Deutek Controls (India) Ltd.
27.	Karampura
28.	(Power Grid) B-9
29.	BSES RAJDHANI POWER LTD. 33 - KV Sub Station
30.	Desein group
31.	Deutek Controls (India) Ltd.
32.	Karampura
33.	DRDO DIPAS
34.	DTRL
35.	Indian oil corporation Ltd.
36.	INMAS DRDO
37.	LASTEC lab

S. No.	Name of the Organization
38.	NTPC
39.	Solid State Physics Laboratory
40.	Nucleus Software
41.	Dyanamic Engineers Ltd
42.	Minda corporation ltd
43.	DRDO TBRL Ramgarh Ranges
44.	IAG automation
45.	Tata Motors
46.	Amber Enterprises (I) Pvt. Ltd
47.	Hindustan Unilever Limited A-5/Phase 2-B
48.	SIEL Chemical Complex P.B.No.52
49.	Pepsico India Holding Pvt Ltd. Vill-channo
50.	TRITRONICS (INDIA) PVT. LTD. Read. Office : 240 , F.I.E. Patparganj , Delhi -110092 (INDIA)
51.	Uflex private ltd, Block A, sector 60, Noida(UP)
52.	UPPCL,Jhansi
53.	Vardhman Special Steels Ltd.,C-58 Focal Point,Ludhiana
54.	Vardhman Spining & General Mills, Chandigarh Road, Ludhiana
55.	VOITH hydro private limited
56.	VVDN Technologies B-22 Sector 34 Infocity gurgaon Haryana 122001
57.	WIPRO GE Healthcare-X ray Division, Industrial Park, White Field Bangalore
58.	ZS Associates, Vatika Business Park, 3rd Floor, Block 2, Sohna Road, Sector – 49, Gurgaon 122101, Haryana, India
59.	

I&C Lab

1. Study of flow rate and level measurement using coupled tank plant.



2. Temperature measurement of a furnace and data acquisition using temperature sensors, RTD, Thermocouples, and LM35.



ELECTRONICS & COMMUNICATION ENGINEERING DEPARTMENT

The Department of Electronics and communication Engineering was established in 1975 with the inception of the Institute to cater to undergraduate education in the field of Electronics and communication Engineering. It aims to produce quality professionals in Electronics and communication engineering to compete globally and excel by carrying out basic and applied research in emerging areas by forging strong industry-institute interaction.

Section 1

1. Academic Programs

BE (Electronics & Comm. Engg)

BE (Electronics & Comm. Engg)

ME (Electronics & Comm. Engg)

ME (Wireless Communications)

M Tech. (VLSI Design)

ME Wireless Communication

Ph.D.

2. Thrust areas of research

Fiber optic communication

Multimedia Signal Processing

Nano semiconductor devices and CNT

Signal Processing

VLSI system and circuit design synthesis

Wireless Communications and Antennas

3. Brief description of ongoing research activities

The department of ECE is actively involved in doing research in the following areas:

1. Cognitive radio
2. Antenna Design
3. VLSI Design

Below is the setup created to implement software defined radio.



Warp MIMO Test bed

4. Activities round the year (2014-15)

- Ms. Amanpreet kaur, Mr. Sukhwinder kumar organized at two day workshop on “Hands on Labview”, during Nov 22 – Nov 23, 2014.
- Dr Alpana Agarwal and Ms. Manu Bansal organized at three day workshop on “FPGA Design using XILINX”, during 9th-11th Oct, 2014.
- Dr Alpana Agarwal and Ms. Manu Bansal organized one workshop on “Awareness session on VLSI-Semiconductor Industry Opportunity & Challenges by DKOP Labs”, March 26th, 2015.
- Dr Alpana Agarwal and Ms. Manu Bansal organized one workshop on “Embedded Systems by HCL”, March 30th, 2015.

5. New Plans and Projects

Increase of number of seats B.E. (Electronics and Computer engineering) from 60 to 120

6. Major acquisitions during the year and new laboratory development

Following labs have been setup by ECED:

- Project Lab for Buggy and mangonel project for BE students
- High RF Devices Lab
- MEMS Lab

7. Departmental Achievements

- | | | |
|---|---|--------------|
| • Papers published in SCI Journals | : | 65 |
| • Papers published in Non SCI Journals | : | 32 |
| • Papers published in conferences | : | 14 |
| • Sponsored Research Projects New | | |
| Number of Projects and Amount (in Rs Lac) | : | 01 (17Lac) |
| • Sponsored Research Projects Ongoing | | |
| Number of Projects and Amount (in Rs Lac) | : | 01 (18.5Lac) |
| • Seminar/Conference/Workshop organized | : | 04 |
| • Doctoral Degree Awarded | : | 14 |
| • Visits abroad by faculty members | : | 03 |

Section 2:**1. List of faculty****Senior Professor**

S.No	Name	Qualification & Specialization
1	Dr. R. S. Kaler	Ph.D Fiber Optical Communication

Professor

S.No	Name	Qualification & Specialization
1	Dr. A. K. Chatterjee	Ph.D Semiconductor Electronics
2	Dr. Rajesh Khanna	PhD (Wireless Communications and Antennas)
3	Dr. Sanjay Sharma	PhD (Wireless Communications and signal processing)

Associate Professor

S.No	Name	Qualification & Specialization
1	Dr. Alpana Agarwal	Ph.D ASICS /VLSI Design Synthesis
2	Dr. Kulbir Singh	Ph.D Signal Processing & Fractional Transform
3	Dr. Amit Kumar Kohli	PHD, ME, BTECH Wireless Communication and Signal Processing

Assistant Professor

S.No	Name	Qualification & Specialization
1	Dr. Mukesh Kumar	PhD, Optoelectronics
2	Dr. Hardeep Singh	PhD, Fiber Optic Communication
3	Mrs. Manu Bansal	M. E, VLSI Design
4	Dr. Hem Dutt Joshi	B.Tech, M.E, Ph.D.
5	Dr. Vinay Kumar	PhD, Image & Video Processing
6	Dr. Ajay Kakkar	PhD, M.E. and B. Tech (Wireless Network Security)
7	Dr. Ankush Kansal	PhD, M.E. (ECE) and Wireless communication
8	Dr. Surbhi Sharma	Ph.D, Wireless Communication & MIMO System
9	Dr. Ravi Kumar	Ph.D, Signal Processing, VLSI Design
10	Dr. Sanjay Kumar	PhD (Signal Processing), M.Tech. (VLSI De, B.E. (ECE)
11	Dr. Rishikesh Pandey	Ph. D. (VLSI Design)
12	Dr. Mayank Kumar Rai	Ph.D VLSI Design
13	Dr. Bhaskar Gupta	PhD. (Wireless Communication)
14	Dr. Anil Arora	Ph.D. (Micro-electro Mechanical Systems)
15	Ms. Harpreet Vohra	M.Tech (VLSI Design)
16	Ms. Amanpreet Kaur-I	M.E.(Wireless Communication)
17	Mr. Arun Kumar Chatterjee	VLSI Design, Nanoscale MOSFET (S.C. Devices)
18	Ms. Amanpreet Kaur-II	MTech Pursuing PhD. Signal processing and wireless network
19	Ms. Sakshi	M.Tech(VLSI Design), Pursuing Phd Digital VLSI Design
20	Mr. Karamjit Singh Sandha	M.Tech in ECE

21	Dr. Neeru Jindal	Ph.D Image and Video Processing, M.Tech. (ECE), B.E. (ECE)
22	Dr. Rana Partap Yadav	PhD

Lecturers (Ad-hoc)

S.No	Name	Qualification & Specialization
1	Mr. Sukhwinder Kumar	B.Tech, ME(ECE), PhD(Pursuing) (Embedded system and signal processing)
2	Ms. JaswinderKaur	Ph.D (Microstrip Antenna Design)

2. List of research publications in SCI/Impact Factor journals

S. no.	Title of the paper	Name of the Journal with volume, page nos., year	Name of authors	Impact Factor
1	Design and fabrication of a novel hexagonal reconfigurable antenna with RF switches for mobile terminals	J.Natn.Sci.Foundation Sri Lanka 2014 42 (3): pp.283-289	P Chawla, R Khanna	
2	Network selection algorithm based on link quality parameters for heterogeneous wireless networks	Optik – International Journal for Light and Electron Optics Volume 125, Issue 14, July 2014, Pages 3657-3662	Kiran, Brahmjit, Rajesh Khanna	
3	Network Selection Based on Weight Estimation of QoS Parameters in Heterogeneous Wireless Multimedia Networks	Wireless Personal Communications August 2014, Volume 77, Issue 4, pp 3027-3040	Kiran, Brahmjit, Rajesh Khanna	
4	Triple band rectangular-shaped monopole antenna for WLAN/WiMAX/UWB applications	MICROWAVE AND OPTICAL TECHNOLOGY LETTERS Volume 56, Issue 9, September 2014, Pages: 2113-2117,	Davinder Parkash and Rajesh Khanna	
5	Quantification and Mitigation of Errors in the Inertial Measurements of Distance	MAPAN-Journal of Metrology Society of India DOI 10.1007/s12647-014-0115-z	P.K. Khosla, Rajesh Khanna, and Sanjay P. Sood	

- 6 Multiband antenna structure for heterogeneous wireless communication systems using DGS technique International Journal of Microwave and Wireless Technologies / Volume 6 / Special Issue 05 / October 2014, pp 521 – 526 Davinder Parkash and Rajesh Khanna
- 7 Design, Analysis and Comparison of Various MEMS Switches for Reconfigurable Planar Antenna Acta Polytechnica Hungarica Journal of Applied Sciences, Volume 11, Issue 10, pp.21-40, 2014 P Chawla, R Khanna
- 8 Design, analysis, and fabrication Of a novel multiband folded edge Compact size fractal pifa for WiFi/LTE/WiMax/WLAN application MICROWAVE AND OPTICAL TECHNOLOGY LETTERS / Vol. 56, No. 12, pp, 2836-2841, December 2014 DOI 10.1002/mop Nitin, Rajesh Khanna
- 9 Linear Power Division Approximation for Stimulated Raman Scattering Fiber and Integrated Optics (Taylor & Francis) 33: pp. 299–305, August 2014 Lokesh Sobti, 1.488 Vaihbav Arora & Hardeep Singh
- 10 Analysis of 64 QAM Golay Codes with Low Peak to Average Power Ratio for OFDM systems International Journal of Wireless Personal Communication(Springer), Vol. 80, No. 3, pp. 1027-1034, February 2015 Sabhyata Uppal, 0.979 Sanjay Sharma & Hardeep Singh
- 11 Analytical Investigation on PAPR Reduction in OFDM Systems using Golay Codes, Vol.65, No.5, pp. 289-293, 2014. International Journal of Electrical Engineering, Vol.65, No.5, pp. 289-293, 2014. Sabhyata Uppal, 0.539 Sanjay Sharma & Hardeep Singh
- 12 Performance analysis of temperature dependent Multi-walled Carbon Nanotubes as Global Interconnects at different technology nodes Journal of Computational Electronics, Springer, Volume 14, Issue 2, pp 469-476, June 2015. Karmjit Singh & 1.372 Balwinder Raj,
- 13 Electrical Tuning of Optical Delay in Graphene based Photonic Crystal Waveguide Accepted, August 2015 J. K. Thind, M. 1.89 Kumar and B.K. Kaushik

- | | | | | |
|----|---|--|---|-------|
| 14 | Hybridization of Plasmonic and Photonic Modes for Subwavelength Optical Confinement with Longer Propagation and Variable Nonlinearity | Optics Communications 343 | T. Sharma and M. Kumar | 1.542 |
| 15 | Design of a Three-Hole Defect Photonic Crystal Nanocavity with High-Q and Enhanced Purcell Factor | Opt. Eng., 54 (1), 017106 (2015) | S. Aneja and M. Kumar | 0.958 |
| 16 | Development of Dual Band Microstrip Patch Antenna for WLAN/MIMO/WiMAX/AMSA T/WAVE Applications | Microwave and Optical Technology Letters, vol. 56, no. 8, pp. 1965-1970, August 2014. | Jaswinder Kaur | 0.623 |
| 17 | Semi spiral G shaped Dual Wideband Microstrip Antenna with Aperture Feeding for WLAN/WiMAX/UNII band applications | IJMWTT , published online 31st march 2015 | Amanpreet Kaur | 0.386 |
| 18 | Adaptive Polynomial Filtering using Generalized Variable Step-Size Least Mean pth Power (LMP) Algorithm | Springer, Circuits, Systems and Signal Processing, vol. 33, no.12, pp. 3931 – 3947, December 2014 | A. Rai and Amit Kumar Kohli | |
| 19 | Temperature dependant crosstalk analysis in coupled single-walled carbon nanotube (SWCNT) bundle interconnects | International Journal Of Circuit Theory And Applications (Journal of Wiley) DOI: 10.1002/cta,2014 | Mayank Kumar Rai and Sankar Sarkar | 1.254 |
| 20 | Crosstalk analysis in CNT bundle interconnects for VLSI application | IEEEJ Transaction on Electrical and Electronic Engineering,(Journal of Wiley) vol. 9, no.4,pp.390-397,2014 | Mayank Kumar Rai, Rajesh Khanna and Sankar Sarkar | 0.213 |
| 21 | Performance analysis of $\pi/4$ DQPSK for FrFT and FFT based OFDM system with carrier frequency offset | International Journal of Applied Mathematics & Information Sciences, vol. 9, Issue 3, pp. 1383-1389, 2015. | Ankush Kansal, Kulbir Singh and Rajiv Saxena | |
| 22 | Bit Error Rate analysis of FrFT appended OFDM | International Journal of Light and Electron Optic, | Ankush Kansal, Kulbir Singh and | |

- System,” vol. 126, no. 7-8, pp. 715-718, 2015. Rajiv Saxena
- 23 Performance Analysis of FrFT Based OFDM System with 1024-PSK and 1024-QAM Modulation under various Wireless Fading Channels International Journal of System Assurance Engineering and Management, Published by Springer, vol. 9, pp. 1-9, 2014 Ankush Kansal, Kulbir Singh and Rajiv Saxena
- 24 FPGA-Nanotechnology based Analysis, design and Implementation of ADPLL Journal of Computational and Theoretical Nanoscience, Vol.11, pp. 1968-1974, 2014 Govind Singh 1.032 Patel, Sanjay Sharma
- 25 Adaptively grouped multilevel space-time trellis codes Wireless Personal Communication, Vol.74, pp. 415-426, 2014 Dharmvir Jain, 0.979 Sanjay Sharma
- 26 Adaptive generator sequence selection in multilevel space time trellis codes Wireless Personal Communication, Vol.75, pp. 1851-1862, 2014 Dharmvir Jain, 0.979 Sanjay Sharma
- 27 Adaptively grouped multilevel space time trellis codes combined with beamforming and component code selection Wireless Personal Communication, Vol.77, pp. 2549-2563, 2014 Dharmvir Jain, 0.979 Sanjay Sharma
- 28 Substrate Coupling of RF CMOS on Lightly Doped Substrate for Nanoscale Mixed-Signal Design Journal of Computational and Theoretical Nanoscience, Vol.11, pp. 1184-1188, 2014 Pawan Kumar 1.032 Singh, Sanjay Sharma
- 29 Parametric analysis to reduce phase noise of frequency synthesizers for wireless communication system Wireless Personal Communication, Vol.75, pp. 1295-1306, 2014 Govind Singh 0.979 Patel, Sanjay Sharma
- 30 Parametric analysis of a novel architecture of Phase Locked Loop for communication system Wireless Personal Communication, Vol.77, pp. 1271-1285, 2014 Govind Singh 0.979 Patel, Sanjay Sharma
- 31 A novel grouped multilevel dynamic space-time trellis code scheme International Journal of Communication Systems, DOI: 10.1002/dac.2754, 2014 Dharmvir Jain, 1.106 Sanjay Sharma
- 32 Weighted adaptively grouped International Journal of Dharmvir Jain, 0.751

- multilevel space-time trellis codes Electronics, Sanjay Sharma
DOI:10.1080/
00207217.2014.942889
- 33 Performance analysis of adaptively grouped multilevel space-time trellis codes using different component codes Wireless Personal Communication, DOI: 10.1007/s11277-014-2211-3 Dharmvir Jain, 0.979
Sanjay Sharma
- 34 Novel Linear Decodable QO-STBC for Four Transmit Antennas with Transmit Antenna Shuffling Wireless Personal Communication, DOI 10.1007/s11277-014-2192-2 Vineet Sharma, 0.979
Sanjay Sharma
- 35 High performance 8-bit cascaded carry look ahead adder with precise power consumption International Journal of Communication Systems, DOI: 10.1002/dac.2727 Raj Johri, Shyam Akashe, Sanjay Sharma 1.106
- 36 ANALYTICAL INVESTIGATION ON PAPR REDUCTION IN OFDM SYSTEMS USING GOLAY CODES Journal of Electrical Engineering, Vol.65, pp. 289-293, 2014 Sabhyata, Hardeep Singh, Sanjay Sharma 0.539
- 37 Analysis of 64 QAM Golay Codes with Low Peak to Average Power Ratio for OFDM Systems Wireless Personal Communication, DOI 10.1007/s11277-014-2068-5 Sabhyata, Hardeep Singh, Sanjay Sharma 0.979
- 38 Optimum placement of optical amplifiers in a multi-wavelength hybrid network topology Optoelectronics and Advanced Material-Rapid Communication vol. 9, no. 7-8, Aug. 2015. Simranjit Singh, Gauravpreet Singh, Gurpreet Kaur, Ramandeep Kaur and R. S. Kaler 0.402
- 39 Novel Security Enhancement technique against Eavesdropper for OCDMA System using 2-D Modulation Format with Code Switching Scheme Elsevier: Optical Fiber Technology, vol. 22, pp. 84-89, Feb. 2015 Simranjit Singh, Ramandeep Kaur, Amanvir Singh and R. S. Kaler, 1.187
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| 42 | Photonic Processing and Realization of All-Optical Digital Comparator Based on Semiconductor Optical Amplifiers | SPIE: Optical Engineering, vol. 54, no. 1, pp. 016104 (1-5), Jan 2015. | Simranjit Singh, Ramandeep Kaur Kaur and R. S. Kaler, | 0.2 |
| 43 | Realization of High Speed All-Optical Half Adder and Half Subtractor Using SOA Based Logic Gates | OSA: Journal of Optical Society of Korea, vol. 18, no. 6, December 2014, | Simranjit Singh, R. S. Kaler and Rupinder Kaur | 0.957 |
| 44 | Optimizing the Net Gain of a Raman-EDFA Hybrid Optical Amplifier using a Genetic Algorithm | OSA: Journal of Optical Society of Korea, vol. 18, no. 5, pp. 442-448, pp. 639-645, Oct. 2014. | Simranjit Singh, R. S. Kaler, | 0.957 |
| 45 | Photonic Processing for All-Optical logic Gates Based on Semiconductor Optical Amplifier | SPIE: Optical Engineering, Vol. 53, no. 11, pp. 116102 (1-8), Nov. 2014. | Simranjit Singh, Rupinder Kaur and R. S. Kaler | 0.2 |
| 46 | Flat-gain characteristics of C+L split-band hybrid waveguide amplifier for dense wavelength division multiplexed system at reduced channel spacing | Optoelectronics and Advanced Materials-Rapid Communications, vol. 8, no. 9-10, pp. 980 – 984, Sep-Oct 2014. | Simranjit Singh and R. S. Kaler | 0.402 |
| 47 | Investigation of wavelength division multiplexed hybrid ring-tree-star network topology to enhance the system capacity | Elsevier: Optik, vol. 125, no. 21, pp. 6516-6519. Nov. 2014. | Simranjit Singh, Raman and R. S. Kaler | 0.769 |
| 48 | Placements of Hybrid/conventional optical amplifiers in a multi-wavelength dense metropolitan area network | Optoelectronics and Advanced Material-Rapid Communication, vol. 8, no. 7-8, pp. 762-769, August 2014. | Simranjit Singh and R. S. Kaler, | 0.402 |

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| 49 | Multistage Gain-Flattened Hybrid Optical Amplifier at Reduced Wavelength Spacing | Elsevier: Optik, vol. 125, no. 18, pp. 5357-5359, Sep. 2014. | Simranjit Singh, and R. S. Kaler | 0.769 |
| 50 | Investigation on Wavelength Re-Modulated Bi-directional Passive Optical Network for different Modulation Formats | Elsevier: Optik, Vol. 125, no. 18, pp 5378-5382, Sep 2014. | Simranjit Singh, Amit Kapoor, Gurpreet Kaur, R. S. Kaler and Rakesh Goyal | 0.769 |
| 51 | Multi parameter optimization of Raman Fiber Amplifier using Genetic Algorithm for S band Dense Wavelength Division Multiplexed System | Elsevier: Optik, vol. 125, no. 17, pp. 4694-4699, Sep. 2014. | Simranjit Singh, Sonak Saini, R. S. Kaler and Ramandeep Kaur | 0.769 |
| 52 | Power Transient and Its Control in Raman- EDFA Hybrid Optical Amplifier Subject to Multi-Channel Bursty Traffic | OSA: Journal of Optical Technology, Vol. 81, no. 10, pp. 590-593, Oct. 2014. | Simranjit Singh and R. S. Kaler | 0.24 |
| 53 | Performance Evaluation and Characterization of Hybrid Optical Amplifiers for DWDM system at ultra-narrow channel spacing | Springer: Journal of Russian Laser Research, vol. 35, no. 2, pp. 111-118, March 2014. | Simranjit Singh, and R. S. Kaler | 0.606 |
| 54 | On the Optimization of Raman Fiber Amplifier Using Genetic Algorithm in the scenario of 64 nm 320 channels Dense Wavelength Division Multiplexed System | OSA: Journal of Optical Society of Korea, vol. 8, no. 2, pp. 118-123, April 2014. | Simranjit Singh, Sonak Saini, Gurpreet Kaur and R. S. Kaler | 0.957 |
| 55 | Novel Optical Flat Gain Hybrid Amplifier For Dense Wavelength Division Multiplexed System | IEEE, Photonics Technology Letters, vol. 26, no. 2, pp 173-176, 2014 | Simranjit Singh and R. S. Kaler | 2.038 |
| 56 | Performance Investigation of Raman-EDFA Hybrid Optical Amplifier in the Scenario of High Speed Orthogonal | SPIE, Optical Engineering, vol. 53, no. 3, pp. 036102 (1 to 4), 2014 | Simranjit Singh and R. S. Kaler | 0.88 |

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| 57 | 5 GHz all-optical binary counter employing SOA-MZIs and an optical NOT gate | IOP Science, Journal of Optics, Vol 16, pp 035201 (1 to 4), 2014 | Sanmukh Kaur and R. S. Kaler | 1.99 |
| 58 | Multi parameter optimization of Raman Fiber Amplifier using Genetic Algorithm for L band Dense Wavelength Division Multiplexed System | SPIE, Journal of Optical Engineering, vol. 53, no. 1, pp. 016103-1 – 016103-7, 2014 | Simranjit Singh, Sonak Saini, Gurpreet Kaur and R. S. Kaler | 0.88 |
| 59 | Refractive index sensitivity enhancement using ITO coating on LPG, vol. 8, no. 1-2, pp 41-48. | Journal of optoelectronics & advanced materials Rapid Communications, 2014 | Nidhi, RS Kaler, Pawan Kapur | 0.402 |
| 60 | Performance Evaluation and characterization of Hybrid Optical Amplifiers for DWDM system at ultra-narrow channel spacing | Springer, Journal of Russian Laser Research, vol. 35, no. 2, pp. 111-118, 2014 | Simranjit Singh and R. S. Kaler | 0.713 |
| 61 | Humidity sensing using Gelatin & Cobalt coating on ITO coated LPG | Taylor and Francis, Fiber and Integrated Optics, 2014 | Nidhi, RS Kaler, Pawan Kapur | 0.507 |
| 62 | Refractive index sensitivity enhancement using ITO coating on LPG | Fiber and Integrated Optics, Taylor and Francis, 2014 | Nidhi, RS Kaler, Pawan Kapur | .507 |
| 63 | Low Cost Architecture to Integrate Multiple PONs To A Long Reach Spectrum Sliced WDM Network | Elsevier, Optik, 2014 | K. Kaur and R. S Kaler | 0.524 |
| 64 | Spectrally Efficient 3D Optical CDMA Using Coherent Spatial Phase-Time Coding/Decoding | Journal of Russian Laser Research, vol. 35, pp. 391-400, 2014 | R.S.Kaler, H. Monga | 0.606 |
| 65 | 5 GHz all-optical binary counter employing SOA-MZIs and an optical NOT | Journal of Optics (United Kingdom) vol. 16, pp. 35201, 2014 | R.s.kaler, S. Kaur | 2.01 |

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3. List of research publications in Non-SCI/Non-Impact journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
1	Pulse Walk Off Effect and Data Format for Stimulated Raman Scattering and Comparison Between Different Data Formats	IJIRST –International Journal for Innovative Research in Science & Technology, Volume 1, Issue 12, pp.610-615, May 2015, ISSN (online): 2349-6010	Kamini Kumari & Hardeep Singh
2	Pulse Walk off Effect on Stimulated Raman Scattering	Advances in Computer Science and Information Technology (ACSIT), Volume 2, Number 9, pp. 52-54, April-June, 2015, Print ISSN: 2393-9907; Online ISSN: 2393-9915	Kamini Kumari & Hardeep Singh
3	Analysis of Spatial Complex Degree of Coherence for Lorentz-Gauss Beams through Paraxial ABCD Optical System	IJIRST –International Journal for Innovative Research in Science & Technology, Volume 1, Issue 12 , pp. 401-405, May 2015, ISSN (online): 2349-6010	Nivedita Mishra & Hardeep Singh
4	Analysis of the Effect of Coupling Coefficient in a Nonlinear Directional Coupler based on Cross-Phase Modulation	IJIRST –International Journal for Innovative Research in Science & Technology, Vol.1, Issue 12, pp. 406-412, May 2015 ISSN (online): 2349-6010	Abha Aggarwal & Hardeep Singh
5	Design of MEMS based Microheater for enhanced Efficiency of Gas Sensors	Journal of Thermal engineering and Application, vol 2, 2015	Mayank Dhull & Anil Arora
6	Review of Various Routing Protocols and Routing Models for MANETs	International Journal of Innovations & Advancement in Computer Science, vol. 4, pp. 156-165, May 2015.	T. Arora, Kaur, A. and M.Singh
7	Hierarchical routing protocol for LEACH: A Review	International Journal of Computer and Application, vol.9, pp. 23-29, May 2015	T. Arora, Kaur, A. and M.Singh
8	Analysis of LFM and NLFM	International Research Journal of	Sanjay

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
	radar waveforms and their performance analysis	Engineering and Technology, vol. 2, no. 2, pp. 334–339, 2015.	Kumar, Shruti Parwana
9	A new optimized low-pass IIR digital differentiator	Progress in Science and Engineering Journal, vol. 02, no. 03/06, pp. 164–170, 2014	Sanjay Kumar, Rajeev Kumar
10	Accelerated target detection using fractional Fourier transform	International Journal on Recent and Innovation Trends in Computing and Communication, vol. 2, no. 6, pp. 1502–1505, 2014	Sanjay Kumar, Ajmeet Singh
11	A novel approach to design fractional order digital differentiator using power function and least-square method	International Journal of Advanced Research in Computer and Communication Engineering, vol. 3, no. 6, pp. 6826–6829, 2014	Sanjay Kumar, Avinash Kumar Dubey
12	Design and Stimulation of New Fractal Antennawith Improved Return Loss at VariousFrequencies for Ultra Wide Band Applications	IJARCCCE, Vol. 4, Issue 6, June 2015	Deepti singh, Sukhwinder Kumar
13	Minkowski Fractal Geometry based T-shapedFractal Patch Antenna for wireless applications	IJARCCCE, Vol. 4, Issue 6, June 2015	Sunil Kumar, Sukhwinder Kumar
14	Effective Use of Various Crossover Operators in Hybrid Genetic Algorithm for Optimization of BDD Mapped Circuits.	International Journal of Advanced Research in Computer Science and Software Engineering, Volume 5, Issue 6, June 2015.	Rohit, Manu Bansal
15	An Enhanced LSB steganography Algorithm for Data Hiding.	International Journal of Advanced Research in Computer Science and Software Engineering, Vol. 5, Issue 5,	Akash Modi, Manu Bansal

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
		May 2015.	
16	Implementation of Retiming Algorithms in MATLAB	International Journal of VLSI & Embedded Systems, Vol. 5, Sept 2014.	Mehak Agarwal, Manu Bansal
17	Test Scheduling of Core Based SOC Using Greedy Algorithm	Int. Journal of Engineering Research and Applications Vol. 4, Issue 9(Version 3), pp.80-85, September 2014,	Harpreet Vohra and Naveen Dewan
18	Test Time And Power Optimization Of 2D Socs Using Ga And Greedy Algorithm	Journal Of Power Electronics & Power Systems, Vol 5, No 2 p 66-68,2015	Harpreet Vohra, Nveen Dewan and Prashit Aggarwal
19	Enhanced Compression Code for SOC Test Data Volume Reduction	IJCEM International Journal of Computational Engineering & Management, Vol. 18 Issue 3, pp 14-18, May 2015	Harpreet Vohra and Shruti Chadha
20	Design of Sierpinski Gasket Fractal Antenna using proximity coupled feed mechanism for multiband applications	International Journal of Advanced Research in Computer and Communication Engineering, vol. 4, issue 4, pp. 586-589, April 2015.	Ashish Dhankar & Jaswinder Kaur
21	VSS-LMS Algorithms for Multichannel System Identification Using Volterra Filtering	SSRG International Journal of Electronics and Communication Engineering (SSRG-IJECE), vol. 2, no. 5, pp. 27 – 35, May 2015.	S. D. Gupta and Amit Kumar Kohli
22	Design and Analysis of Two Stage Fully Differential Telescopic Operational Amplifier and Two Stage Fully Differential Folded Cascode Operational Amplifier	Recent Trends in Electronics & Communication Systems, Vol 2, No 2 (2015)	Soumen Chatterjee and Mayank Kumar Rai

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
23	FrFT based OFDM system for Wireless Communication	Research Cell: International Journal of Engineering Sciences, vol. 10, pp. 43-48, 2014.	Ankush Kansal, Kulbir Singh and Rajiv Saxena
24	Performance analysis of Convolutional interleaved DWT based OFDM system	International Journal of Advanced Research in Computer and Communication Engineering	Karanpreet Kaur, Ankush Kansal
25	Improvement of BER for OFDM using Equalization and Windowing for AWGN and Rayleigh Fading Channels	International Journal of Innovative Research in Electrical, Electronics, Instrumentation And Control Engineering	Nikhil Bhardwaj, Ankush Kansal
26	BER Analysis of OFDM with Raised Cosine Window and Equalization using Rician Channel	International Journal of Engineering Sciences	Nikhil Bhardwaj, Ankush Kansal
27	BER Improvement of linear orthogonal dispersion coded 8x8 MIMO System using Convolution encoder and bit interleaving	International Journal of Innovations in Engineering and Management	Satinder Kaur Ankush Kansal
29.	Low-Complexity Equalization of OFDM Systems using Krylov subspace methods over Doubly Selective Channels	International Journal of Emerging Research in Management and Technology	Tazeen, Ankush Kansal
30.	Comparative Analysis of the Spectrum Sensing Techniques Energy Detection and Cyclostationary Feature Detection	International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering	Raman Gill, Ankush Kansal
31.	A novel shared protection scheme based on aggregate wavelength in high speed	International Journal of Optics, pp. 1-4, 2014	Oberoi, A., Sohal, J.S,

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
	networks		R.S.Kaler
32.	Performance Analysis of Multiple User Optical Code Division Multiple Access	Scientific Research, vol. 4, pp. 21-25	Monga, H.

4. Publication of papers in conference proceedings and other publications

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
1	Performance Evaluation of Linear/Non-linear Precoding Schemes for Downlink Multi-User MIMO Systems	2015 International Conference on Industrial Instrumentation and Control (IICIC) Col/ege of Engineering Pune, India. May 28-30,2015	Aditi Agnihotri and Dr. Bhasker Gupta
2	Performance Analysis of Hybrid Optical Amplifiers in 120* 10 Gbps WDM Optical Network with Channel Spacing of 50 GHz	Second International Conference on Advances in Computing, Communication and Information Technology-CCIT 2014, Birmingham (UK) Organized by IRED USA, Vol. 1, pp. 55-58, November 16-17, 2014.	Hardeep Singh & Sukhwinder Singh
3	Analysis of beam parameters of unstable resonator using Lorentz-Gauss Beams through ABCD Optical System	OPTO2015 Conference, Wroclaw University of Technology, Poland, Organized by OSA & SPIE USA, Vol.1, pp. 50, May 27-30, 2015.	Nivedita Mishra & Hardeep Singh
4	Effect of Coupling Coefficient on the Switching Characteristics of a Nonlinear Directional Coupler	OPTO2015 Conference, Wroclaw University of Technology, Poland, Organized by OSA & SPIE USA, Vol.1, pp. 79, May 27-30, 2015.	Abha Aggarwal & Hardeep Singh
5	Power Division for Approximation Stimulated Raman Scattering including a walk off effect	OPTO2015 Conference, Wroclaw University of Technology, Poland, Organized by OSA & SPIE USA, Vol.1, pp. 80, May 27-30, 2015.	Kamini Kumari & Hardeep Singh
6	Capacitive Micromachined Ultrasonic Transducer	National Conference on Advances in Electrical & Electronics	Vinod Bhonsle & Anil Arora

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
		Communication Engineering	
7	Frequency analysis of different membranes for MEMS energy scavenging	National Conference on Advances in Electrical and Electronics Communication Engineering, 20-21 February, 2015	Rajat kant & Anil Arora
8	Electromagnetic micro power generator- A comprehensive survey	National Seminar on Recent Trends in Physics and Chemistry, 25 march 2015	Rajat Kant & Anil arora
9	A Review on Analysis of EEG Signals	IEEE International Conference on Advances in Computer Engineering and Applications, Ghaziabad, 2015	Amanpreet Kaur, Jasjeet Kaur
10	Probability Distribution Estimation of Musical Signals in Time and Frequency Domains	IEEE DSP 2014, Hong Kong,	Vaibhav Arora, Ravi Kumar
11	Influence of Temperature Variations on Mixed Carbon Nanotube Bundle Interconnect Delay for VLSI Application	International Conference on Micro-electronics, Communication and Computation – 2015, San Diego, USA, 27- 28 February 2015	Mayank Kumar Rai
12	Binary plane approach in visual cryptography	National conference on Role of Information and Technology in Management and Engineering, vol. 1, no. 1, pp. 62-65, Mar. 2015.	M. Singh, A. Kakkar,
13	Secured data using RSA	National conference on Role of Information Technology in Management and Engineering, pp. 54-57, March, 2015.	N. Kansal, A. Kakkar
14	Development of Key Generation for Data Security using DES	National Conference on Information Technology in Management and Engineering, pp. 59-61, Mar. 2015.	G. Puri and A. Kakkar
15	Bio-Chemical Sensor Based on Photonic Crystal	International Conference on Fibre Optics and Photonics, IIT	B Painam, PK Teotia; mukesh

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
	Waveguide for Estim	Kharagpur, OSA, 2014	kumar

5. List of various faculty members who attended various conferences/ workshops/ short-term programs

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
1.	Dr Hardeep Singh	Second International Conference on Advances in Computing, Communication and Information Technology-CCIT 2014, Birmingham (UK) Organized by IRED USA	Birmingham University (UK), November 16-17, 2014.
2.	Manu Bansal	Electronic System Design and Prototyping: Tools & Methodologies	30th April 2015 at Hotel Shangri-La's - Eros, New Delhi under SYNOPSIS University Symposium.
3.	Amanpreet Kaur	ICMARS 2015	Jodhpur, India December 2015
4.	Amanpreet Kaur	APCAP 2015	Bali Indonesia, 30th june to 4th july 2015

6. List of ongoing sponsored projects

S. No.	Name of the Project	Year of sanction	Funding Agency	Project Cost (Rs in Lacs)	Principal Investigator
1	Design and Development of Integrated Nano-optoelectronic Platform based on Hybrid Photonic-Plasmonic Waveguide for Communication and Bio-sensing	2015	CSIR	17 lacs	Mukesh Kumar
2	Design and Development of Stacked patch Antennas For WLAN applications		UGC	18.5 lacks	Amanpreet Kaur
3	Design of PCF based sensors for detection of Pathogens (30 Lacs)	2015-2017	DBT	30.88 lacs	R.S.Kaler

7. List of completed sponsored projects

S.No.	Name of the Project	Funding Agency	Project Cost(Rs in Lacs)	Principal Investigator
1	Design of Stacked antennas for Wireless Applications	AICTE	7.5 lacks	Amanpreet Kaur
2.	Performance Analysis of Dense Wavelength Division Multiplexed Systems	University Grant Commission, New Delhi	9.0 Lacs	R.S.Kaler

8. List of faculty members who have delivered invited lectures/talks etc. at various levels

S. No.	Name of faculty member	Title of expert talk/lecture	Forum with date and venue
1	Ajay Kakkar	Concept of Data Communication	Under TEQIP, 16th April, UIET, Kuruksetra, Haryana
2	Ajay Kakkar	Data Communication and Wireless Security	FDP sponsored by PTU, April 8th, 2015, BCET, Ludhina, Punjab.

9. List of ongoing Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1.	Algorithm & Architecture Design of DDS Synthesizers for Improved Performance of PLLs	Dr. Sanjay Sharma
2.	Efficient Design of Iterative Decoding algorithm and architecture for Channel Coding	Dr. Sanjay Sharma
3.	Design of Improved coding Schemes for low peak to average power ratio for OFDM systems	Dr. Sanjay Sharma Dr. Hardeep Singh
4.	Modeling and Simulation of Enhanced Gain Wideband Aperture Coupled Dielectric Resonator Antenna	Dr. Sanjay Sharma
5.	Modeling of Leakage currents in Double Gate MOSFETs	Dr. A. K. Chatterjee

S. No.	Title of the Thesis	Name of the Supervisor(s)
6.	Development of an Efficient Eye Tracking System for Smart Wheelchair	Dr. A. K. Chatterjee
7.	Implementation of Multifrequency Antenna & Broadband Design for Wireless Application	Dr. Rajesh Khanna
8.	Gas Sensing Properties of Nanostructured Tin/Zinc oxide thin films	Dr. Rajesh Khanna
9.	Design & Analysis and Velocimetry for Supersonic Sled System	Dr. Rajesh Khanna
10.	Quality of Service Aware Traffic Scheduling Algorithm for Heterogeneous Wireless Networks	Dr. Rajesh Khanna Dr. Neeraj Kumar
11.	Studies on Stacked Patch Antenna for Wireless Application	Dr. Rajesh Khanna
12.	Compact UWB Antenna Design for WPAN Applications	Dr. Rajesh Khanna
13.	Study and Analysis of Minimization Algorithms for VLSI Circuit Synthesis	Dr. AlpanaAggarwal
14.	Studies on OPAMP- Less Pipelined Analog to Digital Converter for Deep Submicron Technologies	Dr. AlpanaAgarwal
15.	Synthesis of Low Power Low Noise CMOS operational Amplifier for BioMedical Application	Dr. AlpanaAggarwal
16.	Synthesis of Improved Sigma Delta ADC for a Biomedical Application	Dr. AlpanaAgarwal
17.	Robust Image Adaptive Watermarking Scheme with Strength Factor Analysis	Dr. Kulbir Singh
18.	Design & Synthesis of Homography based Hybrid mixture Model for 3D reconstruction	Dr. Kulbir Singh Dr. AdityaAbhyankar
19.	Improved EEG Signal Analysis Techniques for ES Detection and Artifact Excision	Dr. Amit Kumar Kohli
20.	Analysis and Design of Adaptive volterra filters for system identification in time varying Environment	Dr. Amit Kumar Kohli
21.	Performance Analysis of Spatially Coded OFDM Wireless	Dr. Amit Kumar Kohli

S. No.	Title of the Thesis	Name of the Supervisor(s)
	System using Channel State information	
22.	Design & Simulation of Hybrid Optical Antenna Integrated on SOI Chip	Dr. Mukesh Kumar
23.	Design & Simulation of Efficient Hybrid Plasmonic – photonic waveguide	Dr. Mukesh Kumar
24.	Design and Simulation of a High Index Contrast Grating Based Hollow Optical Waveguide	Dr. Mukesh Kumar
25.	Optical Phase Tuning in Silicon Based Slot Waveguide for Tunable Nanophotonic Devices	Dr. Mukesh Kumar
26.	Design and Implementation Ultra Wide Band Antenna with Multiple Notch Band	Dr. Hardeep Singh
27.	Design of Improved MIMO Algorithm for Wimax System	Dr. Hardeep Singh
28.	Classification of Ragas using psychoacoustic features and soft computational Techniques	Dr. Ravi Kumar
29.	Implementation of Adaptive Filtering using Multilayer Perceptron Neural Network	Dr. Ravi Kumar
30.	Development and Performance Analysis of efficient spectrum sensing Techniques for SDR	Dr. Surbhi Sharma
31.	Performance Evaluation of Asynchronous Distributed Space Time Block Coded System for Cooperative Communication	Dr. Surbhi Sharma
32.	Performance Evaluation and Analysis of Power Limited Cognitive Radios	Dr. Surbhi Sharma
33.	Optimization of Environmentally Powered Wireless Sensor Networks for efficient energy harvesting	Dr. Ajay Kakkar
34.	Design and Fabrication of MEMS microheater for gas sensing applications	Dr. Anil Arora
35.	Performance Analysis of Atmospheric Turbulence Mitigation Techniques for free space optical communication	Dr. R. S. Kaler
36.	Design and Performance Analysis of Photonic Crystal Waveguide for Bio-Chemical Sensing Applications	Dr. R. S. Kaler Dr. Mukesh Kumar

S. No.	Title of the Thesis	Name of the Supervisor(s)
37.	Performance Analysis of Surface Plasmon Resonance Waveguide for Sensing Applications	Dr. R. S. Kaler
38.	Design and Development Optimized Cross Layer Framework for Wireless Sensor Networks	Dr. Anil Kumar Verma
39.	Speaker Dependent Hindi Speech Recognition	Dr. R. K. Sharma
40.	Iris Recognition System for some clinical applications	Dr. R. K. Sharma Dr. RavinderAgarwal
41.	Design of Bio-Implantable MEMS Inductors for Pressure Sensing Application	Dr. RavinderAgarwal Dr. K. J. Rangra
42.	Study & Analysis of SEMG Signal for Enhancement of Above Shoulder Myoelectric Arm	Dr. RavinderAgarwal
43.	Modeling of Nanoscale MOSFETs and their circuit level implementation	Dr. B. Prasad
44.	Modeling and Analysis of Temperature Dependence of Multiwall Carbon Nontubes for VLSI Interconnects	Dr. Balwinder Raj
45.	Synthesis of optimization of Time Modulated Antenna Array	Dr. BananiBasu
46.	Efficient Test Solution for System on Chip	Dr. IndernilSen Gupta
47.	Quality Assessment and Classification of HERBS using computer Vision	Dr. Hem Dutt Joshi &Dr. Vinay Kumar
48.	Design And Analysis of Multilevel coding scheme with cooperative diversity for improved system performance	Dr. Sanjay Sharma
49.	Performance Evaluation of Fiber Optical Sensors for Health Monitoring of Civil Structures	Dr. R. S. Kaler &Dr. Naveen Kwatra

13. List of completed Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1.	Crosstalk analysis in Carbon Nano Tube based VLSI interconnects	Dr. Rajesh Khanna Dr S Sarkar
2.	Quality of Service Based Vertical Handoff in Heterogeneous Wireless Networks	Dr. Rajesh Khanna
3.	Design and Implementation of Efficient Structures for Digital Interpolators	Dr. Sanjay Sharma & Dr. Amit Kumar Kohli
4.	Analysis and Performance Evaluation of Reception Schemes for Correlated MIMO System	Dr. Rajesh Khanna & Dr. Manjeet Singh Patterh
5.	Design and Analysis of Variable Digital Filters Using Fractional Fourier Transform	Dr. Rajesh Khanna & Dr. S. S. Bhatia
6.	Studies on Convolution and Correlation Theorems for the Linear Canonical Transform and Their Applications in Signal Processing	Dr. Kulbir Singh
7.	Performance Analysis of DWDM Systems with Optical Add Drop Multiplexers and Optical Cross Connects	Dr. R. S. Kaler & Dr. Kuldeep Singh
8.	Multi-Frequency Wideband Microstrip Patch Antenna For Wireless Applications	Dr. Rajesh Khanna & Dr. M.V. Kartikeyan
9.	Design and Implementation of Multiband and Broadband Microstrip Antennas for Wireless Systems	Dr. Rajesh Khanna
10.	Performance Optimization of Hybrid Optical Amplifiers for Dense Wavelength Division Multiplexed System	Dr. R. S. Kaler
11.	Performance Analysis and Design of Fiber Gratings for Sensing Applications	Dr. R. S. Kaler & Dr. Pawan Kapur
12.	Wireless Network Selection Algorithm for Multimedia Services in Heterogeneous Environment	Dr. Rajesh Khanna & Dr. Brahmjit Singh

S. No.	Title of the Thesis	Name of the Supervisor(s)
13.	Performance Analysis of Hybrid Passive Optical Networks	Dr. R. S. Kaler & Dr. T. S. Kamal
14.	Implementation of all Optical Arithmetic and Logic unit based on nonlinear properties of semiconductor optical amplifiers	Dr. R. S. Kaler & Dr. T. S. Kamal

14. List of M. E./M. Sc. Thesis/dissertations

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
1.	Performance analysis of all optical logic gates based on cross-phase modulation in an asymmetric coupler	Dr. Hardeep Singh
2.	Energy analysis of large antenna and spatial modulated system in different fading channels	Dr. Rajesh Khanna
3.	Performance of MIMO and massive MIMO in TWDP fading channel	Dr. Rajesh Khanna
4.	Optimization and performance analysis of linear dispersive STBC codes with different estimators	Dr. Surbhi Sharma
5.	Distributive spectral access and energy efficient cognitive radio system	Dr. Surbhi Sharma
6.	Design and analysis of all optical logic gates based on 2-D photonic crystals	Dr. R S Kaler
7.	Design of Fractal antenna of WLAN and UWB applications	Mr. Sukhwinder Kumar
8.	Efficient key management for data security using TDES	Dr. Ajay Kakkar
9.	Design and analysis of 2-D photonic crystal devices	Dr. R S Kaler
10.	Software designed radio implementation of improved OFDM system	Dr. Hem Dutt Joshi
11.	Annular squared tapered EBG microstrip bandstop filter with improved performance	Dr. Rajesh Khanna
12.	A novel architecture for sample rate converter using FIR filter	Dr. Sanjay Sharma
13.	Electrical tuning of optical delay in graphene based photonic crystal waveguide	Dr. Mukesh Kumar
14.	Higher order approximation to achieve almost constant	Dr. Hardeep Singh

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
	modulated SRS power including pulse walk off effect and data transmission formats	
15.	Color image encryption using advanced visual cryptography	Dr. Ajay Kakkar
16.	Study and analysis of cooperative diversity communication systems under various fading channel environments	Dr. Hem Dutt Joshi
17.	Design analysis and fabrication of microstrip patch antennas for various applications using electromagnetic bandgap and defected ground structures	Dr. Khanna & Dr. Jaswinder
18.	Efficient key management for data security using AES	Dr. Ajay Kakkar
19.	Analysis of beam properties of Lorentz-Gauss and Hermite-Gaussian beams for unstable resonator through paraxial ABCD optical system	Dr. Hardeep Singh
20.	Performance analysis of surface plasmon resonance based optical fiber sensors	Dr. R S Kaler
21.	Energy Scavenging using MEMS based power generator	Dr. Anil Arora
22.	Nanocavity-coupled photonic crystal waveguide as a biosensing platform	Dr. Mukesh Kumar
23.	Analysis of Micro strain sensors based on photonic crystal fibers	Dr. R S Kaler
24.	Pattern analysis of machine olfactory system	Dr. Ravi Kumar
25.	Radar signal processing based on non linear frequency modulated waveforms	Dr. Sanjay Kumar
26.	Low dispersion on chip hollow waveguide for high data rate applications	Dr. Mukesh Kumar
27.	Modification to the generic QOSTBCs with rotated constellations	Dr. Sanjay Sharma
28.	Impact of transceiver impairments on capacity and optimum number of users for massive MIMO systems	Dr. Sanjay Sharma
29.	A novel audio watermarking technique using data dependent decomposition and quantization	Dr. Kulbir Singh
30.	Design of capacitive micromachined ultrasonic transducer for underwater acoustic imaging	Dr. Anil Arora

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
31.	Comparative analysis of Wimax decoder using VHDL	Dr. Alpana Agarwal
32.	Heterogeneous residual energy efficient protocol for wireless sensor networks	Mrs. Amanpreet Kaur
33.	Performance evolution of improvement in change detection techniques based on edge enhanced images	Mr. Ankush Kansal
34.	Minkowski algorithm T-shaped fractal patch antenna design with improved return loss	Mr. Sukhwinder
35.	A framework for evaluating the performance of mobility models for adhoc networks	Ms. Amanpreet Kaur
36.	Design of low-voltage current mirrors using flipped voltage follower cell	Dr. Rishikesh Pandey
37.	Implementation of an advanced image steganography technique using modified data image	Ms. Manu Bansal
38.	Temperature dependent analysis of mixed carbon nanotube bundle as VLSI interconnects	Dr. Mayank K. Rai
39.	Influence of inter shell distance on propagation delay and power of MWCNT bundle interconnect at semi global level	Mr. Karamjit Sanda
40.	Design of Multi-Output Second Generation Current Controlled Conveyor	Dr. Rishikesh Pandey
41.	Performance and Analysis of Hybrid Cu/CNT as VLSI Interconnect	Mr. Karamjit Sanda
42.	Analytical Modeling of Drain Current in the Subthreshold Region for Double-Gate Junctionless	Mr. Arum K. Chatterjee
43.	DESIGN AND ANALYSIS OF A LOW POWER TRI-GATE TRAPEZOIDAL FINFET	Mr. Arum K. Chatterjee
44.	FPGA implementation of radix-10 parallel decimal multiplier	Ms. Sakshi
45.	Design of MEMS based microheater for efficient gas sensor	Dr. Anil Arora
46.	Test optimization of core based SOCS using various heuristic algorithms	Ms. Harpreet Vohra
47.	Optimization of Folded Cascode Operational Transconductance Amplifier in 0.18 μm CMOS Technology	Dr. Alpana Agarwal
48.	FPGA Implementation of Variable RNS Scaler for Extended	Ms. Sakshi

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
	Four Moduli Sets	
49.	Modeling of Fowler Nordheim current through Gate dielectric in a Double Gate MOSFET	Mr. Arum K. Chatterjee
50.	Efficient test scheduling and IP mapping algorithm for NOC based SOC	Ms. Harpreet Vohra
51.	FPGA implementation of binary integer decimal based floating point multiplier	Ms. Sakshi
52.	Implementation of evolutionary algorithm with effective use of crossover operators for BDD mapped circuits	Ms. Manu Bansal
53.	High Precision low-voltage WTA/LTA circuit and its applications	Dr. Rishikesh Pandey
54.	Performance analysis of multi walled carbon nanotube (MWCNT) bundle as VLSI interconnects	Dr. Mayank K. Rai
55.	Development of enhanced test data compression scheme for system on chip	Ms. Harpreet Vohra
56.	Digitally Enhanced Smart Analog Circuits	Dr. Alpana Agarwal
57.	To Study the Design and Analysis of Operational Amplifier	Dr. Mayank K. Rai
58.	Testing and Measurement of Operational Amplifier	Dr. Alpana Agarwal
59.	Implementation of lms calibration algorithm for 12-bit pipelined adc	Dr. Alpana Agarwal
60.	Suppression of impulsive noise in OFDM system using imperfect channel state information	Dr Amit Kumar kohli
61.	Design and analysis of sharpened CIC filters	Dr. Sanjay Sharma
62.	ECG signal compression for transmission in mobile health monitoring system	Dr. Hem Dutt Joshi
63.	Wideband fractal microstrip antenna for wireless applications	Dr. Jaswinder Kaur
64.	Performance enhancement of microstrip patch antennas for wlan applications	Mrs. Amanpreet Kaur
65.	Linear decoding of QO-STBC under imperfect channel estimation conditions	Dr. Amit Kumar Kohli
66.	Study and investigations of dual band microstrip patch antennas loaded with split ring resonators	Dr. Jaswinder Kaur

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
67.	Design of MIMO and MU-MIMO antennas for modern high data rate wireless systems	Dr. Rajesh Khanna
68.	Game theoretic approach on analysis of wireless sensor networks	Dr. Ravi Kumar
69.	Symbol Error Rate Performance of Convolution Coded 4X4 MIMO Systems using LDC and Precoding	Dr. Ankush Kansal
70.	Online handwritten signature verification based on FIR filters using discrete fractional cosine transform	Dr. Kulbir Singh and Dr. Neeru Jindal
71.	Performance evaluation of microstrip patch antenna with different dgs shapes and substrate materials	Dr. Ankush Kansal
72.	A novel approach for identifying epileptic signals using signal processing	Ms. Amanpreet Kaur
73.	Investigations on Fractal Antennas For WLAN, Wimax, UWB And Mobile Applications	Ms. Amanpreet Kaur
74.	Feature Extraction Method based on Various Scanning Techniques in Iris Recognition System	Dr. Kulbir Singh
75.	Reduction of Blocking Artifacts in Compressed Images using Non- Separable Fractional Fourier Transform	Dr. Kulbir Singh
76.	Development of a novel technique for skew detection, estimation and correction of scanned document	Dr. Vinay Kumar
77.	Design and analysis of ultrawide band microstrop antenna with band-notched characteristics	Mr. Sukhwinder Kumar
78.	Algorithm For Automatic Text Retrieval From Images Of Book Covers	Dr. Vinay Kumar
79.	Identification Of Individual Melodies Using Artificial Neural Network Classifier	Dr. Ravi Kumar
80.	Image compression using neural network	Dr. Vinay Kumar
81.	Stacked fractal microstrip antennas for wireless communication	Ms. Amanpreet Kaur
82.	Performance Analysis of STBC MIMO-OFDM Transceiver using ICI Self Cancellation and Cooperative Diversity	Dr. Ankush Kansal
83.	Edge detection using fractional order differential operator	Dr. Sanjay Kumar

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
84.	VSS-LMS algorithms for multichannel system identification using volterra filtering	Dr. Amit Kumar Kohli
85.	Microstrip Antenna Optimization using Artificial Neural Network	Ms. Amanpreet Kaur

15. List of training programmes/ short term courses/workshops/conferences organized

S. No.	Title of the Programme with sponsoring agency	Name of the Coordinators	Dates and Venue
1.	Two day workshop on “Hands on Labview”	AmanpreetKaur, Sukhwinder Kumar	Thapar University, Patiala. NOV 22 – NOV 23, 2014
2.	FPGA Design using XILINX	Dr Alpana Agarwal, Manu Bansal	9th - 10th Oct and 11th Oct, 2014 at Thapar University, Patiala.
3.	Awareness session on VLSI-Semiconductor Industry Opportunity & Challenges by DKOP Labs	Dr Alpana Agarwal, Manu Bansal	March 26th, 2015 at Thapar University, Patiala.
4.	Embedded Systems by HCL		March 30th, 2015 at 5 PM. at Thapar University, Patiala.

