

**ANNUAL REPORT  
(JULY 2016 TO JUNE 2017)**

THE 31<sup>st</sup> ANNUAL REPORT  
2016-17



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

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## PREFACE

I present the annual report of Thapar University, Patiala with a brief of activities and services rendered by the university to the society and country for the period of 2016-2017. Like every previous year, the university was full of new activities, initiatives, innovations and services. Number of new students and faculty joined us to realize our objectives towards fulfilling mission and vision of the university.

The university was placed 26<sup>th</sup> in National Institutional Ranking Framework, 801-1000 bracket in Times Higher Education World University Ranking, and 210<sup>th</sup> in QS Asia University Ranking. It has received many research grants in the academic year. Two more undergraduate programs were accredited by ABET this year; which conforms to our inspiration of providing education of international standard and quality. The university is realizing its aim to collaborate for research and work closely with leading international institutes/universities to become top most university in India through partnerships with Trinity College Dublin, Tel Aviv University, University of Groningen and University of New South Wales. Ten faculty members have joined post-doctoral program at Trinity College Dublin to further their research and teaching career.

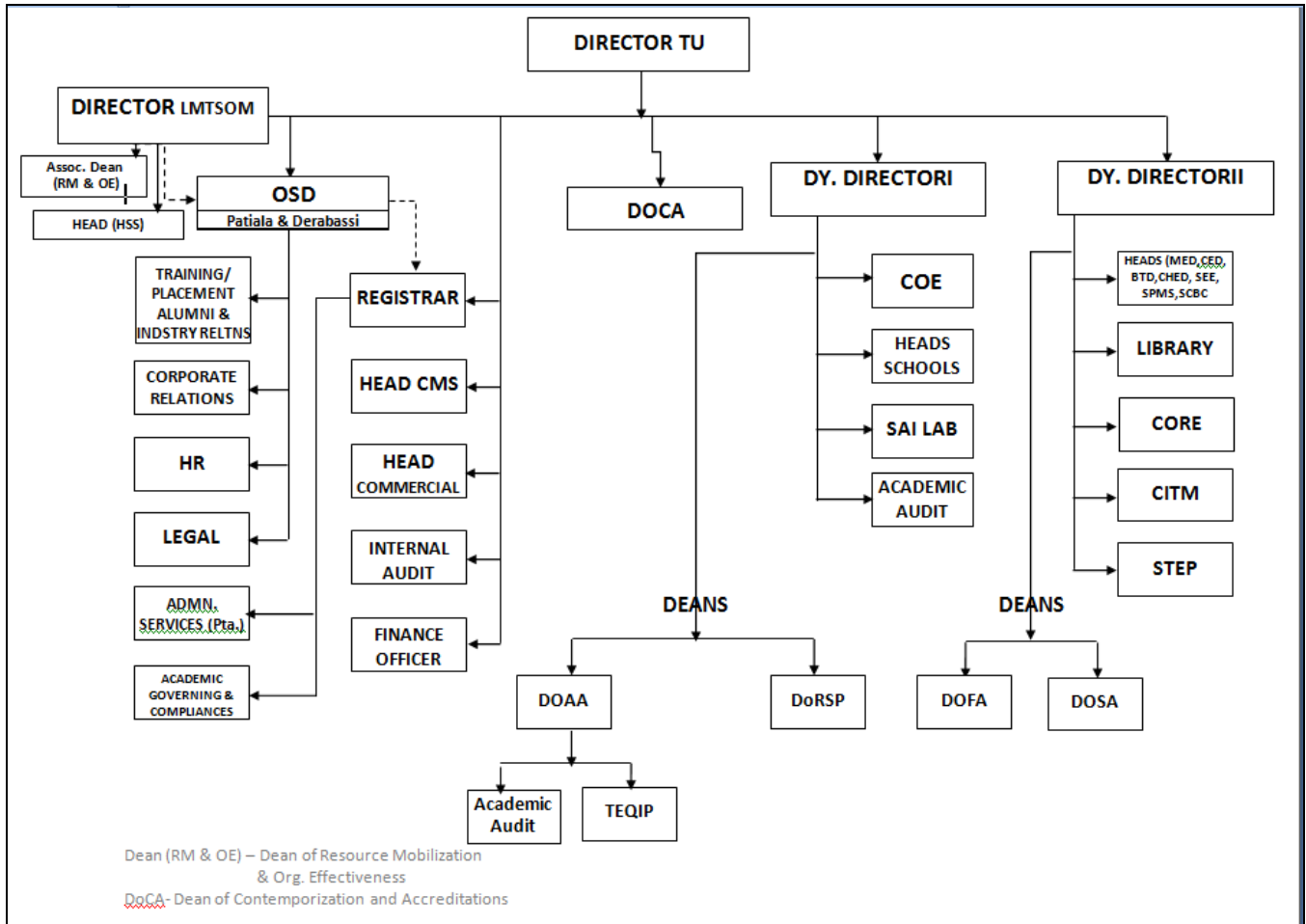
I am sure that the university will remain inspiration for generations to come while treading on the path to success. Without constant support from our Alumni, Students, Faculty and Staff the journey could have not been possible.

I extend my gratitude to the chairperson and members of statutory bodies of the university for their unconditional support and guidance. In our continuous endeavour to be one of the best, I express my appreciation to students, faculty and staff for their invariable support.

**(Prakash Gopalan)**



# Organizational Chart



# **EXECUTIVE SUMMARY**

## EXECUTIVE SUMMARY

### 1.0 INTRODUCTION

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

Cutting-edge research is at the heart of the university, which believes that original research has to be the backbone of engineering education. Thaparians had over 687 published research papers in Scopus Indexed journals and 114 sponsored research projects are currently ongoing in different disciplines. With research focused in niche areas of engineering and sciences, Thapar University has over 4700 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 120 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 new Learning Centre which includes a Green Library, Computer Science Block and Lecture Hall complex.

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 240 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 has embarked upon a major contemporization and expansion of its education systems in partnership with Trinity College Dublin.

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

### Vision

"To be recognized as a leader committed to Excellence in Higher Education, Research and Innovation that meets the aspirations of the global community. "

### Mission

- To redefine and revolutionize Indian engineering education by unlocking the beauty of engineering and applied sciences for the current and future generation.
- To instil excitement of engineering in young minds.
- To make Patiala, Punjab and India proud of being the most sustainable region of the world through creating, disseminating and applying actionable engineering knowledge.

### 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
- 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. Humanities and Social Sciences
- III. Mathematics
- 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

### D. LM School of Management (off Campus)

## 3.0 ACADEMIC PROGRAMMES

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

### Undergraduate

- Chemical Engineering

- Civil Engineering
- Computer Engineering
- Electrical Engineering
- Electronics & Communication Engineering
- Electronics & Computer Engineering
- Electronics (Instrumentation & Control) Engineering
- Mechanical Engineering
- Mechanical Engineering (Production)
- Mechatronics Engineering

#### **International Engineering Program (2+2 credit transfer program)**

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

#### **Integrated Programs**

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

#### **Postgraduate**

- |  |   |
|--|---|
| – CAD/CAM Engineering                  | – Information Security                  |
| – Structural Engineering               | – Biotechnology                         |
| – Civil Infrastructure Engineering     | – Metallurgical & Materials Engineering |
| – Electronics & Communication          | – Environmental Science & Technology    |
| – Wireless Communications              | – Energy Technology and Management      |
| – Production Engineering               | – VLSI Design                           |
| – Software Engineering                 | – Chemical Engineering                  |
| – Electronic Instrumentation & Control | – M.Sc. (Biotechnology)                 |
| – Computer Science & Engineering       | – M.Sc. (Chemistry)                     |
| – Power Systems                        | – M.Sc. (Mathematics and Computing)     |
| – Thermal Engineering                  | – M.Sc. (Physics)                       |
| – Computer Applications                | – M.Sc. (Microbiology)                  |
| – Power Electronics and Drives         | – M.Sc. (Environmental Science)         |
| – Master of Business Administration    | – MA- Economics                         |
|  | – MA- Psychology                        |

#### **PhD in all disciplines**

Thapar University was established in 1956 as an Engineering College named Thapar Institute of Engineering and Technology. As a fitting recognition of its laudable achievements and its significant role in promoting the growth and development of the nation, we were granted full autonomy and the status of a Deemed University in 1985 by the University Grants Commission. We strive to maintain an environment that encourages scholarly inquiry and research, a spirit of creative independence and a deep commitment to academic excellence. We see our students as unique individuals with different interests and aspirations. The diverse programs and activities aimed at developing quality of mind, ethical standard, social awareness and global perspective, and let the students shape their own experience and grow. Our alumni have excelled in varied fields such as business and industry, administrative services, research and education.

Aspiring to become a globally acclaimed university, Thapar University is implementing a major contemporisation program mentored by global partners. The program focuses on strategies to deliver a research inspired, outcome based educational experience to the students at all levels. It is a major shift in focus from current 'content-oriented' imparting of engineering education to a 'project-based' and 'outcome-oriented' educational experience. The new teaching pedagogy lays emphasis on applying engineering skills through relevant engineering design projects, improving team-working skills, and awareness of issues relating to ethics and professionalism. Additionally, all academic staff is encouraged to bring in cutting-edge research ideas from their own research into their teaching. The introduction of multi-disciplinary engineering design courses, which include a catapult, buggy and bridge design projects, makes this a unique engineering program in the country.

Thapar University offers a basket of undergraduate engineering and a 2+2 credit transfer program (International Engineering Program) in collaboration with Trinity College, Dublin. At the postgraduate level, the university offers programs across all engineering and science disciplines and a MBA program from its state of the art off campus at Derabassi. The University is accredited by NAAC (A Grade). Most of the BE programmes of the University are accredited by the National Board of Accreditation (NBA). The B.E. programs in Mechanical Engineering, Civil Engineering and Electronics & Communication Engineering are accredited by ABET. An ABET expert team visit is scheduled at the end of this month for two more UG programs, Chemical and Electrical Engineering.

I am very happy to report that we have featured in the Times Higher Education World Rankings 2018 this year in 801-1000 bracket. More importantly, we have been ranked joint 18th among 42 institutions ranked from India. We have also been ranked at 210th position in the prestigious QS Asia rankings this year. The University has been ranked at 26th position amongst the top 100 engineering institutions in NIRF-2017 rankings compiled by Ministry of Human Resource Development. I will be failing in my duty if I do not place on record my personal gratitude and heartiest congratulations to my colleagues in the faculty and the staff for achieving this coveted position.

Thapar University, with its sprawling campus spread over 250 acre, is home to over 100 teaching and research laboratories in engineering and sciences. We have envisioned improving the laboratory and physical infrastructure on the campus. A modernization plan for the important teaching and research laboratories is being implemented at a cost of Rs 70 cr. By this time, we already modernized over 40 undergraduate teaching labs. We have hired world class foreign architects to develop key academic infrastructure that includes a new Computer Science block, green Library, modern lecture hall complex, iconic student residences and other academic blocks. The first phase of these facilities will start functioning in 2018.

An Innovation Centre/Venture Lab has been set up to run accelerator program open to teams of students with an early-stage business idea in collaboration with University of Groningen. The program is supporting students in developing investor-ready ventures.

Thapar University has forged strong linkages with industry to impart a practical dimension to technical training. The list of impressive recruiters and attractive pay packages for graduating students has only got longer this placement season as over 1000 students have already secured placements with 220+ top global and Indian corporates, a feat in itself. The strong industry-academia linkages forged by Thapar University, its quality of students and faculty, and the high industry relevance of its professional courses have helped the university to emerge as a top draw among some of the biggest corporate names from across the world. The highest salary package offered to students this year is Rs 40.00 lakh per annum by Work Applications Japan and an average of Rs 7.00 lakh across disciplines. The key highlight is the placement of students in their core area of study throughout all disciplines.

We have set up a Centre for Academic Practice and Student Learning (CAPSL) to train faculty to in-house teaching & learning modules during the next 3-5 years. As the centre gets established, we have recognized key academic staff across different disciplines with specific interest and knowledge of different aspects of higher education pedagogy, and train them at Trinity from January 2018. Continuous professional development modules and certified programmes are delivered by faculty from Trinity College Dublin regularly. The

training programmes have been developed based on core needs identified in Indian context and adapted to reflect the specific academic needs of Thapar faculty. The training of all academic staff and on-going professional development has been instrumental in establishing the culture necessary for implementing the outcome-based education.

We have also introduced need based soft skills development programs for our senior students. For this purpose, specialists are hired to help the students develop good communication skills and harness other soft skills besides working on their personality development. These programs have immensely helped the students, and results are reflected in almost 90% placement of our UG students in good organizations.



My colleagues and I are very happy that the 31st convocation is being held today in all solemnity in the gracious presence of so many dignitaries adhering to the established convention on the occasion. This brief Report provides a summary of our activities, achievements and accomplishments in the different spheres during the academic year 2016-17.

### 1.0 THE 31<sup>st</sup> CONVOCATION

At this Convocation, a total of 1698 degrees are being awarded including 43 Ph.D. These degrees cover a wide range of disciplines and specializations offered by the seven engineering departments, and five schools.

Sr. No.	Programme/Discipline	Number of students graduating
1	PhD	43
2	MTech (Regular & Part-Time)	77
3	ME (Regular & Part-Time)	278
4	Post Graduate Diploma	3
5	Master of Computer Applications (MCA)	79
6	MSc (Biotechnology)	21

7	MSc (Chemistry)	37
8	MSc (Mathematics & Computing)	24
9	MSc (Physics)	37
10	MSc (Bio-Chemistry)	9
11	MA (PSYCHOLOGY)	13
12	MA (ECONOMICS)	3
13	MBA & BE-MBA	113
14	BE/BTech (2013+2012+2011) (939+21+1)	961
<b>Total</b>		<b>1698</b>

During this Convocation, a total of **39 students received medals/awards** for their outstanding and meritorious academic, scholastic and all-round performance. Besides this, meritorious students from each program were awarded medals for securing first position in their respective branches for various programmes during the Annual Academic Prize Distribution Function.

Divanshu Kapila, who topped the list of successful candidates in all disciplines of final year B. E. examination with a CGPA of 9.96, will receive the **Presidents' Medal for the academic year 2016-2017**.

The **S. Ranbir Singh Gold Medal** for the All Round Best Student for the year has been awarded to Celeste Goel.

This year's **Prof. V. Rajaraman Computer Science & Engineering Award** has been given to Shreya for securing highest CGPA in Computer Science & Engineering B.E.

The **S. Ram S. Sidhu Memorial Medal** for the year has been awarded to Naman Garg.

I extend, on behalf of the faculty and staff of the University and on my personal behalf, our heartiest congratulations to all the degree recipients on successful completion of their academic programmes, and all medal and prize recipients for their outstanding performance.

## 2.0 ADMISSIONS

The admissions to the Undergraduate Programme were made through Joint Entrance Examination (JEE Main) score conducted by the Central Board of Secondary Education, New Delhi. As in all preceding years, this year too, TU was accorded first preference by admission seekers to all our B.E./B.Tech. programs in this part of the country. The admission to the M.E./M.Tech programs was made on the basis of GATE score. Vacant seats were filled by conducting an online test.

## 3.0 FACULTY

Faculty of an Institute is the nucleus of the academic programme and guardian-angel of maintaining the highest standards. Special efforts are being maintained to induct, nurture and retain faculty. The University has been able to attract a large number of talents and the faculty strength has seen a steady growth with a STR of 18.1: 1. The number of faculty members on roll as on date is 402 which is projected to go up to 600 by 2022. (See figure 3.1 below). Several young faculty members with education at good Universities abroad as well as from IIT's and IIM's have joined the University during the last five years.

The University undertook special initiative for recruitment and retention of quality faculty. The desired profile of the faculty at all these 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 TU. The number of applications have gone up significantly specially from IITs. 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. Most of the faculty members have completed their PhDs from IITs and other reputed institutions

Faculty is encouraged to excel in all fields of academics and scholarship. The academic performance of the faculty has been 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 incentives for superior performance have been announced. This has created a positive attitude and a zeal to excel. 87% of the regular faculty members are now holding a PhD degree. (See Figure 3.2 below)

### Recruitment and Promotions

During the year, 50 new faculty members were hired and 39 others were promoted in various cadres.

