

**ANNUAL REPORT
(JULY 2013 TO JUNE 2014)**

THE 28th ANNUAL REPORT
2013 – 2014



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

PRESIDENT

Shri Gautam Thapar

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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 2013-2014. 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.

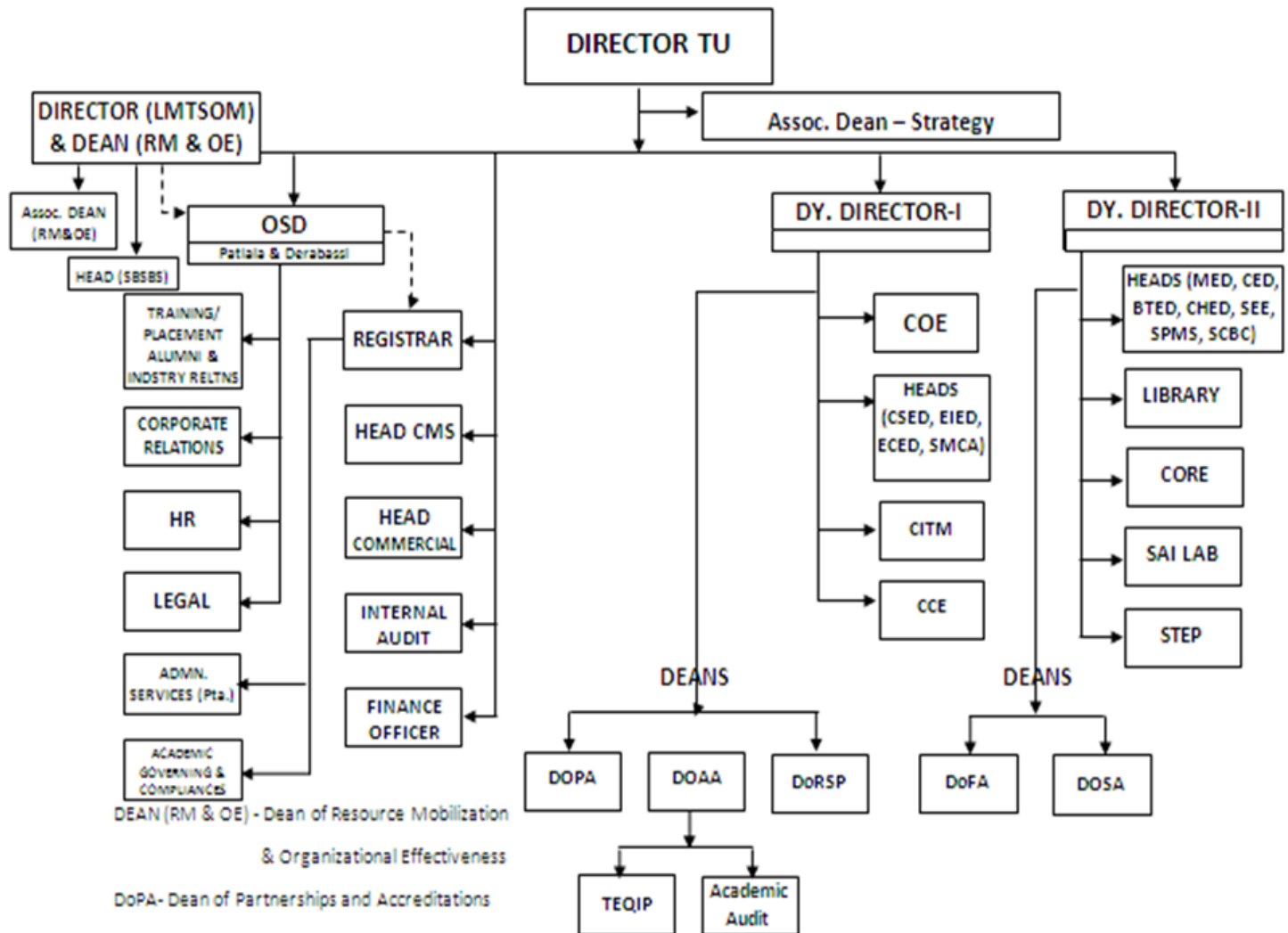
The opening up of societies and their economies in the current phase of globalization, and emerging communication technologies have brought about significant changes in all aspects of social life. Higher education, as a subsystem, has not remained unaffected by these processes. Universities and academia 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 STRUCTURE



EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

1.0 INTRODUCTION

Thapar University, TU is one of the four organisations located in the 250 acre Thapar Technology Campus (TTC) in the historic city of Patiala; others being Thapar Polytechnic (TP), Thapar Centre for Industrial Research & Development (TCIRD) and Science & Technology Entrepreneurship Park (STEP-TU). TU came into existence in 1956 through an imaginative collaboration between the then State of PEPSU (Patiala and East Punjab States Union), the Central Government and the Patiala Technical Education Trust (PTET) founded by the great captain of Indian Industry, the late Lala Karam Chand Thapar. The goals of the University, as embodied in the Trust Deed Dated April 9, 1956, are truly remarkable for their scope and vision. They provide for undergraduate and post graduate education in engineering & technology, a close interaction with industry, and a strong emphasis on basic and applied research. Thapar University is one of India's finest engineering institutes 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 2013-14 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 about 2,000 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).

As a fitting recognition of its achievements and its pioneering role in promoting the growth and development of the region, TU was granted full autonomy and the status of a Deemed University in 1985 by the University Grants Commission (UGC).

The University offers academic programmes at the undergraduate level leading to BE/BTech degree, at the postgraduate level leading to MCA, MSc, MBA, ME/MTech, MPhil degrees and at the doctoral level, PhD and DSc degrees. The salient features of the programmes are semester-wise credit system (trimester for MBA), 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. Thapar University is accredited with 'A' grade by National Assessment and Accreditation Council (NAAC), UGC. 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

- I. Bio-Technology & Environmental Sciences
- II. Chemical Engineering
- III. Civil Engineering
- IV. Computer Science & Engineering
- V. Electrical & Instrumentation Engineering
- VI. Electronics & Communication Engineering
- VII. Mechanical Engineering

B. SCHOOLS

- I. Chemistry & Bio-Chemistry
- II. Behavioral Science and Business Studies
- III. Mathematics & Computer Applications
- IV. Physics & Material Science
- V. Energy and Environmental Sciences

C. CENTRES

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

3.0 ACADEMIC PROGRAMMES

The University as of date offers 13 undergraduate programs and 29 post graduate programs besides the doctoral program in each discipline.

Undergraduate

- Biochemical Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Computer Engineering (Hons in Machine Learning and Data Analytics)
- Computer Engineering (Hons in Computer Animation and Gaming)
- Electrical Engineering
- Electronics & Communication Engineering
- Electronics (Instrumentation & Control) Engineering
- Mechanical Engineering
- Mechatronics Engineering
- Mechanical Engineering (Production)
- Software Engineering & Management

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 | – M.Sc. (Mathematics and Computing) |
| – Thermal Engineering | – M.Sc. (Physics) |
| – Computer Applications | – M.Sc. (Microbiology) |
| – Master of Business Administration | – M.Sc. (Environmental Science) |

PhD in all disciplines

4.0 ADMISSIONS July 2013

- The admissions to the BE/BTech were made on the normalized score of JEE(Main)-2013.
- Admission to MCA, MSc, ME/MTech, LEET & PhD was made through online test. The on line test was conducted from 26-30 June 2013 in 25 centers across India.
- The counselings were held ‘in person.’
- The session commenced from July 22, 2013 for all programs except BE/BTech. The session for BE/BTech started from July 29, 2013.
- One week orientation programme for all newly admitted UG students was organised that comprised of guest lectures, co-curricular and sports activities.
- Orientation program for PG students were held separately on July 22, 2013.

5.0 ACADEMICS

New Programs, revised enrolment and amendment in Academic Regulations

The University approved the following new programs to be started from session 2014-15.

- Biochemical Engineering
- Computer Engineering (Hons in Machine Learning and Data Analytics)
- Computer Engineering (Hons in Computer Animation and Gaming)
- Mechanical Engineering (Production)
- Software Engineering & Management

The University also revised the enrolment in the programs from the session 2014-15. The academic regulations of the University have been revised. Ph.D. regulations have been completely revised. New grades have been introduced.

Review of Curriculum

In today's scenario of globalization, a well-trained engineer is expected to possess knowledge of basic and applied sciences and scientific methods, an in-depth understanding of and professional competency in his/her area of specialization, versatility to work with inter-disciplinary groups and sensitivity to the needs and aspirations of the industry in particular and the society at large. The curriculum at TU has been designed 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 continually 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. The revised schemes and syllabi will be placed in next senate meeting for approval.

Computerization of Academic and other activities

Thapar University, Patiala is in the process of implementing 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 NBA team has visited for some programs in September 2014 and the remaining will be taken up during January 2015. The report is awaited.

Annual Academic Prize distribution Function

The academic prize distribution function was held on October 23, 2013. This year, 129 medals & prizes were awarded to the students on the basis of their performance during the session 2012-13. Out of these 129, 55 are the girl students. 57 students have won the medal and out of these 30 medals are won by girls.

Convocation 2013

The 27th Convocation of the University was held on November 14, 2013. Shri Shekhar Gupta, Editor-in-Chief of the Indian Express and The Express Group of publications was conferred degree of Doctor of Science (Honoris Causa). Shri Gautam Thapar presided over the function. A total of 1521 degrees were awarded to the students including 46 number of Ph.D.

Mr. Vishal Gupta student of Computer Science and Mr. Arshit Gupta students of Electronics Engineering won the President's Medal.

Student Response Survey

A committee was constituted under the Chairmanship of S. P. Nigam to review the ten-year-old SRS format. The modified format was introduced to take student feedback in the last semester.

Class Rooms

Lecture halls in E and F block were renovated during the year. In addition some of the class rooms in TAN building were handed over to us in the first week of August 2013 and some classes were scheduled in the new building.

Scholarships

All the non-GATE students (252) were given scholarship from TEQIP-II project with due approval from CBOG. Thirty eight full time Ph. D. students were also given teaching associate ship with an enhanced rate of Rs. 18,000/- p.m. New scholarships as per approval of BOG are also implemented and the amount distributed to eligible students in December 2013.

Pedagogical and Leadership Training

Sixty newly inducted faculty members were given two week pedagogical training at NTTR Chandigarh in July 2013 and January 2014 respectively. Two leadership-development programmes were conducted at Chail and Haridwar in October-2013 and May 2014 respectively. In addition ten senior faculty members were also trained at IIM Lucknow during July-May 2014.

Centre of Excellence

As per guidelines of NPIU for institutions under section 1.2, two proposals were submitted for Centre of Excellence in January 2013. One of these two proposals, 'Centre for Energy and Environment Studies of SMEs' was approved by MHRD in August 2013. A grant of Rs. 5 crore was sanctioned under this centre.

Faculty Development Programme

Eight faculty development programmes were conducted in advanced areas under TEQIP – II in various departments. One international conference and six national level workshops/conferences were also organized under TEQIP –II.

Visit to University of Waterloo (Canada) and Virginia Tech (USA)

Professor K. K. Raina (Acting Director), Prof S K Mohapatra (DoAA) and Prof Ajay Batish (HMED) visited these two Universities for networking and collaborative activities in September for eight working days under TEQIP. The visit was quite fruitful from academic and knowledge sharing. As a result Prof Sanjeev Bedi of University of Waterloo and Prof. R. C. Batra from Virginia Tech also visited TU in November/December 2013. Interaction with students, research scholars, and faculty were organized during their stay.

Remedial Classes

Remedial classes in Mathematics were initiated in the last semester. Prof S. S. Bhatia engaged these classes on Saturdays.

Finishing School

M/S Taleem Academy, Chandigarh was hired to impart soft skills to PG students for one semester (July-Dec). Besides Mr Smarth Bali, a consultant, was also hired to impart soft skills to UG students. Both these activities were organized under TEQIP.

QEE Pilot Project

Thapar University has been selected to participate in QEE pilot project of MHRD. Arrangements have been made in TAN building to beam live lectures in some subjects to UG students by some of the best faculty selected from IIT system. Virtual laboratories in some areas have also been planned under this project. Prof R. K. Sharma has been appointed as nodal officer for this activity. IIT Chennai is co-coordinating this activity.

Quality Circle

Thapar University has also been associated with IIT Delhi as a member of quality circle. There will be joint workshops, seminars, research guidance as part of this programme by MHRD, GOI.

Other Academic Activities

Feedback from the students about a course is available to all the concerned faculty members and Heads and also to Dean of Academic Affairs and Director.

Use of Information Technology is emphasized for the teaching-learning process as well as for the academic administration. Projection facilities have been implemented in nine more class-rooms.

The students have been awarded various scholarships and awards as per the norms of the University. The University also started awarding 'Merit- cum- Means' Scholarships.

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

Department	Professor	Associate Prof.	Asstt. Prof.			Lect. Cont.	Total
			GP 7000	GP 8000	GP 8500		
DBTES	1	2	1	0	0	1	5
CHED	1	0	0	1	0	0	2
CED	0	0	0	0	0	4	4
CSED	0	1	0	0	0	6	7
ECED	0	1	2	2	0	0	5
EIED	0	0	0	0	3	4	7
MED	0	0	0	2	0	2	4
SCBC	1	2	2	1	0	0	6
SMCA	0	0	8	0	0	1	9
SPMS	1	2	0	0	0	0	3
SEE	0	1	1	0	0	1	3
Total	4	9	14	6	3	19	55

Faculty Upgradation

Department	Asstt. Prof.		Total
	GP 8000	GP 8500	
DBTES	1	0	1
CHED	4	0	4
CSED	0	1	1
ECED	3	1	4
EIED	0	1	1
MED	2	0	2
SCBC	1	0	1
SMCA	1	3	4
SPMS	1	2	3
SBSBS	1	0	1
Total	14	8	22

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), 17 were completed during the year under review and 106 projects are ongoing and progressing towards their completion. 25 new projects were received during the year 2013 – 2014. The total funding received during the year was Rs. 467.49 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	2010-11	2011-12	2012-13	2013-14
Received	25	37	56	25
Ongoing	60	89	116	106
Completed	11	15	09	17
Funds Sanctioned (Rs. in lakh)	481.38	613.07	871.88	467.49

Publications	2010-11	2011-12	2012-13	2013-14
In International Journals listed in SCI/SSCI with Impact Factor	233	302	320	345
In Non SCI Journals	174	220	276	164
In seminars, conferences and workshops	345	258	245	276

b) Short Term Courses

59 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 106069 collections with 79652 books (reference books, course materials, text books), 2474 print theses, 4284 standards, 4973 bound volumes of journals, educational and career development aids, video etc. Thesis 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 11,220 e-journals and 102 print journals. E-journals are received under UGC-Infonet program, INDEST consortium and directly from supplier/publishers. Budget for books and journals for the financial year was Rs.70 lakh on print and e-journals and Rs.50 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/Displine	Degree awarded during 2013-14
1	PhD	60
2	Mtech	117
3	ME	304
4	Post Graduate Diploma	2
5	Master of Computer Applications (MCA)	177
6	MSc (Biotechnology)	20
7	MSc (Microbiology)	12
8	MSc (Chemistry)	13
9	MSc (Mathematics & Computing)	15
10	MSc (Physics)	11
11	MBA	48
12	Industrial Engineering (BE IE MBA)	30
13	BE/Btech	807
14	Btech Distance	8
15	MCA Distance	2
	Total	1626

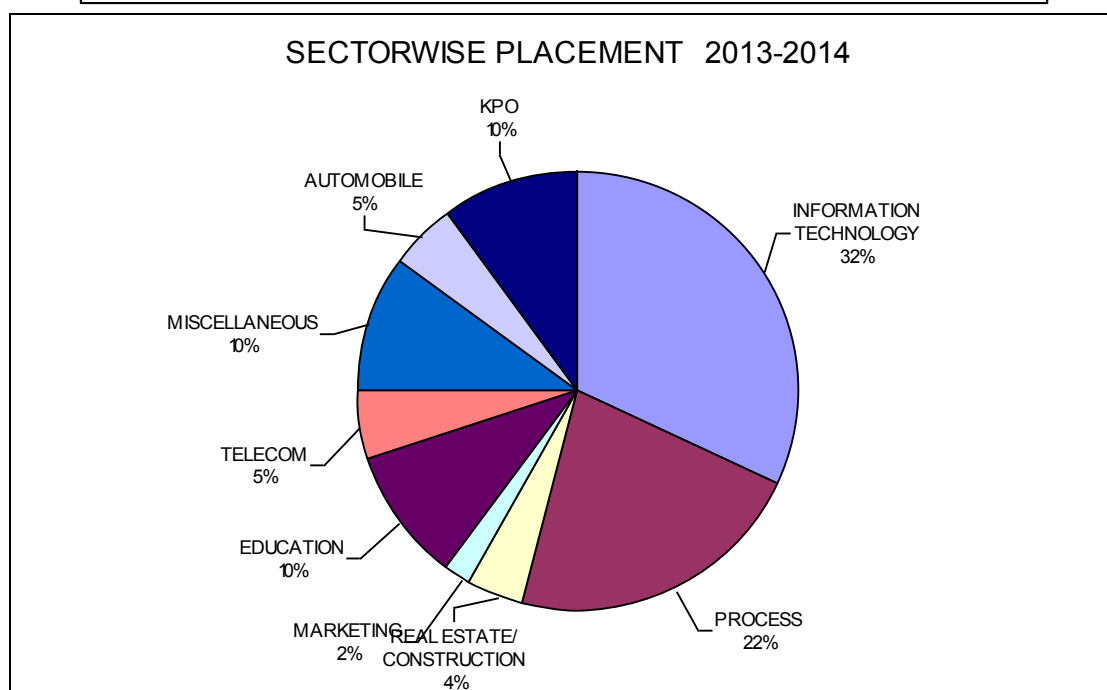
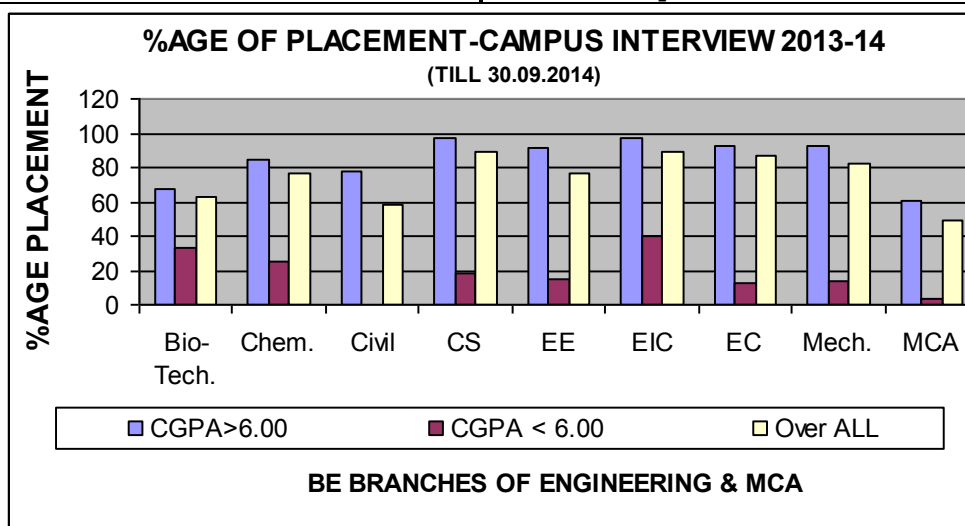
31 students received medals/ awards for their outstanding and meritorious/academic, scholastic and all round performance.

f) Campus Placement

In the academic year 2013-14, 168 companies visited TU and 857 students were offered jobs through campus placement. In BE, Bio-Tech 14 out of 21, Civil 35 out of 45. Chemical 46 out of 54, Computer Sc. 148 out of 153, Electronics Communication 95 out of 102, Electrical 52 out of 57, Instrumentation & Control 63 out of 65, Mechanical 82 out of 88 & MCA 83 out of 136 students securing CGPA 6.00 and above got placed through campus interviews. The overall placement being 86% for CGPA greater then 6.00 and 76% over all in all the BE Branches & MCA. Apart from BE and MCA students, 182 master's students (ME & M.Tech) also got placement through campus interviews, making it 51% overall in Master's of Engineering. Also 39 students from MBA and 01 students from M.Sc got placement through Campus interviews The above data is updated till September 30, 2014. Also result from 23 organizations are awaited are 11 organizations have already confirmed to visit for campus interviews. Apart from campus interviews 21 PPO offers were also received by the students. The organizations offering PPO are Edifecs Technologies (04), Freescale Semi Conductors (03), Jindal Steel Works (01), Informatica Business Solution (01), Aplopio Technologies (01), Microsoft (02), Oracle Corporation (03), ST Micro Electronics (01), Samsung India Soft Engineering Lab (05). The Maximum CTC offered for the year 2013-14 is Rs. 23.00 lakhs p.a. offered to 12 students from Hikari Tshuin, with posting in Tokyo (Japan). Average CTC offered to BE/B.Tech./MCA, ME/M.Tech, MBA being Rs. 5.06, 4.08, 4.32 lakhs p.a. respectively.

Major organizations visited for campus interviews are

- | | |
|---|---|
| <ul style="list-style-type: none"> • Hikari Tshuin, Japan • D.E.Shaw (I) Software • Microsoft India • Taxes Instruments • Cadence Design Systems • Free Scale semiconductors • ST Microelectronics • Google India • Oracle Corporation • Amazon India • Informatica Corporation • Sandisk Corporation • Amadeus Software Labs • ZS Associates • Deloitte Consulting • Futures First Info Services | <ul style="list-style-type: none"> • Tata Consultancy Services • Aricent Technologies • IBM India • Wipro Technologies • L & T • UOP • Maruti Suzuki (I)Ltd. • Tata Motors • Reliance Industries • Samsung Research India • Havells India • Schneider Electric • Hindustan Unilever Ltd. • Whirlpool of India • Mondetez International Ltd. • Crompton Greaves Ltd. |
|---|---|



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.

7.0 STUDENTS ACTIVITIES

SPORTS

- Thapar University Basketball team (Men) has won the First Rann Neeti '13 Basketball tournament held at IIT Mandi (HP) from September 21 to September 22, 2013. A total of eleven teams from different IIT's, NIT's and TU had participated in the competition. Our University team won all their matches to reach the final. Our boys won the final by beating the hosts IIT, Mandi by a huge margin.
- Thapar University teams of Chess and Badminton (both men and women) participated in Inter-Engineering tournaments held from 4th to 5th October, 2013. The good news is that all four teams have had a podium finish. The Chess, men's team won the gold medal and the women's team finished runners up, whereas, both the badminton teams finished runners up.
- The Basketball (Girls) team of Thapar University created history by winning the First Invitational Basketball Tournament held at Jaypee University, Solan HP. In fact, this is for the first time that a girls' basketball team from our university has participated in any competition.
- Lawn Tennis (boys and girls) and TT (boys) teams won Gold medals, and TT (girls) and Football (boys) Team returned with Bronze Medals in the Inter-Engineering tournaments organized by the Inter technology Universities Sports Association (ITUSA). The lawn Tennis tournament was organized at Thapar University Patiala, the Table tennis tournament was held at NIT Kurkshetra and NIT Jalandhar hosted the Football competition, from 30th to 31st Oct, 2013.
- Cricket (Men) team got 2nd position in the Inter Engineering Cricket Tournament held at PEC Chandigarh from 25-27 April 2014.
- Faculty Badminton team got 2nd position in the 1st Inter Engineering Badminton Tournament held at PEC Chandigarh from 25-27 April 2014.
- TU organized a friendly T-20 cricket match between SALIENT BUSINESS SOLUTIONS (AN AVANTHA GROUP COMPANY) AND Thapar university faculty and students mixed team and TU won this match.

ARANYA 2013

Aranya – the National Techfest – was held from November 22-24, 2013. Since its inception, Aranya has successfully emerged as a cradle for innovation in every intellect of human mind providing an environment of competition and opportunities. The highlights of mega fest are technical events of different disciplines, star nights, comedy nights, 3D shows and guest lectures. Adventure sports, various workshops and Shaurya Gatha will create a zing factor. Amidst all the glitz and fanfare, Aranya 2013 fostered its prime objective of providing a rich learning atmosphere with vigour and zeal. The campus of Thapar University was abuzz with the grand culmination of knowledge and entertainment, redefining college festivals. It saw a participation of about 20,000 students from various universities of India. Moreover there were various informal events like Immolation, paintball, stunt show etc. which attracted the crowd.

SATURNALIA 2014

Thapar University, Patiala organized a mega cultural festival- SATURNALIA'14 from April 18, 2014 for three days. The organizing team endeavoured to achieve and build on the grand success which saw a footfall of large number of students from several colleges and universities from across the region with large participation of students in the festival overall.

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:

- Secure Net Technologies
- Wipro Technologies, Bangalore
- Trinity college, University of Dublin
- 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 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)

2.0 ADMINISTRATIVE APPOINTMENTS

Deans & Heads

S.No.	Name	Designation	Department
1	Dr. Prakash Gopalan	Director	Directorate
2	Dr. S.K. Mohapatra	Dean, Academic Affairs	
3	Dr. Seema Bawa	Dean, Student Affairs	
4	Dr. Rafat Siddique	Dean, Faculty Affairs	
5	Dr. Pramod K. Bajpai	Dean , RSP	
6	Dr. R.S. Kaler	Dean, RPG	
7	Dr. Dinesh Goyal	Head	DBT
8	Dr. Rajeev Mehta	Head	CHED
9	Dr. Naveen Kwatra	Head	CED
10	Dr. Maninder Singh	Head	CSED
11	Dr. Smarajit Ghosh	Head	EIED
12	Dr. Sanjay Sharma	Head	ECED
13	Dr. Ajay Batish	Head	MED
14	Dr. K.K. De	Head	LMTSOM
15	Dr. Bonamali Pal	Head	SCBC
16	Dr. (Mrs.) Ravi Kiran	Head	SMSS
17	Dr. Kulvir Singh	Head	SPMS
18	Dr. Rajesh Kumar	Head	SMCA
19	Dr. A.S. Reddy	Head	SEE
20	Dr. R.K. Sharma	Head	CITM
21	Dr. Susheel Mittal	Acting Head	CL
22	Dr. Ajay Batish	Head	CW

New Appointments

S.No.	Name	Designation	Deptt.	Date
1.	Dr. Karminder Jit Singh	Associate Professor	LMTSOM	1.7.2013
2.	Dr. Harish Kumar Singla	Assistant Professor	SBSBS	1.7.2013
3.	Ms. N.M. Leepsa	Lecturer (Contr)	LMTSOM	1.7.2013
4.	Ms. Jhilik Bhattacharya	Assistant Professor	CSED	1.7.2013
5.	Dr. Prasanjit Basak	Assistant Professor	EIED	1.7.2013
6.	Mr. Jitender	Lecturer (Contr)	EIED	1.7.2013
7.	Mr. Shailesh Kumar	Lecturer (Contr)	EIED	1.7.2013
8.	Dr. Tarun Kumar Sharma	Assistant Professor	SMCA	1.7.2013
9.	Dr. Padmakumar Nair	Director	LMTSOM	4.7.2013
10.	Dr. Brij Bhooshan Gupta	Assistant Professor	CSED	4.7.2013
11.	Dr. Manish Kumar Jha	Assistant Professor	SBSBS	8.7.2013
12.	Dr. Hiralal Bhowmick	Assistant Professor	MED	11.7.2013
13.	Dr. Amrita Sinha	Assistant Professor	EIED	15.7.2013
14.	Mr. Shatrughan Modi	Lecturer (Contr)	SMCA	15.7.2013
15.	Dr. Manoj Kumar	Assistant Professor	CHED	19.7.2013
16.	Dr. Jainy Sachdeva	Assistant Professor	EIED	1.7.2013
17.	Dr. Paramjeet Singh	Assistant Professor	SMCA	18.7.2013
18.	Dr. Sunil Kumar Mahala	Asstt. Prof. (Cont.)	SEE	29.7.2013

19.	Dr. Amritendu Roy	Assistant Professor	SPMS	14.8.2013
20.	Mr. Santosh Sonar	Lecturer (Cont.)	EIED	12.8.2013
21.	Ms. Taskeen Zaidi	Lecturer (Cont.)	SMCA	29.8.2013
22.	Dr. Vinay Kumar	Assistant Professor	ECED	9.10.2013
23.	Dr. Manoj Anand	Professor	LMTSOM	1.11.2013
24.	Dr. Gyan Ranjan Biswal	Assistant Professor	EIED	16.12.2013
25.	Dr. Vikas	Assistant Professor	SMCA	17.6.2014
26.	Dr. Harish Garg	Asstt. Prof. (Cont.)	SMCA	17.6.2014
27.	Mr. Gurpreet Singh Saini	Lecturer (Cont.)	MED	20.6.2014
28.	Dr. Neeru Jindal	Assistant Professor	ECED	25.6.2014
29.	Dr. Raj Kumar Arya	Assistant Professor	CHED	26.6.2014
30.	Dr. Saurabh Bhardwaj	Assistant Professor	EIED	30.6.2014
31.	Ms. Tarunpreet Bhatia	Lecturer (Cont.)	CSED	16.6.2014
32.	Ms. Sukhchandani	Lecturer (Cont.)	CSED	16.6.2014
33.	Ms. Harkiran Kaur	Lecturer (Cont.)	CSED	16.6.2014
34.	Ms. Maggi Bansal	Lecturer (Cont.)	CSED	16.6.2014
35.	Dr. Navdeep Kailey	Lecturer (Cont.)	SMCA	18.6.2014
36.	Ms. Priya Goyal	Lecturer (Cont.)	CED	23.6.2014
37.	Dr. Mohammad Salahuddin Khan	Asstt. Prof. (Cont.)	SMCA	24.6.2014
38.	Dr. Vijay Luxami	Assistant Professor	SCBC	26.6.2014
39.	Dr. Rana Pratap Yadav	Assistant Professor	ECED	30.6.2014

Resigned

S.No.	Name	Designation	Deptt.	Date
1.	Dr. Partha Mahata	Assistant Professor	SCBC	16.7.2013
2.	Dr. Monika Saini	Lecturer (Cont.)	SMCA	25.8.2013
3.	Dr. Sib Sankar Mal	Assistant Prof.	SCBC	14.9.2013
4.	Dr. Brij Bhooshan	Assistant Prof.	CSED	28.8.2013
5.	Mr. Ajay Kumar	Lab. Attendant	CITM	14.10.2013
6.	Dr. Amritendu Roy	Assistant Professor	CHED	30.11.2013
7.	Dr. Manish Kumar Jha	Assistant Professor	SBSBS	21.12.2013
8.	Dr. N. Leepsa	Assistant Professor	LMTSOM	18.2.2014
9.	Mr. H.K.S. Randhawa	Assistant Professor	ECEC	24.2.2014
10.	Dr. Manoj Kumar Anand	Professor	LMTSOM	31.3.2014

Retirement

Sr. No.	Name	Designation	Department	Date of Retirement
1.	Mr. A.S. Cheema	Sr. Instructor	CW	30.9.2013
2.	Mr. J.K. Malhotra	Supdt. G-II	FS	31.10.2013
3.	Mr. Harbans Lal	Helper	CITM	30.6.2014

3. 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 1626 (as on 01.11.2014) number of students graduated during the year and will be awarded degrees during the convocation to be held on November 24, 2014. 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.). 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. The academic regulations of the University have been revised.

Performance Incentive Scheme

The University has implemented the revised Performance Incentive Scheme (PIS) for all its faculty from Jan 2014. The key result areas identified for assessment include: teaching quality; research output and perception. Nearly 55% of the faculty are awarded PIS every year as a recognition for superior performance.

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), 17 were completed during the year under review and 106 projects are ongoing and progressing towards their completion. 25 new projects were received during the year 2013 – 2014. The total funding received during the year was Rs. 467.49 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.

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

4.0 STUDENT ACTIVITIES

I. INTERNATIONAL ACTIVITIES

FORMULA ONE RACE CAR

One of our final year student Mr Raghav Bahadur Saxena has won the Randstad F1 contest in association with William F1 and as a consequence of which he has been awarded a prize to visit the William F1 faculty at Grove, United Kingdom. All the expenses for his visit from November 5-15, 2013 will be borne by the hosts.

II. NATIONAL ACTIVITIES

ARANYA 2013

Aranya – the National Techfest – was held from November 22-24, 2013. Since its inception, Aranya has successfully emerged as a cradle for innovation in every intellect of human mind providing an environment of competition and opportunities. The highlights of mega fest are technical events of different disciplines, star nights, comedy nights, 3D shows and guest lectures. Adventure sports, various workshops and Shaurya Gatha will create a zing factor. Aranya 2013, with a plethora of events ranging from technical events, book fair, edu-fair, adventure sports, seminars, guest lectures, literary and management events, it is a one stop for students to showcase their potential and at the same time enhance their capabilities. Amidst all the glitz and fanfare, Aranya 2013 fostered its prime objective of providing a rich learning atmosphere with vigour and zeal. The campus of Thapar University was abuzz with the grand culmination of knowledge and entertainment, redefining college festivals. It saw a participation of about 20,000 students from various universities of India. Moreover there were various informal events like Immolation, paintball, stunt show etc. which attracted the crowd.