16. Information regarding foreign visits

S. No.	Name of the faculty	Host University/ Organization	Nature of work	Month and Year of visit
1.	Dr Hardeep Singh	Birmingham University (UK)	To Present the Paper at International Conference	November 16-17, 2014
2.	Dr. Ravi Kumar	Hong Kong Polytechnique	Conference	August 2014

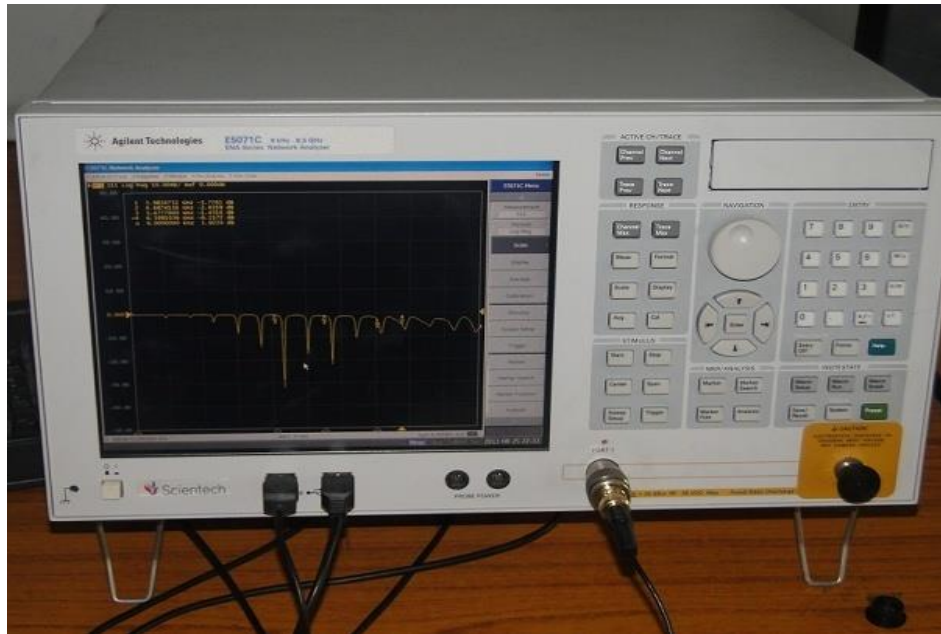
17. List of organizations where students undertook project semester/Summer Training

S. No.	Name of the Organization
1.	National Fertilizers Limited, Bathinda Punjab

S. No.	Name of the Organization
2.	ZTE telecom. sector 67,sebiz square,mohali
3.	CETPA INFOTECH PVT. LTD.,D58 Sector 2,Red FM Lane,Noida-201301
4.	I2DS(integrated data driven solutions) 311 ,THE MARK BUILDING, SAKET SQUARE ,INDORE, phone 0731-4041305, cell 9987699723
5.	Airport Authority of India(L Band Radar,Bijwasan,New Delhi)(New ATC Center,IGI Airport,New Delhi)
6.	Tata Docomo, C-125 PHASE Industrial focal point mohali,Punjab
7.	Siemens ltd. plot 6a, tower c sector-18 maruti industrial estate huda, gurgaon
8.	Terminal Ballistic Research Laboratory,DRDO,sector 30,Chandigarh-160030
9.	Netmax
10.	Reliance Communications,1st floor,DLF building, IT Park, Chandigarh
11.	Nucleus software, A-39, sector-62, Noida
12.	TT Consultants,Office 8,3rd Floor, DLF Building,Rajiv Gandhi It Park,Chandigarh 160101
13.	Punjab State Transmission Corporation Limited,Ablowal Patiala
14.	Bharti Airtel Limited, phase 2, industrial area, sector 58, mohali, punjab
15.	RAILTEL B - Block, Railnilayam 2nd Floor, Rail Nilayam, Sarojini Devi Road, Hyderabad-500003
16.	Ducat, A-52, Sector-16, Noida, U.P.
17.	Nucleus Software Exports Ltd.A-39, Sector-62, NoidaUttar Pradesh - 201307Tel: + 91-120-4031400
18.	Hike Limited, Unit no. 1, signature towers, tower B, Unitech south city 1, Gurgaon - 122001
19.	SAP Labs India, Vatika Towers, sector 54, DLF Cybercity, Gurgaon
20.	INMAS LABS, D.R.D.O.,Delhi, BRIG.S.K.Mazumdar marg,Timarpur,Delhi 110054
21.	Amorphous Silicon Solar Cell Plant (ASSCP) at Gwalpahari, Gurgaon
22.	Calypto Design Systems India Pvt. Ltd and 3rd Floor, Tower 2, India Glycols Building

S. No.	Name of the Organization
	Plot 2B, Sector 126 Noida, UP 201304, INDIA
23.	Deltron, 132 Industrial Area phase 1, Chandigarh
24.	SANDISK Corporation, Bangalore
25.	Freescall Semiconductors- plot no. 2&3, sector -16-A, Noida-201301,U.P, India
26.	TT Consultants,Office 8, Tower B,3rd Floor,DLF Info City Building, Rjiv Gandhi Technology Park,Chandigarh-160101
27.	STMicroelectronics , Plot No.1 , Main Road, Knowledge Park III , Greater Noida , U.P. - 201308
28.	Amadeus Software Labs India Pvt. Ltd. 6th Floor, Etamin Block B3, Prestige Technology park II, Marathahalli – Sarjapur Outer Ring Road, Kadubeesanahalli, Bangalore – 560 103
29.	Cube26, B-103, Panchsheel Vihar, Sheikh Sarai Phase-1, New Delhi -110017
30.	IIT Gandhinagar, VGEC Complex,Chandkheda,Ahmedabad,Gujarat
31.	Calypto design systems india pvt ltd, 3rd floor, tower 2, india glycols building, plot 2b, sector 126, noida, up 201304
32.	NAGARRO SOFTWARE (P) LTD., PLOT NO. GP-28, SECTOR-18, ELECTRONIC CITY, GURGAON, HARYANA -122015
33.	Power Grid Corporation of India Limited, jammu,J&k
34.	DRDO Raipur Road, Dehradun-248008
35.	Oracle Financial Services Software, Oracle Park, Off Western Express Highway, Goregaon (East), Mumbai, Maharashtra-400063, India
36.	Videocon - Connect, B 71, Phase 7, Industrial Area, Mohali
37.	Exicom tele systems limited plot no 77 A sector -18 iffco road , gurgaon , haryana
38.	Paxcel Technologies, Plot No. E-96, 1st Floor, Phase 8, Sector 72, Industrial Area, Sahibzada Ajit Singh Nagar,(Mohali), Punjab 140308
39.	Connect –Videocon Office · Quadrant Televentures Ltd. · B 71 Phase 7 ,Industrial Area , Mohali - 160055
40.	Telewings communication services sector 48 welldone building, gurgaon

S. No.	Name of the Organization
41.	Bhabha Atomic Research Center, Trombay, Mumbai.
42.	Ducat, A-52, Sector-16, Noida, U.P.
43.	Cadence Design Systems, Plot No.-57 A & B, Noida Special Economic Zone, Noida, U.P., India
44.	S&D department in TBRL(DRDO), Ramgarh, panchkula
45.	C-DAC(Centre for Development of Advance Computing), Phase 8, Industrial Area, Sector 73, Sahibzada Ajit Singh Nagar, Punjab 140103
46.	Institute of nuclear medicine and allied sciences, brig sk majumdar road, delhi
47.	Sapient Consulting Limited (Unit – 2 & 3) Building No-8, Tower-B, Gurgaon Infospace Limited SEZ Sector-21, Village Dundahera Gurgaon-122016, Haryana
48.	Diesel modernization works (D.M.W.) , Indian Railways, Patiala (147003)
49.	Ericsson Global Service India Private Limited. Office Address – Block A, King Canyon "ASF Insignia" - The IT/ITES SEZ , Faridabad Road, Gwal Pahari, Gurgaon-122003, Haryana, India
50.	CDIL , C-120 Naraina Industrial Area , Opposite To Audi Showroom (Delhi-West) , New Delhi
51.	Quadrant televentures, Videoconconnect, phase 7, mohali



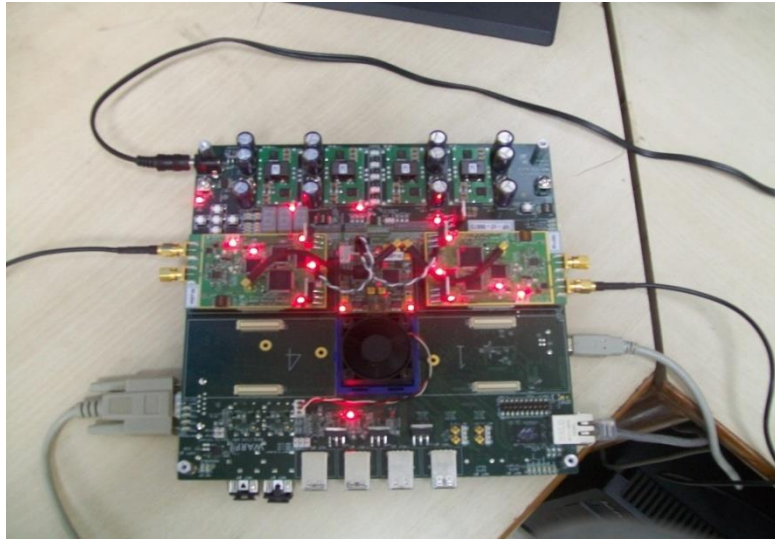
Vector Network Analyzer 9.5 KHz to 8.5 GHz



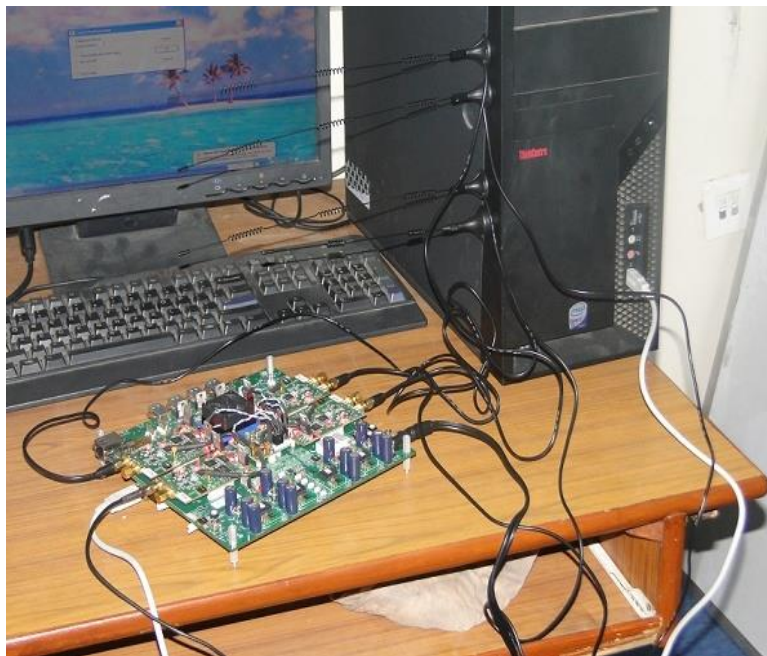
Anechoic chamber for antenna testing



Vector Signal generator and Spectrum Analyser



WARP MIMO BOARD



Warp MIMO Test bed

MECHANICAL ENGINEERING DEPARTMENT

Section 1

1. Academic Programs

The Department of Mechanical Engineering was established in 1956 with the inception of the Institute to produce high quality engineers the field of Mechanical Engineering to cater the needs of the newly Independent India. Since the Institute became a Deemed University in 1985, the department has increasingly focused on post graduate education and research. The Department offers undergraduate program leading to B.E. Mechanical Engineering, B.E. Mechatronics Engineering and B.E. Production (Mechanical) Engineering, Postgraduate programs leading to M.E. (CAD/CAM & Robotics), M.E. (Production & Industrial Engineering), M.E. (Thermal Engineering), and Doctoral program leading to PhD Degree. The Department aims to produce quality professionals in Mechanical Engineering to compete globally and excel by carrying out basic and applied research in emerging areas by forging strong industry - institute interaction. In January 2008, the undergraduate program of Mechanical Engineering Department had been accredited for 5 years by NBA and now same has been applied for the next accreditation. The Mechanical Engineering Department is the part of the pilot programme of Thapar University on contemporisation with TCD, Dublin, Ireland and as per the guideline of the university contemporisation programme, B.E. Mechanical Engineering course scheme (UG) has been revised and implemented successfully. The department has an active staff/student exchange program with the University of Waterloo, Canada. The Department has been able to attract numerous prestigious research and infrastructural grants in recent years from agencies such as AICTE, DRDO, DST, UGC, to list a few. The department is having high quality laboratories in areas of Bulk Solids and Particulate Technologies, Heat & Mass Transfer, I.C engine, Manufacturing, Automation/Robotics, Computer Aided Designs etc. The faculty and staff are actively involved in fostering industrial collaborations through training programs, workshops, consulting projects etc.

The Department is also notable for its laurels in international forums like Society of Automobile Engineers (SAE) Formula Students, Europe, Silverstone Circuit, Northamptonshire, London, UK. Two teams (Team Road Runners & Team Nebula) had participated in Elite Karting 2015/EK-14 Competition, which was held on RPM Racing Circuit, Bhopal, Madhya Pradesh from 25th February 2015 to 28th February 2015. This event was organized by Elite Techno Groups in association with F1 Racing Marshalls. The team "Road Runners" has successfully showcased their design and performance in the Event and secured the overall 16th rank in INDIA out of 133 participating teams. Team GRENADIERS had participated in a ROBOWARs competition of the tech fest "COGNIZANCE", organised by IIT Roorkee, held from March 27th to March 29th, 2015. A team from Robotic Society has participated in an event "Techkriti", held on 19th-22nd March 2015, at IIT Kanpur. Recently, Thapar University MECH'2014 alumnus Mohit Gupta was part of a team named "MultiFun" who won in the final round of the Airbus "Fly Your Ideas" competition, held May 27 in Hamburg at Airbus SAS and Mr Raghav Bahadur Saxena, won the Randstad

F1 contest in association with William F1 and as a consequence of which he was awarded a prize to visit the William F1 faculty at Grove, United Kingdom.

2. Thrust areas of research

The department of mechanical engineering is rich in research resources and offers doctoral program leading to Ph.D. degree. Major thrust areas for research activities are in Thermal, Production Engineering, Industrial Engineering and CAD CAM Engineering.

3. Brief description of ongoing research activities

In the academic year 2014-15 the faculties of mechanical engineering department have actively participated in number of research and development activities.

4. Activities round the year (2014-15)

In the academic year 2014-15 the faculties of Mechanical Engineering Department were actively involved in research activities/ preparing the department for accreditation from the organization of repute like; ABET, NBA. Also, the course scheme of B.E. Mechanical Engineering was revised as per the University contemporisation programme with TCD, Dublin, Ireland. Various teams of Mechanical Engineering students also brought the laurels to the University by participating in the events organized at the National and International Levels.

5. New Plans and Projects

Accreditation from ABET, NBA is still awaited and department is prepared for that. At the same time faculty will take up more research activities/projects/ consultancy etc. Teaching methodology/strategy is to be improved where, it will be more focused on the outcome based and as per the contemporisation programme with TCD.

6. Major acquisitions during the year and new laboratory development

Pneumatic conveying test rig (steam engineering Lab), Industrial metrology, machine tool lab etc.

7. Departmental Achievements

• Papers published in SCI Journals	:	36
• Papers published in Non SCI Journals	:	22
• Papers published in conferences	:	17
• Sponsored Research Projects		
New	:	2 Projects worth Rs 27.2 lacs
• Sponsored Research Projects		
Ongoing	:	9 projects worth Rs 125.51 Lacs
• Consultancy Projects	:	2 projects worth Rs 2.07 Lacs
• Seminar/Conference/Workshop organized	:	04
• Doctoral Degree Awarded	:	04
• Lectures by visiting experts	:	17
• Visits abroad by faculty members	:	03

Section 2:**1. List of faculty****Senior Professor**

S.No.	Name	Qualification & Specialization
1	Dr. S. K. Mohapatra	Ph.D. (Thermal Engineering)

Professor

S.No.	Name	Qualification & Specialization
1	Dr. Ajay Batish	Ph.D. (Industrial Engineering)
2	Dr. S. P. Nigam (Visiting Professor)	B. Sc., BE (Hons.), ME, M.Tech., Ph.D. (Vibration & Noise)
3	Dr. V. P. Agarawal (Visiting Professor)	Ph.D.(Mechanisms and Systems Approach)

Associate Professor

S.No.	Name	Qualification & Specialization
1	Mr. A. S. Jawanda	M.E. (Indl. Engg, CAD CAM)
2	Mr. Sumit Sharma	M.E. (Turbo Machinery)
3	Mr. S. S. Bhullar	M.E. (Industrial Engineering)
4	Dr. Vinod Kumar Singla	Ph.D.(Non-traditional Machining Methods)
5	Dr. Tarun Kumar Bera	Ph.D. (Vehicle Dynamics and Robotics)

Assistant Professor

S.No.	Name	Qualification & Specialization
1.	Dr. Sandeep Sharma	Ph.D. (CAD CAM & Robotics)
2.	Dr. Tarun Nanda	Ph.D. (Industrial Engineering)
3.	Dr. J. S. Saini	Ph.D. (CAD)
4.	Mr. Ravinder Kumar Duvedi	M.E. (CAD CAM & Robotics)
5.	Dr. Satish Kumar	Ph.D. (Thermal Engineering)
6.	Dr. Anirban Bhattacharya	Ph.D. (Manu. Tech.)
7.	Mr. Kishore Khanna	M.E. (CAD CAM & Robotics)
8.	Mr. Devender Kumar	M.Tech. (Robotics & Automation)
9.	Mr. Kundal Lal	M.E. (Thermal Engineering)
10.	Mr. Bikramjit Sharma	M.E. (CAD CAM & Robotics)
11.	Mr. Daljeet Singh	M.E. (CAD CAM & Robotics)
12.	Dr. S. S. Mallick	Ph.D(Thermal Engineering)
13.	Dr. Ashish Singla	PhD. (Robotics)
14.	Dr. Madhup Kumar Mittal	Ph.D. (Refrigeration, two-phase flow, solar thermal systems)
15.	Dr. Vivek Jain	Ph.D. (Machining Science)
16.	Dr. Dheeraj Gupta	Ph.D. (Machining Science)
17.	Dr. Anant Kumar Singh	Ph.D. (Production Engineering)

18.	Dr. Hira Lal Bhowmik	Ph.D. (Production Engineering/Tribology)
19.	Dr. Vineet Srivastava	Ph.D. (Production Engineering)
20.	Dr. Vikrant Khullar	Ph.D. (Thermal Engineering)
21.	Dr. Neeraj Grover	Ph.D. (Computer Structure and F.E. Analysis)
22.	Mr. Ashish Purohit	Ph.D. (Machine Design)
23.	Dr. Neeraj Kumar	Ph.D. (Design)

Lecturers (Ad-hoc)

S.No.	Name	Qualification & Specialization
1.	Mr. Atul Sharma	M.E.(Production Engineering)
2.	Mr. Gurpreet S. Saini	M.E (Production Engineering)
3.	Mr. Gautam Setia	M.E (Thermal Engineering)
4.	Mrs. Anu Mittal	M.E (Thermal Engineering)

2. List of research publications in SCI/Impact Factor journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
1	Performance Characteristics of Centrifugal Slurry Pump with Multi-Sized Particulate Bottom and Fly Ash Mixtures	Particulate Science and Technology, Taylor and Francis, 32, July 2014, pp 466-476	Kumar S., Gandhi B. K., and Mohapatra, S. K.	0.44
2	Command shaped closed-loop control of flexible robotic manipulators	Journal of Vibration Engineering and Technologies, JVETv4n2-3 (Accepted Paper)	Ashish Singla, Ashish Tewari and Bhaskar Dasgupta	0.328
3	Effect of Processing Methods and Die Design Parameters on Green Properties of WC-Co Nanopowder Pellets	Materials and Manufacturing Processes, 30(11), pp. 1329-1341, 2015.	Devender Kumar, K. Singh	1.629
4	Creep analysis of a variable thickness rotating FGM disc using Tresca criterion	ce Science Journal 5, No. 2, pp 163-70 (2015)	Kishore Khanna, V.K.Gupta and S.P.Nigam	0.292
5	A Non-Contact Technique for Damage Monitoring in Submerged Plates Using Guided Waves	Journal of Testing and Evaluation VOL. 43 / NO. 4 / JULY 2015 pp. 776-791, doi:10.1520/JTE2012035 7. ISSN 0090-3973	Sandeep Sharma and Abhijit Mukherjee	0.39
6	Experimental Investigation and Optimization of Process	Materials and manufacturing processes,	Sushil Mittal	1.48

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	Parameters of Al/Sic MMCs Finished by Abrasive Flow Machining	Taylor and Francis publishers, 27:449-456, 2015, DOI10.1080/10426914.2015.1004704 (SCI Expanded)	Vinod Kumar Harmesh Kumar	
7	Development of Automatic GMAW Setup for Process Improvements: Experimental and Modeling Approach	Materials and Manufacturing Processes, Taylor and Francis, Vol. 29, No. 8, pp. 988–995, 2014.	Bhattacharya A., and Bera T. K.	1.629
8	Influence of Heat Input in Automatic GMAW: Penetration Prediction and Microstructural Observation	Materials and Manufacturing Processes, Taylor and Francis, Vol. 29, No. 10, pp. 1210–1218, 2014.	Bhattacharya A., Bera T. K. and Suri V.K.	1.629
9	On Cutter Deflection Profile Errors in End Milling: Modeling and Experimental Validation	Materials and Manufacturing Processes, Taylor and Francis, Vol. 30, No. 8, pp. 1042–1050, 2015.	Bhattacharya A., Bera T. K. and Thakur A.	1.629
10	Influence of current and shielding gas in TiO ₂ flux activated TIG welding	Materials and Manufacturing Processes, Taylor and Francis, Vol. 30, No. 9, pp. 1115–1123, 2015.	Tathgir S., Bhattacharya A., and Bera T. K.	1.629
11	Mechanical and Metallurgical Studies in Double Shielded GMAW of Dissimilar Stainless Steels	Materials and Manufacturing Processes, Taylor and Francis, Vol. 30, No. 9, pp. 1146–1153, 2015.	Kumar R., Bhattacharya A., and Bera T. K.	1.629
12	Toughness and Metallurgical Study of Austenitic Stainless Steel AISI 316 with Automatic GMAW	Journal of Materials: Design and Applications, IMechE (doi:10.1177/1464420715586823).	Bhattacharya A., Bera T. K. and Suri V.K.	0.672
13	On Surface Finish and Dimensional Accuracy of FDM Parts after Cold Vapor	Materials and Manufacturing Processes, Taylor and Francis,	Ashu Garg, Anirban Bhattacharya,	1.629

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	Treatment	Accepted: 17 June 2015, DOI: 10.1080/10426914.2015.1070425	Ajay Batish	
14	Dissimilar joining between austenitic and duplex stainless steel in double shielded GMAW: a comparative study	Materials and Manufacturing Processes, Taylor and Francis, Accepted: 8 June 2015, DOI: 10.1080/10426914.2015.1070414	Anirban Bhattacharya, Ramesh Kumar	1.629
15	Revisiting arc, metal flow behavior in flux activated tungsten inert gas welding	Materials and Manufacturing Processes, Taylor and Francis, Accepted: 8 June 2015, DOI: 10.1080/10426914.2015.1070421	Anirban Bhattacharya	1.629
16	Experimental Investigation of Magnetic Field Assisted Powder Mixed Electric Discharge Machining	Particulate Science and Technology (Taylor and Francis) Volume 33, Issue 3, 2015, Pages 246-256.	Geeta Bhatt, Ajay Batish, Anirban Bhattacharya	0.482
17	Powder Mixed Dielectric: An Approach for Improved Process Performance in EDM	Particulate Science and Technology (Taylor and Francis) Volume 33, Issue 2, 2015, Pages 246-256.	Ajay Batish, Anirban Bhattacharya and Naveen Kumar	0.482
18	Comparative study for surface topography of bone drilling using conventional drilling and loose abrasive machining	Proc IMechE Part H: J Engineering in Medicine, Vol. 229(3) 225-231, 2015	Gurmeet Singh, Vivek Jain and Dheeraj Gupta	1.329
19	Microwave Processing Of Materials and Applications in Manufacturing Industries: A Review.	Journal of Materials and Manufacturing Processes, 30:1, 1-29, 2014.	Singh, S., Gupta, D., Jain, V., Sharma, AK.	1.8
20	Recent Applications of Microwaves in Material	Proceedings of the Institution of Mechanical	Singh, S., Gupta, D., Jain,	0.661

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	Joining and Surface Coatings	Engineers, Part B: Journal of Engineering Manufacture, 2015, doi:10.1177/0954405414560778	V.	
21	Microwave Cladding: "A New Approach in Surface Engineering	Journal of Manufacturing Processes, 16 (2014) 176–182	Dheeraj Gupta, A.K. Sharma	1.885 (SNIP)
22	Numeric Implementation of Drop and Tilt Method of 5-Axis Tool Positioning for Machining of STL surfaces	International Journal of Advanced Manufacturing Technology, Springer-Verlag London, Vol. 78, pp.1677–1690, 2015 DOI: 10.1007/s00170-014-6636-3	Ravinder Kumar Duvedi, Sanjeev Bedi, Ajay Batish and Stephan Mann	1.458
23	The Edge-Torus Tangency Problem in Multipoint Machining of Triangulated Surface Models	International Journal of Advanced Manufacturing Technology, Springer-Verlag London, Published online 18 th July, 2015, DOI 10.1007/s00170-015-7532-1	Ravinder Kumar Duvedi, Sanjeev Bedi, Ajay Batish and Stephan Mann	1.458
24	Modal analysis of Human Body Vibration Model for Indian Subjects under sitting posture	Ergonomics (Taylor and Francis) published online 17 October, 2014 DOI: 10.1080/00140139.2014.961567	Ishbir Singh, S.P. Nigam & V.H. Saran	1.608
25	Modelling fluidized dense-phase pneumatic conveying of fly ash	Powder Technology, 270: 39-45	Setia, G., Mallick, S.S.	2.449
26	Modelling Minimum Transport Boundary for Fluidized Dense-Phase Pneumatic Conveying Systems	Powder Technology, 277: 244–251	Setia, G., Mallick, S.S., Pan, R., Wypych, P.W.	2.449
27	An Investigation into Pressure Fluctuations for Fluidized Dense-Phase Pneumatic	Powder Technology, 277: 163-170	Mittal, A., Mallick, S.S., Wypych, P.W.	2.449

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
28	Transport of Fine powders Phase-dependent thermophysical properties of α - and γ -Al ₂ O ₃ in aqueous suspension	Journal of Industrial and Engineering Chemistry, in press	Pal, Bhupinder, Mallick, S.S., Pal, B.	2.011
29	An Investigation into energy loss in bends for pneumatic conveying of fly ash	Particuology, in press	Tripathi, N., Sharma, A., Mallick, S.S., Wypych, P.W.	2.058
30	An investigation into pressure fluctuations and improved modelling of solids friction for dense phase pneumatic conveying of powders	Particulate Science and Technology, 33: 67-75	Mittal, A., Setia, G., Mallick, S.S., Wypych, P.W.	0.596
31	Anisotropic CuO nanostructures of different size and shape exhibit thermal conductivity superior than typical bulk powder	Colloids and Surfaces A: Physicochemical and Engineering Aspects, 459: 282-289	Pal, Bhupinder, Mallick, S.S., Pal, B	2.494
32	Shape dependent thermal conductivity of TiO ₂ -deionized water and ethylene glycol dispersion	Journal of Nanoscience and Nanotechnology, 14: 1-7	Pal, Bhupinder, Mallick, S.S., Pal, B.	1.339
33	Investigation into pressure fluctuations for dense-phase pneumatic conveying of powders	Particuology, 16: 187-195	Mittal, M, Mallick, S.S, Wypych P.	2.058
34	Effect of Isothermal Annealing on Microstructural Morphology of Martensite in a Super Martensitic Stainless Steel Subjected to Different Prior Conditions	Materials and Manufacturing Processes DOI: 10.1080/10426914.2014.965830)	Tarun Nanda, B. Ravi Kumar & Jasdeep	1.629
35	Performance Analysis of Ball End Magnetorheological Finishing Process with MR Polishing Fluid	Materials and Manufacturing Processes (Taylor & Francis), 30:12, 1482-1489, 2015	Anant Kumar Singh, Sunil Jha, P.M. Pandey	1.629
36	A digraph permanent approach to evaluation and analysis of integrated water	Journal of Hydrology, vol. 525, pp. 188-196	Dwarikanath Ratha, Dr. V.P. Aggarwal	2.69

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	shed management system			

3. List of research publications in Non-SCI/Non-Impact journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
1	Transportation Performance of Highly Concentrated Coal-Water Slurries Prepared from Indian Coals	Applied Mechanics and Materials, Vols. 592-594 August (2014), pp 869-873.	Chakravarty, A., Kumar S., and Mohapatra, S. K.,
2	A production of biodiesel from waste cotton seed oil and testing on small capacity diesel engine	International Journal of Advance Research in Science and Engineering, IJARSE, 4, (02), Feb (2015), 172-178.	Singh, Sandeep, Sharma, S., and Mohapatra, S. K.
3	Performance parameters of dual fuel diesel engine using eucalyptus-producer gas as secondary fuel	International Journal of Engineering Technology Science and Research, IJETSR, 2, March 2015, pp 15-22.	Kumar, P., Garg, L., Kumar R., and Mohapatra, S. K
4	An Investigation on X-Ray Diffraction technique using SiC and B ₄ C Particulate	International Journal of Engineering Studies. Volume 6, Number 2 (2014), pp. 77-86.	Gurpreet Singh Saini, Sanjeev Goyal
5	Joining Of Bulk Cast Iron Through Microwave Energy	International Journal for Technological Research in Engineering, 2(7), 1079–1084, 2015	Gupta, D., Singh, S., Jain,V., Kumar, R.
6	Optimization of cutting parameters for surface roughness of stainless steel SS304 in abrasive assisted drilling	Procedia Material Science, 6, 1572 – 1579, 2014.	Kapil Kumar, Vivek Jain and Sudha kumari,

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
7	Instantaneous exhaust emission models and fuel consumption of gasoline vehicles: some imperial relations and analysis	International Journal of Vehicle Structures & Systems, 7(1), 47-50, 2015	Manpreet singh, Ankit Sharma, Vivek jain
8	Scallop Height of 5-axis Machining of Large Triangles with a Flat End Mill	Computer Aided Design and Applications, Taylor and Francis, Published online: 30 April 2015, DOI: 10.1080/16864360.2015.1033334	Ravinder Kumar Duvedi, Ajay Batish, Sanjeev Bedi and Stephan Mann
9	Magnetorheological Fluids in Viscous Friction Torsional Vibration Dampers	International Journal of Mechanical and Production Engineering, Vol.3 (3), March, 2015, pp 64-69.	Anant Chawla & S.P. Nigam
10	Measurement and Validation of Thermophysical Properties of Al ₂ O ₃ Nanofluids	International Journal of Engineering Technology, Management and Applied Sciences (ISSN 2349-4476), Volume 3 Special Issue, pp. 624-631.	Kandwal S., Ajay K. and Kundan L
11	An Experimental and CFD Analysis of CuO-H ₂ O (DI) Nanofluid Based Parabolic Solar Collector	IOSR-Journal of Mechanical and Civil Engineering (IOSR-JMCE) (e-ISSN: 2278-1684, p-ISSN: 2320-334X.), Special Issue, pp. 78-82.	Ajay K. and Kundan L
12	An Experimental Investigation of Nanorefrigerant Based Refrigeration System	International Journal of Electronics, Electrical and Computational System IJEECS (ISSN 2348-117X), Volume 4, Special Issue, pp. 317-322.	Sharma T. and Kundan L
13	To Study the Behavior of Nano-refrigerant in Vapour Compression Cycle- a Review	International Journal of Research in Engineering and Technology (e ISSN: 2319-1163 p ISSN: 2321-7308), Volume 4, Iss. 4, pp. 648-652.	Singh S., Sharma K., Kundan L. and Tripathi N.M
14	Enhancing technological innovation in small firms: Role of collaboration	Materials Science and Engineering 65 (2014) 012026 doi:10.1088/1757-899X/65/1/012026	D Singh, J S Khamba and Tarun Nanda

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
15	Exploring the Determinants of Technology Innovation in MSMEs	International Journal of Engineering Research in Africa Vol. 13 (2015) pp 103-115, Trans Tech Publications, Switzerland	D Singh, J S Khamba and Tarun Nanda
16	Analysis of Major Problems Faced by Small Firms in North India	International Journal of Engineering Research in Africa Vol 15 (2015) pp 150-160, Trans Tech Publications, Switzerland	D Singh, J S Khamba and Tarun Nanda
17	Role of Technological Innovation in Improving Manufacturing Performance: A Review	International Journal of Social, Education, Economics and Management Engineering Vol:9, No:1, 2015	D Singh, J S Khamba and Tarun Nanda
18	Factors Contributing Towards Technology Development in Small Firms	International Journal of Mechanical, Industrial Science and Engineering Vol:8 No:1, 2014	D Singh, J S Khamba and Tarun Nanda
19	A novel ball end magnetorheological finishing process	ASME 2014 International Mechanical Engineering Congress & Exposition, IMECE2014, Montreal, Canada, November 14-20, 2014.	Anant Kumar Singh, Sunil Jha, P.M. Pandey
20	Linear stability of hydrodynamic journal bearings with flexible linear and micro polar lubrication	Tribology Trans. Vol 58, pp.206-220	Pikesh Bansal, Ajit K Chatattopadhyaya, V.P. Aggarwal
21	CFD simulation of spray cooling: Review and Problem	Int. journal of Engineering and technology, Management and Applied Sciences, vol.3, pp. 587-593.	Anam Singh and V.P. Aggarwal
22	Attribute based evaluation and optimum selection non conventional bio diesel production method using MADM TOPSIS technique	Int. journal of Engineering and technology, Management and Applied Sciences, vol.3, pp. 577-586.	Farun Garg and V.P. Aggarwal

4. Publication of papers in conference proceedings and other publications

S. No.	Title of the paper	Name of conference with venue, date and year, page nos.	Name of the authors
1.	Extraction of bio-diesel from waste cooking oils and their comparison,	Proceedings of International Conference on Newest Drifts in Mechanical Engineering, ICNDME 2014, MMU Mullana, vol 1, pp 166-174.	Singh Sandeep, Sharma, S., Mohapatra, S. K., Kundu, K

S. No.	Title of the paper	Name of conference with venue, date and year, page nos.	Name of the authors
2.	D-H Parameters Augmented with Dummy Frames for Serial Manipulators containing Spatial Links	The 23rd IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN 2014), pp. 975-980, August 25-29, 2014, Edinburg, Scotland, UK (2014). (DOI: 10.1109/ROMAN.2014.6926379)	Amanpreet Singh, Ashish Singla and Sanjeev Soni
3.	On the Comparison of Creep in a Variable Thickness Rotating Functionally Graded Disc using Tresca and Von-Mises Criteria	National Conference On Advances In Materials And Material Processing (AMMP-15), NIT Srinagar, May 22-23, 2015	Kishore Khanna, S.P.Nigam and V.K.Gupta
4.	Evaluation of tensile and flexural properties of hemp reinforced fresh/recycled polyethylene based natural fiber composites	National Conference On Advances In Materials And Material Processing (AMMP-15), NIT Srinagar, May 22-23, 2015	Navrattan Goyal, Dharmpal Deepak, Kishore Khanna and V.K. Gupta
5.	Compensations for Tool Path to Enhance Accuracy during Double Sided Incremental Forming	Proceedings of the ASME 2015 International Manufacturing Science and Engineering Conference MSEC 2015, June 8-12, 2015, Charlotte, North Carolina, USA, Paper ID MSEC2015-9404, pp. 1-8	R. Lingam, Anirban Bhattacharya, J Asghar, N V Reddy
6.	Application of hybrid fuzzy expert system to predict the quality of laser beam machined surface	Processing and fabrication of Advanced materials XXIII, Organized by Mechanical Engineering Department, Indian Institute of Roorkee, Co-organized by Division of Materials Science and Engineering, University of Akron, Ohio, USA during December 5-7, 2014, pp. 405-416.	Gaurav Sharma Vinod Kumar
7.	Physical Model Reduction of Antilock Braking System". International Conference on Aeronautical	Robotics and Manufacturing Engineering (ARME'2015), Bangkok, Thailand, June 2015; pp 80-86.	Singh, M. and Bera, T. K.
8.	A Bond Graph Model for Object Grasping and Fingertip motion	International Conference on Aeronautical, Robotics and Manufacturing Engineering (ARME'2015), Bangkok, Thailand, June 2015; pp 87-94.	Arora, R. and Bera, T. K.
9.	Comparison for pull out strength of bone joint using conventional and ultrasonic drilled hole	International Scientific Academy of Engineering & Technology, Pattaya (Thailand), June 17 th -19 th , 2015.	Gurmeet singh, Vivek jain, Dheeraj Gupta
10.	An Investigation on Bone	International Scientific Academy of	Gurmeet singh,

S. No.	Title of the paper	Name of conference with venue, date and year, page nos.	Name of the authors
11.	Drilling For Surface Topography Superficial Enhancement Of Mild Steel Through Microwave Cladding	Engineering & Technology, Pattaya (Thailand), June 17 th -19 th , 2015. 5th International And 26th All India Manufacturing Technology, Design And Research Conference AIMTDR 2014, IIT Guwahati	Vivek jain, Dheeraj Gupta Arbind Prasad, Dheeraj Gupta, Mamilla Sankar
12.	Microstructural characterization of EWAC+20%WC102Ni microwave cladding on mild steel substrate	23rd International Conference on Processing and Fabrication of Advanced Materials (PFAM 2014), December 5 to December 7, 2014, IIT Roorkee	Dheeraj Gupta, Akshya Pathania
13.	A Study on the Micro Tool dressing using Ultrasonic vibration in-process grinding	23rd International Conference on Processing and Fabrication of Advanced Materials (PFAM 2014), IIT Roorkee, Roorkee, December 5 th -7 th , 2014.	Vivek Jain, Apurbba Kumar Sharma, and Pradeep Kumar
14.	Design, Fabrication and Simulation of Microchannel Network for MEMS	COMSOL Conference, Bangalore, 2014.	Vivek Jain, Apurbba Kumar Sharma, and Pradeep Kumar.
15.	A method for simplifying edge-torus tangency in drop-tilt method for 5axis machining of triangulated surfaces	4th International Symposium on NC Machining (CNCM 2015, http://cncm2015.ust.hk/index.html), June 3-5, 2015 at Hong Kong University of Science and Technology, HK, China	Ravinder Kumar Duvedi, Sanjeev Bedi and Stephan Mann
16.	Improved scale-up procedures for fluidized dense-phase pneumatic conveying systems	The 8th International Conference for Conveying and Handling of Particulate Solids, Tel-Aviv, Israel, 3-7 th May 2015	Setia, G. and Mallick, S.S
17.	Flow mechanism assessment of fine powders in horizontal pneumatic conveying by analyzing pressure fluctuations	The 8th International Conference for Conveying and Handling of Particulate Solids, Tel-Aviv, Israel, 3-7 th May 2015	Mittal, A. and Mallick, S.S

5. List of various faculty members who attended various conferences/ workshops/ short-term programs

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
1	Dr. S.K. Mohapatra	Technical Education Quality Policy	10 th July 2014, DTE Chandigarh

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
2	Dr. S.K. Mohapatra	2 nd higher education summit	28/08/14, FICCI House Chandigarh
3	Dr. S.K. Mohapatra	TECHFEST	19/09/14, Chandigarh
4	Dr. S.K. Mohapatra	ICNDME 2014	University Gharuan 21 st December, 2014., MM
5	Dr. S.K. Mohapatra	CAPSL Training programme	University Mullana 1 st March to 31 st March 2015, TRINITY College Dublin
6	Dr. T.K.Bera,	International Conference on Aeronautical, Robotics and Manufacturing Engineering (ARME'2015)	Bangkok, Thailand, June 2015
7	Mr. Atul Sharma	Workshop on Design and Troubleshooting Fly Ash Handling Systems	10-11 th April, 2015, Thapar University
8	Dr. Dheeraj Gupta	Designing Medical Implants & Fixtures	9/05/2015 to 10/05/2015 Indian Institute of Technology, Delhi
9	Dr. Dheeraj Gupta	Microwaves in Material Processing"	20/6/2014 to 20/6/2014 Indian Institute of Technology Roorkee
10	Dr. Vivek Jain	Designing Medical Implants & Fixtures	9/05/2015 to 10/05/2015 Indian Institute of Technology, Delhi
11	Dr. Vivek Jain	Microwaves in Material Processing"	20/6/2014 to 20/6/2014 Indian Institute of Technology Roorkee
12	Dr. Vineet Srivastava	Workshop under TEQIP-II on "Designing Medical Implants & Fixtures"	Center for Bio-Medical Engineering, IIT Delhi from 9 th May to 10 th May, 2015.
13	Dr. Anant Kumar Singh	ASME 2014 International Mechanical Engineering Congress & Exposition	Montreal, Canada November 14-20, 2014

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
14	Dr. Anant Kumar Singh	Short Term Course sponsored by TEQIP-II Programme of MHRD on Industrial Automation & Mechatronics	IIT Delhi December 8-12, 2014
15	Dr. Anant Kumar Singh	Short Term Course sponsored by TEQIP-II Programme of MHRD on Integrated Automation Technologies	IIT Delhi June 1-6, 2015
16	Ajayinder Singh Jawanda	As Chair of the 5th Technical session, 2nd National Conference on Advancements in Simulation & Experimental Techniques in Mechanical Engineering.	Chandigarh University, Gharuan (Mohali), Punjab, March 24, 2015

6. List of ongoing sponsored projects

S.No.	Name of the Project	Year of sanction	Funding Agency	Project Cost (Rs in Lacs)	Principal Investigator
1	DST-FIST-II	2013	DST	43.00	HMED
2	Processing and characterization of Fiber reinforced polymer Nanocomposites and their degradation In marine environments	2012	NRB	21.54	Dr. Rajeev Mehta
3	Multi-response Optimization of Process Parameters for the Improved Part Accuracy in Fused Deposition Modeling Process	April 2013– March 2016	AICTE, New Delhi	9.75	Ajay Batish & Anirban Bhattacharya
4	Behavior of functionalized solid lubricants in metal-metal tribo-contact	Nov, 2013	TU	5.00	Hira Lal Bhowmik
5	Development of Metallic Nano-Composite Cladding on Poor Tribo Characteristics Metallic Substrate through Microwave Heating	2013	Thapar University	5.00	Dr Dheeraj Gupta
6	Simulation and Analysis of Flow Through Microchannels Fabricated Using Ultrasonic Micro-Machining	2013	Thapar University	5.00	Dr Vivek jain

S.No.	Name of the Project	Year of sanction	Funding Agency	Project Cost (Rs in Lacs)	Principal Investigator
7	Floating wick basin type vertical multiple effect diffusion solar still with waste heat recovery	2014	DST	11.22	Madhup K Mittal
8	Developing Validated Scale-up Procedure for Dense-Phase Pneumatic Transport of Fine Powders using Two-Layer Dune-Flow Model	2011, year received: 2013	Council of Scientific and Industrial Research	20.00	Dr. S.S.Mallick
9	Improved Magnetorheological Finishing Process	2014	Thapar University under Seed Grant Scheme	5.00	Dr. A K Singh

7. List of completed sponsored projects

S.No.	Name of the Project	Funding Agency	Project Cost(Rs in Lacs)	Principal Investigator
1	Establishment of Non Traditional Machining Centre (UGC-SAP II)	UGC	44.5	Dr S. K. Mohapatra (Co-ordinator)
2	Study of erosion wear of ash-water slurry	UGC Major Research	7.6	Dr Satish Kumar (PI) and Dr. S. K. Mohapatra (Co-PI)
3	Experimental investigation for surface improvement of die steels during electric discharge machining with tungsten and titanium powder mixed dielectric	University Grants Commission (UGC), New Delhi, India	0.90	Dr.Anirban Bhattacharya & Dr.Ajay Batish
4	Experimental investigation of EDM machined surface of Al-SiC and Al-SiC-B ₄ C metal matrix composites	University Grants Commission (UGC), New Delhi, India	10.82	Dr.Ajay Batish & Dr. Anirban Bhattacharya

S.No.	Name of the Project	Funding Agency	Project Cost(Rs in Lacs)	Principal Investigator
5	Design and Control of Intelligent Autonomous Vehicle for Indian Sea Ports.	UGC	6.00	Dr. T. K. Bera
6	Modelling Solids Friction and Minimum Transport Criteria for Dense-Phase Pneumatic Conveying of Powders	Department of Science and Technology	21.95	Dr. S.S.Mallick

8. Consultancy/Testing assignments completed/ongoing

S. No.	Name of the Project	Name of Faculty members involved	Amount Generated (Rs in Lacs)
1	Fly ash characteristics testing for BGR Energy Systems Ltd	Dr. S.S.Mallick, Mr. Atul Sharma and Mr. Gautam Setia	1.07
2	Investigation into the Fly Ash Conveying System using Pneumatic Handling for Yamunanagar Thermal Power Plant	Dr. S.S.Mallick and Mr. Gautam Setia	1.00

9. List of faculty members who have delivered invited lectures/talks etc. at various levels

S. No.	Name of the faculty member	Title of the talk/lecture	Forum with date and venue
1	Dr. S. K. Mohapatra	Recent Advances on Fossil Fuel Based Thermal Power Generation	FDP at Chandigarh University Gharaun on 12 th July 2014.
2	Dr. Ashish Singla	Talk on Research Directions in Robotics	SAATH Workshop at IIT Kanpur, Feb 16, 2015
3	Dr. Ashish Singla	Advances in Robot Control	Robo-Week, Organized by Robotic Society of Thapar University, Patiala on Feb 5, 2015.
4	Dr. J. S. Saini	CNC Programming	Lecture delivered on 26 th March, 2015 in Faculty Development Program on "Advancement in Mechanical Engineering", Sponsored by PTU, Jalandhar,

S. No.	Name of the faculty member	Title of the talk/lecture	expert Forum with date and venue
			held from 23 rd March to 27 th March, 2015 at Bahra Group of Institutions , Patiala.
5	Dr. T.K. Bera	Physical Model Reduction of Antilock Braking System". International Conference on Aeronautical	Robotics and Manufacturing Engineering (ARME'2015), Bangkok, Thailand, June 2015
6	Dr Dheeraj Gupta	Developments in Microwave Materials Processing	TEQIP –II sponsored Faculty Development Program on Precision Manufacturing: Technology for Better Tomorrow (14th -18th July 2014) at Delhi Technological University, Delhi.
7	Dr Dheeraj Gupta	Microwave Cladding: Challenges and Opportunities	AICTE Sponsored QIP Workshop on June 20, 2014 at IIT Roorkee
8	Dr Vivek Jain	A non conventional way to Fabrication of Microchannels on Brittle Materials	PTU sponsored Faculty Development Program on Emerging Trends in Mechanical Engineering (8 th -12 th June 2015) at Rayat Institute of Engineering and Information Technology, Ropar, Punjab
9	Dr Vivek Jain	DOE approach for Loose Abrasive Machining to Fabrication of Microchannels on Brittle Materials	STC on DOE and its Applications in Research (12-16 January 2015) at department of Production Engineering, Punjab Engineering College (PEC), Chandigarh.
10	Dr Vivek Jain	Loose Abrasive Machining Approach to Fabrication of Microchannels on Brittle Materials	FDP entitled Micro/Nano Material Removal And Additive Technologies in Advanced Manufacturing (28th July to 1st August 2014) at Guru Nanak Dev Engineering College, Ludhiana.
11	Dr Vivek Jain	Micro Ultrasonic Machining	TEQIP –II sponsored Faculty

S. No.	Name of the faculty member	Title of the talk/lecture	expert Forum with date and venue
			Development Program on Precision Manufacturing: Technology for Better Tomorrow (14th -18th July 2014) at Delhi Technological University, Delhi.
12	Dr. S P Nigam	Fundamentals of Vibration –A Review	Baddi University of Emerging Science & Technology, Baddi H P 17 April 2015
13	Mr. Ajayinder Singh Jawanda	"Geometric Modeling and Mechanical System Design and Analysis using CAD software"	Full day Lecture and workshop on March 17th, 2015 MED, Haryana College Of Technology & Management, Technical Campus, Kaithal. For Mechanical Engg. Dept. Staff and students.
14	Mr. Ajayinder Singh Jawanda	"CAD-CAM challenges in Sculptured Surface Machining."	Plenary Talk & Chair the 5th Technical Session on 24 March 2015 during Department of Science & Technology-SERB (DST-SERB) sponsored "2nd National Conference on Advancements in Simulation & Experimental Techniques in Mechanical Engineering (NCASEme-2015)" on 23 - 24th March 2015 at Chandigarh University, Gharuan (Mohali), Punjab.
15	Mr. Ajayinder Singh Jawanda	"Flexible Manufacturing Systems".	27 March 2015. PTU Sponsored Faculty Development Program "Advancement in Mechanical Engineering" March 23-27, 2015. Mechanical Engg. Department, Rayat-Bahra, Patiala Campus.
16	Mr. Ajayinder Singh Jawanda	"Computer Aided Mechanical Design"	For faculty and students of B.Tech Mechanical Engineering Department as part of Expert Lecture Program. April 3, 2015. BADDI UNIVERSITY OF

S. No.	Name of the faculty member	Title of the talk/lecture	expert	Forum with date and venue
				EMERGING SCIENCES & TECHNOLOGY (BUEST), Makhanmajra, Baddi, Distt. Solan. HP
17	Dr. S. K. Mohapatra	Recent Advances on Fossil Fuel Based Thermal Power Generation		FDP at Chandigarh University Gharaun on 12 th July 2014.
18	Dr. Ashish Singla	Talk on Research Directions in Robotics		SAATH Workshop at IIT Kanpur, Feb 16, 2015
19	Dr. Ashish Singla	Advances in Robot Control		Robo-Week, Organized by Robotic Society of Thapar University, Patiala on Feb 5, 2015.

10. Special lectures delivered by invited scholars/experts from outside TU

S. No.	Name of the Expert with Designation	Title of the Expert Lecture	Date and Venue
1	Prof. Gurvinder S. Virk (Professor of Robotics and the Built Environment, University of Gävle, SE-801 76 Gävle, SWEDEN)	Past, Present and Future trends of Robotics	Feb 5, 2015 3-4 PM at C-Hall, Thapar University, Patiala
2	Prof. Gurvinder S. Virk (Professor of Robotics and the Built Environment, University of Gävle, SE-801 76 Gävle, SWEDEN)	Research directions in Robotics	Feb 6, 2015 9-10 AM at C-Hall, Thapar University, Patiala
3	Prof. Suman Chakraborti, Department of Mechanical Engineering, IIT Kharagpur (Swanti Swarup Bhatnagar Award winner)	Mechanical Engineering at 2050	27.11.14, Thapar University (TAN Building)
	Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	Innovation and entrepreneurship	3rd July 2014, MED TU, Patiala Venue: D203.
4	Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	Perspective on research	4th July 2014, MED TU, Patiala Venue: D203.
5	Dr. Evgeny Gordienko. Professor. Department of	Stability estimates in perturbed markov decision	19th December, 2014. MED TU, Patiala

S. No.	Name of the Expert with Designation	Title of the Expert Lecture	Date and Venue
	Mathematics, Universidad Autonoma Metropolitana, Mexico City.	processes.	Venue: MED Seminar Hall.
6	Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	Engineering design process and project selection	30/4/2015 15:00-17:00 MED TU, Patiala Venue: CAM LAB MED Target Group: ME CAD CAM 1st year
7	Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	Projects for an effective engineering education	1/5/2015 12:00-14:00 MED TU, Patiala Venue: CAD LAB1 MED Target Group: BE Mechatronics 2 nd year
8	Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	Product design constraints, criterion and specifications	1/5/2015 15:00-17:00 MED TU, Patiala Venue: CAM LAB MED Target Group: ME CAD CAM 1st year
9	Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	Mechatronics projects	2/5/2015 11:00-14:00 MED TU, Patiala Venue: CAD LAB1 MED Target Group: BE Mechatronics 2 nd year
10	Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	High impact engineering education	4/5/2015 17:00-18:00 MED TU, Patiala Venue: MED Seminar Room Target Group: MED Faculty members.
11	Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	Engineering projects and research	5/5/2015 17:00-18:00 MED TU, Patiala Venue: CAD LAB1 MED Target Group:

S. No.	Name of the Expert with Designation	Title of the Expert Lecture	Date and Venue
12	Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	Mechatronics projects- teamwork, leadership	ME CAD CAM 1st year 6/5/2015 17:00-18:00 MED TU, Patiala Venue: CAD LAB1 MED Target Group: BE Mechatronics 2nd year
13	Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	Engineering design project- definition and detailed process	8/5/2015 14:30-17:30 MED TU, Patiala Venue: D202 Target Group: BE Mechatronics 2nd year and ME CAD CAM 1st year
14	Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	Project based course's role in student and program outcomes	12/5/2015 15:00-16:00 MED TU, Patiala Venue: MED Seminar room Target Group: MED Design area faculty members.
15	Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	Graduate education	14/5/2015 14:00-17:00 MED TU, Patiala Venue: CAD LAB1 MED Target Group: ME CAD CAM 1st year
16	Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	Project based high impact engineering education	19/5/2015 11:00-13:00 MED TU, Patiala Venue: MED Seminar room Target Group: MED faculty members.
17	Prof. Gurvinder S. Virk (Professor of Robotics and the Built Environment, University of Gävle, SE-801 76 Gävle, SWEDEN)	Past, Present and Future trends of Robotics	Feb 5, 2015 3-4 PM at C-Hall, Thapar University, Patiala

11. List of ongoing Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1.	Study of performance and emissions of c.i. Engine with pongamia based bio-diesel	Dr. S.K. Mohapatra
2.	Design of electrode coatings for bimetallic welds	Dr. Rajeev Mehta, Dr. Navneet Arora and Dr. Rahul Chibber
3.	Designing a rig for investigating thermal fatigue of bimetallic welds	Dr. Rajeev Mehta, Dr. Navneet Arora and Dr. Rahul Chibber
4.	Fracture behavior of bimetallic welds at elevated temperature	Dr. Raj Kumar Gupta, Dr. B.K. Dutta and Dr. Rahul Chibber
5.	Development of a mathematical model for an atmospheric fluidized bed combustor using cotton stalk	Dr. S.K. Mohapatra
6.	Investigations on machining characteristics of cryotreated titanium alloys and electrodes using edm	Dr. T.P. Singh, Dr. Ajay Batish, and Dr. Rupinder Singh
7.	Fracture behaviour of bimetallic welds at cryogenic temperatures	Dr. Raj Kumar Gupta, Dr. B.K. Dutta and Dr. Rahul Chibber
8.	Study of environment effects on frp	Dr. Abhijit Mukherjee Dr. Naveen Kwatra
9.	Investigating the effect of cryo treated tool and work material in ultrasonic machining of titanium alloys	Dr. Rupinder Singh Dr. Ajay Batish
10.	Design and development of load bearing composite scaffold for bone implants	Dr. Rajeev Mehta Dr. Rahul Chibber
11.	Tool path planning for improved machining of sculptured surfaces for a web based manufacturing system	Dr. Sanjeev Bedi Dr. Ajay Batish
12.	Development of live model based controller with an integrated 3d scanner	Dr. Sanjeev Bedi Dr. Ajay Batish
13.	Study of performance and emissions of a dual fuel engine run with cotton stalks and diesel	Dr. S.K. Mohapatra
14.	Optimization of waste heat recovery systems for structure, quality, reliability and performance	Dr. V.P Agrawal
15.	A knowledge economy model for government-academia-industry collaboration in automotive industry in india	Dr. Ajay Batish Dr. V.K Nangia
16.	Analysis of creep in a variable thickness rotating disc made of functionally graded composite	Dr. S. P Nigam Dr. V. Gupta

S. No.	Title of the Thesis	Name of the Supervisor(s)
17.	Static and dynamic analysis of hydrodynamic flexible oil bearings using micropolar lubrication	Dr. A.K. Chattopadhyaya Dr. V.P. Agrawal
18.	Processing and characterization of fibre reinforced polymer nano- composite and their degradation under hygro-thermal loading	Dr. Rajeev Mehta Dr. Rahul Chibber
19.	Investigation on machining characteristics of a metal-matrix composite using abrasive flow machining	Dr. Vinod Kumar Dr. Harmesh Kansal
20.	Investigation of heat transfer enhancement in conical coiled heat exchangers	Dr. R.K. Gupta Dr. Mandar M Lele
21.	Cfd analysis of a bubbling fluidized bed combustor based on biomass	Dr. S.K. Mohapatra Dr. Ravi Inder Singh
22.	Experimental investigation on micro electro drilling of hybrid aluminium matrix composite	Dr. V.K Singla Dr. A. Manna
23.	Noise investigation and modelling of Urban traffic under dynamic conditions	Dr. S.P Nigam Dr. Maneek Kumar
24.	Studies on structural and mechanical properties of carbon nanotube dispersed tungsten carbide-cobalt nano/ micro composites	Dr. Kulvir Singh
25.	Investigation of machining characteristics of lbmed al/al ₂ O ₃ , al/sic and al/zrO ₂ mmcs	Dr. Vinod Kumar
26.	An experimental investigation into cluster formation towards modelling thermal conductivity of nanofluids	Dr. S.S. Mallick
27.	Floating wick basin type vertical multiple effect diffusion solar still with waste heat recovery	Dr. Madhup Mittal
28.	Investigation of the effects of process Parameters on surface finish obtained on aluminium alloy and stainless steel by magnetic abrasive finishing process	Dr. Vinod Kumar
29.	Performance evaluation of carbon nanotubes modified fibre reinforced polymer composites	Dr. Rajeev Mehta Dr. Shruti Sharma
30.	Improving scale up procedures for solids friction and minimum transport boundary for fluidized dense-phase pneumatic conveying systems	Dr. S.S Mallick
31.	Investigation into pressure signal fluctuations during fluidized dense-phase pneumatic conveying of powders	Dr. S.S Mallick
32.	Study of epoxy based gfrp nanocomposites modified with polymer fibre/ elastomer	Dr. Tarun Nanda Dr. Rajeev Mehta

12. List of completed Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1	Parametric study and optimization of wedm process parameters of pur titanium	Dr. Vinod Singla and Dr. Jatinder Kumar
2	Ultrasonic wave propagation in submerged plate structures	Dr. Abhijit Mukherjee
3	Ergonomics investigations of asymmetrical manual lifting tasks on indian male workers	Dr. Ajay Batish and Dr. T.P. Singh
4	Investigations on performance characteristics of a centrifugal slurry pump handling water and ash	Dr. S.K. Mohapatra and Dr. B.K. Gandhi

13. List of M. E./M. Sc. Thesis/dissertations

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
1	A comparative experimental study between the biodiesel of jatropha and palm oils based on their performance and emissions in a four stroke diesel engine	Dr K. Kundu Mr Sumeet Sharma Dr S. K. Mohapatra
2	Rheological Characterisation of Minerals	Dr S. K. Mohapatra Dr Satish Kumar
3	Parametric Optimisation of Slurry Erosion materials using fuzzy logic and artificial neural networks	Dr S. K. Mohapatra Dr Satish Kumar
4	Modelling of pipeline for disposal of highly concentrated fly-bottom ash slurry for backfill using CFD	Dr Satish Kumar Dr S. K. Mohapatra
5	Field study & modeling of real plant bubbling fluidized bed combustor based on biomass and cofiring	Dr S. K. Mohapatra Sh Hemant Kumar
6	A comparative study on possible architectural designs of link modules for modular manipulators	Dr. Ashish Singla
7	Kinematic study and trajectory tracking of a 5-DOF spatial manipulator.	Dr. Ashish Singla and Mr. Sanjeev Soni
8	Experimental Study for the Improvement of Vision through Side Window of a Car during Rain	Devender Kumar
9	Cost Reduction and Design Optimization of WHIRLPOOL Single Door Direct Cool Refrigerator	Devender Kumar
10	Study of Passenger Comfort in Vehicle Cabin	Devender Kumar
11	Cabin Temperature Control of a Parked Car through Forced Ventilation	Devender Kumar
12	Micro-controller Based Real Time Automatic Solar Tracking System with Homing Mechanism	Devender Kumar, Gagandeep Kaur (EIED)
13	Investigation of mechanical and wear properties for SiC/Gr reinforcement A1359 alloy based metal matrix composite.	Dr. J. S. Saini

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
14	Optimization of compressor mounting bracket of an Indian passenger car	Dr. J. S. Saini and Mr. Daljeet Singh
15	Effect of Thermal Gradient and Reinforcement Gradient on the Steady State Creep in the Functionally Graded Cylinder	Kishore Khanna
16	Title of the Thesis/Dissertation	Name of the Supervisor(s)
17	Damage assessment in ductile and brittle media using improved b value analysis of AE data	Dr. Sandeep K Sharma
18	Optimization and modeling of process parameters involved in shot blasting process	Dr. Vinod Kumar
19	Optimization and characterization of magnetic field assisted powder mixed electric discharge machining	Dr. Vinod Kumar
20	CAE analysis, optimization and fabrication of TU 2014 formula SAE vehicle structure	Daljeet Singh
21	Traffic Noise Modelling and Investigation for Signalized Intersection	Dr. S.P.Nigam, Daljeet Singh
22	Dynamic analysis of radiator mounting brackets of automobile cooling system	Daljeet Singh, Bikramjit Sharma
23	Dispersion quantification and mechanical properties of MWCNT/epoxy nanocomposite for different processing conditions	Bikramjit Sharma, Dr. Rajeev Mehta
24	Effect of fiber surface treatment on mechanical properties of carbon fiber reinforced epoxy composite	Bikramjit Sharma, Dr. Rajeev Mehta
25	Stress and modal analysis of fiber reinforced epoxy nanocomposites	Bikramjit Sharma
26	Investigation on Mechanical Properties, Geometric Accuracy and Surface Roughness Improvement for Fused Deposition Modeling	Dr. Anirban Bhattacharya
27	Experimental Investigation for Process Optimization during Gas Metal Arc Welding of Al-6063 Alloy	Dr. Anirban Bhattacharya
28	Experimental Investigation on Flux Activated TIG Welding of Different Steels	Dr. Anirban Bhattacharya
29	Bond graph aided thermal analysis of finite journal bearing	Dr. T. K. Bera Dr. Anirban Bhattacharya
30	Parametric study on flux activated tungsten inert gas welding of AISI 316 and Duplex 2205 steel	Dr. Anirban Bhattacharya Dr. T. K. Bera
31	Model reduction of vehicle dynamic systems	Dr. T. K. Bera

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
32	Feasibility study of bone drilling using Friction drilling	Dr Vivek Jain/ Dr Dheeraj gupta
33	Microwave joining of Dissimilar Materials and their Corrosion Study	Dr Dheeraj gupta/ Dr Vivek Jain
34	Experimental Investigation on Tool Wear during Abrasive Assisted Drilling of Aluminum Matrix Composite	Dr Vivek Jain/ Dr Dheeraj gupta
35	Experimental Investigation on surface roughness during Abrasive Assisted Drilling of D2 Steel	Dr Vivek Jain/ Dr Dheeraj gupta
36	Surface Modification of Low Carbon Steel Using Microwave Heating	Dr Dheeraj gupta/ Dr Vivek Jain
37	Parametric analysis of a parabolic trough solar collector	Madhup K Mittal
38	Efficient NC Toolpath Generation for 3-axis Machining of 3-Dimensional Freeform Faceted Surfaces Developed from Digital Images	Ravinder Kumar Duvedi
39	Design of Automotive Sun Visor System	Ravinder Kumar Duvedi, and Dr Sandeep Kumar Sharma
40	A Study on Gearbox Noise with Induced Tooth Defects	S.P. Nigam
41	Study on Radial Drilling Machine Noise	S.P. Nigam & Ajay Batish
42	Investigation of pressure drop characteristics of coal slurry pipeline	Dr.Satish Kumar and Dr. Dwarikanath Ratha
43	Investigation of erosion wear in slurry pipe bend using CFD	Dr.Satish Kumar
44	An investigation into modelling solids friction for fluidized dense phase pneumatic conveying systems	Dr. S.S.Mallick
45	An investigation into pressure drop in bends for fluidized dense phase pneumatic conveying systems	Dr. S.S.Mallick
46	An investigation into tensile forces of long distance belt conveyor	Dr. S.S.Mallick
47	An experimental investigation into the dust explosion of bulk solids	Dr. S.S.Mallick nad Dr. S.Barman (CHED)
48	Modelling Heat transfer coefficient in nanofluids in gravity based	Dr. S.S.Mallick
49	Performance evaluation of a nanofluid (Al ₂ O ₃ -water, Al ₂ O ₃ -water+EG) based parabolic concentrating solar collector	Kundan Lal
50	An experimental investigation into nanofluids (CuO-water, CuO-ethylene glycol) based parabolic solar collector	Kundan Lal

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
51	Performance evaluation of a nanofluid (CuO-water) based heat exchanger with turbulators	Kundan Lal
52	Performance evaluation of a nanorefrigerant based vapour compression refrigeration system	Kundan Lal
53	Performance analysis of a nanorefrigerant (hydrocarbon +CuO) based refrigeration system	Kundan Lal
54	Synthesis, characterization, and mechanical behaviour of epoxy nanocomposites reinforced with layered silicates.	Dr. Tarun Nanda and Dr. Rajeev Mehta
55	Effect of martensite morphology on the tensile deformation behaviour of a DP 590 steel.	Dr. Tarun Nanda and Dr. B. Ravi Kumar
56	Simulations for pearlite-to-austenite transformation in a DP 590 steel for improved mechanical properties.	Dr. Tarun Nanda and Dr. B. Ravi Kumar
57	Energy conservation in boiler	Sumeet Sharma D Gangacharyulu
58	Parametric analysis of air to air cross flow tubular heat exchanger using computational fluid dynamics	Sumeet Sharma D Gangacharyulu
59	An investigation into power losses of manual transmission system using different viscosity oils	Sumeet Sharma D Gangacharyulu
60	Design modification of intake manifold using computational fluid dynamics	Sumeet Sharma D Gangacharyulu
61	To study the effect of Al/water nanofluids on thermo-hydraulic performance of single-pass cross-flow compact heat exchanger	Sumeet Sharma D Gangacharyulu
62	Variation of thermo-physical properties of thermal energy storage system with the use of Aluminum/distilled water based nanofluids through a circular pipe	Sumeet Sharma D Gangacharyulu
63	Development of Low Cost Ball End Magnetorheological Finishing Process	Dr. A K Singh
64	Thermal Analysis of Ball End Magnetorheological Finishing Process	Dr. A K Singh
65	Finite Element Analysis and Mathematical Modeling of a Novel Magnetorheological Honing Process	Dr. A K Singh
66	Design and Development of Turning Type Magnetorheological Finishing Process	Dr. A K Singh
67	Design and Development of Magnetorheological Honing Process	Dr. A K Singh
68	Finite Element Analysis of Magnetic Normal Force on the Workpiece Surfaces in Ball End Type Magnetorheological Finishing Process	Dr. A K Singh
69	Thermal attribute based comparison of cooling techniques and	Dr. V.P. Aggarwal

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
	CFD simulation of spray	
70	An investigation into biodiesel production from neem oil and evaluation of performance emission parameters of diesel engine using different biodiesel blends	Dr. V.P. Aggarwal
71	Performance evaluation of heat sink for electronic cooling using H ₂ O-Al ₂ O ₃ as a coolant	Dr. V.P. Aggarwal
72	Experimental Investigation of machining characteristics of titanium alloys by using EDM process	Dr. V.P. Aggarwal
73	Experimental investigation of surface integrity of deep cryogenically treated WEDM machine surface	Dr. V.P. Aggarwal

14. List of equipment procured

S. No.	Name of the equipment	Make	Name of the laboratory	Date of Purchase	Amount (Rs in Lacs)
1	YR-1 Rheometer	Yield Brookfield Engineering Laboratories, Inc.	Laboratory for Bulk solids and particle technology	22-8-2014	3,33,760/-
2	Fluidisation column chamber	N.I.C. Jaipur (A Sensors & Automation Co.)	Laboratory for Bulk solids and particle technology	17-12-2014	4,62,998/-
3	NI Datalogger and Labview Software	National Instruments Systems [India] Pvt. Ltd.	Laboratory for Bulk solids and particle technology	25-2-2015	2,05,542/-
4	Powder Flow Tester	Brookfield Engineering Laboratories, Inc.	Laboratory for Bulk solids and particle technology	22-4-2015	15,51,143/-
5	Pressure transmitter (Cerabar T PMC131)	Endress+Hauser	Laboratory for Bulk solids and particle technology	14-5-2015	67,750/-
6	Permeability Tester with accessories	Supertech Scientific & Metallurgical Services	Sand testing lab	27-02-2015	27,200/-
7	Universal Strength	Supertech	Solid	27-02-2015	44,900/-

S. No.	Name of the equipment	Make	Name of the laboratory	Date of Purchase	Amount (Rs in Lacs)
	Machine	Scientific & Metallurgical Services	mechanics lab		
8	Rapid Moisture Tester	Supertech Scientific & Metallurgical Services	Sand testing lab	27-02-2015	8150/-
9	Clay Washer	Supertech Scientific & Metallurgical Services	Sand testing lab	27-02-2015	12150/-
10	Electronic weighing Balance	Supertech Scientific & Metallurgical Services	Sand testing lab	27-02-2015	6750/-

15.