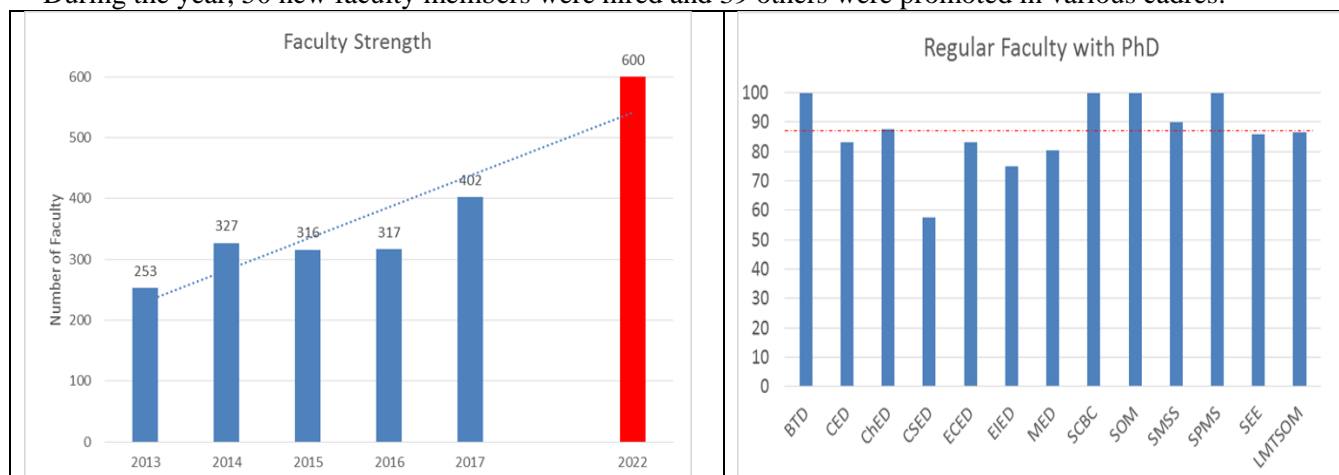


Figure 3.1: Faculty Strength

Figure 3.2: Faculty with PhD

Departm	Professor	Associate Professor	Visiting Professor/ Visiting AP	Assistant Professor (AP)			Lecturer	Total
				AGP 7000	AGP 8000	AGP 8500		
CED	--	--	3	4	--	--	4	11
CHED	1	--	--	1	--	--	--	2
CSED	2	2	3	10	2	--	38	57
DBT	--	2	1	--	--	--	--	3
ECED	--	2	6	4	1	--	11	24
EIED	--	2	3	5	--	--	7	17
MED	--	4	4	10	--	--	6	24
SCBC	1	3	1	4	--	--	--	9
SEE	--	--	--	2	--	--	--	2
SHSS	--	--	--	3	--	--	3	6
SOM	1	2	1	3	--	--	6	13
SPMS	--	1	--	--	--	--	5	6
LMTSON	--	1	--	4	2	4	--	11
<b>TOTAL</b>	<b>5</b>	<b>19</b>	<b>22</b>	<b>50</b>	<b>5</b>	<b>4</b>	<b>80</b>	<b>185</b>

### 4.0 STIMULATING RESEARCH, DEVELOPMENT AND CONSULTATION

Any 21st century institution that seeks to compete at the highest levels must create the conditions where staff and students engage in research at the frontiers of knowledge. This is critical in ensuring that faculty can engage in top quality research-led teaching at undergraduate level and a thriving ecosystem can develop at postgraduate level. It is also an important part of attracting and retaining the highest quality staff and students. The research profile of the institute took off significantly during the last few years, and a significant

investment in faculty and infrastructure has been made and is also planned in a major way in the coming five years.

### **Strategy**

The institute has planned its research strategy with research groups forming organically. Such groups have been identified and as they are approaching a critical mass, these are being provided with appropriate support to allow the faculty to raise further funding (particularly collaborative funding) from other bodies both inside and outside India. This process is driven by the faculty themselves as they leverage their long-established competencies, personal interests, potential to establish a leadership position and ability to reach critical mass. In this way, Thapar University is planning to make substantial contributions to the establishment of national centres of excellence in certain areas.

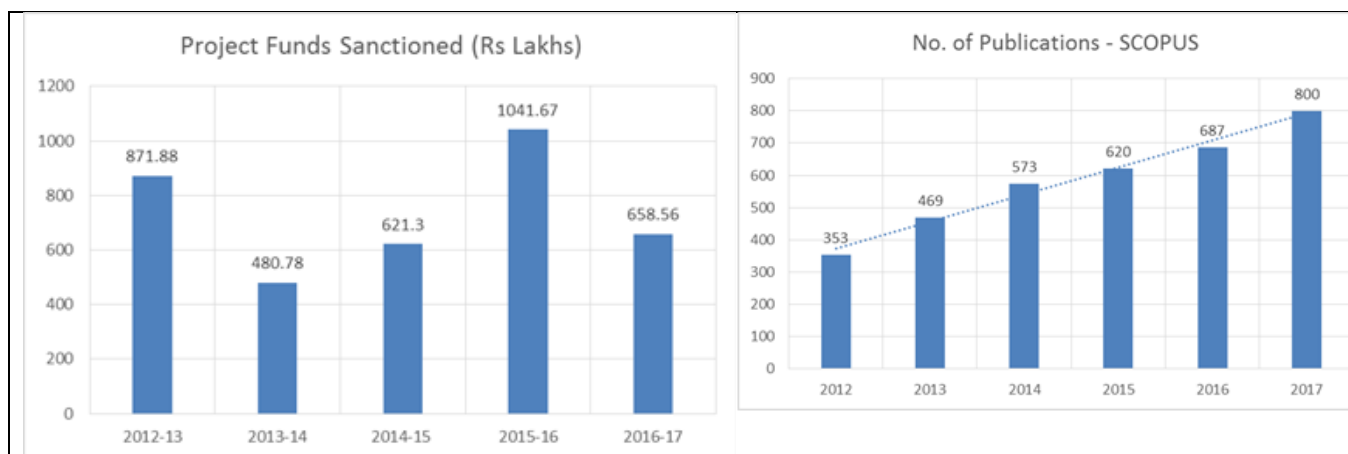
### **Enabling Research Environment**

Thapar Institute, to realize the importance of research and innovation, started to create experimental facilities, procure high-end application instruments in various departments and schools. However, there is a continual need to create state-of-art experimental and theoretical facilities. Based on the vision and mission of the university, the University plans to establish Centers of Excellence in contemporary research areas. These Centers of excellence will provide an interactive platform for students, faculty and industrial partners, and facilitate a community of likeminded yet diversely skilled people, and having access to resources and support to develop innovative solutions. It will be a space and a destination to encourage collaborations between the faculty, students, alumni, and the entrepreneurial community. It will also be a center for our entrepreneurial outreach activities, strengthening the university's technology transfer and commercialization programs. In order to strengthen the research and innovation domain of Thapar Institute, following steps have been taken:

- Increased number of doctoral scholarships to attract talented brains. (At the moment 150 + 50 fully funded TAs sponsored by Thapar University)
- 50 fully funded post-doctoral fellowships to young Thapar faculty at top universities in the world between 2017-22. 10 PDFs have been nominated this year for research at Trinity, Waterloo, Virginia Tech and Oxford.
- Establish Centres of Excellence in contemporary research areas like sustainable energy and environment, smart cities, nano-science and technology etc. The Institute has already setup a Sophisticated Analytical and Instruments Lab (SAI Lab) and Centre for Relevance and Excellence in Agro and Industrial biotechnology.
- Setup a Venture Lab for innovation and entrepreneurial activities on campus.
- Sponsored two research chairs at Trinity College Dublin who will spend at least 4 months every year at Thapar for the next 7 years. This is expected to lead to a major research centre by 2020 in Smart Cities.
- Setting up an Experiential Learning Centre led by a Professor from University of Waterloo.
- Increase national and international collaborations and MOUs with industries, universities and research laboratories of repute.
- Procure high-end application instruments to strengthen the present research facilities in phased manner.
- Create an IPR centre to enhance patent filing and patent commercialization.

Compared to the last few years, this year saw an increase in the research activities, wherein more funds were received for sponsored projects and higher number of Ph. D. students got registered. 27 new projects were received from various funding agencies. The total funding received during the year was Rs. 658.56 Lacs. During the year, 687 technical papers were published in Scopus Indexed journals.

<b>Sponsored Projects</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>
Received	57	25	21	22	27
Funds Sanctioned (Rs. in lakh)	871.88	480.78	466.35 + 154.95 (Diety)	1041.67	658.56



## 5.0 ACADEMIC REVIEW

An academic review was undertaken by a Trinity Review Team during January 2017 for the purposes of:

- Reviewing progress on the contemporisation project being carried out at Thapar University and providing feedback on this progress;
- Commenting on the discussions of the Thapar-Trinity Steering Committee and on other issues within the partnership;
- Continuing the departmental review process of Computer Science, Electronic & Communication Engineering, Civil Engineering, and Mechanical Engineering.

A 14-member Trinity team visited Thapar University on 9-12 January, 2017 to review and assess progress on Thapar's contemporisation goals against stated objectives. Such reviews are undertaken on a bi-annual basis as part of the overall evaluation process. Thapar University and Trinity have formed a steering and review committee to agree and make recommendations, as necessary, for improvements and/or amendments that will help Thapar University achieve its stated objectives by 2020. This visit followed an earlier visit by Thapar University team to Trinity in September 2016.

The visit comprised a number of formal and informal high-level discussions on the overall state of the Contemporisation project and its development. The committee also reviewed a number of reports and subsequent discussions focused on department-level activities in response to the Report delivered by Trinity in February 2016. Besides this discussions focused on aspects of the partnership such as CAPSL, the experience of the two groups of Thapar students in Trinity, student recruitment and the moderation of Thapar University examinations and examination board meetings.

Both Thapar University and Trinity re-iterated their commitment to the partnership, to deliver on all elements of the formal agreement to the satisfaction of both parties, and to seek how best to drive the project forward. Both institutions expressed happiness on the reported progress by Thapar University during the last 2 years. Some of the key activities undertaken by Thapar University in 2016-17 as part of its contemporization are:

- Major progress underway on adding to the physical infrastructure of the Thapar campus.
- ABET (US accreditation) of key undergraduate programs
- Measuring course learning outcomes for each course and using this data for continuous improvement
- Curriculum harmonization of undergraduate programs marking a paradigm shift in pedagogy; Introduction of major projects in curriculum to support experiential learning.
- Improvement in staffing levels in the key domain of technical support and in the academic domains of computer engineering and electronic engineering;
- Purchase of new cutting edge items of experimental equipment which will not only support enhanced teaching of contemporary subject matter but which demonstrates a commitment to building a research resource infrastructure.
- Increase in student intake which marks the start of this particular growth phase of the University.

- Process of establishing two Thapar chairs in School of Engineering and School of Computer Science at Trinity has well and truly begun. The proposed set of eight possible chair specialisms was critically assessed against a background of existing and strategic areas of research in both institutions while also taking into account national priorities. It was agreed to distil the proposed eight topics down to one overarching but broad heading – Smart and Sustainable Places (understood to include energy and other cognate disciplines). The active identification of possible target candidates for the chairs has started.
- Hiring of two Thapar Chairs will open up the research collaboration element of the partnership which is seen by both parties as a major factor in realizing the goals of contemporisation.
- Excellent academic performance of the advance cohort of eight Thapar students at the Trinity year 3 examinations.
- Involvement of a number of Trinity staff in moderating the Thapar examination papers, participating in a newly constituted Thapar Examination Board, participating remotely in interviewing Thapar staff seeking promotion, and in examining Thapar PhD theses. There has also been consultation with regard to equipment purchase.
- Commitment to the ‘New Directions’ programme and culture-change delivered in conjunction with Trinity-CAPSL, and the stated intention to escalate provision and to provide Thapar academic staff the opportunity to obtain professional accreditation in academic practice.
- Positive engagement of 100 academic staff in the ‘New Directions’ programme and the tangible benefits evidence in the outputs of the communities of practice. A second cohort of another 100 faculty members have been enrolled for 2017 while the first moves to the next level special certification program.
- Establishment of Venture and Design Lab and major curriculum interventions related to Innovation and Entrepreneurship in partnership with University of Groningen.

Cumulatively, these elements mark a significant step forward in the positive direction for the implementation of contemporisation Program.

## 6.0 EXAMINATION REFORMS

Examination Boards were introduced, at undergraduate level, last year for the first time, for first year Engineering in the four contemporized courses (Civil (CE), Mechanical (ME), Electronic (EE) and Computer Engineering (CoE)). This year, second year exam results were also presented to the Examination Boards (held in two halves) for the first time.

Dr Roger West, Associate Professor in Civil Engineering at Trinity, was appointed as External Examiner for the first and second year programmes at Thapar University for a three-year period. A detailed Examiner’s Report was forwarded to Thapar University based on a review of examining procedures and marks for the second semester of first year engineering and 14 recommendations were made. Of these recommendations, 12 were addressed and implemented. This represents a genuine step improvement in examination procedures brought about by due consideration and action on the part of many faculty members. Rest two of them, relating to second evaluation of scripts and very low performance of some passing students, were considered in detail. The former was only partly implemented and for the latter no action taken despite deep consideration.

## 7.0 LABORATORY AND PHYSICAL INFRASTRUCTURE

There has been singular progress on the contemporisation project in building the laboratory and Physical infrastructure. Most impressive has been the scale and pace of progress on additions to the physical infrastructure. These comprise a new teaching and learning building, a library and learning resource centre, a building for the rapidly growing Computer Science Department, and two new student accommodation units. Construction work is ongoing on a near 24/7 basis on the site hosting these new buildings. The progress on augmenting the physical infrastructure constitutes solid evidence of the commitment of Thapar University to delivering on the projected scaling up of student numbers from approximately 6,000 in 2014 to 12,000 by the

year 2020. The quality and level of outfitting of these new buildings is notable and is by far the best in the region.

- The new boys and girls residences have been completed during the year.
- More than 30 undergraduate teaching labs were modernized and renovated during the year.
- Construction work for the new block housing Civil, Mechanical, Electrical and Chemical Engineering Labs is under progress.
- Face lifting and modernization of existing building has begun.

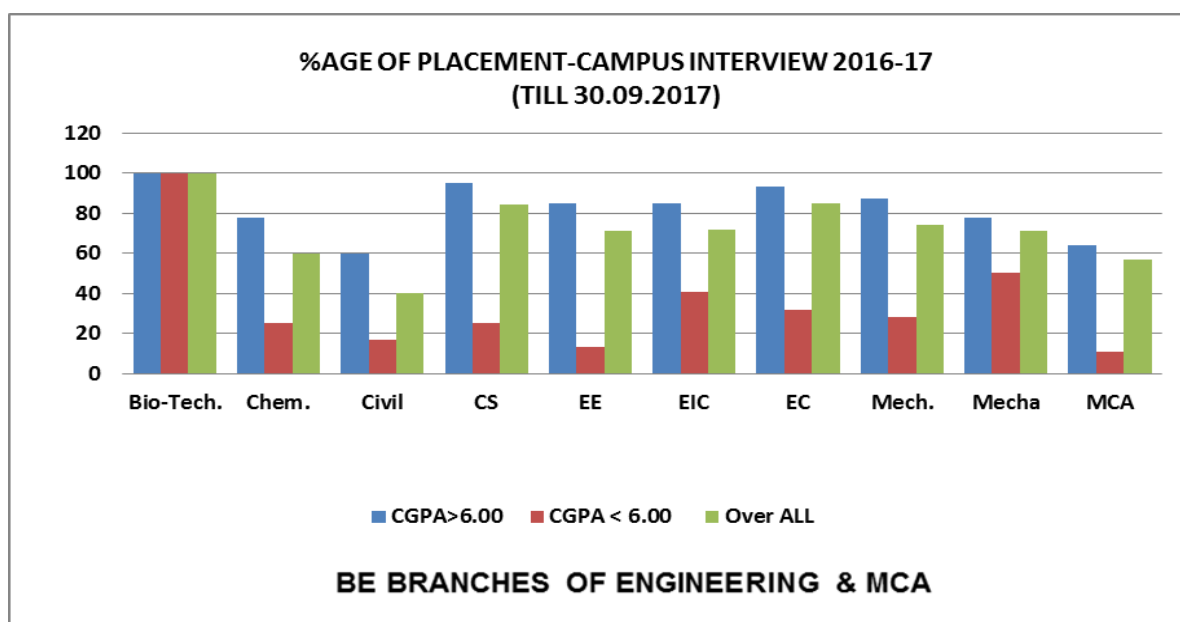
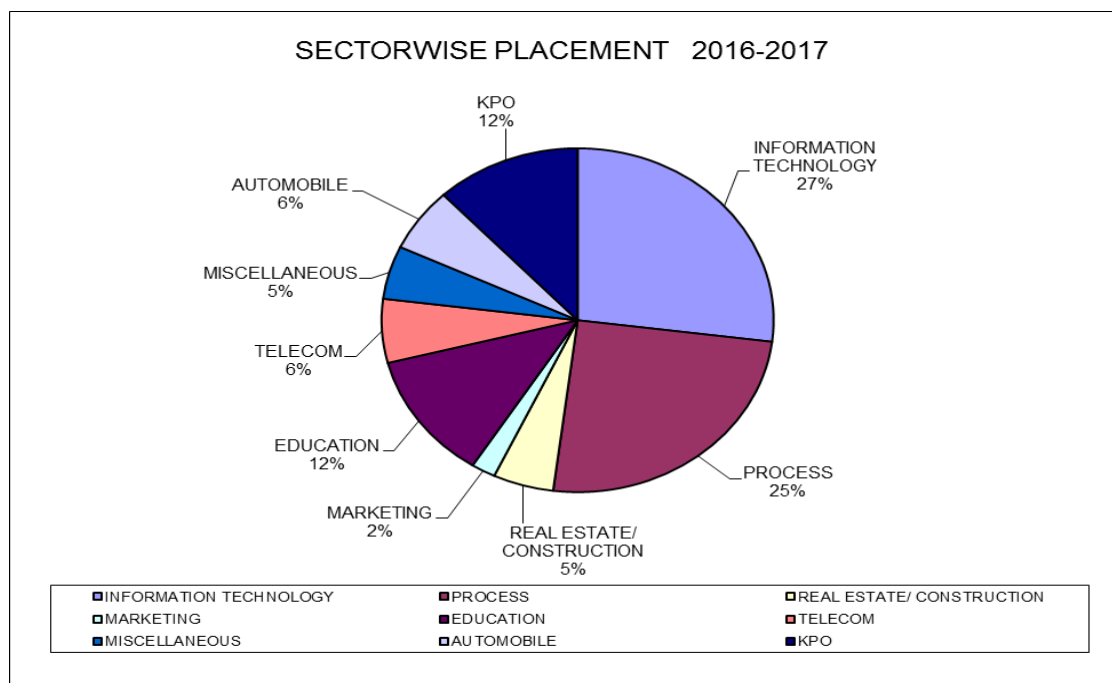
## 8.0 CAMPUS PLACEMENT