SOCIETY FOR PROMOTION OF INDIAN CLASSICAL MUSIC & CULTURE AMONGST YOUTH (SPIC MACAY)

A cello performance by Saskia Rao De Haas accompanied by Durjay Bhaumik on Tabla and Asha McCarthy on TAMPURA was organized in the Thapar University Campus during FROSH WEEK by SPICMACAY in the University Auditorium on July 31, 2013 at 5:15pm.

Saskia Rao-de Haas is a virtuoso cellist and composer from the Netherlands who is based in India. She has introduced the Indian cello to North Indian classical music, a step hailed as truly pioneering. It requires great courage and tremendous talent to introduce an instrument to a domain that has had no interaction with it in the past. As a composer, she is eminent at bridging the Western and Indian classical music traditions. In addition to her prestigious status in India, Saskia is an accomplished Western classical cellist. She also plays folk music from Eastern Europe and composed music for dance, film and theatre.

In its efforts to make youth aware of its culture, Society for Promotion of Indian Classical Music and Culture Amongst Youth (SPICMACAY), TU, organized a cultural exhibition on January 30, 2014. The exhibition included a large number of artefacts and other objects related to Indian culture.

Coins, stamps, age old utensils and portraits of famous Punjabi poets and writers were some of the objects on display. The exhibition also included the paintings of regional painter Sukhpal singh, who once again after 16 years came to Thapar University to display his

paintings. His work shows how closely our culture and art is related and how one can be, in the hands of a talented artist.

A Qawwali performance by Ustad Meraj Ahmed Nizami has been organised by SPIC MACAY on February 7, 2014 to promote Indian Culture among youth.

SPORTS

- Thapar University Basketball team (Men) has won the First Rann Neeti '13 Basketball tournament held at IIT Mandi (HP) from September 21 to September 22, 2013. A total of eleven teams from different IIT's, NIT's and TU had participated in the competition. Our University team won all their matches to reach the final. Our boys won the final by beating the hosts IIT, Mandi by a huge margin.
- Thapar University teams of Chess and Badminton (both men and women) also participated in Inter-Engineering tournaments held from 4th to 5th October, 2013. All four teams have had a podium finish. The Chess, men's team won the gold medal and the women's team finished runners up, whereas, both the badminton teams finished runners up.
- The Basketball (Girls) team of Thapar University created history by winning the First Invitational Basketball Tournament held at Jaypee University, Solan HP. In fact, this is for the first time that a girls' basketball team from our university has participated in any competition. Our Lawn Tennis (boys and girls) and TT (boys) teams also won Gold medals, and TT (girls) and Football (boys) Team returned with Bronze Medals in the Inter-Engineering tournaments organized by the Inter technology Universities Sports Association (ITUSA). The lawn Tennis tournament was organized at Thapar University Patiala, the Table tennis tournament was held at NIT Kurkshetra and NIT Jalandhar hosted the Football competition, from 30th to 31st Oct, 2013.
- Our Cricket (Men) team got 2nd position in the Inter Engineering Cricket Tournament held at PEC Chandigarh from 25-27 April 2014.
- Our faculty Badminton team got 2nd position in the 1st Inter Engineering Badminton Tournament held at PEC Chandigarh from 25-27 April 2014.
- TU organized a friendly T-20 cricket match between SALIENT BUSINESS SOLUTIONS (AN AVANTHA GROUP COMPANY) AND Thapar university faculty and students mixed team and TU won this match.

III. SOCIAL ACTIVITIES

National Service Scheme (NSS)

- NSS organized a tree plantation camp on July 29, 2013. About 80 trees were planted at three venues in the university Campus. Nearly 400 students participated in this campaign.
- NSS organized an introductory highly motivational lecture and presentation on "The Organization, Importance and Benefits of National Service scheme" on July 30, 2013. The volunteers introduced the first year students to the organizational structure of NSS and explained the importance and benefits of community presence with the help of a presentation. The two hour lecture ended on a high note in order to contribute to community service.
- NSS organized a tree plantation camp on August 14, 2013, in which 30 Mango plants were planted.

- NSS organized a special camp on the theme 'Care and Share' from September 2-8, 2013. NSS organized an NSS awareness lecture in the TU auditorium on 28 July, 2013.
- NSS organized a tree plantation camp on July 29, 2013. About 80 trees were planted at three venues in the university Campus. Nearly 400 students participated in this campaign.
- NSS organized an introductory highly motivational lecture and presentation on "The Organization, Importance and Benefits of National Service scheme" on July 30, 2013. The volunteers introduced the first year students to the organizational structure of NSS and explained the importance and benefits of community presence with the help of a presentation. The two hour lecture ended on a high note in order to contribute to community service.
- NSS organized a tree plantation camp on August 14, 2013, in which 30 Mango plants were planted.
- NSS Units organized a Seminar on Eye Banking & Diabetic Retinopathy by doctors of Rajindra hospital, Patiala on September 6, 2013 (Friday) from 3 p.m to 5 p.m in C-HALL.

NSS One week Camp

The objective of the camp was to celebrate the foundation week of Thapar university, i.e. from 08-10-2013 to 15-10-2013. Therefore the aim of the camp was to plant tree and clean the Nirvana meditation park of Thapar University. The camp duration was divided into four phases. In first phase 30 trees of Amaltas were planted on the side of the road close to old Polytechnic building. 20 trees of Mahogany were planted near the synthetic athletic track.



Blood Donation Camp

A blood donation camp was organized by NSS, Thapar University Patiala on May 13, 2014 in auditorium. This was a one day event. 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 32 units of blood were collected.

INSTITUTION OF ENGINEERS (INDIA), THAPAR CHAPTER

Thapar Chapter conducted a guest lecture cum scholarship test on 1st April, 2014 Venur F-108. A student interaction program was conducted by GATEFORM Educational Services, founded by alumni of the IIMs and the IITs. They motivated the students to think on the path

of their future career and guided the students about GATE. The lecture was then ended with a scholarship test of an hour which made the students familiarized with the GATE pattern. Around 50 students participated in the guest lecture and got to learn a lot.

ADVENTURE CLUB SOCIETY

A visit to Rishikesh was organized.



Our camp on the banks of Ganga.



Group Photo

LITERARY SOCIETY, THAPAR UNIVERSITY

- 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. Acumen 2014 was organized from April 7 to April 10, 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.
- Thapar Quizzing Club's organized the event, Ex-Quiz-Eat, on March 25, 2014 held at Kababchi, in which winning meant a free meal for vying teams.
- The Scrabble Tournament organized by Muse, on March 28, 2014, saw word connoisseurs pitted against each other in a classic game of Scrabble. Two elimination rounds saw the top six congregate at Barrista, in which games went down to the wire to decide the final four.
- Poetry Society's Treasure Hunt organized on March 26, 2014, which involved putting together a meaningful poem by collecting its parts using clues scattered across campus proved a popular event which tested the participants' resourcefulness and ingenuity. Book coupons were given to winning teams.
- Cineastes, the movie-making club, organized a workshop on March 29, 2014, to bring home to nascent moviemakers the finer aspects of film-making and also showcased existing home-grown productions to serve as guideposts for amateurs.





SCORE SOCIETY

Society for the promotion of chemistry research and education (SCORE), School of chemistry and biochemistry Thapar University organized a seminar on June 19, 2014. Seminar Title: Accessing complex topologies via Dynamic Combinatorial Chemistry, Presenter: Dr. Dan G. Pantos, University of Bath, UK

TUMUN SOCIETY

In March 2014, an INTER-MUN was organised which saw large participation from the students within University and outside alike. There was an active participation from school kids too. What separated TUMUN 2014 from the rest of the MUNs was the sheer creativity and the indigenouseness of the councils. This time there were 4 councils namely;

1. United Nations General Assembly
2. All India Political Parties' Meet
3. United Nations Security Council, and
4. The Mafia

With an individual agenda for each council the MUN witnessed fierce debates on various topics sensitive to political entities and their vested interests. A huge spectacle, TUMUN notched a bit further with international participation.





UDAAN 14 (Cultural Fest)

God does not discriminate between any sections of mankind. He has distributed immense talent to everyone “, doing this quote a good justice UDAAN’14 was organized on Wednesday (16th April 2014) by the Pratigya society. Setting another of the many milestones. The event started with the ‘Deep Prajwalan’. To put a stamp on the efforts put up to stage this event, the jam packed auditorium erupted in applause and cheers after every performance. Kudos to the organizing committee to have worked really hard and encourage these kids who did utmost justice to an event of this scale. Thus we take the liberty and pride of calling these kids not underprivileged rather hard working with immense talent.





UDAAN 2014

IET Student Chapter

- Level-1 Technical paper presentation “Present Around The World (PATW-2014) competition undergraduate student-10.3.2014 for Post graduate students- 28.3.2014
- The winner and runner-up in both the categories have participated in Level-II of competition held at IET, Delhi Network, Paschirth Vihar , New Delhi on April 18, 2014.
- 2 Haltday workshop on ‘GAP’ Coraduate Amstance Propgram organsied by IET (India at TU, Patiala on April 22, 2014. The speaker of the workshop Mr. Pragun Sood on IET (India) official.

PARYAVARAN WELFARE SOCIETY (PWS)

- Inauguration of water Supply Tanker: For watering to the planted trees planted in the different location of Patiala, PWS purchased his own tanker. Inauguration of this tanker was carried out on 23rd July 2013
- Tree Plantation Drive was carried out at Central jail, Patiala on 25th July 2013
- Tree Plantation Drive was carried out at Civil Lines, Patiala on 28th July 2013
- After the Uttarakhand tragedy the whole nation united to help the flood victims. We, on behalf of Paryavaran Welfare Society did the same by sending flood relief material.
- Tree Plantation Drive was carried out at Mardheri Village , Patiala on 9th August 2013
- Tree Plantation Drive was carried out at Jasowal Village, Patiala on 15th August 2013
- Tree Plantation Drive was carried out at Rongla Village, Patiala on 19th August 2013
- Tree Plantation Drive was carried out at Chuarpur Jattan Village , Patiala on 25th August 2013
- Tree Plantation Drive was carried out at Central divider Sirhind Road, Patiala on 26th August 30th August 2013
- Tree Plantation Drive was carried out at Central divider Sirhind Road, Patiala on 5th, 10th, 14th, 18th, 21st and 23rd September 2013
- Tree Plantation Drive was carried out at Police lines, Patiala on 16th October 2013
- Tree Plantation Drive was carried out at Central divider Bus stand, Patiala on 19th October 2013
- Tree Plantation Drive was carried out at Maharaja Yadvandra Enclave, Patiala on 23rd October 2013
- PWS organised blood donation camp at Thapar University, Patiala on 25th October 2013

- For the benefit of birds, we have installed 50 pieces of Artificial nests for birds in the different location of Thapar University on 31st October 2013
- PWS carried out Patiala Cleaning Campaigns in the different location of Patiala like: Passi road, Bhupindra road and vikas vihar on 11th, 17th and 22nd January 2014.
- In the month of February 2014, PWS carried out Patiala Cleaning Campaigns in the different location of Patiala like: PRTC workshop on 11th February and Alongside Central jail from 12th February to 27th February 2014.
- PWS carried out national science day celebration on 28th February 2014 at Science city Kapurthala.
- In the month of March 2014, PWS carried out Patiala Cleaning Campaigns in the different location of Patiala like: Bhupindra road, Patiala (from 1st March to 5th March 2014), Government poultry farm (from 7th to 8th March 2014), Government Rajindra Hospital, Patiala (from 9th to 17th March 2014) and PRTC workshop (from 29th to 31st March).
- PWS carried out World Water day celebrations on 22nd March 2014 at Thapar University, Patiala.
- PWS carried out Tree plantation drive at Government elementary Multipurpose school, Patiala on 26th March 2014.
- To create awareness to save energy PWS carried out Energy awareness campaign on 27th March at Thapar University, Patiala. During this event, we had distributed 60 CFL tubes to the needy staff members of TU. After CFL distribution, we had carried out TU Black-out and candle light march.
- To create awareness among students about environment, we had carried out Expert talk by Dr. Paramjeet Singh on 31st March 2014.

SOMIE

QuizMania {Tetrix}: QuizMania is a time restricted quiz based on students' knowledge regarding the latest happenings about the Mechanical Engineering stream and their overall knowledge about machines and companies. The event took place on the 23rd November, 2013 in the academic block of college campus.

There was an overwhelming response from the students and a good turn up of students (around 100) participated in this event and after some time the competition ended. The winners emerged as follows:

Soap cutting: The day event where students participated in great numbers and with great enthusiasm. The event started with advance registrations and numbering over 80. The event started at about 10.00 a.m. on 23rd November, 2013 and continued till the evening.



The event was a full day event where students participated in great numbers and with great enthusiasm. The event started with advance registrations and numbering over 80. The event started at about 10.00 a.m. on 23rd November, 2013 and continued till the evening.

Engine assembly: The event generated a wave of enthusiasm in the students and a keen interest among them as they witnessed a showcase of an automobile engine being disassembled and then assembled again in front of them. The interest generated among the students was worth mention and thus the event received good recognition from the students.



ROBOTICS WEEK

5 days lecture by covering various technical topics required to build any working model. 2 hours workshop each on microcontroller, microprocessors, introduction to robotics, basic embedded language, coding and computer languages and sensors. Various teachers from mechanical and electronics & communication dept. gave lectures. Last day practical exercise to make robot was conducted. Great learning experience for us regarding practical knowledge.

LEGO BOT WORKSHOP: 3 workshops of this kind have been conducted in this year. Lecture by Dr. Ashish Singla on lego bots. Practical sessions assembling kits. Coding of the assembled kit to make line following robot.



Spiritual Scientists' Alliance (SSA)

- SSA organized art of living introtalk with Dr Sangeeta, ENT specialist from Rajendra hospital to learn secrets of health, happiness n stress free life through breath on September 25, 2013.
- Vote for a better India was a event conducted by the SSA on Oct. 9, 2013. The main aim of this event was to strengthen democracy by making aware the students about the voting rights & its importance . The event consisted of a flash mob , a musical concert by famous singer Nitin Dawer consisting patriotic songs in the auditorium & followed by candle light march up to COS building. About 300 people participated in the whole event. Many of the faculty members including DOSA made this event a great success by giving their benign presence.
- Spiritual Scientists' Alliance (SSA) organised an enlightening talk SPIRITUALITY IN PRACTICAL LIFE, by world famous BK SURAJ BHAI on October 14, 2013.
- SSA organized the Gurmat Smagam to celebrate Agaman Purab (Prakash Utsav) of Shri GURU NANAK DEV JI on November 20, 2013.
- The Year 2013-14 had been quite eventful for Spiritual Scientists' Alliance. This Students' body believes in studying spirituality in a scientific manner, as well as studying science in spiritual way. This body aims at providing spiritual solutions to material problems. The year saw the following major activities:
- A regular follow up sessions and youth empowerment seminars by Art of Living
- Youth concert and candle light march by VOLUNTEERS FOR BETTER INDIA, where NITIN DAWAR inspired the youth to work selflessly for the country
- 22nd October 2014 will go in the annals of Thapar University, when the campus was blessed by none other than His Holiness Sri Sri Ravi Shankar himself
- SSA organised a declamation contest on SWAMI VIVEKANAND: AN ICON OF IDEALISM FOR YOUTH TODAY in the month of October
- BK Suraj Bhai enlightened the Thaparians by his discourse SPIRITUALITY FOR PRACTICAL LIFE, again in the month October
- Students are regularly getting counselling support under SSA's SWAROOP SESSION
- Masters from HARE KRISHNA Movement are also visiting the campus almost on weekly basis to guide and motivate the students to adopt a spiritual way of life
- Last but not the least, SSA has procured 42 Life Guidance books to be lent to all Thaparians on FULL REFUND OF SECURITY Basis
- SSA aspires to continue with its mission with the help of its volunteers and with the support of Thapar Management

YOUTH UNITED

Members of Youth United (Patiala Chapter) attended the National Youth Summit 2013 organised by Art of Living Foundation in association with Times of India in Punjab University, Chandigarh. The summit included special experts from various renowned and reputed organisations such as UNAIDS, HEROES Project, INERELA+ , IICA, UNFPA, FPA India, National Drug Dependence Treatment Centre, AIIMS, UNICEF, UNGCNI & DRISHTEE.

Youth United (Patiala chapter) organized a visit to Pingalwada old age home on 27th July, 2013. The visit was refreshing for the old and mentally challenged people. They had a lovely interaction with the YU team members and the innocent smiles of children were the certificate of success for the team.

Youth United celebrated YU week from 6th – 8th August, 2013, the event heads for which were Samraggi Biswas (Chemical, 3rd year) and Ankur Wasdev (, 2nd year). This 3 day event flagged off the year for YU. YU week is basically for introducing YU to the fresher's of college. This year YU supported the theme "EMPOWERMENT OF WOMEN".

Youth United added another milestone to its philanthropist activities when it successfully initiated the "Joy of giving week" in its campus on 3rd October 2013 with the theme of "charity with fun". The Joy of Giving Week (JGW) is a "festival of philanthropy" that aims to become a part of the Indian ethos, with the Week being celebrated every year from 2nd October to 8th October by engaging people through "acts of giving" - money, time, resources and skills - spanning the corporate, NGO and government sectors, schools, colleges and the general public .

Youth United team makes the trip to Pingalwada every semester. In the even semester the trip is usually made around the Republic Day. Unlike the previous instances, this time the trip was made open to all students in Thapar University. The Youth United team visited Pingalwada on 25th January, 2014. The event was coordinated by Ashish Jainani (Computer Engineering, 2nd Year) and Navjot Kaur (Electrical, 2nd Year). Along with the Youth United team, there were an overwhelming number of students who volunteered for the trip to the Pingalwada ashram. The trip started around 10:15 am. The bus had to make two rounds to ferry the students.

Smiling Future, an initiative by Youth United Patiala chapter; spread hundreds of smiles on the faces of specially abled on the 11th-12th of February. A two day event gave a platform to differently abled children to showcase their talent on the stage of Thapar University. The event saw to participation by five schools with almost a hundred participants. On Day 1, a painting competition was held which concluded with the students of Thapar itself voting and selecting the best artwork. On Day 2, stage performances comprising of group dance, solo dance performances, dancing verses and singing left us spell-bound. It is commendable to see them overcome all physical and mental challenges and perform at par with those who are blessed with goodness health.

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. This Year, Youth United organized a free health camp under its Public Health Mission in 'BrijApahajAsharam' (properly known as Pingalwara) on 26 March, 2014. The health camp was organized in association with Columbia Asia. Dr. Gurdarshan Singh, MBBS, Medical officer from Columbia Asia checked around 70 inmates of asharam and prescribed them medicines according to their disease/ problem.

With a vision in mind and a dream at heart, Lakshay, the brainchild of the Youth United Society, Patiala, was established in March 2007 as an initiative to enlighten the less privileged kids with the benefits of primary education with the support of students (from the University itself) who act as tutors for the underprivileged and specially-abled who wish to pursue education but face hassles and resistance from their immediate society at large.

YU not only caters to the under-privileged but also to any troubled mind. Personal counseling sessions by Aacharyamitra Paroksh Sujay are frequently held where students are free to

share any problem and seek peace of mind. In the year of 2013-2014, these sessions were held four times each for a period of 2-3 days.

SATURNALIA 2014

As promised by the core committee of saturnalia 2k14, this year, was able to deliver what it has promised. Basic theme this year was colors of India. Throughout the festival, everywhere an attempt was made to spread indianness. Saturnalia started on April 18, 2014 on the inaugural night students performed giddha, followed by rock band performance by Thapar University students, followed by fashion show whose theme was Bohemian and Festivals of India.

On the second day of saturnalia 2k14 i.e April 19, 2014, throughout the day, there were competitions to name a few classical dance, giddha, bhangra, western dance, dramatics. Every evening of the fest was made unforgettable by the setup of 'Sat City'-the fete area. On 18th April, Crossblade was organized in which various artists including Gippy Grewal, Zarine Khan, Kaur B performed. Star night-Farhan Saeed On 19th April, Farhan Saeed of Jal Band fame performed in Thapar University alongwith his band. The performance was scintillating and made the crowd sing to his tunes.

MUDRA SUR NIGHT

SUR, the music night of Thapar University is the night filled with the grandeur of classical and western music coming together. A night of evergreen classical Carnatic music, of adrenaline pumping Rock n Roll, of flabbergasting instrumentals, and many more. It is a night when all the best musicians of our college come together to pool their individual talents and present a showcase of the grandest of proportion creating something very unique and inspiring altogether. The ever-growing popularity and following among the students of our college makes this the most must-see event of Thapar today. In SUR, around 70 performers preform over a span of 3.5 hours, (among them 20 for the first time), as vocalists or playing various different instruments ranging from the likes of western instruments such as guitar, keyboards, flute, violin, drums to the likes of classical Indian instruments like Sitar, harmonium, table, dholaketc ; making this one of its kind event at Thapar University.







MICORSOFT STUDENT CHAPTER

Series of events were conducted by Microsoft Student Chapter, TU under the fest name INSPIRUS 2k14. Span for the fest was from 3rd February, 2014 to 12th February, 2014. The detail of events organised under INSPIRUS 2k14 is as follows:

- 1). Workshop on Ethical Hacking: The workshop was organised on 3rd and 4th of Feb. 2014 by Mr. Chetan Gandotra, and Mr. Rishabh Arora (Titled as India's most secure coder by EC council).
- 2). Audio Visual Quiz: Questions from general knowledge and current affairs were included.
- 3). Brain-Wizards: Logical and analytical reasoning with speed of solving mathematical problem was tested.
- 4). Compu-Quest: The question levels were set up separately for each year. The quiz was based on pure technical knowledge in the computer science field.
- 5). Windows 8 Workshop: Many windows 8 tips n tricks were shared by Ms. Khushboo Goyal (M.E.). The advanced settings using codes and tweaks were demonstrated live.
- 6). NNSC Workshop: Microsoft Student Chapter in association with ACM IIT Delhi conducted a workshop on National Network Security Championship on 8th and 9th.
- 7). Cyber Pirates: The blockbuster online treasure hunt, a hit between students, was conducted for the sixth time in the university which saw a participation of over 500 students. It started on 9th February and lasted till 12th February. The website received over a 1 Lac views.
- 8). LAN Gaming: Games like NFS, FIFA, Counter strike and mind games like Chess were included in this event on 11th February.
- 9). Talaash: The event was conducted in C-Hall on 12th February in which some good projects related to the domain of games, applications (mobile & desktop) and research projects were showcased.
- 10) Code Master: The prelims were conducted on 11th February 2014, as an online test that constitutes multiple choice questions. The coding round was held next day i.e. 12th February.

11) Computer Science & Engineering Department, Thapar University has signed MoU with Spoken Tutorial Project IIT Bombay. Spoken Tutorial Project is an initiative of National Mission on Education through ICT, Government of India, to promote IT literacy through Open Source Software. On 22nd April 2014, a workshop on LATEX has been conducted by Microsoft Student Chapter, Computer Science & Engineering Department, Thapar University in collaboration with Spoken Tutorial Project..

12) Ethical hacking workshop was organized by Mr. Sahil Baghla from EH1 INFOTECH, Chandigarh on 26th - 27th April 2014 in C-Hall, in coordination with Microsoft Student Chapter, Computer Science & Engineering Department. Over 25 students from B.E. course has attended this workshop.

IICChE Society

1. Society Fair , DATE: 16-08-2013, TIME: 5:30 P.M. - 8:00 P.M.

DESCRIPTION – In the society fair we introduced our society to the new batch of 2013-2014 and organized some informal games like oral quizzes related to periodic table and other dealt with crosswords related to chemistry to have better interaction with them. Prizes were distributed to the winners.

2. Quest for Fun: 22-11-2013 ,Time: 5:30 P.M. – 7:30 P.M.

Description – this was a fun event being organized under Aranya 2013 in which students were made to play the game of snakes and ladders by rolling the dice only if they answer the question being asked correctly.

3. Chemical X , Date: 23-11-2013 ,Time: 10:30 A.M. – 1:00 P.M.

Description – this was a 2 round event being organized in the organic chemistry lab.

4. Corporate Catalyst: Date: 22-24-Nov-2013

Description: For the first time an online event was organized by the IICChE society. Under this event an Industrial Design problem was putup on the website of Aranya 2013 and its facebook page.

5. Hot Ice Pyramid: Date: 24-11-2013

Description: hot ice pyramid was a unique event under which a pyramid of sodium acetate was to be constructed. Sodium acetate has a unique property of solidifying quickly after heating as soon as it is exposed to a temp. of about 20-25 Celsius.

FAPS Events (2013-14)

- Arts and Photography Society (FAPS)- a Society, rather a tradition of Thapar University is always on the forefront to catch the amateur artist and train them to converse through the medium of art. Art enthusiasts are always active throughout the year. One such masterpiece created by them is Graffiti on the Auditorium Wall (Size:)
- FAPS kept its tradition of mentoring the youngsters through a workshop on glass painting in September 24, 2013 and a Photography workshop on October 23, 2013. FAPS also organised a series of workshops on Photoshop and Cartooning and Caricature organised during Nov 23- 24, 2013. Senior students of FAPS conducted it for younger artists.
- FAPS also conducted a Water Painting workshop by a renowned artist, Mr Bharat Bhushan on November 23, 2013. The workshop was attended by 25 students. They later on tried it on their own and Mr Bharat Bhushan helped them in by teaching through practise. It was appreciated by students and they infact requested us to conduct more such workshops in future.

- Water Painting workshop by a renowned artist Mr Bharat Bhushan and Mehndi competition
- In keeping with the spirit of Technical Fest FAPS also participated enthusiastically by organising Rangoli, Tatoo making with techno- cultural themes. The big draw of crowd was the big picture, which was tribute to Sachin Tendulkar, the cricketer who stole the hearts of the Indians and Thaparians are no exception.
- FAPS organised a paper model making competition during April 18-19, 2014. It also organised photography competition and calligraphy and painting workshop to amateurs.





Photography Workshop and Froshweek Stall of FAPS



NOX SOCIETY

As part of the western dance society of Thapar University, NOXians organised a 3 week dance workshop of Renowned Choreographer Harshvardhan Bhan in October 2013. They further participated and reached the Semi-Finals of Spectrum, Western Dance competition in Rendezvous, organised by IIT Delhi in October 2013. Continuing the Legacy of our seniors, NOX Night was organised in University Auditorium in February 2014 with some amazing dance performances both group and solo for Thapar Audience. NOX boys also participated in Spandan, Western Dance Competition organised by Delhi Technological University in February 2014. Apart from these, NOX members have been participating in Intra University events as well including MUDRA, IZHAAR, ELIXIR, ACUMEN etc. A special mention to Aviral Singh of Computer Science, 2nd Year, he won the Solo Dance competition organised in Saturnalia, our annual inter university cultural fest.

ECON CLUB

Econ Club would organized an expert lecture by Dr Ash Narayan Sah (Assistant Professor, School of Behavioral Sciences and Business Studies) regarding the Current economic situation and the stock markets on 5th September 2013 D 207 Thapar University.

Econ club organised an Informal meet 12 sep, 2013 At COS Complex to introduce the society to the students. A quiz treasure hunt followed by marketing game was held to bring the students aware of competitiveness in the world of economy. The students were to purchase a pack of goods and sell them at a profit to takers. One with highest profit was declared a winner. There were ten teams of three students in each group. It got an enthusiastic response.

Econ Club successfully organized a seminar on Young leader's Programme (YLP) of Indian School Business (ISB) on 3rd March'14 at TAN Auditorium, Thapar University. Around 75 students attended the seminar, which was aimed to give an introduction to ISB's coveted YLP.

The YLP is a unique program for highly talented undergraduate students in pre final year of graduation. The students selected to this programme will get a guaranteed admission to a future class of the ISB's PGP.

'The Economist', held between 26th and 29th of March 2014 as the first ever Econ-fest of Thapar University was organised by Econ Club with a motive of making the technical undergraduates more and more interested in this area. Econ Club also worked as the Chief Marketing Partner with the 'School Of Behavioural Sciences and Business Studies' on the conference on 'Changing perspective and paradigms in business and behaviour sciences', with which 'The Economist' was held in alliance.

IETE STUDENTS FORUM

IETE student's forum organized the event ARITHMANIA on 08/oct/2013(Tuesday) in auditorium (THAPAR UNIVERSITY). Arithmania is a general mathematics quiz with mental ability and analytical questions in which active participation is seen by the university students every time. The duration of the quiz was 45min. This time also a huge participation of 125 teams was registered in the event and each team comprised of 2 members. 2 top scoring teams were declared as the winners and prizes were distributed respectively.

IETE student's forum organized a 2 day robotics workshop named - ISENSEO ROBOTICS WORKSHOP. In the Thapar University campus on 12/10/13(Saturday) - 13/10/13(Sunday). Professional personnel from ARK-TECHNOSOLUTIONS were called upon to teach the enrolled students. ARK Techno solutions is a National Leader in Educational Robotics in India and trains technical students for courses in embedded systems, telecom and educational robotics.

IETE student's forum organized the event ARITHMANIA on 27/jan/2014 in auditorium (THAPAR UNIVERSITY). Arithmania is a general mathematics quiz with mental ability and analytical questions in which active participation is seen by the university students every time. The duration of the quiz was 45min. This time also a huge participation of 125 teams was registered in the event and each team comprised of 2 members. 2 top scoring teams were declared as the winners and prizes were distributed respectively.

IETE students forum organized AT-megnomania on 12 Feb. 2014 in C- Hall and its adjoining room . Aptitude questions were asked , but not in a conventional paper based format instead a LCD interfaced with AT- MEGA 8 /16 microcontroller was used to display the questions . Participants had to record their response through a numeric keypad like that of a mobile , which was again interfaced to the microcontroller . This event was the most unique event in the history of IETE and attracted more than 100 teams (each having 3-4 members). In all about 350 students participated in this event .

CONCURSO was conducted by IETE students' forum on 20th February 2014. The event came up with more than 80 participants .The event was based on Audio Visual quiz format . Each team comprises of 2-4 members. The quiz was conducted in two levels. In 1st level 25 questions were projected on a screen and teams were asked to pen down the answers on a sheet. Top 4 teams were selected for level 2. Level 2 comprises of 4 different rounds. We also had an open general question answer round for audience. Based on the final scoring the top 2 teams were awarded prizes.

IETE students' forum organized the event THAPAR CRUCIBLES on 25/march/2014 (Tuesday) in C-hall (THAPAR UNIVERSITY). Thapar crucibles is a general business quiz with general knowledge and analytical questions in which active participation was seen by the university students. The quiz was divided in 2 rounds. Top 4 teams of round 1 were selected for 2nd round. Each team comprises of 3-4 members each. 2 top scoring teams were declared as the winners and prizes were distributed respectively.

TECHNICAL PROJECTS UNDERTAKEN BY THE MEMBERS

1.) EVENT NAME: UNNAT (IIT BOMBAY 3rd Jan TECHFEST 2014) - IN TOP 14

The students submitted the idea of a glove capable of detecting obstacles making it easier for handicapped people to walk. The team made its way through the top 14 ideas across all over India.

2.) EVENT NAME: Polaroid (IIT BOMBAY 4th JanTECHFEST 2014)

The students made an autonomous bot based upon Image Processing for the competition. The task was to build an autonomous robot that will detect the color and transfer the cubical block from one place to another.

3.) Event Name: - Magneto (IIT Bombay 3rd JanTechfest 2014)

The students made a gesture controlled robot for the competition. The task was to build a robot controlled solely by the wrist and transfer the tennis ball from one court to another.

4.) EVENT NAME: DIRT RACE (SVIET - Chandigarh- AHVAN 6-sept 2013)

The event was Dirt Race. The students built a manually controlled wired robot which could traverse the track- full of mud and comprising of various obstacles. These two members reached the quarter finals of the event and secured 8th position.

5.) EVENT NAME: TELEPATHIC LINE-FOLLOWER (UIET - AAVISHKAAR 12 -sept 2013)

In Telepathic line follower the members built an autonomous robot based on IMAGE PROCESSING which had to follow a line of a particular color out of many colored lines and the team made its way all through the semi finals and Secured 2nd position.

6.) EVENT NAME: MAZE SOLVER (NIT JALANDHAR)

They made an autonomous robot which could traverse its path through a maze on the track. The team could make its way through the semifinals of the event and were among the top 6 teams.