16. **Computing facilities in the Department**

S. No.	Details of the Hardware/Software	Name of the Laboratory
1	Hardware Destop Computer Core 2 Duo, 2.4 GHZ with 19" TFT Screen = 32 Destop Computer Core 2 Duo, 2.93 GHZ with 19" TFT Screen = 32 LCD Projector: 2 (one in each Lab) 3D scanner: 01 Plotter A0 size: 01 IBM Server: 01	CAD Lab-I, CAD lab-II,

Software:

1. Pro/Engineer Wildfire 5.0 – University license: 500 seats
 - I. Pro/Engineer Foundation
 - II. Pro/Engineer (structure, thermal, Motion & Vibration analysis)
 - III. Pro/Mesh, Pro/FEM post, NC Machining option (2, 3 & 5), Advance Surface Extension, Tool Design option
2. Pro desktop 8.0
3. MSDN-Academic Alliance: (Operating System and Software Loaded Under MSDN-AA : Window Xp, Microsoft Access 2003, Visual Studio)
4. CATIA V 5-R10: 01 Seat
5. Mechanical Desk Top 6.0 (Power Pack): 01 Seat
6. AutoCAD LT 2000 (Drafting Package): 13 Seats
7. Virtual Engineer (Modelling Package): 01 Seat
8. SolidWorks-2009: 20 seats
9. DWG Editor: 90 seats
10. Math CAD: 01 Seat
11. HSM works: 10 Seats
12. AutoCAD - AutoDesk Academic Resource Centre (ARC)
13. Microsoft Dream Spark-Operating system and software loaded:
14. Windows 7, Windows Server 2008, Visual Studio
15. ANSYS Academic Teaching Mechanical & CFD (25 Users Permanent)
16. ANSYS Multiphysics 10.0 (Academic Version) (05 Users-Permanent)
17. ANSYS Fluent Research 6.30 (05 Users-Permanent)
18. COMSOL Multiphysics (1 user)

- | | | |
|---|--|-----------------------------------|
| 2 | Dell dektop 7010, INTEL COR, i5, 3.2GHz, 4GB RAM, DDR3, 500GB HDD with window 7 pro. | CAM lab and CAD LabI |
| 3 | Hardware:
P-IV 3.0 GHZ Computer with 17" Screen = 01
Software:
Ergo-Master | Industrial Engineering Lab |
| 4 | Hardware:
P-IV 3.0 GHZ Computer with 17" Screen = 02
Laser Printer: 02
Software:
Variable Compression Ration Test rig software | Automobile Lab and IC Engines Lab |

- 5 **Hardware:** State Initiated
 Destop Computer Core 2 Duo, 2.4 GHZ with 19" TFT Screen = 12 Design Centre
 Dell Precision Workstation Labtops = 2
 Artec Spider 3D scanner= 01

Software:

CNC simulator, and Machine interface software for Three Axis
 Ornamental wood Carving Milling Lathes: 06 Seats
 SolidWorks-2009: 10 Seats
 HSM works: 10 Seats
 Artec Studio 10.0: 20 seats

17. List of training programmes/ short term courses/workshops/conferences organized

S. No.	Title of the Programme with sponsoring agency	Name of the Coordinators	Dates and Venue
1	Designing and troubleshooting pneumatic conveying of bulk solids for fly ash handling in thermal power plants	Dr. S.S.Mallick, Mr. Atul Sharma and Mr. Gautam Setia	10-11 th April, 2015
2	Expert lecture on "INNOVATION AND ENTREPRENEURSHIP" by Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	Ajayinder Singh Jawanda	3rd July 2014, MED TU, Patiala Venue: D203.
3	Expert lecture on "PERSPECTIVE ON RESEARCH" by Dr. Sanjeev Bedi, Professor Univ. of Waterloo, Canada.	Ajayinder Singh Jawanda	4th July 2014, MED TU, Patiala Venue: D203.

18. Information regarding foreign visits

S. No.	Name of the faculty	Host University/ Organization	Nature of work	Month and Year of visit
1	Dr. S.K. Mohapatra	TRINITY College Dublin	CAPSL Training programme	1st March to 31st March 2015
2	Dr. Ajay Batish	TRINITY College Dublin	CAPSL Training programme	1st March to 31st March 2015
3	Dr. T.K.Bera,	Bangkok, Thailand,	International Conference on Aeronautical, Robotics and Manufacturing	June 2015

S. No.	Name of the faculty	Host Organization	University/	Nature of work	Month and Year of visit
				Engineering (ARME'2015)	
4	Dr. Anant Kumar Singh	ASME 2014 International Mechanical Engineering Congress & Exposition		To present research paper	Montreal, Canada November 14-20, 2014

19. List of organizations where students undertook project semester/Summer Training

S. No.	Name of the Organization	S. No.	Name of the Organization
1.	Eicher engines , Alwar	35	Tata Motors Ltd, Lucknow
2.	Federal Mogul, Bahadurgarh	36.	JVR Forgings Ltd, Ludhiana
3.	JCB , Ballabhgarg	37.	HMSI, Manesar
4.	Alstom, Bangalore (Hosur)	38.	Maruti Suzuki, Manesar
5.	Anand G Gabriel india ltd, Bangalore (Hosur)	39.	Minda Amar tech, Manesar
6.	ABB, SIEMENS, Banglore/ Pune	40.	Munjal showa, Manesar
7.	Madhav group, Bhadson	41.	HMSI, Manesar
8.	Halla visteon climate, Bhiwadi	42.	Maruti Suzuki, Manesar / Gurgaon
9.	Agrawal metals, Bhiwadi / Rewari	43.	M&M (Swaraj), Mohali
10.	Eicher, Bhopal	44.	Philips, Mohali
11.	TAFE India, Chennai	45.	Ashok Leyland, Pantnagar
12.	IIP, Dehradun	46.	Tata Motors Ltd, Pantnagar
13.	DRDO, Delhi	47.	Anand g ANSYS co india ltd, Parwanoo
14.	Escorts agri m/c, Faridabad	48.	Anand G Malhe filter systems, Parwanoo
15.	Whirlpool, Faridabad	49.	Federal Mogul,Parwanoo
16.	Honda Cars, G Noida	50.	Mahle Filters, Parwanoo
17.	LG Electronics, G Noida	51.	Anand G ,Gabriel india ltd, Pune
18.	New holland tractor, G Noida	52.	Anand G Malhe Behr, Pune
19.	Yamaha, G Noida	53.	Anand G Malhe filter systems, Pune
20.	Alstom, G Noida/ Noida	54.	Car plant , Pune
21.	SHRI RAM PISTON, Ghaziabad	55.	FORCE motor, Pune
22.	Maruti Suzuki, Gurgaon	56.	Service Engg and Support Tata, Pune
23.	Anand Gabriel india ltd, Gurgaon	57.	Tata, Pune
24.	Munjal showa, Gurgaon	58.	Tata motors (PVBV), Pune
25.	DRDO, Hyderabad	59.	TCF K Block, Pune
26.	Tata Advance System, Hyderabad	60.	Volkswagen, Pune
27.	Volvo Eicher, Indore	61.	Wild mather and platt pumps, Pune

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|----|--|-----|------------------------------------|
| 28 | NBC, Jaipur | 62. | Mahindra & Mahindra, Pune / Nashik |
| 29 | NML, Jamshedpur | 63. | SML ISUZU, Ropar |
| 30 | Tata motor, Jamshedpur | 64. | M & M , Rudrapur |
| 31 | Developement Consultant pvt ltd, Kolkata | 65. | Car plant Tata motor, Sanand, AMBD |
| 32 | Gates India, Lalru | 66. | Tata Motors Ltd, Sanand, AMBD |
| 33 | JCBL, Lalru | 67. | Taiwan university, Taiwan |
| 34 | Scooter india, Lucknow | 68. | Aditya Birla chemicals, Thailand |





SCHOOLS

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

SCHOOL OF CHEMISTRY & BIOCHEMISTRY

SCHOOL OF ENERGY AND ENVIRONMENT

SCHOOL OF MATHEMATICS AND COMPUTER APPLICATIONS

SCHOOL OF PHYSICS & MATERIAL SCIENCE

L.M. THAPAR SCHOOL OF MANAGEMENT

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

Section 1

1. Academic Programs

The School of Humanities and Social Science offers M.A in Psychology and Economics and also offers Doctoral Programs leading to Ph. D Degree. The School also offers various Core and Elective courses in the area of Humanities & Social Sciences and management to Undergraduate and Postgraduate students of Engineering and Sciences. These courses are aimed at promoting Holistic development of students and to instill ethical values in them.

2. Thrust areas of research:

Cognitive, Experimental and neuropsychology, Economics, Finance, Industrial Management, IPRs in Manufacturing, Knowledge Management, Human Resource Management, Communication skills, English literature, Guidance and Counseling, Clinical Psychology, Organizational Behavior.

3. New Plans and Projects

Planning to start new innovative **Post graduate courses in various fields of Humanities & Social Sciences and Management** and further exploring opportunities for starting programs in liberal arts.

4. Major acquisitions during the year and new laboratory development

Augmented the Psychology and Research Laboratory

5. Departmental Achievements

Papers published in SCI Journals	:	06
Papers published in Non SCI Journals	:	12
Papers published in conferences	:	06
Sponsored Research Projects Ongoing	:	03 (Rs 16.53 Lacs)
Sponsored Research Projects Completed	:	01 (Rs 6.90 Lacs)
Seminar/Conference/Workshop organized	:	02

Section 2:

1. List of faculty

Professor

S.No.	Name	Qualification & Specialization
1.	Dr Santha Kumari	Ph.D. Cognitive and Experimental Psychology
2.	Dr (Ms) Ravi Kiran	M Phil. Ph.D. Industrial Management, E- Business, Business Environment

Assistant Professor

S.No.	Name	Qualification & Specialization
1.	Dr. Gurvinder Kaur	MBA(HR), M.A (Econ), pursuing Ph.D HRD, Entrepreneurship, Communication Skills. Ph.D.
2.	Dr. (Ms.) Hitashi Lomash	Ph.D. Guidance and Counseling, Clinical Psychology, Organizational Behavior.
3.	Mr. Apurva Bakshi	MBA, pursuing Ph D IPR, Operations Management, Strategic Management
4.	Mr. Subhash Chandra Bose	MBA, pursuing Ph. D Marketing and Quality Management
5.	Dr. A.N. Sah	MA Economics, Ph.D. Economics and Research methodology.
6.	Dr. Rakesh Kumar Sharma	M.Com, MBA, Ph.D. Finance and Banking.
7.	Dr. (Ms.) Simerpreet Ahuja	Ph. D, M. A (Psychology) Child Development & Counseling
8.	Dr. (Ms) Diksha Sharma	Ph.D. M.A(English) English literature and Comm. Skill.

Lecturers (Ad-hoc)

S.No.	Name	Qualification & Specialization
1.	Dr. (Ms) Anupam Sharma	MBA, Ph.D.,HRD,IPR.
2.	Ms. Navdeep Dhillon	M.A, M. PhilPursuing Ph. D. Comm. Skill
3.	Dr Dharamjeet Singh	Phd & Digital Writing, New Media Technology and Literary Theory
4.	Ms. Harjot Kaur	M.A, M.Phil (Psychology)
5.	Dr(Ms) Kuldeep Walia	Ph.D, (Economics)
6.	Dr Deler Singh	Ph.D (English Literature)

2. List of research publications in SCI/Impact Factor journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
1.	Copyright Violations, 'Inspirations' and Adaptation in Indian Films: A Case for Cinema as Visual Anthropology?	Anthropologist Volume 18(1): Pages 211-216 (2014)	Apurva Bakshi, Ravi Kiran	
2	State of Copyright in Indian Cinema: Why	Queen Mary Journal of	Apurva Bakshi, Ravi Kiran	0.24

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	Barfi symbolizes all that's wrong with Bollywood	Intellectual Property, Volume 4 Number 4 Pages 310-321 (2014)		
3.	A strategic framework for good governance through e-governance optimization: A case study of Punjab in India	Program: electronic library and information systems, Vol. 49 Iss: 2, pp.170 – 204, 2015	Nirmaljeet Singh Kalsi , Ravi Kiran	0.65
4.	Stakeholders' preferences for land assembly: Development with rural urban synergy	The Indian Journal of Agricultural Sciences 85(IV): 539–48, April 2015	Kalsi, Namrita & Kiran Ravi	0.18
5.	Indian Physician Job Satisfaction Scale: Development and Validation	Ethno Med, 8(3): 293-304 (2014)	Prashant Mehta and Ravi Kiran	0.12
6.	Identification of Key factors for enhancing competitiveness: an exploratory study of the selected agri-biotech firms of Punjab in India	Agricultural Economics (Zemědělská Ekonomika) 2015 Vol. 61 No. 4 pp. 179-188	Sandeep Singh; Ravi Kiran; Dinesh Goyal	0.44

3. List of research publications in Non-SCI/Non-Impact journals

S. No	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
1.	Coping with copying: Copyright Violations in Literary Works and Films	Language in India, Volume 14: Page 1-9 (2014)	Apurva Bakshi, Ravi Kiran
2.	Risk Taking in Financial Decisions as a Function of Age, Gender: Mediating Role of Loss Aversion and	International Journal of Applied Psychology 20, 5(4): 83-89 (2014)	Muskaan Arora, Santha Kumari.
3.	The Role of Parental Math Attitude in Their Children Math Achievement	International Journal of Applied Sociology , 5(4), 159-163	Akanksha Soni & Santha Kumari
4.	Employee Attrition in ITeS Call Technics	Technology	Kaur, Gagandeep,

S. No	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
	Centers in Selected Clusters of North India: Need to have a Relook	Education Management, 10 (1); 124-135, 2015	Pandey, Neeraj, Kiran, Ravi & Kumar, Shailendra
5.	TRIPS and Its Implications on Indian Pharmaceutical Industry: A firm wise analysis of north-west India.	Journal of Advanced Management sciences. 4(2);86-91, (2014)	Ravi Kiran
6.	E-Delivery Channels and Banking Performance in India: A Pragmatic Approach.	Global Journal of Management and Business Research: Finance Volume 14, No. 4, pp	Navneet Kaur and Ravi Kiran
7.	Customer Satisfaction and Customer Loyalty in E-Banking in India: The Intricacies of Relationship	IOSR Journal in Business and Management, Vol.16, Issue 9, pp	Navneet Kaur and Ravi Kiran
8.	Greater Mohali Region: Geopolitical Impact on Urban Anthropology to Emerge as a Significant Tri-city Entity.	J Hum Ecol, 47(2): 125-137 (2014)	Namrita Kalsi and Ravi Kiran
9.	Coping with Copying Copyright Violations in Literary Works and Films,	. Language in India, 14 (8), 1-9	Apurva Bakshi and Kiran Ravi
10	E-Banking Service Quality and Customer Loyalty: Changing Dynamics of Public, Private and Foreign Bank Consumers in India	Volume 7 Number 1, pp 74-93 (2015)	Navneet Kaur and Ravi Kiran
11.	. Relationships between Economic Growth and Human Development : An Empirical Study with Special Reference to Haryana	IPE Journal of Management, Jan-June 2015, vol 5 No. 1	Rakesh Sharma
12.	Human Development And Economic Growth In India: An Empirical Study With Special Reference To Punjab	SAARJ Journal on Banking Insurance & Research Vol 3 , issue mo. 6	Rakesh Kumar Sharma
13.	Coping with copying: Copyright Violations in Literary Works and Films	Language in India, Volume 14: Page 1-9 (2014)	Apurva Bakshi, Ravi Kiran

4. Publication of papers in conference proceedings and other publications

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
1.	Role of Parental Maths	28th International congress of	Santha Kumari

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
	anxiety on Mathematics achievement of children	Applied Psychology, paris , France, 8-13 July.2014	& Akanksha Soni.
2.	The effect of age and gender on loss aversion and regret in financial decision making	28th International congress of Applied Psychology Paris , France, 8-13 July 2014	Santha Kumari & Muskaan Arora.
3.	An empirical study of causal relationship between stock markets and Macroeconomic Variables in India	Innovation Management Addressing Gaps in Theoretical and Empirical Interpretations, UBS, Chandigarh, Feb 6, 2015.	Harish Singla and Ravi Kiran
4.	Long Term Investment Strategy: Case of Five Frontline Companies in India	FINCON 2015, Gurugovind Singh Indraprast University, New Delhi, 17 April, 2015, pp.140-152	A.N. Sah & Harpriya
5.	Seasonality Effects in Stock Market Returns: Evidence from Indian Stock Market	National Conference on Advances in Management in Business Excellence, NIT Kurukhetra, 27-28 February, 2015,pp.103-110.	A.N. Sah & Harpriya
6.	Marx and Heidegger: Thinking the Techno-human	Literature in the emerging contexts of Technology and Culture organized by Dept. of English, Punjabi University, Patiala	Dharamjeet Singh

5. List of various faculty members who attended various conferences/ workshops/ short-term programs

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
1	Santha Kumari	28th International congress of Applied Psychology	Paris, July 8-13, 2014
2.	Ravi Kiran	Int.Conference on Mgmt Sciences and Innovation ICMSI	Switzerland, october, 2014

6. List of ongoing sponsored projects

S. No.	Name of the Project	Year of sanction	Funding Agency	Project Cost (Lacs)	Principal Investigator
1	An experimental investigation of the psychological determinants of financial decision making: A prospect theory approach	2013	ICSSR	7.00	Santha Kumari
2	A Strategic Framework for Enhancing Technology Adoption and Management Strategies for Women Entrepreneurs in Food and Beverage	2013	ICSSR	5.00	Ravi Kiran

S. No.	Name of the Project	Year of sanction	Funding Agency	Project Cost (Lacs)	Principal Investigator
3	Sector A Strategic Framework for retailing in Punjab	2012	UGC	4.53	Ravi Kiran

7. List of completed sponsored projects

S. No.	Name of the Project	Funding Agency	Project Cost (Lacs)	Principal Investigator
1	A Post-TRIPS Analysis of Emerging IPR Strategies of Small and Medium Pharmaceutical firms in Punjab, Haryana and Himachal Pradesh	AICTE	6.90	Ravi Kiran

8. List of faculty members who have delivered invited lectures/talks etc. at various levels

S. No.	Name of the faculty member	Title of the expert talk/lecture	Forum with date and venue
1	Santha Kumari	Stress and Gender	DAV College, Chandigarh, Dec, 06, 2014. Faculty Development Program
2	Ravi Kiran	Chairperson, Technical Session 1 and talk on changing paradigms of Business	International Conference on Advances in management for business excellence, NIIT, Kurukshetra.

9. List of ongoing Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1.	Development of A Model For Fostering Innovation Culture In Small Scale Auto parts Manufacturing Industry Of Punjab	Dr. Ajay Batish Dr. T.P. Singh
2.	A Comparative Study of Motivational factors and Personality traits in Academic and Non-academic Procrastinators	Dr(Ms) Hitashi Lomash
3.	A Comparative Study of Psychological Characteristics of Compulsive And Non Compulsive Buyers of National Capital Region	Dr(Ms) Santha Kumari
4.	A broad Strategic Framework for Development through regional Master Planning – A critical study with reference to greater Mohali Region of Punjab	Dr. (Mrs.) Ravi Kiran
5.	Service Quality Management in Selected Universities of Punjab: Students' Perspective	Dr. Maneek Kumar

S. No.	Title of the Thesis	Name of the Supervisor(s)
6.	A Strategic Framework for Improving Copyright Environment in the Indian Film Industry.	Dr. (Mrs.) Ravi Kiran
7.	Evaluation of Supply Chain Management Systems in Automotive Industry of North India	Dr. (Mrs.) Ravi Kiran
8.	Job Satisfaction of Doctors in Tertiary Care Hospitals: A Study of North-Western Region of India	Dr. (Mrs.) Ravi Kiran
9.	Effect of Cognitive Abilities, Emotional Intelligence and Self Esteem on Investment Decision Making: A Prospect Theory Approach	Dr(Ms) Santha Kumari
10.	Value Orientation And Personality Dimensions Of Students Pursuing Diverse Academic Disciplines	Dr(Ms) Santha Kumari Dr(Ms) Simerpreet Ahuja
11.	Study of Organization Change and its impact on Organizational commitment in some selected IT organizations in northern India	Dr(Ms) Ravi Kiran Dr. Sanjay Kaushik
12.	Factors Influencing Students' Mathematics Achievement And Their Choice To Study Further Mathematics	Dr(Ms) Santha Kumari
13.	A Strategic Framework For Enhancing Productivity And Competitiveness In Agri-Biotech Sector Of Punjab	Dr(Ms) Ravi Kiran Dr. Dinesh Goyal
14.	Business Incubation In Agri-Business: A Strategic Model For Critical Success Factors	Dr(Ms) Ravi Kiran Dr. Dinesh Goyal
15.	Value Orientation and Personality Dimensions Of Students Pursuing Diverse Academic Disciplines	Dr(Ms) Ravi Kiran Dr. A.N. Sah
16.	Comparative Accuracy of Equity multiples in Equity valuation: Evidence from Indian Manufacturing sector	Dr Harish Singla
17.	Commodity Market Dynamics: Empirical Study from India	Dr Harish Singla
18.	Designing a model for improving online retailing performance: A study of selective online retailers in North India	Dr Ravi Kiran Dr A.N.Sah
19.	Price performance of IPOs in India: An empirical analysis	Dr Ravi Kiran Dr A.N. Sah

10. List of completed Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1.	A Study of Business planning and Marketing Strategy in the context of Globalisation for Small and Medium Enterprises in the select Auto motive Clusters of India	Dr Ravi Kiran Dr Neeraj Pandey Dr Shailendra Kumar
2.	Employee Attrition in ITeS Call centres in selected clusters of North India	Dr Ravi Kiran Dr Neeraj Pandey Dr Shailendra Kumar

S. No.	Title of the Thesis	Name of the Supervisor(s)
3.	Employee Empowerment And Organizational Effectiveness: A Comparative Study Of Public, Private And Foreign Banks In Some North Indian States"	Dr. Manoj Sharma

11. List of equipment procured

S. No.	Name of the equipment	Make	Name of the laboratory	Date of Purchase(dd/mm/yyyy)	Amount (Rs Lacs)
1	Schuhfried Vienna Test System	Schuhfried	Psychology Lab.	12.03.15	2.75

12. Computing facilities in the Department

S. No.	Details of the Hardware/Software	Name of the Laboratory
1	India stat database 25 HP Desk tops/Language software Prowess	Research Lab Communication Skills lab Research Lab.

13. List of training programmes/ short term courses/workshops/conferences organized

S. No.	Title of the Programme with sponsoring agency	Name of the Coordinators	Dates and Venue
1	One Day workshop on Art of Loving.	Dr Santa Kumari	November 8, 2014
2	Two day workshop on Research Methodology.	Dr Ravi Kiran	March,20-21, 2015

14. Information regarding foreign visits

S. No.	Name of the faculty	Host University/ Organization	Nature of work	Month and Year of visit
1	Santha Kumari	28th International congress of Applied Psychology, Paris.	Presented research papers.	July, 08-13, 2014
2	Ravi Kiran	Int. Conference on Mgmt Sciences & Innovation ICMSI, Genewa, Switzerland	Presenting research paper	Oct 10-11-. 2014

15. List of Awards and recognitions

S. No.	Name of the faculty	Award / Fellowship/ Nominations	University/ Organization	Month and Year
1	Ravi Kiran	Best Paper of Session	Int.Conference on Mgmt Sciences and Innovation ICMSI, Genewa, Switzerland	Oct, 10-11, 2014

**Ethics & IPR Workshop, September 2014**



Trinity college Dublin faculty with SHSS faculty

SCHOOL OF CHEMISTRY & BIOCHEMISTRY

School of Chemistry & Biochemistry (SCBC) is unique school of learning and fostering innovative scientific ideas through interdisciplinary teaching and research in frontal areas of the chemical sciences. Faculty members are actively involved in frontier areas of research and having sponsored projects worth Rs. 552.00 (Lacs). The faculty members of School have published 51 research papers in SCI/high Impact factor journals during 2014-15. School feels proud in welcoming Dr. Rajendra Singh Dhayal who has joined as Assistant Professor in this academic year.

Section 1

1. Academic Programs

B.E./B.Tech. (Applied Chemistry and Organic Chemistry Courses)
M.Sc. (Biochemistry) started from July, 2015
M.Sc. (Chemistry)
Ph.D. (Chemistry)

2. Thrust areas of research:

Electrochemical sensor, Biosensors for heavy metal ions, pesticides using whole cells, Nanoscale materials & Photocatalysis, Heterogeneous & Bio-catalysis, Biophysical chemistry, Medicinal & Pharmaceuticals, Organic and Inorganic chemistry, Biochemistry and Protein chemistry.

5. Brief description of ongoing research activities (with pictures of key experimental setups or equipment):

Research areas of School include basic chemistry, nanomaterial and photocatalysis, electroanalytical chemistry and sensors, heterogeneous and bio-catalysis, biophysical studies, new drug molecules, organic synthesis, biochemistry and environment science. One of the main aim of the school is to facilitate an integrated, multidisciplinary approach for the development of chemical and catalysis science leading to new products and processes.

6. Activities round the year (2014-15):

Along with regular teaching with excellent SRS scores, School has published 51 SCI research papers in high Impact Journals. Faculty members have attended various conferences and delivered many invited talks at different prestigious institutes in India. Dr. Mandeep Singh Bakshi, Lecturer, Department of Chemistry, Wilfrid Laurier University, Waterloo (Canada) has delivered Expert Lecture talk on "Biom mineralization of Biomaterials: Biological Applications and Nanotoxicology" on 11th May, 2015. National Science Day was organized by the School on 28th February, 2015 and Dr. Sanjay Sen Gupta, Principal Scientist & Editor JSIR, NISCAIR, CSIR, New Delhi, delivered a talk on "NISCAIR activities, writing scientific papers and science communication" followed by expert talk by Dr. Narinder Singh, Head, Chemistry Department, IIT Ropar.

Thirteen students were awarded Ph.D. degree and eight students completed their M.Sc. with good positions. Dr. Satnam Singh of the School chaired a technical session in International

conference, “Advances in Functional Materials” held at Stony Brook University, New York, USA from June 29 to July 3, 2015. Some students have qualified CSIR-JRF NET and GATE examinations and joined Ph.D. program at reputed institutes. Currently, the school has 26 sponsored research projects in which many Ph.D. students are working and getting their fellowship.

7. New Plans and Projects:

To strengthen the M. Sc. Biochemistry program and further improvement in the quality of Ph. D. program. DST-FIST First phase program completed (2010-2015) and application for 2nd Phase of DST-FIST program for 2.0-3.0 Crore Rupees will be undertaken. To organize a national conference in March 2016.

8. Major acquisitions during the year and new laboratory development:

An Incubator shaker with refrigerator worth USD 12979 and small equipments like Digital Potentiometer, Bomb colorimeter, Cloud & Pour Apparatus, Flash Point Apparatus, Red Wood Viscometer, Softing Point Apparatus, Moisture meter, Digital Nephelometer and Digital Conductivity meter worth Rs. 4.5 lacs were procured.

9. Departmental Achievements (Pl provide numbers only in this section – details to be provided in subsequent sections)

- Papers published in SCI Journals : 51
- Papers published in Non SCI Journals : 02
- Sponsored Research Projects New 2015 : 05 Projects (Rs. 188 Lacs)
- Sponsored Research Projects Ongoing : 26 Projects (Rs. 552 Lacs)
- Patent (Filed/Granted) : 1 Filed US Patent
- Seminar/Conference/Workshop organized : 1
- Doctoral Degree Awarded : 13
- Lectures by visiting experts : 4
- Visits abroad by faculty members : 3

Ssection 2:**1. List of faculty****Senior Professor**

S.No	Name	Qualification & Specialization
1.	Dr. Susheel Mittal	Ph.D., Chemical Sensors, Biosensors, Inorganic Ion-Exchange Materials, Environmental Chemistry

Professor

S.No	Name	Qualification & Specialization
1.	Dr. Bonamali Pal	Ph.D., Physical & Nanomaterial Chemistry, Photocatalysis, Photoelectrochemistry

Associate Professor

S.No.	Name	Qualification & Specialization
1.	Dr. Satnam Singh	Ph.D., Organic Chemistry and Environmental Chemistry
2.	Dr. (Mrs.) Ranjana Prakash	Ph.D., Applied Chemistry
3.	Dr. Amjad Ali	Ph.D., Inorganic Chemistry
4.	Dr. Manmohan Chhibber,	Ph.D., Synthetic Organic Chemistry, Medicinal Chemistry
5.	Dr. Rajesh Kumar	Ph.D., Biophysical and Bioinorganic Chemistry

Assistant Professor

S.No	Name	Qualification & Specialization
1.	Dr. Kamaldeep Paul	Ph.D., Organic and Medicinal Chemistry
2.	Dr. Satyendra Kumar Pandey	Ph.D., Organic Synthesis and Medicinal Chemistry
3.	Dr. Vijay Luxami	Ph. D., Organic and Supramolecular Chemistry, Molecular Electronics
4.	Dr. Soumen Basu	Synthesis & Applications of Nanomaterials
5.	Dr. Rajendra Singh Dhayal	Ph.D. Inorganic /Organometallic Chemistry

5. List of research publications in SCI/Impact Factor journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
1.	Selective formation of benzo [c] cinnoline by photocatalytic reduction of 2, 2'-dinitrobiphenyl using TiO ₂ and under UV light irradiation	Chemical Communications, 51 (2015) 8500-8503	Jaspreet Kaur and Bonamali Pal,	6.834
2.	Preparation and characterization of different	Colloids and Surfaces A: Physicochemical and	Anila Monga and Bonamali Pal	2.752

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	shapes of Au-Ag bimetallic nanocomposites for enhanced physicochemical properties.	Engineering Aspects, 481 (2015) 158-166		
3.	Plasmonic Coinage Metal-TiO ₂ Hybrid Nanocatalysts for Highly Efficient Photocatalytic Oxidation under Sunlight Irradiation	New Journal of Chemistry, 39 (2015) 5966-5976.	Rupinder Kaur and Bonamali Pal	3.086
4.	Influence of oxidative etching of Au nanostructures by KMnO ₄ on its surface morphology, electro-kinetic properties and improved catalytic activity	Journal of Industrial and Engineering Chemistry, doi:10.1016/j.jiec.2015.06.027.	Anila Monga and Bonamali Pal	3.512
5.	Preparation, Surface and Crystal Structure, Band Energetics, Optoelectronic, and Photocatalytic Properties of AuxCd _{1-x} S Nanorods	ChemPlusChem, 80 (2015) 851-858	Rohit Singh and Bonamali Pal	3.026
6.	Tuning the Optical and Photocatalytic Properties of Anisotropic ZnS Nanostructures for the Selective Reduction of Nitroaromatics	Chemical Engineering Journal, 263 (2015) 200-208.	Bhupender Pal and Bonamali Pal,	4.321
7.	Physicochemical and catalytic properties of Au nanorods micro-assembled in solvents of varying dipole moment and refractive index,	Materials Research Bulletin, 62 (2015) 11-18	RupinderKaur and Bonamali Pal	2.288
8.	Cu nanostructures of various shapes and sizes as superior catalysts for nitro-aromatic reduction and co-catalyst for Cu/TiO ₂ photocatalysis	Applied Catalysis A General, 491 (2015) 28-36	Rupinder Kaur and Bonamali Pal	3.942
9.	Phase-dependent Thermophysical Properties of α - and γ -Al ₂ O ₃ in Aqueous Suspension	Journal of Industrial and Engineering Chemistry, 25 (2015) 99-104	Bhupender Pal, Soumya Mallick and Bonamali Pal	3.512
10.	Influence of coinage and	Journal of Molecular	Jaspreet Kaur	3.615

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	platinum group metal co-catalysis for the photocatalytic reduction of m-dinitrobenzene by P25 and rutile TiO ₂	Catalysis A: Chemical, 397 (2015) 99-105	and Bonamali Pal	
11.	Highly dispersed Au, Ag and Cu nanoparticles in mesoporous SBA-15 for highly selective catalytic reduction of nitroaromatics	RSC Advances, 5 (2015) 184-190	Shweta Sareen, Vishal Mutreja, Satnam Singh and Bonamali Pal	3.84
12.	Homogeneous dispersion of Au nanoparticles into mesoporous SBA-15 exhibiting improved catalytic activity for nitroaromatic reduction	Microporous & Mesoporous Materials, 202 (2015) 219-225	Shweta Sareen, Vishal Mutreja, Bonamali Pal and Satnam Singh	3.453
13.	Improved Catalytic Activity and Surface Electro-kinetics of Bimetallic Au-Ag Core-Shell Nanocomposites	New Journal of Chemistry, 39 (2015) 304-313	Anila Monga and Bonamali Pal	3.086
14.	Morphological and physicochemical properties of Ag-Au binary nanocomposites prepared using different surfactant capped Ag nanoparticles	RSC Advances, 5 (2015) 39954-39963	Anila Monga and Bonamali Pal	3.84
15.	Metal ion-TiO ₂ nanocomposites for the selective photooxidation of benzene to phenol and cycloalkanol to cycloalkanone	Journal of Experimental Nanoscience, 10 (2015) 148-160	Nidhi Gupta, Pooja Bansal and Bonamali Pal	0.981
16.	Woolen bun shaped CdS microspheres enfolded 1D nanowires for the superior photooxidation of dyes: A comparative case study	Journal of Molecular Catalysis A: Chemical 396 (2015) 15-22	Rohit Singh and Bonamali Pal	3.615
17.	Shape Dependent Thermal Conductivity of TiO ₂ -Deionized Water and Ethylene Glycol Dispersion	Journal of Nanosci. Nanotech. 15, (2015) 3670-3676	Bhupender Pal, Soumya Suddha Mallick and Bonamali Pal	1.556
18.	Influence of Different Reducing Agents on the Ag	Journal of Nanosci. Nanotech. 15 (2015)	Bonamali Pal, Sonia Rana and	1.556

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	Nanostructures and Their Electrokinetic and Catalytic Properties	2753-2760	RupinderKaur	
19.	Facile synthesis of anisotropic Au nanostructures by laser irradiation and study their optical and electro-kinetic properties	Particulate Science and Technology, Taylor & Francis, 33 (2015) 139-144	Bonamali Pal and RupinderKaur	0.523
20.	Influence of thermal treatment on morphology and photocatalytic properties of Fe ³⁺ incorporated Sodium Titanate nanotubes	Particulate Science and Technology, 33 (2015) 132-138	Inderpreet Singh Grover, Satnam Singh, Bonamali Pal	0.523
21.	Influence of Au Photodeposition and Doping in CdS Nanorods: Optical and Photocatalytic study	Particulate Science and Technology, 33 (2015) 53-58	Rohit Singh and Bonamali Pal	0.523
22.	Influence of CuO Nanostructures on the Thermal Conductivity of DI water and Ethylene glycol based Nanofluids	Particulate Science and Technology, 33 (2015) 224-228	Bhupender Pal and Bonamali Pal	0.523
23.	Enhanced stability, conductance and catalytic activity of Au nanoparticles via oxidative dissolution by KMnO ₄	Particulate Science and Technology, 33 (2015) 159-165	Anila Monga and Bonamali Pal	0.523
24.	Influence of thermal treatment and Au-loading on the growth of versatile crystal phase composition and photocatalytic activity of sodium titanate nanotubes	RSC Advances, 4 (2014) 51342 – 51348	Inderpreet Singh Grover, Satnam Singh and Bonamali Pal	3.84
25.	Anisotropic CuO nanostructures of different size and shape exhibit superior thermal conductivity than typical bulk powder	Colloids and Surfaces A: Physicochem. Eng. Aspects 459 (2014) 282–289	Bhupender Pal and Bonamali Pal	2.752
26.	Improved surface properties and catalytic activity of anisotropic shapes of	Journal of Molecular Catalysis A: Chemical, 395 (2014) 7–15	Rupinder Kaur and Bonamali Pal	3.615

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	photoetched Au nanostructures formed by variable energy laser exposure			
27.	100% selective yield of m-nitroaniline by rutile TiO ₂ and m-phenylenediamine by P25-TiO ₂ during m-dinitrobenzene photoreduction	Catalysis Comm.,53 (2014) 25–28	Jaspreet Kaur and Bonamali Pal	3.699
28.	Core-Shell Structure of Metal Loaded CdS-SiO ₂ Hybrid Nanocomposites for Complete Photomineralisation of Methyl Orange by Visible Light	Journal of Molecular Catalysis A: Chemical, 391 (2014) 158–167	Nidhi Gupta and Bonamali Pal	3.615
29.	Enhanced photocatalytic activity of as-prepared sodium titanates for m-dinitrobenzene reduction and sulfosulfuron oxidation	Journal of Nanosci. Nanotech. 14 (2014) 1–9	Inderpreet Singh Grover, Satnam Singh and Bonamali Pal	1.556
30.	Diphenylether based derivatives as Fe (III) chemosensors: Spectrofluorimetry, Electrochemical and Theoretical studies	RSC Advances,5, (2015) 21831-21842	Rashmi Sharma, Manmohan Chhibber, Susheel K Mittal	3.7
31.	Voltammetric Sensor for Fluoride Ions Using Diphenylether Derivatives Supported by NMR and Theoretical Studies	Journal of Electrochemical Soc, 2015 162(9): B248-B255	Rashmi Sharma, Susheel K Mittal, and Manmohan Chhibber	3.26
32.	Yttrium (III) Selective Electrode Based On Zirconium (IV) Phosphoborate	Journal of New Materials for Electrochemical Systems 17, 005-008 (2014)	Sandeep Kaushal, Pritpal Singh & Susheel K. Mittal	0.659
33.	Electrochemical studies on	Journal of	Sandeep	1.5

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	zirconium phosphoborate based heterogeneous membranes	Electrochemical Science and Engineering, 4(2), 55-65 (2014)	Kaushal, Pritpal Singh & Susheel K. Mittal	
34.	Preparation and application of Ce/ZrO ₂ -TiO ₂ /SO ₄ ²⁻ as solid catalyst for the esterification of fatty acids	Renew. Energy, 2015, 81, 421-431	Navjot Kaur and Amjad Ali	3.3
35.	An Efficient and Reusable Li/NiO Heterogeneous Catalyst for Ethanolysis of Waste Cottonseed oil	Eur. J. Lipid Sci. Technol., 2015, 117, 550-560	Mandeep Kaur and Amjad Ali	2.0
36.	One-Pot Lipase Entrapment Within Silica Particles to Prepare a Stable and Reusable Biocatalyst for Transesterification	J. Am. Oil Chem. Soc., 2015, 92, 623-632	Madhu Katiyar and Amjad Ali	1.7
37.	Synthesis, <i>in vitro</i> evaluation and DNA interaction studies of <i>N</i> -allyl naphthalimide analogues as anticancer agents,	RSC Adv., 2015, 5, 41803	Meenakshi Verma, Vijay Luxami, Kamaldeep Paul	3.853
38.	Synthesis, <i>invitro</i> anticancer activity and SAR studies of arylated imidazo[1,2- <i>a</i>]pyrazine-coumarin hybrids	RSC Advances, 2015, 5, 37887-37895	Richa Goel, Vijay Luxami, Kamaldeep Paul	3.853
39.	Triazine as a promising scaffold for its versatile biological behavior	Eur. J. Med. Chem., 2015, 93, 414-422.	Prinka Singla, Vijay Luxami, Kamaldeep Paul	3.54
40.	Triazine-benzimidazole hybrids: Anticancer activity, DNA interaction and dihydrofolate reductase inhibitors	Bioorg. Med. Chem., 2015, 23, 1691-1700.	Prinka Singla, Vijay Luxami, Kamaldeep Paul	2.8
41.	Recent advances in development of imidazo[1,2- <i>a</i>]pyrazines: synthesis, reactivity and their biological applications	Org. Biomol. Chem., 2015, 13, 3525-3555 (Inside Cover Picture).	Richa Goel, Vijay Luxami, Kamaldeep Paul	3.54
42.	Csp ² -O and C-C bond	J. Het.	Alka Sharma,	1.0

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	formation via Pd-catalyzed coupling reaction of 2,4-dichloroquinazoline	Chem.DOI: 10.1002/jh et.2330.	Vijay Luxami, Kamaldeep Paul	
43.	Ratiometric fluorescent chemosensor for fluoride ion based on inhibition of excited state intramolecular proton transfer	Spectrochimica Acta Part A: Mol. Biomol. Spec.,2015, 67, 2015.	Akul Sen Gupta Kamaldeep Paul, Vijay Luxami	2.3
44.	Purine-benzimidazole hybrids: Synthesis, single crystal determination and in vitro evaluation of antitumor activities	Eur. J. Med. Chem.2015, 93, 414-422	Alka Sharma, Vijay Luxami, Kamaldeep Paul	3.54
45	Quinazoline-benzimidazole hybrid as dual optical sensor for cyanide and Pb ²⁺ ions and Aurora kinase inhibitor	Journal of Photochemistry and Photobiology A: Chemistry, 2015, 311, 68-75	Vijay Luxami, Richa Rani, Alka Sharma, Kamaldeep Paul	2.3
46	Synthesis of new 2,3-disubstituted pyridines containing a 1,2,3-triazole in the side-chain via one-pot copper-catalyzed azide-alkyne cycloaddition	ARKIVOC2015 (vii) 28-41	Meenakshi Verma, Vijay Luxami and Kamaldeep Paul	1.2
47	Benzothiazole-based chemosensor for CN ⁻ and Cu ²⁺ : multi-logic operations within a single molecule	Supramolecular Chemistry, 2015, 27, 453	Navneet Kaur, Jasvinder Singh, Gargi Dhaka, Richa Rani&Vijay Luxami	2.40
48	An enantioselective approach to 2-alkyl substituted tetrahydroquinolines: total synthesis of (+)-angustureine	RSC Adv.2015, 5, 38846-38850	Yuvraj Garg, Suraksha Gahalawat and Satyendra Kumar Pandey	3.853
49	Enantioselective total synthesis of (+)-serinolamide A	RSC Adv. 2015, 5, 41013-41016	Suraksha Gahalawat and Satyendra Kumar Pandey	3.853

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
50	An Enantioselective Approach to functionalized Amino Acids: Total Synthesis of Antiepileptic Drug (R)-Lacosamide.	J. Org. Chem. 2015, 80, 4201-4203.	Yuvraj Garg and Satyendra Kumar Pandey	4.721
51	Total Synthesis of (+)-Petromyroxol, a Marine Natural Product.	Asian J. Org. Chem. 2015, DOI:10.1002/ajoc.201500301	Suraksha Gahalawat, Yuvraj Garg and Satyendra Kumar Pandey	3.328

3. List of research publications in Non-SCI/Non-Impact journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
1.	Enhanced anti-oxidant activity as a function of selenium hyperaccumulation in <i>Agaricus bisporus</i> cultivated on Se-rich agri-residues	Journal of Biologically Active Products from Nature, 4: 354-364, 2014	Bhatia P, Pandey S, Prakash R, Tejo Prakash N
2.	Antioxidant properties as a function of selenium uptake by edible mushrooms cultivated on selenium-accumulated waste post-harvest wheat and paddy residues	International Journal of Recycling of Organic Waste in Agriculture, 3: 127-132, 2014	Bhatia P, Prakash R, Tejo Prakash N

4. Publication of papers in conference proceedings and other publications

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
1.	Effect of capping agents on the morphology, opto-electronics and physicochemical properties of Ag-Au bimetallic nanocomposites	International Conference on recent advances in nanoscience and nanotechnology-2014" ICRANN-2014, 15-16 December, 2014, Special Centre for Nanoscience, Jawaharlal Nehru University, New Delhi- 110067, India	Anila Monga Bonamali Pal
2.	Morphological Study of Ag-Au Bimetallic Nanostructures Prepared from Various Surfactants	National Seminar on Synergistic Aspects of Chemical and Other Sciences held at Punjabi University (SACOS), Patiala on 19-20 Feb, 2015	Anila Monga and Bonamali Pal

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
	Capped Ag nanoparticles for Improved Catalytic Activity		
3	Consequence of Morphology, Solvents and pH on the Dispersion Stability and Thermal Conductivity of WO ₃ -aqueous suspension	National Seminar on Synergistic Aspects of Chemical and Other Sciences held at Punjabi University (SACOS), Patiala on 19-20 Feb, 2015	Bhupender Pal and Bonamali Pal
4	Enhanced Photoreduction of Nitro-aromatics by Pure Rutile Nanorods	National Seminar on Synergistic Aspects of Chemical and Other Sciences held at Punjabi University (SACOS), Patiala on 19-20 Feb, 2015	Jaspreet Kaur and Bonamali Pal
5	Preparation and Study of Entrapment Efficiency and Release Profile of Antihypertensive Drug through Poly-D,L-lactide-co-glycolide polymer	National Seminar on Synergistic Aspects of Chemical and Other Sciences held at Punjabi University (SACOS), Patiala on 19-20 Feb, 2015	Tanushree Basu and Bonamali Pal
6	Photocatalytic Degradation of Methylene Blue by Plasmonic Ag-TiO ₂ Nanocatalyst under Visible Light Irradiation	National Seminar on Synergistic Aspects of Chemical and Other Sciences held at Punjabi University (SACOS), Patiala on 19-20 Feb, 2015	Rayees Ahmed, Bonamali Pal and Satnam Singh
7	Highly dispersed Au nanoparticles in mesoporous SBA-15 for highly selective nitroaromatic reduction	National Seminar on Synergistic Aspects of Chemical and Other Sciences held at Punjabi University (SACOS), Patiala on 19-20 Feb, 2015	Shweta Sareen, Vishal Mutreja, Satnam Singh and Bonamali Pal
8	Use of eco-friendly matrix for immobilization of oil-tolerant fungus and its use in transesterification of non-edible and waste-cooking oils	International Scientific Conference on Environmental Research, Lumbini, Nepal, November 1-3, 2014	Satnam Aulakh, JS Melo, Ranjana Prakash
9	Biocatalyzed transesterification of oil to alkyl ester: Variations in oil tolerance and biocatalytic activity of various fungi	International Conference on Recent Advances in Bio-energy Research (ICRABR-2015), NIRE, Jalandhar, India, February 25-28, 2015	Satnam Aulakh and Ranjana Prakash

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
10	Sodium Impregnated Zirconia as a Solid Base Catalyst for the Transesterification of Waste Cotton Seed Oil	Exploring Basic and Applied Sciences for Next Generation Frontiers" (EBAS 2014) on 14-15th November 2014, Lovely Professional University, pp 185-188. ISBN-978-93-5107-313-0, Elsevier.	Navjot Kaur and Amjad Ali
11	Methanolysis of JatropaOil Employing Mg-Zr/CaO as Heterogeneous Catalyst	Exploring Basic and Applied Sciences for Next Generation Frontiers" (EBAS 2014) on 14-15th November 2014, Lovely Professional University, pp 180-184, ISBN-978-93-5107-313-0, Elsevier.	Navjot Kaur and Amjad Ali

5. List of various faculty members who attended various conferences/ workshops/ short-term programs

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
1.	Dr. Susheel Mittal	17th CRSI National Symposium in Chemistry	February 06-08, 2015 at CSIR-NCL, Pune
2.	Dr. Susheel Mittal	7th National Seminar entitled "Synergistic Aspects of Chemical and Other Sciences-2015 (SACOS-2015)	February 19-20, 2015 at Punjabi University, Patiala
3.	Dr. Susheel Mittal	Professor R.C. Paul National Symposium on "INNOVATIONS IN CHEMICAL SCIENCES"	20-21 March, 2015, Punjab University, Chandigarh
4.	Dr. Satnam Singh	International conference, "Advances in Functional Materials"	Stony Brook University, New York, USA from June 29 to July 3, 2015
5.	Dr. Manmohan Chhibber Dr. Satyendra Pandey	Advance flow Chemistry work shop	Hotel Jaypee Siddharth, New Delhi, INDIA, 5 th March 2015
6.	Dr. Vijay Luxami	15 th tetrahedron conference- Asian Edition: Challenges in Bioorganic and Medicinal Chemistry	Oct 28-31, 2014, Singapore EXPO, Singapore
7.	Dr. Satyendra Pandey	17th CRSI National Symposium in Chemistry	February 06-08, 2015 at CSIR-NCL, Pune
8.	Kamaldeep Paul	15 th tetrahedron conference-	Oct 28-31, 2014, Singapore

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
		Asian Edition: Challenges in Bioorganic and Medicinal Chemistry	EXPO, Singapore

6. List of ongoing sponsored projects

S.NO.	Project Title	Duration	Amount (Lakh)	Funding Agency	Principal Investigator
1.	Design and Development of Diphenylether based Supramolecules for Electroanalytical Probes	2012-2015	22.8	BRNS (DAE)	Susheel Mittal
2.	Particulate matter dose relationship with lung function efficiency of children during agriculturalcrop residue burning episodes	2012-2015	40.0	ICMR	Susheel Mittal
3.	Modelling Atmospheric Pollution and Networking (MAPAN) – Patiala (MAPAN – 08)	2013-17	22.3	MES	Susheel Mittal
4.	Size and shape dependent photocatalyticactivity of silica-coated metal (M)-Zincsulfide (ZnS) nanocomposites	2012-2015	15.0	UGC	Bonamali Pal
5.	Size and Shape Dependent Photocatalytic Activity of TiO ₂ nanostructures for Selective Reduction of Nitroaromatics	2015-18	8.54	CSIR	Satnam Singh
6.	“Study of surface charge and Zeta potential of coinage metal nanoparticles for their optimum stability and catalytic activity”	2013-2016	16.0	CSIR	Bonamali Pal
7.	“Synthesis of transition metal incorporated mesoporous materials and their catalytic application for some industrial reactions	2012-2015	16.0	DST Women Scientist Award	Bonamali Pal

9.	Fungus mediated biodiesel generation from waste edible oils	2012-2015	16.0	CSIR	Dr. RanjanaPrakash
10.	Strain improvement of Aspergillus sp. for enhanced trans esterification of waste cooking and non-edible oils using induced mutation by γ irradiation	2011-2014	36.2	BRNS	Dr. RanjanaPrakash
11.	Biofortification of Selenium in Edible Mushrooms from Se-rich Crop Residues	2013-2016	24.5	DBT	N.Tejo Prakash
12.	Mixed metal oxides as heterogeneous catalysts for the triacetin synthesis	2015-18	42.11	DST	Dr. Amjad Ali
13.	Synthesis and characterization of diphenyl ether/analogues for their antibacterial activity	2012-2015	6.2	UGC	Manmohan Chhibber
14.	Kinetic and Thermodynamic Studies of the Effects of Synergistic and Nonsynergistic Anions on Blood Plasma Transferrin. (July 2015-July 2017).*(equipment sanctioned Circular Dicrosim (CD) spectrometer)	2015-2017	52.63	DST	Rajesh Kumar
15.	The Mechanism of Reductive Release of Iron from Serum Transferrin, sanctioned by ICMR (March 2015-2017. *(equipment sanctioned millisecond stopped flow spectrometer)	2015-2017	42.0	ICMR	Rajesh Kumar
16.	The Role of Macromolecular Crowding on Structure, Function, Stability and Folding of Serum Transferrin. Approved by DBT (Extra Mural Research Scheme) 2015-2017. *(equipment sanctioned fast protein liquid chromatography (FPLC)).	2015-2017	25.0	DBT	Rajesh Kumar
17.	Sugars and Salts-Induced	2015-2017	18.0	ICMR	Rajesh

	Folding and Stabilization of Base-Denatured Horse Cytochrome c (Approved by ICMR (2015-2017).				Kumar
18.	Hybrids of Substituted Benzimidazole and Quinazoline /purine/pyrazolo pyrimidine analogous as Antituberculosis and Antimalarial activity.	2012-2013	5.5	CSIR	Kamaldeep Paul
19.	Coupling of Substituted Quinazoline /Xanthine and Purine/Pyrimidine/ Benzimidazole : A Novel Scaffold for Kinase Inhibitors	2012-2015	11.08	UGC	Kamaldeep Paul
20.	Heterocyclic Substituted Quinazoline and Pyrazolo[3,4-d]pyrimidine Derivatives: Novel Scaffold for Aurora Kinase Inhibitors	2012-2015	21.5	CSIR	Kamaldeep Paul
21.	Novel Scaffolds of P-glycoprotein Modulators to Overcome Multidrug Resistance in Cancer cells	2011-2014	22.0	DST	Kamaldeep Paul
22.	The Total Synthesis of the Antimalarial Natural Products, Flinderoles	2013-2016	22.04	DST	Satyendra K. Pandey
24.	Concise and Protecting Group-Free Synthesis of 2-Alkyl-Substituted Tetrahydroquinolines	2013-2015	6.0	UGC	Satyendra K. Pandey
25.	Heterocycles based FRET-dyads for chemionics and bioionics. (2011-2014) - DST-FAST TRACK- 27 lacs	2011-2014	27.4	DST	Vijay Luxami
26.	ESIPT based Chromophores: Applications for Sensing and White light emitting devices	2012-2017	35.0	DST	Vijay Luxami

7. List of completed sponsored projects

S.NO.	Project Title	Duration	Amount (Lakh)	Funding Agency	Principal Investigator
1.	Preparation of Core-Shell Structure of Silica (SiO ₂)-Coated Cadmium Sulfide (CdS) Nanocomposites by Size-Selective Photoetching and Study of Photocatalytic Organic Syntheses Reactions.	2009-2013	41.80	DST	Bonamali Pal
2.	Zirconia supported solid catalyst for simultaneous transesterification and esterification of high free fatty acid containing triglycerides	2011-2014	14.0	CSIR	Amjad Ali
3.	Alkali metal supported transition metal oxides as solid catalyst for the transesterification of jatropha and karanja oils	2012-2014	19.0	DRDO	Amjad Ali
4.	Kinetic and thermodynamics studies on the effect of chaotropic and kosmotropic cosolvents on horse ferrocycytochrome c	2011-2014	21.3	CSIR	Rajesh Kumar
5.	The Kinetics and Mechanism of Iron Release from Transferrins	2010-2013	18.2	DST	Rajesh Kumar
6.	pH-Dependent stability and microsecond folding kinetics of horse ferrocycytochrome-C.	2012-2015	11.4	UGC	Rajesh Kumar
7.	Hybrids of Substituted Benzimidazole and Quinazoline /purine/pyrazolo pyrimidine analogous as Antituberculosis and Antimalarial activity.	2012-2013	5.5	CSIR	Kamaldeep Paul

8. List of faculty members who have delivered invited lectures/talks etc. at various levels

S. No.	Name of the faculty member	Title of the expert talk/lecture	Forum with date and venue
1.	Dr. Susheel Mittal	Health hazards of crop residual burning in Punjab	National Conference on Recent Advances in Chemical Env Sciences held at MM Modi College, Patiala Jan 30-31 2015.
2.	Dr. Susheel Mittal	Nanoparticle-coupled imine linkage-based receptors for voltammetric sensing of Al(III)	Royal Society of Chemistry (RSC) India Roadshow workshop at University of Hyderabad,

S. No.	Name of the faculty member	Title of the expert talk/lecture	Forum with date and venue
3.	Dr. Satnam Singh	and Co(II) ions, Principles of Green Chemistry and sustainability”	Hyderabad, Nov 7, 2014 52nd Refresher Course viz., “Green Chemistry and Sustainability” and “Mass spectrometry” organized by UGC Academic Staff College, Punjabi University, Patiala on 2 June, 2015.
4.	Dr. Satnam Singh	Principles of Green Chemistry and sustainability”	Chandigarh University, Gharuan (Mohali) on 9th April, 2015 to Engineering students.
5.	Dr. Satnam Singh	“Resource Person”	UGC sponsored National Seminar on Green Chemistry-II at G.H.S. Khalsa College, Guruser Sadhar, Distt. Ludhiana – 141104, on 26th March 2015.
6.	Dr. Satnam Singh	“Green Chemistry and Sustainability” and “Mass spectrometry”	UGC Academic Staff College, Punjabi University, Patiala on 18th Dec., 2014.
7.	Dr. Satnam Singh	“Green Chemistry and its Applications”	Chandigarh University, Gharuan (Mohali) on 27th Oct., 2014 to Engineering students
8.	Dr. Amjad Ali	Biodiesel production from high free fatty acid containing vegetable oils in presence of heterogeneous catalysts,	National conference on Biofuels & Bioenergy, June 12-13, 2015, Organized by University of Petroleum & Energy Studies, Dehradun.
9.	Dr. Amjad Ali	Biodiesel production from high free fatty acid containing vegetable oils in presence of heterogeneous catalysts,	One day national seminar on recent trends in physics and chemistry, 25 th March, 2015, Organized by S A Jain Degree College, Ambala
10.	Dr. Manmohan Chhibber	Importance of Physics, Chemistry and Mathematics for B.Tech Classes	Amritsar College of Engineering, Amritsar. 17 th March 2015.
11.	Dr. Manmohan Chhibber	NATURE An Ultimate Inspiration for Science & Society	Akal Degree College, Mastuana, Sangrur (Punjab) 4 th April 2015,
12.	Dr. Satyendra K. Pandey	Principles of Water and its treatment”	Chandigarh University, Gharuan (Mohali) on 11th April, 2015 to Engineering students.