In the academic year 2016-17, 241 companies visited TU and 875 students were offered jobs through campus placement. In BE, Bio-Tech 03 out of 04, Civil 25 out of 78, Chemical 25 out of 48, Computer Sc. 156 out of 193, Electronics and Communication 151 out of 187, Electrical 82 out of 120, Instrumentation & Control 61 out of 101, Mechanical 75 out of 111, Mechatronics 18 out of 31 & MCA 39 out of 70 students securing CGPA 6.00 and above got placed through campus interviews. The overall placement being 87% for CGPA greater than 6.00 and 74% overall in all the BE Branches & MCA. Apart from BE and MCA students, 135 master's students (ME & M.Tech) also got placement through campus interviews, making it 50% overall in Master's of Engineering. The above data is updated till 15th September, 2017. Results from 52 organizations are still awaited as they have extended the internship/joining of the students. Organizations are still visiting (22 organizations have already confirmed) our campus for the students those have already passed out from our University, and hence the percentage mentioned above is likely to improve.

Apart from regular visitors, 25 organizations including five startups visited the campus for first time for campus interviews. The first timers are Evive Health, Okutech, General Electric Digital, ION Trading India (Fin Software), Bosch Ltd., Intel Corporation, TATA Projects Ltd, Addverb Technologies, Soft Prodigy Software Solutions, AppDirect., FITSO, Trantor Software Pvt. Ltd., Gyan Dhan, J Mitra, B & S Engineering Consultants Pvt. Ltd., Xion Multiventures, Allan Lloyds Group, Zydus Cadila, My Advo Tech Serve Pvt. Ltd., Tynymesh Rediocrasts, Myntra Design, Procter & Gamble, Advantage Club, J.P.Morgan, Varroc Group.

Major organizations visited for campus interviews are

<ul style="list-style-type: none"> <li>• Work Application Co. Ltd.</li> <li>• D.E.Shaw (I) Software</li> <li>• Walmart Labs</li> <li>• Microsoft India</li> <li>• Taxes Instruments</li> <li>• Zomato</li> <li>• ST Microelectronics</li> <li>• Oracle Corporation</li> <li>• Amazon India</li> <li>• Informatica Corporation</li> <li>• Sandisk Corporation</li> <li>• Amadeus Software Labs</li> <li>• ZS Associates</li> <li>• Deloitte Consulting</li> <li>• MU Sigma</li> <li>• Royal Bank of Scotland</li> </ul>	<ul style="list-style-type: none"> <li>• Tata Consultancy Services</li> <li>• Wipro Technologies</li> <li>• Juniper Networks India</li> <li>• Maruti Suzuki (I)Ltd.</li> <li>• Tata Motors</li> <li>• Reliance Industries</li> <li>• Samsung Groups</li> <li>• Gwynniebee</li> <li>• Schneider Electric</li> <li>• Hindustan Unilever Ltd.</li> <li>• Whirlpool of India</li> <li>• Royal Enfield</li> <li>• Crompton Greaves Ltd.</li> <li>• Honda Cars</li> <li>• Futures First Info Services</li> <li>• HSBC Software Development</li> </ul>
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## 9.0 ACADEMIA INDUSTRY PARTNERSHIP (AIP) MEET

Thapar University held three meets during 2016-17 with the employers in Bangalore and Hyderabad to apprise them of:

- Contemporization program at TU
- Infrastructure development and efforts made to modernize the programs
- Pedagogical changes in academics and outcome based education
- Invite for campus placements
- Internships for undergraduate and postgraduate students
- Four year comprehensive engagement programme starting from 1st year for students admitted to Thapar University.
- Organization specific sponsored project program in related technologies



HR Heads of 31 organizations attended these luncheon meetings. Each of these highly successful meetings were chaired by Director Prof Gopalan. The participants were very impressed by the initiative and were genuinely impressed by the growth of Thapar University during the past few years. We intend to continue holding these meets every year. The major organizations that participated in these meets are listed below:

***1st AIP Meet on 17th March 2017 in Bangalore***

Juniper Networks, Amadeus Labs, Sandisk Corporation, Walmart Labs, Informatica Corporation, General Electric, Oracle Corporation.

***2nd AIP Meet on 7th June 2017 in Hyderabad***

DE Shaw India, Arcesium India, Deloitte Consulting, Hitachi Corporation, OMICS Group, Tata Projects, Prathista Industries, Tata Consultancy Services, Amazon India, HCL Technologies, Infovity

***3rd AIP Meet on 8th June 2017 in Bangalore***

Century Link, SAP Labs, Tavant Technologies, Evive Health, Sapient Technologies, JDA Software, Wipro Technologies, TE Connectivity, Schneider Electric, Sabre, Agilent Technologies, Infineon Technologies, Myntra

## 10.0 Update on partnerships



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. A brief update is given below for the academic partnerships with the following institutes:

- Trinity College Dublin
- Tel Aviv University
- University of Groningen
- University of New South Wales
- **Trinity College Dublin:** Trinity is a strategic partner with activities spread across the institutions. During the past three years, Trinity has mentored the academic programs, helped us reform our governance and academic procedures and is actively mentoring some of our young faculty. During the year 2016-17, a TU team lead by CBoG, Mr Vederah visiting Dublin in September 2016. Trinity team later visited Thapar University in January 2017 for an academic review. Mr Gautam Thapar, President TU and Mr Vederah visited Trinity in May this year and held discussions on wide range of topics related to academics, joint programs and research. Trinity Provost visited TU earlier this year for partnership review meetings.

**Tel Aviv University, Israel:** We are exploring the possibility of recommending some students from Thapar University to join the International Program in Electrical Engineering at TAU in 2+2 mode. Prof Ehud Heyman visited Thapar University in May 2017 and reviewed our programs. The mapping of the curricula at both institutions is currently ongoing. We propose to sponsor two to three post-doctoral positions for our young members of staff in School of Engineering at TAU on agreed thematic research areas. The post-docs holders will spend approximately one year at TAU and contribute to the development of a research culture at TU. We sponsored three candidates to complete summer offerings at TAU (2017) in Cyber, IP, Innovation and Entrepreneurship and Food security etc. We are also exploring the Clinical/Cognitive psychology program to collaborate with our new MA psychology program. There are also options for one semester exchange for the BE-MBA integrated program at the master's level when the students move for their MBA program at Porter School of Environmental Studies.

**University of Groningen:** We have tied up with University of Groningen for setting up a Venture Lab at TU. 18 faculty members were trained at Groningen during the last two years.

**University of New South Wales:** TU signed a general MoU signed with UNSW on April 7, 2017 with scoping the areas of partnering. Dialogue with a detailed proposal has been sent to UNSW for developing a comprehensive partnership. A Credit transfer program at UG/PG will be on offer and short-term mobility programs (typically 3-12 weeks) for UNSW students to collaborate and explore research opportunities will also be discussed.

## 11.0 ACCREDITATIONS & RANKINGS

### **ABET Accreditation**

The BE Civil and Electronics & Communication engineering program of Thapar University, Patiala received the prestigious ABET accreditation as a confirmation of meeting the Global Standard of Technical Education. Accreditation Board for Engineering and Technology (ABET), Inc., is a non-governmental organization that accredits post-secondary education programs in "applied science, computing, engineering, and engineering technology", which occurs mainly in the United States (USA) but also internationally. This is besides the Mechanical Engineering Program accredited in 2016.

### **NBA Accreditation**

Four undergraduate programs in Mechanical, Electrical, Computer and Chemical Engineering were accredited by National Board of Accreditation for a period of three years under Tier-1 category.

### **Rankings**

- Thapar University has been ranked at 26th position in the list of top 100 Engineering Colleges by National Institutional Ranking Framework (NIRF) set up by the MHRD.



- This year we have featured in the Times Higher Education World Rankings 2018 in 801-1000 category. More importantly, we have been ranked joint 18<sup>th</sup> in 42 institutions ranked from India. Also, we have also been ranked at 210<sup>th</sup> position in the prestigious QS Asia rankings this year.
- Thapar University was ranked In all other recent surveys conducted by India Today, Outlook, CSR and other national magazines about India's best Technical Institutions Thapar University has strongly established itself among the top twenty institutions.
- Thapar University received the FICCI Award 2016 in two categories (i) Excellence in Research and (ii) Excellence in Faculty.



## Thapar University

Thapar University, Patiala is one of India's finest institutions and a steady source of highly skilled manpower to Corporate India. The University has been ranked at 26th position amongst the top 100 engineering institutions in the recent NIRF-2017 rankings conducted by Ministry of Human Resource Development. Thapar University is ranked amongst the top 1000 world Universities (801-1000 category) in the recent 2018 Times Higher Education rankings released on September 5, 2017. The University has been ranked at 18th position in India amongst the 42 institutions ranked by Times Higher Education. The success of the university, lies mainly on cutting-edge research, modern pedagogy, enviable infrastructure and smart institute-industry linkages. The teaching pedagogy employed for the engineering programmes offered at Thapar University reflect the long held ethos that engineering education should be broad-based to enable graduates to develop throughout their professional careers, finding solutions for as yet unseen challenges.

Aspiring to become a globally acclaimed university, Thapar University is implementing a major contemporisation program in partnership with Trinity College Dublin. The partnership with Trinity focuses on strategies to deliver a research inspired, outcome based educational experience to the students at all levels. This is a major shift in focus from the current content-oriented imparting of engineering education to a project-based and outcome-oriented educational experience. The new teaching pedagogy lays emphasis on applying engineering skills through relevant engineering design projects, improving team-working skills and awareness of issues relating to ethics and professionalism. Also, all academic staff is encouraged to bring in cutting-edge research ideas from their own research into their teaching. The introduction of multi-disciplinary engineering design courses which include a catapult, buggy and bridge design projects makes this a unique engineering program in the country thus imparting the experiential learning to the students. The partnership with Trinity covers all the major academic and research activities of the University and will help address and bolster Thapar University's position as a leading centre for higher education in India and in the region.

Thapar University offers a basket of undergraduate engineering and a 2+2 credit transfer program (International Engineering Program) in collaboration with Trinity College, Dublin. At the postgraduate level, the university offers programs across all engineering and science disciplines and a MBA program from its state of the art off campus at Derabassi. The University is accredited by NAAC (A Grade). Most of the BE programmes of the University are accredited by the National Board of Accreditation (NBA). The B.E. programs in Mechanical Civil and Electronics Engineering are accredited by ABET.

Thapar University at its sprawling campus spread over 250 acre is home to over 100 teaching and research laboratories in engineering and sciences. We have envisioned improving the laboratory and physical infrastructure on the campus. A modernization plan for the important teaching and research laboratories in consultation with Trinity is being implemented at a cost of Rs 70 cr. We have hired world class foreign architects to develop key academic infrastructure that includes a new Computer Science block, green Library, modern lecture hall complex, iconic student residences and other academic blocks. The first phase of these facilities, being built at a cost of over Rs 400 cr, will start functioning in 2017-18. Thapar University has also planned to implement an international ERP system to manage and govern the academic, financial and administrative functions.

An Innovation Centre/Venture Lab has been set up to run accelerator program open to teams of students with an early-stage business idea in collaboration with University of Groningen. The program is supporting students in developing investor-ready ventures.

Thapar University has forged strong linkages with industry to impart a practical dimension to technical training. The list of impressive recruiters and attractive pay packages for graduating students has only got longer this placement season as over 800 students have already secured placements with 200+ top global and Indian corporates, a feat in itself. The strong industry-academia linkages forged by Thapar University, its quality of students and faculty as also the high industry relevance of its professional courses have helped Thapar University

emerge as a top draw among some of the biggest corporate names from across the world. The highest salary package offered to students this year is Rs 40.00 lakh per annum by Work Applications Japan and an average of Rs 7.00 lakh across disciplines. The key highlights of placement has been that students from all disciplines have been offered placements in their core area of study.

Some of the key recruiters at Thapar are Work Application Co. Ltd., D.E.Shaw (I) Software, Walmart Labs, Microsoft India, Taxes Instruments, Free Scale semiconductors, ST Microelectronics, Google India, Oracle Corporation, Amazon India, Informatica Corporation, Sandisk Corporation, Amadeus Software Labs, ZS Associates, Deloitte Consulting, Tata Consultancy Services, Accenture Services, Wipro Technologies, L & T, Sun Pharma, Maruti Suzuki, Tata Motors, Reliance Industries, Samsung Group, Schneider Electric, Hindustan Unilever Ltd., Whirlpool of India, Royal Enfield, Crompton Greaves Ltd., Honda Cars, Futures First Info Services, among others.

Internships at top organizations is a significant feature of our under-graduate curriculum since 1997 and students spend one complete semester in industry under the joint guidance of a faculty member from the University and a coordinator from the participating industry. Both the industry and the students view this engagement as extremely useful and the term gives the students an opportunity to apply their learnings professionally. All students write a goals report, an interim and a final report along with a reflective diary for the projects they undertake. Several students are offered lucrative jobs by the participating industries and large number of organizations visit Thapar to specifically select students for internship program.

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 675 published research papers in peer reviewed Journals in 2016 (Scopus database) and 140+ sponsored research projects are currently ongoing in different disciplines. With research focused in niche areas of engineering and sciences, Thapar University has over 4400 published research papers in peer-reviewed journals under its belt. Thapar University has established two high impact Chair Professors (research) positions at Trinity in thematic research areas of interest to both partners. The Professors would spend time both at Thapar and Trinity and would lead a major research effort which will culminate into setting up of a State of the Art research centre at Thapar. The thematic areas will be inter-disciplinary and would involve several other academic staff. The teams would focus on attracting large research funding and publications in high impact journals.

Thapar University has also set up a Centre for Academic Practice and Student Learning (CAPSL) to expose the 'entire faculty to in-house learning modules during the next 3-5 years. As the centre gets established, the CAPSL unit will draw from academic staff across different disciplines with specific interest in and knowledge of different aspects of higher education pedagogy. Continuous professional development modules and certified programmes are delivered faculty from Trinity College Dublin. The training programmes have been developed based on core needs identified in Indian context and adapted to reflect the specific academic needs of Thapar faculty. The training of all academic staff and on-going professional development has been instrumental in establishing the culture necessary for implementing the outcome-based education. We have also introduced need based soft skills development programs for our senior students. For this purpose, we have hired specialists to help the students develop good communication skills and also harness other soft skills besides working on their personality development. These programs have immensely helped the students and the results are reflected in the almost 100% placement of our UG students in good organizations.