7.) EVENT NAME: ESCCAPE TUNNEL (IIT DELHI - TRYST 27 feb 2014)

They made an autonomous robot which could traverse its path through a maze on the track. The team Secured 2nd position.

8.) EVENT NAME: TECH EXPO (MNIT JAIPUR - blitzschlag '4 april 14)

They presented a glove capable of detecting obstacles making it easier for handicapped people to walk. They secured 3rd position.

9.) EVENT NAME : BRANCH OUT (PEC -2014)

A robot based on line follower principles was to be made these first year members worked hard for this project and secure 1st POSITION in the competition.

10.) EVENT NAME : FAST AND FURIOUS (PEC - 2014)

A wirelessly controlled robot was to be made which could traverse its path through a complicated track and complete the track in minimum amount of time, The members of the team secured 3rd POSITION In the overall competition.

11.) TECHFEST - NIT-Kurukshetra (28- march 2014)

A wired controlled robot was to be made which could traverse its path through a maze full of obstacles , team which could complete the track was the winner . Team from our Society Secured 3rd Position .

Visual Bulletin came into existence as a new society in Thapar University this Academic year. During the Academic year 2013-2014 Visual Bulletin organized a number of workshops, training sessions and lectures on visual communication. Visual Bulletin organized 6 sessions of workshop on Photoshop, photo editing, poster making and graphic designing, 1 each on video editing and object based sketching. Visual Bulletin organized 2 dedicated workshops on introductory training of 3D Modelling and Maya Software.

Working on the vision of Visual Bulletin to digitalize the mode of publicity in Thapar University through photos and videos, Visual Bulletin covered many events of societies and fests. After movies of Mudra Night and Symphony the DJ night during Aranya were made. 3D model of Thapar University's Main Building and 3D logo of Thapar University's logo were developed on Maya 3D software. The technical team also delivered Thaparlympics its very

own logo created on Maya which was highly appreciated by the President of Sports, Director of Physical Education and the students of Thapar University.

Our quality of work being of very professional standards was appreciated by the administration and Visual Bulletin took a leap in its journey by getting declared as Official Branding Society and got honoured with bigger responsibilities. Visual Bulletin launched the official platforms on Facebook and YouTube and flooded the platforms with content related to Thapar University which included videos like Campus video, History video, Annual Sports Meet Video, logo reveal and exclusive photographs of Dera Bassi Campus.

5.0 FINANCE AND FUND SUPPORT

THAPAR UNIVERSITY, PATIALA				
(Rs in '000)				
BALANCE SHEET AS AT 31ST MARCH, 2014				
SN	PARTICULARS	SCH. NO	AS AT 31.03.2014 Rs ('000)	AS AT 31.03.2013 Rs ('000)
A	SOURCE OF FUNDS:			
1	Capital Fund	A	26,89,726	20,16,159
2	AICTE-PG Scholarship Grant	B	2,284	18,146
3	Earnest Money	C	43,754	30,295
4	Caution Money	D	32,524	31,810
5	Alumuni Fund	E	36,527	35,729
6	Current Liabilities	F	45,101	90,833
7	Provisions	S	13,01,047	10,89,486
	Total		41,50,963	33,12,457
B	APPLICATION OF FUNDS			
1	Fixed Assets	G	29,70,853	15,23,727
2	Work-in-Progress (FRC)		51,034	-
3	Current Assets	H	9,70,523	12,57,483
4	Loans & Advances	I	1,70,273	2,28,946

5	Security Deposits	J	942	796
6	Recoverable Grant	K	32,779	32,285
7	Inter Unit Balance	L	(45,440)	(93,782)
8	Dera Bassi Project	M	-	3,63,002
Total			41,50,963	33,12,457
			-	0
<p>Subject to our report of even date For S C Vasudeva & Co. Chartered Accountants (FRN:)</p> <p>CA Sanjay Vasudeva Partner Membership No:</p> <p>Finance Officer Registrar</p> <p>Chairman, BOG</p>				

THAPAR UNIVERSITY, PATIALA				
(Rs in '000)				
INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED AS AT 31ST MARCH, 2014				
SN	PARTICULARS	SCH. NO	AS AT 31.03.2014	AS AT 31.03.2013
			Rs	Rs
A	INCOME		('000)	('000)
1	Tuition Fee	N	4,40,334	3,86,218
2	Other Academic Fee	O	35,853	32,313
3	Interest income		97,014	1,08,335
4	Miscellaneous income	P	49,107	54,371
	Excess of expenditure over income		3,08,305	1,68,215
Total			9,30,613	7,49,452

B EXPENDITURE

1	Establishment Expenses	Q	4,28,767	3,47,192
2	Operating Expenses	R	1,70,328	1,44,174
3	Scholarship Expenses		33,874	11,005
4	Contribution to Projects/Core		33,774	12,075
5	Depreciation	G	1,95,687	95,619
6	Provisions for Gratuity		44,313	82,171
7	Provisions for Leave			
	Encashment		23,870	57,216
			-	
	Total		9,30,613	7,49,452

Subject to our report of even
date
For S C Vasudeva & Co.
Chartered Accountants (FRN:)

CA Sanjay Vasudeva
Partner
Membership No:

Finance Officer
Registrar

Chairman, BOG

DEPARTMENTS

DEPARTMENT OF BIO-TECHNOLOGY & ENVIRONMENTAL SCIENCES

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 & ENVIRONMENTAL SCIENCES**1. Academic Programs**

B.Tech Biochemical Engineering
 M.Tech Biotechnology
 M.Sc. Biotechnology
 M.Sc. Microbiology
 P.G. Diploma in Plant transgenic Technologies
 Ph.D.

2. List of faculty

S. No	Name	Designation	Qualification & Specialization
1	Dr. Dinesh Goyal	Professor	M.Sc, Ph.D Microbiology, bioremediation, algology
2	Dr. M.S. Reddy	Professor	M.Sc, Ph.D Plant-microbe interactions/ Molecular Biology
3	Dr. Niranjana Das	Professor	M.Sc, Ph.D Plant Molecular Biology
4	Dr. Sanjai Saxena	Associate Professor	M.Sc, Ph.D Plant-microbe interaction, natural product drug discovery Microbial Biochemistry
5	Dr. Moushumi Ghosh	Associate Professor	M.Sc, Ph.D Environmental Biotechnology
6	Dr. Abhijit Ganguli	Associate Professor	M.Sc, Ph.D Food Biotechnology
7	Dr. Manju Anand	Associate Professor	M.Sc, Ph.D Plant Tissue Culture
8	Dr. Anil Kumar	Associate Professor	M.Sc, Ph.D Plant Biotechnology, Plant Genetic Manipulations
9	Dr. Vikas Handa	Assistant Professor	M.Sc, Ph.D Genetic and Epigenetic Gene Regulation
10	M.Vasundhara	Assistant Professor	M.Pharm, Pharmaceutical Technology
11	Dr. Manoj Baranwal	Assistant Professor	M.Sc, Ph.D Immunology
12	Dr. Siddharth Sharma	Assistant Professor	M.Sc, Ph.D Cancer Biology

3. Thrust areas of research

Applied microbiology and biotechnology, Plant biotechnology, transgenics and plant tissue culture, bioremediation, microbial concrete, 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.

4. 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 novel metabolites from endophytic fungi and Indian spices. Another focus is on the identification of novel cancer biomarkers for understanding susceptibility in lung and breast cancers.

5. New Plans and Projects

New plans are working with Punjab State Department of Forestry on using bioherbicides for weed control in forestry and using flyash as soil amending agent in forestry nurseries and plantations as well as plant tissue culture of salix and other tree species.

6. Departmental Achievements

- Papers published in SCI Journals: 35
- Papers published in Non SCI Journals: 8
- Papers published in conferences: 32
- Sponsored Research Projects New: 02 Projects worth Rs 27.71 Lacs
- Sponsored Research Projects Ongoing: 11 projects worth Rs 192.42 Lacs (in 2014)
- Consultancy Projects : 01 project worth Rs 68.94 lacs
- Seminar/Conference/Workshop organized: 01
- Doctoral Degree Awarded: 12
- Visits abroad by faculty members: 2
- Awards and Honors: 5

7. List of ongoing sponsored projects

- 1 Gene resources from contaminated sites
- 2 Calcifying bacteria mediated cementation for energy efficient building materials
- 3 Isolation, Characterization of novel fibrinolytic molecules from endophytic fungi for anti-thrombotic therapy
- 4 Application of nano zeolite for removal of novel contaminants from waste water
- 5 Technological development of biopolymer overproducing variants of Acinetobacter implicated in phosphate enrichment in water
- 6 Deveopment of treatment and regeneration technology for phytoestrogen from waste water
- 7 Green polymers for water borne pathogen detection and treatment
- 8 Genetic transformation of selected clones of Populus deltoids for cellulose enhancement in wood.
- 9 Immunomodulatory agents from endophytic fungi for breast cancer therapy
- 10 In Silico and In vitro approach to identify immunogenic peptideso H1N1Virus as a target

for Vaccine design

- 11 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

8. List of completed sponsored projects

- 1 Development and application of recombinant and other Cellulases for large scale recycling of cellulosic biomass
- 2 Biotechnological intervention for production of Lactic acid and other commonly important organic acids (Co-PI)
- 3 Characterization of high value nutraceuticals from Lactic acid bacteria (Co-PI)
- 4 Selection of elite clones of *Bacopa monniera* (L.) Wettst. and production of bacosides using biotechnological approaches
- 5 Identification of T cell Epitope in H1N1 influenza virus as target for vaccine design

9. Consultancy/Testing assignments completed/ongoing

- 1 Dr. Anil Kumar completed a consultancy project on Minituber Activity (Potato) worth 68.94 Lacs

10. Visits abroad by faculty members

- 1 Dr. Dinesh Goyal visited Widener University, Philadelphia to attend a conference on Solid waste management during March 2014
- 2 Dr. Manju Anand visited Asia-Pacific Society, Singapore for Oral presentation in International Conference on Biotechnology and Food Engineering (ICBFE-2013) during August 2013

11. Awards/ Honors/ Recognitions

- 1 M S Reddy is awarded Agnihothrudu Memorial award by Mycological Society of India in February 2014
- 2 Dr. Sanjai Saxena is awarded Eminent Microbiologist Award by Association of Advancement of Biodiversity Science, Dharwad, Karnataka in December 2013
- 3 Dr. Sanjai Saxena is awarded Fellow ABS by Association of Advancement of Biodiversity Science, Dharwad, Karnataka in January 2014
- 4 Dr Vikas Handa is nominated as Member of Board of Studies for Biotechnology Engineering and Sciences by Punjab Technical University, Kapurthala in June 2014 for two years
- 5 Dr. Vikas Handa is nominated as Member of Jury, Evaluated projects / models in INNOTECH-2014 by Pushpa Gujral Science City, Kapurthala in collaboration with Punjab Technical University, Kapurthala in March 2014





CHEMICAL ENGINEERING DEPARTMENT

The performance of the Department of Chemical Engineering during the last year has been excellent. The department was successful in getting the maximum number of sponsored projects among the engineering departments of the University. Combined with the generous funding by the University, has resulted in an enhanced research activity in the department. At the same time, the modernization of the laboratories is taken up in a big way. There was an induction of three faculty members (all having PhD qualification) in the department. Moreover, two of our UG students went abroad for training/projects.

A Center of Excellence (CoE) in Environment and Energy Management (Phase-II) has been started with a grant of Rs. 4.98 crores. A patent (Indian) on "Polylactic acid and a process for preparation thereof" has been filed on 28th January 2014 (Application number: 236/DEL/2014). Inventor: Dr. Rajeev Mehta. A patent (Indian) on "Stabilized inorganic oxide supports and adsorbents derived therefrom for carbon dioxide capture" has been filed on 14th March 2014 (Application number: 866/MUM/2014) in collaboration with Reliance Industries Ltd. Inventors: Reddy Akuri Satyanarayana, Sengupta Surajit, Dongara Rajeshwer, Das Asit Kumar, Amte Vinay, Yadav Ashwani, Bajpai Promod Kumar & Bhunia Haripada

1. Academic Programs

B.E. Chemical Engineering

M.Tech. Chemical Engineering

Ph.D. Chemical Engineering

2. List of faculty

S. No	Name	Designation	Qualification & Specialization
1	Dr. Pramod K. Bajpai	Distinguished Professor	Ph.D., Reaction Engineering, Bioprocessing
2	Dr. D. Gangacharyulu	Professor	Ph.D., Heat transfer and Energy
3	Dr. Rajeev Mehta	Professor	Ph.D., Polymers
4	Dr. Raj Kumar Gupta	Associate Professor	Ph.D., Modeling & Simulation, Reaction Engg., Heat Transfer, Membrane Separations
5	Dr. Haripada Bhunia	Associate Professor	Ph.D., Polymers, Industrial Pollution Abatement
6	Dr. Sanjeev Kumar Ahuja	Assistant Professor	Ph.D., Process Modeling
7	Dr. Sanghamitra Barman	Assistant Professor	Ph.D., Reaction Engg and Mass Transfer
8	Dr. Vikas Kumar Sangal	Assistant Professor	Ph.D., Modeling & Simulation, Industrial Pollution Abatement
9	Mr. Parminder Singh	Assistant	M.E. (Ph.D. pursuing), Thermodynamics

		Professor	
10	Mr. Rakesh Kumar Gupta	Assistant Professor	M.Tech. (Ph.D. pursuing), Chemical Engineering
11	Dr. Jai Prakash Kushwaha	Assistant Professor	Ph.D., Environmental Engineering
12	Dr. Vijaya Kumar Bulasara	Assistant Professor	Ph.D., Membrane separation, Adsorption, Reaction engineering
13	Dr. Avinash Chandra	Assistant Professor	Ph.D., Computational Fluid Dynamics, Heat Transfer, Essential Oil (perfume and fragrances) process development, Non-Newtonian fluid mechanics
14	Dr. Sudhir Kumar Singh	Assistant Professor	Ph.D., Molecular Modelling & Simulation, Phase transitions and thermodynamic properties at nanoscale, Adsorption
15	Dr. Neetu Singh	Assistant Professor	Ph.D., Chemical Engineering
16	Dr. Dipaloy Datta	Assistant Professor	Ph.D., Chemical Engineering (Separation Processes)
17	Dr. Manoj Kumar	Assistant Professor	Ph.D. Optical Naomaterials, Catalysis and Biosensing
18	Dr. Raj Kumar Arya	Assistant Professor	Ph.D., Chemical Engineering
19	Mr. Alok Garg	Lecturer (Contract)	M.Tech. (Ph.D. pursuing), Wastewater treatment, AOP

3. Thrust areas of research

Paper and pulp, Polymers, Polymer nanocomposites, Adsorption, Divided wall distillation, Reactive distillation, FCC modeling and simulation, Computational fluid dynamics, Molecular modeling, Nanofluids, Heat pipes, Membrane separation, Industrial pollution abatement, Catalysis etc.

4. Brief description of ongoing research activities

- (i) A Center of Excellence (CoE) in Environment and Energy Management (Phase-II) has been started with a grant of Rs. 4.98 crores funded by NPIU, MHRD, New Delhi (under TEQIP-II, 1.2.1 Scheme).
- (ii) Dr. P.K. Bajpai, Dr. H. Bhunia and Dr. R. Mehta are working on 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.
- (iii) Dr. D. Gangacharyulu, Professor, is currently working on nanofluids in heat transfer applications, hydrogen generation from hydrides, and heat pipes.
- (iv) Dr. Rajeev Mehta, Professor, is guiding 12 Ph.D. scholars and 2 M.Tech. students. His current research focus is on (a) Synthesis (including microwave assisted synthesis) of

biodegradable polymers (in particular Polylactic acid) and their nanocomposites; (b) Nanocomposite matrix in Fibre Reinforced Polymers (FRP) and their hygrothermal studies; (c) Chemical sequestration of carbon dioxide to give polycarbonates; (f) Use of polymeric/nano adsorbents for dye removal; (e) Studies on STF - nanoclay based composites for personal armour systems.

- (v) Dr. Raj Kumar Gupta, Associate Professor, is guiding 7 Ph.D. scholars. The research activities include – FCC modeling and simulation, Reactive distillation modeling and simulation, Heat Transfer, Reaction Kinetics, Membrane separations, CFD modeling & a consultancy project from HPCL R&D on the development of kinetics based FCC model.
- (vi) Dr. Sanjeev K. Ahuja, Assistant Professor, is currently working on Furfural oxidation to furoic acid. This involves catalyst preparation and its characterization. Reaction monitoring, kinetic study, product characterization and mathematical modelling are being planned.
- (vii) Dr. S. Barman, Assistant Professor, is currently working on transalkylation reaction in plug flow reactor set up. Products are analyzed by Gas Chromatograph. Adsorption studies are carried out and samples are analyzed by UV spectrophotometer.
- (viii) Dr. Manoj Kumar, Assistant Professor, is currently working on Optical Nanomaterials. He is in the process of procurement of Thermal Camera (FLIR E-30), NIR Laser (975 nm, TEM_{0,0} mode), Optic table and Optic accessories, Autoclave for execution of the project - Design and Development of temperature controlled nanomaterials for cancer treatment.
- (ix) Mr. Rakesh Kumar Gupta, Assistant Professor, is currently pursuing his Ph.D. on the experimental and numerical studies on heat transfer from semicircular cylinders.
- (x) Dr. V. K. Bulasara, Assistant Professor, is currently working on the application of natural adsorbents and preparation of ceramic membranes for wastewater treatment.
- (xi) Dr. S.K. Singh, Assistant Professor, is working to understand thermodynamic properties such as adsorption, phase transitions and interfacial properties of fluids and particles at extremely small scale (nanoscale) by manipulating the surface morphology and surface chemistry of the underlying surfaces. He uses molecular modelling and simulation approach to study various phenomena.

5. Activities round the year (2013-14)

- (i) Dr. Raj Kumar Gupta, Associate Professor, delivered an invited lecture on “Reactive Distillation: Modeling and Simulation” at Hindustan Petroleum Corporation Ltd., Corporate R&D Centre, Bangalore on 25th March 2014.
- (ii) Dr. Rajeev Mehta, Associate Professor and Head, participated in an executive energy brainstorm event "Powering Populations: Solving India's Energy Crunch" at the ITC Maurya, New Delhi, on Thursday, 5th December 2013. The event was hosted by CNBC International in association with Shell.
- (iii) Dr. H. Bhunia, Associate Professor, delivered an invited lecture on “Photocatalytic decolorization of two azo dyes – reactive red 120 and reactive black 5 in aqueous suspension” in National Conference on Advanced Oxidation Processes, held at Thapar University, Patiala during November 21-23, 2013.

- (iv) The Department of Chemical Engineering, along with The School of Energy & Environment, Thapar University, Patiala, organized the first international conference on "Advanced Oxidation Processes" during 21st – 23rd November 2013.
- (v) Dr. Rajeev Mehta, Associate Professor, chaired a session and delivered an invited lecture titled "An overview of microwave synthesis of Polylactic Acid and preparation of in-situ PLA nanocomposites" in National Conference on Innovative molecules for Sustainable Future on 24-26 October 2013 at Thapar University, Patiala.
- (vi) Dr. Rajeev Mehta, Associate Professor, chaired three Technical Sessions in International Conference on Advanced Polymeric Materials (ICAPM 2013) held on 11, 12 and 13 October 2013 at Mahatma Gandhi University, Kottayam, Kerala, India and delivered a Plenary Lecture on "Monomode Microwave Synthesis of Polylactic Acid and Preparation of In-situ PLA Nanocomposites". He was also a member of the National Organizing Committee of the international conference.
- (vii) The Department of Chemical Engineering, along with The Department of Civil Engineering, Thapar University, Patiala, organized a faculty development programme on "Advance Topics in Fluid Flow and Heat Transfer" during 17th – 18th September 2013.
- (viii) The Department of Chemical Engineering organized a workshop on "Basics and Applications of Aspen Plus" during 13th – 14th September 2013.
- (ix) Dr. H. Bhunia, Associate Professor, made an oral presentation on "Development of High Surface Area Nitrogen Enriched Nanostructured Carbon Adsorbents" in the 9th World Congress of Chemical Engineering incorporating 15th Asian Pacific Confederation of Chemical Engineering Congress, WCCE9 & APCCChE 2013, held at Coex Convention Center, Seoul, Korea during 18th – 23rd August 2013.

6. New Plans and Projects

- (i) A laboratory on Industrial Pollution Abatement (IPA) for undergraduate students is being set up.
- (ii) Dr. P.K. Bajpai is planning to submit a project proposal on "Removal of antibiotics from drinking water" to IC-IMPACTS scheme (Indo-Canadian), in collaboration with University of Saskatchewan, Saskatoon (Canada).
- (iii) Three project proposals of Dr. Rajeev Mehta are at review stage: 1. DST-FIST proposal on polymers (Rs. 300 lacs); 2. ARDB proposal on "Fabrication and damage evaluation of CNT modified fiber reinforced polymer composites" (Rs. 48.5 lacs); and 3. UGC proposal on "Fabrication and Characterization of Epoxy Based Polymer Matrix Nanocomposites Reinforced with PET Fibers" (Rs. 20 lacs). He is also writing a new project proposal to DST on terpolymers (49 lacs).
- (iv) Dr. Avinash Chandra is planning to apply for a sponsored project "Investigation of Hydrodynamics and CFD analysis of mixing tank (Rs. 25 lacs)".
- (v) Two CSIR Projects of Dr. S.K. Singh, one of Rs. 19 lakhs as a PI (Studies on Hydrogen Storage in Nanoporous Materials), and other of Rs. 20 lakhs as a Co-PI (Studies on Improvement of Energy Efficiency of Microchannel Thermal System by Using Nanofluids) are under review.

- (vi) Dr. Manoj Kumar is planning to apply for two sponsored projects, namely, “Development of photocatalyst for generation of carbon-free hydrogen for energy generation” and “Development of fluorescent silver nanoparticles for biosensing applications.” He is also in the process of writing a review paper on the topic “Upconverting Nanoparticles for Sensing Applications.”

7. 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.

8. Departmental Achievements

- Papers published in SCI Journals: 14
- Papers published in Non SCI Journals: 08
- Papers published in conferences: 11
- Sponsored Research Projects New: 9 projects worth Rs 140.36 Lac
- Sponsored Research Projects Ongoing : 18 projects worth Rs 245.87 Lac
- Consultancy Projects: 1 project worth Rs 5.50 Lac
- Patent Filed: 02
- Seminar/Conference/Workshop organized:
 - National conference: 01
 - Workshop: 01
 - Faculty development program: 01
- Lectures by visiting experts: 1
- Visits abroad by faculty members: 2

9. List of ongoing sponsored projects

- 1 Investigation of Hydrodynamics and RTD of Pulp Digester Using Radiotracer Technique (Collaborators: Dr. H. J. Pant, Mr. R. K. Bhandari)
- 2 Floating wick type vertical multiple effect diffusion solar still waste heat recovery
- 3 Studies on STF - nanoclay based composites for personal armour systems
- 4 Synthesis and characterization of high capacity adsorbents for CO₂ capture
- 5 Development of non-ecotoxic polyolefins with controlled environmental degradation by using high energy radiation and pro-oxidants
- 6 Dehydration of aqueous acetonitrile solution by extractive distillation using salt/organic compound.
- 7 Separation of Heavy Metals from Industrial Wastewater Using Reactive Extraction
- 8 Synthesis, Characterization and Calibration of Upconverting Nanoheaters (NaYF₄:Yb³⁺, Er³⁺/Tm³⁺) for Generating Uniform and Controlled Heat for Biomedical Applications
- 9 Development of Treatment and Regeneration Technology for Phytoestrogens from Waste Water Streams
- 10 Application software development to evaluate thermal performance of tube type, air to air heat exchangers for caca high rated electrical motors

- 11 Solvent free microwave assisted extraction of essential oil from turmeric
- 12 Tailoring of Nanostructure for Reversible Hydrogen Storage: Molecular Simulation as a Guiding Tool
- 13 Transalkylation of Diisopropylbenzene with benzene over modified nano zeolite: A kinetic study
- 14 Application of nano zeolite for removal of novel contaminants from waste water
- 15 Modified steam distillation process for cleaner production of essential oil from turmeric
- 16 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
- 17 Processing and Characterization of Fiber Reinforced Polymer Nanocomposites and Their Degradation in Marine Environments
- 18 Preparation and Characterization of Polylactide(PLA) - Polyethylene Blends and its Degradability Studies

10. List of completed sponsored projects

- 1 Photocatalytic degradation of textile dye effluent using doped TiO₂ catalyst
- 2 Dairy Industry Wastewater Treatment by continuous Electrochemical Treatment Method
- 3 Application of adsorption process for removal of emerging pollutants from drinking water
- 4 Synthesis of Polycarbonates from CO₂ and Propylene Oxide
- 5 Polymer Fibre Blends with Cellulose Paper for Electrical Insulation
- 6 Microwave Assisted Polymerization of Lactic Acid and Polylactic Acid Nanoparticles
- 7 Development of Water Resistant Plaster from Gypsum

11. Consultancy/Testing assignments completed/ongoing

- 1 Dr. R.K. Gupta completed a consultancy project on “Kinetics based FCC Unit Model” worth Rs 5.50 Lacs,

12. Visits abroad by faculty members

S. No.	Name of the faculty	Host Organization	University/	Nature of work	Month and Year of visit
1	Pramod K. Bajpai	Univ. of Saskatchewan, Saskatoon (Canada)		Collaborative Research Project	May 2014
2	Dr. Haripada Bhunia	An International Conference 9th World Congress of Chemical Engineering (WCCE9) incorporating 15th Asian Pacific Confederation of		Visited Seoul, South Korea to present the research paper entitled “Development of High Surface	August 17–23, 2013

S. No.	Name of the faculty	Host Organization	University/	Nature of work	Month and Year of visit
		Chemical Congress [WCCE9 & APCCChE2013]	Engineering (APCCChE2013),	Area Nitrogen Enriched Nano-structured Carbon Adsorbents	







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 more than 56 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 75% faculty members of the department are Ph. D and remaining members are in the advanced stage of completing the same. One student completed their Ph. D during the academic year. The faculty members of the department published 25 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 to nearly Rs. 42 lakhs. The department also augmented its laboratories by adding equipment worth nearly 24.62 lacs through funding from the university and research projects. In September 2013, Department of Civil Engineering has been appointed as Safety Consultant by National Highways Authority of India (NHAI) in the state of Himachal Pradesh for Development, Construction and Post COD Maintenance Phase. This year the department also organized two hugely successful short term courses and four workshops.

1. Academic Programs

B.E. Civil Engineering

M.E. Civil Infrastructure Engineering

M.E. Structural Engineering

Ph.D Civil Engineering

2. List of faculty

S. No	Name	Designation	Qualification & Specialization
1	Dr. Rafat Siddique	Senior Professor	B. E., M. E., Ph. D, PDF (Structural Engineering)
2	Dr. Maneek Kumar	Professor	B. E., M. E., Ph. D (Structural Engineering)
3	Dr. Naveen Kwatra	Associate Professor	B. Tech., M.Tech., Ph. D (Structural Engineering)
4	Dr. Sarbjit Singh	Associate Professor	B. E., M. E., Ph. D (Water Resources)
5	Sh. Rajesh Pathak	Associate Professor	B. E., M. E. (Geo-technical Engineering)
6	Dr. Prem Pal Bansal	Assistant Professor	B. E., M. E., Ph. D (Structural Engineering)

7	Mrs. Neena Garg	Assistant Professor	B. E., M. E. (Transportation Engineering)
8	Dr. Shweta Goyal	Assistant Professor	B. E., M. E., Ph. D (Structural Engineering)
9	Dr. Shruti Sharma	Assistant Professor	B. E., M. E. , Ph. D. (Structural Engineering)
10	Mr. Tanuj Chopra	Assistant Professor	B. E., M. E. (Transportation Engineering)
11	Dr. Dwarika Nath Ratha	Assistant Professor	B. E., M. E., Ph. D (Hydraulics Engineering)
12	Dr. Richa Babbar	Assistant Professor	B. E., M. E., Ph. D (Hydrology)
13	Dr. Vikas Pratap Singh	Assistant Professor	B. E., M. Tech., Ph. D. (Geo-technical Engineering)
14	Dr. Tapas Karmaker	Assistant Professor	B. E., M. Tech., Ph. D. (Hydraulics Engineering)
15	Dr. Gurbir Kaur	Assistant Professor	B. E., M. E., Ph. D. (Structural Engineering)

3. Thrust areas of research

Structural Health Monitoring

Sustainability in Concrete & Concrete Technology

Ground Water Hydrology & Dispersion Studies

4. Brief description of ongoing research activities

Lateral and longitudinal hydrodynamic dispersion through rigid and flexible vegetation: Hydraulics of flow through emergent vegetation has been a topic of continued interest to the researchers and the design engineers for the safe, effective and economical design of the wetlands used for the dispersion of contaminants and groundwater recharge. 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.

Resistance properties of coal-water slurry flowing through local piping fittings:

Hydraulics of flow of coal water slurry through piping fittings has been a topic of continued interest to the researchers and the design engineers for the optimum design of the pumping system. Piping fittings such as valves, bends, elbows, tees, contraction, expansion etc are indispensable part of any piping system. The prediction of pressure losses in pipe fittings is much more uncertain than for the straight pipe and mechanism of internal flow is not clearly defined. The transportation of coal-water slurries in pipe plays a very important role in numerous industrial applications, ranging from coal water slurry combustion to gasification or liquefaction processes. So objective of this work is to Study of flow behavior of coal water slurry through gradual contraction, sudden contraction, 90° horizontal bends, elbows and valves.

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.