S. No.	Name of the faculty member	Title of the expert talk/lecture	Forum with date and venue
13.	Dr. Bonamali Pal	"Anisotropic nanostructures of various metals and semiconductors for highly improved physicochemical properties"	Faculty Development Programme (FDP) under TEQIP-II on 04th August, 2014. Department of Chemistry, Panjab University, Chandigarh.
14.	Dr. Bonamali Pal	Enhanced physicochemical properties of transition metal and semiconductor nanostructures of different sizes and shape, New Frontier of Chemical Sciences.	NFCS-01, Khalsa College, Patiala, 15 Nov. 2014.
15.	Dr. Bonamali Pal	Preparation and characterization of bimetallic Au-Ag core-shell nanocomposites for improved physicochemical properties. Second International conference on nanotechnology (ICNT-2015)	19-22 February, 2015 at Haldia Institute of Technology, West Bengal
16.	Dr. Bonamali Pal	TiO ₂ photocatalysis, A green technology application in industry, organic synthesis and bacteria killing, National Seminar on Green Chemistry-II	G. H. G Khalsa College Ludhiana, Punjab March 25-26, 2015

9. List of ongoing Ph. D. Thesis

S. No.	Title of the thesis	Name of Supervisor (s)
1.	Development of some Biosensors and their analytical applications.	Dr. Susheel Mittal
2.	Design and Development of Aryl ether based Receptors for Electroanalytical Applications	Dr. Susheel Mittal & Dr. Manmohan Chhibber
3.	Synthesis & Characterization of some Metal Organic Frameworks (MOFs) Based on Transition Metals and Carboxylate ligands.	Dr. Susheel Mittal & Dr. Manmohan Chhibber
4.	Receptors based on Diphenylethers and its Aza analogues for Ion Recognition using Potentiometry.	Dr. Susheel Mittal & Dr. Manmohan Chhibber
5.	Imine-Nanomaterial Composites as Receptors for Potentiometric Sensing of Ions.	Dr. Susheel Mittal
6.	Voltammetric Sensors Based on Schiff Bases for Cation/Anion Recognition.	Dr. Susheel Mittal

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| 7. | Correlation Studies on Particulate Matter and Meteorological Parameters. | Dr. Susheel Mittal & Dr. Gufran Beig |
| 8. | Prediction Model for the Gaseous Pollutants of Ambient air in the Punjab region of Indo-Gangetic Plain using Statistical Approach. | Dr. Susheel Mittal & Dr. Gufran Beig |
| 9. | Source Apportionment Studies to identify Particulate Matter from Crop Residue Burning affecting Human Health. | Dr. Susheel Mittal |
| 10. | Entrapment Efficiency and Release Kinetics of Antihypertensive Drug <i>via</i> Biodegradable Polymer Nanoparticles –Tanusree Basu, July 2014 | Dr. Satnam Singh and Dr. Bonamali Pal |
| 11. | Photocatalytic water splitting by coinage metal-TiO ₂ Reyes Ahmed | Dr. Satnam Singh and Dr. Bonamali Pal |
| 12. | Synthesis and Catalytic Properties of Binary/Core-Shell Coinage Metal(s) Nanostructures by Anila | Dr. Bonamali Pal |
| 13. | Photocatalytic dehydrogenation of used alcohols/solvents, Upraj Kaur | Dr. Bonamali Pal |
| 14. | Development of xylanase based pulp bleaching process | N.Tejo Prakash & Ranjana Prakash |
| 15. | Whole cell catalyzed generation of alkyl esters from acid oil | Drs. Ranjana Prakash & N.Tejo Prakash |
| 16. | Computational analysis of transcriptome and prediction of transcript using RNA-Seq data of <i>Mus Sp.</i> | Dr. Amjad Ali |
| 17. | Active metal supported mesoporous materials as solid catalysts for the transesterification of triglycerides | Amjad Ali |
| 18. | Synthesis and antibacterial activity of diphenyl ethers/ amines | Manmohan Chhibber |
| 19. | Synthesis characterization and antibacterial activity of some fluoroquinolones. | Manmohan Chhibber |
| 20. | Kinetic and thermodynamic studies on effect of amino acids, alcohols, crowding agents, and lyotropic salts on proteins | Dr. Rajesh Kumar |
| 21. | Modulating Protein Stability and Dynamics by Osmolytes and Electrolytes. | Dr. Rajesh Kumar |
| 22. | Synthesis and in vitro evaluation of heterocyclic core moieties as multi drug resistance modulators | Dr. Kamaldeep Paul |
| 23. | Synthesis and in vitro evaluation of fused heterocycles and triazine analogues | Dr. Kamaldeep Paul |
| 24. | Synthesis and in vitro evaluation and structure activity relationship of some heterocyclic imidazoazine derivatives | Dr. Kamaldeep Paul |

25.	Fluorescent dyads as sensors for certain cations and anions	Drs. Kamaldeep Paul/Vijay Luxami
26.	Asymmetric Total Synthesis of Biologically Active Natural Products Employing Chiral Catalysts	Dr. Satyendra Kumar Pandey
27.	Total Synthesis of Bioactive Natural Products Employing[3+2] cycloaddition and Chiral Catalysts	Dr. Satyendra Kumar Pandey
28.	Total Synthesis of Biologically Active Natural Products Involving Asymmetric Induction using Transition Metal Chiral Complexes	Dr. Satyendra Kumar Pandey
29.	ESIPT and AIE based molecules as sensors and logic devices	Dr. Vijay Luxami
30.	Copolymerization of propylene oxide and carbon dioxide.	Dr. Rajeev Mehta

10. List of completed Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1.	Biosensor for organophosphorus pesticides detection by the fabrication of ZnO nanoparticles	Dr. Susheel Mittal
2.	Photocatalytic Degradation of Some Pesticides and Polycyclic Aromatic Hydrocarbons by Metal Doped Titania	Dr. Satnam Singh and Dr. Bonamali Pal
3.	Metal Oxide Based Nanofluids: Effect of Shapes, Silica Coating and Laser Irradiation on Thermal Conductivity by Bhupender Pal (Regn. No. 901109007) URB-13 nd March.-2013	Dr. Bonamali Pal
4.	Photocatalytic Reduction of Nitroaromatics by Bare/Metal-TiO ₂ Nanostructures by Jaspreet Kaur (Regn. No. 901109005) URB-2 nd March.-2013	Dr. Bonamali Pal
5.	Synthesis and Catalytic Applications of Transition Metal Incorporated Mesoporous Materials Shweta Sareen (Regn. No.901109003) URB-2 nd March.-2013	Dr. Bonamali Pal
6.	Studies on cetane number and lubricity of additives from vegetable oils	Dr. Amjad Ali
7.	Heterogeneous catalysis for biodiesel production from triglycerides	Dr. Amjad Ali/Satnam Singh
8.	Lipase catalyzed transesterification reactions of triglycerides	Dr. Amjad Ali
9.	Agricultural based low cost adsorbents for the removal of metal ions from aqueous solutions	Dr. Amjad Ali
10.	Preparation and characterization of mixed metal oxides for transesterification of triglycerides	Dr. Amjad Ali

S. No.	Title of the Thesis	Name of the Supervisor(s)
11.	Calcium and zirconium oxide based solid catalysts for the transesterification of low quality triglycerides	Dr. Amjad Ali
12.	Kinetic and thermodynamic studies on effect of chaotropic and kosmotropic cosolvents on proteins	Dr. Rajesh Kumar
13.	Design, synthesis of benzimidazole core moieties and structure activity relationship studies based on in vitro evaluation as anticancer drug	Dr. Kamaldeep Paul

11. List of M. E./M. Sc. Thesis/dissertations

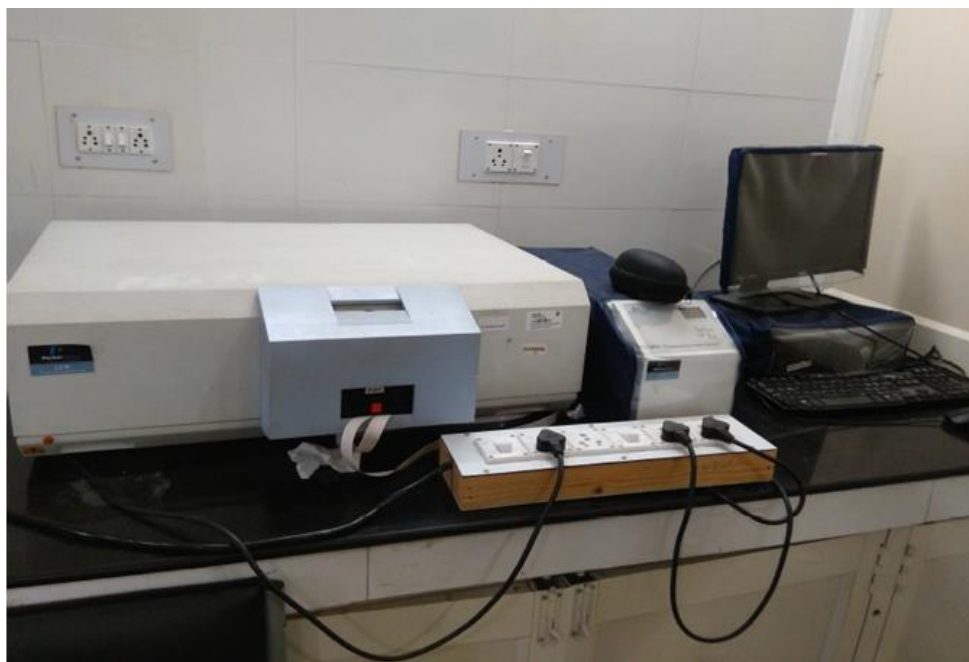
S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
1.	Biosensor for organophosphorus pesticides detection by the fabrication of ZnO nanoparticles	Dr. Susheel Mittal
2.	Photocatalytic activity of SBA-15/TiO ₂ Nanocomposites on Industrial hazardous Materials	Satnam Singh Soumen Basu
3.	Biosynthesis of Selenium (Se) nanoparticles and their use as co-catalyst for Zinc Sulphide (ZnS) photocatalysed degradation of dye	Drs. N. Tejo Prakashand Dr. Bonamali Pal
4.	Carbohydrate-directed Synthesis of Silver and Copper Nanoparticles, and their Antibacterial Property	Drs. Niranjana Das and Bonamali Pal
5.	Synthesis Of Different Morphological Nanostructures Of Titanium Dioxide And To Study Their Photocatalytic Applications	Drs. Bonamali Pal and Amjad Ali- July 15, 2015
6.	Role of Guanidine and Methylguanidine Hydrochloride on the thermodynamic Stability and Internal Dynamics of Horse Cytochrome c	Dr. Rajesh Kumar & Dr. Ranjana Prakash
7.	Estimation of the Deprotection of phenols using 2,4 - Dinitro -1-Fluorobenzene using H ¹ - NMR	Dr. Manmohan Chhibber
8.	Synthesis of aminoacetamide substituted naphthalimide derivatives.	Dr. Kamaldeep Paul
9.	InCl ₃ Catalyzed Regioselective Opening of Epoxide with Indole-Enantioselective Synthesis of Sattazolin	Dr. Satyendra Kumar Pandey
10.	Dicyano-substituted benzimidazole derivative as anion sensor	Dr. Vijay Luxami

12. List of equipment procured

An Incubator shaker with refrigerator worth USD 12979 and small equipments like Digital Potentiometer, Bomb colorimeter, Cloud & Pour Apparatus, Flash Point Apparatus, Red Wood Viscometer, Softing Point Apparatus, Moisture meter, Digital Nephelometer and Digital Conductivity meter worth Rs. 4.5 lacs were procured.

13. Information regarding foreign visits

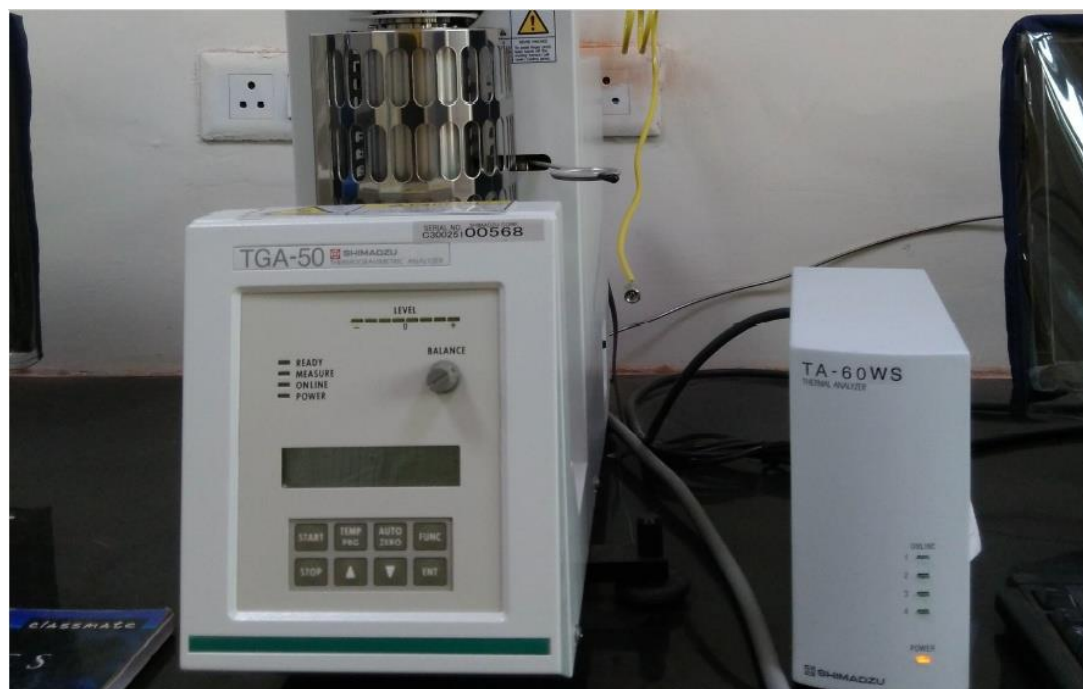
S. No.	Name of the faculty	Host Organization	University/	Nature of work	Month and Year of visit
1.	Dr. Satnam Singh	Chaired technical session in International conference, “Advances in Functional Materials” held at Stony Brook University, New York, USA.		Research	June 29 to July 3, 2015.
2.	Dr. Kamaldeep Paul	15 th tetrahedron conference-Asian Edition: Challenges in Bioorganic and Medicinal Chemistry, Singapore EXPO, Singapore		Conference	Oct 28-31, 2014
3.	Dr. Vijay Luxami	15 th tetrahedron conference-Asian Edition: Challenges in Bioorganic and Medicinal Chemistry, Singapore EXPO, Singapore		Conference	Oct 28-31, 2014



Spectrofluorimeter



HPLC (High Performance Liquid Chromatography)



TGA (Thermo Gravimetric Analyzer)



BE/BTECH Laboratory

SCHOOL OF ENERGY & ENVIRONMENT

School of Energy and Environment initiated M.Tech Program in Energy Technology and Management with effect from academic year 2013-14. The programme is aimed at training students towards a successful career in energy industry; regulatory agencies and academic institutions. The courses of contemporary importance include renewable energy technologies focusing on solar, wind and bioenergy; fuel cell technology; and hydrogen fuel. The successful graduates from the school would be enriched with fundamentals in the area of energy resources, technologies and management and capable of addressing the present and potential future energy problems. In addition, the graduates would acquire the skills and expertise needed for energy monitoring, management and auditing as well as planning and implementation of energy projects. The school envisions working in close collaboration with industry and involves one year of project work at real-time industrial environment that aims to facilitate students to gain hand-on experience on energy planning and management systems. This novel programme, being first in this region of the country, is expected to attract diverse variety of engineering and technology streams.

Section 1

1. Academic Programs

M.Tech. Environment Science and Technology
M.Tech. Energy Technology and Management
M.Sc. Environmental Sciences
Ph.D

2. Thrust areas of research

Bioaccessibility and bioactivity of selenium from dietary sources
Solar Energy Conversion Technologies, Bio-mass for Energy Generation
Microbial Technology/Solid based
Waste Water Treatment
Air Pollution Control & Modeling
Energy, Environment Technology & Management

3. Brief description of ongoing research activities (with pictures of key experimental setups or equipment)

The studies related to bioaccessibility and bioactivity of selenium has been in progress through projects sponsored by DBT and CSIR. The observations indicated significantly high anti-oxidant activity of Se rich dietary matrices such as wheat, rice, maize and wheat-grass collected from seleniferous soils of Punjab, in studies carried out using *in-vitro* and cell culture systems. Some salient findings include (a) identification of selenoergothioneine, a bioactive natural compound, in Se-rich mushrooms; (b) and high lipid peroxidation, metal scavenging and anti-oxidant activity in Se-hyperaccumulated wheat grass.

The degradation studies of pharmaceuticals compounds and pesticides using advanced oxidation processes have been in progress. The efforts have been made to search novel fixed

bed materials for executing solar photo catalytic reactors. Research on the impact of stubble burning on the local environment as well as long range transport of pollutant along with its modeling.

4. Major acquisitions during the year and new laboratory development

1. Energy kit comprising Infrared thermometer, Lux meter, Tachometer
2. Thermal image analyzer
3. Solar module analyzer
4. Pyrliometer for solar radiation measurement
5. Solar PV system
6. Model wind turbine system

5. Departmental Achievements

- Papers published in SCI Journals : 10
- Papers published in Non SCI Journals : 09
- Papers published in conferences : 19
- Sponsored Research Projects Ongoing : 05 (Rs 111.00 Lacs)
- Consultancy Projects : 03 (Rs 2.00 Lacs)
- Doctoral Degree Awarded : 01
- Visits abroad by faculty members : 01

Section 2:

1. List of faculty

Professor

S.No.	Name	Qualification & Specialization
1.	N.Tejo Prakash	M.Sc., PhD. Environmental Sciences
2	A S Reddy	Ph.D. (Environmental Management)

Assistant Professor

S.No.	Name	Qualification & Specialization
1	Dr. Anita Rajor	M.Sc., PhD, Microbial Technology/ Environmental Biotechnology
2	A. Venkatasubramanian	Ph.D & Solid Oxide Fuel Cells
3	K.Sudhakar Babu	M.Tech(Environmental Engineering)
4	Dr. Amit Dhir	Ph.D (Environment Engg.) ,M.Tech. (Env. Sc.

S.No.	Name	Qualification & Specialization
		&Engg.) B.E. (Chemical Engg.)
5	Dr. Anoop Verma	PhD, Environmental Engineering

2. List of research publications in SCI/Impact Factor journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
1.	An efficient TiO ₂ coated immobilization system for degradation studies of herbicide isoproturon: Durability studies	Chemosphere, 109: 7-13, 2014	Verma A, Tejo Prakash N, Toor AP	3.34
2.	Selenium in storage proteins of wheat cultivated on selenium impacted soils of Punjab	Acta Alimentaria, 44: 235-241	Jaiswal SK, Prakash R, Tejo Prakash N	0.45
3.	Degradation of Imidacloprid in liquid by <i>Enterobacter</i> sp. strain ATA1 using co-metabolism	Bioremediation Journal, 18 (3): 227-235	Teena Sharma, Anita Rajor, Amrit Pal Toor	1.27
4.	Strength and Microstructure Analysis of Bacterial Treated Cement Kiln Dust Mortar	Construction and Building Materials, 63: 49-55	Kunal, Rafat Siddique and Anita Rajor	2.265
5.	Experimental investigation of performance and emissions characteristics of waste cooking oil biodiesel and n-butanol blends in a compression ignition engine	RSC Advances, 5, 33863-33868, 2015	M Jindal, P Rosha, S K Mahla and Amit Dhir	3.84
6.	Optimization of photocatalytic process parameters for the degradation of acrylonitrile using Box Behnken Design	Desalination & Water Treatment	Priyanka Singh, Amit Dhir and V. K. Sangal	1.173
7.	Atmospheric Fine and Coarse Mode Aerosols at Different Environments of India and the Bay of Bengal during Winter-2014: Implication of a Coordinated Campaign	MAPAN-Journal of Metrology Society of India 29(4), 273-284.2014.	Amit Dhir et al.	0.786
8.	Solar Light Induced Photocatalytic Degradation of	Journal of Nano	Vibhu Bhatia, Amit Dhir & S K	1.556

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	Aspirin Using Doped TiO ₂ Nanoparticles	Science & Nano Technology	Kansal	
9.	Potential use of foundry sand as heterogeneous catalyst in solar photo-Fenton degradation of	International Journal of Environmental research, 9 (1), 85-92, 2015.	International Journal of Environmental research, 9 (1), 85-92, 2015.	1.1
10.	Development of multiple linear regression models for predicting the stormwater quality of urban sub-watersheds	Bulletin of Environmental Contamination and Toxicology 2014	Amit Dhir, Arora, A.S., Reddy, A.S.	1.216

3. List of research publications in Non-SCI/Non-Impact journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
1	Enhanced anti-oxidant activity as a function of selenium hyperaccumulation in <i>Agaricus bisporus</i> cultivated on Se-rich agri-residues	Journal of Biologically Active Products from Nature, 4: 354-364, 2014	Bhatia P, Pandey S, Prakash R, Tejo Prakash N
2	Antioxidant properties as a function of selenium uptake by edible mushrooms cultivated on selenium-accumulated waste post-harvest wheat and paddy residues	International Journal of Recycling of Organic Waste in Agriculture, 3: 127-132, 2014	Bhatia P, Prakash R, Tejo Prakash N
3	Bacterial Treatment and Metal Characterization of Biomedical Waste Ash	Journal of Waste Management, 2014: Article ID 956316, 6 pages, http://dx.doi.org/10.1155/2014/956316	Heera S, Kunal, Rajor A
4	Impacts of stubble burning on ambient air quality of a critically	Journal of Pollution Effects and Control,	Lippi Chanduka, Amit Dhir

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
	polluted area-MandiGobindgarh	2015	
5	Anew water quality index for irrigational use and water quality assessment of the Satluj river, Punjab, India.	Journal of environmental research and development (accepted), 2014	S. Sharma and A.S. Reddy
6	Ecological water quality index development and evaluation of water quality of the satluj river	Indian journal of environmental protection, 35(6), 477-489., 2015	Sharma, S., Dalwani, R., and Reddy, A.S.
7	Use of cluster analysis - A data mining tool for improved water quality monitoring of river satluj.	International journal of advanced networking applications, special edition: 63-68., 2014	Arora, N., Arora, A.S. Sharma, S. and Reddy, A.S.
8	Quantification of the hydrological impacts of imperviousness in urban catchments using WIN TR-55	International Journal of Advanced Technology in Engineering and Science, Vol. 3(01), pp 551-557., 2015	Megha Bedi:Amarpre S. Arora, A.S. Reddy
9	Book Chapter: RSM and ANN-GA experimental design optimization for electrocoagulation removal of chromium.	Book: Trends in Environmental Science and Technology. ISBN no : 978-93-81891-28-5, 2015 Editors: Hiroaki Furumai, AL. Ramanathan, Futoshi Kurisu, Absar Kazimi and Manish Kumar	Bhatti, M.S., Kapoor, D., Kalia, R.K., Reddy, A.S., Thukral, A.K.

4. Publication of papers in conference proceedings and other publications

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
1	Biogenesis of metal nanoparticles: our Experiences with selenium tolerant bacteria	Microscopy in Materials Science and Biomimetic Technology. DMSRDE-Kanpur, India, February 26-28, 2015: 44	N.Tejo Prakash
2	Edible mushrooms as potential selenium mobilizers from Se hyperaccumulated post-harvest agricultural residues of seleniferous region in Punjab, India	International Scientific Conference on Environmental Research, Lumbini, Nepal, November 1-3, 2014	Poonam Bhatia & N.Tejo Prakash
3	Novel Drying Technique for Aqueous Tapes of Gadolinium Doped Ceria	Conf deInternational Conference on Green Technologies For Environmental Pollution Control and Prevention, ICGTEPC (Sep27- 29, 2014), NIT-Trichy, India.	Sathish.P, Venkatasubramanian.A
4	Production of Economic Algal Biodiesel from Waste Algal Biomass in India	5 th International Conference on Algal Biomass, Biofuels and Bioproducts (Elsevier), San Diego, CA, USA. June 7-10, 2015	Rachan Karmakar, Anita Rajor, Krishendu Kundu, R.K. Pandey
5.	A review on use of low cost adsorbents for pesticide removal	National Seminar on Sustainable Renewable Energy Generation – Current Scenario on March 21, 2015 by Energy Research Centre, Panjab University, Chandigarh, pp. 49-50	Priyanka Goyal, Anita Rajor, Amrit Pal Toor, Kunal
6.	Bacillus sp. mediated treatment and utilization of cement kiln dust in concrete for sustainable environment	National Seminar on Sustainable Renewable Energy Generation – Current Scenario on March 21, 2015 by Energy Research Centre, Panjab University, Chandigarh, pp. 51-52.	Kunal, Anita Rajor and Rafat Siddique
7	An overview on microbial induced calcite precipitation for sustainable environment.	National Seminar on Sustainable Renewable Energy Generation – Current Scenario on March 21, 2015 by Energy Research Centre, Panjab University, Chandigarh, pp. 48-49.	Kulwinder Kaur, Anita Rajor, Kunal
8	Bioremediation of polyaromatic aromatic	National Seminar on Sustainable	Ipsita, Anita Rajor,

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
	hydrocarbon contaminated soil using	Renewable Energy Generation – Current Scenario on March 21, 2015	Kunal
9	Comparative studies on bacterial and fungal degradation of polycyclic aromatic hydrocarbons in soil – An overview	7 th National Conference on Recent Advances in Chemical, Biological and Environmental Sciences on 30-31st January, 2015, Multani Mal Modi College, Patiala, pp. 61.	Ipsita, Anita Rajor, Kunal
10	Degradation studies of antibiotic Cephalexin using slurry and fixed-bed photocatalysis	7 th National Conference on Recent advances in Chemical & Environmental Sciences (RACES-15) held at M. M. Modi College, Patiala, 30-31, January, 2015.	Anoop Verma, Palak Bansal, Kashish Aggarwal
11	Solar photo-Fenton degradation studies of fungicide Carbendazium using foundry sand as iron source	7 th National Conference on Recent advances in Chemical & Environmental Sciences (RACES-15) held at M. M. Modi College, Patiala, 30-31, January, 2015.	Anoop Verma, Kashish Aggarwal, Palak Bansal
12	Degradation of fungicide carbendazium (MBC) using immobilized TiO ₂ catalyst	7 th National Conference on Recent advances in Chemical & Environmental Sciences (RACES-15) held at M. M. Modi College, Patiala, 30-31, January, 2015.	Anoop Verma, Amanjit Singh
13	Fixed-bed solar photocatalytic reactor for the degradation of Isoproturon: Lab to pilot-scale	Advanced Oxidation Processes (AOP 2014), held at Munnar, Kerala on September 25-28, 2014	Anoop Verma, N. Tejo Prakash and Amrit Pal Toor
14	Photocatalytic degradation studies for Imidacloprid using immobilized TiO ₂	Advanced Oxidation Processes (AOP 2014), held at Munnar, Kerala on September 25-28, 2014	Amanjit Singh, Anoop Verma, Amrit Pal Toor and Amit Sobti
15	Solar parabolic collector assisted degradation of Amoxicillin tryhydrate	Advanced Oxidation Processes (AOP 2014), held at Munnar, Kerala on September 25-28, 2014	Divya Dixit, Anoop Verma, Amrit Pal Toor
16	Sustainable	Guru Grandh Sahib World University,	Amit Sobti A.S. Reddy

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
	development and value creation (invited paper)	2015	
17	Characterisation and Quantification of Pond Water in Micro Watershed of Village Kultham in	National Conf. on 'Geotechnical and Geo-Environmental Aspects of Wastes and their utilization in Infrastructure Projects, GNDEC, Ludhiana, 2014	Puneet Pal Singh, A.S. Reddy, Leena Garg
18	Development of Intensity-Duration-Frequency curves for the Rural watersheds of Punjab	National Conf. on 'Geotechnical Engg. Practice and Sustainable Infrastructure Development',, GNDEC, Ludhiana., 2014	Puneet Pal Singh, A.S. Reddy, Sukhpreet Kaur
19	Recycling and Reuse potential analysis in cotton textile processin	Third International Conference on Recycling and Reuse of Materials, IIUCNN, Mahatma Gandhi University, Kottayam, Kerala., 2014	H. Singh, A. S. Reddy

5. List of various faculty members who attended various conferences/ workshops/ short-term programs

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
1	N. Tejo Prakash	International Scientific Conference on Environmental Research	Lumbini, Nepal, November 1-3, 2014
2	N.Tejo Prakash	Microscopy in Materials Science and Biomimetic Technology.	DMSRDE-Kanpur, India, February 26-28, 2015
4	A.Venkatasubramanian	Alternate Energy Sources and Energy Conservation	NITTTR Chandigarh, 27-31 July 2015
4	Dr. Anita Rajor	5 th International Conference on Algal Biomass, Biofuels and Bioproducts (Elsevier),	San Diego, CA, USA. June 7-10, 2015
5	Dr. Anita Rajor	National Seminar on Sustainable Renewable Energy Generation – Current Scenario by Energy Research Centre, Panjab University, Chandigarh	Panjab University, Chandigarh March 21, 2015

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
6	Dr. Anoop Verma	Advanced Oxidation Processes (AOP 2014),	Munnar, Kerala on September 25-28, 2014
7	Dr. Anoop Verma	7 th National Conference on Recent advances in Chemical & Environmental Sciences (RACES-15)	Munnar, Kerala on September 25-28, 2014 M. M. Modi College, Patiala, 30-31, January, 2015
8	A.S Reddy	(Grid connected solar PV systems, organizers: GSES, India)	New Delhi (23-27 June 2015)

6. List of ongoing sponsored projects

S. No.	Name of the Project	Year of sanction	Funding Agency	Project cost(lacs)	Principal Investigator
1	Neuroprotective properties of selenoergothioneine sourced from selenium-rich mushrooms against oxidative stress and nitrosative damage in neuronal cells.	2012	DBT	18.9	N.Tejo Prakash
2	Studies on anti-inflammatory responses as function of bioavailable selenium from selenium-rich cereal grains	2012	CSIR	16.0	N.Tejo Prakash
3	Biofortification of Selenium in Edible Mushrooms from Se-rich Crop Residues	2013	DBT	24.25	N.Tejo Prakash
4	Utilization of cement kiln dust in concrete after removal of alkalinity and metal toxicity with microbes	2012	DST	27.00	Dr. Rafat Siddique
5	Applications of ionizing radiation in AOP based degradation of persistent pollutants from aqueous streams	2015	BRNS	24.83	Dr. Amit

7. List of completed sponsored projects

S. No.	Name of the Project	Funding Agency	Project Cost(Lacs)	Principal Investigator
1	Influence of bacteria on compressive strength and permeability of fly ash concrete	UGC	8.71	Dr. Anita Rajor
2	Feasibility study on the use of steel melting furnace slag/APCD dust as filler in the manufacture of fly ash bricks/Blocks	Jyoti Ind. Ludhiana	1.2	Dr. Amit Dhir

8. Consultancy/Testing assignments completed/ongoing

S. No.	Name of the Project	Name of the Faculty members involved	Amount Generated (in Rs)
1	EIA Consultancy (Eco Labs Chandigarh)	Dr. Amit Dhir	
2	Design of Effluent Treatment plant, Gillanders-Arbertas, a kothari group industry, ahmedgaarh	Dr. A. S Reddy	1,00,00/-
3	Design analysis and modification of the ETP, Sudson Woolen Ltd., Ludhiana	Dr. A.S Reddy	70,000/-

9. List of faculty members who have delivered invited lectures/talks etc. at various levels

S. No.	Name of the faculty member	Title of expert talk/lecture	Forum with date and venue
1.	Dr. Anoop Verma	Solar applications: A renewable energy source	Adesh institute of engineering and technology on 28 th May 2015
2.	Dr. Anoop Verma	Design, operation and control of Fermenter	STEP, TU, Patiala on June 20 & 21, 2014
3.	Dr. A.S. Reddy	Renewable Energy Resources: challenges and opportunities	A sustainable green development: Challenges and opportunities for young researchers, Rayat Bahra, Hoshiarpur (11-15th May 2015)

10. List of ongoing Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1	Bioaccessibility and bioactivity of selenium in cereals from seleniferous soils	N.Tejo Prakash
2	Development of xylanase based pulp bleaching process	N.Tejo Prakash & Ranjana Prakash
3	Studies on anti-inflammatory responses as function of bioavailable selenium from selenium-rich cereals grains	N.Tejo Prakash & Siddarth Sharma
4	Whole cell catalyzed generation of alkyl esters from acid oil	Ranjana Prakash & N.Tejo Prakash
5	Correlation and Source profiling of organic tarry matter and PAHs in fine particle matter in ambient air of urban area(Mr. Sandeep Grag)	Dr. Anita Rajor and Dr. Amit Dhir
6	Integration of Photocatalytic and Biological Processes for the Treatment of Bio-Recalcitrant Pharmaceuticals	Dr. Anita Rajor
7	Chemical Characterization and Source Apportionment of Air Borne Particulate Matter in the Western Region of India	Dr. Anita Rajor and Dr. R.S. Saini
8	Correlation of Source Profiling of Organic Tarry Matter and PAHs in Fine Particulate Matter in Ambient Air of Urban Area.	Dr.A.S Reddy
9.	Wastewater management studies in textile processing	Dr. A.S. Reddy
10.	Integrated water Resource Management Studies in Rural Human Settlements	Dr. A.S Reddy
11.	Management of Urban Storm water at Sub-watershed level: A case Study	Dr. A.S Reddy
12.	Water quality Management Studies on the River Satluj for the Protection of the Harike Wetland System	Dr. A.S Reddy and Dr. R. Dalwani

11. List of completed Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1	Microbial Treatment of Cement Kiln Dust for Utilization in Concrete (Mr. Kunal)	Dr. Anita Rajor
2	Sequential Microbial-photocatalytic process for degradation of neonicotinoid pesticide (Thesis Submitted) (Ms. Teena Sharma)	Dr. Rafat Siddique Dr. Anita Rajor Dr. Amrit Pal Toor
3	Reliability, Availability and Maintainability (RAM) Analysis of	Dr. A.S. Reddy, Dr. B.S. Bhatia & Dr. A.K. Lal

S. No.	Title of the Thesis	Name of the Supervisor(s)
	an Industrial Process.	

12. List of M. E./M. Sc. Thesis/dissertations

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
1	Biosynthesis of Se nanoparticles and their use as co-catalyst for ZnS photocatalysed degradation of dye	N.Tejo Prakash & Bonamali Pal
2	Comparative Study of Alcohol Blends on Biocatalyzed Hydrolysis and Transesterification of Cottonseed Oil	Ranjana Prakash & N.Tejo Prakash
3	In situ bioremediation of chromium contaminated soil using novel cationic lipopeptide biosurfactant from <i>Alcaligenes aquatilis</i> sp.	G..Sekharan and K.S.Babu
4	Life cycle assessment of a building at an Educational Institute	K..S.Babu
5	Degradation of polyaromatic hydrocarbons by bacteria in oil contaminated soil	Dr. Anita Rajor
6	Liquid -liquid Extraction of Indicator Dyes into Imidazolium based Ionic Liquids	Dr. Anita Rajor, Dr. Neetu Singh (CHED)
7	Comparison of Dispersion Models in the Assessment of Air Quality due to Vehicular Emissions	Dr. Amit Dhir
8	Assessment of the Use of Steel Slag and/or Air Pollution Control Devices Dust in manufacturing of Fly Ash Bricks/Blocks	Dr. Amit Dhir
9.	Studies on the Photoelectrocatalysis Induced Degradation of Pharmaceutical Drug Using Fabricated TiO ₂ Electrode	Dr. Amit Dhir
10	Treatment of Reactive Black 5 (RB 5) Dye Using Electrochemical Advance Oxidation Processes (EAOP's)	Dr. Amit Dhir, Dr. V.K. Sangal Dr. Anoop Verma
11	Heterogeneous photocatalytic (slurry and immobilized) and photo-Fenton (using Foundry Sand) degradation studies of 2-Chloro-4-nitrophenol	Dr. Anoop Verma
12	Investigations on the degradation of an antibiotic Cephalexin using suspended and supported TiO ₂ : Mineralization and	Dr. Anoop Verma

S. No.	Title of the Thesis/Dissertation	Name of the Supervisor(s)
	Durability studies	
13	Performance evaluation and Design analysis of the Sewage Treatment Plant based on the Anaerobic Baffled reactor	Dr. A.S. Reddy
14	Environmental Analysis of Thapar Technological Campus and Environmental Management Plan	Dr. A.S. Reddy

13. List of equipment procured

S. No.	Name of the equipment	Make	Name of the laboratory	Date of Purchase	Amount (Rs Lacs)
1.	Rotary evaporator vacuum pump.	IKA	Environment lab	22/7/2014	3, 12, 165/-
2	DGPS (differential global positioning system)	Trimble	Air Lab	30/2/2015	800,000/-
3	Digas444 Gas analyzer with acc. As per PO machine	AVL	Air Lab	23/3/2015	3, 99, 950/-
4	Pyranometer integral sensor with meter MP10	Spectra electronics	Energy lab	30/3/2015	42, 188/-
5	A)Bio energy kit . B) Bomb calorimeter	Widson scientific	Energy Lab	30/3/2015	99,259/-
6	Clamp on power logger	Anand electronics	Energy Lab	31/3/2015	2,13,366/-
7	Micro -processo viscometer	Systonic	Enargy Lab	11/4/2015	99,461/-
8	Magnetic stirrer 6 nos.	Remi	Environment Lab	16/3/2015	47,896/-

9	Jar test apparatus	Microtech Scientific	Environment Lab	4/5/2015	28,125/-
10	Infrared moisture balance with display	Advanced research instruments Instrumex	Eneegy lab	4/5/2015	28,125/-
11	Fine dust sampler		Air Lab	10/7/2015	1,49,963/-

14. Computing facilities in the Department

S. No.	Details of the Hardware/Software	Name of the Laboratory
1.	12 DELL PC (i7, 4GB RAM, 500 GB Hard disk))	Modeling lab
2.	AERMOD Ver 8.8.9	Modeling lab
3.	Calpuff Ver 7.2.0	Modeling lab
4.	Calroads Ver 6.2.6	Modeling lab

SCHOOL OF MATHEMATICS AND COMPUTER APPLICATIONS

School of Mathematics (SoM) contributes to the mission of the University by providing mathematics majors to other engineering department and schools and also run own courses of PG level M.Sc. and Ph.D. SoM seeks to provide the students with experiences that will assist them in defining their career objectives. The faculty of SoM is committed for maintaining the high standards of teaching and research in mathematics and its applications. The School is committed to provide quality teaching with modern infrastructure and syllabus.

Section 1

1. Academic Programs

The school offers PG programme M.Sc. in Mathematics and Computing (Regular mode). School also offers doctoral programme in Mathematics leading to PhD degree. Further school is also engaged in imparting instructions in core courses on Mathematics to UG and PG students of the University.

2. Thrust areas of research

Functional Analysis, Theoretical Astrophysics, Reliability, Operations Research, Numerical Analysis, Partial Differential Equations, Algebra, Fuzzy Reliability Analysis, Fuzzy Optimization, Partition Theory, Number Theory, Mechanics, Fluid Dynamics, Mathematical Programming.

3. Brief description of ongoing research activities

The faculties of mathematics are highly dedicated and actively engaged in the following research fields: L^1 convergence of trigonometric series, Automorphism of finite p-group, Enumerative combinatorics, Operation research, Reliability, Fuzzy optimization, Numerical analysis, Differential equations, Computational fluid dynamics, Theoretical astrophysics, Mechanics.

4. Activities round the year (2014-15)

In addition to teaching various courses of UG and PG level during the session 2014-15, faculty of the School was involved in various research activities which produced good quality publications in refereed international journals. The research activity also includes the supervising of PDF, Ph.D and M.Sc thesis. Details of thesis and publications are followed in following sections.

Several faculty members and students have participated in several national and international conferences and academic events. Various expertises also visited our department and delivered expert lectures. Details of expertise visits are given in section 13. School also hosted one "International Conference on Special Functions and their Applications (ICSFA-2014)" during October 16-18, 2014.

5. New Plans and Projects

The forthcoming activities of the School includes (but not limited to):

- i) To submit proposal to DST for FIST or UGC for SAP program.
- ii) To organize two short term Courses/Workshops/Refresher Programs
- iii) To publish high quality research papers in SCI Journals (50 SCI papers).
- iv) Set of new infrastructure which includes two Labs (including one Research Lab) with modern high-speed computers and software.
- v) Around 5 major research projects with funding amount Rs 60 Lakhs from various central funding agencies as CSIR, DST, UGC, NBHM etc.

6. Major acquisitions during the year and new laboratory development

- a. New upcoming Seminar hall for the School of Mathematics (under implementation/ tendering process)
- b. Research lab-cum-library

7. Departmental Achievements

• Papers published in SCI Journals	:	60
• Papers published in Non SCI Journals	:	20
• Sponsored Research Projects	:	04(Rs 35.43 Lac)
• Sponsored Research Projects Ongoing	:	06(Rs 43.69 Lac)
• Seminar/Conference/Workshop organized:		01
• Doctoral Degree Awarded	:	05
• Lectures by visiting experts	:	07
• Visits abroad by faculty members	:	03
• Awards and Honors	:	01

Section 2:

1. List of faculty

Professor

S.No	Name	Qualification	Specialization
1	Dr. S.S. Bhatia	Ph.D.	Functional Analysis

Associate Professor

S.No	Name	Qualification	Specialization
1	Dr. Arvind Kumar Lal	Ph.D.	Theoretical Astrophysics/Reliability/ Numerical Analysis
2	Dr. M K Sharma	Ph.D.	Theoretical Astrophysics, Optimization Techniques
3	Dr. Deepak Gumber	Ph.D.	Algebra

Assistant Professors

S.No	Name	Qualification	Qualification & Specialization
1	Dr. Rajesh Kr. Gupta	Ph.D	Differential Equations
2	Dr. Meenakshi Rana	Ph.D	Partition Theory, Number Theory

3	Dr. Amit Kumar	Ph.D	Fuzzy Reliability Analysis, Fuzzy Optimization, Numerical Analysis, Optimization
4	Dr. Satish Kumar	Ph.D.	Mechanics
5	Dr. Ankush Pathania	Ph.D.	Astrophysics
6	Dr Jatinderdeep Kaur	Ph.D.	Fourier Analysis /Functional Analysis
7	Dr. Vivek	Ph.D.	Numerical Analysis, Finite Element Analysis
8	Dr. Sanjeev Kumar	Ph.D,	Numerical Analysis
9	Dr. Paramjeet Singh	Ph.D.	Numerical Analysis of PDE
10	Dr. Vikas Sharma	Ph.D.	Operation Research /Mathematical Programming
11	Dr. Anil Gaur	Ph.D.	Nonparametric Statistics, Order Restricted Statistical Inference
12	Dr. Harish Garg	Ph.D.	Reliability, Evolutionary Algorithms, Fuzzy Set Theory
13	Dr. Sapna Sharma	Ph.D.	Discontinuous Galerkin Method, Computational Fluid Dynamics, Finite Element Method
14	Dr. Hemant Kalra	Ph.D.	Algebra, Group Theory
15	Dr. Sumit Chandok	Ph.D.	Fixed Point Theory, Approximation Theory

Assistant Professors (Contractual)

S.No.	Name	Qualification	Specialization
1	Dr. Mohd. Salahuddin Khan	Ph.D.	Ring Theory
2	Dr. Raj Nand Keolyar	Ph.D.	Fluid Mechanics

Lecturers (Contractual)

S.No.	Name	Qualification	Specialization
1	Dr. Navdeep Kailey	Ph.D.	Duality theory in non linear programming (Optimization)
2	Ms. Jolly Puri	M.Sc.	Applied Mathematics
3	Mr. Amit Kaushal	M.S.	Algebra, Topology, Algebra Topology

2. List of research publications in SCI/Impact Factor journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
1	Velocity dispersion in an elastic plate with microstructure effects of characteristic length in a couple stress model-	Meccanica”(2014) 49:1083–1090	Vikas Sharma, Satish Kumar	1.815
2	Dynamic response of normal moving load on an irregular fibre -reinforced half-space, Journal of vibration and control	Journal of vibration and control-publish online march, 2014 DOI: 0.1177/1077546314528525	Tanupreet Kaur, Abhishek Kumar Singh, Amares Chattopadhyay Satish Kumar	4.355
3	Dimensions and equilibrium structures of the primary components of the nonsynchronous binary systems	New Astronomy (2014), 26, 1-11	Pathania, A and Medupe, T	1.146
4	The conjugacy class number $k(G)$: A different perspective	Communication in Algebra, 43: 4836-4838, 2015 DOI: 10.180/00927872.2014.953406	Deepak Gumber and Hemant Kalra	0.388
5	A note on conjugacy classes of finite groups	Proc. Indian Acad. Sci. (Math. Sci.) Vol. 124, No. 1, February 2014, pp. 31-36	Deepak Gumber and Hemant Kalra	0.380
6	Finite p-groups with central automorphism group of minimal order	Communication in Algebra, 43: 1802-1806, 2015 DOI: 10.180/00927872.201	Deepak Gumber and Hemant Kalra	0.388

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
		3.876237		
7	IA-automorphisms of finitely generated nilpotent groups	Journal of algebra and its Applications, Vol. 13, No. 7 (2014)	Sandep Singh, Deepak Gumber and Hemant Kalra	0.36
8	Class-preserving automorphisms of some finite p-groups	Proc. Indian Acad. Sci. (Math. Sci.) Vol. 125, No. 2, May 2015	Deepak Gumber and Mehak Sharma	0.380
9	Coincidence and Common Fixed Point Results For Generalized α - ψ Contractive Type Mappings With Applications	Bulletin of the Belgian Mathematical Society Simon Stevin , 22 (2015), 299–318	Priya Shahi, Jatinderdeep Kaur, S.S. Bhatia	0.36
10	Fixed point theorems for α - ψ -contractive type mappings of integral type with applications	Journal of Nonlinear and Convex Analysis, 16, (4), 2015, 745-760	Priya Shahi, Jatinderdeep Kaur, S.S. Bhatia	0.906
11	Integrability and L1-convergence of fuzzy Trigonometric series with special fuzzy coefficients	Journal of Non- Linear Science and Applications, 8, 2015,23-39	Sandeep Kaur and Jatinderdeep Kaur	1.0756
12	Generalized (ξ, α) -expansive mappings and related fixed-point theorems	Journal of Inequalities and Applications.2014, 2014:22	Erdal Karapınar, Priya Shahi, Jatinderdeep Kaur, S.S. Bhatia	0.77
13	Common Fixed Points of Expansive Mappings in Generalized Metric Spaces	Journal of Applied Research and Technology,12(3), 2014,607-614	Priya Shahi, Jatinderdeep Kaur, S.S. Bhatia	0.44
14	Equilibrium structure of rotationally and tidally distorted Prasad model including the effect of mass variation inside the stars	Astrophysics, Vol. 57, No. 1, 129-138, 2015	Seema Saini, Sunil Kumar, A.K. Lal	0.707

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
15	A robust computational technique for a system of singularly perturbed reaction - diffusion equations	International Journal of Applied Mathematics and Computer Science, Vol. 24 (2), 387-395, 2014	Vinod Kumar, Rajesh Kumar Bawa and A. K. Lal	1.39
16	Vibrational stability of differentially rotating polytropic stars	Astrophysics, 58 (1), 120-130, 2015	Sunil Kumar, A. K. Lal, and Seema Saini	0.707
17	Dissipative effects in hydromagnetic boundary layer nanofluid flow past a stretching sheet with Newtonian heating	Journal of Applied Fluid Mechanics, Accepted 2015	B. K. Mahatha, R. Nandkeolyar, G.K. Mahato, P. Sibanda	0.746
18	Viscoelastic nanofluid flow and radiative nonlinear heat transfer over a stretching sheet	Journal of Computational & Theoretical Nanoscience, Vol. 12, 1 – 10, 2015	Md. S. Ansari, R. Nandkeolyar, S. S. Motsa, P. Sibanda	1.343
19	MHD Free Convection Flow Past a Flat Plate With Ramped Wall Temperature and Radiative Heat Transfer in the Presence of Porous Medium and an Inclined Magnetic Field	Computational and Applied Mathematics, Vol 34(1), 109-123, 2015	R. Nandkeolyar, M. Das	0.473
20	Unsteady hydromagnetic natural convection flow past an impulsively moving vertical plate with Newtonian heating in a rotating system	Journal of Applied Fluid Mechanics, Vol 8(3), 623-633, 2014	G. S. Seth, S. Sarkar, R. Nandkeolyar	0.746
21	Heat transfer in nanofluid flow with homogeneous-heterogeneous reactions and internal heat generation	Journal of Heat Transfer, Transactions of ASME, Vol. 136(12), 122001-9, 2014	R. Nandkeolyar, P. K. Kameswaran, S. Shaw, P. Sibanda	1.450
22	Unsteady hydromagnetic flow of a heat absorbing dusty past a vertical permeable plate with	Journal of Applied Fluid Mechanics, Vo. 7(3), 485-492, 2014	M. Das, B. K. Mahatha, R. Nandkeolyar, B. K. Mandal, K.	0.746

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	ramped wall temperature		Saurabh	
23	Multi-objective optimization problem of system reliability under intuitionistic fuzzy set environment using Cuckoo search algorithm	Journal of Intelligent and Fuzzy Systems, IOS Press, 2015, 1 – 17	Harish Garg	1.812
24	Predicting uncertain behavior in critical engineering systems under vague environment	Journal of Multiple Logic and Soft Computing, Old city Publishing, 25(1), pp. 1 – 20, 2015	Harish Garg	1.047
25	A novel approach for analyzing the reliability of series-parallel system using credibility theory and different types of intuitionistic fuzzy numbers	Journal of Brazilian Society of Mechanical Sciences and Engineering, Springer, online, doi: 10.1007/s40430-014-0284-2	Harish Garg	0.429
26	An approach for analyzing the reliability of industrial system using fuzzy Kolmogorov's differential equations	The Arabian Journal for Science and Engineering, Springer, 40(3), pp. 975 – 987, 2015	Harish Garg	0.367
27	A novel approach for analyzing the behavior of industrial systems using weakest t-norm and intuitionistic fuzzy set theory	ISA Transactions, Elsevier, 53, pp. 1199 – 1208, 2014	Harish Garg	2.984
28	Performance and behavior analysis of repairable industrial systems using Vague Lambda – Tau methodology	Applied Soft Computing, Elsevier, 22, pp. 323 – 338, 2014	Harish Garg	2.810
29	Analyzing the behavior of an industrial system using fuzzy confidence interval based methodology	National Academy Science Letters, Springer, 37 (4), pp. 359 – 370, 2014	Harish Garg	0.292