## 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	Date
1	Dr. Prakash Gopalan	Director	Directorate	13.1.2014
2	Dr. R.S. Kaler	Deputy Director-I		18.12.2014
4	Dr. S.S. Bhatia	Dean, Academic Affairs		5.9.2014
5	Dr. Maneek Kumar	Dean, Student Affairs		5.9.2014
6	Dr. R.K. Sharma	Dean, Faculty Affairs		5.9.2014
7	Dr. O.P. Pandey	Dean , RSP		5.9.2014
8	Dr. Ajay Batish	Dean, Contemporization & Accreditation		5.9.2014
9	Dr. M.S. Reddy	Associate Dean, Mobilisation & Organisation Effectiveness		3.9.2014
10	Dr. Kulvir Singh	Associate Dean, Strategy		3.9.2014
12	Dr. Dinesh Goyal	Head	DBT	3.12.2013
13	Dr. Raj Kumar Gupta	Head	CHED	8.8.2014
14	Dr. Naveen Kwatra	Head	CED	21.11.2012
15	Dr. Maninder Singh	Head	CSED	14.6.2016
16	Dr. R.S. Kaler	Head	EIED	11.8.2017
17	Dr. Alpana Agarwal	Head	ECED	1.2.2017
18	Dr. S.K. Mohapatra	Head	MED	5.9.2014
19	Dr. Padmakumar Nair	Director	LMTSOM	4.7.2013
20	Dr. Amjad Ali	Head	SCBC	17.5.2017
21	Dr. (Mrs.) Santha Kumari	Head	SHSS	8.8.2014
22	Dr. Manoj Sharma	Head	SPMS	8.8.2014
23	Dr. A.K. Lal	Head	SOM	11.5.2015
24	Dr. N. Tejo Prakash	Head	SEE	16.2.2016
25	Dr. Maninder Singh	Head	CITM	31.8.2014
26	Dr. Susheel Mittal	Acting Head	CL	1.10.2012
27	Dr. Ajay Batish	Head	CW	20.8.1999
28	Dr. Ravi Kiran	Head	ARO	Oct., 2014

### New Appointments

S.No.	Name	Designation	Deptt.	Date
1.	Dr. Navdeep Kailey	Lecturer (Cont.)	SOM	1.7.2016
2.	Dr. Jolly Puri	Lecturer (Cont.)	SOM	1.7.2016
3.	Dr. Avleen Kaur	Lecturer (Cont.)	CSED	1.7.2016
4.	Mr. Ashutosh Aggarwal	Lecturer (Cont.)	CSED	1.7.2016
5.	Ms. Tarunpreet Bhatia	Lecturer (Cont.)	CSED	1.7.2016
6.	Dr. Husanbir Singh Pannu	Lecturer (Cont.)	CSED	1.7.2016
7.	Ms. Rupinderdeep Kaur	Lecturer (Cont.)	CSED	1.7.2016
8.	Ms. Sukhchandani	Lecturer (Cont.)	CSED	1.7.2016
9.	Ms. Anika	Lecturer (Cont.)	CSED	1.7.2016
10.	Mr. Shatrughan Modi	Lecturer (Cont.)	CSED	1.7.2016

11.	Mr. Ashish Girdhar	Lecturer (Cont.)	CSED	1.7.2016
12.	Ms. Rajanpreet Kaur	Lecturer (Cont.)	CSED	1.7.2016
13.	Ms. Harkiran Kaur	Lecturer (Cont.)	CSED	1.7.2016
14.	Dr. Amit Munjal	Lecturer (Cont.)	ECED	1.7.2016
15.	Ms. Gaganpreet Kaur	Lecturer (Cont.)	ECED	1.7.2016
16.	Mr. Atul Sharma	Lecturer (Cont.)	MED	1.7.2016
17.	Ms. Anu Mittal	Lecturer (Cont.)	MED	1.7.2016
18.	Mr. Raju	Lecturer (Cont.)	CED	1.7.2016
19.	Ms. Mansha Swami	Lecturer (Cont.)	CED	1.7.2016
20.	Ms. Sangita Roy	Lecturer (Cont.)	CSED	1.7.2016
21.	Mr. Gagandeep Singh	Lecturer (Cont.)	ECED	1.7.2016
22.	Ms. Madhu Kushwaha	Lecturer (Cont.)	ECED	1.7.2016
23.	Dr. Ravi Panwar	Assistant Professor	ECED	5.7.2016
24.	Mr. Atanu Das	Lecturer (Cont.)	MED	11.7.2016
25.	Dr. Davinder Kumar	Lecturer (Cont.)	SCBC	11.7.2016
26.	Dr. Mily Bhattacharya	Lecturer (Cont.)	SCBC	11.7.2016
27.	Dr. Sumit Vyas	Lecturer (Cont.)	ECED	14.7.2016
28.	Dr. Sunil Devi	Assistant Professor	SPMS	14.7.2016
29.	Ms. Navdeep Kaur	Lecturer (Cont.)	EIED	15.7.2016
30.	Mr. Jitender	Lecturer (Cont.)	EIED	15.7.2016
31.	Mr. Tapas Choudhary	Lecturer (Cont.)	EIED	15.7.2016
32.	Mr. Chandrakant Tiwari	Lecturer (Cont.)	EIED	15.7.2016
33.	Mr. Shailesh Kumar	Lecturer (Cont.)	EIED	15.7.2016
34.	Mr. Shailendra Tiwari	Lecturer (Cont.)	CSED	15.7.2016
35.	Mr. Ruhul Amin	Lecturer (Cont.)	CSED	18.7.2016
36.	Dr. Mohd. Naseem	Lecturer (Cont.)	CSED	18.7.2016
37.	Dr. Ashok Kumar Pradhan	Lecturer (Cont.)	CSED	18.7.2016
38.	Mr. Harshvardhan N.	Lecturer (Cont.)	MED	18.7.2016
39.	Dr. Sahil Bansal	Lecturer (Cont.)	CED	18.7.2016
40.	Mr. Reema Goyal	Lecturer (Cont.)	CED	18.7.2016
41.	Mr. Rajvir Singh Chauhan	Lecturer (Cont.)	SOM	18.7.2016
42.	Dr. Ram Niwas	Lecturer (Cont.)	SOM	19.7.2016
43.	Mr. Sukhpal Singh	Lecturer (Cont.)	CSED	19.7.2016
44.	Dr. Seemu Sharma	Lecturer (Cont.)	CSED	19.7.2016
45.	Mr. Gurpal Singh Chhabra	Lecturer (Cont.)	CSED	19.7.2016
46.	Dr. Sanjeev Kumar Aggarwal	Assistant Professor	EIED	21.7.2016
47.	Mr. Navneet Sharma	Lecturer (Cont.)	ECED	21.7.2016
48.	Mr. Shivendra Shivani	Lecturer (Cont.)	CSED	25.7.2016
49.	Dr. Vinay Gautam	Lecturer (Cont.)	CSED	25.7.2016
50.	Ms. Nisu Jain	Lecturer (Cont.)	SOM	25.7.2016
51.	Ms. Isha Dhiman	Lecturer (Cont.)	SOM	25.7.2016
52.	Dr. Sujeet Pratap	Lecturer (Cont.)	SHSS	25.7.2016

53.	Mr. Nitin Saxena	Lecturer (Cont.)	CSED	26.7.2016
54.	Ms. Geetika Dua Sagoo	Lecturer (Cont.)	ECED	28.7.2016
55.	Dr. Hari Shankar Singh	Assistant Professor	ECED	1.8.2016
56.	Ms. Shivani Sahdev	Lecturer (Cont.)	SHSS	1.8.2016
57.	Dr. Deepa Mudgal	Lecturer (Cont.)	MED	1.8.2016
58.	Ms. Amita Kumari	Lecturer (Cont.)	EIED	1.8.2016
59.	Mr. Rohit Kumar Singla	Lecturer (Cont.)	MED	1.8.2016
60.	Ms. Rajni	Lecturer (Cont.)	SHSS	4.8.2016
61.	Mr. Pramod Kumar Vaishnav	Lecturer (Cont.)	SOM	8.8.2016
62.	Dr. Tamanna Chhabra	Lecturer (Cont.)	CSED	8.8.2016
63.	Mr. Richik Kashyap	Lecturer (Cont.)	ECED	10.8.2016
64.	Ms. Shweta Dogra	Lecturer (Cont.)	SHSS	19.8.2016
65.	Dr. N.K. Sharma	Visiting Professor	SHSS	22.7.2016
66.	Dr. A.K. Chatterjee	Visiting Professor	ECED	16.8.2016
67.	Dr. Ashish Purohit	Assistant Professor	MED	16.9.2016
68.	Dr. Sandeep Kumar	Assistant Professor	MED	28.11.2016
69.	Cmde(Retd.) Anil Kumar Sharma	Visiting Professor	ECED	28.11.2016
70.	Dr. Manash Chakraborty	Visiting Assistant Professor	CED	26.12.2016
71.	Dr. Sunita Mehta	Lecturer (Contractual)	SPMS	9.1.2017
72.	Mr. Sandeep Sing	Lecturer (Contractual)	MED	18.1.2017
73.	Dr. Ashish Kumar	Lecturer (Contractual)	SCBC	2.1.2017
74.	Dr. Mily Bhattacharya	Lecturer (Contractual)	SCBC	2.1.2017
75.	Dr. Davinder Kumar	Lecturer (Contractual)	SCBC	2.1.2017
76.	Dr. N.K. Verma	Visiting Professor	SPMS	2.1.2017
77.	Dr. N.K. Sharma	Visiting Professor	SHSS	20.1.2017
78.	Dr. Sujeet Pratap	Lecturer (Contractual)	SHSS	2.1.2017
79.	Ms. Shweta Dogra	Lecturer (Contractual)	SHSS	2.1.2017
80.	Dr. Rajni	Lecturer (Contractual)	SHSS	2.1.2017
81.	Dr. Deepa Mudgal	Lecturer (Contractual)	MED	2.1.2017
82.	Dr. Ashutosh Sharan Singh	Lecturer (Contractual)	SCBC	12.1.2017
83.	Dr. Gudveen Sawhney	Lecturer (Contractual)	SPMS	2.1.2017
84.	Mr. Pramod Kumar Vaishnav	Lecturer (Contractual)	SHSS	2.1.2017
85.	Ms. Nisu Jain	Lecturer (Contractual)	SOM	2.1.2017
86.	Mr. Gurpreet Singh Saini	Lecturer (Contractual)	MED	2.1.2017
87.	Dr. Bholu Ram Yadav	Lecturer (Contractual)	SEE	2.1.2017
88.	Dr. Sukhpal Singh	Lecturer (Contractual)	CSED	2.1.2017
89.	Dr. Seemu Sharma	Lecturer (Contractual)	CSED	2.1.2017
90.	Dr. Vinay Gautam	Lecturer (Contractual)	CSED	2.1.2017
91.	Mr. Gurpal Singh Chhabra	Lecturer (Contractual)	CSED	2.1.2017
92.	Ms. Swati Kumari	Lecturer (Contractual)	CSED	2.1.2017
93.	Mr. Hemant Sharma	Lecturer (Contractual)	LMTSM	2.1.2017

94.	Dr. Banibrata Maity	Visiting Asst Prof	SCBC	1.6.2017
95.	Mr. Sukwinder Singh	Visiting Asst Prof	ECED	1.6.2017
96.	Mr. Sahaj Saxena	Visiting Asst Prof	EIED	1.6.2017
97.	Mr. Rajendra Kumar	Visiting Asst Prof	MED	1.6.2017
98.	Mr. Anuj Kumar	Visiting Asst Prof	SOM	1.6.2017
99.	Mr. Santosh Kumar Yadav	Visiting Asst Prof	ECED	6.6.2017
100.	Mr. Vipin Chandra Pal	Visiting Asst Prof	EIED	7.6.2017
101.	Mr. Sunil Kumar	Visiting Asst Prof	ECED	13.6.2017
102.	Mr. Sayan Sadhu	Lecturer (Contr)	MED	23.6.2017

**Resigned**

S. No.	Name	Designation	Department	Date of Retirement
1.	Dr. Hitashi Lomash	Assistant Professor	SHSS	15.7.2016
2.	Dr. Vikas Kumar	Assistant Professor	EIED	19.7.2016
3.	Dr. Jitendra Virmani	Assistant Professor	EIED	25.8.2016
4.	Dr. Anju Sharma	Lecturer (Contr.)	CSED	8.9.2016
5.	Dr. Vishal Sharma	Lecturer (Contr.)	CSED	28.10.2016
6.	Dr. R. Sivachidambaram	Lecturer (Contractual)	CED	30.11.2016
7.	Dr. Tamanna Chhabra	Lecturer (Contractual)	CSED	28.12.2016
8.	Dr. Gyan R. Biswal	Assistant Professor	EIED	21.12.2016
9.	Dr. Kuldeep Kaur	Assistant Professor	SOM	30.12.2016
10.	Mr. Pankaj Arora	Lecturer (Contractual)	EIED	5.11.2016
11.	Dr. Shalu Bansal	Assistant Professor	LMTSM	15.1.2017
12.	Ms. Amita Kumari	Lecturer (Contractual)	EIED	31.12.2016
13.	Dr. Shivani Sahdev	Lecturer (Contractual)	SHSS	31.12.2016
14.	Dr. Damandeep Kaur	Assistant Professor	CSED	1.1.2017
15.	Mr. Gagandeep Singh	Lecturer (Contractual)	ECED	13.4.2017
16.	Dr. Sujeet Pratap	Lecturer (Contractual)	SHSS	30.4.2017
17.	Dr. Sunita Mehta	Lecturer (Contractual)	SPMS	30.4.2017
18.	Dr. Kuldeep Walia	Lecturer (Contractual)	SHSS	17.5.2017
19.	Dr. Manash Chakraborty	Lecturer (Contractual)	CED	19.5.2017
20.	Mr. Sandeep Singh	Lecturer (Contractual)	MED	2.6.2017
21.	Dr. Sandeep Kumar	Assistant Professor	MED	4.6.2017



**Non Teaching New Appointments**

S. No.	Name	Designation	Department	DOJ
1	Abdul Kabi	Assistant Manager	LMTSM	1-Jul-16
2	Amrinder Singh Karwal	Assistant Manager	CMS	1-Jul-16
3	Mandeep Bhardwaj	Purchase Executive	CS	1-Jul-16
4	Baljeet Kumar	Cricket Coach	Sports	4-Jul-16
5	Brinderjeet Singh	Football Coach	Sports	4-Jul-16
6	Ritu Bassi (Dr.)	Medical Officer	Health Centre	4-Jul-16
7	Harshpreet Singh	Basket Ball Coach	Sports	7-Jul-16
8	Jimmy	Associate	CMS	28-Jul-16
9	Himanshu Chopra	Jr. Associate	Legal Cell	8-Aug-16
10	Harjeet Kaur Boparai	Pharmacist	Health Centre	15-Nov-16
11	Amit Pandey	Sr. Associate	FS	21-Nov-16
12	Munish Prabhakar	Senior Manager	LMTSM	21-Nov-16
13	Avtar Singh	Associate	FS	1-Dec-16
14	Abhishek Bhardwaj	Pharmacist	Health Centre	15-Dec-16
15	Jeevan Jot Singh	Jr. Medical Officer	Health Centre	1-Jan-17
16	Navjot Singh	Associate	DOCA offc	5-Apr-17
17	Anupriya Saini	Comm Associate	Admission Cell	6-Apr-17
18	Manmeet Singh	Comm Associate	Admission Cell	6-Apr-17
19	Manpreet Singh	Comm Associate	CMS	6-Apr-17
20	Neha Singh	Mgt Trainee -	CTD	22-May-17
21	Himanshu Arya	Mgt Trainee	CILP	30-May-17
22	ManikaAttri	Mgt Trainee	CILP	30-May-17
23	AeimanPreet Singh	Jr Associate	CITM	1-Jun-17
24	MahmoodAlam	DGM	CMS Projects	6-Jun-17
25	Amandeep Dhot	Executive	HR	12-Jun-17

**Non Teaching Retirements**

S No.	Name	Designation	Department	Date of Retirement
1	Mr. Shailendra Pathak	Jr. Assistant	CMS	30.09.2016
2	Mr. Sant Ram	Chowkidar	Admin	31.12.2016
3	Mr. Sohan Singh	Chowkidar	GAS	28.04.2017
4	Mr. Rajbir Singh	Draftsman	ECED	28.04.2017
5	Mr. Hameed Khan	Mason	CMS	30.06.17

**Non Teaching Resignations**

S No.	Name	Designation	Department	Date of Resignation	Category
1	Dr. Jageer Kaur	Lady Doctor	Health Centre	20-Aug-16	Adhoc
2	Ms. Jyoti	Jr. Associate	Finance Section	7-Sep-16	Adhoc
3	Ms. Jasmine Ms. Esha	Staff Nurse	Health Centre	17-Sep-16	Adhoc
4	Chopra Mr. Lovjeet	Assistant Manager	LMTSM	1-Nov-16	Adhoc
5	Singh Mr. Manoj	Comm. Associate	CS	25-Nov-16	Adhoc
6	Kumar Mr. Vinay	Associate	CITM	25-Nov-16	Adhoc
7	Kumar Mr. Gurwant	Dy. General Manager Administrative	CMS	30-Dec-16	Adhoc
8	Singh	Officer	O/O DOSA	10-Feb-17	Adhoc
9	Mr. Ankit Jha	Assistant Manager	DOCA	26-May-17	Adhoc
10	Mr. Yogesh Jain	Associate	Registrar Office	7-Jun-17	Adhoc

**Non Teaching Term Expired**

S No.	Name	Designation	Department	Date of Term Expired	Category
1	Dr. Ramesh Puri Mr. Kishore Chand	Doctor	Health Centre	30-Dec-16	Adhoc
2	Sharma	Pharmacist	Health Centre	31-Dec-16	Adhoc
3	Mr. Ram Lal	Lab. Supdt.	CED	31-Dec-16	Adhoc

### 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 1666 (as on 10.10.2017) number of students graduated during the year and will be awarded degrees during the convocation to be held on November 3, 2017. 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.