5. Activities round the year (2013-14)

Workshop on "Simulation of Engineering Systems"	19 August, 2013
FDP on "Emerging Trends in Civil Engineering"	23 August, 2013
FDP on "Advanced Topics in Fluid Flow and Heat Transfer"	17-18 Sept., 2013,
Workshop on "Health Monitoring of Infrastructures"	25 October, 2013
Workshop on "Application of Remote Sensing and GIS in Civil Engineering"	6-7 March, 2014
Workshop on "Road Safety Audit sponsored by NHAI"	10-11 April, 2014

6. New Plans and Projects

Organize 7th National Conference on Wind Engineering (VII-NCWE)

Faculty Development Programmes
 Project with NHAH for Road Safety Audit Jammu Udhampur highway
 Research Projects from Various Funding Agencies
 Up gradation of existing infrastructure

7. Major acquisitions during the year and new laboratory development

Pavement Quality Indicator
 Differential GPS
 Geomatica
 Haested Methods Software
 Standard Penetration Test Apparatus

8. Departmental Achievements

• Papers published in SCI Journals	14
• Papers published in Non SCI Journals	07
• Papers published in conferences	04
• Sponsored Research Projects Ongoing	11 projects worth Rs 229.68 Lacs
• Consultancy Projects	Rs 42.11 Lacs
• Seminar/Conference/Workshop organized	04
• Short Term courses organized	02
• Doctoral Degree Awarded	01 (completed)
• Lectures by visiting experts	10
• Visits abroad by faculty members	06
• Awards and Honors	03

9. List of ongoing sponsored projects

1. Optimization Techniques for design of Ultra-High Performance Concrete Mixes
2. Special Assistance Program (DRS-Phase-III): Structural Health monitoring of RC buildings for earthquakes using guided waves & vibration diagnostics
3. Utilization of Fungal Treated Waste Foundry Sand in Concrete
4. Utilization of cement kiln dust in concrete after removal of alkalinity and metal toxicity with microbes
5. Influence of bacteria on compressive strength and permeability of fly ash concrete
6. Evaluation of resistance properties of coal water slurry flowing through local pipe fittings
7. Lateral and longitudinal hydro-dynamic dispersion through rigid and flexible vegetation
8. Ultrasonic Guided Wave Approach for monitoring setting and hardening of concrete
9. Detection of Corrosion by Ultrasonic and Acoustic Emission Techniques
10. Investigation of corrosion and its progression in ship hulls
11. Service life prediction of RC structures

10. Consultancy/Testing assignments completed/ongoing

1. Mr Tanuj Chopra completed a consultancy projects of “Inspection of roads under jurisdiction of Construction Division, Sirhind” worth Rs 0.65 Lacs
2. Mr Tanuj Chopra completed a consultancy projects of “Design of Concrete Road from Back Side of Rajindra Hospital to 23 No Railway Crossing, Patiala” worth Rs 0.37 Lacs
3. Mr Tanuj Chopra completed a consultancy projects of “Design Vetting: -Output and performance based road contract for improvement, rehabilitation and resurfacing & routine maintenance works of roads of Sangrur-Mansa-Bathinda Area. (S1 to S5 World bank Funded Project)” worth Rs 1.60 Lacs
4. Mr Tanuj Chopra completed a consultancy projects of “CBR testing of Subgrade & other layers of various Road Projects” worth Rs 1.85 Lacs
5. Road Safety Audit Team completed a consultancy project on “Road Safety Consultant 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” worth Rs 1.60 Lacs.
6. Mr. Rajesh Pathak completed a consultancy project on “Geotechnical field and laboratory testing” worth Rs 2.80 Lacs
7. Dr Naveen Kwatra, Dr Maneek Kumar, and Dr Prem Pal Bansal completed consultancy project on “Design and Vetting of various structures” worth Rs 27.63 Lacs
8. Structural Engineering Group TU completed a consultancy project on Structural material testing worth Rs 5.61 Lacs

11. Visits abroad by faculty members

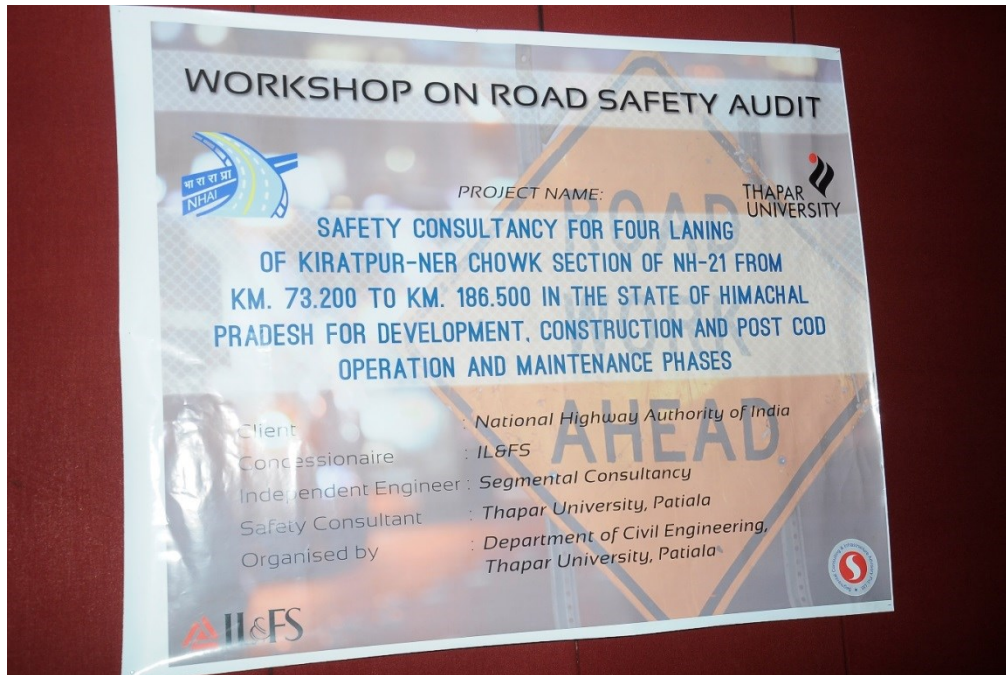
1. Dr. R. Siddique delivered a keynote lecture in 8th International Symposium of Cement & Concrete (ISCC), Nanjing, China during September 20-23, 2013
2. Dr. R. Siddique delivered a invited lecture in Tongji University, Shanghai, China during Sep 24-26, 2013
3. Dr. R. Siddique presented a paper in (EASEC-13), Sapporo, Japan during Sep 11-13, 2013
4. Dr. Tapas Karmaker presented a paper in conference in Kyoto University, Japan during 2-5 September, 2013
5. Dr. Tapas Karmaker attended a Research collaboration meeting in Kagawa University, Japan during 6-10 September, 2013
6. Dr. Naveen Kwatra attended a Collaboration Program in Trinity College, Dublin during June 2014

12. Awards/ Honors/ Recognitions

1. Dr. Maneek Kumar is nominated as Member, Board of Studies of Civil Engineering by Kurukshetra University, Kurukshetra in July 2013 for two years
2. Dr. Maneek Kumar is nominated as Member, Board of Studies of Civil Engineering by MM Engineering College, Mullana, Ambala in April 2013 for two years
3. Dr. Naveen Kwatra is nominated as Member, Board of Studies of Civil Engineering by

HPTU, Hamirpur in July 2013

4. Dr. Naveen Kwatra is nominated as Member, Board of Studies of Civil Engineering by Bahara University, Solan in July 2013







COMPUTER SCIENCE & ENGINEERING DEPARTMENT**1. Academic Programs**

B.E. Computer Engineering

B.E. Computer Engineering (Honors in Machine Learning and Data Analytics)

B.E. Computer Engineering (Honors in Computer Animation and Gaming)

M.E. Computer Science and Engineering

M.E. Software Engineering

M.E. Information Security

2. List of faculty

S. No.	Name	Designation	Qualification & Specialization
1.	Dr. Seema Bawa	Professor	Ph.D., M.Tech., Parallel, Distributed and Cloud Computing
2.	Dr. Deepak Garg	Associate Professor	Ph.D., Data Structures, Algorithms and Data Mining
3.	Maninder Singh	Associate Professor	Ph.D. Network Security, Cyber Security Intelligence
4.	A K Verma	Associate Professor	BE(CSE), ME(CS), PhD(CS) Wireless Networks and Security
5.	Dr. Inderveer Chana	Associate Professor	B.E.(CS), M.E.(SE), PhD(CS), Clouding Computing, Software Engineering
6.	Neeraj Kumar	Associate Professor	PhD, Routing and Security Issues in Wired/Wireless Networks
7.	Dr. V. P. Singh	Assistant Professor	Ph. D, Soft Computing, Computer Networks, Computer Forensics and Cyber Law.
8.	Dr. Rinkle Rani	Assistant Professor	PhD, Networks, Databases and Algorithms
9.	Dr. Shalini Batra	Assistant Professor	Ph. D. (Machine Learning, Web Semantics, SNA)
10.	Dr. Parteek Kumar	Assistant Professor	PhD & Natural Language Processing
11.	Dr. Shivani Goel	Assistant Professor	Ph. D. , Artificial Intelligence, Algorithms, Software Engineering and Software Reuse
12.	Dr Ajay Kumar	Assistant Professor	Ph.D., Theoretical Computer Science and Software Testing
13.	Dr. Sushma Jain	Assistant Professor	Ph.D, Artificial Intelligence, Network architectures, Network protocols and Network algorithms.
14.	Vinod Kr. Bhalla	Assistant Professor	M.E., Next Generation World Wide Web, Software and its Engineering
15.	Karun Verma	Assistant Professor	M. E. Computer Science & Engineering (IT) , Human-centered computing, Computing methodologies
16.	Ravinder Kumar	Assistant Professor	M. Tech., B.E., Combinatorial Optimization, Approximation Algorithm and

17.	Ashima Singh	Assistant Professor	Mathematical Programming M.Tech. (CS), Pursuing PhD, Software Engineering, Software Components and Reuse, Agile Software Development
18.	Sumit Miglani	Assistant Professor	M.E., Wireless Computer Networks, Web Technologies, Mobile Agents
19.	Ashish Aggarwal	Assistant Professor	M.E(Computer Science), Software and its engineering
20.	Anju Bala	Assistant Professor	M.Tech & Computer Science and Engineering, IT
21.	Rajkumar Tekchandani	Assistant Professor	M.Tech(CSE) , Programming, Software Engineering and Computer Graphics
22.	Vinay Arora	Assistant Professor	M.Tech., B.Tech., Computer Science & Engineering
23.	Dr. Ashutosh Mishra	Assistant Professor	PhD, Software Engineering, Data Mining, Intelligent Computing Methods
24.	Dr. Damandeep Kaur	Assistant Professor	Phd (computer Science) , High Performance Computing, Software Engineering
25.	Dr. Jhilik Bhattacharya	Assistant Professor	PhD, Computer Vision & Image Processing
26.	Karamjit Kaur	Lecturers (Ad-hoc)	M.E.. (CSE), B.E. (CSE), Pursuing Ph. D
27.	Rupinder Kaur	Lecturers (Ad-hoc)	M.E. Software Engg., Pursuing Ph. D
28.	Maggi Bansal	Lecturers (Ad-hoc)	M.E (CSE)
29.	Sukhchandani	Lecturers (Ad-hoc)	M.E., Pursuing Ph. D
30.	Harkiran Kaur	Lecturers (Ad-hoc)	M.E. (SE), B.Tech (CSE), Pursuing Ph. D
31.	Tarunpreet Bhatia	Lecturers (Ad-hoc)	ME (CSE), B.Tech (CSE), Pursuing Phd
32.	Rupali	Lecturers (Ad-hoc)	M.Tech

3. Thrust areas of research

Software and its Engineering
Theory of Computation
Networks
Security and Privacy
Computer Systems Organization
Information Systems
Human Centered Computing
Computing Methodologies

4. Activities round the year (2013-14)

- Weekly research seminar on every Wednesday on latest topics by experts/researchers and academicians.
- Strong Alumni Interaction through department Alumni Cell. Proactive Alumni Interaction task force is working to tap CSED Alumni and make chapters in NCR/Hyderabad/Bangalore.
- Department has many MoUs signed with Industry and Foreign Institutions including Microsoft, IBM, TCS, CISCO, NVIDIA, EMC2, Wipro, Oracle, Infosys, UMKC, EFREI, EC-Council etc. These MoUs result in Industry Support in many of our UG, PG and PhD

Programs which gives the students an Industry Ready Outlook to work in the upcoming areas of computing.

- 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

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

6. Departmental Achievements

Papers published in SCI Journals:	20
Papers published in Non SCI Journals:	23
Papers published in conferences	29
Sponsored Research Projects Ongoing:	06
Seminar/Conference/Workshop organized	08
Doctoral Degree Awarded	03
Lectures by visiting experts	03
Visits abroad by faculty members	01
Awards and Honors	15

7. List of ongoing sponsored projects

1. Collaborative Mobility Aware Reliable Data Dissemination in Vehicular Ad Hoc Networks *
2. Energy Aware Resource Scheduling for Cloud Computing
3. Framework for Enabling Data Portability between Heterogeneous Cloud Storage Platforms
4. A Framework for Secure Vehicular Communication Systems
5. Data Mining Methodologies for Big Data Analysis and Prediction in Cloud environment
6. Robot Technology for Augmented Reality based Driving System

8. List of completed sponsored projects

1. Energy Aware Resource Scheduling for Utility Computing

9. Visits abroad by faculty members

1. Dr. Inderveer Chana attended International Conference on Next Generation Computing and Communication Technologies 2014 at Zelus International FZE, Dubai during April, 2014
2. Karamjit Kaur attended EDBT Summer School at EDBT, in September 2013

10. Awards/ Honors/ Recognitions

1. Dr. Deepak Garg chaired a conference session in IEEE 4th International Conference on

- Advance Computing (IACC-14) at ITM University, Gurgaon in February 21-22, 2014
2. Dr. Deepak Garg gave a Keynote Address at IEEE International Conference on MOOC, Innovation and Technology in Education (MITE 2013) Conference at Poornima Group of Colleges, Jaipur on 21 Dec 2013
 3. Dr. Deepak Garg Chaired at IEEE International Conference on MOOC, Innovation and Technology in Education MITE in Poornima Group of Colleges, Jaipur on 21 Dec 2013
 4. Dr. Deepak Garg gave a Keynote Address on MOOCs in the current context, at CII Conference on e-learning and e-publishing, Hotel park Sheraton, Chennai on 16 Dec 2013
 5. Dr. Deepak Garg gave a Keynote address on Various Aspects of MOOCs , IEEE International Conference on Management of Knowledge Economy (IMKE-2013) at Chitkara University, Punjab on 19th Dec 2013
 6. Dr. Deepak Garg was an Invited Jury Member in 5th DSCI best practices meet by DSCI (Data Security Council of India, A Nasscom Initiative) at Grand Hyatt, Chennai on July 13 2013
 7. Dr. Maninder Singh is awarded Instructor Excellence Award: Expert Level at CISCO Networking Academy in year 2013
 8. Dr. Maninder Singh is awarded Instructor Years of Service by CISCO Networking Academy in year 2013
 9. Dr. Maninder Singh is awarded Science Direct TOP25: Jan-March 2013 by Science Ddirect in 2013
 10. Dr. Maninder Singh is awarded Certified Ethical Hacker by EC_Council, USA in 2014
 11. Dr. Parteek Bhatia is awarded Gold Medal in 3rd UNL Olympiad by UNDL Organization, Switzerland in May 2014
 12. Mr. Vinay Arora is awarded Letter of appreciation from Head of department for successful and timely automation of IAP activities by Thapar University in 2014
 13. Karamjit Kaur is awarded Complete Financial Assistance to attend EDBT Summer School held in France by DST, in September 2013
 14. Karamjit Kaur is awarded Google Global Scholarship for attending GHC held in USA by Google in October 2013



ELECTRICAL & INSTRUMENTATION ENGINEERING DEPARTMENT**1. Academic Programs**

B.E. Electrical Engineering

B.E. Electronics (Instrumentation & Control)

M.E. Power System

M.E. Electronics (Instrumentation Control)

2. List of faculty

S. No.	Name	Designation	Qualification & Specialization
1	Dr. Ravinder Agarwal	Professor	Ph.D., Bio-Medical Instrumentation
2	Dr. Samarjit Ghosh	Professor	Ph.D., Power System
3	Dr. Mandeep Singh	Associate Professor	Ph.D., Bio-Medical Instrumentation
4	Ms. Manbir Kaur	Associate Professor	M.E., Computer science , Ph.D. (Pursuing), Power System Optimisation
5	Dr. S. K. Jain	Associate Professor	Ph.D., Power System
6	Dr. Gagandeep Kaur	Assistant Professor	Ph.D., Artificial Intelligence
7	Dr. Sunil Kumar Singla	Assistant Professor	Ph.D., Biometrics & Image processing
8	Mr. Parag Nijhawan	Assistant Professor	M. E., Power Systems
9	Dr. M.D. Singh	Assistant Professor	Ph.D., Bio-Medical Instrumentation
10	Ms. Suman Bhullar	Assistant Professor	M.E., Power Engineering
11	Dr. Nitin Narang	Assistant Professor	Ph.D., Power System & Instrumentation
12	Mr. Nirhowjap Singh	Assistant Professor	M.E., Embedded System
13	Mr. Moon Inder Singh	Assistant Professor	M.E., Bio-Medical Signal Processing
14	Mr. Shakti Singh	Assistant Professor	M. E., Energy Studies
15	Mr. Sauvik Ganguli	Assistant Professor	M. E., Mechatronics
16	Dr. Deepti Mittal	Assistant Professor	Ph.D., Image Processing
17	Dr. Sangeeta Kamboj	Assistant Professor	Ph.D., Signal Processing
18	Dr. Prasenjit Basak	Assistant Professor	Ph.D., Power System
19	Dr. Amrita Sinha	Assistant Professor	Ph.D., Power System Protection
20	Dr. Jainy Sachdeva	Assistant Professor	Ph.D., Biomedical Image Processing
21	Dr. Santosh Sonar	Assistant Professor	Ph.D., Power Electronics
22	Dr. Gyan Ranjan Biswal	Assistant Professor	Ph.D., Industrial Automation
23	Dr. Saurabh Bharadwaj	Assistant Professor	Ph.D., System Identification
24	Dr. Surya Prakash	Assistant Professor	Ph.D., Power System
25	Ms. Ruchika	Lecturers (Contractual)	M.E., Signal Processing
26	Mr. Vikram	Lecturers (Contractual)	M.E., Control Systems
27	Mr. Shailesh Kumar	Lecturers (Contractual)	M.Tech., Electrical Power System
28	Ms. Navdeep Kaur	Lecturers (Contractual)	M.E., Power System & Electric Drives
29	Mr. Jitender	Lecturers (Contractual)	M.E., Power Systems & Electric Drives

3. Thrust areas of research

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

4. Activities round the year (2013-14)

Two National Conferences, three workshops and a tutorial were organized in the department. Faculty members of the department had delivered 8 expert lectures outside TU while 2 outside experts have delivered their lectures at TU.

5. New Plans and Projects

To start (i) BE–Bioelectronics & Instrumentation and (ii) ME–Biomedical Instrumentation and Power Electronic & Drives

6. Major acquisitions during the year and new laboratory development

S. No.	Name of the equipment	Quantity	Name of the laboratory
1.	MATLAB and SIMULINK Family	25 users	Power System Simulation Lab
2.	Process Control & simulation S/W	10 users	Instrumentation & Control Lab

7. Departmental Achievements

- Papers published in SCI Journals : 12
- Papers published in Non SCI Journals : 18
- Papers published in conferences : 41
- Sponsored Research Projects New : 2 Projects worth Rs 539.10 Lacs
- Seminar/Conference/Workshop organized : 07
- Doctoral Degree Awarded : 01
- Lectures by visiting experts : 02
- Visits abroad by faculty members : 02
- Awards and Honors : 04

8. List of ongoing sponsored projects

1. Particulate matter dose relationship with lung function efficiency of children during agriculture crop residue burning episodes
2. Technical Education Quality Improvement Programme (TEQIP) (PHASE – II): Environment Management and Energy Management

9. Visits abroad by faculty members

1. Ms. Manbir Kaur attended IET conference CVC-2013 at IET Network, Sri Lanka during September 2013
2. Dr. M. D. Singh attended an Int. Conference at Ryerson University TORONTO, Canada during May 2014

10. Awards/ Honors/ Recognitions

1. Dr. Ravinder Agarwal is awarded Best paper award by Admet – 2014 during February 2014
2. Ms. Manbir Kaur is awarded Member Fellowship by IET London during 2013-14
3. Ms. Manbir Kaur is awarded First Prize in an event in CVC-2013, Sri Lanka during September 2013
4. Ms. Suman Bhullar is awarded Best Paper Award in 7th Int. Conf.on Advanced Computing and Communication Technologies, Asia Pacific Institute of Information Technology, Panipat during November 2013



ELECTRONICS & COMMUNICATION ENGINEERING DEPARTMENT**1. Academic Programs**

B.E. Electronics & Comm. Engg
 M.E. Electronics & Comm. Engg
 M.E. Wireless Communications
 M. Tech. VLSI Design
 Ph.D

2. List of faculty

S. No	Name	Designation	Qualification & Specialization
1	Dr. R. S. Kaler	Senior Professor	Ph.D Fiber Optical Communication
2	Dr. A. K. Chatterjee	Professor	Ph.D Semiconductor Electronics
3	Dr. Rajesh Khanna	Professor	PhD (Wireless Communications and Antennas)
4	Dr. Sanjay Sharma	Professor	PhD (Wireless Communications and signal processing)
5	Dr. Alpana Agarwal	Associate Professor	Ph.D ASICS /VLSI Design Synthesis
6	Dr. Kulbir Singh	Associate Professor	Ph.D Signal Processing & Fractional Transform
7	Dr. Amit Kumar Kohli	Associate Professor	Ph.D, M.E., B.Tech Wireless Communication and Signal Processing
8	Dr. Mukesh Kumar	Assistant Professor	Ph.D, Optoelectronics
9	Dr. Hardeep Singh	Assistant Professor	Ph.D, Fiber Optic Communication
10	Mrs. Manu Bansal	Assistant Professor	VLSI Design
11	Dr. Hem Dutt Joshi	Assistant Professor	Ph.D Wireless Communication, OFDM
12	Dr. Vinay Kumar	Assistant Professor	Image & Video Processing
13	Mr. Ankush Kansal	Assistant Professor	M.E. (ECE) and Wireless communication
14	Dr. Ajay Kakkar	Assistant Professor	Ph.D, Wireless Network Security
15	Dr. Surbhi Sharma	Assistant Professor	Ph.D, Wireless Communication & MIMO System
16	Dr. Ravi Kumar	Assistant Professor	Ph.D, Signal Processing, VLSI Design
17	Dr. Sanjay Kumar	Assistant Professor	Ph.D (Signal Processing), M.Tech. (VLSI Design & CAD), B.E. (ECE)
18	Dr. Rishikesh Pandey	Assistant Professor	Ph.D VLSI Design
19	Dr. Mayank Kumar Rai	Assistant Professor	Ph.D VLSI Design
20	Ms. Harpreet Vohra	Assistant Professor	Low Power VLSI Design & Test
21	Ms. Amanpreet Kaur-I	Assistant Professor	M.E.(wireless Communication)
22	Mr. Arun Kumar Chatterjee	Assistant Professor	VLSI Design, Nanoscale MOSFET (S.C. Devices)
23	Ms. Amanpreet Kaur-II	Assistant Professor	Signal Processing
24	Ms. Sakshi	Assistant Professor	M.Tech(VLSI Design), Pursuing Phd

25	Mr. Karamjit Singh	Assistant Professor	Digital VLSI Design M.Tech Electronics and Communication Engineering.
26	Dr. Anil Arora	Assistant Professor	Ph.D MEMS (Design & Fabrication)
27	Dr. Neeru Jindal	Assistant Professor	Ph.D Signal Processing
28	Mr. RanaPartapYadav	Assistant Professor	
29	Mr. Sukhwinder Kumar	Lecturers (Ad-hoc)	B.Tech, M.E., Ph.D (pursuing), Embedded system and Signal processing.
30	Ms. JaswinderKaur	Lecturers (Ad-hoc)	M.E.(ECE), Ph.D Thesis Submitted on 23 rd June 2014
31	Ms. KiranjotKaur	Lecturers (Ad-hoc)	
32	Ms. ManbirKaur	Lecturers (Ad-hoc)	
33	Ms. Maninder Gill	Lecturers (Ad-hoc)	

3. 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

4. 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

5. Activities round the year (2013-14)

- Mr. Ankush Kansal and Mr. Karmjit Singh organized a two days Professor Summit on Atmel XMEGA and ARM based SAM4L Microcontrollers sponsored by ATMEL, during 15-16 July, 2013.
- Dr. Hardeep Singh & Dr. Ajay Kakkar organised an International Conference on “Electronics, Communication and Information Technology”, at Thapar University during 4-5 October 2013, Patiala which was sponsored by DRDO, CSIR, and TEQIP-II etc.
- Dr. Hardeep Singh & Dr. Ajay Kakkar organized a two days workshop on “Applications of MATLAB in Engineering” during 24-25 August 2013, at Thapar University, Patiala
- Mrs Amanpreet Kaur and Ms Jawsinder Kaur organized a two day hands on workshop on “Antenna Design using CSTMWS 10” during June 17-18 2013, in DSP Research Lab of ECED, at Thapar University, Patiala
- Dr. Manu Bansal and Dr. Ajay Kakkar organized a one day workshop on “Data Communication and Computer Networking, DCCN-2014, on 20th April, 2014 at Thapar University, Patiala
- Ms. Sakshi & Mr. Arun Kr. Chatterjee organised a TEQIP Sponsored FDP on "VLSI system Engineering & Verification" during 14-18 October 2013, in ECED, Thapar University

6. New Plans and Projects

The ECED is planning to start the following new programs:

B.E. Electronics and Computer engineering

B.E. Electronics Engineering

M.E. Signal Processing

7. Major acquisitions during the year and new laboratory development

Antenna Design equipment

Vector Network Analyzer

8. Departmental Achievements

Papers published in SCI Journals:	25
Papers published in Non SCI Journals:	32
Papers published in conferences:	21
Sponsored Research Projects New:	03 Projects worth Rs 30.84 Lacs
Sponsored Research Projects Ongoing:	03 Projects worth Rs 87.8 Lacs
Seminar/Conference/Workshop organized:	04
Short Term courses organized:	02
Doctoral Degree Awarded:	05
Visits abroad by faculty members:	01

9. List of ongoing sponsored projects

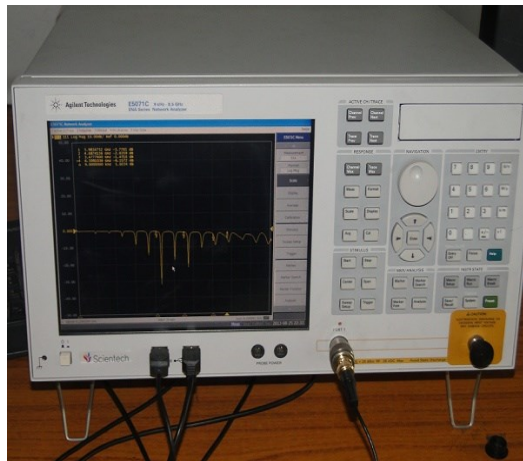
- 1 Microstrip antennas for next generation wireless systems and MIMO wireless communication systems
- 2 Design and development of Stacked Patch Antenna For WLAN Applications
- 3 Modrobs in Communication Lab

10. List of completed sponsored projects

- 1 Development of advanced Fractional transform based algorithm for satellite image compression, encryption, digital watermarking and image matching applications
- 2 Design of Stacked Patch antennas For Wireless Applications
- 3 Modernisation of Wireless Communication Lab

11. Visits abroad by faculty members

1. Manu Bansal attended an international conference and present paper at United Kingdom & Republic of Ireland Section CE Chapter and Digital Information Research Foundation during August 2013.



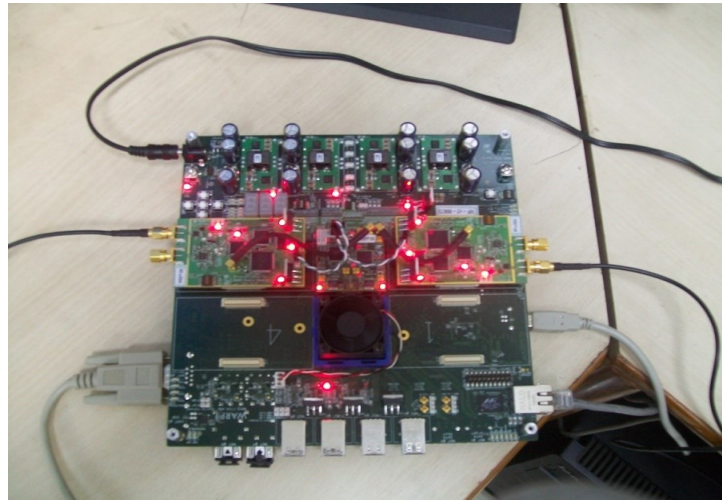
Vector Network Analyzer 9.5 KHz to 8.5 GHz



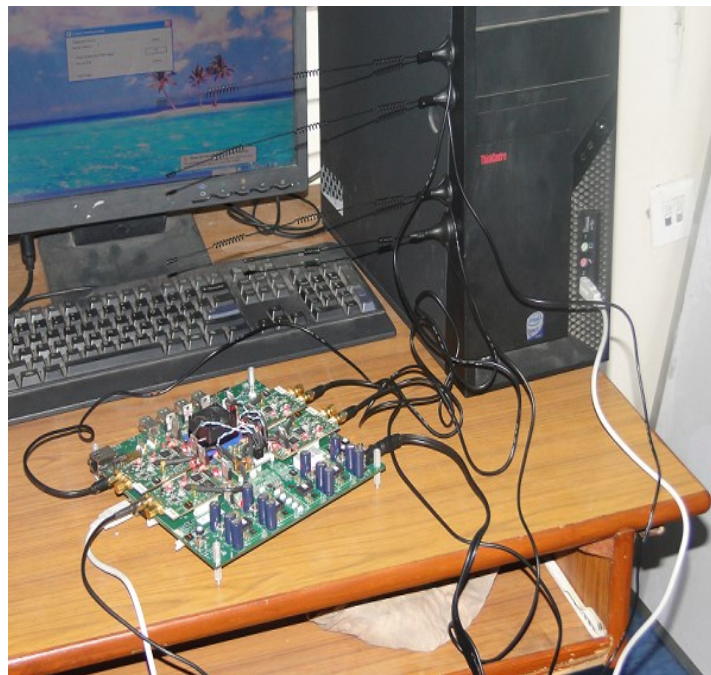
Anechoic chamber for antenna testing



Vector Signal generator and Spectrum Analyser



WARP MIMO BOARD



Warp MIMO Test bed

MECHANICAL ENGINEERING DEPARTMENT

Mechanical engineering department was established in 1956 with the inception of the Institute. The department caters to undergraduate education in the field of mechanical engineering. It 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. Since the institute became a Deemed University in 1985, the department has increasingly focused on post graduate education and research.

1. Academic Programs

B.E. Mechanical Engineering
 B.E. Mechatronics Engineering
 B.E. Mechanical (Production) Engineering
 M.E. CAD CAM Engineering
 M.E. Production Engineering
 M.E. Thermal Engineering

2. List of faculty

S. No.	Name	Designation	Qualification & Specialization
1.	Dr. S. K. Mohapatra	Senior Professor	Ph.D. (Thermal Engineering)
2.	Dr. Ajay Batish	Professor	Ph.D. (Industrial Engineering)
3.	Dr. S. P. Nigam	Visiting Professor	B. Sc., BE (Hons.), ME, M.Tech., Ph.D. (Vibration & Noise)
4.	Dr. V. P. Agarawal	Visiting Professor	Ph.D.(Mechanisms and Systems Approach)
5.	Mr. A. S. Jawanda	Associate Professor	M.E. (Indl. Engg, CAD CAM)
6.	Mr. Sumit Sharma	Associate Professor	M.E. (Turbo Machinery)
7.	Mr. S. S. Bhullar	Associate Professor	M.E. (Industrial Engineering)
8.	Dr. Vinod Kumar Singla	Associate Professor	Ph.D.(Non-traditional Machining Methods)
9.	Mr. Sandeep Sharma	Assistant Professor	M.E. (CAD CAM & Robotics)
10.	Dr. Tarun Nanda	Assistant Professor	Ph.D. (Industrial Engineering)
11.	Dr. J. S. Saini	Assistant Professor	Ph.D. (CAD)
12.	Mr. Ravinder Kumar Duvedi	Assistant Professor	M.E. (CAD CAM & Robotics)
13.	Mr. Satish Kumar	Assistant Professor	M.Tech. (Thermal Engineering)
14.	Mr. Anirban Bhattacharya	Assistant Professor	M. Tech. (Manu. Tech.)
15.	Mr. Kishore Khanna	Assistant Professor	M.E. (CAD CAM & Robotics)
16.	Mr. Bikramjit Sharma	Assistant Professor	M.E. (CAD CAM & Robotics)
17.	Mr. Devender Kumar	Assistant Professor	M.Tech. (Robotics & Automation)
18.	Mr. Kundal Lal	Assistant Professor	M.E. (Thermal Engineering)
19.	Mr. Daljeet Singh	Assistant Professor	M.E. (CAD CAM & Robotics)
20.	Dr. S. S. Mallick	Assistant Professor	Ph.D, M.Tech, B.E (Mechanical) Thermal Engineering
21.	Dr. Ashish Singla	Assistant Professor	PhD. (Robotics)
22.	Dr. Madhup Kumar Mittal	Assistant Professor	Ph.D. (Refrigeration, two-phase

23.	Dr. Tarun Kumar Bera	Assistant Professor	flow, solar thermal systems) Ph.D. Vehicle Dynamics and Robotics
24.	Dr. Vivek Jain	Assistant Professor	Ph.D. (Machining Science)
25.	Dr. Dheeraj Gupta	Assistant Professor	Ph.D. (Machining Science)
26.	Dr. Anant Kumar Singh	Assistant Professor	Ph.D. (Production Engineering)
27.	Dr. Hira Lal Bhowmik	Assistant Professor	Ph.D. (Production Engineering/Tribology)
28.	Dr. Vineet Srivastava	Assistant Professor	Ph.D. (Production Engineering)
29.	Mr. Atul Sharma	Lecturers (Ad-hoc)	M.E.(Production Engineering)
30.	Mr. Gurpreet S. Saini	Lecturers (Ad-hoc)	M.E (Production Engineering)
31.	Mr. Kuljeet Singh	Lecturers (Ad-hoc)	M.E (Thermal Engineering)
32.	Mr. Arvind Kumar Kaushal	Lecturers (Ad-hoc)	M.E (Thermal Engineering)

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 2013-14 the faculties of mechanical engineering department have actively participated in number of research and development activities.