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
30	Vibrational stability of differentially rotating polytropic stars	Astrophysics, 58 (1), 120-130, 2015	Sunil Kumar, A. K. Lal, and Seema Saini	0.707
31	Solving structural engineering design optimization problems using an artificial bee colony algorithm	Journal of Industrial and Management Optimization, AIMS Publishers, 10(3), pp. 777 – 794, 2014	Harish Garg	0.843
32	Bi-objective optimization of the reliability-redundancy allocation problem for series-parallel system	Journal of Manufacturing System, Elsevier, 33(3),pp. 335 – 347, 2014	Harish Garg, Monica Rani, S.P. Sharma & Yashi Viishwakarna	1.682
33	Intuitionistic fuzzy optimization technique for solving multi-objective reliability optimization problems in interval environment	Expert Systems with Applications, Elsevier, 41(7), pp. 3157 – 3167, 2014	Harish Garg, Monica Rani, S.P. Sharma & Yashi Viishwakarna	2.240
34	Performance analysis of repairable industrial systems using artificial bee colony and fuzzy methodology	International Journal of Artificial Intelligence Tools, World-Scientific, 23 (5), 1450008 (23 pages), 2014	Harish Garg, Monica Rani, S.P. Sharma	0.393
35	Equality of certain automorphism groups of finite p-groups	Journal of Algebra and its Applications (Accepted)	Deepak Gumber and Hemant Kalra	
36	Four-way combinatorial interpretations of some Rogers-Ramanujan type identities	ARS –Combinatoria, (2014)	J. K. Sareen and M. Rana	0.268
37	Generalized Krasnoselskii fixed point theorem involving auxiliary functions in 342iometric spaces and application to two-point boundary value problem	Applied Math. Computation 248 (2014), 323-327	M. Berzig, Sumit Ch andok and M.S. Khan	1.6

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
38	Fixed point theorems on b -metric spaces for weak contractions with auxiliary functions	J. Inequalities Appl. 2014, 2014:429	A.H. Ansari, Sumit Chandok and C. Ionescu	0.82
39	Some fixed point theorems for (α, ψ) -rational type contractive mappings	Fixed Point Theory Appl. 2015, DOI 10.1186/s13663-015-0332-3	H.Alsulami, Sumit Chandok, M. A. Taoudi and I. M. Erhan	2.5
40	Some Invariant Solutions of Field Equations with Axial Symmetry for Empty Space Containing an Electrostatic Field	Applied Mathematics and Computation, 231 (2014) 560-565	Lakhveer Kaur and R.K. Gupta	1.317
41	Lie Symmetry Analysis and Exact Solutions for a Variable Coefficient Generalized Kuramoto-Sivashinsky Equation	Romanian Reports in Physics 66 (2014) 923-928	Rajeev, R.K. Gupta and S.S. Bhatia	1.123
42	Symmetry Analysis and Some Solutions of Gowdy Equation	Romanian Journal of Physics 60 (2015) 15-21	Rajeev, R.K. Gupta and S.S. Bhatia	0.526
43	Exact and Numerical Solutions of Coupled Short Pulse Equation with Time Dependent Coefficient	Nonlinear Dynamic 790 (2015) 455-464 SCI	R.K. Gupta, Vikash Kumar and Ram Jiware	3.009
44	Painleve Analysis and Some Solutions of Variable Coefficients Benny Equation	Parmana-Journal of Physics (Accepted)	Rajeev, R.K. Gupta and S.S.Bhatia	0.575
45	Applications of MAPLE software to Derive Exact Solutions of Generalized Fifth – Order Korteweg – De Vries Equation with Time – Dependant Coefficients	Romanian Reports in Physics SCI (Accepted)	Nisha Goyal, A.M. Wazwaz and R.K. Gupta	1.123
46	A class of integer linear fractional bilevel programming	Lotunuzatuibm 63(10), 1565-1581, 2014	Vikas Sharma, Kalpana Dahiya,	0.7

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	problems		Vanita Verma	
47	Effect of multi-phase optimal velocity function on jamming transition in a lattice hydrodynamic model with passing	Nonlinear Dyn (2015) 80:1091-1108 Springer	Arvind Kumar Gupta, Sapna Sharma, Poonam Dedhu	2.419
48	Effect of driver's anticipation in a new two-lane lattice model with the consideration of optimal current difference	Nonlinearar Dy (2015) 81:991-1003 Springer	Sapna Sharma	2.419
49	Lattice hydrodynamic modeling of two-lane traffic flow with timid and aggressive driving behavior	Physica A 421 (2015) 401-411 Elsevier	Sapna Sharma	1.722
50	Analyses of lattice traffic flow model on a gradient highway	Communication in theoretical Physics, (2015) 62, 393	A. K. Gupta, S. Sharma, P. Redhu	1.049
51	Duality theory for optimization problems with interval – valued objective functions	Journal of Optimization Theory and Applications, DOI: 10.1007/s10957-015-0784-y, 2015	Harwinder Kaur and Amit K	1.509
52	A fuzzy approach to transport optimization problem	Optimization and Engineering, DOI: 10.1007/s11081-015-9279-9, 2015	Sukhpreet KaurSidhu, Amit Kumar and Amarpreet Kaur	1.233
53	Generalized fuzzy linear programming for decision making under uncertainty: Feasibility of fuzzy solutions and solving approach	Information Sciences, Vol. 266, pp226-227, 2014	Amit Kumar, S.S. Appadoo and C. R. Bector	4.038
54	A new algorithm to solve fully fuzzy linear programming problems using the MOLP	Applied Mathematical Modelling, http://dx.doi.org/10.1016/j.apm.201	Bindu Bhardwaj and Amit Kumar	2.251

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	problem	4.07.033, 2014		
55	A linear programming approach for solving fuzzy critical path problems with fuzzy parameters	Applied Computing, Vol. 21, 309-319, 2014	Parampreet Kaur and Amit Kumar	2.810
56	A simplified novel technique for solving fully fuzzy linear programming problems	Journal of Optimization Theory and Applications, Vol. 163, 685 – 696, 2014	Bindu Bhardwaj and Amit Kumar	1.509
57	On rings and algebras with derivations	J. of Algebra Applications, DOI: 11.1142/SO219498816501073	S. Ali, M. S. Khan, A. N. Khan and N. M. Muthana	0.373
58	A characterization of generalized derivations on prime rings	Communication Algebra, accepted, 2015	A. Alhamadi, S. Ali, A. N. Khan and M. S. Khan	0.388
59	Generalized sequential convergence in fuzzy neighborhood spaces	National Academy Sciences Letters, Vol. 38, Issue 2, PP-161-164, April 2015	Pankaj Kumar, S.S. Bhatia, V. Kumar	0.29
60	Reliability based design optimization of concrete mix proportions using generalized ridge regression model	International Journal of Science and Engineering , Vol.8(1), 26-37, 2015	Rachana Agarwal, M. K. Sharma, R. K. Sharma, and Manik Kumar	0.20

3. List of research publications in Non-SCI/Non-Impact journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
1	On L1-Convergence of Fuzzy Modified Cosine Sums	Mathematical Sciences International Research Journal 4(1) 2015, 104-107	Sandeep Kaur and Jatinderdeep Kaur
2	Common fixed point results for weakly isotone increasing mappings in partially ordered b-metric like spaces	International Journal of Functional Analysis, Operator Theory and Applications, 7(1), 2015, 19-56. (I.F. 0.745	Kapil Chawla and Jatinderdeep Kaur

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
3	Lebesgue Convergence of Modified Complex Trigonometric Sums	International Journal of Emerging Technologies in Computational and Applied Sciences, 2(11) 2015, 110-114. (I.F. 1.23)	Jatinderdeep Kaur, Sandeep Kaur and S.S. Bhatia
4	Integrability and L1-convergence of mixed Trigonometric series	Mathematical Sciences International research Journal 3(1) 2014, 96-99	Jatinderdeep Kaur
5	Analytical and computational studies of availability of complex industrial system	International Journal of Research in Advent Technology, Vol-2 (2), 69-82, 2014	Shakuntala, A. K. Lal and S. S. Bhatia
6	Analysis of non-markovian process by the inclusion of supplementary variables	International Journal of Research in Advent Technology Vol. 2 (2), 181-192, 2014	Shakuntala, A. K. Lal and S. S. Bhatia
7	Predicting total number of failures in a software using NHPP software reliability growth models	Advances in Intelligent systems and computing, Vol. 259, 715-727, 2014	P. Panwar and A. K. Lal
8	Newtonian Heating Effect on Unsteady Hydromagnetic Casson Fluid Flow Past a Flat Plate With Heat and Mass Transfer	Alexandria Engineering Journal, accepted 2015	R. Mahto, M. Das, R. Nandkeolyar
9	Viscous dissipation and Newtonian heating effects on free non-linear convection in a nanofluid saturated porous media	Open Journal of Heat, Mass & Momentum Transfer, Vol 2(3), 87-97, 2014	R. Nandkeolyar, A. Sutradhar, P.V.S.N. Murthy, P. Sibanda
10	Unsteady MHD free convection flow of a heat absorbing dusty fluid past a flat plate with ramped wall temperature	Afrika Matematika	R. Nandkeolyar, M. Das.
11	Cost Analysis of a two-unit standby industrial system with varying demand	International journal of Research in ardent, Vol. 3(3), 2015	Rachna Khurana, A . K. Lal, S.S. Bhatia, R.K. Tuteja
12	Efficient families of Newton's method and its variants suitable for non-convergent cases	Accepted, Afrika Mathematica, Springer	V. Kanwar, Sanjeev Kumar, Munish Kansal, Arvind Garg.

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
13	A class of integer linear fractional bilevel programming problems	Optimization, 63(10), 1565-1581, 2014	Vikas Sharma, Kalpana Dahiya, Vanita Verma
14	Lie Group Analysis, Numerical and Non-Traveling Wave Solutions for the (2+1) Dimensional Diffusion – Advection Equation with Variable Coefficient	Chinese Physics B, 23 (2014) 030201 (6 pp)	Vikas Sharma, R.K. Gupta and Ram Jiware
15	Polynomial Differential Quadrature Method for Numerical Solutions of the Generalized Fitzhugh - Nagumo Equation with Time-Dependant Coefficients	Ain Shams Engineering Journal 5 (2014) 1343-1350	Ram Jiware, R.K. Gupta and Vikas Kumar
16	On combinational Extensions of some mock theta functions using signed partitions	Advances in Theoretical & Applied mathematics (ATAM) (accepted)	M. Rana and J.K. Sareen
17	Dynamic Task Allocation in distributed computing systems by heuristic algorithms	International Journal of Operational Research 21(4), 391-408, 2014	Paramjeet Singh and Deepak Garg
18	L and l^* convergence of multiple sequence of fuzzy numbers	Boletim da sociedade Paranaense de Matematica, Vol. 33,2 (2015): 69-78	Pankaj Kumar, V.Kumar, S.S. Bhatia
19	Generalized Sequence Spaces in 2-normed spaces defined by ideal and a modulus function	Annals of the Alexandru Ioan Cuza University-Mathematics, DOI: 10.2478/aicu.2014-0024,july 2014	Sudhir Kumar, V.Kumar, S.S. Bhatia
20.	Lacunary strongly almost summable sequence spaces defined by ideal and modulus function	Acta Universitatis Apulensis, No. 39/2014, pp, 1-10	Sudhir Kumar, S.S. Bhatia V.Kumar

4. List of various faculty members who attended various conferences/ workshops/ short-term programs

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
1	Vivek Sangwan	Advanced Workshop on Hyperbolic PDE's: Theory, Numerics and Applications (HPTNA-2014),	LNMIIT Jaipur 1 st December – 9 th December, 2014
2	Vivek Sangwan	Advanced Workshop on Mathematical Foundation of Advanced Finite Element Methods (MFAFEM-2013),	BITS Goa 26th December, 2013 – 3rd January 2014
3	Meenakshi Rana	“Split (n+t)-Color Partitions And 2-Color F-Partitions”, Connections in Discrete Mathematics	Simon Fraser University, Burnaby, Canada 15-19 June, 2015,
4	Meenakshi Rana	“On Split (n+t)-Color Partitions, 2-Color F-Partitions and Mock Theta Functions”, South Asian Mathematics Research Scholars Meet	8-9 May, 2015, South Asian University, New Delhi.
5	Meenakshi Rana	“On Combinatorics of RRI”, 18 th Punjab Science Academy Annual Conference	7-9 February, 2015, Desh Bhagat University, Mandi Gobindgarh, Punjab
6	Meenakshi Rana	“On some extension of Tenth order mock theta functions”, International Conference of Special Functions and Their Applications	16-18 October, 2014, Thapar University, Patiala.
7	Vikas Sharma	Optimization modeling and machine learning techniques	Panjab University, Chandigarh
8	Sandeep Kaur and Jatinderdep Kaur	International Conference on Advances in Mathematical Sciences,	Khalsa College, Patiala, 2015 On L1-Convergence of Fuzzy Modified Cosine Sums
9	Kapil Chawla and Jatinderdep Kaur	18th Punjab Science Congress,	Desh Bhagat University, Mandi Gobindgarh, 2015
10	Sandeep Kaur and Jatinderdeep Kaur	International Conference on Special Functions and their Applications	Thapar University, Patiala, 2014 , 27
11	Kapil Chawla and Jatinderdeep Kaur	International Conference on Special Functions and their Applications	Thapar University, Patiala, 2014 , 24
12	Priya Shahi, Jatinderdeep	International Conference on Special Functions and their	Thapar University, Patiala, 2014 , 26

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
	Kaur and S.S. Bhatia	Applications	
13	Sandeep Kaur and Jatinderdeep Kaur	International Conference on Mathematical Sciences,	Sathyabama University, Chennai, 2014, 491-494
14	Vivek Sangwan	Conference on Partial Differential Equations (CPDE-2014)	LNMIIT Jaipur, December 10-11, 2014,
15	Sanjeev Kumar, Bindu Batish	International Conference on Advances in Mathematical Sciences-2015	Patiala, 18-20 March, 2015
16	Vikas Sharma, Kalpana Dahiya, Vanita Verma	Optimization modeling and machine learning techniques,	March 20-21, 2015 in Punjab University, Chandigarh
17	Sanjeev Kumar	International Conference on Applied Mathematics	Thailand, 19-20 June, 2015
18.	Sapana Sharma	International Congress on Mathematics (ICM 2015)	Seoul, South Korea, August 13 - 21, 2014

5. List of ongoing sponsored projects

S.No.	Name of project	Year of sanction	Funding agency	Project cost(Rs in Lacs)	Principal investigator
1	Construction of some New iterative methods for solving nonlinear equations	2013	Thapar University (Seed Grant)	5.00	Dr. Sanjeev Kumar
2	On L^1 -convergence of trigonometric series with special coefficients	2013	UGC	9.72	Dr. Jatinderdeep Kaur and Dr. S.S. Bhatia
3	Finite Volume Analysis of PDE Models Arising in Neuronal Variability	2014	Thapar University (Seed Grant)	3.26	Dr. Paramjeet Singh
4	Automorphisms of Finite p-Groups	2014	UGC	3.00	Dr. Deepak Gumber
5	Noninner and class preserving Automorphisms of Finite p-Groups	2014	NBHM	10.11	Dr. Deepak Gumber

S.No.	Name of project	Year of sanction	Funding agency	Project cost(Rs in Lacs)	Principal investigator
6	Higher order Galerkin Method for Unsteady Incompressible Navier-Stokes Equation: Analysis and Simulation	2014	DST	12.6	Dr. Sapana Sharma

6. List of completed sponsored projects

S.No.	Name of the Project	Funding Agency	Project Cost(Lacs)	Principal Investigator
1.	Algorithms for single and multi-criteria decision making problems in fuzzy environment	UGC	10.02	Dr. M. K. Sharma
2.	Algorithms for solving some fuzzy network flow problems	UGC	10.30	Dr. Amit Kumar

7. List of faculty members who have delivered invited lectures/talks etc. at various levels

S. No.	Name of the faculty member	Title of the talk/lecture	expert	Forum with date and venue
1	Dr.Harish Garg	Particle Swarm Optimization (PSO) and its applications		Workshop on Optimization Techniques and its Application (WOTA 2015), Chandigarh University, July 14, 2015
2	Dr. Meenakshi Rana	“On some extension of Tenth order mock theta functions”, International Conference of Special Functions and Their Applications		International Conference on Special Functions and their Applications (ICSFA-2014)
3	Dr. Sanjeev Kumar	MATLAB and its applications		Chandigarh University, Mohali, Punjab
4	Dr. Sapana Sharma	FEM with MATLAB		Workshop on “Computational Techniques for Differential Equations with MATLAB”, IIT, Roorkee, July 02 - 06, 2015.
5	Dr. S. S. Bhatia	Applications of derivatives		Faculty Development Programme, organized by Riyat- Bahara Group of Institute, Ropar, July 2014

8. Special lectures delivered by invited scholars/experts from outside TU

S. No.	Name of the Expert with Designation	Title of the Expert Lecture	Date and Venue
1	Dr. A. M. Mathai, Director, Centre for Mathematical and Statistical Sciences, Peechi Campus, Kerala, India	Fractional Derivatives for some functions of Matrix Argument	16.10.2014; School of Mathematics, Thapar University, Patiala
2	Dr. M.A. Pathan, Professor, Centre for Mathematical and Statistical Sciences, KFRI, Peechi, Kerala (INDIA)	Generalized hermite based degenerate Bernoulli, Euler and Genocchi Polynomials and Ramanujan's Formulas	17.10.2014; School of Mathematics, Thapar University, Patiala
3	Dr. V.P. Saxena, Professor, Sagar Institute of Research & Technology, Bhopal (former VC, Jiawaji University, Gwalior)	Dual Integral Equations and Generalized Hypergeometric functions	18.10.2014; School of Mathematics, Thapar University, Patiala
4	Dr. A. K. Shukla, Professor, Department of Applied Mathematics & Humanities, SVNIT, Surat, India	Sheffer Classification for Polynomials in Two variables	17.10.2014; School of Mathematics, Thapar University, Patiala
5	Dr. A. Swaminathan, Professor, Department of Mathematics, IIT Roorkee	Pick Functions and Ratios of Hypergeometric type functions	16.10.2014; School of Mathematics, Thapar University, Patiala
6	Dr. C. W. Mohammad, Professor, Dept. of Applied Sc. & Humanities, Jamia Millia Islamia, Jamia Nagar, New Delhi.	Generating function, double and triple generating functions of certain polynomials of two & three variables	16.10.2014; School of Mathematics, Thapar University, Patiala
7	Dr. P. Rai, Professor, Deptt. of Mathematics, Amity Institute of Applied Sciences, Amity University	Some Relations of Eight order mock theta functions	18..10.2014; School of Mathematics, Thapar University, Patiala

9. List of ongoing Ph. D. Thesis

S. No.	Student (Title of PhD Thesis)	Supervisor(s)
1.	Mr. Ram Paul Efficient algorithms for image denoising using wavelets	Dr Rajesh Gupta
2.	Ms. Poonam Panwar Optimal software reliability and optimal multiprocessor scheduling problems	Dr A K Lal Dr C Mohan
3.	Mr. Pankaj Kumar On generalized convergence and related concept for	Dr S S Bhatia Dr Vijay Kumar

S. No.	Student (Title of PhD Thesis)	Supervisor(s)
	sequences of Fuzzy numbers	
4.	Mr. Sudhir Kumar On generalized convergence in sequence spaces)	Dr S S Bhatia Dr Vijay Kumar
5.	Mr. Sandeep Singh On Automorphism groups of finitely generated groups]	Dr Deepak Gumber
6.	Ms. Jasdeep Kaur Rogers - Ramanujan Type Identities and Combinatorics	Dr. Meenakshi Rana
7.	Mr. Mandeep Singh On Derivations In Rings	Dr. Deepak Gumber
8.	Mr. Rohit Garg On Centralizers and Derivations In Rings	Dr. Deepak Gumber
9.	Ms. Neetu Efficient methods for solving fuzzy linear systems	Dr Amit kumar
10.	Ms. Rachna Stochastic modeling and cost analysis of some industrial systems	Dr A K Lal Dr S S Bhatia Dr R K Tuteja
11.	Mr. Gaurav Gupta Phased transportation problems in Fuzzy Environment.	Dr M.K. Sharma Dr Amit Kumar
12.	Mr. Vikas Sharma Some Dynamical Problems in Elastic Continua with Micro Structures	Dr. Satish Kumar
13.	Ms. Pooja Giotra Similarity Reductions and Exact Solutions of Some Nonlinear Systems from Mathematical Physics	Dr. Rajesh Gupta
14.	Ms. Tanupreet Kaur Study on Some Elastodynamic Problems in Materials with Microstructure and with Reinforced Fibres	Dr. Satish Kumar
15.	Ms. Bikramjeet Kaur Symmetry analysis and conservation laws for some systems of nonlinear partial differential equations	Dr. Rajesh Kumar Gupta
16.	Ms. Sukhpreet Kaur Efficient Methods for Solving some Mathematical Programming Problems with Fuzzy Parameters	Dr. Amit Kumar
17.	Ms. Tina Verma Methods for Solving Non-cooperative Games with Fuzzy Payoffs	Dr. Amit Kumar Dr. S. S. Appaddoo
18.	Ms. Komal Singla Exact Solutions of Nonlinear Partial Differential	Dr. Rajesh Kr. Gupta

S. No.	Student (Title of PhD Thesis)	Supervisor(s)
	Equations using Classical and Nonclassical Symmetries	
19.	Ms. Suman Sheoran Adaptive Finite Element Techniques for Singularly Perturbed Problems	Dr. Mahesh Kr. Sharma Dr. Ramjiwari
20.	Ms. Brehmit Kaur A Study on Singularly Perturbed Problems under Adaptive Finite Element Framework	Dr. Vivek
21.	Ms. Jeevanjot Kaur Efficient methods for solving system of fuzzy complex linear equations	Dr. Amit Kumar
22.	Ms. Harwinder Kaur Some duality results on mathematical programming problems in fuzzy environment and its applications	Dr. Amit Kumar
23.	Mr. Tarun Kumar A Study of Anharmonic Pulsation of Rationally and Tidally Distorted Stars	Dr. A. K. Lal Dr. Ankush Pathania
24.	Mr. Santosh Kumar Finite Volume Approximations for Hyperbolic Conservation Laws arising in Neuronal Variability	Dr. Paramjeet Singh
25.	Mr. Manjit Singh Exact solutions and Painleve' analysis of some nonlinear partial differential equations	Dr. Rajesh Kr. Gupta

10. List of completed Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1	Existence of fixed points for some mappings in various spaces (Ms. Priya Shahi)	Dr. S. S. Bhatia Dr. Jatinderdeep Kaur
2	Deterministic Mathematical Modeling of Tuberculosis and HIV diseases (M. Navjot Kaur)	Dr. S. S. Bhatia Dr. Mini Ghosh
3	Speech Analysis and synthesis the Punjabi Language (Mr. Surinder Dhanjal)	Dr. S. S. Bhatia
4	Design and analysis of variable digital filter using Fractional Fourier Transformation (Ms. Pooja Mahendru)	Dr. S. S. Bhatia Dr. Rajesh Khanna
5	Exact and numerical solutions of some nonlinear partial differential equations (Vikas Kumar)	Dr. Rajesh Kumar Gupta Dr. Ram Jiware

11. List of M. E./M. Sc. Thesis/dissertations

M.Sc. (Mathematics & Computing) Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1	Multiple item inventory models with various demand functions and constraints	Dr. Mahesh Kumar Sharma
2	Rogers-Ramanujan type Identities and Split (n+t)-Color Partitions	Dr. Meenakshi Rana

12. List of equipment procured

S. No.	Name of the equipment	Make	Name of the laboratory	Date of Purchase	Amount (Rs Lacs)
1	Optiplex 9020 Desktop Computer	DELL	NALAB I	12/05/15	1802444.18
2	Optiplex 9020 Desktop Computer	DELL	NALAB II	12/05/15	1802444.18
3	LCD Projector	Hitachi	NALAB I & II	12/05/15	80800

13. Computing facilities in the Department

S.No	Details of Hardware/Software	Quantity	Name of the Laboratories
1.	Dell PowerEdge 2900 & 1800 series Xeon Dual Processor Servers	02	NALAB
2.	HP DL180 G6 Intel Xeon E5640 Servers	04	(LAB I & LABII)
3.	Dell Optiplex 9020 Desktop Computers	60	
4.	LCD projector to be utilized for conducting conferences / seminars	03	
5.	IBM SPSS 20.0	30 Network Licenses	
6.	Red hat Linux Enterprise Server 5 Academic Alliance	01	
7.	Microsoft Office Prof. 2003	10	
8.	Microsoft Office Prof. 2010	70	
9.	Mathematica 6.0	25 Network + 25 Individual Licenses	
10.	Symantec Antivirus End Point Protection Corporate SB Edition	Campus Agreement	

14. List of training programmes/ short term courses/workshops/conferences organized

S. No.	Title of the Programme with sponsoring agency	Name of the Coordinators	Dates and Venue
1	International Conference on special Function and their Applications (DST & TU funded)	Dr. Meenakshi Rana, Dr. Satish Kr. Sharma, Dr. Ankush; and Dr. Jatinder	16-18 October, 2014

15. Information regarding foreign visits

S. No.	Name of the faculty	Host University/ Organization	Nature of work	Month and Year of visit
1.	Dr. Amit Kumar, Visiting Scholar	University of Manitoba, Canada	Research Work	June 2, 2015 to July 17, 2015
2.	Dr. Meenakshi Rana	Simon Fraser University, Burnaby (Canada)	Conference	June 10, 2015 to June 23, 2014
3.	Dr. Sanjeev Kumar	Thailand	Conference	June 19-20, 2015

SCHOOL OF PHYSICS & MATERIALS SCIENCE

Section 1:

The School of Physics and Materials Science has a long legacy of excellent teaching and research activities. The school offers core courses of Physics and Materials science to all the undergraduate students of the university. Also four free elective subjects, namely, Renewable Energy Materials, Nuclear Power Engineering, Modern Physics and Nanoscience and Nanomaterials. Besides, two PG programmes: M.Sc. (Physics) and M. Tech. (Materials and Metallurgical Engineering) are being run by the school. The faculty members are highly qualified and motivated to carry out teaching as well as research in their respective areas. They have published more than hundred (in fact 108) research papers in refereed journals (SCI) during last academic year (2014-2015). Most of the faculty members have R & D projects funded by different funding agencies, like DRDO, CSIR, UGC, AICTE, DAE, IUAC and DST etc. The school is also a recipient of DST-FIST project. The total number of ongoing projects is thirteen (13) and total amount is more than Rupees 2.35 crore. School has received three (03) new projects and some of the research projects are in pipeline. The school has procured several sophisticated equipment like RF sputtering unit, Vibrating Sample Magnetometer and inductively coupled Plasma Atomic Emission Spectrophotometer to strengthen its academic and research activities. This year eighteen students of the school have successfully completed their Ph.D. thesis.

Achievements during 2014-15

- Papers published in SCI Journals: 108
- Papers published in Non SCI Journals: 33
- Papers published in conferences: 03
- Sponsored Research Projects New: 03 projects worth Rs 83.607 Lac
- Sponsored Research Projects Ongoing : 13 projects worth Rs 235.3668 Lac
- Seminar/Conference/Workshop organized: 02(MAP Society)
- Doctoral Degree Awarded: 18
- Lectures by visiting experts: 02
- Visits abroad by faculty members: 01

Section 1:

1. List of faculty

Distinguished Professor

S. No.	Name	Qualification & Specialization
1.	Dr. K. K. Raina	Ph.D., Condensed Matter Physics (Liquid Crystal)

Senior Professor

S. No.	Name	Qualification & Specialization
1.	Dr. N. K. Verma	Ph.D., Synthesis and characterization of nanostructure materials
2.	Dr. O. P. Pandey	Ph.D., Solidification

Professor

S. No.	Name	Qualification & Specialization
1.	Dr. Kulvir Singh	Ph.D., Condensed Matter Physics (Experimental)
2.	Dr. Manoj Kumar Sharma	Ph.D., Theoretical Nuclear Physics

Associate Professor

S. No.	Name	Qualification & Specialization
1.	Dr. Suneel Kumar	Ph.D., Theoretical Nuclear Physics
2.	Dr. Puneet Sharma	Ph.D., Nanomagnetism
3.	Dr. Alka Upadhyaya	Ph.D., Theoretical High Energy Physics
4.	Dr. S. D. Tiwari	Ph.D., Condensed Matter Physics
5.	Dr. B. N. Chudasama	Ph.D., Nanomedicine, Magnetic Fluids

Assistant Professor

S. No.	Name	Qualification & Specialization
1.	Dr. Dwijendra Pratap Singh	Ph.D., Experimental Solid State Physics
2.	Ms. Loveleen Kaur Brar	M.Sc., AFM, LB-films, Nanomaterials
3.	Dr. Poonam Uniyal	Ph.D., Functional Nanoceramics, Multiferroic materials
4.	Dr. Soumendu Jana	Ph.D., Nonlinear Optics, Photonics, Soliton Theory, Singular Optics
5.	Dr. Bhaskar Chandra Mohanty	Ph.D., Photovoltaics, Thin film growth dynamics, Flexible and invisible electronics

2. List of research publications in SCI/Impact Factor journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
1.	Structural and optical properties of $\text{Bi}_{1-x}\text{A}_x\text{FeO}_3$ (A = Sr, Ca; $0.40 \leq x \leq 0.55$)	J. Mol. Structure, 1074 (2014) 186–192	Samita Thakur, O.P. Pandey, K. Singh	1.602
2.	Role of Sr^{2+} substitution on structural, thermal and conducting behavior of $\text{Bi}_{1-x}\text{Sr}_x\text{FeO}_3$ ($0.40 \leq x \leq 0.55$)	Ceramics International 40 (2014) 16371–16379.	Samita Thakur, O.P. Pandey, K. Singh	2.605
3.	Influence of Ca^{2+} substitution on thermal, structural, and conductivity behaviour of $\text{Bi}_{1-x}\text{Ca}_x\text{FeO}_{3-y}$ ($0.40 \leq x \leq 0.55$)	J. Therm. Anal. Calorim. 118 (2014) 255–262.	Samita Thakur, O. P. Pandey and K. Singh	2.042
4.	A comparative structural,	Solid State Ionics 268	Samita Thakur, O.	2.561

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
5.	thermal and electrical study of Ca^{2+} , Sr^{2+} substituted BiMnO_3 Effect of co-doping metal ions (Li^+ , Na^+ and K^+) on the structural and photoluminescent properties of nano-sized $\text{Y}_2\text{O}_3:\text{Eu}^{3+}$ synthesized by co-precipitation method	(2014) 23–30 Optical Materials, 36(7) (2014) 1131–1138	P. Pandey and K. Singh Deepak Kumar, Manoj Sharma, O.P. Pandey	1.981
6.	UV–Visible light induced photocatalytic studies of Cu doped ZnO nanoparticles prepared by co-precipitation method	Solar Energy 110 (2014) 386–397.	Manish Mittal, Manoj Sharma, O. P. Pandey	3.469
7.	Structural and thermal analysis of in situ synthesized C–WC nanocomposites	Ceramics International, 40(4) (2014) 5157–5164	Gourav Singla, K. Singh, O.P. Pandey	2.605
8.	Comparison of structural and magnetic properties of La^{3+} substituted $\text{BaFe}_{12}\text{O}_{19}$ prepared by different substitution methods	Physica B: Condensed 448 (2014) 57–59	Samiksha Verma, O.P. Pandey, Andrea Paesano Jr, Puneet Sharma	1.319
9.	Structure and Magnetic Properties of $\text{Ba}_{1-x}\text{La}_x\text{Fe}_{12}\text{O}_{19}$ prepared by $\text{Ba}_{1-x}\text{La}_x\text{Fe}_2\text{O}_4$	IEEE Trans. Magnetics, 50(1) (2014).	Samiksha Verma, Puneet Sharma, O.P. Pandey, Andrea Paesano Jr. And An-Cheng Sun	1.386
10.	Study of Non-lubricated Wear of the Al–Si Alloy Composite Reinforced with Different Ratios of Coarse and Fine Size Zircon Sand Particles at Different Ambient Temperatures	<u>Tribology Letters</u> , 55 (1) (2014) 83–92.	Ranvir Singh Panwar, Suresh Kumar, Ratandeep Pandey, O.P. Pandey	1.739
11.	Influence of particle size and temperature on the wear properties of rutile-reinforced aluminium metal matrix composite	J. Composite Materials, (2014) 0021998314526079	Rama Arora, Suresh Kumar, Gurmeh Singh, O.P. Pandey	1.173

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
12.	Synthesis, characterization, photocatalytic and reusability studies of capped ZnS nanoparticles	Bulletin of Materials Science, 37 (2014) 931-940	Jagdeep Kaur, Manoj Sharma, O. P. Pandey	1.017
13.	Structural and optical studies of undoped and copper doped zinc sulphide nanoparticles for photocatalytic application	Superlattices and Microstructures 77 (2014) 35-53.	Jagdeep Kaur, Manoj Sharma, O.P. Pandey	2.097
14.	Structural and electrical behavior of Ba-doped LaGaO ₃ composite electrolyte	Journal of Renewable and Sustainable Energy 6 (2014) 0631121-06311213.	Kapil Sood, K. Singh, O. P. Pandey	0.904
15.	Photocatalytic degradation of azo dyes using Zn-doped and undoped TiO ₂ nanoparticles	Applied physics A, Materials science & processing, 116(1) (2014) 371-378	Pooja Singla, Manoj Sharma, O.P. Pandey, K. Singh	1.704
16.	Structural and growth kinetics of in-situ reduced V ₂ O ₅	Int. J. Refractory Metals Hard Materials, 46 (2014) 90-95	Mani Mhajan, K. Singh, O.P. Pandey	1.989
17.	Antibacterial activities of silver nanoparticles and antibiotic-adsorbed silver nanoparticles against biorecycling microbes	Environ. Sci.: Processes Impacts, 16 (2014) 2191-2198	Chandni Khurana, Anjana K. Vala, Nidhi Andhariya, O.P. Pandey and Bhupendra Chudasama	2.171
18.	Optical, mechanical and TEM assessment of titania-doped Bi ₂ V _{1-x} Ti _x O _{5.5-6} bismuth vanadate oxides	Bull. Mater. Sci., 37 (2014) 1647-1656	Gurbinder Kaur, Gary Pickrell, Vishal Kumar, Om Prakash Pandey, Kulvir Singh And Daniel Homa	1.017
19.	Morphology controlled Y ₂ O ₃ :Eu ³⁺ nanophosphors with enhanced photoluminescence properties	Journal of Luminescence 158 (2015) 268-274	Deepak Kumar, Manoj Sharma, O. P. Pandey	2.719
20.	Co-existence of cubic and orthorhombic phases in Ba-doped LaInO ₃ and their effect on conductivity	Physica B 456 (2015) 250-257	Kapil Sood, K. Singh, O.P. Pandey	1.319

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
21.	Evolution of structural and thermal properties of carbon-coated TaC nanopowder synthesized by single step reduction of Ta-Ethoxide	RSC Adv. 5 (2015) 1406-1416	Loveleen K. Brar, Gourav Singla, O. P. Pandey	3.840
22.	In-situ synthesis of chromium carbide (Cr_3C_2) nanopowders by chemical-reduction route	International Journal of Refractory Metals and Hard Materials 50 (2015) 113-119	Mani Mahajan, Shalini Rajpoot, O. P. Pandey	1.989
23.	Thermal stability and structural properties of Ta nanopowder synthesized via simultaneous reduction of Ta_2O_5 by hydrogen and carbon	J Therm Anal Calorim 119 (2015) 175-182	Loveleen K. Brar, Gourav Singla, Navjot Kaur and O. P. Pandey	2.042
24.	FT-IR spectral analysis and mechanical properties of sodium phosphate glass-ceramics	Journal of Molecular Structure 1083 (2015) 278-285	Paramjyot Kumar Jha, O.P. Pandey, K. Singh	1.602
25.	Effect of Processing Variables on WC Nanoparticles Synthesized by Solvothermal Route	Particulate Sci. Tech., 33 (2015) 36-41.	Gourav Singla, K. Singh. O.P. Pandey	0.523
26.	Crystallization and glass transition kinetics of $\text{Na}_2\text{S-P}_2\text{S}_5$ based super-ionic glasses	Particulate Sci. Tech., 33 (2015) 166-171	Paramjyot Kumar Jha, O.P. Pandey, K. Singh	0.523
27.	Structural, conductivity and dielectric relaxation studies of $\text{La}_{0.9}\text{Ba}_{0.1}\text{GaO}_{3-\delta}$ system	Particulate Sci. Tech., 33 (2015) 113-118.	Kapil Sood, K. Singh, O.P. Pandey	0.523
28.	Effect of pH on Size of ZnS Nanoparticles and its Application for Dye Degradation	Particulate Sci. Tech., 33 (2015) 184-188	Jagdeep Kaur, Manoj Sharma, O. P. Pandey	0.523
29.	Thermal and electrical study of $\text{Bi}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$ for Solid Oxide Fuel Cell Applications	Particulate Sci. Tech., 33 (2015) 178-183	Samita Thakur, O.P. Pandey, K. Singh	0.523
30.	Synthesis of carbon coated tungsten carbide nano powder using hexane as carbon source and its structural, thermal and electrocatalytic properties	International Journal of Hydrogen Energy 40 (2015) 5628-5637	Gourav Singla, K. Singh, O. P. Pandey	3.313

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
31.	Structure and crystallization kinetics of Li_2O modified sodium-phosphate glasses	Journal of Molecular Structure 1094 (2015) 174–182	Paramjyot Kumar Jha, O.P. Pandey, K. Singh	1.602
32.	Synthesis of visible light-responsive cobalt-doped TiO_2 nanoparticles with tunable optical band gap	J Sol-Gel Sci. Technol. 75 (2015) 424-435	Chandni Khurana, O. P. Pandey, Bhupendra Chudasama	1.532
33.	Synthesis and photoluminescence properties of in-situ synthesized core-shell (m-VC@C) nanocomposites	Materials Chemistry and Physics 160 (2015) 48–58.	Mani Mahajan, K. Singh, O. P. Pandey	2.259
34.	Novel process for synthesis of nanocrystalline WC from wolframite ore	Ceramics International 41 (2015) 10481–10487	Harjinder Singh, O.P. Pandey	2.605
35.	Photoluminescence and photocatalytic studies of metal ions (Mn and Ni) doped ZnS nanoparticles	Optical Materials 47 (2015) 7–17.	Jagdeep Kaur, Manoj Sharma, O. P. Pandey	1.981
36.	Synthesis of fluorescent core-shell nanomaterials and strategies to generate white light	Journal of Applied Physics 118 (2015) 044305 (1-9).	Amandeep Singh, Ramanjot Kaur, O. P. Pandey	2.183
37.	γ -Phase stabilized $\text{Bi}_4\text{Ba}_x\text{V}_{2-x}\text{O}_{11-\delta}$ ($0.0 \leq x \leq 0.20$): Structural, thermal and conducting properties	Solid state ionics 278,(2015), 233-238	Sakshi Gupta and K. Singh	(1.68)
38.	Dielectric, optical and structural properties of $\text{Bi}_4\text{V}_{2-x}\text{Sr}_x\text{O}_{11-\delta}$ ($0.05 \leq x \leq 0.20$),	Journal of Physics and Chemistry of Solids 85 (2015), 18-25.	Sakshi Gupta and K. Singh,	(1.853)
39.	Effect of two different dopants (Mg^{2+} and Ca^{2+}) and processing parameters on γ -phase stabilization and conductivity of $\text{Bi}_4\text{V}_2\text{O}_{11-\delta}$,	Ceramics International, (2015)	Sakshi Gupta and K. Singh,	(2.60)
40.	Effect of in-situ reduction of Fe^{3+} on physical, structural and optical properties of calcium	Journal of Non-Crystalline Solids 386 (2014) 100-104.	S. Singh, K.Singh,	(1.716)

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	sodium silicate glasses and glass ceramics			
41.	Nanocrystalline glass ceramics: Structural, physical and optical properties	Journal of Molecular Structure 1081 (2015) 211-216.	S. Singh, K.Singh,	(1.55 9)
42.	Effect of intermediate oxide (Y_2O_3) on thermal, structural and optical properties of lithium borosilicate glasses	Journal of Molecular Structure 1086 (2015) 239-245.	Satwinder Singh, G. Kalia, K. Singh,	(1.55 9)
43.	Effect of Processing Methods and Die Design Parameters on Green Properties of WC-Co Nano powder Pellets	Materials and Manufacturing Processes 30, (2015) 1329-1341.	Devender Kumar and K.Singh	(1.62 9)
44.	Structural and optical properties of $30Li_2O-55B_2O_3-5ZnO-xTiO_2-(10-x) V_2 O_5, (0 \leq x \leq 10)$ glasses,	Journal of Non-Crystalline Solids, 414 (2015) 51-58	SK Arya, K Singh,	(1.71 6)
45.	Optical and thermal properties of $(70-x) SiO_2-xNa_2O-15CaO-10Al_2O_3-5TiO_2 (10 \leq x \leq 25)$ glasses	Journal of Thermal Analysis and Calorimetry, 120 (2015) 1163-1171.	S.K. Arya, B.Kaur, G.Kaur, K.Singh	(2.04 2)
46.	Effect of Field Strength and Electronegativity of CaO and MgO on Structural and Optical Properties of $SiO_2-K_2O-CaO-MgO$ Glasses,	Silicon, (2015) 1-6	P. Jha, K. Singh,	(1.06)
47.	Effect of MgO on bioactivity, hardness, structural and optical properties of $SiO_2 - K_2O-CaO-MgO$ glasses,	Ceramic international (2015)(Inpress)	Praveen Jha, K.Singh,	(2.60)
48.	Structural and optical properties of quenched and heat-treated	Ceramics International 40(9) (2014) 14801-14808	Sakshi Gupta, K. Singh,	(2.08)

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
49.	Bi ₄ V _{2-x} Mg _x O _{11-δ} (0.0≤x≤0.20), Effect of two different sites substitution on structural and optical properties of Bi ₄ V ₂ O _{11δ} ,	Physica B: Condensed Matter, 440 (2014) 78-82.	Rupanjit Kaur, S. Thakur, K. Singh,	(1.27)
50.	Effect of TiO ₂ on the photocatalytic properties of bismuth oxide,	Environmental Technology, 35 (2014) 1520-1524	Gourav Singla, K. Singh,	(1.19)
51.	Effect of in-situ reduction of Fe ³⁺ on physical, structural and optical properties of calcium sodium silicate glasses and glass ceramics,	J. Non-crystalline solids, 386 (2014) 100-104.	Satwinder Singh, K. Singh,	(1.71)
52.	Structure-land-optical properties of La and Gd substituted Bi _{4-x} M _x V ₂ O _{11-δ} (0.1≤ x≤ 0.3),	Ionics, 20 (1) (2014)- 81.	S. Thakur, M. Devi, K. Singh,	(1.83)
53.	Nanocrystalline glass ceramics: structural, physical and optical properties,	J. Molecular Structure (2014) (Accepted).	Satwinder Singh and K. Singh,	(1.59)
54.	A-comparative structural, thermal and electrical study of Ca ²⁺ , Sr ²⁺ substituted BiMnO ₃	Solid State Ionics (2014) DOI: 10.1016/j.ssi.2014.09.022	S. Thakur, M. Devi, K. Singh,	(2.11)
55.	Estimation of particle magnetic moment distribution for antiferromagnetic ferrihydrite nanoparticles	Journal of Magnetism and Magnetic Materials 385, 272-276, 2015.	Chandni Rani and S. D. Tiwari	1.970
56.	Thermal stability and structural properties of Ta nanopowder synthesized via simultaneous reduction of Ta ₂ O ₅ by hydrogen and carbon.	Journal of Thermal Analysis and Calorimetry, 119 (2015),175-182	Loveleen K. Brar, Gourav Singla, Navjot Kaur and O. P. Pandey.	2.206
57.	Evolution of structural and	RSC Advances 5	Loveleen K. Brar,	3.708

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	thermal properties of carbon-coated TaC nanopowder synthesized by single step reduction of Ta-ethoxide	(2015) 1406–1416	Gourav Singla and O. P. Pandey	
58.	Single Elementary Target-Sputtered Cu ₂ ZnSnSe ₄ Thin Film Solar Cells	Solar Energy Mater. Solar Cells 132 (2015) 136	Y. H. Jo, B. C. Mohanty, D. H. Yeon, S. M. Lee and Y. S. Cho	5.1
59.	Tensile Stress-Dependent Fracture Behavior and Its Influences on Photovoltaic Characteristics in Flexible PbS/CdS Thin-Film Solar Cells	S.M. Lee, D.H. Yeon, B.C. Mohanty, Y.S. Cho	S.M. Lee, D.H. Yeon, B.C. Mohanty, Y.S. Cho	6.7
60.	Improved photovoltaic and grain boundary characteristics of single elementary target-sputtered Cu ₂ ZnSnSe ₄ thin films by post sulfurization/selenization process	J. Phys. D 48 (2015) 245103.	Y. H. Jo, J. W. Jang, B. C. Mohanty, H. B. Kang, Y. S. Cho	2.6
61.	Investigation of the Magnetic and Optical Properties of Wurtzite Fe-Doped ZnNanorods	Journal of Electronic Materials, 44, 2829-2834, 2015	Sunil Kumar , N. K. Verma	1.635
62.	Room temperature magnetism induced in Co-doped ZnS nanoparticles,	Journal of Superconductivity and Novel Magnetism, 28, 137-142, 2015	Sunil Kumar , N. K. Verma	0.909
63.	Structural, optical and magnetic investigations on Fe-doped ZnS nanoparticles	Journal of Materials Science: Materials in Electronics, 26, 2754-2759, 2015	Sunil Kumar , N. K. Verma	1.486
64.	Study on novel, superparamagnetic and biocompatible PEG/KFeO ₂	Journal of Applied Biomedicine, 13, 23-32, 2015.	Lavanya Khanna, N. K. Verma	1.302

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	the Impact Factor
65.	nanocomposite Sol-gel synthesized BiFeO ₃ nanoparticles: Enhanced magnetoelectric coupling with reduced particle size	Journal of Magnetism and Magnetic Materials, 394, 372-378, 2015	Gitanjali Dhir, Poonam Uniyal, N.K. Verma	2.002
66.	Enhanced coercivity of HCP Co-Pt alloy thin films on a glass substrate at room temperature for patterned media	Journal of Magnetism and Magnetic Materials 391 (2015) 12-10.	Y.S. Chen, An-Cheng Sun, H.Y. Lee, His-Chuan Lu, Sea-Fue Wang, Puneet Sharma	1.979
67.	Large Magnetoelectric Response in Modified BNT Based Ternary Piezoelectric [72.5(Bi _{1/2} Na _{1/2} TiO ₃)-22.5(Bi _{1/2} K _{1/2} TiO ₃)-5(BiMg _{1/2} Ti _{1/2} O ₃)] - Magnetostrictive (NiFe ₂ O ₄) Particulate (0-3) Composite	Appl. Phys. Lett. 106, 202904 (2015).	M. Tyagi, Mukesh Kumari, R. Chatterjee, P. Sharma	3.02
68.	Structural, optical and ferroelectric behavior of pure BiFeO ₃ thin films synthesized by the sol-gel method	J. Mater. Sci.-Mater. Electron. 26, 1987-1992 (2015).	M. Tyagi, R. Chatterjee, P. Sharma	1.569
69.	Improved dielectric and magnetic properties of multiferroic BiFeO ₃ -NiFe ₂ O ₄ nanocomposite thin films	J. Sol-Gel Sci. Technol. 74, 692-697 (2015).	M. Tyagi, R. Chatterjee, P. Sharma	1.660
70.	Structural, magnetic and microwave properties of barium hexaferrite thick	Accepted in Journal of Magnetism and Magnetic Materials	Samiksha Verma, S.K. Dhawan, Andrea Paesano Jr.,	1.979

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
	films with different Fe/Ba mole ratio	(2015).	O.P. Pandey, Puneet Sharma	
71.	Effect of thickness ratio of Co to Pt Layer on Magnetic Properties and Microstructure of [Co/Pt] _n Multilayer Films	Accepted in IEEE Transaction On Magnetism (2015).	T.C. Yang, Y.S. Chen, Y.C. Ju, Y.T. Lin, C.F. Huang, H.C. Lu, S.F. Wang, Puneet Sharma, An-Cheng Sun	1.213
72.	Electro optic and dielectric studies in Ni ferrite nano particle doped ferroelectric liquid crystal mixtures	Accepted in Phase Transition (2015)	Khusboo, Puneet sharma, Praveen Malik, K.K.Rana	0.954
73.	Antimicrobial activities of silver nanoparticles and antibiotics adsorbed silver nanoparticles against biorecycling microbes	Environmental Science: Processes & Impacts, 16,2196-2198 (2014)	Chandni Khurana, Anjana Vala, Nidhi Andhariya, O. P. Pandey and Bhupendra Chudasama	2.171
74.	Antibacterial activity of silver: The role of hydrodynamic particle size at nanoscale	J Biomed Mater Res A, 102(10),3361-8 (2014))	Khurana C, Vala AK, Andhariya N, Pandey OP, Bhupendra Chudasama	3.369
75.	Single step synthesis of pluronic stabilized IR responsive gold nanoplates	RSC Advances, 4, 36006–36011	Parveer Kaur and Bhupendra Chudasama	3.840
76.	Synthesis of visible light-responsive cobalt-doped TiO ₂ nanoparticles with tunable optical band gap	J. Sol-gel Sci. & Technol. 75 424-435 (2015)	Chandni Khurana, O.P. Pandey and Bhupendra Chudasama	1.550
77.	Strong decay width and coupling constant of recent charm meson	EJPC (2015) 75, 319.	M.Batra, A. Upadhay	

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	the Impact Factor
	states			
78.	Importance of Non-perturbative QCD parameters from Bottom Mesons	Advanced High Energy Phys. 2014 (2014)619783	M. Batra, A. Upadhay	
79.	Strange and non-strange sea quark gluon effects in nucleons	Nucl. Phys. A 922 126 (2014).	M. Batra, A. Upadhay	
80.	Eta prime Gluonic contribution to the nucleon self-energy in an effective theory	Advances in High Energy Physics doi:10.1155/2014/841703	J.P. Singh, A. Upadhay	
81.	Investigations on multiferroic, optical and photocatalytic properties of lanthanum doped bismuth ferrite nanoparticles	Advanced Material Letters (Accepted-2015)	Manpreet Kaur, K L Yadav and Poonam Uniyal	1.90
82.	, Bistable dissipative soliton in cubic-quintic nonlinear medium with multiphoton absorption and gain dispersion,	JEMWA, 29, 1410-1429 (2015)	GS Parmar, S Jana	1.4
83.	Decay of Zr isotopes and related nuclear structure effects using collective clusterization approach	Physica scripta	G. Kaur, Rajni and Manoj K. Sharma	
84.	Cluster decay analysis and related structure effects of fissionable heavy and superheavy nuclei.	PRAMANA-Journal of physics	Manoj K. Sharma and Gurvinder Kaur	
85.	Fission decay analysis of n-induced reaction using collective clusterization approach.	Nucl. Phys. A	Amandeep kaur, Gurvinder Kaur and Manoj K. Sharma	2.499
86.	Alpha-decay chains of recoiled superheavy nuclei: A theoretical study.	Phys. Rev. C	Niyti, G. sawhney, Manoj K. Sharma, R. K. Gupta	3.88
87.	Nuclear Structure study of some bubble nuclei in light mass region using mean field formalism	Chinese Physics C	M. K. Sharma, R. N. Panda, Manoj K. Sharma, S. K. Patra	0.431
88.	Study of reaction cross section	Braz. J. Phys.	M. K. Sharma, R. N.	0.683

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	the Impact Factor
	of light mass nuclei using Glauber formalisms.		Panda, Manoj K. Sharma, S. K. Patra	
89.	Dynamical decay of ^{32}S and ^{31}P formed in $^{20}\text{Ne}+^{12}\text{C}$ and $^{19}\text{F}+^{12}\text{C}$ reactions, respectively, at $E_{\text{cm}}=60$ MeV	EPJ Web of Conf.	B B Singh, M. Kaur, - Manoj K Sharma and R K Gupta	
90.	Fission dynamics of ^{240}Cf formed in $^{34,36}\text{S}$ induced reactions.	EPJ Web of Conf.	D. Jain, G. Kaur, - Manoj K. Sharma	
91.	Deformation and orientation effects in heavy particle radioactivity of $Z=115$	EPJ Web of Conf.	G. Sawhney, K. - Sandhu, Manoj K Sharma, R K Gupta	
92.	Role of nuclear deformations and proximity interactions in heavy particle radioactivity	Euro. Phys. J. A	G. Sawhney, K. Sandhu, Manoj K. Sharma, R. K. Gupta	2.421
93.	γ -Phase stabilized $\text{Bi}_4\text{Ba}_x\text{V}_2 - \text{Sr}_{1-x}\text{O}_{11-\delta}$ ($0.0 \leq x \leq 0.20$): Structural, thermal and conducting properties	Solid State Ionics 278 (2015), 233-238.	Sakshi Gupta, K. Singh	1.68
94.	Dielectric, optical and structural properties of $\text{Bi}_4\text{V}_2 - \text{Sr}_x\text{O}_{11-\delta}$ ($0.05 \leq x \leq 0.20$)	Journal of Physics and Chemistry of Solids 85 (2015) 18-25.	Sakshi Gupta, K. Singh	1.853
95.	Effect of two different dopants (Mg^{2+} and Ca^{2+}) and processing parameters on γ -phase stabilization and conductivity of $\text{Bi}_4\text{V}_2\text{O}_{11-\delta}$	Ceramics International 41 (8) (2015) 9496-9504.	Sakshi Gupta, K. Singh	2.60
96.	Effect of in-situ reduction of Fe^{3+} on physical, structural and optical properties of calcium sodium silicate glasses and glass ceramics	Journal of Non-Crystalline Solids 386 (2014) 100-104.	S. Singh, K. Singh	1.716
97.	Nanocrystalline glass ceramics: Structural, physical and optical properties	Journal of Molecular Structure 1081 (2015) 211-216.	S. Singh, K. Singh	1.559
98.	Effect of intermediate oxide (Y_2O_3) on thermal, structural	Journal of Molecular Structure 1086 (2015)	S. Singh, G. Kalia, K. Singh	1.559

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	the Impact Factor
	and optical properties of lithium borosilicate glasses	239-245.		
99.	Effect of Processing Methods and Die Design Parameters on Green Properties of WC-Co Nanopowder Pellets	Materials and Manufacturing Processes 30, (2015) 1329-1341.	Devender Kumar, K. Singh	1.629
100.	Structural and optical properties of 30Li ₂ O-55B ₂ O ₃ -5ZnO-xTiO ₂ -(10-x) V ₂ O ₅ , (0 ≤ x ≤ 10) glasses,	Journal of Non-Crystalline Solids 414 (2015) 51-58	S.K. Arya, K Singh	1.716
101.	Optical and thermal properties of (70-x) SiO ₂ -xNa ₂ O-15CaO-10Al ₂ O ₃ -5TiO ₂ (10 ≤ x ≤ 25) glasses	Journal of Thermal Analysis and Calorimetry 120 (2015) 1163-1171.	S.K. Arya, B. Kaur, G. Kaur, K. Singh	2.042
102.	Effect of Field Strength and Electronegativity of CaO and MgO on Structural and Optical Properties of SiO ₂ -K ₂ O-CaO-MgO Glasses,	Silicon (2015) 1-6	P. Jha, K. Singh	1.06
103.	Effect of MgO on bioactivity, hardness, structural and optical properties of SiO ₂ - K ₂ O-CaO-MgO glasses	Ceramic international (2015) (In press)	Praveen Jha, K. Singh	2.60
104.	Structural and optical properties of quenched and heat-treated Bi ₄ V ₂ -xMgxO _{11-δ} (0.0 ≤ x ≤ 0.20).	Ceramics International 40 (9) (2014) 14801-14808	Sakshi Gupta, K. Singh	2.08
105.	Effect of two different sites substitution on structural and optical properties of Bi ₄ V ₂ O _{11δ} .	Physica B: Condensed Matter 440 (2014) 78-82.	Rupanjit Kaur, S. Thakur, K. Singh	1.27
106.	Effect of TiO ₂ on the photocatalytic properties of bismuth oxide.	Environmental Technology 35 (2014) 1520-1524	Gourav Singla, K. Singh	1.19
107.	Structural and optical properties of La and Gd substituted Bi ₄ - xM xV ₂ O _{11-δ} (0.1 ≤ x ≤ 0.3).	Ionics 20 (1) (2014) 73-81	S. Thakur, M. Devi, K. Singh	1.83

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
108.	A-comparative structural, thermal and electrical study of Ca ²⁺ , Sr ²⁺ substituted BiMnO ₃	Solid State Ionics 268 (A) (2014) 23-30	S. Thakur, O.P. Pandey, K. Singh	2.11

3. List of research publications in Non-SCI/Non-Impact journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
1.	Effect of Foaming Temperature on Polyhedron Structure of Particulate Reinforced Aluminum Composite Foams	Procedia Materials Science, 5 (2014) 891-897	Suresh Kumar, Ratandeep Pandey, O.P. Pandey
2.	Evaluation of Sliding Wear Behavior of Garnet Particle-containing LM13 Alloy Composites	Procedia Materials Science, 5 (2014) 953-961	Anju Sharma, Suresh Kumar, Gurmeh Singh, O.P. Pandey
3.	Reduction of wolframite ore with activated charcoal to produce nano Tungsten carbide	An Inter. J. Jaipur National Uni. 3(1) (2014) 276-279	Harjinder Singh, Balpreet Kaur, O.P. Pandey
4.	Photocatalytic degradation of diethyl phthalate using TiO ₂ nanoparticles	AIP Conf. Proc. 1591 (2014) 377-378	Pooja Singla, O. P. Pandey, K. Singh
5.	Structural and optical properties of Bi ₄ Mg _{0.05} V _{1.95} O _{11-δ} synthesized via melt quench technique	AIP Conf. Proc. (2014) 1591 1729-1730.	Sakshi Gupta, K. Singh
6.	Room temperature ferromagnetism in Mg-doped ZnO nanoparticles	AIP Conf. Proc. 1665, 050192 (2015)	Jaspal Singh, Pritampal Singh Gill, A. Vashith and N. K. Verma
7.	Study on structural, optical properties of solvothermally synthesized Ni doped CdS nanorods	AIP Conf. Proc. 1661, 050004 (2015)	Kamaldeep Kaur, and N. K. Verma
8.	Calcination temperature influenced multiferroic properties of Ca-doped BiFeO ₃ nanoparticles	AIP Conf. Proc. 1665, 050194 (2015)	GitanjaliDhir, PoonamUniyal and N. K. Verma
9.	Structural, morphological and magnetic study of (Bi _{0.1} Fe _{0.1} O ₃) - (Ni _{0.1} Fe ₂ (0.1)O ₄) nanocomposite	AIP Conf. Proc. 1661, 070003 (2015)	Imanpreet Kaur, and N. K. Verma
10.	Study of seed aging in seed-	AIP Conference Proceedings,	Parveer Kaur and

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
	mediated synthesis of IR responsive gold nanorods	1591, 543 (2014)	Bhupendra Chudasama
11.	Synthesis of superparamagnetic silica coated magnetite nanoparticles for biomedical applications	AIP Conference Proceedings, 1661, 70004 (2015)	Navjot Kaur and Bhupendra Chudasama
12.	Sea quark and Gluonic contribution to strange baryons and their properties	L. Phys. Conf.Ser 481,012024(2014)	M.Batra, A. Upadhyay
13.	Effect of deformations and orientations in 100Sn daughter radioactivity	12th Int.Conf. on Nucl-Nucl.Coll. (NN2015) June 21-26 , 2015, Catania, Italy.	Gudveen Sawhney, K. Sharma, Manoj K. Sharma
14.	Average total kinetic energy for Pb isotopes using Fragmentation theory	DAE Nucl. Phys. Symp., Vol. 59, 514-515, (2014). BHU, Varanasi.	R. Kumar, Rajni, Manoj K. Sharma,
15.	Dynamics of transuranic ^{240}Np nucleus formed in n-induced reaction	DAE Nucl. Phys. Symp., Vol. 59, 364-365, (2014). BHU, Varanasi	Amandeep Kaur, G. Kaur and Manoj K. Sharma
16.	Role of short and long range interactions in 4n-decay channel of ^{266}Rf nucleus	DAE Nucl. Phys. Symp., Vol. 59, 466-467, (2014). BHU, Varanasi	K. sandhu, A. Kaur, Manoj K. Sharma, R. K Gupta
17.	Study of barrier modification using Hill-Wheeler and WKB approximation in Wong Model	DAE Nucl. Phys. Symp., Vol. 59, 520-521, (2014). BHU, Varanasi.	D. jain. Manoj K. Sharma, Rajni, R.Kumar, R K Gupta
18.	Sub barrier fusion of $^{32}\text{S}+^{94}\text{Zr}$ system and energy dependant Wood saxon potential	DAE Nucl. Phys. Symp., Vol. 59, 452-453, (2014). BHU, Varanasi.	M.S. Gautam and Manoj K. Sharma
19.	New approach to alpha decay chain in superheavy elements: inclusion of temperature dependence in decay half lives.	DAE Nucl. Phys. Symp., Vol. 59, 312-313, (2014). BHU, Varanasi.	Niyti, G. Sawhney, Manoj K. Sharma, R. K Gupta
20.	Fusion-fission and deep inelastic orbiting in target like yields from ^{32}S formed in $^{20}\text{Ne}+^{12}\text{C}$ reaction at different excitation energies	DAE Nucl. Phys. Symp., Vol. 59, 346-347, (2014). BHU, Varanasi.	B.B. Singh, M. Kaur, Manoj K. Sharma and R K Gupta
21.	Reaction dynamics of $^{(90-136)}\text{Zr}$ projectile with carbon target using Glauber model.	DAE Nucl. Phys. Symp., Vol. 59, 456-457, (2014). BHU, Varanasi.	. M K sharma, R N Panda, Manoj K. Sharma, S K Patra.