#### Credit Transfer Program

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

The academic agreement between Thapar University and Trinity College Dublin will give students admitted to undergraduate International Engineering Program (IEP) at Thapar University (TU) the opportunity to study at Ireland's leading university, Trinity College Dublin. Eligible students will pursue the first two years of their course in India before transferring to Ireland in years 3 and 4 of the degree program, subject to meeting the required academic requirements. On completion of the degree, qualified students can apply to pursue a Masters qualification at Trinity College Dublin by completing one additional year at Trinity. This unique program is designed to give students international experience, prepare them for professional careers, and expose them to state of the art facilities and cutting edge research in the fields of engineering. The program provides an opportunity for engineering undergraduates to secure a degree from Trinity College Dublin, consistently ranked in the top 100 world universities by the QS World University Rankings. Trinity accepts the credits earned by the students during the first two years of their study at Thapar University subject to their meeting the minimum academic standards. TU will also specifically enrol 40 students from the current year particularly to do the last two or three years (in case of integrated BE/ME program) of their education at TCD from 2017.

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

#### Review of Curriculum

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

An Academic Review of the engineering programs was undertaken by a 15 member high level academic team from Trinity College Dublin during the first week of November 2014. A detailed report about the findings of the

review was received later that month. The objective of the review was to identify the gaps between the current performance levels of TU and those levels which would be needed to bring the University into the top ten for the university rankings of India resulting in TU rising to a university of significance on the global stage. The academic review covered review of curriculum, research, staffing, infrastructure, governance, academic and administrative decision making, strategic and implementation planning encompassing much of the entire academic culture of the University. The findings report set out a path, by means of a set of recommendations, to achieve a closing of the performance gap.

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

## **Faculty**

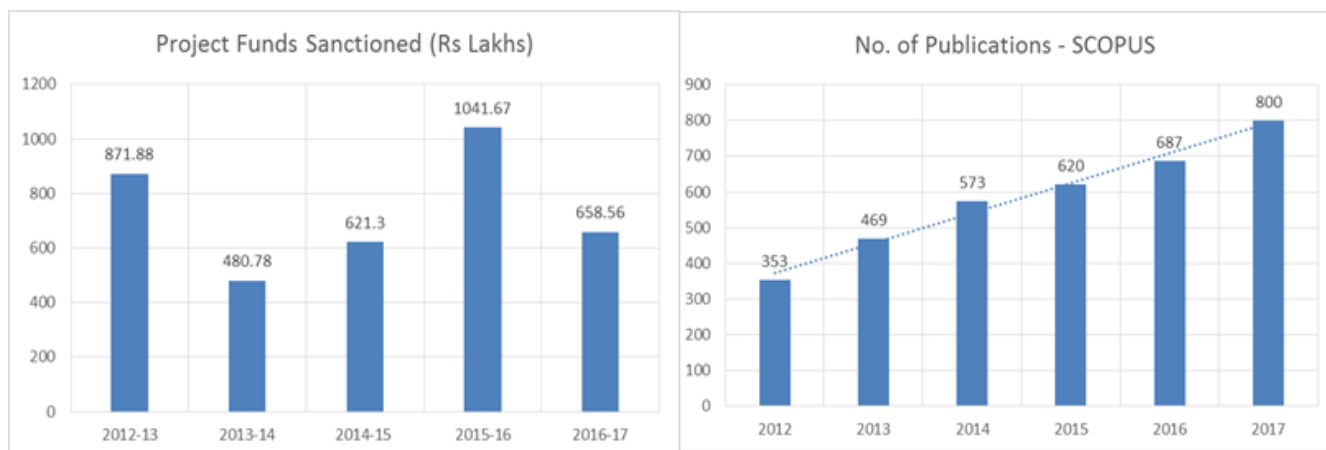
Human Resource is the important aspect for the growth of any higher education institute. Thapar University makes special efforts for recruitment and retention of quality faculty. The desired profile of the faculty at all levels has clearly been defined. The positions are advertised through print and electronic media. The impact of the change has clearly been visible through larger interest among prospective faculty to join Thapar University. A meticulous process of evaluation that includes seminar presentation and personal interviews with a carefully chosen panel of experts is adopted. A regular position is offered only to PhD holders. 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.

## **Faculty awards for Excellence**

Thapar University has also instituted a Performance Awards Scheme (PAS) in Teaching; Academic Research; Projects/Consultancy and Contributions to University Activities. While the performance award in Teaching is given to 10% of the regular faculty members, 5% of faculty members get award in Project/Consultancy and other 5% get in Academic Research. There are six awards for University Contributions. These awards are further divided into three categories: A, B and C. Category A award carries an amount of Rs. 1.5 lacs, Category B carries an amount of Rs. 1.0 lac and Category C carries an amount of Rs. 0.75 lac. These awards are given annually.

## **Research and Development**

Compared to the last few years, this year saw an increase in the research activities, wherein more funds were received for sponsored projects and higher number of Ph. D. students got registered. 27 new projects were received from various funding agencies. The total funding received during the year was Rs. 658.56 Lacs. During the year, 687 technical papers were published in Scopus Indexed journals.



Sponsored Projects	2012-13	2013-14	2014-15	2015-16	2016-17
Received	57	25	21	22	27
Funds Sanctioned (Rs. in lakh)	871.88	480.78	466.35 + 154.95 (Diety)	1041.67	658.56

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

## 4.0 STUDENT ACTIVITIES

### DETAILS OF ACTIVITIES DURING 2016-17



### **SATURNALIA**

It is the annual festival of Thapar University. All the students were introduced to Saturnalia the techno cultural fest. It was an amazing evening which generated keen interest among the students for Saturnalia, especially with the young freshmen students, who were going to be a part of such a mega event for the first time. Students from colleges of NCR, Tricity and Punjab actively participated in the fest. Grand Pre-Sat events PATIALA MARATHON and CHAKDE NIGHT were organized. Chakde Night, organised on 29th September, was planned as a promotional event for Nikka Zaildar, and included performances of various Punjabi Stars like Ammy Virk, Sonam Bajwa, Dilpreet Dhillon etc. Various informative cultural & technical workshops were organised for the students. PLC-Scada, Ethical Hacking, Arduino Workshop were some of the major workshops that attracted mass participation from students, rendering lots of knowledge and information to them. As with all the fests, the main attraction of Saturnalia'17 was the Star Nights.

### **URJA**

URJA, the third edition of the national level sports festival of Thapar University in which more than 20 institutes from all over the country participated, was held from 17th to 19th February 2017. The fest comprised of a plethora of events from Stunt Shows and Live Streaming of Matches to various sports events like Athletics, Cricket, Football, Volleyball, Basketball, Badminton, Lawn Tennis, Table Tennis, Chess and Marathon races. Some of the prominent participants included teams from Punjab Engineering College, Chandigarh; Chitkara University, Baddi and Rajpura; NIT, Kurukshetra; NIT, Jalandhar; University College of Engineering (UCOE), Punjabi University, Patiala; Maharshi Dayanand University, Rohtak; Maharshi Markandeshwar University, Mullana; LPU, Jalandhar; NSIT, Delhi; SLIET, Longowal; ITM, Gurgaon; ACIET, Amritsar; IMS, Ghaziabad. The following sports are considered under the main Sports events: Athletics, Badminton, Basketball, Chess, Football, Lawn Tennis, Table Tennis, Volleyball.

### **ADVENTURE CLUB**

In an effort to introduce new students to the activities of the club, a trip to Hatu Peak was organized. As part of the Adventure Club's initiative to provide a platform for people to grow and enrich their life experiences through adventure trips, a 3 day, 2 nights trip was organised to Jim Corbett National Park, Uttarakhand. The students of Thapar University represented their state and college at National level Skiing competition. The Adventure Club organised a 2-day River Rafting trip in Rishikesh. Faculty members accompanied the students on the trip. In this new academic section Adventure Club, Thapar University seized the attention of the students by conducting its first event of Bir-Biling, Kangra (H.P) trip.

### **AMERICAN INSTITUTE OF CHEMICAL ENGINEERS STUDENT CHAPTER (AICHE)**

Many new talented students with innovative ideas joined the prestigious student chapter. AICHE organized the fun-filled "technical" event- "Chemopoly". The students of all branches actively participated in this game which motivated the team to hold the event suitable for students of all branches. AICHE's annual Chem-e-Car competition engages college students in designing and constructing a car powered by a chemical energy source that will safely carry a specified load over a given distance.

### **LITERARY SOCIETY**

Literary Society is dedicated to providing a platform for literary expression and creativity to the students of Thapar University. The first edition of Thapar University's inter-college literary fest Eclectiza 2017 was organised on the 6th of February for a 3-day literary extravaganza, where literary enthusiasts from across North and Central India came down to Thapar University for the events. Eclectiza 2016, the inaugural edition of Thapar University's annual literary fest aimed at taking the literary society, its events and the students of Thapar University outside the walls of the university, to compete with the best colleges in the country. Other events organized by the society were: Elixir 2016, Acumen 2016, Debating Events: Freshman, Sophomore, and Challenger's Debate, Open Mike, and Many more Workshops.

### **INSTITUTION OF ENGINEERS (INDIA) THAPAR CHAPTER**

The year 2016 at IEI (Institution of Engineers), started off with a lot of events and activities for the students of Thapar University. The first one being Society Fair held on August 16, 2016. Other activities of the chapter included EXPERT TALKs, CRASH COURSE 2.0, Technotron 3.0, PROJECT SHOWCASE, RESUMÉ BUILDING, APP DEVELOPMENT WORKSHOP, ETHICAL HACKING WORKSHOP.

### **CREATIVE COMPUTING SOCIETY 2016-2017**

The society conducted many events including ORIENTATION, BYLD - Crash Course 2.0, HACK for INDIA - HACKATHON, CHAKRAVYUH, Switch Coding.

### **ECON CLUB (ECONOMICS CLUB THAPAR UNIVERSITY)**

The first major event of the semester was the WOLF OF DALAL STREET which was one of the best events of THAPAR UNIVERSITY of the year 2016. The major parts of this event were Mock IPL auction. Other major events organized by the society were: Policy Bazaar 1.0, GST AWARENESS WEEK. The club stood 3rd in Mock IPO, a flagship and international event with teams from Nepal, Thailand and Indonesia in attendance.

### **ENACTUS**

Enactus is a global, non-profit organization dedicated towards making a positive impact on the lives of people all across the globe. The society held many events including NARITVA to bring the consumer product gap by facilitating school girls and women in rural areas with easy access to low cost sanitary pads without having to face embarrassment; AASHAYEIN to impart professional stitching skills to ladies and make them self-dependent; E-SAHAYAK to help a village become technologically advanced, and PAINTING COMPETITION.

### **Thapar Movie Club**

Thapar movie club or TMC consists of a bunch of movie enthusiasts whose sole aim is appreciation and promotion of good cinema. The club organized a number of events including BOLLYWOOD KA TADKA, CINEYOUTH FILM FESTIVAL 2017, Eclectiza, Izhaar, NOX-Night, Nukkad Natak by KalamSociety and Theatre Playby Sheher, a comedy show by Sahil Shah, Bollywood Quiz, few plays Anton Chekhov - The Drowning Man, Death of a Clerk, The Bank Manager.

### **IETE SOCIETY**

IETE student's forum organised many events during the academic year. Some of the major events were: ARITHMANIA, The Arduino quiz, a workshop on "Arduino Micro-controller", Soldering Workshop, Android App Development, Bluetooth and Ultrasonic Controlled robots. They also organized ELEMENTOS, a week long fest organized by IETE students' forum, which gave a chance to showcase technical skills by participating in "LINE SEGUIDOR" and RESISTO.

### **FROSH WEEK**

FROSH WEEK comprises of various activities and events for the fresher class of Thapar University to ease them into their new surroundings. This year Frosh week succeeded with a lot of new and innovative events, such as: Proem Week, Sports-mania, Society fair, Frosh Eve, Games of Frosh, Foodies, Hunger games, Seniors VS Juniors, Karaoke Night, Black Theatre, La-caminar, Patiala City Tour.

### **GENE SOCIETY**

GENE society organized many events this academic year including an industrial, Quiz and movie showcase, A technical quiz competition, Technical event 'OPERON', and a panel discussion on 'synergy between academics and industry for biotech professionals.



**IICHE SOCIETY**

In this academic year IICHE society was quite active and managed to conduct numerous events. The major events were: Treasure Hunt, Knowledge Masters, Industrial Auction 1.0, Industry trip, Mock Gate, 3 day long festival Alchemy which included Sherlo-CH, Separation Yantra, Industrial Auction 2.0.

**MUSIC AND DRAMATIC SOCIETY**

The society successfully organized various events including Mudra Nite 2016 where students enjoyed Music, Dance, Fashion show, Skit; IZHAAR, SARGAM NITE 1.0.

**LEAD SOCIETY**

The society organised four events in the session 2016-2017 which included: Lecture on Food and Brain, Lecture on IAS-Preparation and Exams by Anurag Bachan, Quiz -Entertainment by LEAD Society group members, Industrial Visit to Ganpati Cements-Kathua.

**THAPAR MATHEMATICAL SOCIETY**

The society organized a number of events including Shoonya 2k17 which included a lecture on 'Vedic maths is logic not magic', Cryptography, Rubik's cube competition, Math-mania, Cryptics and showcasing of the movie 'The Man who knew Infinity'-a movie on the life of Dr. S. Ramanujan.

**MICROSOFT STUDENT CHAPTER**

A series of events were conducted by Microsoft Student Chapter, TU under the fest name "INSPIRUS 2K17" the events included Promotion of INSPIRUS, WORKSHOP for preparing MBA ,GRE, GATE ,IAS; Knockout, Anime and TV quiz, Treasure Hunt.

**THAPAR MUN SOCIETY**

The year started with the successful organization of Thapar Intra MUN. Some of the major interactions of the with other MUNs were Delhi International MUN 2016, ISBF MUN 2016, Ignite MUN 2017, Jesus and Mary College MUN 2017, Amity International MUN 2017, PEC MUN 2017, SD MUN 2017, Credence MUN 2017.

**NOX SOCIETY**

As part of the western dance society of Thapar University, NOXians organised a 2-week dance workshop conducted by the renowned choreographer, Ankit Sati in August 2016. They further participated in Western Dance competition in PEC fest 2016, organised by PEC University in October 2016. NOX Night was organised in University Open Air Theatre in February 2017 with some amazing dance performances both group and solo for Thapar Audience.

**OWASP Thapar Student Chapter**

The chapter organized 2 major workshops in the academic year, one was on Python and on Open CV. They also organized two Competitions 'Capture the Flag' and Hackerrank Coding Competition.

**PARYAVARAN WELFARE SOCIETY**

Like all previous years many events were organized by the society. Some of the major events were Solid Waste Management Exhibition (under Swachh Bharat Abhiyaan), Graffiti wall painting under Swachh Bharat Abhiyaan, Tree Plantation drives, Earth Day Celebrations with invitation to different schools, Tree Naming Programme, Save animal campaign (Through painting on trees), Vehicular Pollution check campaign, Nature Conservation Day Celebrations. Society received many accolades for its work, which includes Award of honor under Green Punjab Mission, Award of Honor by Municipal Corporation, Patiala.

**PRATIGYA SOCIETY**

The society is engaged in upliftment of socially backward class of the society. In order to enhance creativity and unleash the hidden potential in the students, Pratigya Welfare Society created a platform to showcase their talent by organizing two competitions Drawing and Rangoli Making. Society organized a movie show 'BAJRANGI BHAIIJAAN' for its students in Auditorium. Annual cultural fest of PratigyaUDAAN 2k17 was organized. Children participated in dance, singing, fancy dress, bhangra, skit, nautanki, anchoring, etc according to their talent & interest. Society also organized sports day for these children.

**MECHATRONICS AND ROBOTICS SOCIETY**

The society organized few workshops including Arduino basics, LEGO KIT WORKSHOP, SOLID WORKS WORKSHOP.