4. Major acquisitions during the year and new laboratory development

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

5. Departmental Achievements

- Papers published in SCI Journals: 16
- Papers published in Non SCI Journals: 08
- Papers published in conferences: 22
- Sponsored Research Projects New: 09 Projects worth Rs 156.95lacs
- Sponsored Research Projects Ongoing: 03 projects worth Rs 1316.45 Lacs
- Consultancy Projects: 03 projects worth Rs 8.0 Lacs
- Patent Filed: 01
- Seminar/Conference/Workshop organized: 09
- Short Term courses organized: 01
- Doctoral Degree Awarded: 01
- Lectures by visiting experts: 16
- Visits abroad by faculty members: 07
- Awards and Honors: 01

6. List of ongoing sponsored projects

- 1 UGC-SAP (Phase II)
- 2 TEQIP-II

- 3 Modelling Solids Friction and Minimum Transport Criteria for Dense Phase Pneumatic Conveying of Powders
- 4 Developing Validated Scale up Procedure for Dense Phase Pneumatic Transport of Fine Powders using Two Layer Dune Flow Model
- 5 Design and Control of Intelligent Autonomous Vehicle for Indian Sea Ports.
- 6 Multi-response Optimization of Process Parameters for the Improved Part Accuracy in Fused Deposition Modeling Process
- 7 DST FIST-II
- 8 Improved Magnetorheological Finishing Process
- 9 Simulation and Analysis of Flow Through Microchannels Fabricated Using Ultrasonic Micro-Machining”
- 10 Behavior of functionalized solid lubricants in metal-metal tribo-contact
- 11 Development of Metallic Nano-Composite Cladding on Poor Tribo Characteristics Metallic Substrate through Microwave Heating
- 12 Floating wick type vertical multiple effect diffusion solar still with waste heat recovery

7. List of completed sponsored projects

- 1 Study on Performance Characteristics of a Centrifugal Slurry Pump Handling Water and Slurry
- 2 Experimental investigation for surface improvement of die steels during electric discharge machining with tungsten and titanium powder mixed dielectric
- 3 Experimental investigation of EDM machined surface of Al-SiC and Al-SiC-B₄C metal matrix composites
- 4 Optimization and modelling of process parameters for improvement in material characteristics in abrasive blasting process using fuzzy logic methodology
- 5 Metallurgical behavior of high strength low alloy (HSLA) steel during Submerged Arc Welding (SAW) with different flux compositions, weld parameters with pre and post thermal treatment

8. Consultancy/Testing assignments completed/ongoing

- 1 Dr. S. S. Mallick is working on a consultancy assignment on “Pressure drop calculations for Pneumatic Ash Handling System for Thermal Power Plant” worth Rs 2.0 Lacs
- 2 Dr. S. S. Mallick is working on a consultancy assignment of “Designing Pneumatic Ash Handling System for Thermal Power Plant” worth Rs 2.0 Lacs
- 3 Dr. S. S. Mallick is working on a consultancy assignment of “Design Review of Ash handling System for Thermal Power Plant” worth Rs 2.0 Lacs

9. Visits abroad by faculty members

- 1 Dr. S. K. Mohapatra & Dr Ajay Batish visited University of Waterloo, Canada and Virginia Tech., USA for Academic networking during September, 2013
- 2 Dr Ajay Batish participated in ABET symposium, Pittsburgh during April 2014

- 3 Dr Ajay Batish Trinity College Dublin Academic networking June 2014
- 4 Dr. .S.Mallick visited Fujian Longking Co. Ltd., China as Visiting researcher during June 2014
- 5 Mr. R K Duvedi attended Annual International CAD conference, CAD'14, at Hong Kong University of Science and Technology, HKUST, Hong Kong, SAR, China from 23rd to 26th June 2014
- 6 Dr. Ashish Singla attended Int. IEEE Conf. on Robotics and Mechatronics (ROBMECH-2013) at Durban, South Africa from Oct, 30-31, 2013

10. Awards/ Honors/ Recognitions

- 1 Dr. S.P. Nigam is nominated as Chairman, Recruitment and Assessment Board, DRDO, Govt. of India in April-June 2014





SCHOOLS

SCHOOL OF BEHAVIORAL SCIENCES & BUSINESS STUDIES

SCHOOL OF CHEMISTRY & BIOCHEMISTRY

SCHOOL OF ENERGY AND ENVIRONMENT

SCHOOL OF MATHEMATICS AND COMPUTER APPLICATIONS

SCHOOL OF PHYSICS & MATERIAL SCIENCE

SCHOOL OF BEHAVIORAL SCIENCES AND BUSINESS STUDIES

1. Academic Programs

The School of Behavioral Sciences and Business Studies offers various Core and Elective courses in the area of Behavioral Sciences and Business Studies to Undergraduate and Postgraduate students. These courses are aimed at transforming students to become good human beings and successful business managers in their careers besides inculcating in them an understanding of values, culture and heritage. This school also offers Doctoral Programs leading to Ph. D Degree.

2. List of faculty

S. No	Name	Designation	Qualification & Specialization
1	Dr Santha Kumari	Professor	Ph.D. Cognitive and Experimental Psychology
2	Dr (Ms) Ravi Kiran	Professor	M Phil. Ph.D. Industrial Management, E-Business, Business Environment
3	Dr. Gurvinder Kaur	Assistant Professor	MBA(HR), M.A (Econ), PhD HRD, Entrepreneurship, Communication Skills. Ph.D.
4	Dr. (Ms.) Hitashi Lomash	Assistant Professor	Guidance and Counseling, Clinical Psychology, Organizational Behaviour. Ph.D.
5	Mr. Apurva Bakshi	Assistant Professor	MBA, pursuing Ph D Marketing Management, Operations Management, Strategic Management
6	Mr. Subhash Chandra Bose	Assistant Professor	MBA, pursuing Ph. D Marketing and Management
7	Dr A.N. Sah	Assistant Professor	MA Economics, Ph.D.
8	Dr Rakesh Kumar Sharma	Assistant Professor	MCom., MBA, Ph.D.
9	Dr. (Ms.) Simerpreet Ahuja	Assistant Professor	Ph. D Psychology Child Development & Conselling
10	Dr (Ms) Diksha Sharma	Assistant Professor	English
11	Dr Harish Singla	Assistant Professor	MBA, Ph.D
12	Dr (Ms) Anupam Sharma	Lecturers (Ad-hoc)	MBA, Ph.D.
13	Ms. Navdeep Dhillon	Lecturers (Ad-hoc)	M.A, M. Phil

3. Thrust areas of research

Guidance and Counselling, Clinical Psychology, and Organizational Behaviour, Cognitive and Experimental psychology IPRs in Manufacturing, Knowledge Management, Human Resource Management, Industrial Management.

4. New Plans and Projects

Planning to start Masters program in Psychology (clinical and counseling) and Economics and also exploring opportunities of starting new programs in liberal arts.

5. Major acquisitions during the year and new laboratory development

Up-dated the Communication Skills Lab. Acquired Tally software for pursuing research in commerce and Management.

6. Departmental Achievements

• Papers published in SCI Journals:	02
• Papers published in Non SCI Journals:	14
• Papers published in conferences:	16
• Sponsored Research Projects Ongoing:	05 projects worth Rs 22.32 Lacs
• Sponsored Research Projects Completed:	01 project worth Rs 6.90 Lacs
• Seminar/Conference/Workshop organized:	02
• Doctoral Degree Awarded:	05
• Visits abroad by faculty members:	04

7. List of ongoing sponsored projects

1. A Strategic Framework for retailing in Punjab.
2. An Experimental Investigation of the Psychological determinants of Financial decision making: A prospect theory approach.
3. A Strategic Framework for Enhancing Technology Adoption and Management Strategies for Women Entrepreneurs in Food and Beverage Sector.
4. A Study on The Impact of Technology Upgradation Fund Scheme (TUFS) in Woollen Knitwear Cluster Of Ludhiana (Punjab).
5. Financial Performance Characteristics of Selected BSE Listed Real Estate Companies.

8. List of completed sponsored project

1. A Post-TRIPS Analysis of Emerging IPR Strategies of Small and Medium Pharmaceutical firms in Punjab, Haryana and Himachal Pradesh

9. Consultancy/Testing assignments completed/ongoing

1. Dr. Harish Kumar Singla was involved in the consultancy project of determinants of Service Charges at Rajokari Border (NH8) in partnership with CRRI, New Delhi.

10. List of equipment procured

1. Up-dated the Communication Skills Lab. Acquired Tally software for pursuing research in commerce and Management.

11. Information regarding foreign visits

1. Dr. Santha Kumari attended International forum for psychoanalytic education 24th annual interdisciplinary conference Philadelphia, USA in October 2013.
2. Dr. Santha Kumari attended 41st Annual conference British Association for Behavioral and Cognitive Psychotherapies at Imperial College London, UK in July 2013.

3. Dr Ravi Kiran attended Tenth international conference on Global Business, Economic and Transportation Research: Interdisciplinary innovations for sustainable growth and development at Dubai in December 2013.



Ethics & IPR Workshop, September 2014



Trinity college Dublin faculty with SBSBS faculty



International Conference on Changing perspectives and paradigms in Business and Behavioral Sciences (CPPBBS-2014)

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 natural sciences. Faculty is actively involved in frontier areas of research and having sponsored projects. The faculty of School has published 46 research papers in SCI/Impact factor journals during 2013-14. School is proud to have Dr. Vijay Luxami and Dr. Soumen Basu who has joined as Assistant Professors in this academic year. Ms. Dhiraj Rani and Mr. Nayuesh Sharma of our school has qualified CSIR-JRF NET and GATE examinations.

1. Academic Programs

M.Sc. (Chemistry)

Ph. D. (Chemistry)

2. List of faculty

S. No	Name	Designation	Qualification & Specialization
1	Dr. Susheel Mittal	Senior Professor	Ph.D., Chemical Sensors, Biosensors, Inorganic Ion-Exchange Materials, Environmental Chemistry
2	Dr. Bonamali Pal	Professor	Ph.D., Physical & Nanomaterial Chemistry, Photocatalysis, Photoelectrochemistry.
3	Dr. Satnam Singh	Associate Professor	Ph.D., Organic Chemistry and Environmental Chemistry
4	Dr. (Mrs.) Ranjana Prakash	Associate Professor	Ph.D., Applied Chemistry
5	Dr. Amjad Ali	Associate Professor	Ph.D., Inorganic Chemistry
6	Dr. Manmohan Chhibber	Associate Professor	Ph.D., Synthetic Organic Chemistry, Medicinal Chemistry
7	Dr. Rajesh Kumar	Associate Professor	Ph.D., Biophysical and Bioinorganic Chemistry
8	Dr. Kamaldeep Paul	Assistant Professor	Ph.D., Organic and Medicinal Chemistry
9	Dr. Satyendra Kumar Pandey	Assistant Professor	Ph.D., Organic Synthesis and Medicinal Chemistry
10	Dr. Vijay Luxami	Assistant Professor	Ph. D., Organic and Supramolecular Chemistry, Molecular Electronics
11	Dr. Soumen Basu	Assistant Professor	Synthesis & Applications of Nanomaterials

3. Departmental Achievements during 2013-14

- Papers published in SCI Journals: 44
- Sponsored Research Projects New : 04 Projects worth Rs 65 Lacs
- Sponsored Research Projects Ongoing : 16 Projects worth Rs 294 Lacs
- Patent : Filed/Granted: 01 (Filed)
- Seminar/Conference/Workshop organized: 02
- Doctoral Degree Awarded: 13

- Lectures by visiting experts: 02
- Visits abroad by faculty members: 01

4. List of ongoing sponsored projects

1. Design and Development of Diphenylether based Supramolecules for Electroanalytical Probes.
2. Particulate matter dose relationship with lung function efficiency of children during agricultural crop residue burning episodes.
3. Modelling Atmospheric Pollution and Networking (MAPAN) – Patiala (MAPAN –08).
4. Size and shape dependent photocatalytic activity of silica-coated metal (M) Zincsulfide (ZnS) nanocomposites for nitroaromatics reduction.
5. “Study of surface charge and Zeta potential of coinage metal nanoparticles for their optimum stability and catalytic activity”.
6. Fungus mediated biodiesel generation from waste edible oils.
7. Strain improvement of *Aspergillus* sp. for enhanced trans esterification of waste cooking and non-edible oils using induced mutation by γ irradiation.
8. Synthesis and characterization of diphenyl ether/analogues for their antibacterial activity.
9. pH-Dependent stability and microsecond folding kinetics of horse ferrocycytochrome-C.
10. Hybrids of Substituted Benzimidazole and Quinazoline /purine/pyrazolo pyrimidine analogous as Antituberculosis and Antimalarial activity.
11. Coupling of Substituted Quinazoline /Xanthine and Purine/Pyrimidine/ Benzimidazole : A Novel Scaffold for Kinase Inhibitors.
12. Heterocyclic Substituted Quinazoline and Pyrazolo[3,4-d]pyrimidine Derivatives: Novel Scaffold for Aurora Kinase Inhibitors.
13. Novel Scaffolds of P-glycoprotein Modulators to Overcome Multidrug Resistance in Cancer cells.
14. The Total Synthesis of the Antimalarial Natural Products, Flinderoles.
15. Concise and Protecting Group-Free Synthesis of 2-Alkyl-Substituted Tetrahydroquinolines.
16. ESIPT based Chromophores: Applications for Sensing and White light emitting devices.

5. List of completed sponsored projects

1. Polycyclic Aromatic hydrocarbons in tea and coffee.
2. Heterogeneous catalysts for biodiesel production.
3. Preparation of Core-Shell Structure of Silica (SiO₂)-Coated Cadmium Sulfide (CdS) Nanocomposites by Size-Selective Photoetching and Study of Photocatalytic Organic Syntheses Reactions.
4. Molecular mechanism of selenium reduction by microorganisms and its application to development of selenium recovery systems.
5. Zirconia supported solid catalyst for simultaneous transesterification and esterification of high free fatty acid containing triglycerides.
6. Alkali metal supported transition metal oxides as solid catalyst for the transesterification of jatropha and karanja oils.
7. Sugars and salts-induced folding and stabilization of base-denatured horse cytochrome c.
8. Kinetic and thermodynamics studies on the effect of chaotropic and kosmotropic cosolvents on horse ferrocycytochrome c.
9. The Kinetics and Mechanism of Iron Release from Transferrins.

10. Hybrids of Substituted Benzimidazole and Quinazoline /purine/pyrazolo pyrimidine analogous as Antituberculosis and Antimalarial activity.
11. Novel Scaffolds of P-glycoprotein Modulators to Overcome Multidrug Resistance in Cancer cells.
12. Heterocycles based FRET- dyads for Chemionics and Bioionics.

6. List of equipment procured

1. 266 nm Laser and Visible Light source.
2. Thermo-gravimetric analyser.

7. Information regarding foreign visits

1. Dr. Vijay Luxami visited Department of Chemistry Research, Bath University, UK as research scientist from November 2013 to April 2014.



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.

1. Academic Programs

M.Tech. Environment Science and Technology
M.Tech. Energy Technology and Management
M.Sc. Environmental Sciences
Ph.D

2. List of faculty

S. No	Name	Designation	Qualification & Specialization
1	N.Tejo Prakash	Professor	M.Sc., PhD. Environmental Sciences
2	Dr. A.S Reddy	Associate Professor	M.Sc., M.Tech., PhD, Environmental technology and management
3	Dr. Anita Rajor	Associate Professor	M.Sc., PhD, Microbial Technology/ Environmental Biotechnology
4	Er. Anoop Verma	Assistant Professor	M.Tech Environmental Engineering
5	Dr. Amit Dhir	Assistant Professor	PhD, Advanced oxidation processes
6	Er. K.S Babu	Assistant Professor	M.Tech. Environmental Engineering
7	Dr. S.K Mahla	Assistant Professor	PhD, IC Engines and Alternative fuels

3. Thrust areas of research

Metal bio transformations; Design and analysis of wastewater treatment plants, Industrial waste management, Management systems for energy and environment in industries; Wastewater treatment engineering; Environmental microbiology; Chemical and biochemical engineering; Air quality modelling & assessment; EIA; IC Engines & alternative fuels; Bio fuels; Fuel cells; Renewable energy technologies

4. Brief description of ongoing research activities

R&D activities of the school currently include industrial water quality monitoring and management; metal bio-transformations; advanced oxidation processes; industrial environmental management; ambient air quality; and bioremediation. The faculty of the

School is also supervising sponsored projects funded by various agencies of Government of India, including BRNS, CSIR, DBT, DST, DRDO, AICTE, etc., in addition to carrying out research under bilateral collaborations with Japan, Italy, etc. Some of the prominent projects of interest are, Biofortification of selenium in edible mushrooms from Se-rich crop residues (DBT); Fungus mediated biodiesel generation from waste edible oils (BRNS); Utilization of cement kiln dust in concrete after removal of alkalinity and metal toxicity with microbes (DST), etc.

5. Activities round the year (2013-14)

Environmental Awareness	K.S Babu (Assistant Professor)	17 July; ZP High School Tenagal (Andhra Pradesh)
Vehicle Pollution under control check camp	K.S Babu (Assistant Professor)	21 March, 2104; Thapar University Patiala
A booklet on Environmentalism & Holistic Life	K.S Babu (Assistant Professor)	March, 2104; Thapar University Patiala
Environmental knowledge dissemination	K.S Babu (Assistant Professor)	Oct 2013 to March 2014 Thapar university Patiala

6. New Plans and Projects

The School of Energy and Environment envisions further to establish in new premises soon to expand itself in establishing scale-up laboratories both in the area of energy as well as environmental treatment and management.

7. Departmental Achievements

• Papers published in SCI Journals	19
• Papers published in Non SCI Journals	06
• Papers published in conferences	09
• Sponsored Research Projects New :	
Number of Projects	02
Amount (in Rs Lac)	20.4
• Sponsored Research Projects Ongoing :	
Number of Projects	09
Amount (in Rs Lac)	113.72
• Consultancy Projects :	
Number of Projects	07
Amount (in Rs Lac)	29.80
• Seminar/Conference/Workshop organized	02
• Short Term courses organized	01
• Doctoral Degree Awarded	05
• Lectures by visiting experts	03
• Visits abroad by faculty members	02
• Awards and Honors	04

8. List of ongoing sponsored projects

1. Neuroprotective properties of selenoergothioneine sourced from selenium-rich mushrooms against oxidative stress and nitrosative damage in neuronal cells.
2. Studies on anti-inflammatory responses as function of bioavailable selenium from selenium-rich cereal grains.
3. Biofortification of Selenium in Edible Mushrooms from Se-rich Crop Residues.

4. Fluidized bed catalytic reactor for the Degradation of Pharmaceutical active compounds (PAH) using batch reactor.
5. Influence of bacteria on compressive strength and permeability of fly ash concrete.
6. Utilization of cement kiln dust in concrete after removal of alkalinity and metal toxicity with microbes.
7. Utilization of Fungal treated waste foundary sand concrete.
8. DST SERB Fast Track Project.
9. Feasibility study on the use of steel melting furnace slag/APCD dust as filler in the manufacture of fly ash bricks/Blocks.

9. Consultancy/Testing assignments completed/ongoing

1. Dr. A. S Reddy completed the design of effluent treatment plant, Maharaja Processors, Ludhiana.
2. Dr. A. S Reddy completed the design of effluent treatment plant for Sudson Woolen Ltd., Ludhiana.
3. Dr. A. S Reddy completed the design analysis of the Effluent treatment plant, Gillard arbertas, a Kothari group industry, Ahmedgarh.
4. Dr. A. S Reddy is working on the Development of water conservation and wastewater management system and design of effluent treatment plants for 42 textile processing industries, Amritsar textile processors association, Amritsar.
5. Dr. A. S Reddy is working on the Development of water and wastewater management system for zero effluent discharge, Hero Cycles, Ludhiana.
6. Dr. Amit Dhir worked as a EIA Consultant for CPTL Envirotech. Ltd., Chandigarh.
7. Dr Amit Dhir prepared the EMP Report & Air quality modeling for the Satia Industries Ltd., Muktsar.
8. Dr. Amit Dhir worked on the ETP Adequacy for Satia Industries Ltd., Muktsar.

10. List of Awards and recognitions

1. Dr. A.S Reddy has been appointed as the Member State Expert Appraisal Committee – SEAC Pb in June 2014.
2. Dr. S.K Mahla has been awarded with ISTE Best Teacher Award for year 2013.

SCHOOL OF MATHEMATICS AND COMPUTER APPLICATIONS

School of Mathematics and Computer Applications (SMCA) contributes to the mission of the University by providing mathematics majors and computer applications majors to other engineering department and schools and also run own courses of PG level such as MCA, M.Sc. and M.Tech. SMCA seeks to provide the students with experiences that will assist them in defining their career objectives. The faculty of SMCA is committed for maintaining the high standards of teaching and research in mathematics, computer science and its applications. The School is committed to provide quality teaching with modern infrastructure and syllabus. Our syllabus are as per the international standards and relevant to industrial applications (in particular M.Tech, MCA and M.Sc). For production of quality manpower, it is necessary to work at the cutting edge of the science and technology as well as research and development. The modern era also require the various applications of mathematics and computer science in modern industries. The faculty of the School is well qualified and their research is as per international standards in the areas of both pure as well as applied Mathematics and Computer Applications. From time to time School also invited various expertize to deliver their lectures.

1. Academic Programs

- B.E. Software Engineering & Management
- M.Tech. Computer Science & Applications (Regular & Part-Time Education mode)
- MCA (Regular mode)
- M.Sc. in Mathematics and Computing (Regular mode)
- Ph.D Mathematics and Computer Applications

2. List of faculty

S. No	Name	Designation	Qualification & Specialization
1.	Dr. R. K. Sharma	Professor	Ph.D Soft Computing, and Statistical Computing/NLP
2.	Dr. S.S. Bhatia	Professor	Ph.D Functional Analysis
3.	Dr. Rajesh Kumar	Associate Professor	Ph.D Software Engineering, Pattern Recognition, Fracture Mechanics
4.	Dr. Arvind Kumar Lal	Associate Professor	Ph.D Theoretical Astrophysics/Reliability/Numerical Analysis
5.	Dr. M K Sharma	Associate Professor	Ph.D Theoretical Astrophysics, Optimization Techniques
6.	Dr. Deepak Gumber	Associate Professor	Ph.D Algebra
7.	Dr. Rajiv Kumar	Assistant Professor	M.Tech (CSE), Ph.D. Component Based Software Development, Software Engineering, Algorithm Analysis and Design
8.	Ms. Vineeta Bassi	Assistant Professor	M.E. Software Engineering, Object oriented analysis, Design & programming
9.	Dr. Singara Singh	Assistant Professor	M.Tech, Ph.D. Networks, Digital Image Processing
10.	Ms. Maninder Kaur	Assistant Professor	M.Tech, Computer Graphics, Evolutionary algorithms
11.	Dr. Rajesh Kr. Gupta	Assistant Professor	Ph.D, Differential Equations

S. No	Name	Designation	Qualification & Specialization
12.	Dr. Amit Kumar	Assistant Professor	Ph.D, Fuzzy reliability analysis, fuzzy optimization, Numerical Analysis, Optimization
13.	Dr. Meenakshi Rana	Assistant Professor	Ph.D, Partition Theory, Number Theory
14.	Ms. Sunita Garhwal	Assistant Professor	M.Tech, Software Engineering
15.	Ms. Sanmeet Bhatia	Assistant Professor	M.E, Network security/ Software Engg.
16.	Dr. Satish Kumar	Assistant Professor	Ph.D, Mechanics
17.	Dr. Ankush Pathania	Assistant Professor	Ph.D, Astro physics
18.	Dr Jatinderdeep Kaur	Assistant Professor	Ph.D, Fourier Analysis/Functional analysis
19.	Dr. Sanjeev Kumar	Assistant Professor	Ph.D, Numerical Analysis
20.	Dr. Sharad Saxena	Assistant Professor	Ph.D, Wireless Adhoc sensor Networks
21.	Dr. Paramjeet Singh	Assistant Professor	Ph.D, Numerical analysis of PDE
22.	Dr. Vivek	Assistant Professor	Ph.D, Numerical Analysis, Finite element Analysis
23.	Dr. Rupali Bhardwaj	Assistant Professor	Ph.D, Networking of Cellular Automata
24.	Dr. Vikas Sharma	Assistant Professor	Ph.D, Operation Research/Mathematical Programming
25.	Dr. Harish Garg	Assistant Professor (Contractual)	Ph.D, Reliability, Evolutionary Algorithms, Fuzzy Set Theory
26.	Dr. Mohd. Salahuddin Khan	Assistant Professor (Contractual)	Ring Theory
27.	Dr. Raj Nand Keolyar	Assistant Professor (Contractual)	Fluid Mechanics
28.	Dr. Rajesh Kr. Sharma	Assistant Professor (Contractual)	Numerical Methods & Computational Fluid Dynamics
29.	Dr. Anil Gaur	Assistant Professor (Contractual)	Nonparametric Statistics, Order restricted statistical inference
30.	Dr. Sachin Kumar	Assistant Professor (Contractual)	Differential Equations
31.	Dr. Anju Sharma	Lecturer (Contractual)	Ph.D. Grid Computing/Parallel computing/cloud computing
32.	Ms. Geeta Kasana	Lecturer (Contractual)	MCA. Digital water marking
33.	Ms. Palika Chopra	Lecturer (Contractual)	MCA. Artificial Neural Networks
34.	Ms. Anshu Singla	Lecturer (Contractual)	MCA. Programming language, Artificial intelligence
35.	Ms. Pratima Singla	Lecturer (Contractual)	MCA Networking/Data structures
36.	Mr. Gurpal Singh	Lecturer (Contractual)	M.Tech. Software Engineering
37.	Mr. Pritpal Singh	Lecturer (Contractual)	MCA Soft Computing, Data Mining
38.	Mr. Shatrugan Modi	Lecturer	ME (Soft.) Software Engineering

S. No	Name	Designation	Qualification & Specialization
39.	Dr. Taskeen Zaidi	(Contractual) Lecturer	Ph.D. Software Engineering, Networking, Object Oriented Modeling
40.	Dr. Navdeep Kailey	(Contractual) Lecturer	Ph.D. Duality theory in non linear programming (Optimization)

3. Thrust areas of research

Computer Science and Applications: Soft Computing, Statistical Computing/NLP, Software Engineering, Pattern Recognition, Fracture Mechanics, Component Based Software Development, Algorithm Analysis and Design, Networks, Digital Image Processing, Computer Graphics, Evolutionary Algorithms, Network Security, Grid Computing, Parallel Computing, Cloud computing.

Mathematics: Functional Analysis, Theoretical Astrophysics, Reliability, Operations Research, Numerical Analysis, Partial Differential Equations, Algebra, Fuzzy Reliability Analysis, Fuzzy Optimization, Partition Theory, Number Theory, Mechanics, Mathematical Programming.

4. New Plans and Projects

The School is going to organize an *International Conference on Special Functions & Applications (ICSFA 2014)* (XIII Annual Conference of Society for Special Functions and their Applications) & *Symposium on Applications of Mathematics to Engineering Sciences* during October 16-18, 2014. The forthcoming activities of the School includes (but not limited to):

1. To increase number of seats in newly started course B.E. (Software Engineering & Management) from 30 to 90.
2. 2 short term Courses/Workshops.
3. ACM membership for the School.
4. To publish high quality research papers in SCI Journals (50 SCI papers).
5. Set of new infrastructure which includes two Labs (including one Research Lab) with modern high-speed computers and software.
6. Around 5 major research projects with funding amount Rs 60 Lakhs from various central funding agencies as CSIR, DST, UGC, NBHM etc.

5. Departmental Achievements

- Papers published in SCI Journals 44
- Papers published in Non SCI Journals 25
- Papers published in conferences 14
- Sponsored Research Projects New : 03 projects worth Rs19.76 Lac
- Sponsored Research Projects Ongoing : 06 projects worth Rs 135.435 Lac
- Seminar/Conference/Workshop organized 02
- Doctoral Degree Awarded 06
- Lectures by visiting experts 05
- Visits abroad by faculty members 04

- Awards and Honors

02

6. List of ongoing sponsored projects

1. Development of Indradhanush: In integrated wordnet for Bengali, Punjabi and Urdu.
2. Development of OHWR for Indian Languages- Phase II.
3. Development of prosodically guided phonetic engine for searching speech database in Indian languages.
4. *Green cloud computing framework for efficient and robust management of Resources.*
5. Construction of some New iterative methods for solving nonlinear equations.
6. On L^1 -convergence of trigonometric series with special coefficients.
7. Finite Volume Analysis of PDE Models Arising in Neuronal Variability.
8. Application software development to evaluate thermal performance of tube type, air to air heat exchangers for caca high rated electrical motors.
9. Automorphisms of Finite p-Groups.

7. List of completed sponsored projects

1. Algorithms for single and multi-criteria decision making problems in fuzzy environment.
2. Algorithms for solving some fuzzy network flow problems.

8. Information regarding foreign visits

1. Dr. Amit Kumar visited the University of Manitoba, Canada in June and July 2013 & 2014.
2. Dr. Anju Sharma visited the Simon Fraser University in June 2014.

9. List of Awards and recognitions

1. Dr. Deepak Gumber received the UGC research award in December 2013.

SCHOOL OF PHYSICS & MATERIALS SCIENCE

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. 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 100 research papers in refereed journals during last academic year (2013-2014). Most of the faculty members have R & D projects funded by different funding agencies, like DRDO, CSIR, UGC, AICTE, DAE and DST etc. The school is also a recipient of DST-FIST project. The total number of ongoing projects is 23 and total amount is 3.27 crore. School has received 04 new projects and some of the research projects are in pipeline. The faculty members have delivered invited talks at different reputed institutes like, BARC, Mumbai, and University of Delhi. The school has procured several equipment, like UV-visible spectrometer, vibrating micromill, to strengthen its academic and research activities. This year fourteen students of the school have successfully completed their Ph.D. thesis. Also the school is the proud host of the colossal DAE Solid State Physics Symposium-2013.

1. Academic Programs

- M. Tech. Materials and Metallurgical Engineering
- M.Sc. Physics
- Ph.D

2. List of faculty

S. No	Name	Designation	Qualification & Specialization
1.	Dr. K. K. Raina	Distinguished Professor	Ph.D., Condensed Matter Physics (Liquid Crystal).
2.	Dr. N.K. Verma	Senior Professor	Ph.D., Synthesis and characterization of nanostructure materials
3.	Dr. O.P Pandey	Senior Professor	Ph.D., Solidification
4.	Dr. Kulvir Singh	Professor	Ph.D., Condensed Matter Physics (Experimental)
5.	Dr. Manoj K. Sharma	Professor	Ph.D., Theoretical Nuclear Physics
6.	Dr. Suneel Kumar	Associate Professor	Ph.D., Theoretical Nuclear Physics
7.	Dr. Puneet Sharma	Associate Professor	Ph.D., Nanomagnetism
8.	Dr. Alka Upadhyaya	Associate Professor	Ph.D., Theoretical High Energy Physics
9.	Dr. S. D. Tiwari	Assistant Professor	Ph.D., Condensed Matter Physics
10.	Dr. Dwijendra Pratap Singh	Assistant Professor	Ph.D., Experimental Solid State Physics
11.	Ms. Loveleen Kaur Brar	Assistant Professor	M.Sc., AFM, LB-films, Nanomaterials
12.	Dr. B. N. Chudasama	Assistant Professor	Ph.D., Nanomedicine, Magnetic Fluids
13.	Dr. Poonam Uniyal	Assistant Professor	Ph.D., Functional Nanoceramics, Multiferroic materials
14.	Dr. Soumendu Jana	Assistant Professor	Ph.D., Nonlinear Optics, Photonics, Soliton Theory, Singular Optics

- | | | | |
|-----|-----------------------------|---------------------|---|
| 15. | Dr. Bhaskar Chandra Mohanty | Assistant Professor | Ph.D., Photovoltaics, Thin film growth dynamics, Flexible and invisible electronics |
|-----|-----------------------------|---------------------|---|
-

3. Achievements during 2013-14

- Papers published in SCI Journals: 100
- Papers published in Non SCI Journals: 15
- Papers published in conferences: 77
- Sponsored Research Projects New: 04 projects worth Rs 80.46 Lac
- Sponsored Research Projects Ongoing : 23 projects worth Rs 327.2814 Lac
- Consultancy Projects : 01 project worth Rs 2.1 Lac
- Seminar/Conference/Workshop organized: 02
- Short Term courses organized: 01
- Doctoral Degree Awarded: 14
- Lectures by visiting experts: 02
- Visits abroad by faculty members: 01

4. List of ongoing sponsored projects

1. Structural and electro-optical investigations on Lyotropic liquid crystalline materials and their uses as soft template.
2. Electrical and opto-electronic investigations of polymer-low molar mass liquid crystal composites for display applications.
3. Study of size-dependent multiferroic properties of doped BiFeO₃ nanostructures.
4. Synthesis and Characterization of Vanadium Carbide Nanoparticles.
5. Study of alkaline earth metals doped bismuth based mixed ionic conductors for solid oxide fuel cells applications.
6. Cluster decay and fusion fission dynamics at low energies.
7. Nuclear Reaction Dynamics and related aspects at low energies
8. Formation and decay of exotic nuclear systems using energy density formalism.
9. The quest for the nuclear equation of state in intermediate energy heavy ion collisions.
10. Theoretical study of heavy ion dynamics at superconducting cyclotron (K500-SCC) energies at VECC.
11. Influence of isospin degree of freedom on disappearance of directed and elliptical flow at intermediate energies.
12. Synthesis and characterization of multiferroic AFe₂O₄-BiFeO₃ (A=Co, Ni, Zn) nanocomposite thin films.
13. Development of M-Type Hexaferrite films for microwave device application.
14. Study of heavy light D and B mesons.
15. Low energy properties of baryon octets and decuplets.
16. Nanoengineering of magnetic carriers for drug delivery of anticancer therapeutics.
17. Magnetic Fluid based coolant to enhance thermal and dielectric properties of transformer oil.
18. Studies of antimicrobial properties of metal and metal oxide nanostructures.
19. Determination of Neel temperature of ferritin.
20. Synthesis of BiFeO₃-K_{0.5}Na_{0.5}NbO₃ thin films for device applications.
21. Moving And Colliding Cavity Solitons and Cavity Soliton Molecules.
22. Growth and surface characterization of chemical bath deposited PbS and CdS thin films.
23. Investigation of growth dynamics and kinetic surface roughening of some solution processed technologically important binary sulfides.