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
22.	Dynamics of ^{92}Zr and $^{108,110}\text{Sn}$ nuclei formed in $^{16,18}\text{O}$ induced reactions	DAE Nucl. Phys. Symp., Vol. 59, 562-563, (2014). BHU, Varanasi	Rajni, k. Sharma, G. Kaur, Manoj K. Sharma
23.	Proton evaporation yields of ^{65}Ge formed in $^7\text{B}+^{58}\text{Ni}$ reaction at near and sub barrier energies	DAE Nucl. Phys. Symp., Vol. 59, 616-617, (2014)	B.B Singh, M. Kaur and Manoj K. Sharma
24.	Fusion-fission and quasi-fission contribution in decay of heavy mass nuclei	BHU, Varanasi. DAE Nucl. Phys. Symp., Vol. 59, 344-345, (2014). BHU, Varanasi.	G. Kaur, N. Grover and Manoj K. Sharma
25.	Investigation of structural analysis of proton halo nuclei and related aspects.	DAE Nucl. Phys. Symp., Vol. 59, 82-83, (2014). BHU, Varanasi.	G. Sawhney, Manoj K. Sharma and R K Gupta.
26.	Study of complete and incomplete fusion processes observed in ^8B induced reaction.	Nat. conf. on Emerging challenges in Nucl. & Many body phys. (ECNMP-14), Jammu Univ. Jammu Nov. 10-11, 2014,	Neha Grover, Gurvinder Kaur and Manoj K. Sharma
27.	Investigation of $^{206}\text{Pb}(n, \alpha)^{203}\text{Hg}$ and $^{208}\text{Pb}(n, p)^{208}\text{Tl}$ reactions using collective clusterization approach	Nat. conf. on Emerging challenges in Nucl. & Many body phys. (ECNMP-14), Jammu Univ. Jammu Nov. 10-11, 2014	A. Kaur, G. Sawhney, Manoj K. Sharma
28.	Fusion hindrance in $^{27}\text{Al}+^{45}\text{Sc}$ reaction using dynamical cluster decay model.	Nat. conf. on Emerging challenges in Nucl. & Many body phys. (ECNMP-14), Jammu Univ. Jammu Nov. 10-11, 2014,	Rajni, D. Jain, Manoj K. Sharma
29.	Effect of deformations and orientations in the decay of very light mass compound system $^{28}\text{Al}^*$ formed in $^{17,18}\text{O}+^{10,11}\text{B}$ reactions	Nat. conf. on Emerging challenges in Nucl. & Many body phys. (ECNMP-14), Jammu Univ. Jammu Nov. 10-11, 2014,	B.B. Singh, M. Kaur, G. Kaur, Manoj K. Sharma, R. K. Gupta
30.	Alpha Decay of Superheavy Elements : A Theoretical Study using Dynamical Cluster-decay Model.	Nat. conf. on Emerging challenges in Nucl. & Many body phys. (ECNMP-14), Jammu Univ. Jammu Nov. 10-11, 2014,	Niyti, G. Sawhney, Manoj K. Sharma, R. K. Gupta.

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
31.	Analysis of Fission versus Quasi-Fission in $^{16}\text{O}+^{194}\text{Pt}$ reaction	Nat. conf. on Emerging challenges in Nucl. & Many body phys. (ECNMP-14), Jammu Univ. Jammu Nov. 10-11, 2014,	Kanishka Sharma, M. Kaur, Manoj K. Sharma
32.	Photocatalytic degradation of diethyl phthalate using TiO_2 nanoparticles	<i>AIP Conf. Proc.</i> 1591 (2014) 377-378	Pooja Singla, O. P. Pandey, K. Singh
33.	Structural and optical properties of $\text{Bi}_4\text{Mg}_{0.05}\text{V}_{1.95}\text{O}_{11-8}$ synthesized via melt quench technique	<i>AIP Conf. Proc.</i> (2014) 1591 1729-1730.	S. Gupta, K. Singh

4. Publication of papers in conference proceedings and other publications

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
1.	Synthesis and Optical Study of Barium Magnesium Aluminate Blue Phosphors	International Conference on Condensed Matter Physics 2014 (ICCMP-2014), Department of Physics, Himachal Pradesh University, Shimla	Suninder Jeet, Manoj Sharma and O.P.Pandey
2.	Crystallization kinetics and mechanical properties of $\text{Na}_2\text{S-P}_2\text{S}_5$ based glasses/glasses-ceramics solid electrolytes	International Conferences on Electronic Materials and Applications 2015, Double Tree by Hilton Orlando at Sea World, Orlando, Florida, USA, January 21-23, 2015	Paramjyot Kumar Jha, O. P. Pandey, K. Singh
3.	In-situ reduction/carburization WO_3 by hydrocarbon	Conference on Microscopy in Materials Science and Biomimetic Technology, held on February 26-28, 2015, Kanpur, India	Gourav Singla, K. Singh and O. P. Pandey
4.	Structural, thermal and electrochemical study of single step synthesized WC nanopowder	17 th Topical Meeting of the International Society of Electrochemistry, from 31 May to 3 June 2015, in Saint-Malo, France	Gourav Singla, K. Singh and O. P. Pandey
5.	Optical and structural properties of zirconia and yttria contained calcium borosilicate glass	DIT Dehradun 20-22 February(2015)	Savidh Khan, Gaurav Sharma, Gurwinder kaur, k Singh
6.	Structural and Magnetic properties of Mn-Zn Ferrite Nanoparticles	National Conference on Advances in Engineering Materials (NAEM-2015) held at DIT University, Dehradun	Navjot Kaur and Bhupendra Chudasama
7.	Nanoantibiotics: strategic	International conference on	Chandni Khurana

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
	assets in fight against drug resistant superbugs	Translational Nanomedicine (T-NANO 2014), held at Institute of life sciences, Ahmedabad	and Bhupendra Chudasama
8.	Antimicrobial activity of silver nanoparticles against gram negative and gram positive strains	International conference on condensed matter physics (ICCMP-2014), held at Shimla University, India	Purnima Sharma and Bhupendra Chudasama
9.	Tunable Plasmonic Properties of NIR Responsive Gold Nanorods for Photothermal Therapy of Cancer	International conference on condensed matter physics (ICCMP-2014), held at Shimla University, India	Parveer Kaur and Bhupendra Chudasama
10.	Effect of Storage medium on the stability of gold nanorods for photothermal therapy of cancerous tumors	International symposium on Nanotechnology & Cancer theranostics (ISNACT-2015) IIT Bombay, Mumbai February 19-21, 2015	Parveer Kaur and Bhupendra Chudasama
11.	Biodegradable polymeric magnetic nanoparticles: A Potential drug delivery vector for anticancer therapeutics	International symposium on Nanotechnology & Cancer theranostics (ISNACT-2015) IIT Bombay, Mumbai February 19-21, 2015	Chandni Khurana and Bhupendra Chudasama
12.	Magnetic moments of delta baryons with extended sea	Proceedings of the DAE symp On Mucl Phys 59 (2014)	A.Kuar, M.batra, A. Upadhyay
13.	Nucleonic magnetic Moments with effective charge and mass	Proceedings of the DAE symp On Mucl Phys 59 (2014)	Sunil Kumar, N K Verma,
14.	Synthesis and characterization of BiFeO ₃ for photocatalytic degradation of azo dye	Advanced Materials and Radiation Physics (AMRP-2015)	Manpreet Kaur, Poonam Uniyal
15.	Pulse Propagation in cubic-quintic nonlinear medium under the influence of gain dispersion, two-photon absorption and three-photon absorption	PHOTONICS 2014, IIT Kharagpur, December 13-16 (2014).	Gurkirpal Singh Parmar, Soumendu Jana
16.	Cosh-Gaussian solitary wave solution in dissipative laser cavity,	Conference on Nonlinear Systems and Dynamics, (CNSD-15), IISER, Mohali, March 13-15, (2015)	Baldeep Kaur, Soumendu Jana,

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
17.	All-Optical Push Broom Effect in VCSEL,	DAE-BRNS National Laser Symposium (NLS-22) (2014)	Soumendu Jana, Baldeep Kaur
18.	Spatio-temporal soliton in inhomogeneous non-linear media	DAE-BRNS National Laser Symposium (NLS-22) (2014)	Soumendu Jana, Gurkirpal Singh Parmar and Kanupriya Garg
19.	Optical and structural properties of zirconia and yttria contained calcium borosilicate glass	National Conference on Advances in Engineering Materials, DIT Dehradun 20-22 February(2015)	Savidh Khan, G Sharma, G.kaur, K. Singh

5. List of various faculty members who attended various conferences/ workshops/ short-term programs

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
1.	Loveleen Kaur Brar	National Conference on Advances in Engineering Materials (NAEM-2015)	DIT University, Dehradun, 20 th – 21 st March, 2015
2.	Dr. Puneet Sharma	International Conference on Magnetic Materials And Applications ICMAGMA-2014	Department of Physics Pondicherry University September 15-17, 2014.
3.	B.N. Chudasama	International conference on Translational Nanomedicine (T-NANO 2014)	Institute of life sciences, Ahmedabad December 14-17, 2014
4.	B.N. Chudasama	International symposium on Nanotechnology & Cancer theranostics (ISNACT-2015)	IIT Bombay, Mumbai February 19-21, 2015
5.	Soumendu Jana	DAE-BRNS National Laser Symposium (NLS-22) (2014)	Manipal University, Manipal, 2014
6.	Soumendu Jana	PHOTONICS 2014,	IIT Kharagpur, December 13-16 (2014)

6. List of ongoing sponsored projects

S.No.	Name of the Project	Year of sanction	Funding Agency	Project Cost (Lacs)	Principal Investigator
1.	Study of La doped mixed conductor for solid electrolyte	2012	DST, New Delhi	34.0	Dr. Kulvir Singh
2.	Study of Alkaline earth metals substitution in Bi based mixed ion conductor for solid oxide	2012	DRDO, New Delhi	14.42	Dr. Kulvir Singh

S.No.	Name of the Project	Year of sanction	Funding Agency	Project Cost (Lacs)	Principal Investigator
3.	fuel cell application Synthesis and Characterization of Vanadium Carbide Nanoparticles	2012	UGC, DAE, CRS	9.54	Dr. O. P. Pandey
4.	Development of porous aluminum foam materials for blast mitigation	2012	DRDO, New Delhi	17.24	Dr. O. P. Pandey
5.	Radiation induced opto-Structural modifications in borosilicate glasses	2013	IUAC, New Delhi	6.03	Dr. Surinder Singh
6.	Effect of Magnetic Anisotropy and Particle Size Distribution on the Magnetization of antiferromagnetic NiO Nanoparticles	2014	CSIR	18.757	S. D. Tiwari
7.	Investigation of growth dynamics and kinetic surface roughening of some solution processed technologically important binary sulfide	2013	UGC	06	Dr. B. C. Mohanty
8.	Study of size-dependent multiferroic properties of doped-BiFeO ₃ nanostructures	2012	BRNS	22.4498	Dr. N.K. Verma
9.	Preparation and characterization of barium hexaferrite (BaFe ₁₂ O ₁₉) thick films for micro/millimeter wave device application	2013	CSIR	14.42	Puneet Sharma
10.	Development of M-type hexaferrite films for microwave device application	2014	DST	47.46	Puneet Sharma
11.	Studies on antimicrobial properties of metal and metal oxide nanostructures	2013	UGC	13.75	B.N. Chudasama
12.	Low energy properties of baryon Octets and decuplets	2015	DST	17.39	A Upadhyay
13.	Synthesis of BiFeO ₃ -(K _{0.5} Na _{0.5})NbO ₃ thin films for device applications	2013	UGC	13.91	Poonam Uniyal

7. List of completed sponsored projects

S.No.	Name of the Project	Funding Agency	Project Cost (Lacs)	Principal Investigator
1.	Synthesis and characterization of multiferroic $\text{AFe}_2\text{O}_4\text{-BiFeO}_3$ (A=Co, Ni, Z,) nanocomposite films	UGC	11.00	Puneet Sharma
2.	Nanoengineering of magnetic carriers for drug delivery of anticancer therapeutics	DST	27.80	B.N. Chudasama
3.	Magnetic Fluid based coolant to enhance thermal and dielectric properties of transformer oil	CSIR	20.25	B.N. Chudasama
4.	Moving And Colliding Cavity Solitons and Cavity Soliton Molecules	UGC-BSR	6.00	Soumendu Jana

8. List of faculty members who have delivered invited lectures/talks etc. at various levels

S. No.	Name of the faculty member	Title of the expert talk/lecture	Forum with date and venue
1.	Loveleen Kaur Brar	SPM: Topographic imaging and beyond.	National Conference on Advances in Engineering Materials (NAEM-2015) DIT University, Dehradun, 20 th March, 2015

9. Special lectures delivered by invited scholars/experts from outside TU

S. No.	Name of the Expert with Designation	Title of the Expert Lecture	Date and Venue
1.	Dr S. T. Lakshmikumar, Chief Scientist, National Physical Laboratory, New Delhi	Science, Technology and Success	27/03/2015, Thapar University auditorium
2.	Dr. Laxmi Kumar, Chief Scientist, NPL	Career Awareness for Science Graduates	27th March, 2015, Thapar University

10. List of ongoing Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1.	Optical and morphological study of doped Y_2O_3 nanostructures	Dr. O. P. Pandey

S. No.	Title of the Thesis	Name of the Supervisor(s)
2.	Photoluminescence and photocatalytic studies of doped and capped ZnO and CeO ₂ nanomaterials	Dr. O. P. Pandey
3.	Synthesis and Characterization of vanadium carbide nanoparticles	Dr. O. P. Pandey, Dr. Kulvir Singh
4.	Effect of grain size and Gd-Co substitution on multiferroic BiFeO ₃ thin films	Dr. Puneet Sharma, Dr. O. P. Pandey
5.	Synthesis and characterization of CuS modified Na ₂ S-P ₂ S ₅ glasses for solid electrolytes	Dr. Kulvir Singh, Dr. O. P. Pandey
6.	Reduction of WO ₃ compound; their structural and thermal properties	Dr. O. P. Pandey, Dr. Kulvir Singh
7.	Development of Aluminium Foam materials for blast mitigation	Dr. O. P. Pandey
8.	Optical and morphological study of doped nano CeO ₂	Dr. O. P. Pandey
9.	Synthesis of Nano TaC through solvothermal route	Dr. O. P. Pandey
10.	Estimation of particle magnetic moment distribution for antiferromagnetic ferrihydrite nanoparticle	S. D. Tiwari
11.	Synthesis and characterization of cobalt hydroxide and cobalt oxyhydroxide nano particles	SD tiwari
12.	Synthesis and characterization of PVDF-Ba,SrTiO ₃ nanocomposites for electronic applications	D. P. Singh
13.	Grain Boundary and Photovoltaic Characteristics of Solution Processed Cu ₂ (ZnSn)(SSe) ₄ Thin Films	Dr. B.C. Mohanty
14.	Optical and magnetic behavior of metal doped CdS nanostructure.	Dr. N.k Verma
15.	Multiferroic properties of doped BiFeO ₃ nanoparticle	Dr. N.k Verma
16.	Magnetic and optical studies of transition metals-doped ZnS nanostructures	Dr. N.k Verma
17.	Preparation And Characterization of BariumHexaferrite (BaFe ₁₂ O ₁₉) Thick Films For Micro/ Millimeter Wave Device Application	Dr. Puneet Sharma and O.P Pandey
18.	Electrical and magnetic studies on Bi-based perovskite-AFe ₂ O ₄ (A=Co,Ni) composite structure	Dr. Puneet Sharma and Dr. Ratanamala Chattejee
19.	Effect of grain size and Gd-Co substitutions on multiferroic BiFeO ₃ thin films	Dr. Puneet Sharma and O.P Pandey
20.	Invitations on magnetic nano particles – ferroelectric liquid crystal composites	Dr. Puneet Sharma and K.K. Rana

S. No.	Title of the Thesis	Name of the Supervisor(s)
21.	Synthesis of stable near infrared responsive gold nanorods for plasmonic photothermal therapy applications	B.N. Chudasama
22.	Nanoengineering of Temperature Sensitive Magnetic Fluids for Cooling Applications in Power Transformers	B.N. Chudasama
23.	Antibacterial Activity and Cytotoxicity Study of Engineered Copper Nanoparticles	B.N. Chudasama and Dinesh Goyal
24.	Optical Cavity Soliton and its Dynamics	Dr. Soumendu Jana
25.	Generation and Dynamics of Optical Dissipative Soliton	Dr. Soumendu Jana
26.	A theoretical study of heavy ion collisions and related dynamical aspects	Manoj K. Sharma
27.	Decay of heavy and superheavy nuclei formed in a variety of nuclear reactions.	Manoj K. Sharma
28.	Dynamics of heavy ion reactions involving compound and non-compound nucleus mechanisms.	Manoj K. Sharma
29.	Investigation of ground state decay patterns of nuclear systems and related properties.	Manoj K. Sharma
30.	Synthesis and dynamical aspects of superheavy systems formed in heavy ion reactions	Manoj K. Sharma
31.	Heavy ion induced interaction in low energy region and subsequent decay mechanisms	Manoj K. Sharma
32.	Fusion-fission and associated nuclear structure effects at low energies	Manoj K. Sharma
33.	Dynamics of nuclear reactions in superheavy mass region	Manoj K. Sharma
34.	Study of modified BiFeO ₃ ceramics for device applications	Poonam Uniyal
35.	Lead free relaxor ferroelectric ceramics for electrocaloric applications	Poonam Uniyal
36.	Preparation and characterization of SiO ₂ -CaO-MgO-P ₂ O ₅ -K ₂ O glasses as biomaterials.	Dr. K. Singh
37.	Optical and structural properties of ZnO, TiO ₂ and V ₂ O ₅ modified lithium borate glasses/ glass ceramics.	Dr. K. Singh
38.	Structural and bioactive properties of Fe/Mn oxides substituted sodium silicate glasses	Dr. K. Singh
39.	Studies on AO-Bi ₂ O ₃ -V ₂ O ₅ (A = Mg, Ca, Sr, Ba) ceramics as electrolytes.	Dr. K. Singh
40.	Studies on Structural and Mechanical Properties of Carbon Nanotube Dispersed Tungsten Carbide-Cobalt Nano/Micro Composites.	Dr. K. Singh

S. No.	Title of the Thesis	Name of the Supervisor(s)
41.	Preparation and characterization of undoped and transition-metal-doped TiO ₂ nanoparticles for the photocatalytic degradation of phthalate esters.	Dr. K. Singh
42.	Synthesis and characterization of CuS modified Na ₂ S-P ₂ S ₅ glasses for solid electrolytes.	Dr. K. Singh, Dr. O. P. Pandey
43.	Synthesis and Characterization of vanadium carbide nanoparticles.	Dr. O. P. Pandey, Dr. K. Singh
44.	Reduction of WO ₃ compound; their structural and thermal properties.	Dr. O. P. Pandey, Dr. K. Singh

11. List of completed Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1.	Effect of Electric and magnetic field on Seed Germination	Dr. O. P. Pandey
2.	Study of wear resistant Zircon sand reinforced aluminium matrix composites	Dr. O. P. Pandey
3.	Effect of Gamma and Heavy ions Irradiations on the Structural and Optical Properties of Heavy metal oxide Borosilicate Glasses	Dr. O. P. Pandey, Dr. Surinder Singh
4.	Study of Alkaline earth metals substitution for Bismuth in bismuth based mixed ion conductors	Dr. Kulvir Singh, Dr. O. P. Pandey
5.	Studies on Lanthanum based ionic conductors as electrolyte materials	Dr. O. P. Pandey, Dr. Kulvir Singh
6.	Studies on Antimicrobial Properties of Metals and Metal Oxide Based Nanostructures	Dr. B. N. Chudasama, Dr. O. P. Pandey
7.	Tribological studies of Aluminium alloy-rutile composite developed through stir casting route	Dr. O. P. Pandey
8.	Photocatalytic studies of undoped and doped ZnS nanostructures	Dr. O. P. Pandey
9.	Thermal and Elastic Properties of Solids and Geophysical minerals at elevated temperature and Pressure	Dr. O. P. Pandey, Dr. S. K. Sharma
10.	Synthesis and characterization of transition metal doped CdSe dilute magnetic nanoparticles	Dr. N.K Verma
11.	Study on Functionalization and cytotoxicity of calcium and potassium ferrite nanoparticles	Dr. N.K Verma
12.	Multiferroism in multifunctional rare earth metals-doped BiFeO ₃ nanostructures	Dr. N.K Verma

S. No.	Title of the Thesis	Name of the Supervisor(s)
13.	Studies on Antimicrobial properties of metals and metal oxide based nanostructures	B.N. Chudasama and O.P. Pandey
14.	Development of an intelligent novel algorithm for transformer fault detection using various emission signals	B.N. Chudasama and Y.S. Brar
15.	Fusion-fission and associated nuclear structure effects at low energies	Manoj K. Sharma
16.	Dynamics of nuclear reactions in superheavy mass region	Manoj K. Sharma
17.	Study of Alkaline earth metals substitution for Bismuth in bismuth based mixed ion conductors	Dr. Kulvir Singh, Dr. O. P. Pandey
18.	Studies on Lanthanum based ionic conductors as electrolyte materials	Dr. O. P. Pandey, Dr. Kulvir Singh

12. List of equipment procured

S. No.	Name of the equipment	Make	Name of the laboratory	Date of Purchase	Amount (Rs Lacs)
1.	Furnace	Ants	Nanomagnetic lab.	24/03/2015	1.25664
2.	Helium cylinder	Metler Toledo	Nanomagnetic Lab	03/03/2015	0.21375
3.	Electronic Balance	Metler Toledo	Nanomagnetism Lab	14/03/2015	0.84582
4.	Oven	NSW, Delhi	Nanomagnetism Lab	23/03/2015	0.47166
5.	Centrifuge	Remi	Nanomagnetism Lab	08/04/2015	0.99000
6.	Ultrasonic bath	PCI	Nanomagnetism Lab	14/03/2015	0.25909
7.	RF Sputtering		Magnetic Material		
8.	Vibrating Sample Magnetometer	Lakeshore, USA	Sophisticated Instrumentation Laboratory	01/01/2015	108
9.	Inductively coupled Plasma Atomic Emission Spectrophotometer	Leeman Lab, USA	Sophisticated Instrumentation Laboratory	01/01/2015	44

* delivered in the current assessment period

13. Computing facilities in the Department

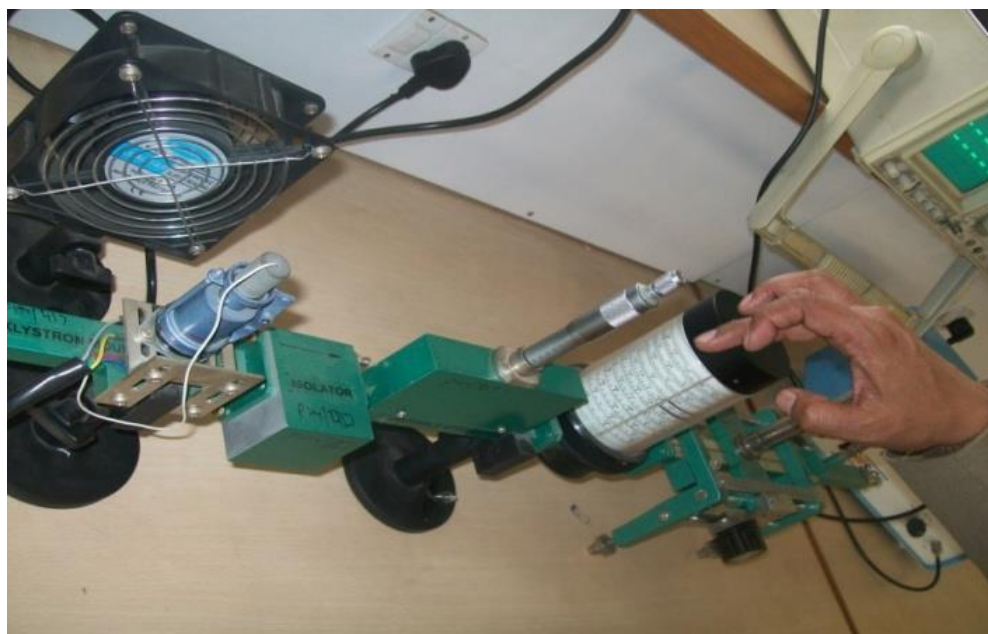
S. No.	Details of the Hardware/Software	Name of the Laboratory
1	02 IBM Server	Server room: Nuclear Labs.
2	10 Desktop computer	Computational Lab

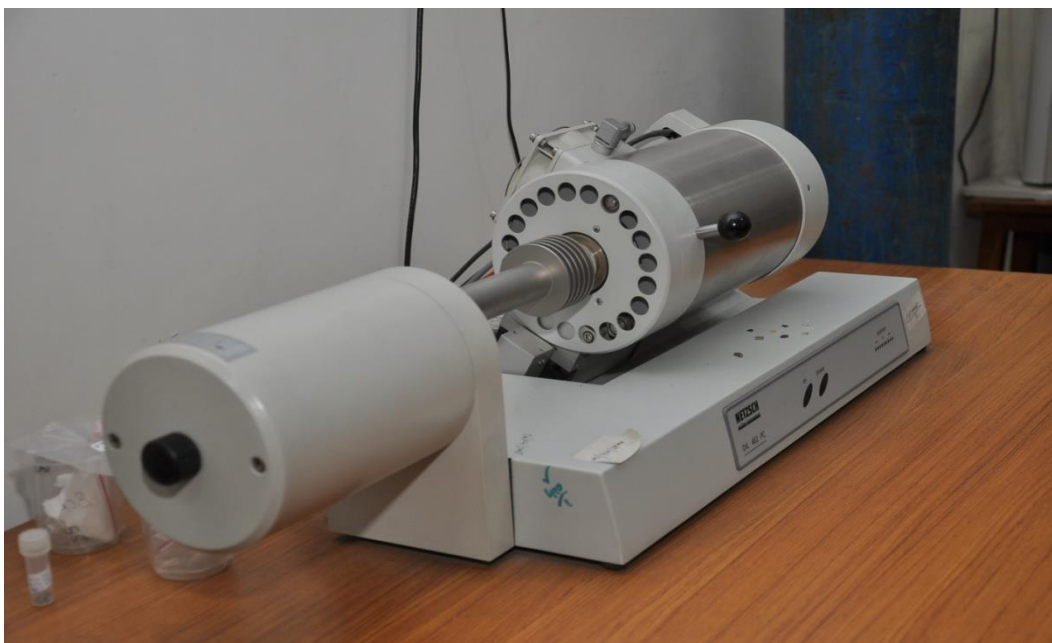
14. Information regarding foreign visits

S. No.	Name of the faculty	Host University/ Organization	Nature of work	Month and Year of visit
1	Dr. B. C. Mohanty	Yonsei University, Seoul, Korea	Collaborative research	Jun - Jul 2014

15. List of organizations where students undertook project semester/Summer Training

S. No.	Name of the Organization
1	Indian Institute of Technology, Mumbai
2	Bharat Heavy Electricals Limited, Trichy

**Instrument Waveguide**



Instrument Fiber Optics

LM Thapar School of Management

The School has made **several International Scholarly Collaborations** with number of foreign faculty who visited the School for teaching and research. Most of the faculty members of LMTSM visited different countries to get global exposure in understanding global accreditation practices, global scholarly practices and consultative approach and global entrepreneurial mindset in order to **develop rigorous, flexible and globally acceptable course curriculum and pedagogy**. With the help of these global interactions, the School has finally secured some **International Summer and Final Placements** for the Students. Moreover, the School has produced **maximum research output** this year as a few scholars have competed their PhDs and the faculty members published several articles in reputed national and international journals and conferences.

Achievements during 2014-15

- Papers published in SCI Journals: 5
- Papers published in Non SCI Journals: 7
- Papers published in conferences: 06
- Doctoral Degree Awarded: 5
- Lectures by visiting experts: 11
- Visits abroad by faculty members: 09
- Awards and Honors Nil

Section 1

Academic Programs:

- *Post-Graduate: Master of Business Administration (MBA) Program*
- *Doctoral: Ph. D. Program*

Thrust areas of research

Sustainability & Social Entrepreneurship, Behavioural Decision Science, Quantitative Culture Studies, Academic & Corporate Leadership, Business Analytics & Operational Excellence, Research facility / centre with International Recognition:

Centre for Strategy, Sustainability & Society: This centre is in the process of developing joint research programs with the Porter School of Environmental Studies of Tel Aviv University, Israel. Discussions have also been initiated with the Technical University, Aachen, Germany.

Venture Lab, an incubation centre to promote start ups has been established in collaboration with University of Twente, The Netherlands (Amongst Top 100 universities of the world). It is actively supported by Centre for Innovation, Incubation and Entrepreneurship (CIIE), IIM (Ahmadabad). It's a national level incubation centre to promote local frugal innovation to solve regional problems by supporting start-ups.

- Centres of Excellence of National recognition:
- Centre for Business Analytics & Operational Excellence

Brief description of ongoing research activities

The research activities of the School are going on in the areas of management, humanities and social sciences. The main focus is to take research on innovation, sustainable development, technology management, social entrepreneurship and organizational theory, and corporate and academic leadership.

New Plans and Projects

- The school proposes to acquire international accreditation of EQUIS (EFMD) and AACSB in the next five years.
- The school with an MoU with the following Universities proposes to start research and student exchange program:
 - a. University of Groningen, The Netherlands
 - b. University of Rome, Italy
 - c. University of Twente, The Netherlands
 - d. University of Texas, Dallas, USA
 - e. Free University, Amsterdam, The Netherlands
 - f. University of Waterloo, Canada
 - g. University of Tel Aviv, Israel
- To start 1 year+1 year program with the top 500 B Schools in countries like Japan, S. Korea, The Netherlands, Germany, Belgium, Finland, France, Sweden, Norway, USA, Canada and China.
- To start Executive Education programs with a corporate connect like MDP etc in 2015-16.
- To start an integrated MBA-MPhil program in 2015-16.
- To commence an integrated BE-MBA program in Civil, Electric, Electronics and Computer engineering in 2015-16.
- To focus on student employability and not just their employment.

Section 2:

1. List of faculty

Professor

S. No.	Name	Qualification & Specialization
1	Dr.Padmakumar Nair	Dr. Eng., Ph. D. ,M. Tech. (IIT), MBA Sustainability, Material Science, Nanotechnology, Social Entrepreneurship and Leadership

2	Dr. AK Dhingra	Ph.D, MBA, B.E Human Resource and Energy Management
3	Dr. Girish Jaswal	Ph.D, MBA, MA, LLM Marketing, Business and Corporate Laws

Associate Professor

S. No.	Name	Qualification & Specialization
1	Dr.M. Kanchan	M.Com, Ph.D, Finance and Accounting
2	Dr. Karminder Jit Ghuman	Ph.D, MBA, M.Sc Marketing and Entrepreneurship

Assistant Professor

S. No.	Name	Qualification & Specialization
1	Dr. Piyush Verma	Ph.D. (Applied Economics), Master of Business Economics (MBE), Diploma in German Language Economics, Strategy and Technology Innovation
2	Dr. Gurparkash Singh	Ph.D., Masters in Information Systems, PGD(IT) Information Systems, Ethics and Knowledge Management
3	Dr. Amit Kumar Bhardwaj	M.Sc, ME, MBA, PhD Information Systems
4	Mr. Pradeep Gupta	B.S c., MBA, Pursuing PhD Accounting and Finance
5	Mr. Ankit Mahindroo	BE(Industrial), MBA, Pursuing PhD Information Systems
6	Dr. Harjot Singh	BE, MBA, PhD Marketing
7	Mr. Gaurav Goyal	B.Tech, M.tech, MBA, Pursuing PhD Operations and Quantitative Techniques

8	Ms. Niti Chatterjee	B.Com.(H), MBA, Pursuing PhD OB, HR and Communication
9	Dr. Vipul Gupta	BE , MBA, PhD Operations and Quantitative Techniques
10	Dr. Sonia Garg	B.Tech, MBA, PhD Finance
11	Mr. Sanjiv Dhir	Pursuing Ph.D, MBA, MS, B.E, Marketing and Finance
12	Dr. Rudra Rameshwar	B.Tech.(Electrical Engg.), GATE (E&C Engg.), M.Tech. (Alternate Hydro Energy Systems, IIT Roorkee), D.B.E. (Business Entrepreneurship, EDI Ahmedabad), Ph.D. (Strategic-Technology Management, IIT Roorkee) Strategic-Technology Management, Business Entrepreneurship, Research Design & Methodology, Business & Management Statistics, Operations Management, Energy Resources and Conservation, Sustainable Business Strategies, Hydro-Electric System Engineering, Integrated Renewable Energy Technologies & Systems, Environmental Studies
13	Dr. Shalu Bansal	B.Com, M.Com, MBA, M.Phil, Ph.D. Finance and Accounting
14	Dr. Arunesh Garg	BE, MBA, PhD Marketing

2. List of research publications in SCI/Impact Factor journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors	Impact Factor
1	Impact of Basel II Norms – Scheduled Commercial Banks Officers' Opinion.	Asian Journal of Research in Banking & Finance, pp. 71-83, Vol. 4, Issue – 7, July 2014	Shalu Bansal	0.406
2	Factors Affecting	<i>Total Quality Management &</i>	Kamra,	

	Patient Satisfaction: An Exploratory Study for Quality Management in the Health-care Sector	<i>Business Excellence</i> , DOI: 10.1080/14783363.2015.1057488, (2015) Published online: 18 Jun 2015	Vishal; Singh, Harjot & De, Kalyan	
3	Data mining-based integrated network traffic visualization framework for threat detection	Neural Computing and Applications 26 (1), 117-130, 2015.	Amit Kumar Bhardwaj and Dr. Maninder Singh	1.715
4	Network Traffic Threat Detection and Reporting System Validation through UML	Network and Complex Systems 5 (2), 21-29, 2015	Amit Kumar Bhardwaj and Dr. Maninder Singh	5.54
5	Volatility Risk Premium in the Indian Options Prices	Journal of Futures Markets	Sonia & Vipul	0.782

3. List of research publications in Non-SCI/Non-Impact journals

S. No.	Title of the paper	Name of the Journal with volume, page nos., year	Name of the authors
1	Diversification Strategy on Capital Structure and Corporate Performance - An Analytical and Comprehensive Research Outlook	Global Business and Management Research: An International Journal Vol. 6 (2), 92-111, 2014	Mr. Rishi Manrai, Dr. Rudra Rameshwar, Dr. Vinay Nangia
2	Interactive Effect of Diversification Strategy on	Global Journal in Global Journal of	Mr. Rishi Manrai, Dr. Rudra

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|----------|--|---|---|
| | Capital Structure and Corporate Performance: An Analytical Evaluation | Management and Business Research (C), GJMBR, 14(4), 75-91, 2014 | Rameshwar, Dr. Vinay Nangia |
| 3 | Integrated Mechanism through Diversification Strategy, Capital Structure and Firm Performance: An International Business Outlook | International Journal of Management, Vol. 3(4), 13-14, 2014 | Mr. Rishi Manrai, Dr. Rudra Rameshwar |
| 4 | Microfinance Impact Evaluation: A Review of Existing Literature. | Academy of Taiwan Business Management Review, Vol. 10, No. 3, December 2014 | Shalu Bansal |
| 5 | Commodity Futures in Portfolio Diversification: Impact on Investor's Utility | Global Business and Management Research: An International Journal
Vol. 6, No. 2, pp.112-121
(Online ISSN: 1947-5667) | Verma, P. with Bansal, Y. and Kumar, S. |
| 6 | Co-Integration and Causality between Equity and Commodity Futures: Implications for Portfolio Diversification | Global Journal of Management and Business Research
Vol. 14, No. 5.
(Online ISSN: 2249-4588;
Print ISSN: 0975-5853) | Verma, P. with Bansal, Y. and Kumar, S. |
| 7 | Volatility Forecasting Performance of Two-Scale Realized | Applied Financial Economics**, Volume 24 Issue 17 pp. 1111-1121 | Sonia & Vipul |
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Volatility

4. Publication of papers in conference proceedings and other publications

S. No.	Title of the paper	Name of the conference with venue, date and year, page nos.	Name of the authors
1	An Interpretive Structure Model Approach to supply chain flexibility: A Case study of Indian FMCG firm	POMS-NITIE International Conference on Manufacturing Excellence, NITIE Mumbai (December 18-21, 2014)	Singh, R., Gupta, V. and Acharya, P.
2	Traditional vs. interactive technologies for Corporate Social Responsibility communication in health care: A study in Malta and India	22 nd EUROMA International Conference on Operations Management on Sustainable Competitiveness, Neuchatel, Switzerland (June 26 to July 1, 2015)	Tomaselli, G., Garg, L., Gupta, V. and Xuereb, P.
3	Cataloging Frequently Used Theories in the Supply Chain Management Literature: An Appraisal	<i>XVIII Annual International Conference of the Society of Operations Management: IIT Roorkee, India (12-14 December, 2014) 52-61</i>	Goyal, G., Mahindroo, A. Samalia, H.V.
4	Quality Management Practices' Grounded Pathway to Higher Supply Chain Performance: An Appraisal	<i>ARC 2014-II International Conference on Applied Research in Business, Management, Economics and Finance, Pattaya, Thailand (2-3 August, 2014), Vol 2, 138-145.</i>	Goyal, G., Samalia, H.V., Verma, P. & Singh, H.
5	Service Quality, Consumer Satisfaction and Behavioral Outcomes: A Study for Firm's Future Growth in Indian Healthcare Delivery System	<i>National Conference on Advances in Management for Business Excellence, CD proceedings of the conference in Kurukshetra, India (ISBN Number 978-93-84370-32-9),</i>	Kamra, Vishal; Singh, Harjot and De, Kalyan Kumar

Department of Business
Administration, NIT,
Kurukshetra, Feb 27-28,
2015, 417.

6	An Information Technology Based Conceptual Framework for Supply Chain Performance Improvements	II International Conference on Applied Research in Business, Management, Economics and Finance (ARC-2014), Pattaya, Thailand (August 02-03, 2014)	Ankit Mahindroo, Dr. Harsh Vardhan Samalia, Dr. Piyush Verma
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5. List of various faculty members who attended various conferences/ workshops/ short-term programs

S. No	Name of the Faculty member	Name of the Conference	Place and Dates
1	Prof. Padmakumar Nair	HTSF Conference	Groningen, The Netherlands, June 3-5, 2015
2	Prof. Padmakumar Nair	Boosting Academic Entrepreneurship Conference	Enschede, Netherlands. Dec. 11-13, 2014
3	Prof. Padmakumar Nair	11th Annual NYU-Stern Conference on Social Entrepreneurship	Boston, USA, Nov 4-6, 2014
4	Prof. Padmakumar Nair	Academy of Management Annual Meeting	Philadelphia, USA, August 1-5, 2014.
5	Prof. Padmakumar Nair	Sustainability, Ethics and Entrepreneurship (SEE) Academic Research Conference	Denver, Colorado, USA, May 22-23, 2014
6	Prof. Padmakumar Nair	Indian Academy of Management (IAM)	IIM Ahmedabad, December 12-14, 2013.

		Conference	
7	Dr. Vipul Gupta	POMS-NITIE International Conference on Manufacturing Excellence	NITIE Mumbai (December 18-21, 2014)
8	Dr. Vipul Gupta	22 nd International Conference on Operations Management Sustainable Competitiveness	EUROMA Neuchatel, Switzerland (June 26 to July 1, 2015)
9	Dr. Vipul Gupta	Business Accreditation and Assurance Learning Seminar	New Delhi, February 24-27, 2015
10	Dr. Vipul Gupta	Workshop on Modeling and Decision Making Techniques	IIT Delhi, March 19-21, 2015
11	Mr. Pradeep Kumar Gupta	Business Accreditation and Assessment Seminars	Tampa, Florida (USA), May 28-29, 2015 & June 3-4, 2015.
12	Mr. Pradeep Kumar Gupta	IIM-A FDP2014	IIM Ahemdabad, India, June 9-September 27, 2015.
13	Mr. Gaurav Goyal	XVIII Annual International Conference of the Society of Operations Management	IIT Roorkee, India (12-14 December, 2014)

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|-----------|----------------------------|---|---------|---|
| 14 | Mr. Gaurav Goyal | ARC
<i>International
Conference on Applied
Research in Business,
Management,
Economics and
Finance</i> | 2014-II | Pattaya, Thailand
(2-3 August, 2014) |
| 15 | Dr. Piyush Verma | Business Accreditation
and Assurance of
Learning Seminar | | New Delhi,
February 24-27,
2015 |
| 16 | Dr. Gurparkash Singh | Business Accreditation
and Assurance of
Learning Seminar | | New Delhi,
February 24-27,
2015 |
| 17 | Dr. Karminder Singh Ghuman | Business Accreditation
and Assurance of
Learning Seminar | | New Delhi,
February 24-27,
2015 |
| 18 | Dr. M. Kanchan | Business Accreditation
and Assurance of
Learning Seminar | | New Delhi,
February 24-27,
2015 |
| 19 | Mr. Ankit Mahindroo | <i>XVIII Annual
International
Conference of the
Society of Operations
Management</i> | | IIT Roorkee, India
(12-14 December,
2014) |
| 20 | Mr. Ankit Mahindroo | ARC
<i>International
Conference on Applied
Research in Business,
Management,
Economics and
Finance</i> | 2014-II | Pattaya, Thailand
(2-3 August, 2014) |
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6. Course material prepared

S. No.	Name of the Faculty member	Title of the Course material	Status (Completed/ongoing)
1.	Dr. Rudra Rameshwar	Quantitative Applications in Management	Completed
2.	Dr. Rudra Rameshwar, Dr. Piyush Verma & Dr. Padma Kumar Nair	Sustainable Business Strategies	Completed
3.	Dr. Rudra Rameshwar	Product Design and Development	Completed
4.	Dr. Rudra Rameshwar	Environmental Studies	Ongoing
5.	Dr. Rudra Rameshwar	Renewable Energy Systems	Ongoing

7. Special lectures delivered by invited scholars/experts from outside TU

S No.	Name of the faculty	Teaching / Research Area	Affiliation	Year
1	Prof. Abhijit Biswas	Consumer Behaviour	University of Texas at Dallas, USA	2014
2	Prof. Kenichiro Akiyama	International Human Resources Management	Minori Management Research Institute, Tokyo, Japan	2014
3	Prof. Aard Groen	Knowledge Intensive Entrepreneurship	Groningen University, The Netherlands	2014
4	Dr. Ingrid Wakkee	Entrepreneurial Eco Systems	Free University of Amsterdam, The Netherlands	2014
5	Prof. P.C. van der Sidje	Entrepreneurial Education	Free University of Amsterdam, The Netherlands	2014
6	Prof. Gerhard Fatzer	Change Management	GIZ Gesellschaft für	2014

			InternationaleZusammenarbeit, Eschborn, Switzerland	
7	Prof. Kannan Ramnathan	Supply Chain Management	University of Texas at Dallas, USA	2014
8	Prof. MG Sreekumar	Business History	IIM, Kozhikode, Kerala, India	2014
9	Ms. Divya Bhutiani	Organizational Design	University of Twente, The Netherlands	2014
10	Prof. Gadi Ariav	Information System	Recanati Business School, Tel Aviv University, Israel	2014
11	Prof. Shai Danziger	Marketing	Recanati Business School, Tel Aviv University, Israel	2015

8. List of ongoing Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1	Commodity Futures as an 'Asset Class': An empirical evidence from Indian Market	Dr. Shailendra Kumar and Dr. Piyush Verma
2	Value Relevance of Degree of Leverages and its Impact of Systematic Risk: An Empirical Study on Indian Manufacturing Firms	Dr. Shailendra Kumar and Dr. Piyush Verma
3	Impact of Sustainable Growth on Stock Returns and Systematic Risk: An Empirical Study on Indian Manufacturing Firms	Dr. Shailendra Kumar and Dr. Piyush Verma
4	Determinants of Cloud Computing Adoption in Indian Small and Medium sized Enterprises	Dr. Harsh V. Samalia And Dr. Piyush Verma
5	Information Systems Approach for Optimizing	Dr. Harsh V. Samalia

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| | Reverse Logistics Performance in Indian Context | And Dr. Piyush Verma |
| 6 | Impact of Quality Management Practices and Supply Chain Process Integration on Supply Chain Performance with Reference to Indian Automotive Industry | Dr. Harsh V. Samalia
And Dr. Piyush Verma |
| 7 | Green IT orientation of IT enabled Service Sector: An Appraisal of Indian Firms | Dr. Harsh V. Samalia
And Dr. Piyush Verma |
| 8 | Dynamic Capabilities and technology Strategy of Multinational Enterprises in Host Country: A Study of High-Technology Sector Firms in India | Dr. Piyush Verma |
| 9 | Public Private partnership models and firm performance: An empirical analysis of road infrastructure projects in India | Dr. Piyush Verma |
| 10 | Consumer Choices and Satisfaction in Health Care Industry: A Study based on Multi Speciality Hospitals in North India | Dr. Harjot Singh and Dr. Kalyan De |
| 11 | Electronic Health Records and Its Impact on Healthcare Industry: A Comprehensive Study in Punjab State | Dr. Harjot Singh and Dr. Kalyan De |
| 12 | The effect of Marketing Mix elements on brand awareness of consumer durables | Dr. Harjot Singh and Dr. Kalyan De |
| 13 | A study of factors impacting consumer switching behaviour in telecom sector of northern India | Dr. Gurparkash Singh |
| 14 | Performance Appraisal: Practices, Perceptions and Problems in ITeS sector in NCR in India | Dr. Gurparkash Singh |
| 15 | Career Progression of Women Executives in IT | Dr. Gurparkash Singh |

Sector: Perspectives, Problems, and Prospects

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|----|--|--|
| 16 | The role of marketing intelligence in brand positioning of select consumer durables | Dr. Gurparkash Singh and
Dr. Harsh V. Samalia |
| 17 | Spirituality at Workplace and its relationship with Job Satisfaction- A study on public and private insurance sector in Punjab | Dr. Mandeep Singh |
| 18 | Performance of Indian Mutual Funds During Post Liberalisation Era:An Empirical Evidence | Dr. Amit Kumar |

9. List of completed Ph. D. Thesis

S. No.	Title of the Thesis	Name of the Supervisor(s)
1	Impact of Diversification Strategy on Capital Structure, Systematic Risk and Corporate Performance in Indian Context	Dr. Rudra Rameshwar and Dr. Vinay Nangia
2	Business Planning & Marketing Strategy in the Context of Globalization for Small & Medium Enterprises in India	Dr. Neeraj Pandey, Dr. Shailendra Kumar and Dr. Ravi Kiran
3	Employee attrition in ITeS call centres in selected clusters of North India	Dr. Neeraj Pandey, Dr. Shailendra Kumar and Dr. Ravi Kiran
4	An empirical study on export orientation of Indian Small and Medium Enterprises	Dr. Kalyan De
5	Impact of Advertisement on the Firm's Performance: A case of Indian FMCG Industry	Dr. Kalyan De

10. List of equipment procured

S. No	Name of Equipment	Make	Name of Laboratory	Date of Purchase (dd/mm/yyyy)	Amount (Rs. Lacs)
1	Computers 22 Nos	ACER veriton	Computer Laboratory	03/11/2014	Rs. 4,79,600/-
2	LCD 19.5" 22 Nos	ACER	Computer Laboratory	03/11/2014	Rs.1,25400/-
3	DVD Writer External 01 No	LG	Computer Laboratory	14/11/2014	Rs.1850/-

11. Computing facilities in the Department

S. No	Details of hardware/software	Name of Laboratory
1	Computers 22 Numbers; <ul style="list-style-type: none"> • ACER • 500 GB HDD • 4GB RAM • Processor- i3 	Computer Lab
2	LCD Monitor 22 Numbers: <ul style="list-style-type: none"> • ACER • 19.5 “ 	Computer Lab
3	External DVD Writer; 01 Number: <ul style="list-style-type: none"> • LG 	Computer Lab
4	Computers 06 Numbers; <ul style="list-style-type: none"> • DELL • 160 GB HDD • 2B RAM • Processor-DUO Core LCD Monitor 06 Numbers: <ul style="list-style-type: none"> • DELL • 19.5 “ 	Computer Lab
5	Microsoft windows 7	Computer Lab
6	Microsoft windows XP	Computer Lab

12. Information regarding foreign visits

S. No.	Name of the faculty	Host Organization	University/	Nature of work	Month and Year of visit
1	Dr. Amit Bhardwaj	Asper Business, of Winnipeg, Canada	School of University of Manitoba,	Collaborative research work	15 June – 15 July, 2015
2	Dr. Rudra Rameshwar	Tel Aviv Israel.	University,	Summer workshop on	23 June – 08

			Advanced Research Methods (SWARM 2015)	July, 2015
3	Mr. Ankit Mahindroo	Tel Aviv University, Israel.	Summer workshop on Advanced Research Methods (SWARM 2015)	23 June – 08 July, 2015
4	Mr. Gaurav Goyal	Tel Aviv University, Israel.	Summer workshop on Advanced Research Methods (SWARM 2015)	23 June – 08 July, 2015
5	Dr. Vipul Gupta	RWTH University, Aachen, Germany	Collaborative research work	01 June – 30 June, 2015
6	Mr. Pradeep Kumar Gupta	AACSB International, Tampa (USA)	AACSB Business Accreditation and Assessment Seminars	28 May – 04 June, 2015
7	Dr. Padmakumar Nair	1. University of Twente, Netherlands Institute for Knowledge Intensive Entrepreneurship, Enschede, The Netherlands 2. University of Tokyo, Department of Chemical System Engineering, Tokyo, Japan 3. Wuhan University, E-MBA Program, Wuhan, China 4. Chonnam National University, Graduate School of Business,	Academic, Research and Collaborations	

		Gwangju, South Korea			
		5. University of Texas at Dallas, USA			
8	Dr. Piyush Verma	The Dutch Institute for Knowledge Intensive Entrepreneurship (NIKOS), School of Management and Governance, University of Twente, The Netherlands	Research Project on Lean Start-up Entrepreneurship	01 June – 15 July, 2014	
9	Dr. Karminderjit Singh	The Dutch Institute for Knowledge Intensive Entrepreneurship (NIKOS), School of Management and Governance, University of Twente, The Netherlands	Research Project on Social Entrepreneurship	01 June – 15 July, 2014	

13. List of organizations where students undertook project semester/Summer Training

S. No.	Name of the Organization	
1.	Titan Company Limited	15. Titan Company Ltd.
2.	Dhan Guru Nanak Infrastructure	16. Tailmill
3.	University of Texas at Dallas	17. Mahindra Swaraj
4.	Core Diagnostics, Gurgaon	18. Kirat Plastics Pvt. Ltd.
5.	Lets transport	19. Federal Mogul, Patiala
6.	Change My Tyre	20. VU University, Amsterdam
8.	VU university, Amsterdam	21. NUS Business School, Singapore
9.	Market Insight Consultants, Pune	22. SMU, Singapore
10.	The Viral Fever Media Labs Pvt Ltd	23. Columbia Asia, Patiala / Ghaziabad
11.	Vardhman Spinning and General Mills Ltd.	24. Aircel Ltd.
12.	Federal Mogul, Patiala	25. Geek Creative Agency
13.	Kadence International	26. Godrej Mohali
14.	Sapienza University, Rome	27. The Freshmart
		28. IOCL, Noida
		29. M/s Aagam food industries
		30. Coca Cola (Ludhiana Beverages)

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| | Pvt. Ltd.) | 60. | SML Isuzu |
| 31. | ICFR | 61. | Veom Infotech |
| 32. | VERKA Milk Plant, Mohali /
Bathinda / Mohali | 62. | Development Alternatives, New
Delhi |
| 33. | Aditiya Birla Group | 63. | JCBL India Pvt. Ltd. |
| 34. | Honda Car | 64. | Ludhiana Beverages Pvt. Ltd. |
| 35. | Ameriprise Financial Services | 65. | ALSTOM T&D |
| 36. | State Bank of India | 66. | A.P. Organics Limited |
| 37. | Matsui Technologies India Limited | 67. | Nestle Moga Plant |
| 38. | Tata Motors Ltd. Lucknow /
Chandigarh | 68. | Acme Formulation |
| 39. | HCL Infosystems | 69. | Trident Group |
| 40. | Oswal Woolen Mills Limited (OWM) | 70. | Altruist Technologies Pvt. Ltd. |
| 41. | Airtel | 71. | Trident Group |
| 42. | Vardhman Spinning & General
Mills | 72. | Motherdairy |
| 43. | Security Weaver Chandigarh | 73. | TC Terrytex |
| 44. | Axis Bank | 74. | ValeurHR |
| 45. | State Bank of Patiala | 75. | Bharti Infratel Limited, Gurgaon |
| 46. | Sudarshan Chemical Industries
Ltd. | 76. | Kandhari Beverages Pvt. Ltd.
Amritsar |
| 47. | Torrent Pharmaceuticals Limited,
Baddi | 77. | Heinz India Private Limited |
| 48. | GNA Axles Ltd., Mehtiana | 78. | HUSYS Consulting Pvt Ltd. |
| 49. | Nahar Spinning Mills Ltd.,
Ludhiana | 79. | Tynor Orthotics, Mohali |
| 50. | Philips Electronics Limited, Mohali | 80. | Eduvisors |
| 51. | Cairn India Pvt. Ltd. Gurgaon | 81. | MIC Pvt. Ltd. |
| 52. | Reachout PR, Pune | 82. | Sonalika Tractors |
| 53. | Innovative and Incentivizes
Rewards Pvt. Ltd. | | |
| 54. | PepsiCo India Holdings, Gurgaon | | |
| 55. | Quadrant Televentures Limited | | |
| 56. | Reserve Bank of India | | |
| 57. | Ex-Press Financial & Allied
Services | | |
| 58. | Univ. of Twente, Netherlands | | |
| 59. | Tata Motors Ltd. Chandigarh | | |

CENTERS AND CENTRAL FACILITIES

CENTRE FOR INDUSTRIAL LIAISON AND PLACEMENT (CILP)

CENTRE OF INFORMATION AND TECHNOLOGY MANAGEMENT (CITM)

CENTRE OF RELEVANCE AND EXCELLENCE IN AGRO & INDUSTRIAL BIOTECHNOLOGY

CENTRAL WORKSHOP

NAVA NALANDHA CENTRAL LIBRARY

SCIENCE AND TECHNOLOGY ENTREPRENEURS PARK (STEP)

CENTRE FOR INDUSTRIAL LAISON AND PLACEMENT (CILP)

Campus placement/recruitment of final year students

In the academic year 2014-15, 185 companies visited TU and 979 students were offered jobs through campus placement. In BE, Bio-Tech 17 out of 23, Civil 48 out of 63. Chemical 52 out of 53, Computer Sc. 168 out of 170, Electronics Communication 97 out of 101, Electrical 55 out of 59, Instrumentation & Control 56 out of 60, Mechanical 96 out of 100 & MCA 59 out of 91 students securing CGPA 6.00 and above got placed through campus interviews. The over all placement being 90% for CGPA greater then 6.00 and 80% over all in all the BE Branches & MCA. Apart from BE and MCA students, 203 master's students (ME&M.Tech) also got placement through campus interviews, making it 63% overall in Master's of Engineering. Also 24 students from MBA Industrial and 31 students from MBA got placement through Campus interviews (Annexure-I&II). The above data is updated till August 31, 2015. Also result from 15 organizations are awaited and 21 organizations have already confirmed to visit for campus interviews for the students already passed in the year June, 2015. Organizations are still visiting our campus for the students those have already passed out from our University, and hence the percentage mentioned above is likely to improve.