**SOCIETY OF MECHANICAL AND INDUSTRIAL ENGINEERS (SOMIE)**

The society organized many events including 'visual logo-quiz', Infinity-a General Engineering Quiz, SOLIDWORKS WORKSHOP -2016.

**ACE- INTER YEAR SPORTS LEAGUE (SPADES)**

The "Sports and Anti-Addiction Educating Society" organized the inter year sports league popularly known as ACE.

**SPICMACAY, THAPAR UNIVERSITY CHAPTER**

Based on the belief of preserving the culture, integrity and the Indian heritage amongst youth, SPICMACAY Thapar University chapter witnessed many events spread across the year, with Thapar University personally pitching to the artists for the first time. SPICMACAY team organised the "SOCIETY CONVENTION", 'Sanskriti- Hindustan kipehchaan' by young sitar prodigy Rishabh Seen and the famous Langa group from Rajasthan followed by classical performances by school and college students. SPICMACAY had a collaborated event with Enactus TU -art showcase by handicapped children from 'School of deaf, Patiala'. In an attempt to promote the fundamental principle of SPICMACAY, the volunteers pitched schools throughout Patiala, Nabha and Karnal. These included DAV, YPS and the KV's. Another event 'Kathputli' - a puppet show was organized by the famous Alankar group.

**TOASTMASTERS CLUB**

Thapar Toastmasters Club organized a few events during the academic year. They included TOAST TUSSLE 2.0, Spell-Bee, Toast Talks 3.0, Cryptomania, Mutomania, and Twistomania.

**VIRSA**

VIRSA comprises of various activities and events related to the culture and heritage of Punjab for all the students of Thapar University to spread awareness about the beautiful Punjabi culture. A Punjabi movie 'Angrej' was showcased in the main Auditorium of the Thapar University. Punjabi Literary Eve, Poetry Competition, Dandiyaan, Bhangra Wars, Jalwa-E-Virasat, MalwaiGidda, Punjabi Traditional Fair, Turban Tying Competition, Gatka Performance, Bhangra Performance, Gurupurab Celebrations.

**YOUTH UNITED**

The society organized many social events during the year including Cleanliness Drive, Pingalwada Visit, Joy of Giving Week, health camp, Food drive, SMILING FUTURE event including Painting & Drawing Event, music performance by Deaf and Blind School.

**NATIONAL SERVICE SCHEME (NSS REPORT)**

The university has 15 units of NSS. They are involved in many activities. The NSS organized many events including Blood Donation Camp, Road Safety, Road safety quiz, Special Camp for Blood donation, Eye sight

check-up, different medical, Medical Checkup Camp, Social Service, SwachhBharat, HEALTH AWARENESS CAMP, “BETI BACHAO BETI PADAQ”, Tree Plantation Drive, Moral Education Lecture to Schools students of village Behra, clothes distribution camp to needy people, medical camp for mess workers/ security guards/ gardeners/ drivers & other workers of LMTSOM, Training Session on importance of cleanliness and surroundings, environmental sanitation programme.

### SPORTS ACTIVITIES

GAME	TEAM STRENGTH	COMPETITION	DATES	VENUE	RESULT
Football (M)	18	Inter Tech. Uni.	01-03 Oct.2016	NIT Kurukshetra	1st Position
Basketball (M)	12	Inter Tech. Uni.	01-03 Oct. 2016	NIT Kurukshetra	1st Position
Basketball (W)	12	Inter Tech. Uni.	01-03 Oct. 2016	NIT Kurukshetra	1ST Position
Chess (M)	05	Inter Tech. Uni.	01 -03 Oct. 2016	NIT Kurukshetra	1st Position
Basketball (M)	11	Invitational Tou.	12 -14 Nov.2016	JayPee Uni. Solan	1st Position
Chess (W)	05	Inter Tech. Uni.	01-03 Oct. 2016	NIT Kurukshetra	3rd position
Wushu (M)	01	All Ind. Inter Uni.	26 -28 Oct. 2016	Pbi Uni. Patiala	3rd position
Volleyball (M)	12	Inter Tech. Uni.	01-03 Oct. 2016	NIT Kurukshetra	participation
Badminton(M)	07	Inter. Uni. Champ.	17-23 Oct. 2016	M.D.U .Rohtak	Participation
Chess (M)	04	Inter. Uni. Champ.	13-10 Oct. 2016	G.J. Uni. Hisar	Participation
Lawn Tennis (M)	05	Inter. Uni. Champ.	20-25 Oct. 2016	G.J.Uni. Hisar	Participation
Swimming (W)	05	Inter. Uni. Champ.	24-28 Oct. 2016	P.U. Chandigarh	Participation
Swimming (M)	08	Inter. Uni. Champ.	24-28 Oct. 2016	P.U. Chandigarh	Participation
Basketball (W)	10	Inter. Uni. Champ.	02-06 Nov.20 16	DCRUST Murthal	participation
Cricket (M)	16	Inter. Uni. Champ.	21-28 Nov. 2016	Ch.CSUni.Meerut	participation
Basketball (M)	10	Invitational Tou.	12 -14 Nov 2016	JayPee Uni. Solan	1st Position
Basketball (w)	10	Invitational Tou.	12 -14 Nov 2016	JayPee Uni. Solan	participation
Table Tennis (M)	04	Invitational Tou.	12 -14 Nov.2016	JayPee Uni. Solan	participation
Volleyball (M)	08	Invitational Tou.	12 -14 Nov.2016	JayPee Uni. Solan	participation
Volleyball (M)	12	Inter. Uni. Chm.	13 -18 Oct.2016	Pbi. Uni. Patiala	Participation
Lawn tennis (w)	03	Inter university	16-20 Jan 2017	Amity university	Participation
Football (m)	20	Inter university	17-25 Jan 2017	D.B university	Participation
Basketball	12	Inter university	17-31 Jan 2017	Pbi. Uni. Patiala	Participation
TableTennis (M)	05	Inter university	08-11 Feb 2017	Chitkarauni .H.P	participation
TableTennis (W)	04	Inter university	08-11 Feb 2017	Chitkarauni.H.P	Participation
wrestling	01	Inter university	24-02-2017	C.D.L.Sirsauni	Participation
Basketball (M)	10	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	1stPosition
Basketball (W)	10	Invitational Tou.	17 – 19 Feb 2017	Thapar Uni. Patiala	1stPosition
Football (M)	14	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	1stPosition
Volleyball (M)	10	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	2ndPositon
Badminton (w)	04	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	2nd Position
Table tennis(M)	04	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	Participation
Cricket(M)	14	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	1stPosition

Athletics (100m)M	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	2ndPosition
Athletics (100m)M	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	3rdPosition
Athletics (200m)M	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	1stPosition
Athletics (200m)M	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	3rd Position
Athletics (400m)M	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	1st Position
Athletics (400m)M	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	3rd Position
Athletics(100m) W	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	2nd Position
Athletics(100m) W	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	3rd Position
Athletics (200m)W	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	2ndPosition
Athletics (200m)W	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	3rd Position
Athletics (400m)W	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	1st Position
Athletics (400m)W	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	2ndPosition
Athletics (L. jump) M	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	2nd Position
Athletics (L. jump) M	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	3rd Position
Athletics (L. jump) W	01	Invitational Tou.	17 – 19 Feb 2017	TU, Patiala	2nd Position

### THAPAR UNIVERSITY COUNSELLING CELL (TUCC)

“Thapar University Counselling Cell (TUCC)” has the following Key Responsibility Areas (KRAs):-

To provide assistance of the highest quality to ensure students’ progress towards completion of their education and accomplishment of their personal development.

To support the aim of professional counseling to empower diverse individuals, families, and groups to accomplish mental health, wellness, education, and career goals (ACA, 2014), while advancing the vision of Thapar University of excellence in learning and assisting students to become self-aware and socially responsible leaders with a global perspective of tomorrow.

To be a resource for students who seek help in dealing with personal issues ranging from adjustment problems to major crisis.

#### A. PROGRAMMES FOR STUDENTS:

- Let’s Talk
- Individual Counseling
- Group Counseling

Under “Circle of Hope” group sessions with following themes were organized:

- Social Anxiety Group
- Ride The WAVE: Act for Anxiety
- Making The Grade

- Be Real
- Appetite for Life
- Green Mindfulness
- Developing Healthy Relationships
- Mood and Anxiety 101
- Anxiety and Depression 102
- Study Skills
- Improving Health: Chronic Disease Self-Management Program
- Emotional Skills Group
- Cognitive Skills Group
- Four Pack (Addictions Harm Reduction)
- Stress Free Zone
- Beyond Labels
- Cope and Thrive
- Women's Group

## **B. PROGRAM FOR STAFF:**

### **Student Mentorship Initiative:**

In a proactive effort to support and guide university students of first-year, under the aegis of DOSA, we started the Student Mentorship Programme aimed at promoting academic success and well-being.

The Programme enables selected faculty to serve as mentors and to remain in close and consistent contact with the students (batch of 25 each) throughout their period of study on campus. The purpose is to cater to their academic and intellectual needs and help them make a successful transition from high school to tertiary education. The students get a faculty mentor in the very first year itself, as a lot of fresh entrants struggle with the volume of work involved in their first-year because it is different from the work they were used to at school. So in lieu of that they need a more holistic approach that will look at all aspects of their development and help them successfully bridge the gap between high school and university.

The mentors along with Thapar University Counseling Cell (TUCC), Centre for Training & Development (CTD) and Wardens of hostels emphasize in coordinating and providing support for academic success, identity development, emotional health, leadership development, belonging and community consciousness.

## **C. DEPARTMENTAL INITIATIVES:**

School of Chemistry and Biochemistry: Session on "Self-Management" was conducted on 3rd March, 2016 for the M.Sc Chemistry (IInd Year) students, giving them in depth awareness about stress resistance, time management, self-motivation and healthy lifestyle.

Department of Mechanical Engineering: Session with UG & PG academically weak students was conducted on 20th February, 2017, to find out psychological reasons for their poor academic record and to boost their motivation and confidence.

Department of Biotechnology: Session with UG & PG academically weak students was conducted on 19th April, 2017, to find out psychological reasons for their poor academic record and to boost their motivation and confidence.

## **D. OTHER ACTIVITIES OF TUCC:**

Member of Disability Resource Center (DRC): Which offers a variety of services to students with documented disabilities, including learning disabilities, deaf/hard of hearing, blind/low vision, mobility limitations, mental health difficulties (depression, anxiety etc.) and other medical disabilities.

Member of Wellness Cluster: Which offers counselling regarding proper nutrition, proper exercise and healthy habits. So as to provide psychological support to the students to prevent and reduce the incidence of obesity in young students.

Panelist for assessing body language/behavior during Placement Symposium, Aug, 2016.

Held counselling sessions for students who were caught under UMC. Conducted counselling sessions for LMT students as per need initiated by the school.

**Finance and Fund Support**

THAPAR UNIVERSITY, PATIALA				
BALANCE SHEET AS AT 31ST MARCH, 2017				
SN	PARTICULARS	SCH. NO	AS AT 31.03.2017 ₹ (‘000)	AS AT 31.03.2016 ₹ (‘000)
<b>A</b>	<b>SOURCE OF FUNDS:</b>			
1	Capital Fund	1	3,952,241	3,456,515
2	Specific Donation	2	154,538	154,538
3	Grants Account	3	70,907	70,624
4	Projects & Fellowships	4	(28,957)	(19,306)
5	Industry Partners Fund		7,050	7,050
6	Alumini Fund	5	40,335	38,955
7	Security and Earnest Money	6	133,609	86,627
8	Current Liabilities	7	583,741	469,224
9	Provisions	8	408,320	396,076
	<b>Total</b>		<b>5,321,783</b>	<b>4,660,303</b>
<b>B</b>	<b>APPLICATION OF FUNDS</b>			
1	Fixed Assets	9	4,262,384	3,692,266
	Less: Accumulated Depreciation		1,812,039	1,541,075
			2,450,345	2,151,191
2	Work-in-Progress	10	810,721	85,245
3	Current Assets	11	1,739,067	2,252,797
4	Loans & Advances	12	282,331	131,305
5	Security Deposits	13	6,587	6,704
6	Grants recoverable	14	32,780	32,780
7	Scholarship ( SCs post matric )		(48)	282
	<b>Total</b>		<b>5,321,783</b>	<b>4,660,303</b>
	Notes to Accounts	25	0	0
<p>Subject to our report of even date For S C Vasudeva &amp; Co. Chartered Accountants Firm Reg. No. 000235N</p> <p>Sanjiv Mohan (Partner) M. No:086066 Date: 08.09.2017</p> <p>For Thapar University</p> <p>Finance Officer Thapar University Patiala-147 004</p> <p>Registrar Thapar University, Patiala-147004 (PG)</p> <p>Chairman BOG</p>				

THAPAR UNIVERSITY, PATIALA				
INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2017				
SN	PARTICULARS	SCH. NO	For Year ended 31.03.2017 ₹ ( '000)	For Year ended 31.03.2016 ₹ ( '000)
<b>A</b>	<b>INCOME</b>			
1	Tuition Fee	15	856,811	686,332
2	Other Academic Fee	16	148,853	122,359
3	Hostel Income	17	290,828	231,103
4	Interest income	18	155,522	168,593
5	Income from facilities	19	144	113
6	Income from Enterprise activities		6,131	6,745
7	Miscellaneous income	20	57,749	61,933
	Excess of expenditure over income		133,488	108,719
	<b>Total</b>		<b>1,649,526</b>	<b>1,385,899</b>
<b>B</b>	<b>EXPENDITURE</b>			
1	Establishment Expenses	21	783,807	657,838
2	Scholarship Expenses		88,433	67,028
3	Contribution to Projects/Core		23,308	2,877
4	Student activities & Welfare expenses	22	7,582	8,088
5	Facility expenses	23	3,319	2,896
6	Other Operating Expenses	24	439,622	343,844
7	Depreciation	9	270,964	259,636
8	Provisions for Gratuity		22,952	20,512
9	Provisions for Leave Encashment		9,540	23,181
	<b>Total</b>		<b>1,649,526</b>	<b>1,385,899</b>
	Notes to Accounts	25	-	-
<p>Subject to our report of even date For S C Vasudeva &amp; Co. Chartered Accountants Firm Reg. No. 000235N</p> <p>Sanjiv Mohan (Partner) M. No:086066 Date: 08.09.2017</p> <p>VASUDEVA &amp; CO. Chartered Accountants</p> <p>For Thapar University Finance Officer Thapar University Patiala-147 004 Chairman BOG</p> <p>Registrar Thapar University Patiala-147004 (P.O.)</p>				

DEPARTMENTS

DEPARTMENT OF BIO-TECHNOLOGY

CHEMICAL ENGINEERING DEPARTMENT

CIVIL ENGINEERING DEPARTMENT

COMPUTER SCIENCE & ENGINEERING DEPARTMENT

ELECTRICAL & INSTRUMENTATION ENGINEERING DEPARTMENT

ELECTRONICS & COMMUNICATION ENGINEERING DEPARTMENT

MECHANICAL ENGINEERING DEPARTMENT



## **DEPARTMENT OF BIOTECHNOLOGY**

### **1. Academic Programs**

Biotechnology was initiated in 1993 with Ph.D program thereafter M.Sc in Biotechnology was started in 1999 with the support from Department of Biotechnology, Ministry of Science and Technology, Govt. of India. It started B Tech in Biotechnology from 2003 and then MTech in Biotechnology from 2012. Focus of the Department is primarily to excel both in academics and research in the frontier areas of modern biotechnology and related fields. The focus of these academic programs is to provide excellent environment and state-of-the-art infrastructure for hands on training with industrial training. The potentials in Biotechnology were further recognized by Department of Science and Technology, Govt. of India and under Mission Reach, TIFAC-CORE (Centre of Relevance and Excellence) in Agro and Industrial Biotechnology was set up in the year 2000 and STEP (Science and Technology Entrepreneur's Park) in microbial and food technology was set up in 2005 by NSTEDB, which provides extensive support to research, human resource development and offers new opportunities to students for skill development and promotion of entrepreneurship and new start ups from amongst the students.