5. List of completed sponsored projects

1. Synthesis of oxide layer coated ZnO and TiO_2 nanoparticles and their application in Dye sensitized solar cells.
2. Synthesis of WC nano powder through thermo-chemical reduction and its application for the development of WC-Co composite.
3. Synthesis of nano tungsten carbide powder from Wolframite ore.
4. Effect of Capping Agents on the size and Stability of Core-Shell ZnS Nanostructures.
5. Corrosion Resistant behavior of Glass –steel interface.
6. Strengthening of PG Research Infrastructure.
7. Dynamics of heavy and superheavy nuclei and related nuclear structure effects.
8. Isospin effects on flow and related phenomena in intermediate energy heavy ion collisions.

6. List of equipment procured

1. Circulating air balance.
2. X-ray Tube.
3. Autoclave.
4. Digital storage oscilloscope.
5. Vibrating Micromill.
6. Upright Metallurgical Microscope.

7. Information regarding foreign visits

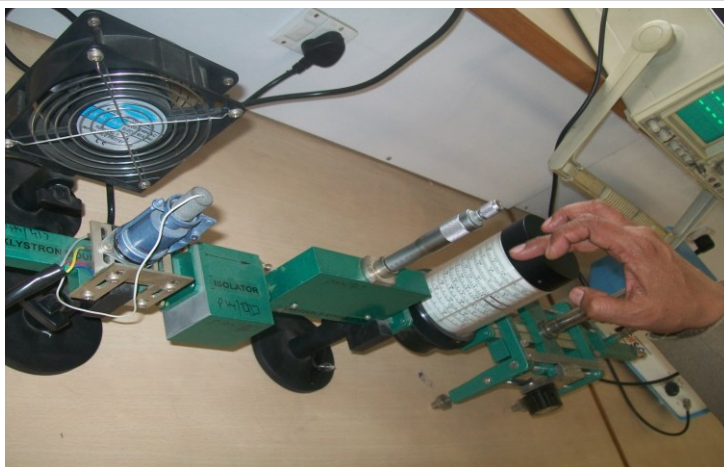
1. Dr. B. C. Mohanty visited Yonsei University, Seoul, Korea in June 2014.

8. List of Awards and recognitions

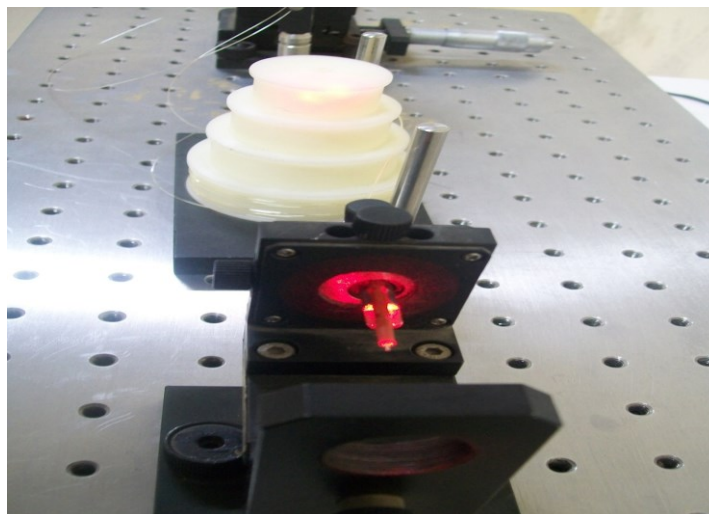
1. Dr. NK Verma is member BoS in PTU & Punjabi University for 2013-2015.
2. Dr. Manoj Kumar Sharma was Coordinator of workshop cum scientific exhibition under BARC outreach programme in March 2014.



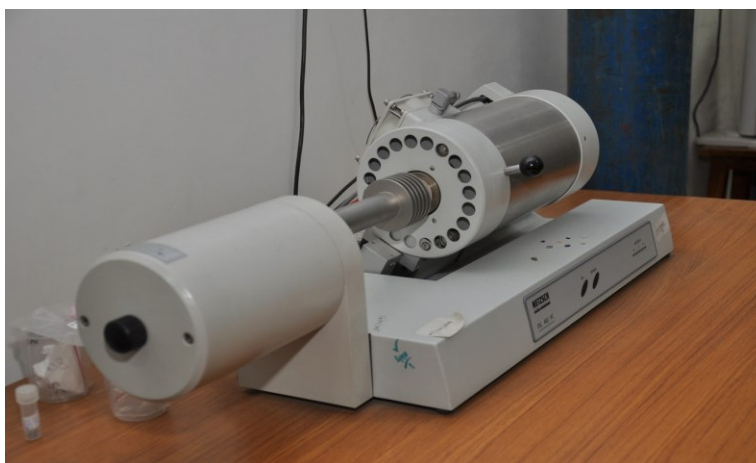
Solid State Physics Symposium, December 17-21, 2013



Instrument Waveguide



Instrument Fiber Optics



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)

1. Campus placement/recruitment of final year students

In the academic year 2013-14, 168 companies visited Thapar University and 857 students were offered jobs through campus placement. In B.E., Bio-Tech 14 out of 21, Civil 35 out of 45, Chemical 46 out of 54, Computer Science 148 out of 153, Electronics Communication 95 out of 102, Electrical 52 out of 57, Instrumentation & Control 63 out of 65, Mechanical 82 out of 88 and MCA 83 out of 136 students securing CGPA 6.00 and above got placed through campus interviews. The over all placement being 86% for CGPA greater than 6.00 and 76% over all in all the BE Branches & MCA. Apart from BE and MCA students, 182 master's students (ME & M.Tech) also got placement through campus interviews, making it 51% overall in Master's of Engineering. Also 39 students from MBA and 01 student from M.Sc got placement through Campus interviews (details are provided in Annexure-I & II). The above data is updated till September 30, 2014. Also result from 23 organizations is awaited. 11 organizations have already confirmed to visit for campus interviews. Due to present economic scenario, 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.

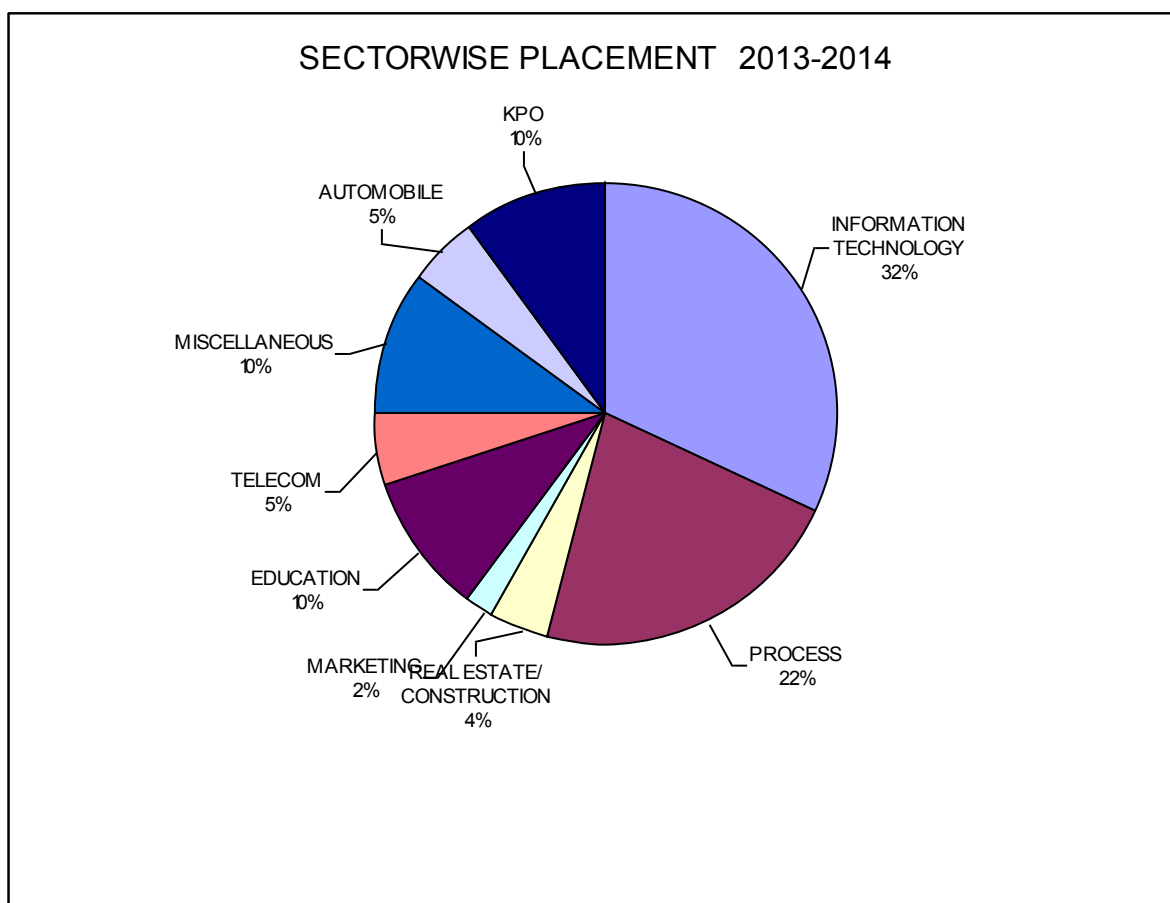
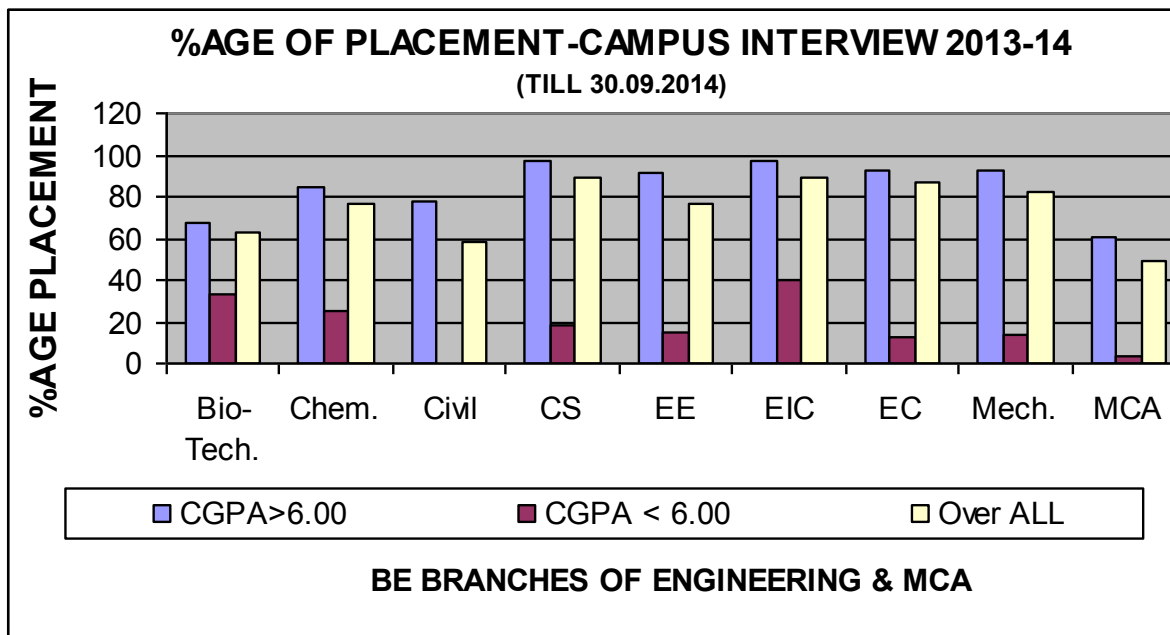
Apart from campus interviews 21 pre placement offers (PPO) were also received by the students. The organizations offering PPO are Edifecs Technologies (04), Freescale Semi Conductors (03), Jindal Steel Works (01), Informatica Business Solution (01), Aplopio Technologies (01), Microsoft (02), Oracle Corporation (03), ST Micro Electronics (01), and Samsung India Soft Engineering Lab (05).

Major organizations visited for campus interviews are:

1 Hikari Tshuin, Japan	17 Tata Consultancy Services
2 D.E.Shaw (I) Software	18 Aricent Technologies
3 Microsoft India	19 IBM India
4 Taxes Instruments	20 Wipro Technologies
5 Cadence Design Systems	21 L & T
6 Free Scale semiconductors	22 UOP
7 ST Microelectronics	23 Maruti Suzuki (I)Ltd.
8 Google India	24 Tata Motors
9 Oracle Corporation	25 Reliance Industries
10 Amazon India	26 Samsung Research India
11 Informatica Corporation	27 Havells India
12 Sandisk Corporation	28 Schneider Electric
13 Amadeus Software Labs	29 Hindustan Unilever Ltd.
14 ZS Associates	30 Whirlpool of India
15 Deloitte Consulting	31 Mondetez International Ltd.
16 Futures First Info Services	32 Crompton Greaves Ltd.

The Maximum CTC offered for the year 2013-14 is Rs. 23.00 lakhs per annum which is offered to 12 students from Hikari Tshuin, with posting in Tokyo (Japan).

Average CTC offered to B.E./B.Tech./MCA, M.E./M.Tech, and MBA students is Rs 5.06, 4.08, 4.32 lacs per annum respectively.



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.

2. Project Semester

Final year Civil Engineering & Chemical Engineering students were sent to Industry for the Project Semester (July-December, 2013). 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 & Bio-technology Engineering during January to June, 2014. 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, 2014. 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.

3. 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, 2014.

4. Visit to difference organizations

- (i) Sh. H. S. Bawa attended the meeting of Training & Placement Officers conveyed by Cognizant Solutions (CTS) from April 28, 2014 to April 30, 2014 called primarily for the exchange of idea regarding academic interaction of CTS with Institutions. CTS promised to visit TU for campus interviews.
- (ii) Sh. H. S. Bawa attended the Placement Officers meeting conveyed by Tata Consultancy Service (TCS) on 10-11 July, 2014 and exchanged the idea regarding an overview of the IT scenario and business initiatives. TCS promised to take ME/M.Tech students for their product division.

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 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 4000 live nodes (wired and wireless), is backboned by Optical Fiber connected with layer-3 and layer-2 switches, structured with CAT 5 and CAT6 cabling.

The CITM has four state-of-the-art computational labs and one server room. 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 10 Dell Power Edge servers and 166 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, Microsoft Edvantage Program and is also in agreement with Symantec for university wide antivirus facility.

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.

1. 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	System Analyst – cum- Programmer (Senior Scale)	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, 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

5.	Mr. Ajay Kumar Verma	Instructor/Sr. Technician	Technologies ITI, Instrumentation
6.	Mr. Ghana Nand	Jr. Assistant	10+2
7.	Mr. Abhijinder Singh	Network Technician	MCA, B.Sc (IT), 3yr diploma in computer engineering, Hardware, Networking
8.	Manoj Kumar	Computer Operator	ME CSE, M.C.A. VB.Net 2008, Ado.Net, Asp.net
9.	Mr. Jaswinder Singh	Electrician	10th
10.	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.	Laying /Cabling of TAN Building	-	TAN Building	05/08/2013	19,47,707/-
2.	LAN/WLAN Deployment of Hostel H	-	Hostel -H	05/08/2013	14,07,336/-
3.	LAN/WLAN Deployment of Hostel G	-	Hostel -G	26/7/2013	8,87,208/-
4.	Laying /Cabling of TAN Building	-	TAN Building	05/08/2013	8,86,970/-
5.	L-3 Core Switch (1)	Brocade	CITM Network Server Room	05/09/2013	24,10,275/-
6.	Licenses of Core Switch	-	CITM Network Server Room	05/09/2013	5,88,766/-
7.	Cyberoam Firewall	-	CITM Network Server Room	27/08/2013	29,84,110/-
8.	3 TB Hard Disk (1)	-	CITM Network Server Room	29/09/2013	10,075/-
9.	Multifunctional Printer 400 MFP-M425 (2)	HP	CITM Network Server Room/Head CITM	25/09/2013	89,764/-
10.	Laying /Cabling of Hostel G Cat 6 Patch cord (24)	-	Hostel G	10/10/2013 20/9/2013	55,496/-
11.	Laying /Cabling of TAN Building Cat 6 Patch cord (24)	-	TAN Building	10/10/2013 25/6/2013	201,299/- 3,276/-
12.	Laying /Cabling of Hostel - H Cat 6 Patch cord (24)	-	Hostel - H	10/10/2013 20/9/2013	1,75,456/- 6,143/-
13.	Conduit PVC 25 mm Hostel -C	-	Hostel -C	10/10/2013	2,52,000/-
14.	Networking equipments for Hostel - A	-	Hostel - A	18/11/2013	15,30,186/-

S. No.	Name of the equipment (Qty)	Make	Name of the laboratory	Date of Purchase	Amount (in Rs.)
15.	Networking equipments for Hostel – B	-	Hostel – B	18/11/2013	15,52,131/-
16.	Networking equipments for Hostel – C	-	Hostel - C	18/11/2013	13,03,386/-
17.	UPS 100 VA (04)	-	Hostel – J	05/12/2013	27,940/-
18.	Dell All in One 9010 Desktop PC	Dell	CITM MAIN	26/08/2013	11,87,235/-
19.	Laying of PVC pipe (1650) Hostel - A	-	Hostel – A	13/01/2014	36,995/-
20.	Laying of PVC pipe (1700) Hostel - B	-	Hostel – B	13/01/2014	86,321/-
21.	Laying of PVC pipe (1700) Hostel - C	-	Hostel – C	13/01/2014	2,97,046/-
22.	Cat 6 Cable Roll	-	Hostel – A Hostel – B Hostel – C	20/12/2013	5,355/- 5,355/- 10,710/-
23.	DTH Dish Set Top Box with 500 GB HDD	Air Tel	TAN Building	19/12/2013	14,490/-
24.	24 Port Switch ICX6450 (1) Access Point (02)	Brocade Ruckus	TAN Building	19/12/2013	1,82,990/-
25.	Computer Accessories (01)	-	CITM Network Server Room	30/12/2013	21,990/-
26.	HP Proliant ML 350P Storage Server (1)	HP	CITM Network Server Room	07/01/2014	5,79,990/-
27.	Networking equipments for Old Polytechnic	-	Old Polytechnic	10/02/2014	10,05,354/-
28.	Networking equipments for Campus Wide (TEQIP-II)	-	Campus Wide	19/12/2013	56,79,450/-
29.	Networking equipments for Campus Wide (TEQIP-II)	-	Campus Wide	28/10/2013	3,70,788/-
30.	Dell Inspiron i7 Laptop	Dell	CITM Network Server Room	27/03/2014	59,990/-
31.	Power supply for Extreme core Switch	-	CITM Network Server Room	28/05/2014	1,02,900/-
32.	Networking equipments for Hostel - PG	-	Hostel – PG	31/03/2014	18,10,641/-

3. Computing facilities in the CITM

S. No.	Details of the Hardware/Software	Name of the Laboratory
	Hardware	
1.	Dell Servers – 10 HP SAN P4300 - 01	Server Room

	HP Proliant ML 350P Storage Server- 01	
	Dell Optiplex 330 P-IV – 02	
	Dell Optiplex 360 P-IV – 01	
2.	Dell Optiplex 380 P-IV – 38	CITM -MX-I
	Dell Optiplex 360 P-IV – 01	
	Sun Ray 170 – 08	
3.	Dell Optiplex 330 P-IV – 14	CITM -MX-II
	Dell Optiplex 360 P-IV – 09	
	Dell Optiplex 380 P-IV – 04	
4.	Dell Optiplex 160nL P-IV - 27	CITM –MAIN
	IBM Lenovo P-IV – 06	
	Dell Optiplex 9010 – 29	
	Dell Optiplex 380 P-IV – 05	
5.	Laptop DELL D-520 – 01	Used Across all Labs
	Laptop DELL Latitude-E 5410 - 03	
6.	Lipi T6100 Line Printer – 01	
	HP Laser Jet Printer – 06	
7.	DLP Data Projector XR – 1x - 01	
	DLP Projector 4210X – 01	
8.	Wireless Access Point	
9.	KVM Switch - 01	Server Lab
10.	Central Storage- 01	Server Lab
11.	Server Rack -03	Server Lab
12.	PM3213 20Mhz Dual Trace Analog Oscilloscope	CITM Instrument and
13.	Soldering & Disordering Station	PC Repair Lab
14.	Multi output Power Supply	
15.	1.1Ghz Universal Frequency Counter	
16.	Function Generator	
17.	Digital storage Oscilloscope	
18.	Frequency counter	
19.	Pulse Generator	
20.	Digital Multimeters	
21.	Multimeter 8X MK3 with 25Kv Probe	
22.	LCR-Meter	
23.	Digital Earth Tester	
24.	SMT rework station	

Softwares

System Software

Win Svr Ent 2008 - 01

MS-Windows 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
Adobe Acrobat Professional 9.00AE – 05
Web Publishing Tools
Matlab
Crystal Reports 9.0
Staler 4.0

Application Software

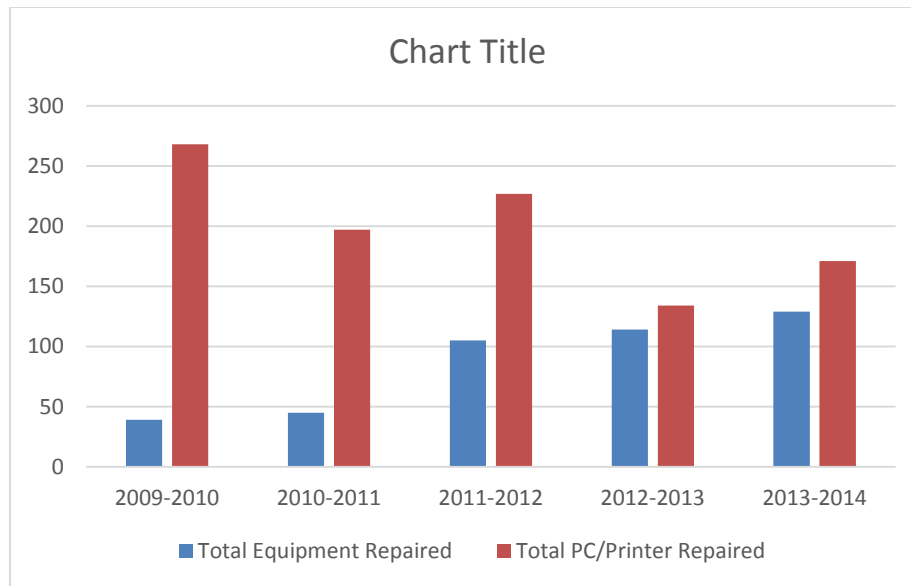
SQL Svr Ent 2008
Oracle 10g
Oracle 9.i (30 User)
MS Visual Studio 2010
MS Visual Studio 2008
MS Visual Studio 6.0
MS Office 2007
MS Office 2000 Professional
MS Office 4.3
Nash Pack 3.0
VC++ 2.0
VB 4.0
MS Project 4.0
Neural Connection
SPSS 20.0

Academia Alliances

Microsoft Edvantage 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.





CENTRE OF RELEVANCE AND EXCELLENCE IN AGRO & INDUSTRIAL BIOTECHNOLOGY (TIFAC-CORE)

Visit of Punjab Cabinet Minister Shri Chunni Lal Bhagat, Department of Forests & Wildlife Conservation to TIFAC- Centre of Relevance & Excellence (CORE) in Agro & Industrial Biotechnology, Thapar University.



Punjab Cabinet Minister Shri Chuni Lal Bhagat, Department of Forests and Wildlife Conservation, Govt. of Punjab visited TIFAC-CORE in Agro and Industrial Biotechnology, Thapar University, on 24th January 2014. He was accompanied by his technical adviser Shri Birinderjit Singh, , team of officials viz. Principal Chief Conservator of Forests (PCCF) Mr. R. K. Luna, CCF (South) Shri Dharminder Sharma, Patiala DFO Shri S.K. Sagar, Shri SS Bhatti, IFS, and Divisional Forest Conservators (DFO)'s of adjoining districts of Patiala.

The Coordinator CORE, Dr. Sanjai Saxena briefed the Minister and his team on the mandate and activities being undertaken at CORE. His presentation was substantiated by presentations of Dr. Manju Anand, Dr. Anil Kumar and Dr. Dinesh Goyal (Head, DBT) who briefly explained their expertise and research focus which could be explored by the Department of Forests and Wildlife Conservation. The Meeting was duly chaired by Professor Prakash Gopalan, Director (TU); and Prof. K.K. Raina, Deputy Director (TU); Dr. D.K. Patnaik, Registrar , Dr. R.S. Kaler, DoRPG were also present in the meeting.

The outcome of meeting was the statement of the minister to collaborate with TIFAC-CORE at Thapar University in state level programs as evident through the media reports published in the local as well as national dailies. To this context 4 research projects and *one state level project* has been developed and are being proposed for possible funding from the Department of Forests and

Wildlife Preservation.

The Punjab Green Mission is a program started by the Central Govt. to enhance the forest cover from 7% to 15% in the state. Greening Punjab Mission and crop diversification plan, Punjab Government would decrease the area under cultivation for traditional crops like Paddy and Wheat and the Forest Department

will play a key role in this initiative. Under this program the Forest department would provide the free saplings of clonal Eucalyptus and Poplar to the farmers and in the water logged

area of Punjab viz. districts Sri Muktsar Sahib, Bathinda, Faridkot and Fazilka to eliminate water logging.

We have proposed the Minister/ State Ministry of Forests and Wildlife preservation to participate in Punjab Green mission by providing our clones of Eucalyptus (T1- ITC), Poplar (G-48) which have high timber value at competitive prices and assured returns to the farmers. The minister visited polyhouse facilities in the TIFAC-CORE, Thapar University and saw the plants which were clonally produced through tissue culture as well as through cuttings. The minister also saw the different medicinal plants like *Aloe vera*, *Bacopa monneri* (Brahmi), Safed musli being propagated through tissue culture technique. He was also interested in Tissue culture of Willow plants, which is a major requirement of Punjab Sports Industry. The meeting ended with remarks of Prof. Dr. Prakash Gopalan, Director, TU, who also thanked the minister to take out time from his busy schedule to visit TIFAC-CORE, TU. He presented a memento to the Minister Shri Chunni Lal Bhagat and to Shri R.K. Luna, PCCF. This was followed by a lunch courtesy TIFAC-CORE, Thapar University in the COS building.

Summer training course on MODERN BIOTECHNOLOGY was held from 09 June 2014-15th July 2014.

A Summer Training Program in Modern Biotechnology was organized by TIFAC- CORE in Agro and Industrial Biotechnology from June 09, 2014 - July 15, 2014. The course was oriented 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. There were two modules in the course viz. (a) Fermentation Technology and Plant tissue Culture (b) Molecular Medicine, Computational Biology & Drug Discovery.

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. There were fourteen (14) participants in the program having qualifications from B.Tech to Ph.D.

The internal faculty which coordinated the different modules of the course were Er. Anoop Kumar (Fermentation Technology), Dr. Mrs. Manju Anand (Plant tissue culture), Dr. Vikas Handa (Computational Biology), Dr. Siddharth Sharma (Molecular Medicine) and Dr. Sanjai Saxena (Drug Discovery). There were two expert lectures also from Dr. U.C. Banerjee, Prof. & Head, Pharmaceutical Technology, National Institute of Pharmaceutical Research and Education (NIPER), Mohali and Dr. D.K. Sahoo, Senior Scientist, Institute of Microbial Technology (IMTECH), Chandigarh.

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 106069 collection with 79652 books (reference books, course materials, text books), 2474 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 11,220 e-journals and 102 print journals. E-journals are received under UGC-Infonet program, INDEST consortium and directly from supplier/publishers. Budget for books and journals for the financial year was Rs.70 lakh on print and e-journals and Rs.50 lakh on purchase of books.

Library remains open 24X7 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 200 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 586 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 8225 volumes of books were added to the collection. During the financial year 2013-14 Rs 31 lakh was spent on the purchase of books and Rs.70 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 34226 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
3	Dell PoweEdge T4P Sever	1
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)	1 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 storage	1
17	Dell Optiplex Computer Systems	10
18	Dell Vostro 430 Minitower Intel Core i5	7
19	Dell Optilex 7010	5
20	DSLR Camera	1
21	HP Flatbed Scanner	1
22	LCD Projector	1
23	HP Deskjet Printer	1

SCIENCE AND TECHNOLOGY ENTREPRENEURS' PARK (STEP)

STEP at Thapar University is providing handholding services through commercialization. Science and Technology Entrepreneurs' Park (STEP) at Thapar University in Patiala is providing handholding services through commercialization and transfer of technology. A number of small entrepreneurs in Punjab have begun working at the grassroots level to reduce their carbon footprint and ensure sustainable development. Focusing on agri-biotechnology, bio-fertilisers, bio-pesticides, mushroom cultivation, plant tissue culture, food processing technology, soy processing and spirulina production technology, STEP has successfully incubated 25 companies, of which 10 have started their own ventures, thereby providing employment to more than 100 people.

After attending a mentorship programme at STEP, Sandeep Garg, 48, a sub-divisional officer with Punjab's public health department, resigned his government job and set up Ecolabs - a solid waste-management company - in Mohali. In collaboration with STEP, a strain of bacteria to recycle organic waste into bio-compost has been developed, its commercial launch and use by municipal corporations on a larger scale is the next step.

Rajiv Aneja, 32, did his doctorate at Thapar University and went to the US in 2009 for three years on a Bridge and Edge grant from the US government to study business management in the life sciences. Rajiv Aneja's journey has been similar to that of Garg. He gave up the option of working in the United States and set up a venture called ABCA Biosolutions, headquartered at Chandigarh, to work in the field of algal biodiesel. The cultivation of algae as a substitute for corn and jatropha bio-diesel is very eco-friendly and cost-effective. This would save on land requirement, cost of irrigation and ensure a higher income for farmers.

Satnam Singh, 45, a small progressive farmer of Samana Mandi has installed a low fat-high protein soya milk and cheese plant with a capacity of 2,200 milk packets and 800 paneer packets per day. The by-products of soya processing are also consumable. The liquid residue of cheese is used in making jal-jeera, a beverage, and the solid residue is used as fodder for animals. So the project has a low carbon footprint. The support of scientists at STEP helped Singh to diversify from wheat and paddy cultivation, and he now sells his soya products under the brand name 'Anmol Soy' in Punjab and Chandigarh.

STEP has conducted 74 entrepreneurship development programmes and 16 farmers' meets since its inception, in the process providing hands-on training to hundreds of people, including students of various reputed institutes, teachers, researchers, farmers, NGOs, and entrepreneurs. After exiting STEP, they remain available for consultancy and other services. The core facilities that STEP provides the SMEs are business incubation, entrepreneurship education, consultancy, training and mentoring.

National Conference on Innovation and Entrepreneurship held on October 31, 2013 sponsored by TEQIP-II

One day National Conference on Innovation and Entrepreneurship was organised on October 31, 2013 at Thapar University. The event was sponsored by TEQIP-II. Nearly 200 students and faculty took part in this event and there were six invited speakers. Dr SK Mohapatra, Dean Academic Affairs and Coordinator TEQIP lamented that what has been done in the area of biotech business development; the same must be replicated in other disciplines using the

model developed at STEP. Even if we churn out 2% entrepreneurs from the academic system it will be a great achievement.

9th summer training programme in Industrial Biotechnology

Six week 9th summer training programme in Industrial Biotechnology was organised from June 02, 2014 onwards in which 10 students from outside university participated. The programme was coordinated by Dr Siddhartha Sharma and Dr Dinesh Goyal of Department of Biotechnology.