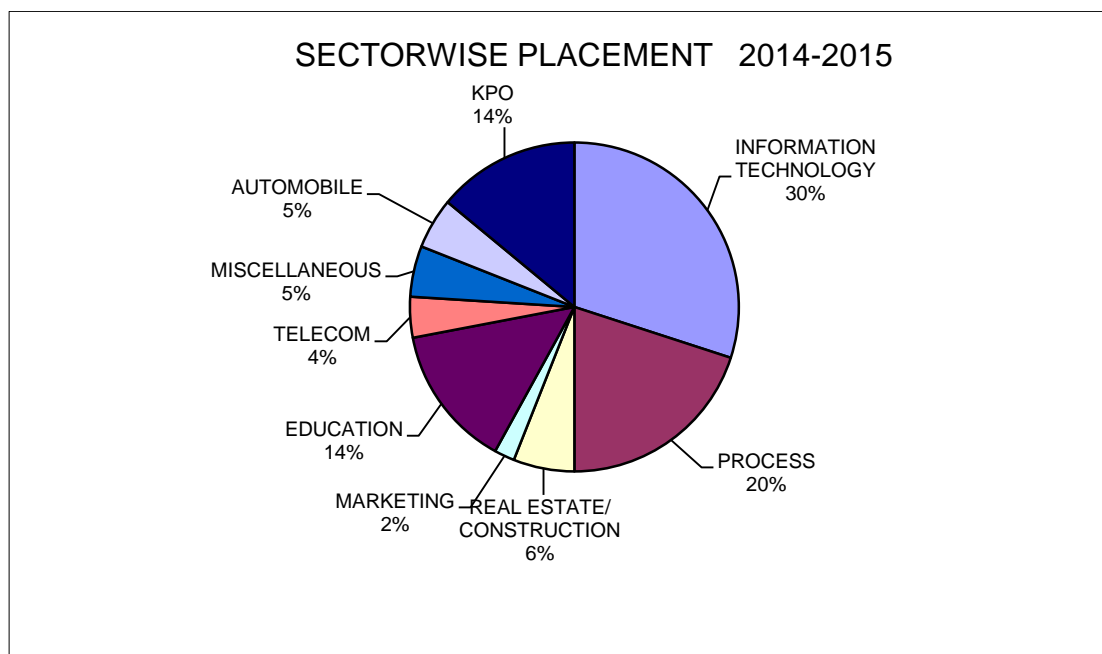
Apart from regular visitors, 28 organizations including five startups visited the campus for first time for campus interviews. Major are Expedia India, Zomato.com, Axtia India, Hike Ltd., Belzabir Software Design, Lenskart.com, Chic mic, Grofers, Magic Software, Royal Enfield, Snapdeal.com, SML Isuzu, Myntra.com, Atkins Group, MphRx, Cubastion Consulting, Saviynt, VISA, Practo, Autoninja etc. etc.

Major organizations visited for campus interviews are

<ul style="list-style-type: none"> • D.E.Shaw (I) Software • Microsoft India • Cadence Design Systems • Free Scale semiconductors • ST Microelectronics • Oracle Corporation • Informatica Corporation • Sandisk Corporation • Amadeus Software Labs • ZS Associates • Deloitte Consulting • Futures First Info Services 	<ul style="list-style-type: none"> • Tata Consultancy Services • IBM India • L & T • UOP • Maruti Suzuki (I)Ltd. • Tata Motors • Reliance Industries • Havells India • Schneider Electric • Hindustan Unilever Ltd. • Crompton Greaves Ltd.
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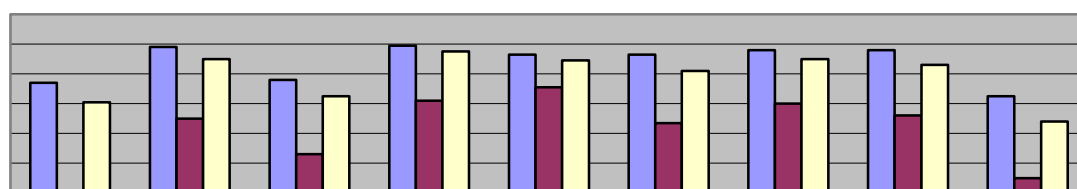
The Maximum CTC offered for the year 2014-15 is Rs. 18.60 lakhs p.a. offered to 02 students from D.E.Shaw India Software.

Average CTC offered to BE/B.Tech./MCA, ME/M.Tech, MBA being Rs. 5.30, 3.71, 4.67 lakhs p.a. respectively.



%AGE OF PLACEMENT-CAMPUS INTERVIEW 2014-15
(TILL 31.08.2014)

%AGE PLACEMENT



■ CGPA > 6.00

■ CGPA < 6.00

■ Over ALL

BE BRANCHES OF ENGINEERING & MCA

All the final year students were counseled and prepared, through special lectures on career selection and preparation for campus interviews by industrial experts as well as by the faculty of the university. They were given special tips for appearing in the campus interviews, through mock group discussions as well as personal interviews. Members of faculty from different departments were present during these interviews.

Feedback on various aspects regarding courses, curriculum, communication skills and performance of students was obtained from organizations, which had come for campus recruitment.

Project Semester

Final year Civil, Bio-technology & Chemical Engineering students were sent to Industry for the Project Semester from July-December, 2014. CILP was instrumental in arranging the slots for the students.

CILP extended all help in finding Project Semester slots for the pre final year students of Mechanical, Industrial and Mechatronics Engineering during January to June, 2015. Also CILP helps in finding project semester slots for the final year students of BE-Electrical, Electronics Instrumentation & Control, Electronics Communication & Computer Science during January to June, 2015. CILP also extended help in finding slots for System Development Project (SDP) for final year MCA students and also for thesis work for Post Graduate students.

Summer Training Programme

Summer training of 6 to 8 weeks was arranged in industrial organizations for B.E. 2nd year students of Electrical & Electronics Communication Engineering, Electronics (Instrumentation & Control) Engineering, Electrical Engineering, Chemical Engineering and Computer Science and Engineering branches.

CILP extended all help in finding training slots for the MBA students for two month training in industry during May - July, 2015.

CILP Staff Visits

- Sh. H.S.Bawa, attended the Faculty Development Program conveyed by Accenture Ltd., in Gurgaon on 27th - 28th January, 2015 to exchange ideas regarding an overview of Accenture business initiatives.
- Sh. Davinder Pal Singh and Sh. H.S.Bawa, attended meeting of Training & Placement Officers conveyed by ZS Associates in Gurgaon from 13th - 14th May, 2015. The purpose was primarily for the exchange of ideas regarding academic interaction of ZS Associates with Institutions.
- Sh. H.S.Bawa, attended the Placement Officers meeting conveyed by Accenture Ltd., in Goa on 2nd - 3rd July, 2015 to exchange idea regarding an overview of the IT scenario and Accenture business initiatives.
- Sh. Davinder Pal Singh and Sh. H.S.Bawa attended the Sparsh 2015, Placement Officer's meet conveyed by TCS, in Gurgaon on 3rd - 4th July, 2015 to exchange ideas regarding IT initiatives taken by TCS.

CENTRE OF INFORMATION AND TECHNOLOGY MANAGEMENT (CITM)

Centre of Information and Technology Management (CITM) has been established in the University after integrating three units, namely, Computer Centre, Centre for Information Super-Highway and University Science Instrumentation Centre. This centre has been established to cater the needs of users involving implementation, maintenance and support activities related to LAN/WLAN, software and hardware; procurement, support and maintenance of various equipments of users.

CITM offers internet access and network services to Thapar University. It has two static leased line connections: 310 Mbps leased line STM-2 for internet bandwidth from Reliance and 1 Gbps leased line of National Knowledge Network (NKN). The Campus-wide Local Area Network (LAN), which currently has 5000 live nodes (wired and wireless), is backboned by Optical Fiber connected with layer-3 and layer-2 switches, structured with CAT6 cabling.

The CITM has state-of-the-art computational labs and one DATA CENTRE. CITM Labs remain open from 8.00 AM to 8.30 PM on all working days and from 9.00 AM to 5.00 PM on Saturdays. The computational facility in the Centre includes 14 Dell Power Edge servers and 57 nodes and other peripherals such as one heavy duty Line Printer Lipi6100, Six HP Laser Jet printers. CITM is a member of Oracle Academia Initiative program of Oracle India Ltd. and Microsoft Edu. Cloud Campus Agreement.

CITM also provides repair and maintenance of Electronic Instruments/Equipment and, PCs and peripherals used in various Laboratories. This centre is contributing in the implementation of ERP software that includes modules financial management, inventory management, human resource management, purchase management, academic activities etc. and its related support to the users of Thapar University. CITM is also responsible for maintenance and administration of Thapar University Website. The main objective of centre is to provide better support and services to the users for their individual as well as collective growth.

2. List of Faculty/Staff

S. No.	Name	Designation	Qualification & Specialization
1.	Dr. Maninder Singh	Associate Professor CSED and Head CITM	Ph. D. in Network Security, ME with honours in Software Engineering Certifications: Ethical Hacker (C EH), Security Analyst (ECSA) and Licensed Penetration Tester (LPT)
2.	Mr. Harcharan Jit Singh	Sr. System Analyst - cum - Programmer	Ph.D. (Pursuing), M.E. (CSE), B. Tech. (CSE) Certifications : [CCNSP, ORACLE 10g -DBA, IBM DB2 9 Database]
3.	Mr. Prem Lal Sharma	System Analyst	ALCCS (eq. to M. Tech, CSE), AMIE (CS) System Administration, Cross Platform Networking, Web Based Applications

4.	Mr. Hunish Bansal	System Analyst	ME SE (Pursuing), B. Tech. (EIC) Database Administration, Microsoft Technologies
5.	Mr. Ajay Kumar Verma	Sr. Instructor	ITI, Instrumentation
6.	Mr. Manoj Kumar	Associate Technical	ME CSE, M.C.A., MSc.IT, PGDCA VB.Net 2008, Ado.Net, Asp.net
7.	Mr. Ishmeet Singh	Associate Contractual	B. Tech. Electronics CCNA
8.	Mr. Harjaspreet Singh	Associate Contractual	MSc.IT, PGDCA Networking
9.	Mr. Jaswinder Singh	Electrician	10th
10.	Mr. Ghana Nand	Jr. Assistant	10+2
11.	Mr. Rajinder Singh	Attendant	Diploma in ECE

2. List of equipments procured

S. No.	Name of the equipment (Qty)	Make	Name of the laboratory	Date of Purchase	Amount (in Rs.)
1.	Networking equipments for Campus Wide (TEQIP-II)	Brocade, Ruckus	Campus Wide	08/08/2014	1,37,848/-
2.	Microsoft Ed-vantage Program	Microsoft	Campus Wide	25/06/2014	7,43,127/-
3.	Networking equipments for Old Polytechnic & Services	Brocade, Ruckus	Old Polytechnic	14/04/2014 27/01/2015 02/01/2014 03/04/2014 22/09/2014 30/09/2014 30/04/2014	14,99,190/- 20,80,66/- 53,500/- 16,800/- 43,416/- 14,385/- 6387/-
4.	Networking equipments for Campus Wide IP surveillance and Services	Brocade, Hikvision	Campus Wide	31/03/2014 31/03/2014 04/04/2014 09/05/2014 31/05/2014	25,42,645/- 17,64,131/- 61,740/- 2,43,553/- 25,561/-
5.	Web-site Service Development	-	Dera bassi	19/09/2014	1,68,540/-
6.	Campus Subscription fee of Turnitin	Turnitin	Campus Wide	09/01/2015	4,01,700/-
7.	Video Conferencing	LifeSize	Committee Room	02/02/2015	19,31,000/-

S. No.	Name of the equipment (Qty)	Make	Name of the laboratory	Date of Purchase	Amount (in Rs.)
	System				
8.	End Note X7 Single User License	-	NOC	03/03/2015	21,490/-
9.	New Enhancements in ERP	-	Campus Wide	05/02/2015	2,44,383/-
10.	LAN/WLAN deployment and Laying /Cabling of Hostel - I	Brocade, Ruckus	Hostel - I	16/02/2015 25/03/2015 05/03/2015 12/03/2015 25/03/2015 31/03/2015 28/03/2015	1,71,203/- 15,35,888/- 47,880/- 4725/- 30,240/- 1,04,265/- 45,495/-
11.	HP Probook Laptops 04 Qty.	HP	CITM Network Server Room	13/04/2015 20/04/2015	2,30,580/- 9600/-
12.	Dell Power Edge R 730 Storage Server - 02	Dell	CITM NOC	16/04/2015	1,35,2400/-
13.	Citrix Xen Server with Technical Support subscription	Citirix	CITM NOC	18/04/2015	89,194/-
14.	Acunetix WVS Perpetual Licenses	-	CITM NOC	20/04/2015	4,20,936/-
15.	LAN/WLAN deployment and Laying /Cabling of Hostel - FRC	Brocade, Ruckus	Hostel - FRC	31/03/2015 14/05/2015 19/05/2015	20,01,412/- 57,404/- 4171/-
16.	Networking equipments for Campus Wide IP Cameras	Brocade, Ruckus	Campus Wide	20/06/2015 20/06/2015	5,85,976/- 76180/-
17.	LAN/WLAN deployment in Admin Blocks & Services	Brocade, Ruckus	Campus Wide	31/03/2015 24/06/2015 24/06/2015	43,46,011/- 10861/- 1,80,298/-
18.	LAN/WLAN deployment and Laying /Cabling of Hostel - J	Brocade, Ruckus	Hostel - J	31/03/2015 24/06/2015	32,84,479/- 53,574/-

3.Computing facilities in the CITM

S. No.	Details of the Hardware/Software	Name of the Laboratory
	Hardware	
1.	Dell Servers – 10 KVM Switch - 01	Dell Servers – 10 KVM Switch - 01

	Central Storage- 01	Central Storage- 01
	Server Rack - 03	Server Rack - 03
	Dell Optiplex 330 P-IV – 02	Dell Optiplex 330 P-IV – 02
	Dell Optiplex 360 P-IV – 02	Dell Optiplex 360 P-IV – 02
	Dell Optiplex 9010 – 01	Dell Optiplex 9010 – 01
2.	Dell Power Edge R 730 Storage Server- 02	Dell Power Edge R 730 Storage Server- 02
	HP SAN P4300 - 01	HP SAN P4300 - 01
	HP Proliant ML 350P Storage Server- 01	HP Proliant ML 350P Storage Server- 01
	Dell Optiplex 9010 – 01	Dell Optiplex 9010 – 01
	Dell Optiplex 330 P-IV – 01	Dell Optiplex 330 P-IV – 01
	Dell Optiplex 380 P-IV – 01	Dell Optiplex 380 P-IV – 01
3.	IBM Lenovo P-IV – 06	IBM Lenovo P-IV – 06
	Dell Optiplex 9010 – 28	Dell Optiplex 9010 – 28
	Dell Optiplex 380 P-IV – 05	Dell Optiplex 380 P-IV – 05
	Sun Ray 170 – 08	Sun Ray 170 – 08
4.	Laptop DELL D-520 – 01	Laptop DELL D-520 – 01
	Laptop DELL Latitude-E 5410 - 03	Laptop DELL Latitude-E 5410 - 03
5.	Laptops HP Pro-book - 04	Laptops HP Pro-book - 04
6.	Printers:	Printers:
	Lipi T6100 Line Printer – 01	Lipi T6100 Line Printer – 01
	HP Laser Jet Printer – 06	HP Laser Jet Printer – 06
7.	DLP Data Sharp Projector XR – 1x - 02	DLP Data Sharp Projector XR – 1x - 02
	DLP Projector PG-LW 3000- 02	DLP Projector PG-LW 3000- 02
8.	Wireless Access Point	Wireless Access Point
9.	PM3213 20Mhz Dual Trace Analog Oscilloscope	PM3213 20Mhz Dual Trace Analog Oscilloscope
10.	Soldering & Disordering Station	Soldering & Disordering Station
11.	Multi output Power Supply	Multi output Power Supply
12.	1.1Ghz Universal Frequency Counter	CITM Instrument and PC Repair Lab
13.	Function Generator	CITM Instrument and PC Repair Lab

- | | | |
|-----|--|--------------------------------------|
| 14. | Digital storage Oscilloscope | CITM Instrument and
PC Repair Lab |
| 15. | Frequency counter | CITM Instrument and
PC Repair Lab |
| 16. | Pulse Generator | CITM Instrument and
PC Repair Lab |
| 17. | Digital Multimeters | CITM Instrument and
PC Repair Lab |
| 18. | Multimeter 8X MK3 with 25Kv Probe | CITM Instrument and
PC Repair Lab |
| 19. | LCR-Meter | CITM Instrument and
PC Repair Lab |
| 20. | Digital Earth Tester | CITM Instrument and
PC Repair Lab |
| 21. | SMT rework station | CITM Instrument and
PC Repair Lab |
| 22. | Software | |
| 23. | System Software | |
| | Win Svr Ent 2008 - 01 | |
| | MS Window 7 | |
| | MS – Windows Vista Business Upg OLP | NL AE – |
| | 30 | |
| | MS – Windows Vista Business media kit – 01 | |
| | MS-Windows XP Professional | |
| | MS-Windows 2003 server | |
| | MS-Windows Terminal servers CAL 2003 OLP NL AE – | |
| | 20 | |
| | 50 CAL and 50 TCAL for Windows 2003 | |
| | Windows 2000 Advance Server | |
| | Windows 2000 Professional | |
| | Windows 98 | |
| | Windows NT 4.0 | |
| | Red Hat Linux 9.0 | |
| | Sun Solaris 10 | |
| | Utility Software | |
| | Antivirus: Symantec End Point Protection 12.1.40 | |
| | Adobe Acrobat Professional 9.00AE – 05 | |
| | Web Publishing Tools | |
| | Matlab | |
| | Crystal Reports 9.0 | |
| | Staler 4.0 | |
| | Application Software | |
| | SQL Svr Ent 2008 | |
| | Oracle 10g | |
| | Oracle 9.i (30 User) | |
| | MS Visual Studio 2010 | |
| | MS Visual Studio 2008 | |
| | MS Visual Studio 6.0 | |

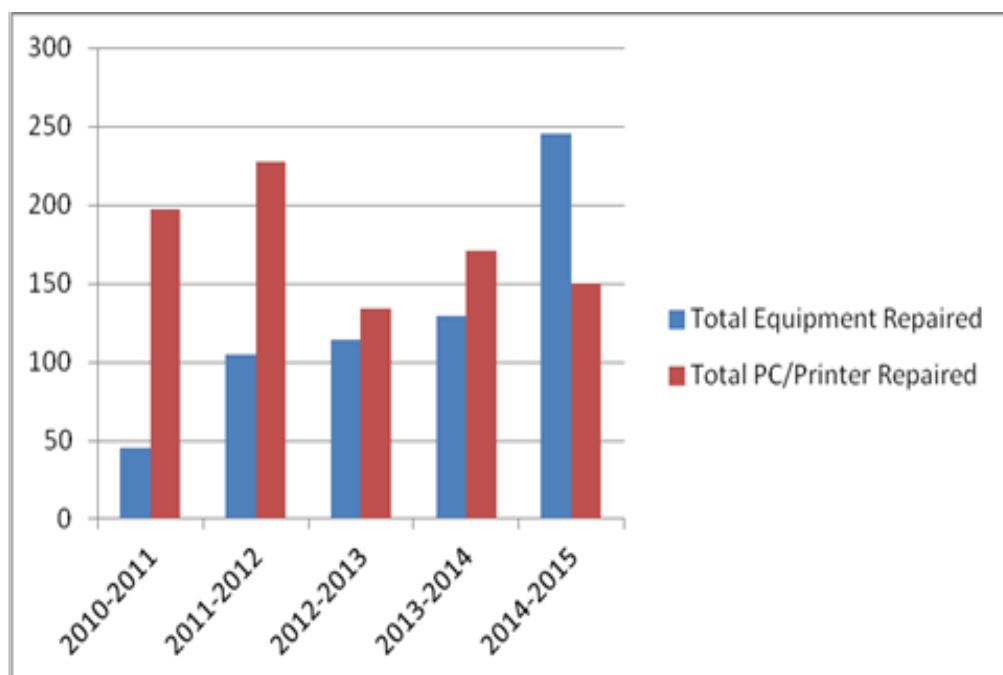
MS Office 2007
MS Office 2000 Professional
MS Office 4.3
Nash Pack 3.0
VC++ 2.0
VB 4.0
MS Project 4.0
Neural Connection
SPSS 20.0

Academia Alliances

Microsoft Ed-vantage Program
Symantec Endpoint protection
Oracle Academia Initiative (OAI)

4. Repair and maintenance work taken by CITM

Graphical representation includes the figures on repair and maintenance work taken by CITM during last five years.





TIFAC-CORE in Agro and Industrial Biotechnology

1. Valedictory function of Summer Course in MODERN BIOTECHNOLOGY on 15th July 2014.

A summer course was organized by TIFAC-Centre of Relevance and Excellence (CORE) in Agro and Industrial Biotechnology from June 09- July 15, 2014 in the area of MODERN BIOTECHNOLOGY. *The Course had two modules- (I) Fermentation Technology and Plant Tissue Culture (II) Molecular Medicine, Computational Biology and Drug Discovery.* This course is intended to provide rigorous hand-on-training to various techniques which are used in modern biotechnology and have emphasis in the industrial as well as agro biotechnology sectors. The course provides the basic principles and their in-depth understanding apart for operational conditions of production of biotechnological products. Fermentation technology is the backbone technology for the production of biopharmaceuticals, drugs, enzymes, fermented foods, chemicals as well as beverages. Plant tissue culture is a method for producing elite medicinal plants, vegetables, fruits in huge quantities which are not matched by the conventional technologies apart from conservation as well as development of transgenic varieties.

Similarly molecular medicine and computational biology have played a tremendous role in medicine and healthcare sector for developing new methods of disease diagnosis as well as treatment. Further drug discovery is an ever-growing area of pharmaceutical R&D to overcome infectious as well as metabolic disorders and have a tremendous impact in the healthcare industry. The resource personnel for the first module were Dr. Anoop Kumar (Fermentation Technology) and Dr. Mrs. Manju Anand (Plant Tissue Culture). Two outside experts were also invited for the course on Fermentation technology. One lecture on Fermentation technology was given by Professor U.C. Banerjee, Head, Pharmaceutical Technology, National Institute of Pharmaceutical Education and Research, SAS Nagar (Mohali), Punjab and the other outside expert was Dr. D.K. Sahoo, Chief Scientist, Biochemical Engineering Research and Process Development Centre, Institute of Microbial Technology (IMTECH), Chandigarh.

The second module of the course on molecular medicine, computational biology and drug discovery were carried out by Dr. Siddharth Sharma, Dr. Vikas Handa and Dr. Sanjai Saxena respectively. There were 13 students who participated in the course.



2. Visit of Shri Viswajeet Khanna, IAS, Financial Commissioner (Forests), to TIFAC-CORE on 10th October 2014.

Shri Viswajeet Khanna, IAS, Financial Commissioner (Forest Department, Punjab Govt) and Principal Secretary (Civil Aviation) visited TIFAC-CORE in Agro and Industrial Biotechnology along with Ms Shailender Kaur, Chief Conservators of Forests (Patiala Division), Shri SK Sagar, DFO (Patiala), Shri Amit Kulkarni. The Financial Commissioner had desired to see the research facilities at TIFAC-CORE, in the light of research proposals submitted to the State Forest and Wildlife Department. Dr. Sanjai Saxena, Coordinator, gave a presentation on TIFAC-CORE and highlighted the various activities carried out at CORE. He further elaborated on how the projects submitted to the State Wildlife and Forest Department would be helpful in maintaining the green cover in the State of Punjab. Dr. Manju Anand presented her work on tissue culture and micropropagation of hard wood trees and medicinal plants. Professor Maneek Kumar, Dean Student Affairs, also joined the meeting and took Shri Khanna around the different research facilities at CORE. Shri Khanna was highly impressed with the State of the art facilities in the centre and stated that the forest department would definitely develop collaborative partnership with the centre for enhancing the green cover in Punjab.



Captions

- ① Dr. Sanjai Saxena, Coordinator TIFAC-CORE Welcoming Shri Viswajeet Khanna, IAS
- ② Meeting and presentations being held in seminar hall of TIFAC-CORE
- ③ Dr. Sanjai Saxena showing different tissue cultured plant in the scale up facility at CORE.
- ④ Transgenic Plant growth chamber where in controlled environmental conditions are provided
- ⑤-⑥ Prof. Maneek Kumar, DOSA taking Shri Khanna around different facilities of CORE.
- ⑦ Dr. Saxena explaining the importance of micropropagation over vegetative clonal multiplication
- ⑧-⑨ Shri Khanna, Prof. Maneek Kumar and Dr. Saxena looking at the sample plantation of Eucalyptus clone T1.

CENTRAL WORKSHOP

The Workshop caters both to students training at various levels as well as production jobs specifically to meet needs of research, development, fabrication and maintenance for various departments and units of the Institute. About 450 graduate and polytechnic students are trained every semester through the course “Manufacturing Processes” by imparting skills in various fabrication processes like fitting, machining, carpentry, electroplating, welding, smithy, sheet metal etc. All students admitted to the first year go through this training process. Work Instructions to include step-by-step procedure for manufacturing jobs in each shop by the students as per course curriculum have been prepared for both degree as well as diploma classes. These are displayed at each machine during manufacturing of jobs.

CW-Production Centre

During the year under review the Production Centre undertook major fabrication work for various units of the University. It manufactured furniture for the hostels and is now doing almost the entire fabrication and carpentry jobs for the University.



NAVA NALANDA CENTRAL LIBRARY

INFRASTRUCTURE & SERVICES

University Library is housed in a centrally air conditioned spacious premises covering an area of 25,000 square feet. It has 117475 collection with 87133 books (reference books, course materials, text books), 2539 print theses, 4284 standards, 4973 bound volumes of journals, educational and career development aids, video etc. Theses are available on D-Space server and can be accessed from anywhere on the globe. From 2006 onwards all the PhD and Master theses are uploaded on D-Space. During the year library subscribed to about 6358 e-journals, 2184 e-books and 78 print journals. E-journals are received under UGC-Infonet program and directly from supplier/publishers. Budget for books and journals for the financial year was Rs.75 lakh on print and e-journals and Rs.75 lakh on purchase of books.

Library remains open 24 X 7 throughout the year, even on gazetted holidays. Most of the library operations are automated. Library catalogue (OPAC) can be searched from anywhere and subscribed e-resources can be searched from the Campus only.

The Library offers the following facilities/services:

- 1. Digital Resource Centre:** Digitization project of Library is in progress. First phase i.e. digitization of all the previous thesis is over. This laboratory also provides place for faculty and group of students for working on their library learning based assignments.
- 2. Reading Facilities:** Three separate reading halls, including one exclusively for faculty and research scholars are available. In addition to these reading halls, reading space is available in the learner's zone, Community library and Print theses sections as well. Library has in all seating capacity for 350 readers.
- 3. Community library** for the families of staff and faculty members is a part of Library, where books, newspapers and magazines for children, grownups, ladies and senior citizens are available and this section remains open from 08:00 A.M. to 08:30 PM on all the working days.
- 4. Information and communication infrastructure:** The Library is equipped with state of the art facility which includes 800 nodes for Wi-Fi network in addition to wired connectivity. A number of computers are dedicated for library users. Resources like digital scanners, printers, photocopiers and surveillance system for security etc. are available.
- 5. Online resources and services:** These can be accessed through its website <http://cl.thapar.edu>. the library also manages the University's digital archive Dspace@TU which can be accessed at <http://dsapce.thapar.edu:8080/dspace>. All the dissertations and theses are now submitted to the University on Dspace@TU. During the year 575 submissions were made on DSpace.

- 6. Membership:** Library caters to faculty, staff and students of all the three institutions on the Campus. Students registered for Distance Learning course of University can also become members. Private local resident, professionals and institutions & industries and alumni of the university can also become member of Library on nominal fee.
- 7. Document Delivery Service:** Research paper/articles which are not available in the subscribed e-journals and print journals are procured by the library on request through Document Delivery Service (DDS). Library interacts with other libraries and agencies as NISCAIR for procuring research articles.
- 8. Library on Wheels:** To make faculty members and research scholars aware about 'Resources & Services @TU Library' library conducts and organize presentations in different departments from time to time.
- 9. Collection Development:** This year 8891 volumes of books were added to the collection. During the financial year 2014-15 Rs 36.93 lakh was spent on the purchase of books and Rs.72.90 lakh on subscription of print and e-journals.
- 10. Library Hours:** Library remains open for 24 hours throughout the week. Library services are provided from 8 am to 8.30 pm from Monday to Saturday. During the examination, the library services are also made available on Sundays.
- 11. Book Loans:** During the reporting year a total of 38494 books were loaned out to the members.

Computing facilities in the Library

S. No.	Details of the Hardware/Software	Name of the Centre
	Software	Digital Resource Centre
	Windows 2008 server, Windows 2007, 2008, Windows XP, SOUL, MS-Office 2010, OFFICE XP	
	Hardware	
1	IBM x226 Servers Xeon Server	2
2	IBM PIV	2
	Dell PoweEdge T4P Sever	1
3		
4	IBM System X, 3620 series Server	2
5	WIPRO Dual Core computer systems	15
6	LAPTOPS	5
7	Sharp photo copier	3
8	Sharp 45 (ppm) Multi-functional machine	1
9	Colored Scanner/ printer (multifunctional)	1
10	Canon Digital Photocopier	1
11	Barcode Printer	1
12	Surveillance system (Cameras and TV)	I unit with Cameras
13	Bar Code Scanners	5
14	Lamination Machines	2
15	External USB HDD for Backup	1
16	Bar Code Scanner for stock verification in built	1

S. No.	Details of the Hardware/Software	Name of the Centre
	storage	
17	Dell Optiplex Computer Systems	10
18	Dell Vostro 430 Minitower Intel Core i5	7
	Dell Optilex 7010	5
19		
20	DSLR Camera	1
21	HP Flatbed Scanner	1
	LCD Projector	1
22		
23	HP Deskjet Printer	1

SCIENCE AND TECHNOLOGY ENTREPRENEURS' PARK (STEP)

1. **Entrepreneurship Awareness Camp** was organized jointly with Entrepreneurship Development Cell (EDC) on March 27, 2015 in Convention Hall. Approximately 150 students participated and certificates for participation were given to all of them. An invited talk by Dr Rajiv K Aneja who completed his MSc and PhD from Thapar University, Director, AbcaBioSolutions Pvt. Ltd, was arranged by STEP. He is Business Incubatee at STEP. He is an exemplar of using scientific knowledge in industry and evolving as an International entrepreneur.
2. **Project Training and Skill Development**
 - a. **Drishti:** She completed her M.Sc Dissertation on biowaste recycling. Collected biowaste from hostel kitchen and fruit juice corner on weekly basis, analysed for physiochemical parameters and (carbon content, reducing sugar, pH, EC) developed a rapid method of composting using a consortium of microorganisms.
 - b. **Amrit Kaur Virk:** She completed her M.Sc Dissertation on effect of different zinc sources on *Anabaena variabilis* in which various growth parameters were studied such as indole acetic acid production, nitrate reductase, chlorophyll estimation, and biomass production. She synthesised ZnO nanoparticles using microorganisms.
 - c. **Prerna:** She is doing her PhD and is worked on green synthesis of ZnO nanoparticles from plants extracts and microalgae, to study their effect on algal growth.
 - d. On April 23, 2015, a practical demonstration on manufacturing of soya milk and soya paneer was given to the students of M.Sc Biotechnology (I year) and B.Sc Biotechnology (III year) as a part of their practical on a course on Food processing. The students got the feel of pilot scale manufacturing and entrepreneurial opportunity in this field.
3. **Project under DST Fast Track Young Scientist Scheme:**

Dr Ravi Kant Dhiman, Principal Investigator, working since May 2014, carried out field surveys and reported *Malaxismuscifera* and *Spiranthes sinensis* from Fagu, near Shimla (H.P.). The survival threats were studied and conservation measures were taken. Seeds and other explants like pseudobulbs were collected and inoculated on media. After 20 weeks, *M. muscifera* and *S. sinensis* root segments were cultured on Potato Dextrose Agar (PDA) medium to get fungal samples. Then fungus was isolated, and characterized from the National Center for Cell Science, Pune, Maharashtra.
4. 50 L of BioN culture was manufactured at STEP for **Eco Paryavaran Engineer and Consultants Pvt. Ltd, Mohali** for field trials and market seeding. Samples of biofertilizers were supplied to farmers for field trials. Training in biofertilizer production technology was also given to students.

5. 20 students of B.Tech, M.Tech&M.Sc students from different universities and colleges such as Punjabi University, Mata Gujri College, Fatehgarh Sahib, SUSCET Tangori, and Guru Granth Sahib World University registered for 6 weeks summer project training including 2 MTech students ShwetaParmar and Ankita Mukherjee from Thapar University from June 02, 2015 to July 11, 2015. Training in industrial biotechnology and downstream processing, equipment handling and basic techniques in microbiology and fermentation technology was imparted. Dr Dinesh Goyal, Dr ShekharAgnihotri



coordinated the training with the support of Ph D students Ms Prerna, Ms Jyotika, Ms Ravneet Kaur and M.Sc students Drishti, Amrit, Mr Jagdeep and Mr Pawan Kumar.

6. **Entrepreneurship Development Cell (EDC)** has been created at STEP with space for 3-4 startups. Dr MD Singh, Assistant Professor, EIED and Dr Karun Verma, Assistant Professor, CSED have initiated as President and Vice President of EDC Society to foster entrepreneurship in other core engineering areas and tap innovations. In association with Venture Lab TU, a workshop was conducted by Mr. Karan Chakkar from "Stratup-elves" to help the new incubatees. The ED Cell has incubated two startups "Bhooka.in" and "Brinle.me".

ANNEXURES

Annexure-I(a)**BOARD OF GOVERNORS (FROM 1.1.2013 TO 31.12.2015)**

Sr. No.	CONSTITUENCY	NAME & ADDRESS
(i)	The Chairman	Shri R. R. Vederah Chairman Board of Governors
(ii)	The Vice Chairman;	Shri J.S. Neerav Executive Director- Education Initiatives Avantha Group Ballarpur Industries Ltd. First India Place Tower C, 3 rd Floor Mehrauli Gurgaon Road GURGAON – 122 002.
(iii)	The Director, ex-officio	Prof. Prakash Gopalan Director Thapar University
(iv)	Three nominees of the Trust to be nominated by the Chairman of the Trust	Shri I.P. Anand Chairman Vipat Investments Pvt. Ltd. 16, Nizammudin East, NEW DELHI – 110 013.
		Shri S.K. Khandelwal Executive Director Avantha Holdings Thapar House, 124, Janpath NEW DELHI.
		Dr. Anoop Kumar Mittal Chairman-cum-Managing Director NBCC Limited NBCC Bhawan Lodhi Road NEW DELHI – 110 003.
(v)	Three persons having special knowledge in education, management, engineering or sciences nominated by the President	Dr. A. Sivathanu Pillai D-I/117, Satya Marg Chankyapuri NEW DELHI – 110 021.
		Dr. M.K. Surappa Department of Materials Engineering, Indian Institute

Sr. No.	CONSTITUENCY	NAME & ADDRESS
		of Science Bangalore-560012, India
		Shri Pawan Agarwal, IAS Adviser (Higher Education), Planning Commission Government of India R. 261, Yojana Bhawan Sansad Marg NEW DLEHI – 110 001.
(vi)	Two persons with industry background to be nominated by the President;	Shri Rahul Sarin Tower 2, Flat 1201, Vipul Belmonte, Golf Course Road, Sector 53, Gurgaon 122011.
		Shri Anil Bhargava Director, Corporate Affairs Thapar House, 124, Janpath NEW DELHI.
(vii)	One person nominated by the Ministry of Education Govt. of India, Ministry of Human Resource & Development	Shri Vivek Gupta F-7, Hauz Khas Enclave New Delhi – 110 016.
(viii)	One person nominated by the Chairman, Northern Regional Council, AICTE	Shri A.K. Shukla Regional Officer All India Council for Technical Education North Western Regional Office Office of Directorate of Technical Education, Punjab Block No. 1, 5 th Floor, Sector 36-A CHANDIGARH – 160 036.
(ix)	One person nominated by the Chairman, UGC	---
(x)	The Secretary, Department of Technical Education, Punjab Government (ex-officio)	Shri M.P. Singh, IAS Principal Secretary to Govt. Punjab Department of Technical Education & Industrial Training Punjab Mini Secretariat,

Sr. No.	CONSTITUENCY	NAME & ADDRESS
		Sector – 9 CHANDIGARH – 160 009
(xi)	The Secretary, Department of Finance, Punjab Govt. ex-officio or his nominee not below the rank of Deputy Secretary, Finance, Pb. Govt.	Ms. Vini Mahajan, IAS Principal Secretary to Govt. Punjab Department of Finance Room No. 227, 2 nd Floor Punjab Mini Secretariat Sector - 9 CHANDIGARH – 160 003.
(xii)	One Distinguished Professor / Professor of the University by rotation in order of seniority; (1.1.2014 to 31.12.2015)	Dr. Susheel Mittal Senior Professor School of Chemistry & Biochemistry
(xiii)	One Associate Professor of the University in the order of Seniority (1.1.2014 to 31.12.2015)	Dr. Maninder Singh Associate Professor Department of Computer Science & Engineering
(xiv)	One Assistant Professor of the University by rotation in order of Seniority (upto 31.12.2015)	Dr. V.P. Singh Assistant Professor Department of Computer Science & Engineering
(xv)	Director, National Institute of Technical Teachers' Training & Research, Chandigarh	Dr. M.P. Poonia Director National Institute of Technical Teachers' Training & Research Sector 26 CHANDIGARH – 160 019.
(xvi)	Registrar, (Ex-Officio) Secretary	Shri Gurbinder Singh
	Permanent Invitee	Shri Gautam Thapar President, Thapar University and Chairman & CEO AVANTHA GROUP Thapar House, 124, Janpath NEW DELHI
	Controller of Examination (Permanent Invitee)	Dr. D. Gangacharyulu Professor Department of Chemical Engineering
	Special Invitees	Dr. Padmakumar Nair Director, LMTSOM

Sr. No.	CONSTITUENCY	NAME & ADDRESS
		Shri Chiranjiv Singh OSD
		Shri Sharad Sanjay Sen

Annexure-I(b)**PLANNING & MONITORING BOARD (1.1.2015 to 31.12.2017)**

Sr. No	CONSTITUENCY	NAME & ADDRESS
1.	Director, Thapar University (Ex-Officio) – Chairman	Prof. Prakash Gopalan
2.	Director, LMTSOM (Derabassi Off campus)	Dr. Padmakumar Nair
3.	Deputy Director (Ex-Officio)	Dr. Susheel Mittal Dr. R.S. Kaler
4.	Deans (Ex-Officio)	
	(a) Dean, Academic Affairs	Dr. S.S. Bhatia
	(b) Dean, Faculty Affairs	Dr. R.K. Sharma
	(c) Dean of Student Affairs	Dr. Maneek Kumar
	(d) Dean of Research & Sponsored Projects	Dr. O.P. Pandey
	(e) Dean of Partnership and Accreditation	Dr. Ajay Batish
	(f) Dean of Resource Mobilization & Organization Effectiveness	Dr. Padmakumar Nair
	(g) Associate Dean of Resource Mobilization Organization Effectiveness	Dr. M.S. Reddy
	(h) Associate Dean Strategy	Dr. Kulvir Singh

Sr. No	CONSTITUENCY	NAME & ADDRESS
5.	Controller of Examination (Ex-Officio)	Dr. D. Gangacharyulu
6.	Head of Departments / Schools / Centres (Ex-Officio)	
(a)	Department of Biotechnology	Dr. Dinesh Goyal
(b)	Department of Chemical Engineering	Dr. Raj Kumar Gupta
(c)	Department of Civil Engineering	Dr. Naveen Kwatra
(d)	Department of Computer Science & Engineering	Dr. Deepak Garg
(e)	Department of Electronics & Communication Engineering	Dr. Sanjay K. Sharma
(f)	Department of Electrical & Instrumentation Engineering	Dr. Ravinder Aggarwal
(g)	Department of Mechanical Engineering	Dr. S.K. Mohapatra
(h)	LMT School of Management	---
(i)	School of Chemistry & Biochemistry	Dr. Bonamali Pal
(j)	School of Behavioural Science & Business Studies	Dr. (Mrs.) Santha Kumari
(k)	School of Mathematics	Dr. A.K. Lal
(l)	School of Physics & Material Science	Dr. Manoj Sharma
(m)	School of Energy & Environment	Dr. A.S. Reddy
(n)	Centre of Information and	Dr. Maninder Singh

Sr. No	CONSTITUENCY	NAME & ADDRESS
	Technology Management	
(o)	Centre of Relevance & Excellence (CORE)	Dr. Sanjai Saxena Coordinator
(p)	Centre of Continuing Education	Dr. Rajesh Khanna
(q)	Science & Technology Entrepreneurship Park (STEP)	Dr. Dinesh Goyal, Officiating Executive Director
(r)	Central Library	Dr. Susheel Mittal Officiating Head
7.	Head, Placement & Coordination (Ex-Officio)	Shri H.S. Bawa
8.	One member nominated by University Grants Commission	Dr. R.P. Dahiya Professor Centre for Energy Studies Indian Institute of Technology, Delhi NEW DELHI – 110 016.
9.	Four outside experts to be nominated by the Chairman, Board of Governors	Prof. (Dr.) Surendra Kumar Kaushik R-273, Dera Baba Jaimal Singh BEAS – 143 204 Mr. Rakesh Kad President M/s Kads Enterprises House No. 13-Y, Yadvindra Colony, The Mall, PATIALA. Dr. S. Hariharan Joint Managing Director Solaris Chemtech Industries Limited First Floor, Tower-C, First India Place, Mehrauli Gurgaon Road GURGAON – 122 002. Mr. Manish Tiwari Chief Executive Officer

Sr. No	CONSTITUENCY	NAME & ADDRESS
		Biltech Building Elements Ltd. 232-B, Ground Floor Okhla Industrial Area, Phase-3 Behind SBI NEW DELHI – 110 020.
10.	Three persons nominated by the Director from amongst the University Staff for their special knowledge.	Dr. Prem Pal Bansal Associate Professor Department of Civil Engineering Dr. Sanjay Kumar Jain Associate Professor Department of Electrical & Instrumentation Engineering Dr. Tanuj Chopra Assistant Professor Department of Civil Engineering
11.	General Manager (Estate) (Ex-officio)	Shri R.K. Nigam
12.	Deputy General Manager (CMS) (Ex-officio)	Shri Sanjeev Soni
13.	Special Invitee	Shri Chiranjiv Singh OSD
14.	Registrar (Ex-Officio) Secretary	Shri Gurbinder Singh

Annexure-I(c)**SENATE (Term 1.1.2014 to 31.12.2015)**

S. No.	CONSTITUENCY	NAME & ADDRESS
1.	The Director, Thapar University - Chairman	Prof. Prakash Gopalan
2.	Director, LMTSOM	Dr. Padmakumar Nair

S. No.	CONSTITUENCY	NAME & ADDRESS
3.	Deputy Director, if any (ex-officio)	Dr. Susheel Mittal Dr. R.S. Kaler
4.	Deans (Ex-Officio)	
	(a) Dean, Academic Affairs	Dr. S.S. Bhatia
	(b) Dean, Faculty Affairs	Dr. R.K. Sharma
	(c) Dean of Student Affairs	Dr. Maneek Kumar
	(d) Dean of Research & Sponsored Projects	Dr. O.P. Pandey
	(e) Dean of Contemporization and Accreditation	Dr. Ajay Batish
	(f) Dean of Resource Mobilization & Organization Effectiveness	Dr. Padmakumar Nair
	(g) Associate Dean of Resource Mobilization Organization Effectiveness	Dr. M.S. Reddy
	(h) Associate Dean Strategy	Dr. Kulvir Singh
5.	Controller of Examination	Dr. D. Gangacharyulu
6.	Head of Departments / Schools / Centres (Ex-Officio)	
	(a) Department of Biotechnology	Dr. Dinesh Goyal
	(b) Department of Chemical Engineering	Dr. Raj Kumar Gupta
	(c) Department of Civil Engineering	Dr. Naveen Kwatra
	(d) Department of Computer Science & Engineering	Dr. Deepak Garg

S. No.	CONSTITUENCY	NAME & ADDRESS
(e)	Department of Electronics & Communication Engineering	Dr. Sanjay K. Sharma
(f)	Department of Electrical & Instrumentation Engineering	Dr. Ravinder Aggarwal
(g)	Department of Mechanical Engineering	Dr. S.K. Mohapatra
(h)	LMT School of Management	--
(i)	School of Chemistry & Biochemistry	Dr. Bonamali Pal
(j)	School of Behavioural Science & Business Studies	Dr. (Mrs.) Santha Kumari
(k)	School of Mathematics	Dr. A.K. Lal
(l)	School of Physics & Material Science	Dr. Manoj Sharma
(m)	School of Energy & Environment	Dr. A.S. Reddy
(n)	Centre of Information and Technology Management	Dr. Maninder Singh
(o)	Centre of Relevance & Excellence (CORE)	Dr. Sanjai Saxena Coordinator
(p)	Centre of Continuing Education	Dr. Rajesh Khanna
(q)	Science & Technology Entrepreneurship Park (STEP)	Dr. Dinesh Goyal, Officiating Executive Director
(r)	Centre for Industrial Liaison & Placement	Shri H.S. Bawa
7.	Distinguished Professors / Professors, other than the Heads	Dr. P.K. Bajpai Distinguished Professor

S. No.	CONSTITUENCY	NAME & ADDRESS
	of Departments, Schools	<p>Department of Chemical Engineering</p> <p>Dr. (Mrs.) Seema Bawa Professor Department of Computer Science & Engineering</p> <p>Dr. Rafat Siddique Senior Professor Department of Civil Engineering</p> <p>Dr. A.K. Chatterjee Professor Department of Electronics & Communication Engineering</p> <p>Dr. (Mrs.) Ravi Kiran Professor School of Behavioural Science & Business Studies</p> <p>Dr. Smarajit Ghosh Professor Department of Electrical & Instrumentation Engineering</p> <p>Dr. N. Tejo Parkash Professor School of Energy & Environment</p> <p>Dr. Niranjan Dass Professor Department of Biotechnology</p> <p>Dr. Rajeev Mehta Professor Department of Chemical Engineering</p> <p>Dr. Haripada Bhunia Professor</p>

S. No.	CONSTITUENCY	NAME & ADDRESS
		Department of Chemical Engineering
		Dr. Moushumi Ghosh Professor Department of Biotechnology
	Visiting Professors	Dr. S.P. Nigam Visiting Professor Department of Mechanical Engineering
		Sh. A.K. Dhingra Visiting Professor LMT School of Management
		Sh. V.P. Aggarwal Visiting Professor Department of Mechanical Engineering
		Dr. Girish Jaswal Visiting Professor LMT School of Management
		Dr. N.K. Verma Visiting Professor School of Physics & Material Science
8.	three Associate Professors from the Departments / Schools other than the Heads of Departments by rotation in order of seniority nominated by the Director	Dr. Alpana Aggarwal Associate Professor Department of Electronics & Communication Engineering
		Dr. Mandeep Singh Associate Professor Department of Electrical & Instrumentation Engineering
		Ms. Manbir Kaur Associate Professor Department of Electrical & Instrumentation Engineering
9.		Shri Sanjiv Ahuja

S. No.	CONSTITUENCY	NAME & ADDRESS
	three Assistant Professors from the Departments / Schools by rotation in order of seniority nominated by the Director;	<p>Assistant Professor Department of Chemical Engineering</p> <p>Mrs. Neena Garg Assistant Professor Department of Civil Engineering</p> <p>Ms. Gagandeep Kaur Assistant Professor Department of Electrical & Instrumentation Engineering</p>
10.	Two teachers of the University for their special knowledge appointed by the Director	<p>Dr. Mukesh Kumar Assistant Professor Department of Electronics & Communication Engineering</p> <p>Dr. Rajesh Kumar Associate Professor School of Chemistry & Biochemistry</p>
11.	The Librarian of the University (ex-officio)	Dr. Susheel Mittal Officiating Head, CL
12.	The Workshop Superintendent of the University (ex-officio)	Dr. Ajay Batish Professor & Head Central Workshop
13.	Three persons from amongst educationalists of repute or persons from any other field related to the activities of the University, who are not in the service of the University nominated by President	<p>Dr. P.K. Raina Dean (A&R) Indian Institute of Technology, Ropar ROPAR.</p> <p>Prof. S.K. Kaushik R-273, Dera Baba Jaimal Singh Radha Swami Satsang BEAS – 143 204 (Distt. Amritsar)</p> <p>Dr. Daljit Singh House No. 693 Sector – 8 CHANDIGARH.</p>

S. No.	CONSTITUENCY	NAME & ADDRESS
14.	Three persons who are not members of the teaching staff coopted by the Senate for their specialized knowledge.	Dr. A.S. Chawla Dean, Academic Affairs, Punjabi University, Patiala Shri Gurbinder Singh Deputy Registrar (Academics) Shri Pankaj Sinha Finance Officer
15.	Director, National Institute of Technical Teachers' Training & Research, Chandigarh (ex-officio)	Dr. M.P. Poonia Director National Institute of Technical Teachers' Training & Research Sector 26 CHANDIGARH – 160 019.
16.	Special Invitee	Shri Chiranjiv Singh OSD
17.	Registrar (Ex-Officio) Secretary	Shri Gurbinder Singh

Annexure-I(d)**FINANCE COMMITTEE (1.1.2013 to 31.12.2015)**

S. No.	CONSTITUENCY	NAME & ADDRESS
(i)	The Chairman, Board of Governors; (Ex-officio)	Shri R. R. Vederah Chairman Board of Governors
(ii)	The Director (Ex-officio)	Prof. Prakash Gopalan Director
(iii)	One person nominated by the President	Sh. J.S. Neerav Executive Director- Education Initiatives Avantha Group Ballarpur Industries Ltd.