### **2. List of faculty**

<b>S. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Qualification &amp; Specialization</b>
1.	Dr. Moushumi Ghosh	Professor & Head	Ph. D. Biotechnology
2.	Dr. M. S. Reddy	Professor	Ph. D. Microbiology
3.	Dr. Dinesh Goyal	Professor	Ph. D. Microbiology
4.	Dr. Niranjana Das	Professor	Ph. D. Plant Biotechnology
5.	Dr. Sanjai Saxena	Professor	Ph. D. Microbiology
6.	Dr. Anil Kumar	Associate Professor	Ph. D. Plant Biotechnology
7.	Dr. Manoj Baranwal	Associate Professor	Ph. D. Animal biotechnology
8.	Dr. Siddharth Sharma	Associate professor	Ph. D. Animal Biotechnology
9.	Dr. Vikas Handa	Assistant Professor	Ph. D. Biotechnology
10.	Dr. M Vasundhara	Assistant professor	Ph. D. Biotechnology
11.	Dr. Shekhar Agnihotri	Assistant Professor	Ph. D. Nanotechnology
12.	Dr. Jyoti Rani	Assistant Professor	Ph. D. Food Science

### **3. Thrust areas of research**

The focus research area are applied microbiology, plant biotechnology, medical biotechnology, cancer biology, Microbial polymer production and applications in sensors, nutraceutical delivery and water treatment, natural products/bioactive molecules from microbial and plant sources, cancer biology, immunology, immunoinformatics, food Science. Bioprocess Technology, nanobiotechnology applications

### **4. Brief description of ongoing research activities**

Ongoing research is focused on technological development of microbial polymers, Development of antibiofilm-quorum quencher molecules, applications of electrogenic bacterial nanowires in microbial fuel cells and other sensors, novel microbial biopolymers for delivering therapeutic molecules, identification of peptide containing multi-epitope as vaccine candidate against Swine flu, Ebola virus and Cancer based on immunoinformatics and in vitro system. Exploring immunomodulatory and anticancer compound and bioactive molecules from biodiversity (microbes, plants and plant-microbe interactions) for the development of therapeutic interventions. Another focus is on the identification of novel cancer biomarkers for understanding susceptibility in lung and breast cancers.

Ongoing research also includes Identification of the candidate plus trees (CPTs) of the biodiesel crop *Jatropha curcas* L. in terms of the seed yield and oil quality, Molecular studies on the complex tuberization process in potato (*Solanum tuberosum* L.), selection of elite clones of *Bacopa monnieri* and development of biotechnological tools for the production of bacosides and development of blight resistance cultivars of Indian potatoes. Green synthesis of nanoparticles for application in agriculture and as antimicrobial agents, sourcing metal tolerant genes from ectomycorrhizal fungi, metatranscriptomic approaches for identification of novel genes, biocement and microbial concrete, Production of High Fructose Syrup from Cellulosic Agro-Waste using Dual Enzyme Immobilization on Halloysite Nanotubes as Recyclable Biocatalysts are other areas of interdisciplinary research.

##### 5. Departmental Achievements

- Papers published in SCI Journals: 29
- Papers published in Non SCI Journals: 4
- Papers published in conferences: 9
- Sponsored Research Projects New : Number of Projects and Amount (in Rs Lac): 2 project, 50.48 Lac
- Sponsored Research Projects Ongoing : Number of Projects and Amount (in Rs Lac): 10 projects, 303.26Lac
- Seminar/Conference/Workshop organized: 2
- Doctoral Degree Awarded: 6
- Visits abroad by faculty members: 1
- Awards and Honors: 5

##### 6. List of Awards and recognitions

S. No.	Name of the faculty	Award / Fellowship/ Nominations	University/ Organization	Month and Year
1	Niranjan Das	Best Presentation Award In Plant Science	National Conference FESA 2017	March 2017
2	Niranjan Das	Chaired the Sessions	National Conference, FESA, 2017	March 2017
3	Moushumi Ghosh	Advisor, ICEST, American Association For Advancement of science	American Association of Advancement of Science, Houston, Texas, USA	July 2016
4	Moushumi Ghosh	Chair, Environmental Technology, ICEST 5th EET-CRS Science & Technology Award for	AAS, Houston, Texas, USA	July 2016
5	Moushumi Ghosh	outstanding scientific contribution	EET-CRS, India	June 2017

## **DEPARTMENT OF CHEMICAL ENGINEERING**

The Department of Chemical Engineering was sanctioned 01 sponsored project (worth 41.21 lacs) by DST. The department also received a grant of 2.1 crores from DST-FIST. The University funding (175 lacs) has also been received for strengthening of various laboratories.

The faculty of the department has published 48 research papers in SCI Journals. Number of full time Ph.D. students has increased to 20, majority of them are getting fellowships from sponsored projects (DST, NRB, CSIR, DAE-BRNS) or Government fellowship programs. Five Ph.D. students are getting TA ships from the University.

Four faculty members from the Department got financial award from International Atomic Energy Agency (IAEA) for presenting their research work in international conference (ICARST-2017) in Vienna during 24- 28 April 2017.

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

### **1. Academic Programs**

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

### **2. List of faculty**

S. No.	Name	Designation	Qualification
1.	Dr. D.Gangacharayulu	Professor	Ph. D.
2.	Dr. Rajeev Mehta	Professor	Ph. D.
3.	Dr. Haripada Bhunia	Professor	Ph. D.
4.	Dr. Raj Kumar Gupta	Associate Professor	Ph. D.
5.	Dr. Sanghamitra Barman	Associate Professor	Ph. D.
6.	Dr. Vikas Kumar Sangal	Associate Professor	Ph. D.
7.	Dr. Sanjiv Ahuja	Assistant Professor	Ph. D.
8.	Mr. Parminder Singh	Assistant Professor	Ph. D.
9.	Mr. Rakesh Kumar Gupta	Assistant Professor	Ph. D.
10.	Dr. Jai Prakash Kushwaha	Assistant Professor	Ph. D.
11.	Dr. Vijaya Kr Bulasara	Assistant Professor	Ph. D.
12.	Dr. Avinash Chandra	Assistant Professor	Ph. D.
13.	Dr. Sudhir Kumar Singh	Assistant Professor	Ph. D.
14.	Dr. Neetu Singh	Assistant Professor	Ph. D.
15.	Dr. Raj Kumar Arya	Assistant Professor	Ph. D.
16.	Dr. Alok Garg	Assistant Professor	Ph. D.

### 3. Thrust areas of research

Adsorption, Bioprocessing, Catalysis, Computational fluid dynamics, CO<sub>2</sub> capture and sequestration, Polymers, Polymer nanocomposites, Biodegradable polymers, Divided wall and reactive distillations, FCC modeling and simulation, Heat Transfer and Heat pipes, Industrial pollution abatement, Membrane separations, Molecular modeling, Nanofluids, Residence time distribution studies in industrial systems.

### 4. Brief description of ongoing research activities (with pictures of key experimental setups or equipment)

At present the department is pursuing research in the following areas.

- *Carbon Capture and Sequestration (CCS)*: Research activities in this area include polymer production using carbon dioxide, development of adsorbent(s) for CO<sub>2</sub> adsorption, bio-sequestration of CO<sub>2</sub> using algae & cyanobacteria.
- *Heat transfer and heat transfer enhancement*: Use of nanofluids in heat transfer applications, experimental and numerical studies on heat transfer from semicircular cylinders, heat pipes.
- *Polymers and polymer nanocomposites*: Synthesis of biodegradable polymers and their nanocomposites; Studies on STF - nanoclay based composites for personal armour systems, Shear thickening fluids, Nanocomposites adsorbents, Fibre reinforced composites with nano fillers.
- *Modeling and simulation*: FCC, Reactive distillation, Heat Transfer, Divided wall and extractive distillations, CFD, molecular modeling and simulation, RTD models for industrial systems
- *Reaction Kinetics & Catalysis*: Transalkylation of alkyl aromatics over modified zeolite catalyst, hydrogen generation from hydrides, catalytic oxidation of furfural to furoic acid, kinetic studies of advanced oxidation processes (AOPs) for wastewater treatment.
- *Separation processes*: Application of natural adsorbents and preparation of ceramic membranes for wastewater treatment.
- *Application of radioactive materials*: Study of hydrodynamics and RTD using radio-tracers, Radiation grafting of polymers to improve biodegradability.
- The department has collaboration with industries by way of sponsored projects to study the hydrodynamics and RTD of Industrial systems using radio-tracers.

### 5. Activities round the year

- The department has been accredited by NBA.
- The department has applied for ABET accreditation.
- Modernization of UG labs is undergoing.
- A data acquisition system for radio-tracers has been procured.
- Setup for RTD experiments has been procured.
- Interaction with industries (Setia Paper Mills, Muktsar; IOLCP, Barnala; Trident, Barnala) and research institutions (BARC, Mumbai) through collaborative research projects.

### 6. New Plans and Projects

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

- Strengthening of industry-institute interaction through collaborative projects.

### 7. Major acquisitions during the year and new laboratory development

The Department of Chemical Engineering has acquired several major equipment including: Effluent treatment setup (6.0 Lac), Recycle reactor (4.7 Lac), Gas diffusion apparatus (3.4 Lac) and Flue gas analyzer (1.5 Lac) and also four all-in-one desktop computers (2.6 Lac) for modeling and simulation lab.

### 8. Departmental Achievements (Pl provide numbers only in this section – details to be provided in subsequent sections)

- Papers published in SCI Journals: 48
- Papers published in Non SCI Journals: 15
- Papers published in conferences: 7
- Sponsored Research Projects New : Number of Projects and Amount (in Rs Lac): 1 project, 41.21 Lac
- Sponsored Research Projects Ongoing : Number of Projects and Amount (in Rs Lac): 5 projects, 150.5 Lac
- Consultancy Projects Number of Projects and Amount (in Rs Lac): 1 project, 5 Lac
- Seminar/Conference/Workshop organized: 1
- Doctoral Degree Awarded: 2
- Visits abroad by faculty members: 4
  - Awards and Honors: 1

### 9. List of Awards and recognitions

S. No.	Name of the faculty	Award / Fellowship/ Nominations	University/ Organization	Month and Year
1	Prof. Rajiv Mehta	Best Innovative Young Researcher award at the 4th International Conference on Nanoscience and Nanotechnology (ICONN 2017)	SRM University, India	August 2017

## **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 57 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 12 research papers in journals and conferences at national as well as international forum, and delivered lectures at reputed institutes/organizations. The faculty members were involved in various testing and consultancy projects amounting more than 152.7lacs. The department also augmented its laboratories by adding equipment worth nearly 24.62 lacs through funding from the university and research projects. The Department of Civil Engineering has been continuing as a Safety Consultant by National Highways Authority of India (NHAI) in the state of Himachal Pradesh & Jammu for Development, Construction and Post COD Maintenance Phase. Apart from this, the Department of Civil Engineering acts as a coordinator, State Technical Agency of Pradhan Mantri Gram Sadak Yojana (PMGSY) to scrutinize the DPR's.

### **1. Academic Programs**

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

### **2. List of faculty**

S. No.	Name	Designation	Qualification & Specialization
1.	Dr. Rafat Siddique	Sr. Professor	Ph.D, Structural Engineering
2.	Dr. Maneek Kumar	Professor	Ph.D, Structural Engineering
3.	Dr. Naveen Kwatra (Head)	Professor	Ph.D, Structural Engineering
4.	Dr. Sarbjit Singh	Assoc. Professor	Ph.D, Water Resources Engineering
5.	Mr. Rajesh Pathak	Assoc. Professor	ME, Geotechnical Engineering
6.	Dr. Prempal Bansal	Assoc. Professor	Ph.D, Structural Engineering
7.	Dr. Shweta Goyal	Assoc. Professor	Ph.D, Structural Engineering
8.	Dr. Shruti Sharma	Assoc. Professor	Ph.D, Structural Engineering
9.	Dr. Dwarikanath Ratha	Assoc. Professor	Ph.D, Water Resources Engineering
10.	Mrs. Neena Garg	Asstt. Professor	ME, Transportation Engineering
11.	Mr. Tanuj Chopra	Asstt. Professor	ME, Transportation Engineering
12.	Dr. Richa Babbar	Asstt. Professor	Ph.D, Water Resources Engineering

13.	Dr. Tapas Karmaker	Asstt. Professor	Ph.D, Water Resources Engineering
14.	Dr. Gurbir Kaur	Asstt. Professor	Ph.D, Structural Engineering
15.	Dr. Heaven Singh	Asstt. Professor	Ph.D, Structural Engineering
16.	Dr. Aditya Parihar	Asstt. Professor	Ph.D, Geotechnical Engineering
17.	Dr. A.B. Danie Roy	Asstt. Professor	Ph.D., Structural Engineering
18.	Dr. Sahil Bansal	Asstt. Professor	Ph.D, Structural Engineering
19.	Dr. Surendra Beniwal	Asstt. Prof. (Contr)	PhD, Structural Engineering
20.	Dr. Shakel Ahmad	Asstt. Prof. (Contr)	PhD, Structural Engineering
21.	Ms. Mansha Swami	Lecturer (Adhoc)	ME, Transportation Engineering
22.	Mr. Raju Sharma	Lecturer (Adhoc)	ME, Structural Engineering
23.	Ms. Reema Goyal	Lecturer (Adhoc)	ME, Structural Engineering

### 3. Thrust areas of research

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

### 4. Brief description of ongoing research activities (with pictures of key experimental setups or equipment)

#### Development of Sustainable Concrete Using Coal Bottom Ash

The coal fired thermal power plants are the main source of production of coal ash. The coal ash collected at the bottom of the furnace is called coal bottom ash (CBA). In India, more than 30 million tons of coal bottom ash (CBA) is produced annually. This is by and large is disposed-off in open land adjoining to the power plants, which poses a serious environmental problem. Exploring the use of coal bottom ash in concrete manufacturing as replacement (0-60%) of fine aggregates can be beneficial in two ways; preserving the natural sand, and maintaining ecological balance.

Tests were performed to evaluate the properties of fresh and hardened concrete containing coal bottom ash up to the age of 365 days. Test results indicate that CBA could be suitable used as replacement structural grade concrete, and also in making concrete for paving blocks, etc with larger quantity of CBA.

#### 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 (2016-17)**

25 students of 2<sup>nd</sup> year visited Ganapati cement industry on 29<sup>th</sup> March 2017 in Kathua, Jammu & Kashmir for a technical knowledge of Satyam cement manufacturing under student society.

#### **6. New Plans and Projects**

Research Projects from Various Funding Agencies, Upgradation of existing infrastructure

#### **7. Major acquisitions during the year and new laboratory development**

Two new laboratories, Transportation Engg. And Structural Mechanics, were constructed in the Department during annual year 2016-17, and equipped with modern testing equipments. Geotechnical Engg. Laboratory acquired digital acquisition systems for Triaxial, consolidation and direct shear test setups. A new casting area was prepared in Structural Engg. Laboratory.

#### **8. Departmental Achievements (Pl provide numbers only in this section – details to be provided in subsequent sections)**

Papers published in SCI Journals	10	
Papers published in Non SCI Journals	05	
Papers published in conferences	02	
Sponsored Research Projects Ongoing	02	126.6 Lakhs
Consultancy Projects	03	25.Lakhs
Doctoral Degree Awarded		
Awards and Honors	01	





New Transportation Engineering Lab with addition of two major equipments: Rheometer and Light weight Deflectometer



New Structural Mechanics Lab with advanced testing equipment



Upgradation of Direct Shear, Consolidation & Tri-axial testing equipment in the Geotechnical Engineering Lab

## **COMPUTER SCIENCE AND ENGINEERING DEPARTMENT**

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

At the undergraduate level, the Department lays emphasis on Software Engineering, Algorithm Analysis and Design, Operating Systems, Computer Graphics, Database and information Systems Engineering and Networking Technologies. The Department provides exposure to emerging technologies as well as futuristic technologies like Cloud computing and High Performance Computing. The research area of the Department is in the field of Software Engineering, Cloud Computing, Theoretical Computer Science, Data Mining, information security, computer networking and machine learning.