Current Incubates at STEP

Sr. No.	Company	Person	Area
1	Anvaya Biosciences, Patiala	Vivek Sharma	Bioinformatics
2	ABCA Biosolutions, Chandigarh	Rajiv Aneja	Algal biofuel technology
3.	Eco Paryavaran Engineers & Consultants Pvt. Ltd., Mohali	Mr. Sandeep Garg	Solid Waste Recycling
4.	Soil Biocare Technologies, Patiala	Pawan Kumar	Production and sale of neem enriched biocompost, biofertilizers
5	Simar Biotech, Patiala	Balvir Singh	Beverages and vinegar





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 Distinguished Scientist & Chief Controller R&D, DRDO and CEO & Managing Director BrohMos Aerospace 16, Cariappa Marg, Kirby Place, Delhi Cantt., New Delhi – 110 010. Dr. M.K. Surappa Director Indian Institute of Technology Ropar

Sr. No.	CONSTITUENCY	NAME & ADDRESS
		Nangal Road, Rupnagar – 140 001.
		Shri Pawan Agarwal, IAS Adviser (Higher Education), Planning Commission, Government of India R. 261, Yojana Bhawan Sansad Marg, New Delhi – 110 001.
(vi)	Two persons with industry background to be nominated by the President;	Shri Vinayak Chatterjee Chairman cum Managing Director Feedback Infra 15 th Floor, Tower 9B, DLF Cyber City, Phase-III, Gurgaon – 122 002.
		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 Rajive Gulati Regional Officer All India Council for Technical Education North Western Regional Office Office of Directorate of Technical Education, Punjab Plot 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 Rakesh Kumar Verma, IAS Principal Secretary to Govt. Punjab Department of Technical Education & Industrial Training, Punjab Mini Secretariat, Sector – 9 Chandigarh – 160 009
(xi)	The Secretary, Department of Finance, Punjab Govt. ex-officio or his nominee not below the rank of	Ms. Vini Mahajan, IAS Principal Secretary to Govt. Punjab Department of Finance Room No. 14, 8 th Floor,

Sr. No.	CONSTITUENCY	NAME & ADDRESS
	Deputy Secretary, Finance, Pb. Govt.	Punjab Civil Secretariat (Main) 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 (1.6.2014 to 31.12.2015)	Dr. Prem Pal Bansal Assistant Professor Department of Civil 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 Invitee	Dr. Padmakumar Nair Director, LMTSOM
		Shri Chiranjiv Singh OSD

Annexure-I(b)**PLANNING & MONITORING BOARD (1.1.2012 to 31.12.2014)**

Sr. No	CONSTITUENCY	NAME & ADDRESS
1.	Director, Thapar University (Ex-Officio) – Chairman	Dr. Prakash Gopalan
2.	Director, LMTSOM (Derabassi Off campus)	Dr. Padmakumar Nair
3.	Deputy Director (Ex-Officio)	---
4.	Deans (Ex-Officio)	
	(a) Dean, Academic Affairs	Dr. S.K. Mohapatra
	(b) Dean, Faculty Affairs	Dr. Rafat Siddique
	(c) Dean, Resource Planning & Generation	Dr. R.S. Kaler
	(d) Dean, Student Affairs	Dr. (Mrs.) Seema Bawa
	(e) Dean, Research & Sponsored Projects	Dr. P.K. Bajpai
5.	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. Ajay Batish

Sr. No	CONSTITUENCY	NAME & ADDRESS
	(h) LMT School of Management	Dr. Kalyan Kumar De
	(i) School of Chemistry & Biochemistry	Dr. Bonamali Pal
	(j) School of Behavioural Science & Business Studies	Dr. (Mrs.) Santha Kumari
	(k) School of Mathematics & Computer Applications	Dr. Rajesh Kumar
	(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. R.K. Sharma
	(o) Centre of Relevance & Excellence (CORE)	Dr. Sanjai Saxena Coordinator
	(p) Centre of Continuing Education	--
	(q) Science & Technology Entrepreneurship Park (STEP)	Dr. Dinesh Goyal, Officiating Executive Director
	(r) Central Library	Dr. Susheel Mittal Officiating Head
6.	Head, Placement & Coordination (Ex-Officio)	Shri H.S. Bawa
7.	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.
8.	Four outside experts to be nominated by the Chairman, Board of Governors	Mr. Rajendra Kumar Mangal Dy. Financial Controller Avantha Holdings Ltd. Thapar House, 124, Janpath, New Delhi – 110 001.

Sr. No	CONSTITUENCY	NAME & ADDRESS
		Mr. Rakesh Kad House No. 13, Yadvindra Colony The Mall, PATIALA.
		Mr. Anup Kansal Chief Operating Officer (COO) Ballarpur Industries Limited First India Place, Tower-C Mehrauli Gurgaon Road GURGAON – 122 002.
		Dr. Arvinder Singh Chawla Dean, Academic Affairs Punjabi University, PATIALA.
9.	Three persons nominated by the Director from amongst the University Staff for their special knowledge.	Dr. Prem Pal Bansal Assistant Professor Department of Civil Engineering Dr. V.P. Singh Associate Professor Department of Computer Science & Engineering Dr. Sanjay Jain Associate Professor Department of Electrical & Instrumentation Engineering
10.	Assistant Engineer (Ex-officio)	Shri Sanjeev Soni DGM
11.	Permanent Invitee	Shri R.K. Nigam
11.	Special Invitee	Shri Chiranjiv Singh OSD
12.	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	Dr. Prakash Gopalan
2.	Director, LMTSOM	Dr. Padmakumar Nair
3.	Deputy Director, if any (ex-officio)	---
4.	Deans (Ex-Officio)	
	(a) Dean, Academic Affairs	Dr. S.K. Mohapatra
	(b) Dean, Faculty Affairs	Dr. Rafat Siddique
	(c) Dean, Resource Planning & Generation	Dr. R.S. Kaler
	(d) Dean, Student Affairs	Dr. (Mrs.) Seema Bawa
	(e) Dean, Research & Sponsored Projects	Dr. P.K. Bajpai
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
	(e) Department of Electronics & Communication Engineering	Dr. Sanjay K. Sharma

S. No.	CONSTITUENCY	NAME & ADDRESS
(f)	Department of Electrical & Instrumentation Engineering	Dr. Ravinder Aggarwal
(g)	Department of Mechanical Engineering	Dr. Ajay Batish
(h)	LMT School of Management	Dr. Kalyan Kumar De
(i)	School of Chemistry & Biochemistry	Dr. Bonamali Pal
(j)	School of Behavioural Science & Business Studies	Dr. (Mrs.) Santha Kumari
(k)	School of Mathematics & Computer Applications	Dr. Rajesh Kumar
(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. R.K. Sharma
(o)	Centre of Relevance & Excellence (CORE)	Dr. Sanjai Saxena Coordinator
(p)	Centre of Continuing Education	--
(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 of Departments, Schools	Dr. N.K. Verma Senior Professor School of Physics & Material Science

S. No.	CONSTITUENCY	NAME & ADDRESS
		Dr. O.P. Pandey Senior Professor School of Physics & Material Science
		Dr. A.K. Chatterjee Professor Department of Electronics & Communication Engineering
		Dr. M.S. Reddy Professor Department of Biotechnology
		Dr. (Mrs.) Ravi Kiran Professor School of Behavioural Science & Business Studies
		Dr. Smarajit Ghosh Professor Department of Electrical & Instrumentation Engineering
		Dr. Maneek Kumar Professor Department of Civil Engineering
		Dr. S.S. Bhatia Professor School of Mathematics & Computer Applications
		Dr. Rajesh Khanna Professor Department of Electronics & Communication Engineering
		Dr. N. Tejo Parkash Professor School of Energy & Environment
		Dr. Niranjana Dass Professor Department of Biotechnology
		Dr. Rajeev Mehta Professor Department of Chemical Engineering

S. No.	CONSTITUENCY	NAME & ADDRESS
		Shri Kulvir Singh Professor School of Physics & Material Science
	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
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
9.	Three Assistant Professors from the Departments / Schools by rotation in order of seniority nominated by the Director;	---- Shri Sanjiv Ahuja Assistant Professor Department of Chemical Engineering Mrs. Neena Garg Assistant Professor Department of Civil Engineering

S. No.	CONSTITUENCY	NAME & ADDRESS
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>
14.	Three persons who are not members of the teaching staff coopted by the Senate for their specialized knowledge.	<p>Dr. A.S. Chawla Dean, Academic Affairs, Punjabi University, Patiala</p> <p>Shri Gurbinder Singh Deputy Registrar (Academics)</p> <p>Shri Pankaj Sinha Finance Officer</p>
15.	Director, National Institute of Technical Teachers' Training & Research, Chandigarh (ex-officio)	<p>Dr. M.P. Poonia Director National Institute of Technical Teachers' Training & Research Sector 26, Chandigarh – 160 019.</p>

S. No.	CONSTITUENCY	NAME & ADDRESS
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. 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 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. Prem Pal Bansal Assistant Professor Department of Civil 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.	CONSTITUENCY	NAME & ADDRESS
(i)	Director – Chairman (Ex-Officio)	Prof. Prakash Gopalan Director
(ii)	Director, LMTSOM	Dr. Padmakumar Nair
(ii)	Deputy Director, (Ex-Officio)	--
(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 three years	Mr. Rajendra Kumar Mangal Dy. Financial Controller Avantha Holdings Ltd. Thapar House, 124, Janpath New Delhi – 110 001.
(vii)	Assistant Engineer	Shri Sanjeev Soni Assistant Engineer
(viii)	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

S. No.	CONSTITUENCY	NAME & ADDRESS
(ix)	Permanent Invitee	Shri R.K. Nigam
(x)	Special Invitee	Shri Chiranjiv Singh OSD
(xi)	Registrar, Ex-officio (Secretary)	Shri Gurbinder Singh

Annexure-II**ACADEMIC CALENDAR 2013-2014**

FIRST SEMESTER		
-	Registration* (OTHER THAN FIRST YEAR STUDENTS)	22.07.2013 – 26.07.2013
-	Commencement of Classes	22.07.2013 at 13:00 Hours
-	Late Registration (With late registration fee)	29.7.2013 to 12.08.2013 (with late registration fee of Rs 1000/-)
-	Teaching (45 days)	22.07.2013 to 20.09.2013
-	Mid-Semester Test	23.09.2013 to 28.09.2013
-	Teaching (25 days)	30.09.2013 to 01.11.2013
-	Mid Semester Break	02.11.2013 to 10.11.2013
-	Teaching (20 days)	11.11.2013 to 29.11.2013
-	End Semester Examination	02.12.2013 to 14.12.2013
-	Winter Break (22 days)	15.12.2013 to 05.01.2014
SECOND SEMESTER		
-	Registration*	06.01.2014 – 10.01.2014
-	Commencement of Classes	06.01.2014 at 13:00 Hours
-	Late Registration (with late registration fee)	13.01.2014 to 27.01.2014 (with late registration fee of Rs1000/-)
-	Teaching (45 days)	06.01.2014 to 07.03.2014
-	Mid-Semester Test	10.03.2014 to 15.03.2014
-	Teaching (45 days)	17.03.2014 to 16.05.2014
-	End Semester Examination	19.05.2014 to 31.05.2014
-	Summer Break (50 days)	01.06.2014 to 20.07.2014
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	

* **‘Registration’** shall be treated as completed, provided:

- He/she has deposited the semester fee within the prescribed period for each semester.
- He/she has to secure a ‘fee slip’ from the accounts section to confirm registration within that prescribed period. Kindly bring the proof of deposit of fee to the accounts section to get the fee slip.

In case a student fails in either of the above within the prescribed time, he/she will be deemed as ‘not registered’ and can be registered only by paying ‘late registration fee of Rs 1000/- till the last dates of registration mentioned above. There shall be no registration after the elapse of period mentioned for ‘late registration’ above.

Annexure – III**STATEMENT OF DEGREES TO BE AWARDED (as on 10.11.2014)**

S. No.	Programme/Displine	No. of degrees awarded
1	PhD	60
2	Mtech	117
3	ME	304
4	Post Graduate Diploma	2
5	Master of Computer Applications (MCA)	177
6	MSc (Biotechnology)	20
7	MSc (Microbiology)	12
8	MSc (Chemistry)	13
9	MSc (Mathematics & Computing)	15
10	MSc (Physics)	11
11	MBA	48
12	Industrial Engineering (BE[IE]MBA)	30
13	BE/Btech	807
14	Btech Distance	8
15	MCA Distance	2
	Total	1626

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 28th Convocation to be held in November 2014:

S. 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	101006090	RUPALI KAUL	INDER KRISHEN KAUL	ANJALI KAUL	9.94	JUNE 2014
S. RANBIR SINGH MEMORIAL MEDAL						
1	101001049	NIRWAIR SINGH BAJWA	AMRIK SINGH BAJWA	PARAMJIT KAUR	9.83	JUNE 2014
PROF. V. RAJARAMAN COMPUTER SCIENCE/ENGINEERING AWARD						
1	101053012	SAKSHAM PAPREJA	RAMESH PAPREJA	RAJ PAPREJA	9.84	JULY 2014
S. RAM S. SIDHU MEMORIAL MEDAL						
1	101004046	NAVPREET SINGH	DAYA SINGH	SARABJEET KAUR	9.71	JULY 2014
UNIVERSITY MEDAL						
BACHELOR OF TECHNOLOGY						
BIOTECHNOLOGY						
1	701000035	SUKHMANPREET KAUR	SUKHMANDER SINGH	MANINDER KAUR	9.40	JUNE 2014
BACHELOR OF ENGINEERING						
CHEMICAL ENGINEERING						
1	101001049	NIRWAIR SINGH BAJWA	AMRIK SINGH BAJWA	PARAMJIT KAUR	9.83	JUNE 2014
CIVIL ENGINEERING						
1	101002028	HEMANT MAHAJAN	SURINDER MAHAJAN	SUNITA MAHAJAN	9.80	JUNE 2014
COMPUTER ENGINEERING						
1	101053012	SAKSHAM PAPREJA	RAMESH PAPREJA	RAJ PAPREJA	9.84	JULY 2014
ELECTRICAL ENGINEERING						
1	101004046	NAVPREET SINGH	DAYA SINGH	SARABJEET KAUR	9.71	JULY 2014
ELECTRONICS (INSTRUMENTATION & CONTROL) ENGINEERING						
1	101055001	ANKITA JOSHI	RAKESH JOSHI	NEERU JOSHI	9.89	JULY 2014
ELECTRONICS & COMMUNICATION ENGINEERING						
1	101006090	RUPALI KAUL	INDER KRISHEN KAUL	ANJALI KAUL	9.94	JUNE 2014
MECHANICAL ENGINEERING						
1	101058015	ROMIT SHARMA	NARESH SHARMA	RAMA SHARMA	9.79	JUNE 2014
B.E.(IE)-MBA						
1.	400907001	ABHISHEK PURI	LALIT PURI	ARCHNA PURI	9.50	JUNE 2014
MASTER OF COMPUTER APPLICATIONS (M.C.A.)						
1	201100121	VIRJIT KAUR	SUKHVEER SINGH	GURPREET	10.00	JUNE,

				KAUR		2014
MASTER OF SCIENCE BIOTECHNOLOGY						
1	301201004	GURVINDER KAUR	BALWINDER SINGH	PARVINDER KAUR	9.34	SEPTEMBER 2014
CHEMISTRY						
1	301202003	AVNEET KAUR	BALWINDER SINGH	PRITPAL KAUR	10.00	SEPTEMBER 2014
MATHEMATICS & COMPUTING						
1	301203003	DILPREET KAUR BHATIA	TAVINDER PAL SINGH BHATIA	HARJIT KAUR BHATIA	9.92	SEPTEMBER 2014
PHYSICS						
1	301204003	GURJIT KAUR	GURMAIL SINGH	SURINDER KAUR	9.68	SEPTEMBER 2014
MICROBIOLOGY						
1.	301205001	AMRITA BAINS	B.S. BAINS	TEJINDER KAUR BAINS	9.50	SEPTEMBER 2014
MASTER OF TECHNOLOGY						
ENVIRONMENTAL SCIENCE & TECHNOLOGY						
1	601201006	DIVYA DIXIT	RAKESH SHARMA	LALTESH SHARMA	9.75	SEPTEMBER 2014
BIOTECHNOLOGY						
1	601204015	MANPREET KOUR	KARNAIL SINGH	JASWINDER KAUR	9.60	SEPTEMBER 2014
METALLURGICAL & MATERIALS ENGINEERING						
1	601202008	MAHESH KUMAR SINGH	DEVI PRASAD SINGH	BRIJBALA DEVI	10.00	AUGUST 2014
VLSI DESIGN						
1	601261005	AMANDEEP KAUR	SANTOKH SINGH	NACHHATAR KAUR	9.71	AUGUST 2014
CHEMICAL ENGINEERING						
NO STUDENT ELIGIBLE BEING STUDENTS LESS THAN FIVE						
COMPUTER APPLICATIONS						
1	601203007	CHIRAG GARG	ASHOK KUMAR GARG	NIRMAL GUPTA	10.00	OCTOBER 2014
MASTER OF ENGINEERING						
STRUCTURAL ENGINEERING						
1	801222021	VINAYAK KASHYAP	SITA RAM KASHYAP	DAMYANTI	9.33	NOVEMBER 2014
CIVIL INFRASTRUCTURE ENGINEERING						
1	801223006	KARTIK JINDAL	SITTAL DEV JINDAL	SANTOSH JINDAL	8.66	NOVEMBER 2014
SOFTWARE ENGINEERING						
1	801231031	VIPIN VERMA	RISHI PAUL	RAJESH	9.93	SEPTEMBER 2014
COMPUTER SCIENCE & ENGINEERING						
1	801232003	ANIKA	ALOK KUMAR GUPTA	GEETA GUPTA	9.87	SEPTEMBER 2014
INFORMATION SECURITY						
1	801233003	BALJIT KAUR	KARAMJIT SINGH	KAMALJIT KAUR	9.24/1139.1	SEPTEMBER 2014
WIRELESS COMMUNICATIONS						
1	801263022	PRIYANKA GROVER	RAJ KUMAR GROVER	ARUNA GROVER	10.00	AUGUST 2014

ELECTRONICS & COMMUNICATION ENGINEERING						
1	801261026	TAZEEN	PARVEZ SULTAN	FIROZ ANJUM	9.86	AUGUST 2014
POWER SYSTEMS						
1	801241026	YASHASVI	S.K. BANSAL	ABHA BANSAL	9.75	SEPTEMBER 2014
ELECTRONIC INSTRUMENTATION & CONTROL ENGINEERING						
1	801251022	SMITI SACHDEVA	KANWALJIT SACHDEVA	ANITA SACHDEVA	10.00	AUGUST 2014
CAD/CAM ENGINEERING						
1	801281022	VISHALDEEP SINGH	JASPAL SINGH SAINI	HARSHARAN JIT KAUR	9.87	AUGUST 2014
PRODUCTION ENGINEERING						
1	801282013	MAYANK MITTAL	RAM LAL MITTAL	USHA RANI	9.50	SEPTEMBER 2014
THERMAL ENGINEERING						
1	801283016	MANPREET SINGH	MANJIT SINGH	BINDER KAUR	9.75	SEPTEMBER 2014

Annexure-V**DEPARTMENT/SCHOOL WISE DETAILS OF PH.D STUDENTS (AS ON 30.06.2014)**

Sr. No.	Deptt./ School	No. of students on roll
1	Biotechnology & Environmental Sciences	57
2	Chemical Engineering	13
3	Civil Engineering	29
4	Computer Science & Engineering	87
5	Electronics & Communicatoin Engineering	72
6	Electrical & Instrumentation Engineering	51
7	LMTSOM	29
8	Mechanical Engineering	47
9	Behavioral Sciences & Business Studies	22
10	Chemistry & Bio-Chemistry	36
11	Mathematics & Comp. Applications	61
12	Physics & Material Sciences	57
13	School of Energy and Environment	03
Total		564

List of students who have successfully completed the requirements for the award of degree of doctor of philosophy between 01.07.2013 to 30.10.2014

S. No.	Regn no.	Name	Depart ment	Title of ph.d candidate	Viva-voice held on
1	90706503	Neeru Jindal	ECED	PERFORMANCE OF FRACTIONAL TRANSFORMS IN IMAGE AND VIDEO PROCESSING	26/12/2013
2	900809006	Jasminder Singh	SCBC	MICROBIAL BIOSENSORS FOR SOME HEAVY METAL IONS	21/01/2014
3	90709003	Vishal	SCBC	DEVELOPMENT OF HETEROGENEOUS CATALYSTS FOR FORMATION OF BIODIESEL	27/01/2014
4	900912015	Manpreet Kaur	SPMS	DECAY OF HOT AND ROTATING NUCLEI FORMED IN HEAVY ION REACTIONS AT LOW ENERGIES	24/01/2014
5	900912016	Gurmeet Singh	SPMS	MULTIFERROISM IN MULTIFUNCTIONAL RARE EARTH METALS-DOPED BiFeO ₃ NANOSTRUCTURES	24/02/2014
6	900800012	Rajender Singh	BT	STUDIES ON DECOLOURISATION OF SYNTHETIC DYES USING SPENT MUSHROOM SUBSTRATES	29/01/2014

7	900900004	Mopsy Dhiman	BT	INVESTIGATIONS ON SENSORIAL PROPERTIES OF INDIAN BLACK TEAS USING IMPEDANCE BASED TECHNIQUES	19/02/2014
8	950906018	Mayank Kumar Rai	ECED	CROSS TALK ANALYSIS IN CARBON NANOTUBE BASED VLSI INTERCONNECTS	08/03/2014
9	900909006	Komal Matharu	SCBC	DETERMINATION OF LANTHANIDES BY CONDUCTOMETRY USING SOME SEQUESTERING AGENTS	08/03/2014
10	950912007	Tarlochan Singh Mahajan	SPMS	EFFECT OF ELECTRIC AND MAGNETIC FIELD ON SEED GERMINATION	07/03/2014
11	900900012	Navdeep Kaur Dhami	BT	CALCIFYING BACTERIA MEDIATED CEMENTATION FOR IMPROVEMENT OF BUILDING MATERIALS	12/03/2014
12	950906014	Sanjay Kumar	ECED	ANALYSIS AND DESIGN OF NON RECURSIVE DIGITAL DIFFERENTIATORS IN FRACTIONAL DOMAIN FOR SIGNAL PROCESSING APPLICATIONS	22/03/2014
13	90703506	Tulika	CSED	DEVELOPING EVENT BASED MIDDLEWARE FOR INFORMATION DISSEMINATION IN VEHICULAR AD-HOC NETWORKS	25/03/2014
14	901112002	Ranvir Singh Panwar	SPMS	STUDY OF WEAR BEHAVIOR OF ZIRCON SAND REINFORCED ALUMINIUM MATRIX COMPOSITES	15/04/2014
15	90704501	Mandeep Singh	EIED	PROCESSING AND ANALYSIS OF ULTRASOUND IMAGES FOR TISSUE CHARACTERIZATION	22/04/2014
16	90709502	Pawan Kumar	SCBC	CHEMICAL SENSORS BASED ON PYRIDYL IONOPHORES FOR SELECTIVE DETERMINATION OF SOME TRANSITION METAL IONS	23/04/2014
17	900900001	Gurdeep Kaur	BT	STUDIES ON MICROBIAL PHOSPHATE SOLUBILIZATION AND DEVELOPMENT OF INOCULUM FORMULATIONS	25/04/2014
18	950911007	Manoj Kumar	SMCA	MULTI - OBJECTIVE OPTIMIZATION OF SOFTWARE TEST CASES USING EVOLUTIONARY AND SOFT COMPUTING TECHNIQUES	03/05/2014

19	950809004	SUJATA	SCBC	SYNTHESIS AND CHARACTERIZATION OF PANI / PEANI CONDUCTING POLYMERS - Au/Ag NANOPARTICLE COMPOSITES	28/04/2014
20	900903005	Gaurav Sharma	CSED	DESIGN AND DEVELOPMENT OF AN EFFICIENT CRYPTOGRAPHIC ALGORITHM FOR WIRELESS SENSOR NETWORKS	12/05/2014
21	950808009	Sarabjeet Singh	MED	STUDY OF SURFACE PROPERTIES AND RESIDUAL STRESSES OF ALUMINIUM MATRIX COMPOSITES AFTER ELECTRIC DISCHARGE MACHINING	23/05/2014
22	90610501	Gurvinder Kaur	SBSBS	EMPLOYEE EMPOWERMENT AND ORGANIZATIONAL EFFECTIVENESS: A COMPARATIVE STUDY OF PUBLIC, PRIVATE AND FOREIGN BANKS IN SOME NORTH INDIAN STATES	21/05/2014
23	900912025	Lavanya Khanna	SPMS	STUDY ON FUNCTIONALIZATION AND CYTOTOXICITY OF CALCIUM AND POTASSIUM FERRITE NANOPARTICLES	16/06/214
24	90709004	Madhu Katiyar	SCBC	LIPASE CATALYZED TRANSESTERIFICATION REACTIONS OF TRIGLYCERIDES	18/06/2014
25	900906001	Vishav Jyoti	ECED	SECURITY ENHANCEMENT IN OPTICAL CODE DIVISION MULTIPLE ACCESS NETWORK	30/06/2014
26	950906010	Rajeev Ratan	ECED	DESIGN AND IMPLEMENTATION OF EFFICIENT STRUCTURES FOR DIGITAL INTERPOLATORS	08/07/2014
27	950904010	Nitin Narang	EIED	MULTI-OBJECTIVE HYDROTHERMAL GENERATION SCHEDULING BASED ON HEURISTIC ALGORITHMS	17/07/2014
28	950803003	KRISHAN KUMAR	CSED	NEURAL NETWORK BASED POWER CONTROL ALGORITHMS FOR MOBILE AD-HOC NETWORKS	11/07/2014
29	90711502	Saurabh Manro	SMCA	FIXED POINT THEOREMS FOR MAPPINGS IN SOME ABSTRACT SPACES	15/07/2014
30	900900002	Poonam Bhatia	BT	STUDIES ON BIOFORTIFICATION OF SELENIUM IN EDIBLE MUSHROOMS	16/07/2014

31	901009006	Rishu Jain	SCBC	KINETIC AND THERMODYNAMIC STUDIES ON THE EFFECT OF CHAOTROPIC AND KOSMOTROPIC COSOLVENTS ON PROTEINS	17/07/2014
32	900909011	Rupinder Kaur	SCBC	SYNTHESIS OF COINAGE METAL NANOPARTICLES AS CO-CATALYSTS FOR TiO ₂ BASED PHOTOCATALYSTS	19/07/2014
33	90700505	Misha Bhatia	BT	STUDIES ON RHIZOSPHERIC BACTERIA OF PHRAGMITES IN CONSTRUCTED WETLANDS	26/07/2014
34	950906047	Simranjit Singh	ECED	ANALYSIS AND PERFORMANCE EVALUATION OF RECEPTION SCHEMES FOR CORRELATED MIMO SYSTEM	11/07/2014
35	90700005	Jasmine Brar	BT	MICROPROPAGATION OF SOME EDIBLE BAMBOO SPECIES AND MOLECULAR CHARACTERIZATION OF THE REGENERATED PLANTS	19/08/2013
36	900909008	Pankil Singla	SCBC	MICROWAVE ASSISTED POLYMERIZATION OF LACTIDE AND IN-SITU PREPARATION OF POLY (LACTIC ACID) - CLAY NANOCOMPOSITES	09/08/2014
37	9051453	Surinderpal Singh Dhanjal	SMCA	SPEECH ANALYSIS AND SYNTHESIS OF THE PUNJABI LANGUAGE	25/08/2014
38	950806014	Pooja	ECED	DESIGN AND ANALYSIS OF VARIABLE DIGITAL FILTERS USING FRACTIONAL FOURIER TRANSFORM	26/08/2014
39	950911009	Vijai Kumar	SMCA	DESIGN AND ANALYSIS OF SOME SOFTWARE METRICS USING SOFT COMPUTING APPROACHES	14/08/2014
40	951003003	Gurpreet Singh	CSED	DESIGN AND DEVELOPMENT OF ACO ROUTING PROTOCOL FOR MANETS	27/08/2014
41	90706502	Rajiv Kumar	ECED	QUALITY OF SERVICE BASED VERTICAL HANDOFF IN HETEROGENEOUS WIRELESS NETWORKS	29/08/2014
42	950904023	Vinod Karar	EIED	TUNNELING EFFECT MITIGATION THROUGH ARTIFICIAL NEURAL NETWORK BASED HEAD UP DISPLAY SWITCHING SYSTEM	29/08/2014

43	900912021	Jaspal Singh	SPMS	SYNTHESIS AND CHARACTERIZATION OF TRANSITION METAL DOPED CdSe DILUTE MAGNETIC NANOSTRUCTURES	19/08/2014
44	950906042	Navdeep Goel	ECED	IMPROVED PRODUCT AND CONVOLUTION THEOREMS FOR THE LINEAR CANONICAL TRANSFORM AND THEIR APPLICATIONS IN SIGNAL PROCESSING	15/09/2014
45	90711001	Manwinder Kaur	SMCA	RELIABILITY, AVAILABILITY AND MAINTAINABILITY (RAM) ANALYSIS OF AN INDUSTRIAL PROCESS	09/09/2014
46	900900003	Sanjog Garyali	BT	DIVERSITY OF TAXOL PRODUCING ENDOPHYTIC FUNGI FROM TAXUS BACCATA AND PROCESS OPTIMIZATION FOR TAXOL PRODUCTION	24/09/2014
47	900912017	Samita	SPMS	STUDY OF ALKALINE EARTH METALS SUBSTITUTION IN BISMUTH BASED MIXED ION CONDUCTORS	26/09/2014
48	900911013	Priya Shahi	SMCA	EXISTENCE OF FIXED POINTS FOR SOME MAPPINGS IN VARIOUS SPACES	29/09/2014
49	900800011	Seema	BT	MICROBIAL TRANSFORMATION OF STARCH TO LACTIC ACID DERIVATIVES FROM POTATO PROCESSING INDUSTRIES	30/09/2014
50	950903004	Manoj Manuja	CSED	SEMANTIC WEB MINING OF UNSTRUCTURED DATA	06/10/2014
51	900913004	Ritam Garg	LMTSO M	AN EMPIRICAL STUDY ON EXPORT ORIENTATION OF INDIAN SMALL AND MEDIUM ENTERPRISES	06/10/2014
52	900909014	Mandeep Kaur	SCBC	PREPARATION AND CHARACTERIZATION OF MIXED METAL OXIDES AS SOLID CATALYSTS FOR TRANSESTERIFICATION OF TRIGLYCERIDES	08/10/2014
53	900906005	Sanjeev Roshan Lal Dewra	ECED	PERFORMANCE ANALYSIS OF DWDM SYSTEMS WITH OPTICAL ADD DROP MULTIPLEXERS AND OPTICAL CROSS CONNECTS	14/10/2014
54	900811006	Navjot Kaur	SMCA	DETERMINISTIC MATHEMATICAL MODELLING OF TUBERCULOSIS AND HIV DISEASES	10/10/2014

55	900912012	Chandni	SPMS	STUDIES ON ANTIMICROBIAL PROPERTIES OF METALS AND METAL OXIDE BASED NANOSTRUCTURES	15/10/2014
56	90700002	Dhakshi Taneja	BT	MOLECULAR CLONING, CHARACTERIZATION AND INHIBITION STUDIES ON SUCROSE-PHOSPHATE SYNTHASE (SPS) GENE FUNCTIONS IN THE INDIAN POTATO CULTIVARS	16/10/2014
57	950912004	Kapil Sood	SPMS	STUDIES ON LANTHANUM BASED IONIC CONDUCTORS AS ELECTROLYTE MATERIALS	15/10/2014
58	950906027	Jaswinder Kaur Dhingra	ECED	MULTI-FREQUENCY WIDEBAND MICROSTRIP PATCH ANTENNA FOR WIRELESS APPLICATIONS	11/10/2014
59	900900006	Mahima Bansal	BT	EVALUATION AND PRODUCTION OF BACOSIDES FROM SELECTED CLONES OF BACOPA MONNIERI (L.) WETTST	27/10/2014
60	900912020	Supreet	SPMS	ELECTRICAL AND OPTICAL INVESTIGATIONS ON DISCOTIC LIQUID CRYSTAL COMPOSITE SYSTEMS	27/10/2014
61	950908010	Anish Kumar	MED	PARAMETRIC STUDY AND OPTIMIZATION OF WEDM PROCESS PARAMETERS OF PURE TITANIUM	27/10/2014