S. No.	CONSTITUENCY	NAME & ADDRESS
		First India Place, Tower C, 3 rd Floor Mehrauli Gurgaon Road
		GURGAON – 122 002.
(iv)	Two persons nominated by the Board, one of whom shall be a person with special knowledge of Accounts and Finance	Shri S.K. Khandelwal Executive Director Avantha Holdings Thapar House, 124, Janpath NEW DELHI.
(v)	A representative of the UGC	---
(vi)	A representative of the State Government	Shri Rakesh Kumar Verma, IAS Principal Secretary to Govt. Punjab Department of Technical Education & Industrial Training Punjab Mini Secretariat, Sector – 9 CHANDIGARH – 160 009
(vii)	Registrar (Ex-officio) Permanent Invitee	Shri Gurbinder Singh
(viii)	Director, LMTSOM Special Invitee	Dr. Padmakumar Nair
(viii)	Finance Officer (Ex-Officio) Secretary	Shri Pankaj Sinha Secretary

Annexure-I(e)**STAFF AFFAIRS COMMITTEE (1.1.2013 to 31.12.2015)**

S. No.	CONSTITUENCY	NAME & ADDRESS
(i)	Chairman, Board of Governors (Ex-officio)	Shri R. R. Vederah Chairman Board of Governors
(ii)	Three members to be nominated by the Chairman, from the members of the Board of Governors (for three years)	Sh. J.S. Neerav Executive Director- Education Initiatives Avantha Group Ballarpur Industries Ltd. First India Place, Tower C, 3 rd Floor Mehrauli Gurgaon Road

S. No.	CONSTITUENCY	NAME & ADDRESS
		GURGAON – 122 002.
		Shri Anil Bhargava Director, Corporate Affairs Thapar House, 124, Janpath NEW DELHI.
(iii)	Director (Ex-officio)	Prof. Prakash Gopalan Director,
(iv)	Director, LMTSOM	Dr. Padmakumar Nair
(iv)	Finance Officer (Ex-officio)	Shri Pankaj Sinha Finance Officer Thapar University
(v)	Three teachers of the University to be nominated from the members of the Board of Governors	Dr. Susheel Mittal Senior Professor School of Chemistry & Biochemistry Dr. Maninder Singh Associate Professor Department of Computer Science & Engineering Dr. V.P. Singh Assistant Professor Department of Computer Science & Engineering
(vi)	Special Invitee	Shri Chiranjiv Singh OSD
(vii)	Registrar (Ex-Officio) Secretary	Shri Gurbinder Singh

Annexure-I(f)**BUILDING & WORKS COMMITTEE (1.1.2014 to 31.12.2016)**

S.No.	CONSITUENCY	NAME AND ADDRESS
(i)	Director – Chairman (Ex-Officio)	Prof.Prakash Gopalan Director
(ii)	Director, LMTSOM	Dr. Padmakumar Nair
(ii)	Deputy Director, (Ex-Officio)	Dr. Susheel Mittal Dr. R.S. Kaler
(iii)	Superintending Engineer, PWD (B&R) Patiala Circle, (Ex-Officio)	Er. Jaswinder Singh Mann Superintending Engineer Patiala Circle No. 1 , PWD B&R Branch, Mini Secretariat, Block-C, Nirman Bhawan PATIALA – 147 001.
(iv)	Head, Civil Engineering Department, (Ex-Officio)	Dr. Naveen Kwatra Head Civil Engineering Department
(v)	Two persons from amongst Civil Design Engineers / Construction Experts / Architects to be nominated by the Chairman of the Board for three years	Prof. S.K. Kaushik R-273, Dera Baba Jaimal Singh Radha Swami Satsang BEAS – 143 204 (Distt. Amritsar)
		Shri Basant Kumar Additional Secretary, GOI (Retd.) Dx-160, Kendriya Vihar, Sector 56 GURGAON – 122 003.
(vi)	One member having knowledge of Finance/Accounts to be nominated by Chairman, BOG for	Mr. Rajendra Kumar Mangal Dy. Financial Controller Avantha Holdings Ltd. Thapar House, 124, Janpath

NEW DELHI – 110 001.

three years

(vii)	General Manager (Estate)	Shri R.K. Nigam
(viii)	Deputy General Manager (CMS)	Shri Sanjeev Soni
(ix)	Faculty Advisors (Civil & Electrical)	Dr. Prem Pal Bansal Associate Professor Department of Civil Engineering
		Sh. S.K. Jain Associate Professor Department of Electrical & Instrumentation Engineering
(x)	Permanent Invitee	Shri R.K. Nigam
(xi)	Special Invitee	Shri Chiranjiv Singh OSD
(xii)	Registrar, Ex-officio (Secretary)	Shri Gurbinder Singh

Annexure-II

ACADEMIC CALENDAR 2014-2015

FIRST SEMESTER		
-	Registration* (OTHER THAN FIRST YEAR STUDENTS)	21.07.2014 – 25.07.2014
-	Commencement of Classes	21.07.2014 at 13:00 Hours
-	Late Registration (With late registration fee)	26.7.2014 to 11.08.2014(with late registration fee of Rs 1000/-)
-	Teaching (45 days)	21.07.2014 to 19.09.2014
-	Mid-Semester Test	22.09.2014 to 27.09.2014
-	Teaching (15 days)	29.09.2014 to 17.10.2014
-	Mid Semester Vacations * (05 days)	20.10.2014 to 24.10.2014
-	Teaching (30 days)	27.10.2014 to 05.12.2014
-	End Semester Examination	08.12.2014 to 20.12.2014
-	Winter Vacations* (12 days)	22.12.2014 to 02.01.2015
SECOND SEMESTER		
-	Registration*	05.01.2015 – 09.01.2015
-	Commencement of Classes	05.01.2015 at 13:00 Hours
-	Late Registration (with late registration fee)	10.01.2015 to 23.01.2015 (with late registration fee of Rs1000/-)
-	Teaching (45 days)	05.01.2015 to 06.03.2015
-	Mid-Semester Test	09.03.2015 to 14.03.2015
-	Teaching (45 days)	16.03.2015 to 15.05.2015
-	End Semester Examination	18.05.2015 to 30.05.2015
-	Summer Vacations * (47 days)	01.06.2015 to 17.07.2015
Summer Training for BE students after Second Year		
-	Survey Camp (4 weeks): For Civil Engineering Students	
-	Practical/Workshop Training (6 weeks): For the Students of Disciplines other than Civil Engineering	
New Session (2015-16) will start w.e.f. July 20, 2015		

Annexure – III**1. Statement of degrees to be awarded November 2015 (As on 16/10/2015)**

Sr. No.	Programme/Discipline	Number of students graduating
1	PhD	31
2	M.Tech (Regular & Part-Time)	430
3	ME (Regular & Part-Time)	
4	Post Graduate Diploma	2
5	Master of Computer Applications (MCA)	143
6	MSc (Biotechnology)	17
7	MSc (Chemistry)	8
8	MSc (Mathematics& Computing)	8
9	MSc (Physics)	9
10	MBA	78
11	Industrial Engineering (BE [IE] MBA)	
12	BE/BTech	846
13	B.Sc. (Physics)	2
14	B.Sc. (Mathematics)	2
15	BCA	1
	Total	1577

2. Detail of admission made in the year: 2015-16

Sr.No.	Programme/Discipline	No. of Students Admitted
1.	BE/BTech	1299
2.	BEMBA	102
3.	BE-IEP	52
4.	BTech – Biotechnology	20
5.	BE/BTech-LEET	107
6.	ME	295
7.	MTech	80
8.	Master of Computer Applications (MCA)	28
9.	Master of Computer Applications (MCA-LATERAL)	29
10.	MBA	88
11.	MSc (Biotechnology)	18
12.	MSc (Chemistry)	41
13.	MSc (Mathematics & Computing)	26
14.	MSc (Physics)	40
15.	MSc (Bio-Chemistry)	10
16.	PhD	90

Annexure 'IV'

LIST OF STUDENTS TO BE AWARDED MEDALS

List of students who are eligible for the award of Medals to be awarded during the 29th Convocation to be held in November 2015:

SR. NO.	REGN. NO.	NAME OF THE STUDENT (MR. /MS.)	FATHER'S NAME (SHRI)	MOTHER'S NAME (SMT.)	CGPA/A + GRADE/ MARKS OBTAINED IN ALL SEMESTERS	MONTH & YEAR OF COMPLETION
PRESIDENT MEDAL						
1	101102051	RAHUL AGGARWAL	GIRISH AGGARWAL	LUXMI AGGARWAL	9.95	JUNE 2015
S. RANBIR SINGH MEMORIAL MEDAL						
1	101108103	SIDDARTH GUPTA	SUNIL GUPTA	KHEMA GUPTA	8.10	JULY 2015
PROF. V. RAJARAMAN COMPUTER SCIENCE/ENGINEERING AWARD						
1	101103054	MOHAK KATARIA	VED PARKASH KATARIA	SHASHI KATARIA	9.88 (1A+ Grade)	JULY 2015
2	101103085	RISHABH MISRA	MADAN MOHAN	SUNITA MISRA	9.88	JULY 2015
S. RAM S. SIDHU MEMORIAL MEDAL						
1	101104021	DHRUV SRIVASTAV	PANKAJ SRIVASTAV	REEMA SRIVASTAV	9.64	JULY 2015
UNIVERSITY MEDAL						
BACHELOR OF TECHNOLOGY						
BIOTECHNOLOGY						
1	701100010	DAVINDER SINGH	GURMEET SINGH	PARMINDER KAUR	9.21	JUNE 2015
BACHELOR OF ENGINEERING						
CHEMICAL ENGINEERING						
1	101101040	KAREENA GILL	GURPREET SINGH GILL	HARBIPINPREET KAUR	9.40	JUNE 2015
CIVIL ENGINEERING						
1	101102051	RAHUL AGGARWAL	GIRISH AGGARWAL	LUXMI AGGARWAL	9.95	JUNE 2015

COMPUTER ENGINEERING						
1	101103054	MOHAK KATARIA	VED PARKASH KATARIA	SHASHI KATARIA	9.88 (1A+ Grade)	JULY 2015
2	101103085	RISHABH MISRA	MADAN MOHAN	SUNITA MISRA	9.88	JULY 2015
ELECTRICAL ENGINEERING						
1	101104021	DHRUV SRIVASTAV	PANKAJ SRIVASTAV	REEMA SRIVASTAV	9.64	JULY 2015
ELECTRONICS (INSTRUMENTATION & CONTROL) ENGINEERING						
1	101105025	DEEPSHIKHA	PARDEEP KUMAR	ANUPAM SEHGAL	9.71	JULY 2015
ELECTRONICS & COMMUNICATION ENGINEERING						
1	101106034	CHANDRIKA KAUSHAL	RAVINDER KAUSHAL	MADHU KAUSHAL	9.91	JULY 2015
MECHANICAL ENGINEERING						
1	101108097	SHIVENDER MALIK	NARINDER MALIK	DEEPALI MALIK	9.87	JUNE 2015
B.E.(IE)-MBA						
1.	401057007	PULKIT KAPOOR	MAHESH KAPOOR	SEEMA KAPOOR	8.85	MAY 2015
MASTER OF COMPUTER APPLICATIONS (M.C.A.)						
1	201200047	KAJAL RANI	VIKRAM SINGH	USHA DEVI	9.84	JUNE 2015
MASTER OF SCIENCE						
BIOTECHNOLOGY						
1	301301001	AMRIT KAUR	AZAIB SINGH	JOGINDER KAUR	9.72	AUGUST 2015
CHEMISTRY						
1	301302004	APARNA GARG	SUBHASH GARG	ANJALI GARG	9.51	AUGUST 2015
MATHEMATICS & COMPUTING						
1	301303010	SONALI	RAJ KUMAR	SUSHMA SETHI	10.00	SEPTEMBER 2015
PHYSICS						
1	301304006	NAVNEET KAUR	KULWANT SINGH	RAJINDER KAUR	9.86	OCTOBER 2015
UNIVERSITY MEDAL						
MASTER OF TECHNOLOGY						
ENVIRONMENTAL SCIENCE & TECHNOLOGY						
1	601301010	RAMANDEEP KAUR	MAKHAN SINGH	RANJIT KAUR	10.00	September 2015
BIOTECHNOLOGY						
1	6013040	ALISHA ISHRAT	ISHRAT	RENU TAKROO	9.78	August

	01		HUSAIN			2015
VLSI DESIGN						
1	6013610 26	SHUKLA JAGRUT BHARATKUMAR	SHUKLA BHARAT VISHNUPRASA D	SHUKLA MANDAKINI BHARATKUMAR	9.81	August 2015
CHEMICAL ENGINEERING						
1	6013110 07	RONJISH CHUGH	OM PARKASH CHUGH	SUNITA CHUGH	9.32	August 2015
COMPUTER APPLICATIONS						
1	6013030 07	ASHWIN PARASHAR	SHAILENDRA PARASHAR	SANTOSH PARASHAR	9.50	August 2015
MASTER OF ENGINEERING						
STRUCTURAL ENGINEERING						
1	8013220 16	RAMANDEEP SINGH SIDHU	AMARJIT SINGH SIDHU	BALJINDER KAUR SIDHU	9.51	OCT 2015
SOFTWARE ENGINEERING						
1	8013310 11	LEEZA SINGLA	S K SINGLA	SHASHI SINGLA	9.78	August 2015
COMPUTER SCIENCE & ENGINEERING						
1	8013320 02	AMIT GOYAL	HARI SHANKER GOYAL	USHA GOYAL	9.69	September 2015
INFORMATION SECURITY						
1	8013330 10	KULJEET KAUR	MANJEET SINGH	JASMEET KAUR	9.64	August 2015
WIRELESS COMMUNICATIONS						
1	8013630 01	ABHISHEK BANSAL	JIWAN NATH	KIRAN BALA	9.66	August 2015
ELECTRONICS & COMMUNICATION ENGINEERING						
1	8013610 20	PRAGYA	SATYA MITRA	RAMA SAXENA	9.60	August 2015
POWER SYSTEMS						
1	8013410 15	POOJA CHAUHAN	B. S. CHAUHAN	MITLESH CHAUHAN	9.66	September 2015
ELECTRONIC INSTRUMENTATION & CONTROL ENGINEERING						
1	8013510 27	SIMARJOT KAUR RANDHAWA	CHARANJIT SINGH RANDHAWA	MANJEET KAUR	9.32	September 2015
CAD/CAM ENGINEERING						
1	8013810 23	SUMIT SOOD	DEEPAK SOOD	RAMA SOOD	10.00	September 2015
PRODUCTION ENGINEERING						
1	8013820 30	VISHAL SINGH	JAGIR SINGH	NARESH KUMARI	9.87	September 2015
THERMAL ENGINEERING						
1	8013830	PARMOD	DEVI PRAKASH	SHAKUNTALA	10.00	August

	19	KUMAR		DEVI		2015
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Annexure 'V'

1. Department wise list of onroll Ph.D Candidates.

Sr. No.	Department/School	No. of students onroll
1	Biotechnology	50
2	Chemical Engineering	26
3	Civil Engineering	33
4	Computer Science & Engineering	115
5	Electronics & Communication Engineering	72
6	Electrical & Instrumentation Engineering	72
7	Mechanical Engineering	54
8	Chemistry & Bio-chemistry	48
9	Energy and Environment	10
10	Humanities & Social Sciences	37
11	LMTSOM	31
12	Mathematics	68
13	Physics & Material Sciences	66
Total		682

Phd awarded in 2015:

S.No.	Name of the Student	TITLE	Supervisor(s)
1.	Dr. Ravindra P Singh	ERGONOMIC INVESTIGATIONS OF ASYMMETRICAL MANUAL LIFTING TASKS ON INDIAN MALE WORKERS	Dr. Ajay Batish Dr. T.P. Singh
2.	Dr. Paras Chawla	PERFORMANCE ANALYSIS OF FREQUENCY RECONFIGURABLE	Dr. Rajesh Khanna

		ANTENNA USING RF MEMS	
3.	Dr. Rishi Manrai	IMPACT OF DIVERSIFICATION STRATEGY ON CAPITAL STRUCTURE, SYSTEMATIC RISK AND CORPORATE PERFORMANCE IN INDIAN CONTEXT	Dr. Rudra Rameshwar Dr. V.K. Nangia
4.	Dr. Balwant Verma	DIVERSITY OF <i>SUILLUS</i> SPECIES ASSOCIATED WITH CONIFER TREES IN NORTH WESTERN HIMALAYAN REGION OF INDIA	Dr. M.S. Reddy
5	Dr. Munish Kumar	OFFLINE HANDWRITTEN GURMUKHI SCRIPT RECOGNITION	Dr. R.K. Sharma Dr. Manish Kumar
6.	Dr. Inderpreet Chopra	AUTONOMIC MODEL FOR SELF-HEALING AND SELF-PROTECTION IN GRID COMPUTING USING MULTI-AGENTS	Dr. Maninder Singh
7.	Dr. Meenakshi Batra	STUDY OF LOW ENERGY PROPERTIES OF HADRONS USING PHENOMENOLOGICAL MODELS AND EFFECTIVE THEORIES	Dr. Alka Upadhayay
8.	Dr. Sanmeet Kaur	A NETWORK SECURITY MODEL FOR ATTACK SIGNATURE GENERATION, TRACKING AND ANALYSIS	Dr. Maninder Singh
9.	Dr. Vikram	CONVENTIONAL AND INTELLIGENT CONTROL OF NONLINEAR SYSTEMS	Dr. Sunil Singla Dr. Lillie Dewan
10	Dr. Surajit Sen Gupta	STUDIES ON CO ₂ CAPTURE USING ADSORPTION FROM SIMULATED REFINERY FLUE GAS	Dr. P.K. Bajpai Dr. H. Bhunia Dr. A.K. Das
11	Dr. Anju Bala	AUTONOMIC FAULT TOLERANT SCHEDULING FOR MULTIPLE WORKFLOWS IN CLOUD ENVIRONMENT	Dr. Inderveer Chana
12.	Dr. Rakesh	PERFORMANCE ANALYSIS OF	Dr. R.S.

		HYBRID PASSIVE OPTICAL NETWORKS	Kaler
13	Dr. Sanmukh Kaur	IMPLEMENTATION OF ALL OPTICAL ARITHMETIC AND LOGIC UNIT BASED ON NONLINEAR PROPERTIES OF SEMICONDUCTOR OPTICAL AMPLIFIERS	Dr. R.S. Kaler
14	Dr. Alka Sharma	DESIGN AND SYNTHESIS OF BENZIMIDAZOLE CORE MOIETIES AND STRUCTURE ACTIVITY RELATIONSHIP STUDIES BASED ON IN VITRO EVALUATION AS ANTICANCER DRUGS	Dr. Kamaldeep Paul
15	Dr. Amit Kumar	INTEGRATED NETWORK TRAFFIC VISUALIZATION FOR THREAT DETECTION, ANALYSIS AND REPORTING	Dr. Maninder Singh
16	Dr. Bindu Garg	SOME APPROACHES FOR SOLVING FUZZY DATA ENVELOPMENT ANALYSIS MODELS	Dr. Amit Kumar
17	Dr. Seema Verma	IMPROVEMENT IN PERFORMANCE OF RSA CRYPTOSYSTEM	Dr. Deepak Garg
18	Dr. Sanjay	THERMAL AND ELASTIC PROPERTIES OF SOLIDS AND GEOPHYSICAL MINERALS AT ELEVATED TEMPERATURES AND PRESSURES	Dr. O.P. Pandey Dr. S.K. Sharma
19	Dr. Kirandeep Sandhu	DYNAMICS OF NUCLEAR REACTIONS IN SUPERHEAVY MASS REGION	Dr. Manoj Kr. Sharma
20	Dr. Ankush Kansal	THROUGHPUT ANALYSIS OF OFDM BASED WIRELESS SYSTEM WITH FRFT	Dr. Kulbir Singh Dr. Rajiv Saxena
21	Dr. Jagdeep Kaur	PHOTOCATALYTIC STUDIES OF UNDOPED AND DOPED ZNS NANOSTRUCTURES	Dr. O.P. Pandey
22	Dr. Davinder	"MULTIBAND ANTENNA	Dr. Rajesh

	Parkash	STRUCTURES FOR HETEROGENEOUS WIRELESS SYSTEMS WITH IMPROVED PERFORMANCE	Khanna
23	Dr. Balwinder S Sangha	DEVELOPMENT OF A MODEL FOR FOSTERING INNOVATION CULTURE IN SMALL SCALE AUTOPART MANUFACTURING INDUSTRY OF PUNJAB	Dr. Ajay Batish Dr. T.P. Singh
24	Dr. Navjot kaur	"CALCIUM AND ZIRCONIUM OXIDE BASED SOLID CATALYSTS FOR THE TRANSESTERIFICATION OF LOW QUALITY TRIGLYCERIDES	Dr. Amjad Ali
25	Dr. Mahak Sharma	CENTRAL AND CLASS-PRESERVING AUTOMORPHISMS OF FINITE P -GROUPS	Dr. Deepak Gumber
26	Dr. Gurvinder kaur	A STUDY OF COMPETING DECAY CHANNELS OF NUCLEAR SYSTEMS FORMED IN LOW ENERGY HEAVY ION REACTIONS	Dr. Manoj Kr. Sharma
27	Dr. Ravi Narayan	DESIGN OF MACHINE TRANSLATOR BASED ON QNN	Dr. V.P. Singh Dr. S. chakarverti
28	Dr. Malkit Singh	EFFECT OF COAL BOTTOM ASH ON STRENGTH AND DURABILITY PROPERTIES OF CONCRETE	Dr. Rafat Siddique
29	Dr. Mamta Mittal	EFFICIENT DETECTION AND INTERPRETATION OF CLUSTERS IN HIGH DIMENSIONAL DATABASES	Dr. R.K. Sharma Dr. Mamta Mittal
30	Dr. Deepak Jain	HYGROMECHANICAL RESPONSE OF FIBRE REINFORCED POLYMERS WITH VARYING FIBRE TOPOLOGIES	Dr. Naveen Kwatra Dr. Abhijit Mukherjee
31	Dr. S.G. Joshi	DATA DRIVEN TOOLS FOR DYNAMIC ANALYSIS OF BUILDING FRAMES	Dr. Naveen Kwatra Dr. S.N.

			Londhe
32	Dr. Praveen Kumar Khosla	DESIGN AND ANALYSIS OF VELOCIMETRY FOR SUPERSONIC SLED SYSTEM"	Dr. Rajesh Khanna Dr. Sanjay P Sood
33	Dr. Meenakshi Verma	SYNTHESIS AND IN VITRO EVALUATION OF HETEROCYCLIC CORE MOIETIES AS ANTICANCER AGENTS	Dr. Kamaldeep Paul
34	Dr. Teena Sharma	SEQUENTIAL MICROBIAL- PHOTOCATALYTIC PROCESS FOR DEGRADATION OF NEONICOTINOID PESTICIDE	Dr. Anita Rajor Dr. Amrit Pal Toor

PLACEMENT DATA 2014-15

CENTRE FOR INDUSTRIAL LIAISON AND PLACEMENT																																		
List of Organisations who have visited our Institute for Campus Recruitment till 31st August 2015 alongwith placement data (2014-15)																												Dated: 01/09/2015						
S. No.	Organisation	B.E/B.Tech.										No. of students offered campus placement																M.Sc.				MBA		Total
		BT	CE	CH	CS	EE	EC	EIC	MEH	MCA	STR	ENV	M.E/M.Tech.										Phy	Ch.	Math	Bio-Tech	B.E Indu	Gen						
													CH.	CS	CSA	SW	IS	POW	EC	VLSI	WR	EIC							CAD	PRD	THE	MT. SC	BIO-TECH	
1	Royal Bank of Scotland	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
2	Maruti Suzuki India Ltd	-	1	-	3+2	0	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13+2	
3	Microsoft India	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	
4	Schneider Electric Ltd	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	
5	DE Shaw India Software Ltd.	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
6	ZS Associates India Pvt Ltd	0	1	0	3	3	1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	
7	Futures First Ltd	1	1	0	2	0	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	7	
8	Exl Service (Inductis India)	0	0	0	2+1	1	6	4	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	15+1	
9	Expedia India	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
10	Sandisk Corporation	-	-	-	2	0	2	0	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
11	Zomato.com	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
12	Informatica Corporation	-	-	-	1+1	-	-	-	-	1+1	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+2	
13	Alstom Projects India Ltd	-	0	-	-	0	0	0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
14	Deloitte Consulting India Pvt. Ltd.	-	-	-	8	1	7+1	3+2	-	1	-	-	-	2	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26+3	
15	Crompton Greaves Ltd.	-	-	-	-	5	1	-	0	-	-	-	-	-	-	-	0	1	1	-	0	0	0	0	0	-	-	-	-	-	-	-	8	
16	Amadeus Software Labs. India Pvt. Ltd.	-	-	-	9	-	1	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	
17	Axtia India Pvt. Ltd.	0	0	0	8+3	0	3	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13+3	
18	Anand Group	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+2	-	1+2	
19	Freescall Semiconductor India Pvt. Ltd.	-	-	-	Tg 3	-	4+2+1	-	-	-	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	4+2+1	
20	Oracle Financial Services	0	0	0	5	0	5	0	0	0	0	0	0	1+2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11+2	
21	GS Engg. & Construction I	-	-	0	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
22	Hike Ltd.	-	-	-	1 Tg 1	0	0	Tg 1	-	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
23	Belzabir Software Design India Pvt. Ltd.	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
24	Make My Trip.com	-	-	-	9	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	
25	Sab Miller India Ltd.	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	

Annual Report

S. No.	Organisation	No. of students offered campus placement																																
		B.E/B.Tech.									M.E/M.Tech.																M.Sc.				MBA			
		BT	CE	CH	CS	EE	EC	EIC	MEH	MCA	STR	ENV	CH.	CS	CSA	SW	IS	POW	EC	VLSI	WR	EIC	CAD	PRD	THE	MT. SC	BIO-TECH	Phy	Ch.	Math	Bio-Tech	B.E Indu	Gen	Total
26	Honda Cars India Ltd.	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	10
27	Naukri.com	-	-	-	4	-	-	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	7
28	Larson & Tourbo Const.	-	17	-	-	-	-	2	-	-	RA	1	-	-	-	-	RA	-	-	-	RA	RA	RA	RA	-	-	-	-	-	-	-	-	-	20
29	Hindustan Unilever Ltd.	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
30	Oracle Health Sciences Global Business	0	0	1	2	0+1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	-	0	-	4+1
31	Black Rock	-	-	-	1+8+1	-	-	-	-	0+4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+12+1
32	Success Factors	-	-	-	1	-	-	-	-	0	-	-	-	0	0	1Tg	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
33	Indus Valley Partners	-	-	-	5	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
34	Exicom Tele Systems	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
35	Samsung Engg India Pvt. Ltd.	-	1	1	-	1	-	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
36	VE Commercial Vehicles	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3
37	MAQ Software	-	-	-	3	-	-	-	-	0	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
38	UOP- India Ltd.	-	-	1	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
39	Mahindra Comviva Technologies Ltd.	-	-	-	5	-	3	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
40	U-Trade Solutions	-	-	-	1+1	-	-	-	-	0	-	-	-	1	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3+1
41	Lenskart.com	-	-	-	1+1	-	0	0	-	0	-	-	-	0	0	1	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	2+1
42	Paxcel Technologies Ltd.	-	-	-	3	-	2	0	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	13
43	Hero Motocorp Ltd.	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
44	Ericsson India Global Services	-	-	-	3	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
45	SAP Labs	0	0	0	1+1	1	1	0	0	0	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3+1
46	ISGEC Heavy Engg. Ltd.	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
47	Nucleus Software	-	-	-	7	4+1	9	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22+1
48	Century Link India	-	-	-	5	0	1	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
49	Grail Research	0	0	1	0	2	2+1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	8+1
50	Chic Mic	-	-	-	5	-	0	0	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8

S. No.	Organisation	No. of students offered campus placement																																	
		B.E/B.Tech.										M.E/M.Tech.																M.Sc.				MBA			
		BT	CE	CH	CS	EE	EC	EIC	MEH	MCA	STR	ENV	CH.	CS	CSA	SW	IS	POW	EC	VLSI	WR	EIC	CAD	PRD	THE	MT-SC	BIO-TECH	Phy	Ch.	Math	Bio-Tech	B.E Indu	Gen	Total	
51	Routofy Services Pvt.Ltd.	-	-	-	Tg.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
52	Elegant Marine Services	-	-	-	-	-	-	-	Tg.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
53	Ascentx India	-	-	-	2	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
54	TT Consultants Pvt. Ltd.	-	-	-	2	2	2	0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	
55	JSW Steel Ltd.	-	-	1	-	4	-	3	1	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	-	9	
56	Smart Cube *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2		
57	Nagarro Software Pvt. Ltd.	-	-	-	7+2	-	1+1	2	-	0	-	-	-	0	1	2	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	13+3	
58	Reliance Industries Ltd.	-	-	16	-	3	-	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	
59	Grofers	-	-	-	0+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	
60	Magic Software	-	-	-	3	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
61	Tata Motors Ltd.	-	-	-	-	1	-	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	
62	Aspiring Minds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
63	Authorgen Technologies	-	-	-	0+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	
64	Cadence Design Systems	-	-	-	-	-	0+0+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+0+1	
65	Aakash Educational Services Ltd.	0	0	0	0	0	1	0+1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2+1	
66	Accenture Services	5	1	8	7	6	6	13	1	12	0	0	0	5	7	6	3	2	4	1	3	1	2	0	1	0	0	0	-	-	-	-	-	94	
67	Sapient Nitro	-	-	-	1+6	1	0+1	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+7	
68	ST Microelectronics	-	-	-	0+0+1 Tg 13	-	Tg 6	-	-	Tg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+0+1	
69	Royal Enfield	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
70	SMS India Pvt. Ltd.	-	1	-	0	0	0	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
71	Saint Gobain Group	-	-	-	-	-	-	-	1+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+1	
72	IBM India Pvt. Ltd.	1	-	4	2+1	-	-	1	1	-	-	-	-	0+3	-	-	0+2	-	6+1	3+1	1+2	3+1	1	-	2	-	-	-	-	-	-	-	-	25+11	
73	Experitest	0	0	0	0	0	0	0	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
74	Tata Consultancy Services	4	0	5	15	3	12	5+1	4	9	0	0	1	6	5	6	5	1	5	3	2	1	2	0	4	0	0	-	-	-	-	-	1	99+1	
75	Adventz Group	-	1	0	-	0	-	-	0+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+1	
76	Snap deal.com	-	-	-	0+2	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+2	

S. No.	Organisation	No. of students offered campus placement																																	
		B.E/B.Tech.										M.E/M.Tech.																M.Sc.				MBA			
		BT	CE	CH	CS	EE	EC	EIC	MEH	MCA	STR	ENV	CH.	CS	CSA	SW	IS	POW	EC	VLSI	WR	EIC	CAD	PRD	THE	MT-SC	BIO-TECH	Phy	Ch.	Math	Bio-Tech	B.E Indu	Gen	Total	
77	Blackngreen	-	-	-	1	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
78	Infogain India Pvt. Ltd.	-	-	-	2	-	-	-	-	4	-	-	-	1	1	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	
79	Fidelity Business Services India Pvt. Ltd.	-	-	-	0+1+1*	2+2	0+2	2+3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4+8+1*	
80	Idea Cellular Ltd.	-	-	-	-	-	3+2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3+2	
81	GATI *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	4	
82	Roots Analysis	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	0	-	-	2	
83	SML Isuzu Ltd.	-	-	-	-	1	-	-	1+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+1	
84	Dabur India Ltd.	-	-	-	-	-	-	-	2+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+1	
85	KPMG India	-	-	-	0+1	0	0+1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+2	
86	Newgen Software Technologies Ltd.	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
87	Myntra.com	-	-	-	0+3	-	-	-	-	-	-	-	0	0+1	0	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+4	
88	Computer Sciences Corporation India Pvt. Ltd.	-	-	-	0	0	1	0	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
89	Atkins Group	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
90	Software AG	-	-	-	1	0	0	0	-	0+1	-	-	-	0	1	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+1	
91	Havells India Ltd.	-	-	-	-	1	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
92	Bhushan Steel Ltd.	-	-	3+2	-	3	-	2+2	7+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	16+5	
93	MphRx	-	-	-	0	-	-	0	-	0	-	-	-	0+0+1*	0	0	0	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0+0+1*	
94	Lovely Professional University	-	-	-	-	-	-	-	-	-	0	1	-	0+0+1*	0	0	0	1	0+1	1	0	0	1	2	0+2	0	-	-	-	-	-	-	-	6+3+1*	
95	Tavant Technologies	-	0	0	0+3	0	2	0	0	7+1	-	-	-	1+1	3	2+3	1+3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16+11	
96	VVF India Ltd.	-	-	0+1	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	
97	Honda Motorcycle & Scooter India Pvt. Ltd.	-	-	-	-	-	-	-	4+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4+1	
98	Cubastion Consulting Pvt.Ltd.	-	-	-	0	0	0	1	1+1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3+1	
99	Ind-Swift Laboratories Ltd.	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
100	Saviynt	-	-	-	0	-	-	-	-	0	-	-	-	1+1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+1	

S. No.	Organisation	No. of students offered campus placement																																
		B.E/B.Tech.								M.E/M.Tech.																		M.Sc.						MBA
		BT	CE	CH	CS	EE	EC	EIC	MEH	MCA	STR	ENV	CH.	CS	CSA	SW	IS	POW	EC	VLSI	WR	EIC	CAD	PRD	THE	MT. SC	BIO-TECH	Phy	Ch.	Math	Bio-Tech	B.E Indu	Gen	Total
101	WSP Group	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
102	HCL Technologies*	-	-	-	0	-	0	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	-	0+1	
103	VISA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
104	Bloomchemag Pvt Ltd	-	-	2	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	2	
105	L & T Infrastructure Engg Ltd	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
106	Magneti Marelli Ltd	-	-	-	-	1+1	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5+1	
107	Co-Cubes.Com	0	0	0	0+1	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	
108	Amdocs India Development Centre	-	-	-	0+1	-	-	-	-	0	-	-	-	0	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+1	
109	Infomaths	0	0	0	0	0+1	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	
110	Practo	1+1	1	1+1	0	2	0	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	14+2	
111	Budget Signs	-	5	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	
112	Siemens Ltd	1+1	-	-	-	1+1	0+1	0+1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+4	
113	Punj Lloyd Ltd	-	3+1	0+1	-	1	-	0	2+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	6+3	
114	Reliance ADAG *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4	6	
115	University of Twente *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	-	0+1	
116	Logicutor Technologies *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	3+1	3+2	
117	Vardhman Group *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	4	
118	Thapar University *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	
119	UAS International *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	0+1	
120	XAD Technologies *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	
121	Hero Motors *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	

Annual Report

S. No.	Organisation	No. of students offered campus placement																																
		B.E/B.Tech.										M.E/M.Tech.														M.Sc.				MBA				
		BT	CE	CH	CS	EE	EC	EIC	MEH	MCA	STR	ENV	CH	CS	CSA	SW	IS	POW	EC	VLSI	WR	EIC	CAD	PRD	THE	MT. SC	BIO-TECH	Phy	Ch.	Math	Bio-Tech	B.E Indu	Gen	Total
122	Just Dial *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	0+1		
123	Autoninja	0	1+1	1+1	0	0	0	0	1+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	4+3	
124	Media Tek India	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
125	Interra Systems	-	-	-	0	0	0+1	0+1	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0+2	
126	Mazars LLP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
127	Exousia Info Services	-	-	-	0	-	0	0	-	0	-	-	-	0	1	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
128	Triune Energy Services	-	3	1+1	-	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7+1	
129	Shapoorji Pallonji Ltd	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
130	GATES India	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+2	-	2+2	
131	DIT University	-	-	-	-	-	-	-	-	-	1	-	-	0+1	0	0	2+1	1+1	0	0+1	0	0	0	1	0	-	-	-	-	-	-	-	-	5+4
132	Mankind Pharma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	0	-	-	0	
133	AFCONS Infrastructures Ltd	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
134	John Deere	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
135	Bechtel India	-	-	-	0	-	-	-	-	0	-	-	-	0	0	1	0+0+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+0+1
136	We are holidays	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
137	Skill Tree Knowledge Consortium	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
138	Triniti Centre	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	
139	Trivium Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	4	
140	Emergent Ventures	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
141	IRIS Learnings	0	1	0	0	1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
142	Zoom Car	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
143	Duplays *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	
144	Philips India *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	4	
145	Tynor *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+1	-	1+1	
146	LMTSM*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1		
147	FJS Global*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1		
148	HT*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
149	Consort Builders	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
150	IDS Infotech Ltd	-	-	-	3	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
151	Security Weaver Ltd.	-	-	-	0	-	-	-	-	2+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+1	
152	Gulzar Group of Institutes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
153	Decathlon Sports India	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	1
154	Max Speciality Films Ltd	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
155	HLS Asia Ltd	-	-	-	-	0+1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1*	
156	Steel Strips Wheels Ltd	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
157	GKN driveline India	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
158	Glaxo Smithkline Beecham	-	-	-	-	-	-	0+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	
159	Rayat & Bahra Group	-	-	-	-	-	-	-	-	3	-	-	-	1	1	1	0	3	-	-	-	2	2	2	-	-	-	-	-	-	-	-	15	
160	Denso Corporation	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
161	NIIT Technologies	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
162	Panacea Biotech Ltd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	0	
163	INOX Wind Ltd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
164	Knowledgentia Consultants	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
165	Shore Tel	-	-	-	0	-	0	0	-	-	-	-	0	0	0	0	0	0+1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	0+1	
166	LG Electronics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
167	IOL Chemicals	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	

S. No.	Organisation	No. of students offered campus placement																														Total		
		B.E/B.Tech.								MCA	M.E/M.Tech.														M.Sc.				MBA					
		BT	CE	CH	CS	EE	EC	EIC	MEH		STR	ENV	CH.	CS	CSA	SW	IS	POW	EC	VLSI	WR	EIC	CAD	PRD	THE	MT. SC	BIO-TECH	Phy	Ch.	Math	Bio-Tech		B.E Indu	Gen
168	App Versal	-	-	-	2	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
169	Cyber Tech Systems	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
170	Madhav Alloys Pvt Ltd	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
171	Gian Jyoti Edu. Society	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
172	Brain Edge India	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
173	AIS Glass	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
174	SAB Industries	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
175	Syntel India	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
176	HDFC Bank*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	6	
177	Aryabhata Group	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	2	4	2	-	-	-	-	-	-	-	-	-	11	
178	Promatics Technologies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
179	Edifecs Technologies	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
180	Henkel India	-	-	0 + 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0 + 1	
181	Om Careers	2	2	1	2	2	2	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	
182	IL&FS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
183	Span InfotechIndia	-	-	-	3	-	3	1	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	
184	Saroj Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
185	Shivalik Group	-	-	-	-	-	-	-	-	-	3	-	-	1	1	1	3	3	2	2	-	3	2	3	1	-	-	-	-	-	-	-	-	25
186		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
187		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
188		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
189		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
190		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
	Number of students having one placement	15	51	49	140	57	96	53	102	55	5	6	2	14	23	23	10	15	17	9	4	7	13	12	12	0	1	0	0	0	0	16	28	835
	Number of students having two placements	2	2	8	39	8	11	12	9	8	0	0	0	6	1	3	6	1	3	2	2	1	0	0	2	0	0	0	0	0	0	8	3	137
	Number of students having three placements	0	0	0	2	0	2	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	Total Number of Students placed.	17	53	57	181	65	109	65	111	63	5	6	2	22	24	26	17	16	20	11	6	8	13	12	14	0	1	0	0	0	0	24	31	979

CAMPUS INTERVIEWS -2014-15																																		
S. No.	Organisation	No. of students offered campus placement																																
		B.E/B.Tech.									M.E/M.Tech.																		M.Sc.				MBA	
		BT	CE	CH	CS	EE	EC	EIC	MEH	MCA	STR	ENV	CH.	CS	CSA	SV	IS	POW	EC	VLSI	VR	EIC	CAD	PRD	THE	MT. SC	BIO-TECH	Phy	Ch.	Math	Bio-Tech	B.E Indu	Gen	
Total no. of students		34	94	74	205	84	137	91	141	146	19	14	6	30	30	31	24	28	30	26	27	30	25	29	27	4	16					33	44	
Number of students passed		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	44	
Number of students gone for higher studies		3	4	3	6	3	3	4	2	0	2	2	1	2	2	3	1	2	2	2	1	2	2	3	2	1	3	-	-	-	-	0	2	
Number of students interested for campus interviews / likely to pass		28	82	63	191	73	121	79	129	131	9	10	4	28	28	29	22	24	26	22	21	23	20	23	21	3	12	-	-	-	-	25	39	
No. of students having CGPA > 6.00		23	63	53	170	59	101	60	100	91	6	8	4	23	25	28	21	18	23	18	18	20	14	19	16	3	10					24	35	
No. of students placed having CGPA > 6.00		17	48	52	168	55	97	56	96	59	5	6	2	22	24	26	17	16	20	11	6	8	13	12	14	0	1					23	29	
% age of students placed having CGPA > 6.00																																		
No. of students having CGPA < 6.00		5	19	10	21	14	20	19	29	40	3	2	0	5	3	1	1	6	3	4	3	3	6	4	5	0	2					1	4	
No. of students placed having CGPA < 6.00		0	5	5	13	10	12	9	15	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					1	2	
% age of students placed having CGPA < 6.00																																		
Total no. of students placed		17	53	57	181	65	109	65	111	63	5	6	2	22	24	26	17	16	20	11	6	8	13	12	14	0	1					24	31	
Total %age of placement																																		

NOTE:

1 Placement data is update till 31st August 2015.

Annexure VII (a)

LIST OF SPONSORED PROJECTS (INFRASTRUCTURE AND RESEARCH)
RECEIVED (Department/ School wise form April 2014 to March 2015)

Sr.No.	Title of the Project	Name of the coordinators(s)	Funding Agency	Sanctioned Amount (In Lakhs)	Deptt.
1	Development of treatment and regeneration technology for phytoestrogens from wastewater streams.	Moushumi Ghosh.	CSIR	14.92	DBTES/ SEE
2	Effect of magnetic anisotropy and particle size distribution on the magnetization of antiferromagnetic nio nanoparticles	S.D.Tiwari	CSIR	15.92	SPMS
3	Design and development of integrated nanophotonic platform based on hybrid photonic plasmonic waveguide for communication and bio-sensing.	Mukesh Kumar	CSIR	14.92	ECED
4	Size and shape dependent photocatalytic activity of TiO ₂ Nanostructures for selective reduction of nitroaromatics.	Satnam Singh	CSIR	10.92	SCBC
5	Development of non-eco toxic polyolefins with controlled environmental degradation by	Haripada Bhunia	DAE/ BRNS	19.89	CHED

	using high energy radiation and pro-oxidants.				
6	Investigation of hydrodynamics and RTD of pulp digester using radiotracer technique.	Avinash Chandra	DAE/ BRNS	21.38	CHED
7	Non-inner and class preserving automorphisms of finite p- groups	Dr.Deepak Kumar	DAE/ NBHM	10.12	SMCA
8	Mechanism and applications fo ionizing radiation in AOP based degradation of persistant pollutants from aqueous streams	Amit Dhir	DAE/BRNS	24.83	SEE
9	Cloning and characterization of genes of glutathione biosynthesis in ectomycorrhizal fungi and their role in metal detoxification	M.S.Reddy	DBT	29.50	DBTES
10	Studies on STF-nanoclay based composites for personal armour systems	Rajeev Mehta	DRDO	29.71	CHED
11	Floating wick type vertical multiple effect diffusion solar still waste heat recovery.	Madhup Kumar Mittal	DST	11.22	MED
12	Studies on combustion, performance and emissions characteristics of diesel engine	Sunil Kumar Mahla	DST	19.20	SEE

	fuelled with biodiesel and biogas.				
13	Green polymers for waterborne pathogen detection and treatment. (DST-International Div.)	Moushumi Ghosh with British counterpart Dr. Helen Bridle.	DST	23.58	DBTES/SEE
14	Development of photonic crystal biosensor of detection of foodborne pathogens.	R.S.Kaler	DST	30.89	ECED
15	Synthesis of clay supported TiO ₂ nanoparticles for photocatalytic oxidation of volatile organic compounds (VOCs)	Soumen Basu	DST/SERB	24.98	DBTES
16	Durability enhancement and prevention damage in RC structure using bacteria	M.S.Reddy	DST/SERB	53.70	DBTES
17	Development of M-type Hexaferrete films for microwave device Application.	Puneet Sharma	DST-SERB	47.46	SPMS
18	Synthesis and characterization of NA 2S-P2S5 glass ceramic based solid electrolytes for Na-ion batteries.	O.P.Pandey	DST-SERB	27.96	SPMS
19	Low energy properties of baryon JP=1/2+ Decuplets in phenomenological model	Alka Upadhyay	DST-SERB	17.39	SPMS
20	Projects from Industries	Amit Dhir	INDS	1.10	SEE

21	Salary & Research Grant	Dr.Deepak Kumar	UGC	16.76	SMCA
	Total			466.35	

Annexure VII (b)

List of Funding Agency wise Sponsored Projects (Infrastructure and Research) ongoing as on 31.3.2015

Sr.No.	Title of the Project	Name of the Coordinators	Funding Agency	Sanctioned Amount (In Lakhs)	Deptt.
1	Optimization techniques for design of ultra high performance concrete mixes.	Maneek Kr.	AICTE	7.50	CIVIL
2	Application software development to evaluate thermal performance of tube type, air to air heat exchange for CADA high rated electrical motors.	D Gangacharyulu	CGL	13.82	CHED
3	Zirconia supported solid catalyst for simultaneous transesterification and esterification of high free fatty acid containing triglycerides.	Amjad Ali	CSIR	13.53	SCBC
4	Genetic Transformation of selected clones of populus deltoides FOR CELLULOSE ENHANCEMENT IN WOOD.	Anil Kumar	CSIR	19.77	DBTES
5	Magnetic Fluid based coolant to enhance thermal and dielectric properties of transformer oil.	B.K.Chudasama	CSIR	20.25	SPMS
6	Study of surface charge and zeta potential of coinage metal nanoparticles for their optimum stability and catalytic activity.	Bonamali Pal	CSIR	15.42	SCBC
7	Heterocyclic Substituted quinazoline and pyrazolo[3,4-d] pyrimidine derivatives: Scaffold for aurora kinase inhibitors.	Kamaldeep Paul	CSIR	21.92	SCBC
8	OSDD Project under the CDRI of CSIR	Kamaldeep Paul	CSIR	5.50	SCBC
9	Cluster Decay and Fusion Fission Dynamics at low energies.	Manoj Kr. Sharma	CSIR	9.96	SPMS
10	Development of treatment and regeneration technology for phytoestrogens from wastewater streams.	Moushumi Ghosh.	CSIR	14.92	DBTES/SEE

11	Design and development of integrated nanophotonic platform based on hybrid photonic plasmonic waveguide for communication and bio-sensing.	Mukesh Kumar	CSIR	14.92	ECED
12	Studies on anti-inflammatory responses as function of bioactive selection from selenium-rich cereal grains.	N.Tejo Prakash	CSIR	19.92	DBTES
13	Development fo barium hexaferrite (BaFe ₁₂ O ₁₉) Thick films for micro/ millimeter wave device applications.	Puneet Sharma	CSIR	14.42	SPMS
14	Kinetic and thermodynamics studies on the effect of chaotropiv and kosmotropic cosolvents on horse ferrocyclochromec.	Rajesh Kumar	CSIR	18.92	SCBC
15	Fungus mediated biodiesel generation from wasted edible oils.	Ranjana Prakash	CSIR	17.02	SCBC
16	Effect of magnetic anisotropy and particle size distribution on the magnetization of antiferromagnetic nio nanoparticles	S.D.Tiwari	CSIR	15.92	spms
17	Developing validated scale-up procedure for densephase pneumatic transport of fine powders using two-layer dune-flow model.	S.S.Mallick	CSIR	19.47	MED
18	Size and shape dependent photocatalytic activity of TiO ₂ Nanostructures for selective reduction of nitroaromatics.	Satnam Singh	CSIR	10.92	SCBC
19	Size and shape dependent photocatalytic activity of TiO ₂ Nanostructures for selective reduction of nitroaromatics.	Satnam Singh	CSIR	10.92	SCBC
20	Isolation purification and characterization of new fibrinolytic molecules from endophytic fungi for their use as anti-thrombotic agents.	Sanjai Saxena	CSIR	14.67	DBTES

21	Influence of isospin degree of freedom on disappearance of directed and elliptical flow in intermediate energy heavy-ion collisions.	Suneel Kumar	CSIR	11.82	SPMS
22	Investigation of hydrodynamics and RTD of pulp digester using radiotracer technique.	Avinash Chandra	DAE/ BRNS	21.38	CHED
23	Development of non-eco toxic polyolefins with controlled environmental degradation by using high energy radiation and pro-oxidants.	Haripada Bhunia	DAE/ BRNS	19.89	CHED
24	Study of size-dependent multiferroic properties of doped-BiFeO ₃ nanostructures	N.K.Verma	DAE/ BRNS	22.45	SPMS
25	Strain improvement of <i>Aspergillus</i> sp.(RBD01) for enhanced transesterification of waste-cooking and non-edible oils using induced mutation by γ irradiation.	Ranjana Prakash	DAE/ BRNS	21.22	SCBC
26	Theoretical study of heavy ion dynamics at superconducting cyclotron(k500scc)energies at VECC	Suneel Kumar	DAE/ BRNS	14.58	SPMS
27	Design and Development of Diphenylether based supramolecules for electroanalytical probes.	Susheel Mittal	DAE/ BRNS	22.89	SCBC
28	Non-inner and class preserving automorphisms of finite p- groups	Dr.Deepak Kumar	DAE/ NBHM	10.12	SMCA
29	Mechanism and applications fo ionizing radiation in AOP based degradation of persistant pollutants from aqueous streams	Amit Dhir	DAE/BRNS	24.83	SEE
30	Cloning and characterization of genes of glutathione biosynthesis in ectomycorrhizal fungi and their role in metal detoxification	M.S.Reddy	DBT	12.74	DBTES
31	Immunomodulatory agents from endophytic fungi for breast cancer therapy.	Manoj Baranwal	DBT	16.02	DBTES

32	Neuroprotective properties of selenoergothioneine sourced from selenium-rich mushrooms against oxidative stress and nitrosative damage in neuronal cells.	N.Tejo Prakash	DBT	11.86	DBTES
33	Biofortification of selenium in edible mushrooms from se-rich crop residues.	N.Tejo Prakash	DBT/ NDB	17.13	DBTES/ SEE
34	Alkali metal supported transition metal oxides as catalyst for the transesterification of jatropha and karanja oils.	Amjad Ali	DRDO	14.82	SCBC
35	Study of alkaline earth metals substitution in bismuth based mixed ion conductors for solid oxide fuel cells applications.	Kulvir Singh	DRDO	14.42	SPMS
36	Development of porous aluminum foam materials for blast mitigation.	O.P.Pandey	DRDO	17.24	SPMS
37	Studies on STF- nanoclay based composites for personal armour systems	Rajeev Mehta	DRDO	29.71	CHED
38	Nanoengineering of Magnetic carries for drug delivery of anticancer therapeutics.	B.K.Chudasama	DST	27.01	SPMS
39	Lateral and longitudinal hydrodynamic dispersion through rigid and flexible vegetation	Dwarikanath Ratha	DST	14.34	CIVIL
40	Synthesis and characterization of high capacity adsorbents for CO ₂ capture.	Haripada Bhunia	DST	25.34	CHED
41	Structural and electro-optical investigations on lyotropic liquid crysalline materials and their uses as soft template.	K.K.Raina	DST	33.06	SPMS
42	Novel scaffolds of Pglycoprotein modulators to overcome multidrug resistance in cancer cells.	Kamaldeep Paul	DST	19.98	SCBC
43	Study of lanthanum doped mixed conductors for solid electrolytes	Kulvir Singh	DST	34.50	SPMS
44	Floating wick type vertical multiple effect diffusion solar still waste heat recovery.	Madhup Kumar Mittal	DST	11.22	MED

45	In silico and in vitro approach to identify immunogenic peptides of HINI virus as a target for vaccine design.	Manoj Baranwal	DST	23.60	DBTES
46	Nuclear reaction dynamics and related aspects at low energies($E < 15\text{MeV/A}$)	Manoj Kr. Sharma	DST	12.50	SPMS
47	Green polymers for waterborne pathogen detection and treatment. (DST-International Div.)	Moushumi Ghosh with British counterpart Dr. Helen Bridle.	DST	23.58	DBTES/SEE
48	Tungsten Carbide Powder from Wolframite Ore.	O.P.Pandey	DST	32.73	SPMS
49	Development of photonic crystal biosensor of detection of foodborne pathogens.	R.S.Kaler	DST	30.89	ECED
50	Study and development of above elbow prosthetic arm.	Ravinder Agarwal	DST	26.62	USIC
51	Effect of laser photoetching of Au nanostructures of different shapes on the electrokinetic, optical and catalytic properties.	Rupinder Kaur	DST	14.28	SCBC
52	The total synthesis fo the antimalarial natural products, flinderoles.	Satyendra K Pandey	DST	22.00	SCBC
53	Medelling Solids Friction and Transport Boundary for fluidised densa-phase pneumatic conveying systems.	S.S.Mallick	DST	21.95	MED
54	Transalkylation of di-isopropylbenzene (DIPB) with benzene over modified nano zeolite catalyst: A kinetic study.	Sanghamitra Barman	DST	23.60	CHED
55	The total synthesis fo the antimalarial natural products, flinderoles.	Satyendra K Pandey	DST	22.00	SCBC
56	Detection of corrosion by ultrasonic and acoustic emission techniques.	Shruti Sharma	DST	42.00	CIVIL
57	Synthesis of transition metal incorporated mesoporous materials and their catalytic application for some industrial	Shweta Sareen	DST	16.08	SCBC

	reactions.				
58	The quest for the nuclear equation of state in intermediate energy heavy-ion collisions.	Suneel Kumar	DST	14.25	SPMS
59	Studies on combustion, performance and emissions characteristics of diesel engine fuelled with biodiesel and biogas.	Sunil Kumar Mahla	DST	19.20	SEE
60	Sequential biological photocatalytic degradation of neonicotinoids in soil.	Teena Sharma	DST	21.10	SEE
61	Heterocycles based FRET-dyads for chemionic and bioionics.	Vijay Laxmi	DST	26.37	SCBC
62	ESIPT based Chromophores Application for sensing and white light emitting devices.	Vijay Laxmi	DST	83.00	SCBC
63	Utilization of cement klin dust in concrete after removal of alkalinity and metal toxicity with microbes	R.Siddique	DST	27.00	CIVIL
64	FRP stay in place structural formwork for concrete floors under women scientist scheme.	Reema Goyal	DST	24.60	CIVIL
65	Durability enhancement and prevention damage in RC structure using bacteria	M.S.Reddy	DST/SERB	53.70	DBTES
66	Synthesis of clay supported TiO ₂ nanoparicles for photocatalytic oxidation of volatile organic compounds (VOCs)	Soumen Basu	DST/SERB	24.98	DBTES
67	DST- FIST Program	Head MED	DST-FIST	43.00	MED
68	FIST Programe on 50:50 Basis (43 lac-DST & 43 lac TU.)	Head SCBC	DST-FIST	43.00	SCBC
69	DST- FIST Program	Head SPMS	DST-FIST	81.50	SPMS
70	Low energy properties of baryon JP=1/2+ Decuplets in phenomenological model	Alka Upadhyay	DST-SERB	17.39	SPMS
71	Development of M-type Hexaferrete films for microwave device Application.	Puneet Sharma	DST-SERB	47.46	SPMS

72	Association of Single Nucleotide polymorphisms and Methylation status in the Wnt and AhR signaling pathways with risk for occurrence of Lung cancer in North Indian Population.	Siddhartha Sharma	ICMR	18.93	DBTES
73	Particular matter dose relationship with lung function efficiency of children during agriculture crop residue burning episodes.	Susheel Mittal	ICMR	21.37	SCBC
74	A Strategic framework for enhancing technology adoption and management strategies for women entrepreneurs in food and beverage sector.	Ravi Kiran	ICSSR	5.00	SBSBS
75	A Strategic framework for enhancing technology adoption and management strategies for women entrepreneurs in food and beverage sector.	Santha Kumari	ICSSR	7.00	SBSBS
76	Fluidized bed catalytic reactor for the degradation of PAH.	Anoop Verma	IEI	1.00	DBTES
77	Modelling Atmospheric Pollution and Networking (MAPAN)	Susheel Mittal	IITM	20.32	SCBC
78	Gene resources from polluted soils.	M.S.Reddy	Indo French	33.17	DBTES
79	Projects from Industries	Amit Dhir	INDS	1.09	SEE
80	Development of prosodically guided phonetic engine for searching speech databases in Indian Languages.	R.K.Sharma	MOCIT	30.02	SMCA
81	Development of online handwriting recognition system for Indian Language (OHWR).	R.K.Sharma	MOCIT-2	60.23	SMCA
82	Processing and characterization of fiber reinforced polymer nanocomposites and their degradation in marine environments.	R.Mehta	NRB	21.54	CHED
83	Investigation of corrosion and its progression in ship hulls.	Shruti Sharma	NRB	24.64	CIVIL

84	Study regarding qualitative analysis of the sludge accumulated along the bed of Budha Nallah at various locations along with thickness of the sludge above the permeable surface.	P.K.Bajpai	PPCB	4.50	CHED
85	Adsorption process for removal of emerging pollutants from drinking water.(Sanctioned in Canada)	P.K.Bajpai as CO PI	Shastri Indo-Canadian Institute	5.50	CHED
86	TCS Research Scheme	Maninder Singh	TCS	13.12	CSED
87	TCS Research Scheme	Neeraj Kumar	TCS	15.52	CSED
88	TCS Research Scheme	Shalini Batra	TCS	15.52	CSED
89	Study of heavy-light D and B meson using HQET	Alka Upadhyay	UGC	9.91	SPMS
90	Design and development of stacked patch micstrip antennas for wlan applications.	Amanpreet Kaur	UGC	15.81	ECED
91	Influence of bacteria on compressive strength and permeability of fly ash concrete.	Anita Rajor	UGC	7.58	DBTES
92	Green cloud computing framework for efficient and robust management of resources.	Anju Sharma	UGC	12.93	CSED
93	Studies on antimicrobial properties of metal and metal oxide nanostructures	B.K.Chudasama	UGC	13.75	SPMS
94	Size and shape dependent photocatalytic activity of silica-coated metal (M)-zinc sulfide (ZnS) nanocomposites for nitroaromatics reduction.	Bonamali Pal	UGC	14.11	SCBC
95	Salary & Research Grant	Deepak Kumar	UGC	16.76	SMCA
96	Evaluation of resistance properties of coal water slurry flowing through local piping fittings.	Dwarikanath Ratha	UGC	6.44	CIVIL
97	Special Assistance Programme	Head CED	UGC	36.50	CED
98	Special Assistance Programme-DRS-III	Head CED	UGC	73.50	CED

99	PG Diploma under innovative programme- Teaching & Research in interdisciplinary & Emerging Areas during XI plan.	Head DBTES/ M.S.Reddy	UGC	44.00	DBTES
100	Energy Aware Resource Sheduling for Utility Computing.	Inderveer Chana	UGC	11.63	CSSED
101	On L1-Convergence of trigonometric series with special coefficients	Jatinderdeep Kaur	UGC	9.73	SMCA
102	Electrical and opto-electronic investigations of polymer-low molar mass liquid crystal composites for display applications.	K.K.Raina	UGC	11.78	SPMS
103	Coupling of substituted quinarzoline/ Xanthine and purine/Pyrimidine/Benzimidazole: A novel scaffold for kinase inhibitors.	Kamaldeep Paul	UGC	11.01	SCBC
104	Synthesis and characterization of diphenyl/ analogues for their antibacterial activity	Manmohan Chhiber	UGC	6.22	SCBC
105	Formation and decay of exotic nuclear systems using energy density formalism	Manoj Kr. Sharma	UGC	12.67	SPMS
106	Technological development of biopolymer overproducing variants of acinetobacter implicated in phosphate enrichment in water	Moushumi Ghosh	UGC	7.60	DBTES
107	Algorithms for solving some single and multicriteria decision making problems in fuzzy environment.	Mahesh Sharma	UGC	7.56	SMCA
108	UGC-BSR Research Start-up-Grant for newly recruited faculty at Assistant Professor level in science department.	Neeraj Kumar	UGC	6.00	CSSED
109	Corrosion resistance behaviour of glass-steel interface.	O.P.Pandey	UGC	9.02	SPMS
110	Synthesis of fBiFeO ₃ thin films for device applications.	Poonam Uniyal	UGC	13.92	SPMS
111	Synthesis and characterization of multiferroic A Fe ₂ O ₄ -BiFeO ₃ (A=Co, Ni,Zn) nanocomposite films	Puneet Sharma	UGC	7.27	SPMS

112	UGC Special Assistance Programme	HECED Rajesh Khanna	UGC	61.00	ECED
113	UGC-BSR to improve basic scientific research in University.	Head Eced/ R.Khanna	UGC	20.00	ECED
114	Ph-Dependent stability and microsecond folding kinetics of horse ferrocycytochrome c.	Rajesh Kumar	UGC	11.42	SCBC
115	A Strategic Framework for consumer preferences towards emerging retail formats.	Ravi Kiran	UGC	4.80	SOMSS
116	Frame for enabling data portability between heterogeneous cloud storage platforms.	Rinkle Rani	UGC	8.59	CSED
117	Application of nanozeolite for the removal of novel contaminants from waste water.	Sanghamitra Barman	UGC	11.72	CHED
118	Ultrasonic guided wave approach for monitoring setting and hardening of concrete.	Shruti Sharma	UGC	5.22	CIVIL
119	Service life prediction of RC structures	Shweta Goel	UGC	11.17	CED
120	UGC-BSR Research Start-up-Grant for newly recruited faculty at Assistant Professor level in science department.	Soumendu Jana	UGC	6.00	SPMS
121	UGC-BSR Research Start-up-Grant for newly recruited faculty at Assistant Professor level in science department.	Sudipata Sarkar	UGC	6.00	DBTES
122	UGC-BSR Research Start-up-Grant for newly recruited faculty at Assistant Professor level in science department.	Tarun K Bera	UGC	6.00	MED
123	Synthesis and characterisation of vanadium carbide nanoparticles.UGC-DAE	O.P.Pandey	UGC/DAE	6.02	SPMS
124	Fluid Flow and Heat Transfer, Essential Oil Production and characterization.	Avinash Chandra	UGC-BSR	6.00	CHED
125	Research Start-Up Grant	Bhaskar C Mohanty	UGC-BSR	6.00	SPMS
126	Research Start-Up Grant	S.K.Pandey	UGC-BSR	6.00	SCBC

127	Nanoscience and molecular modelling	Sudhir K Singh	UGC-BSR	6.00	CHED
	Total			2452.75	

Annexure-VII(C)**List of Sponsored Projects(Infrastructure and Research) completed as on 31.3.2015**

Sr.No.	Title of the Project	Name of the Coordinators	Funding Agency	Sanctioned Amount (In Lakhs)	Deptt.
1	Chemical Fixation of carbon dioxide to polycarbonates and cyclic carbonates.	Rajeev Mehta	AICTE	14.10	CHED
2	Multiresponse optimization of process parameters for the improved part accuracy in fused deposition doeling process.	Ajay Batish	AICTE	9.75	MED
3	Studies on selenium and its specification in environmental and biological samples from seleniferous regional of Punjab.	N.Tejo Prakash	BRNS	14.09	DBTES
4	Utilization of Fungal treated waste foundry sand in concrete.	R.Siddique	CSIR	12.26	CED
5	Calcifying bacteria mediated cementation for energy efficient building materials.	M.S.Reddy	CSIR	15.42	DBTES
6	Preparation and characterization of polylectide(PLA)-polyethylene blends and its degradability studies.	H.Bhunia	CSIR	16.92	CHED
7	Study of size-dependent multiferroic properties of doped-BiFeO ₃ nanostructures	N.K.Verma	DAE	22.45	SPMS
8	Rehabilitation of RC bridge girders with externally pre-stressed fiber composites vide No. SR/S3/ MERC- O30/ 2009	Prem Pal Bansal	DST	29.00	CED
9	Development of Indradhanush: an Intergrated WordNet for Bengali, Gujrati, Kashmiri, Konkani, Oriya, Punjabi and Urdu.	R.K.Sharma	MOCIT	17.55	SMCA

10	Satluj Monitoring Project	A.S.Reddy	NRRDA/ SMP	52.03	DBTES
11	Algorithms fo solving some fuzzy network flow problems.	Amit Kumar	UGC	7.43	SMCA
12	Synthesis and characterization of multiferroci A Fe ₂ O ₄ -BiFeO ₃ (A=Co, Ni,Zn) nanocomposite films	Puneet Sharma	UGC	7.27	SPMS
13	Performance analysis of dense wavelenght division multiplexed systems.	R.S.Kaler	UGC	8.09	ECED
14	Synthesis and characterization of multiferroci A Fe ₂ O ₄ -BiFeO ₃ (A=Co, Ni,Zn) nanocomposite films	Puneet Sharma	UGC	7.27	SPMS
15	Study of erodin wear for the flow of ash-water slurry.	Satish Kumar	UGC	7.49	MED
16	Experimental Investigation for surface improvement of die steels during electric discharge machining with tungsten and titnium powder mixed dielectric.	Anirban Bhattacharya.	UGC	0.90	MED
17	Experimental investigation of EDM machined surface of Ai-Sic and Al-Sic-B ₄ C Metal matrix Composites.	Ajay Batish	UGC	10.82	MED
18	Energy Aware Resource Sheduling for Utility Computing.	Inderveer Chana	UGC	11.63	CSED