Annexure – VI

PLACEMENT DATA 2013-14

List of Organisations who have visited our Institute for Campus Recruitment till 30th September, 2014 alongwith placement data (2013-14)																																	Dated: 30/09/2014			
S. No.	Organisation	No. of students offered campus placement																																		
		B.E/B.Tech.										M.E/M.Tech.										M.Sc.					MBA		Total							
BT	CE	CH	CS	EE	EC	EC	MEH	MCA	STR	INR	ENV	CH	CS	CSA	SW	IS	POW	EC	VLSI	WR	EC	CAD	PRD	THE	MT. SC	BIO-TECH	Phy	Ch.		Math	Mc Bio	Bio-Tech	Env	B.E Indu	Gen	
1	Thorogood Associates	-	-	-	-	-	-	-	Tg 1	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	Tg.1
2	Oracle India	-	-	-	Tg 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Tg.12
3	Google India	-	-	-	0	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
4	Microsoft IT India	-	-	-	4	-	-	-	-	-	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
5	ZS Associates India Pvt Ltd	0	0	0	2	0+1	2	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5+1
6	D.E Shaw (I) Software Pvt. Ltd.	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	2
7	Futures First Info Services Pvt. Ltd.	0	0+1	0	0	0	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+1
8	Amazon India Dev.Centre	-	-	-	0	-	-	-	-	0	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
9	Sandisk Corp.	-	-	-	0	0	1	0	-	-	-	-	-	-	0	0	-	-	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
10	Amadeus Software Lab. India Ltd.	-	-	-	6	-	3	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
11	Informatica Corporation	-	-	-	3	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
12	EXL Services	0	0	1	4+1	0	10	4	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	20+1	
13	Exicom Tele Systems	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
14	Make My Trip.com	-	-	-	5+6	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6+6
15	Deloitte Consulting India Pvt Ltd	-	-	-	14	4	5+1	4	-	0	-	-	-	2	1	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30+1
16	Indus Vally Partners	-	-	-	2+2	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3+2
17	L & T Construction	-	13	0	-	0	0	0	4+2	-	0	-	0	-	-	-	0	-	-	-	-	1	0	0	0	-	-	-	-	-	-	-	-	-	-	18+2
18	The Smart Cube	0	0	0	0	2	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	6	
19	Winshuttle India Ltd.	-	-	-	1	-	0	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
20	Edifecs Technologies Pvt Ltd	-	-	-	2+5	-	-	-	-	5+2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7+7
21	Samsung Research India	-	-	-	34+1	-	-	-	-	3+3	-	-	-	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38+4
22	Sapient Nitro	-	-	-	4+3	0	4+4	-	-	Tg 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8+7
23	MAQ Software	-	-	-	5+2	-	-	-	-	0	-	-	-	0	1+1	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6+3
24	Havells India Ltd.	-	-	-	-	2	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
25	Success Factors Business Solutions	-	-	-	0+2	-	-	-	-	1	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+2
26	Naukri.com	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+1	6+1	
27	Samsung Engineering (I) Pvt.	-	0+1	-	-	-	-	2	2+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4+2
28	Freescall Sem Conductors(I) Ltd.	-	-	-	0	-	3+5	-	-	-	-	-	-	0	-	-	-	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4+5
29	Schneider Electric	-	-	-	0	8	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
30	MU Sigma Business Solutions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
31	Gwynnivee India	-	-	-	0+2	-	-	-	-	-	-	-	-	1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+2
32	Libsys Corporation	-	-	-	3+1	-	-	-	-	3+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0	7+2	
33	Hindustan Unilever Ltd.	-	-	-	-	0	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
34	Samsung India Electronics Noida	-	-	-	1+2	-	-	-	-	0	-	-	-	0	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4+2
35	VE Commercial Vehicles Ltd.	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	1	
36	Mahindra Comviva Technologies Ltd	-	-	-	4	0	2	0	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
37	Hikari Tsushin	-	-	-	6+2+2	-	0+2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6+4+2
38	Tata Motors	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
39	TCS	4	0	2	8	4	22	12+5	0	16	0	0	0	0	9	5	8	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	98+5
40	Nagarro Software	-	-	-	1	-	1	-	-	2	-	-	-	0+1	0	0+2	0	-	0	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	4+3
41	IBM	0	0	5	0	5	10	5+1	5	1	0	0	0	0	1	1	2	1	1	1	1	2	0	2	0	0	0	0	0	0	0	0	0	0	0	43+1
42	Nucules Software	-	-	-	2+1	-	4	4+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10+2
43	ISGEC	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
44	Infogain India Pvt. Ltd.	-	-	-	8	-	-	-	-	9	-	-	-	1	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
45	Whirlpool of India	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
46	Technip KT India Ltd.	-	0	1	-	-	-	0+1	0	-	0	-	-	0	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	1+1
47	Honda Motorcycle & Scooter India Ltd.	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4

S. No.	Organisation	No. of students offered campus placement																																		Total	
		B.E/B.Tech.									M.E/M.Tech.														M.Sc.						MBA						
		BT	CE	CH	CS	EE	EC	EIC	MEH	MCA	STR	INR	ENV	CH.	CS	CSA	SW	IS	POW	EC	VLSI	WR	EC	CAD	PRD	THE	MT. SC	BIO-TECH	Phy	Ch.	Math	Mic Bio	Bio-Tech	Env	B.E Indu		Gen
48	Mondetez International-Start Up Farms IT Pvt.Ltd.	-	-	1	-	0	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
49	Start Up Farms IT Pvt.Ltd.	-	-	-	2	-	-	-	-	2	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
50	Infosys Technologies	1	3	4	8	5	5	4	3	7	0	0	0	0	4	1	3	2	2	0	4	2	0	3	0	0	0	0	-	-	0	-	-	-	0	-	61
51	Absolutdata	0	1	1	1	0	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	
52	KPMG	-	-	-	1+1	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+1	
53	TT Consultants	1	-	-	1	0	7	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	
54	Paxcel Technologies	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
55	Reliance Industries Ltd.	-	-	11	-	2+1	-	11+1	8+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32+3	
56	Root Analysis Business Research	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	0	1	-	-	-	3	
57	Crompton Greaves Ltd.	-	3	-	-	0+1	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6+1	
58	Anicent Technologies	-	-	-	0+1	0	0	2	-	9	-	-	-	-	1+1	4	0+2	3	0	1	3	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	25+4
59	SAB Miller India	-	-	-	-	-	-	0+2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+2	
60	Maruti Suzuki (I) Ltd.	-	0+1	-	1+1	0	-	-	4	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8+2	
61	Jindal Steel Works (JSW)	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
62	Anand Groups	-	-	-	-	-	-	-	2+2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	4+2	
63	UOP	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
64	Stone Wair Systems	-	-	-	2	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
65	Alstom India	-	-	-	-	-	-	-	0+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	
66	Z-Scaler	-	-	-	0+1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	
67	Markit India	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
68	RTS Systems	-	-	-	1	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
69	Century Link	-	-	-	0+1	0	0+2	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+3	
70	Steel Strips Group	-	-	-	-	-	-	-	1+2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	1+2	
71	Trident Group	-	-	0	-	3	-	0	3+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	8+1	
72	Idea Cellular	-	-	-	-	-	1+3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+3	
73	Oracle Services	-	0	0	1+1	0+1	1+1	1	0	0	-	-	-	-	0	0+2	1	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	4+5	
74	LSR Group of Comps.	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	4	
75	Stryker Corporation	1	-	-	0	1	0	0	1	0	-	-	-	-	0	0+0 +1	0	-	0	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	3+0+	
76	Elegant Marine Services	-	4+2	8+3	1	1+2	1	1+1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								

[illegible]

Thapar University

CAMPUS INTERVIEWS -2013-14

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	INR	ENV	CH.	CS	CSA	SW	IS	POW	EC	VLSI	WR	EIC	CAD	PRD	THE	MT. SC	BIO-TECH	Phy	Ch.	Math	Mic Bio	Bio-Tech	Env	B.E Indu	Gen			
Total no. of students	34	85	81	189	82	128	81	126	177	23	7	21	4	31	28	31	28	28	31	29	29	26	25	26	28	9	27	12	13	13	13	21	12	31	49				
Number of students passed	28	68	66	174	78	123	76	107	177	20	4	11	3	30	27	30	26	26	29	27	27	26	24	25	27	7	22	12	13	13	13	21	12	29	49				
Number of students gone for higher studies	2	4	3	2	4	6	7	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	1	0				
Number of students interested for campus interviews	24	60	62	170	70	112	75	102	172	14	4	9	3	27	25	28	23	22	25	27	27	26	23	25	26	7	20	0	0	0	0	3	0	24	49				
No. of students having CGPA > 6.00	21	45	54	153	57	102	65	88	136	10	4	6	3	26	22	25	23	18	25	26	24	24	21	19	20	7	18	NA	NA	NA	NA	3	NA	20	45				
No. of students placed having CGPA > 6.00	14	35	46	148	52	95	63	82	83	7	2	3	0	26	16	23	13	11	15	13	7	1	19	11	13	2	3	NA	NA	NA	NA	1	NA	18	20				
% age of students placed having CGPA > 6.00	67	78	85	97	91	93	97	93	61	70	50	50	0	100	73	92	56	61	60	50	29	4	90	58	65	28	17	NA	NA	NA	NA	33	NA	90	44				
No. of students having CGPA < 6.00	3	15	8	17	13	15	10	14	36	4	0	3	0	1	3	3	0	4	0	1	3	2	2	6	6	0	2	NA	NA	NA	NA	NA	NA	4	4				
No. of students placed having CGPA < 6.00	1	0	2	3	2	2	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	1	0				
% age of students placed having CGPA < 6.00	33	0	25	18	15	13	40	14	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	25	0				
Total no. of students placed	15	35	48	151	54	97	67	84	84	7	2	3	0	23	16	23	13	11	15	13	7	1	19	11	13	2	3	0	0	0	0	1	0	19	20				
Total %age of placement	63	58	77	89	77	87	89	82	49	50	50	33	0	85	64	82	56	50	60	48	26	3	83	44	50	28	15	NA	NA	NA	NA	33	NA	80	41				

NOTE:

- 1 Placement data is update till 30th September 2014, whereas the result of 23 organizations is awaited.
- 2 11 organizations have already confirmed and are yet to visit our campus for campus interviews.
- 3 Most of the students who have opted for higher studies are already selected through campus interviews.

Annexure VII (a)

LIST OF SPONSORED PROJECTS (INFRASTRUCTURE AND RESEARCH)
RECEIVED (Department/ School wise form April 2013 to March 2014)

S. No.	Title of the project	Principal Investigator	Deptt.	Funding Agency	Sanctioned Amount (Rs. In Lacs)
1.	Application software development to evaluate thermal performance of tube type, air to air heat exchange for CADA high rated electrical motors.	D Gangacharyulu	CHED	CGL	13.82
2.	Transalkylation of di-isopropylbenzene (DIPB) with benzene over modified nano zeolite catalyst: A kinetic study.	Sanghamitra Barman	CHED	DST	23.60
3.	Synthesis and characterization of high capacity adsorbents for CO ₂ capture.	HARIPADA BHUNIA	CHED	DST	12.05
4.	Application of nanozeolite for the removal of novel contaminants from waste water.	Sanghamitra Barman	CHED	UGC	11.72
5.	Nanoscience and molecular modelling	Sudhir K Singh	CHED	UGC-BSR	6.00
6.	Fluid Flow and Heat Transfer, Essential Oil Production and characterization.	Avinash Chandra	CHED	UGC-BSR	6.00
7.	Investigation of corrosion and its progression in ship hulls.	Shruti Sharma	CIVIL	NRB	24.64
8.	Special Assistance Programme- DRS-III	Head CED	CIVIL	UGC	73.50
9.	Biofortification of selenium in edible mushrooms from se-rich crop residues.	N.Tejo Praksh	DBTES / SEE	DBT	7.13
10.	Multiresponse optimization of process parameters for the improved part accuracy in fused deposition doeling process.	Ajay Batish	MED	AICTE	9.75
11.	Developing validated	S.S.Mallick	MED	CSIR	19.47

S. No.	Title of the project	Principal Investigator	Deptt.	Funding Agency	Sanctioned Amount (Rs. In Lacs)
	scale-up procedure for dense phase pneumatic transport of fine powders using two-layer dune-flow model.				
12.	DST- FIST Program 86 Lacs (50:50) Basis	Head MED	MED	DST	43.00
13.	A Strategic framework for enhancing technology adoption and management strategies for women entrepreneurs in food and beverage sector.	Santha Kumari	SBSBS	ICSSR	7.00
14.	A Strategic framework for enhancing technology adoption and management strategies for women entrepreneurs in food and beverage sector.	Ravi Kiran	SBSBS	ICSSR	5.00
15.	Study of surface charge and zeta potential of coinage metal nanoparticles for their optimum stability and catalytic activity.	Bonamali Pal	SCBC	CSIR	15.42
16.	The total synthesis of the antimalarial natural products, flinderols.	Satyendra K Pandey	SCBC	DST	22.00
17.	Research Start-Up Grant	S.K.Pandey	SCBC	UGC-BSR	6.00
18.	Sequential biological photocatalytic degradation of neonicotinoids in soil.	Teena Sharma	SEE	DST	21.10
19.	Photocatalytic degradation of textile dye effluent using doped TiO ₂ catalyst	Alok Garg	SEE	UGC	0.97
20.	On L1-Convergence of trigonometric series with special coefficients	Jatinderdeep Kaur	SMCA	UGC	9.73
21.	Development of barium hexaferrite (BaFe ₁₂ O ₁₉) Thick films for micro/millimeter wave device	Puneet Sharma	SPMS	CSIR	14.42

S. No.	Title of the project	Principal Investigator	Deptt.	Funding Agency	Sanctioned Amount (Rs. In Lacs)
	applications.				
22.	DST- FIST Program 163/- Lacs (50:50) Basis	Head SPMS	SPMS	DST	81.50
23.	Studies on antimicrobial properties of metal and metal oxide nanostructures	B.K.Chudasama	SPMS	UGC	13.75
24.	Synthesis of fBiFeO ₃ thin films for device applications.	Poonam Uniyal	SPMS	UGC	13.92
25.	Research Start-Up Grant	Bhaskar C Mohanty	SPMS	UGC-BSR	6.00
Total					467.49

Annexure VII (b)

LIST OF ONGOING SPONSORED PROJECTS (INFRASTRUCTURE AND RESEARCH)**(Department/ School for year 2013-14)**

S. No.	Title of the project	Principal Investigator	Deptt.	Funding Agency	Sanctioned Amount (Rs. In Lacs)
1.	Utilization of Fungal treated waste foundry sand in concrete.	R.Siddique	CED	CSIR	12.26
2.	Special Assistance Programme	HCED. Maneek Kr.	CED	UGC	36.50
3.	Service life prediction of RC structures	Shweta Goel	CED	UGC	11.17
4.	Preparation and characterization of polylactide(PLA)-polyethylene blends and its degradability studies.	H.Bhunia	CHED	CSIR	16.92
5.	Application software development to evaluate thermal performance of tube type, air to air heat exchange for CADA high rated electrical motors.	D Gangacharyulu	CHED	CGL	13.82
6.	Transalkylation of di-isopropylbenzene (DIPB) with benzene over modified nano zeolite catalyst: A kinetic study.	Sanghamitra Barman	CHED	DST	23.60
7.	Synthesis and characterization of high capacity adsorbents for CO ₂ capture.	Haripada Bhunia	CHED	DST	12.05
8.	Processing and characterization of fiber reinforced polymer nanocomposites and their degradation in marine environments.	R.Mehta	CHED	NRB	21.54
9.	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	CHED	PPCB	4.50

S. No.	Title of the project	Principal Investigator	Deptt.	Funding Agency	Sanctioned Amount (Rs. In Lacs)
10.	Application of nanozeolie for the removal of novel contaminants from waste water.	Sanghamitra Barman	CHED	UGC	11.72
11.	Nanoscience and molecular modelling	Sudhir K Singh	CHED	UGC-BSR	6.00
12.	Fluid Flow and Heat Transfer, Essential Oil Production and characterization.	Avinash Chandra	CHED	UGC-BSR	6.00
13.	Optimization techniques for design of ultra high performance concrete mixes.	Maneek Kr.	CIVIL	AICTE	7.50
14.	Lateral and longitudinal hydrodynamic dispersion through rigid and flexible vegetation	Dwarikanath Ratha	CIVIL	DST	14.34
15.	Detection of corrosion by ultrasonic and acoustic emission techniques.	Shruti Sharma	CIVIL	DST	42.00
16.	Utilization of cement klin dust in concrete after removal of alkalinity and metal toxicity with microbes	R.Siddique	CIVIL	DST	27.00
17.	FRP stay in place structural formwork for concrete floors under women scientist scheme.	Reema Goyal	CIVIL	DST	24.60
18.	Investigation of corrosion and its progression in ship hulls.	Shruti Sharma	CIVIL	NRB	24.64
19.	Evaluation of resistance properties of coal water slurry flowing through local piping fittings.	Dwarikanath Ratha	CIVIL	UGC	6.44
20.	Ultrasonic guided wave approach for monitoring setting and hardening of concrete.	Shruti Sharma	CIVIL	UGC	5.22
21.	Special Assistance Programme- DRS-III	Head CED	CIVIL	UGC	73.50
22.	TCS Research Scheme	Maninder Singh	CSED	TCS	13.12
23.	TCS Research Scheme	Shalini Batra	CSED	TCS	15.52
24.	TCS Research Scheme	Neeraj Kumar	CSED	TCS	15.52
25.	Green cloud computing	Anju Sharma	CSED	UGC	12.93

S. No.	Title of the project	Principal Investigator	Deptt.	Funding Agency	Sanctioned Amount (Rs. In Lacs)
	framework for efficient and robust management of resources.				
26.	Energy Aware Resource Sheduling for Utility Computing.	Inderveer Chana	CSED	UGC	11.63
27.	UGC-BSR Resarch Start-up-Grant for newly recruited faculty at Assistant Professor level in science department.	Neeraj Kumar	CSED	UGC	6.00
28.	Frame for enabling data portability between heterogeneous cloud storae planforms.	Rinkle Rani	CSED	UGC	8.59
29.	Genetic Transformation of selected clones of populus deltoides FOR CELLULOSE ENHANCEMENT IN WOOD.	Anil Kumar	DBTES	CSIR	19.77
30.	Calcifying bacteria mediated cementation for energy efficient building materials.	M.S.Reddy	DBTES	CSIR	15.42
31.	Isolation purification and characterization of new fibrinolytic molecules from endophytic fungi for their use as anti-thrombotic agents.	Sanjai Saxena	DBTES	CSIR	14.67
32.	Studies on anti-inflammatory responses as function of bioactive selection from selenium-rich cereal grains.	N.Tejo Prakash	DBTES	CSIR	19.92
33.	Development and application of recombinant and other cellulases for large scale recycling of cellulosic biomass.	Dinesh Goyal	DBTES	DBT	27.25
34.	Immunomodulatory agents from endophytic fungi for breast cancer therapy.	Manoj Baranwal	DBTES	DBT	16.02
35.	Neuroprotective properties of selenoergothioneine sourced from selenium-rich mushrooms against oxidative stress and nitrosative damage in	N.Tejo Prakash	DBTES	DBT	11.86

S. No.	Title of the project	Principal Investigator	Deptt.	Funding Agency	Sanctioned Amount (Rs. In Lacs)
	neuronal cells.				
36.	In silico and in vitro approach to identify immunogenic peptides of HINI virus as a target for vaccine design.	Manoj Baranwal	DBTES	DST	23.60
37.	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	DBTES	ICMR	13.13
38.	Fluidized bed catalytic reactor for the degradation of PAH.	Anoop Verma	DBTES	IEI	1.00
39.	Gene resources from polluted soils.	M.S.Reddy	DBTES	Indo French	33.17
40.	Influence of bacteria on compressive strength and permeability of fly ash concrete.	Anita Rajor	DBTES	UGC	7.58
41.	PG Diploma under innovative programme- Teaching & Research in interdisciplinary & Emerging Areas during XI plan.	Head DBTES/ M.S.Reddy	DBTES	UGC	44.00
42.	Technological development of biopolymer overproducing variants of acinetobacter implicated in phosphate enrichment in water	Moushumi Ghosh	DBTES	UGC	7.60
43.	UGC-BSR Resarch Start-up-Grant for newly recruited faculty at Assistant Professor level in science department.	Sudipata Sarkar	DBTES	UGC	6.00
44.	Biofortification of selenium in edible mushrooms from se-rich crop residues.	N.Tejo Praksh	DBTES / SEE	DBT	17.13
45.	Performance analysis of dense wavelength division multiplexed systems.	R.S.Kaler	ECED	UGC	8.09
46.	UGC Special Assistance Programme	Rajesh Khanna	ECED	UGC	61.00
47.	Developing validated scale-up procedure for densephase	S.S.Mallick	MED	CSIR	19.47

S. No.	Title of the project	Principal Investigator	Deptt.	Funding Agency	Sanctioned Amount (Rs. In Lacs)
	pneumatic transport of fine powders using two-layer dune-flow model.				
48.	Modelling Solids Friction and Transport Boundary for fluidised densa-phase pneumatic conveying systems	S.S.Mallick	MED	DST	21.95
49.	Experimental investigation of EDM machined surface of Ai-Sic and Al-Sic-B4C Metal matrix Composites.	Ajay Batish	MED	UGC	10.82
50.	UGC Special Assistance Programme	Ajay Batish (HMED)	MED	UGC	44.50
51.	Experimental Investigation for surface improvement of die steels during electric discharge machining with tungsten and titanium powder mixed dielectric.	Anirban Bhattacharya.	MED	UGC	0.90
52.	Study of erosin wear for the flow of ash-water slurry.	Satish Kumar	MED	UGC	7.49
53.	UGC-BSR Resarch Start-up-Grant for newly recruited faculty at Assistant Professor level in science department.	Tarun K Bera	MED	UGC	6.00
54.	A Strategic framework for enhancing technology adoption and management strategies for women entrepreneurs in food and beverage sector.	Santha Kumari	SBSBS	ICSSR	7.00
55.	A Strategic framework for enhancing technology adoption and management strategies for women entrepreneurs in food and beverage sector.	Ravi Kiran	SBSBS	ICSSR	5.00
56.	Zirconia supported solic catalyst for simulatneous transesterrication and esterification of high free fatty acid containing triglycerides.	Amjad Ali	SCBC	CSIR	13.53
57.	Heterocyclic Substituted and quinazoline	Kamaldeep Paul	SCBC	CSIR	21.92

S. No.	Title of the project	Principal Investigator	Deptt.	Funding Agency	Sanctioned Amount (Rs. In Lacs)
	pyrazolo[3,4-d] pyrimidine derivatives: Scaffold for aurora kinase inhibitors.				
58.	Kinetic and thermodynamics studies on the effect of chaotropic and kosmotropic cosolvents on horse ferrocyclochrome.	Rajesh Kumar	SCBC	CSIR	18.92
59.	Fungus mediated biodiesel generation from wasted edible oils.	Ranjana Prakash	SCBC	CSIR	17.02
60.	Study of surface charge and zeta potential of coinage metal nanoparticles for their optimum stability and catalytic activity.	Bonamali Pal	SCBC	CSIR	15.42
61.	Design and Development of Diphenylether based supramolecules for electroanalytical probes.	Susheel Mittal	SCBC	DAE	22.89
62.	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	SCBC	DAE/BRNS	21.22
63.	Alkali metal supported transition metal oxides as catalyst for the transesterification of <i>Jatropha</i> and <i>Karanja</i> oils.	Amjad Ali	SCBC	DRDO	14.82
64.	Novel scaffolds of Pglycoprotein modulators to overcome multidrug resistance in cancer cells.	Kamaldeep Paul	SCBC	DST	19.98
65.	Heterocycles based FRET-dyads for chemionic and bioionics.	Vijay Laxmi	SCBC	DST	26.37
66.	Synthesis of transition metal incorporated mesoporous materials and their catalytic application for some industrial reactions.	Shweta Sareen	SCBC	DST	16.08
67.	ESIPT based Chromophores Application for sensing and white light emitting devices.	Vijay Laxmi	SCBC	DST	83.00

S. No.	Title of the project	Principal Investigator	Deptt.	Funding Agency	Sanctioned Amount (Rs. In Lacs)
68.	Effect of laser photoetching of Au nanostructures of different shapes on the electrokinetic, optical and catalytic properties.	Rupinder Kaur	SCBC	DST	14.28
69.	The total synthesis fo the antimalarial natural products, flinderoles.	Satyendra K Pandey	SCBC	DST	22.00
70.	FIST Programe on 50:50 Basis (43 lac-DST & 43 lac TU.)	Head SCBC	SCBC	DST-FIST	43.00
71.	Particular matter dose relationship with long function efficiency of children during agriculture crop residue burning episodes.	Susheel Mittal	SCBC	ICMR	21.37
72.	Modelling Atmospheric Pollution and Networking (MAPAN)	Susheel Mittal	SCBC	IITM	20.32
73.	Size and shape dependent photocatalytic activity of silica-coated metal (M)-zinc sulfide (ZnS) nanocomposites for nitroaroatcs reduction.	Bonamali Pal	SCBC	UGC	14.11
74.	Coupling of substituted quinarzoline/ Xanthine and purine/Pyrimidine/Benzimidazole: A novel scaffold for kinase inhibitors.	Kamaldeep Paul	SCBC	UGC	11.01
75.	Synthesis and characterization of diphenyl/ analogues for their antibacterial activity	Manmohan Chhiber	SCBC	UGC	6.22
76.	Ph-Dependent stability and microsecond folding kinetics of horse ferrocytochrome c.	Rajesh Kumar	SCBC	UGC	11.42
77.	Research Start-Up Grant	S.K.Pandey	SCBC	UGC-BSR	6.00
78.	Sequential biological photocatalytic degradation of neonicotenoids in soil.	Teena Sharma	SEE	DST	21.10
79.	Photocatalytic degradation of textile dye effluent using doped tio2 catalyst	Alok Garg	SEE	UGC	0.97

S. No.	Title of the project	Principal Investigator	Deptt.	Funding Agency	Sanctioned Amount (Rs. In Lacs)
80.	Development of online handwriting recognition system for Indian Language (OHWR).	R.K.Sharma	SMCA	MOCIT	60.23
81.	On L1-Convergence of trigonometric series with special coefficients	Jatinderdeep Kaur	SMCA	UGC	9.73
82.	A Strategic Framework for consumer preferences towards emerging retail formats.	Ravi Kiran	SOMSS	UGC	4.80
83.	Magnetic Fluid based coolant to enhance thermal and dielectric properties of transformer oil.	B.K.Chudasama	SPMS	CSIR	20.25
84.	Cluster Decay and Fusion Fission Dynamics at low energies.	Manoj Kr. Sharma	SPMS	CSIR	9.96
85.	Influence of isospin degree of freedom on disappearance of directed and elliptical flow in intermediate energy heavy-ion collisions.	Suneel Kumar	SPMS	CSIR	11.82
86.	Development of barium hexaferrite (BaFe ₁₂ O ₁₉) Thick films for micro/millimeter wave device applications.	Puneet Sharma	SPMS	CSIR	14.42
87.	Theoretical study of heavy ion dynamics at superconducting cyclotron(k500sc)energies at VECC	Suneel Kumar	SPMS	DAE	14.58
88.	Study of size-dependent multiferroic properties of doped-BiFeO ₃ nanostructures	N.K.Verma	SPMS	DAE	22.45
89.	Study of alkaline earth metals substitution in bismuth based mixed ion conductors for solid oxide fuel cells applications.	Kulvir Singh	SPMS	DRDO	14.42
90.	Development of porous aluminum foam materials for blast mitigation.	O.P.Pandey	SPMS	DRDO	17.24
91.	Structural and electro-	K.K.Raina	SPMS	DST	33.06

S. No.	Title of the project	Principal Investigator	Deptt.	Funding Agency	Sanctioned Amount (Rs. In Lacs)
	optical investigations on lyotropic liquid crystalline materials and their uses as soft template.				
92.	The quest for the nuclear equation of state in intermediate energy heavy-ion collisions.	Suneel Kr.	SPMS	DST	14.25
93.	Nanoengineering of Magnetic carriers for drug delivery of anticancer therapeutics.	Bhupender K Chudasama	SPMS	DST	27.01
94.	Study of lanthanum doped mixed conductors for solid electrolytes	Kulvir Singh	SPMS	DST	34.50
95.	Nuclear reaction dynamics and related aspects at low energies ($E < 15 \text{ MeV/A}$)	Manoj sharma	SPMS	DST	12.50
96.	DST- FIST Program	Head SPMS	SPMS	DST-FIST	81.50
97.	Study of heavy-light D and B meson using HQET	Alka Upadhyay	SPMS	UGC	9.91
98.	Electrical and opto-electronic investigations of polymer-low molar mass liquid crystal composites for display applications.	K.K.Raina	SPMS	UGC	11.78
99.	Formation and decay of exotic nuclear systems using energy density formalism	Manoj K Sharma	SPMS	UGC	12.67
100.	Synthesis and characterization of multiferroic $\text{AFe}_2\text{O}_4\text{-BiFeO}_3$ ($\text{A}=\text{Co, Ni, Zn}$) nanocomposite films	Puneet Sharma	SPMS	UGC	7.27
101.	UGC-BSR Research Start-up-Grant for newly recruited faculty at Assistant Professor level in science department.	Soumendu Jana	SPMS	UGC	6.00
102.	Synthesis and characterisation of vanadium carbide nanoparticles. UGC-DAE	O.P.Pandey	SPMS	UGC	2.19
103.	Studies on antimicrobial properties of metal and metal oxide nanostructures	B.K.Chudasama	SPMS	UGC	13.75
104.	Synthesis of BiFeO_3 thin	Poonam Uniyal	SPMS	UGC	13.92

S. No.	Title of the project	Principal Investigator	Deptt.	Funding Agency	Sanctioned Amount (Rs. In Lacs)
	films for device applications.				
105.	Research Start-Up Grant	Bhaskar C Mohanty	SPMS	UGC-BSR	6.00
106.	Study and development of above elbow prosthetic arm.	Ravinder Agarwal	USIC	DST	26.62
Total					1950.77

Annexure VII (c)**LIST OF SPONSORED PROJECTS (INFRASTRUCTURE AND RESEARCH)****COMPLETED****(Department/ School wise) for year 2013-14**

S. No.	Title of the project	Principal Investigator	Deptt.	Funding Agency	Sanctioned Amount (Rs. In Lacs)
1.	Strength and permeability studies of self compacting concrete	R.Siddique	CED	UGC	8.33
2.	Development of Nanostructured Adsorbents for carbon dioxide capture.	P.K.Bajpai	CHED	AICTE	20.00
3.	Development of adsorbents for CO ₂ Capture from fine gases.	P.K.Bajpai	CHED	DST	27.09
4.	Energy Aware Resource Sheduling for Utility Computing.	Inderveer Chana	CSED	AICTE	6.50
5.	Molecular aspects of selenium tolerance by aerobic bacteria and development of bioreactor for selenate/selenit bioremediation. India-Japan research	N.Tejo Prakash	DBTES	Indo japan	3.66
6.	Sonophotocatalytic Treatment of pesticides over TiO ₂ photocatalyst Using immersion Well Reactor.	Anoop Verma	DBTES	DRDO	3.90
7.	Design and developent of staked patch microstrip antennas and wial applications.	Amanpreet Kaur	ECED	AICTE	7.50
8.	Development of advanced fractional transform based algorithm for setelite image compression, encryption, digital watermaking and image matching applications.	Kulbir Singh	ECED	DOS	11.34
9.	Special Manpower development program in VLSI Design & related software.	Alpana Aggarwal	ECED	MOCIT	59.00

10.	Optimization and modeling of process parameters for improvement in material characteristics in abrasive blasting process using fuzzy logic methodology.	Vinod Kumar	MED	AICTE	9.77
11.	Metallurgical behaviour of high strength low alloy (HSLA) Steel During Submerged Arc Welding (SAW) with Different Flux Compositions Weld parameters with Pre and post thermal treatment.	Ajay Batish	MED	DRDO	14.65
12.	Study on performance characteristics of a centrifugal slurry pump handling water and ash.	S.K.Mohapatra	MED	UGC	7.27
13.	Development of Indradhanush: an Intergrated WordNet for Bengali, Gujrati, Kashmiri, Konkani, Oriya, Punjabi and Urdu.	R.K.Sharma	SMCA	MOCIT	17.55
14.	Reliability, Availability and maintainability analysis of an Industrial process.	A.K.Lal	SMCA	UGC	7.47
15.	Research Promotion Scheme	Ravi Kiran	SOMSS	AICTE	6.9
16.	Synthesis and Characterization of Transition Metal Doped CdSe Dilute Magnetic Nano Particles vide no.ERIP/ER/0903766/M/01/1191	N.K.Verma	SPMS	DRDO	14.53
17.	Preparation of Strontium Hexa Ferrite powder from celestite ore and blue dust.	O.P.Pandey	SPMS	MOM	16.88
Total					Rs 242.34 Lacs