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

### **Section1**

#### **1. Academic Programs**

- B.E. Computer Engineering
- ME Computer Science and Engineering
- ME Software Engineering
- ME Information Security
- Master of Computer Applications (MCA)
- PhD

#### **2. List of faculty**

<b>Sr. No</b>	<b>Name of Faculty</b>	<b>Designation</b>
1.	Dr. R.K Sharma	Professor
2.	Dr. Seema Bawa	Professor
3.	Dr. Rajesh Kumar	Professor
4.	Dr. Inderveer Channa	Professor
5.	Dr. Maninder Singh	Professor
6.	Dr. A.K Verma	Professor
7.	Dr. Neeraj Kumar	Associate Professor
8.	Dr. Parteek Bhatia	Associate Professor
9.	Dr. Rinkle Rani	Associate Professor
10.	Dr. ShaliniBatra	Associate Professor
11.	Dr. V.P. Singh	Associate Professor
12.	Dr. Rajiv Kumar	Assistant Professor
13.	Dr. Singara Singh	Assistant Professor
14.	Dr. Ajay Kumar	Assistant Professor
15.	Mr. Anil Vashisht	Assistant Professor
16.	Dr. Vinod Kumar Bhalla	Assistant Professor
17.	Dr. Maninder Kaur	Assistant Professor
18.	Ms. VineetaBassi	Assistant Professor
19.	Dr. Sushma Jain	Assistant Professor
20.	Dr. Rupali Bhardwaj	Assistant Professor
21.	Dr. Anju Bala	Assistant Professor

22.	Dr. Ravinder Kumar	Assistant Professor
23.	Dr. Ashima Singh	Assistant Professor
24.	Dr. Karun Verma	Assistant Professor
25.	Mr. Sumit Miglani	Assistant Professor
26.	Dr. Sanmeet Kaur	Assistant Professor
27.	Mr. Ashish Aggarwal	Assistant Professor
28.	Mr. Rajkumar Tekchandani	Assistant Professor
29.	Mr. Vinay Arora	Assistant Professor
30.	Ms. Sunita Garhwal	Assistant Professor
31.	Dr. Ashutosh Mishra	Assistant Professor
32.	Dr. Sharad Saxena	Assistant Professor
33.	Dr. Jhilik Bhattacharya	Assistant Professor
34.	Dr. Prashant Singh Rana	Assistant Professor
35.	Dr. Vijay Kumar	Assistant Professor
36.	Dr. Karamjit Kaur	Assistant Professor
37.	Dr. Raman Singh	Assistant Professor
38.	Dr. Shreelekha Pandey	Assistant Professor
39.	Dr. Geeta Kasana	Assistant Professor
40.	Dr. Avleen Kaur Malhi	Assistant Professor
41.	Dr. Shailendra Tiwari	Assistant Professor
42.	Dr. Shivendra Shivani	Assistant Professor
43.	Dr. Sangita Roy	Assistant Professor
44.	Dr. Raman Kumar Goyal	Assistant Professor
45.	Dr. Rajesh Mehta	Assistant Professor
46.	Dr. Santosh Singh Rathore	Assistant Professor
47.	Dr. Mohd. Naseem	Assistant Professor
48.	Ms. Palika Chopra	Lecturer (Contr)
49.	Ms. Rupinderdeep Kaur	Lecturer (Contr)
50.	Ms. Tarunpreet Bhatia	Lecturer (Contr)
51.	Ms. Sukhchandan	Lecturer (Contr)
52.	Ms. Harkiran Kaur	Lecturer (Contr)
53.	Mr. Shatrugan Modi	Lecturer (Contr)
54.	Mr. Ashish Girdhar	Lecturer (Contr)
55.	Ms. Rajanpreet Kaur	Lecturer (Contr)
56.	Dr. Husanbir Singh Pannu	Lecturer (Contr)
57.	Ms. Anika	Lecturer (Contr)
58.	Mr. Ashutosh Aggarwal	Lecturer (Contr)
59.	Mr. Gurpal Singh Chhabra	Lecturer (Contr)
60.	Dr. Sukhpal Singh	Lecturer (Contr)
61.	Dr. Vinay Gautam	Lecturer (Contr)
62.	Dr. Seemu Sharma	Lecturer (Contr)
63.	Mr. Nitin Saxena	Lecturer (Contr)
64.	Ms. Swati Kumari	Lecturer (Contr)
65.	Dr. Anjali Anand	Lecturer (Contr)
66.	Dr. Manju	Visit. Assistant Professor
67.	Ms. Smita Agrawal	Lecturer (Contr)
68.	Mr. Vaibhav Agarwal	Lecturer (Contr)
69.	Dr. Nidhi Kalra	Lecturer (Contr)
70.	Mr. Hemant Kumar Gianey	Lecturer (Contr)
71.	Ms. Sukhnandan Kaur	Lecturer (Contr)
72.	Mr. Lov Kumar	Lecturer (Contr)
73.	Mr. Anoop Jacob Thomas	Lecturer (Contr)

74.	Ms. DivyaSahgal	Lecturer (Contr)
75.	Ms. Deep Mann	Lecturer(Contr)
76.	Ms. ArzooMiglani	Lecturer (Contr)
77.	Ms. PrabhleenJuneja	Lecturer(Contr)
78.	Mr. Parmpreet Singh	Lecturer (Contr)
79.	Ms. Navneet Kaur Kaleka	Lecturer(Contr)
80.	Mr. Sanjeev Rao	Lecturer (Contr)
81.	Ms. ShankyGoel	Lecturer(Contr)
82.	Mr. Abhishek Jain	Lecturer (Contr)
83.	Mr. Jasmeet Singh	Lecturer(Contr)
84.	Ms. Gaganpreet Kaur	Lecturer (Contr)
85.	Mr. Harpreet Singh	Lecturer(Contr)

### 3. Thrust areas of research

- Cyber Physical Systems & Security (Group Lead: Prof.Maninder Singh)
- Language Technologies and Machine Learning (Group Lead: Prof R. K. Sharma)
- Wireless Network and Mobile Computing (Group Lead: Prof. A. K. Verma)
- Fuzzy Based Big Data Analytics (Group Lead: Prof. Seema Bawa)
- Cloud and Software Systems Engineering Group (Group Lead: Prof.InderveerChanna)
- Pervasive And Adaptive System (PAAS) Research Group (Group lead: Prof. Rajesh Kumar)

### 4. Brief description of ongoing research activities

- Department has increased the SCI/SCIE publication count to over 300.
- Capstone project has been introduced at BE and ME level and students have been motivated to come with projects which have deliverable components.
- TCD faculty participates in department research as part of TCD-TU partnership under which TCD faculty act as co-supervisor in some of the on-going and/or fresh PhD scholars.

### 5. Activities round the year (2016-17)

- We are the 1st department in Thapar University where the activities related to the project semester are fully automated. Faculty and Industry Co-coordinators fill the marks of the students online through the designed portal.
- Department has successfully participated in Contemprisation program with Trinity College Dublin under which 30 students of CSED will complete their BE by studying 2 years in TU and two years in TCD.
- Department has a special cell for Women in Engineering to uplift and enhance the visibility of girl students and faculty in research and academics

### 6. New Plans and Projects

- To successfully implement Contemprisation program with TCD.
- To motivate students to make real time capstone project having value and worth in national and international domains.
- Department faculty is executing many sponsored research projects from MHRD, DST, UGC, AICTE, TCS *etc.* and striving to acquire more funding with active International Collaborations.
- Good number of Ph.D. students is receiving scholarships from various funding agencies under UGC, CSIR, TCS *etc.*

### 7. Departmental Achievements (Pl provide numbers only in this section – details to be provided in subsequent sections)

- Papers published in SCI Journals: 100
- Papers published in Non SCI Journals:17

- Papers published in conferences: 70
- Sponsored Research Projects New: Number of Projects and Amount (in Rs Lac):06 (74.82)
- Sponsored Research Projects Ongoing: Number of Projects and Amount (in Rs Lac):03(215.87)
- Patent: Filed/Granted: 02/01
- Doctoral Degree Awarded: 20
- Awards and Honors: 06

#### 8. List of Awards and recognitions

S. No.	Name of the faculty	Award / Fellowship/ Nominations	University/ Organization	Month and Year
1.	Karamjit Kaur	Research Fellowship for Pursuing PostDoc	University of South Australia	May 2017
2.	Karamjit Kaur	Travel Grant 550 AUD to give oral presentation at Emerging Big Data Technologies Summit, held from 7-9 December 2016 in Melbourne, Australia	International Innovative Research Network	September 2016
3.	Dr. Seema Bawa	Panelist from Thapar University during a panel discussion on imparting quality technical education in India	Indonesia India Knowledge Education Forum 2017 (IIKEF 2017), at University of Ahmad Dalhan, 09.00 – 12.00 in Yogyakarta, Indonesia.	30 January 2017,

## **ELECTRICAL & INSTRUMENTATION ENGINEERING DEPARTMENT**

In the year 2016-17, the Electrical and Instrumentation Engineering Department has progressed in all directions. The department faculty has published 33 papers in SCI journals of high repute. The department has completed projects worth 62.5 lacs and has received 8 more research projects sponsored by various agencies like DST, DRDO, CSIR *etc.* amounting to Rs 123.13 lacs. Four new faculty members have joined the department in this year.

### **1. Academic Programs**

- BE- Electrical Engineering, Electronics (Instrumentation & Control);
- ME – Power System, Electronic Instrumentation and Control

### **2. List of faculty**

<b>S. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Qualification &amp; Specialization</b>
1.	Dr. Smarajit Ghosh	Professor	PhD
2.	Dr. Ravinder Aggarwal	Professor	PhD
3.	Mrs. Manbir Kaur	Associate Professor	ME/ PhD pursuing
4.	Dr. Mandeep Singh	Associate Professor	PhD
5.	Dr. Sanjay Kumar Jain	Associate Professor	PhD
6.	Dr. Sunil K. Singla	Associate Professor	PhD
7.	Dr. Saurabh Bhardwaj	Associate Professor	PhD
8.	Dr. Mukesh Singh	Associate Professor	PhD
9.	Dr. Parag Nijhawan	Asst Prof	PhD
10.	Dr. M. D. Singh	Asst Prof	PhD
11.	Dr. Gagandeep Kaur	Asst Prof	PhD
12.	Ms. Suman Bhullar	Asst Prof	ME/ PhD pursuing
13.	Dr. Nitin Narang	Asst Prof	PhD
14.	Mr. Nirbhow Jap Singh	Asst Prof	ME/ PhD pursuing
15.	Mr. Moon Inder Singh	Asst Prof	ME/ PhD pursuing
16.	Dr. Shakti Singh	Asst Prof	PhD
17.	Mr. Souvik Ganguli	Asst Prof	ME/ PhD pursuing
18.	Dr. Deepti Mittal	Asst Prof	PhD
19.	Dr. Sangeeta Kamboj	Asst Prof	PhD
20.	Dr. Prasenjit Basak	Asst Prof	PhD
21.	Dr. Amrita Sinha	Asst Prof	PhD
22.	Dr. Jainy Sachdeva	Asst Prof	PhD
23.	Dr. Surya Prakash	Asst Prof	PhD
24.	Dr. Santosh Sonar	Asst Prof	PhD
25.	Dr. Vikram	Asst Prof	PhD
26.	Dr. Vishal Srivastava	Asst Prof	PhD
27.	Dr. Swati Sondhi	Asst Prof	PhD
28.	Dr. Mahesh Kumar	Asst Prof	PhD

29.	Dr. Sanjeev Kumar Aggarwal	Asst Prof	PhD
30.	Dr. Sahaj Saxena	Visiting Asst Prof	PhD
31.	Dr. Vipin Chandra Pal	Visiting Asst Prof	PhD
32.	Ms. Ruchika	Lecturer (Contr)	ME/ PhD pursuing
33.	Ms. Navdeep Kaur	Lecturer (Contr)	ME/ PhD pursuing
34.	Mr. Jitender	Lecturer (Contr)	ME/ PhD pursuing
35.	Mr. Shailesh Kumar	Lecturer (Contr)	ME/ PhD pursuing
36.	Mr. Chandrakant Tiwari	Lecturer (Contr)	ME/ PhD pursuing
37.	Mr. Tapas Choudhury	Lecturer (Contr)	ME/ PhD pursuing

### 3. Thrust areas of research

Power System, Electric Drives, Renewable Energy, Biomedical Instrumentation, Cognitive Engineering, Embedded System, Signal Processing

### 4. Activities round the year (2016-17)

One IEEE conference has been organized in the department. Ten outside experts have delivered their lectures at EIED, TU. Seven faculty members have delivered invited talks in other reputed institutions.

### 5. List of Awards and recognitions

S. No.	Name of the faculty	Award / Fellowship/ Nominations	University/ Organization	Month and Year
1.	Dr. Saurabh Bhardwaj	Best Paper Award	Third International Conference on Information Systems Design and Intelligent Applications	Jan, 2016
2.	Dr. Saurabh Bhardwaj	Best Presentation Award	Workshop: Computational Intelligence: Theories, Applications and Future Directions, IIT Kanpur	July 2013
3.	Dr. M D Singh	2 <sup>nd</sup> Runner-up and cash prize of Rs. 50,000/- in Smart India Hackathon 2017	Jointly organized by AICTE, MHRD, Department of Industry Policy and Planning at Jaipur	March 2017

## Electronics Engineering Department

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

### 1. Academic Programs

- B. E. (Electronics and Communication Engineering)
- B. E. (Electronics and Computer Engineering)
- BE-MBA (Electronics & Communication Engineering)
- B. E. (Electronics and Communication Engineering) with TCD
- ME(Electronics and Communication)
- ME(Wireless Communication)
- M. Tech(VLSI Design)
- Phd

### 2. List of faculty

S. No.,	Name of Faculty	Designation
1.	Dr. R.S. Kaler	Sr Professor
2.	Dr. Rajesh Khanna	Professor
3.	Dr. Sanjay Sharma	Professor
4.	Dr. Kulbir Singh	Professor
5.	Dr. Sumit Vyas	Assistant Professor
6.	Dr. Kavicharan Mummanemi	Assistant Professor
7.	Dr. (Mrs.) Alpana Aggarwal	Associate Professor
8.	Dr. Amit Kumar Kohli	Associate Professor
9.	Dr. Sanjay Kumar	Associate Professor
10.	Dr. Ravi Kumar	Associate Professor
11.	Dr. Karamjit Singh	Asst Prof
12.	Dr. Hardeep Singh	Asst Prof
13.	Mrs. Manu Bansal	Asst Prof



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14.	Dr. Urvinder Singh	Asst Prof
15.	Dr. Hem Dutt Joshi	Asst Prof
16.	Dr. Rishikesh Pandey	Asst Prof
17.	Mr. Ankush Kansal	Asst Prof
18.	Dr. Vinay Kumar	Asst Prof
19.	Mr. Arun Kr. Chatterjee	Asst Prof
20.	Dr. Ashutosh Kumar Singh	Asst Prof
21.	Dr. Neeru Jindal	Asst Prof
22.	Dr. Amit Mishra	Asst Prof
23.	Dr. Anil Arora	Asst Prof
24.	Dr. Ajay Kakkar	Asst Prof
25.	Ms. Amanpreet Kaur-II	Asst Prof
26.	Dr. Surbhi Sharma	Asst Prof
27.	Dr. Mayank Kumar Rai	Asst Prof
28.	Dr. Amanpreet Kaur-I	Asst Prof
29.	Ms. Harpreet Vohra	Asst Prof
30.	Dr. Sujit Kumar Patel	Asst Prof
31.	Dr. Jaswinder Kaur	Asst Prof
32.	Ms. Sakshi Bajaj	Asst Prof
33.	Dr. Rana Pratap Yadav	Asst Prof
34.	Dr. Mohit Agarwal	Asst Prof
35.	Dr. Rahul Upadhyay	Asst Prof
36.	Dr. Ravi Panwar	Asst Prof
37.	Dr. Hari Shankar Singh	Asst Prof
38.	Dr. A. K. Chatterjee	Visiting Professor
39.	Cmde(Retd.) Anil Kumar Sharma	Visiting Professor

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40.	Dr. Amit Munjal	Assistant Professor
41.	Mr. Sunil Kumar	Assistant Professor
42.	Mr. Santosh Kumar Yadav	Assistant Professor
43.	Mr. Sukwinder Singh	Assistant Professor
44.	Mr. Sukhwinder Kumar	Assistant Professor
45.	Ms. Gaganpreet Kaur	Assistant Professor
46.	Mr. Navneet Sharma	Assistant Professor
47.	Ms. Geetika Dua Sagoo	Assistant Professor
48.	Ms. Madhu Kushwaha	Assistant Professor
49.	Mr. Richik Kashyap	Assistant Professor
50.	Dr. Anil Singh	Assistant Professor
51.	Dr. Anurag Singh	Assistant Professor
52.	Dr. Anil Singh	Assistant Professor
53.	Dr. Kavicharan Mummaneni	Assistant Professor
54.	Dr. Anurag Singh	Assistant Professor

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### 3. Thrust areas of research

#### Antenna

- Microstrip antennas for next generation wireless communication systems
- Multi-banding of antenna

#### NanoDevices

- Nanophotonic Devices
- Optical MEMS/NEMS
- Hybrid Nano Devices
- Carbon Nano Tube based VLSI Interconnects
- Modeling and design of CNT based interconnects for next generation VLSI design
- CNT based FET

#### Optical fibre communication

- WDM systems

#### Signal Processing

- Fractional Signal Processing
- Image Processing

### **VLSI System and Circuit design synthesis**

- VLSI Signal Processing
- Digital VLSI Design

### **Wireless Communication**

- MIMO Communication Systems
- Fractional Fourier Transform based Communication Systems
- Coding for wireless systems
- MIMO OFDM

#### **4. Brief description of ongoing research activities (with pictures of key experimental setups or equipment)**

- Department of ECED is very active in research in the thrust areas mentioned above.
- Department has a wireless communication lab in which industry standard equipments like vector signal generator, spectrum analyzer and vector network analyzer are procured for carrying out latest research.
- Department was funded by Special Manpower development programme (SMDP) VLSI chips to system design with a funding of 1.25 crore.

#### **5. Activities round the year**

- Department has an International Engineering Program (BE Electronics and Communication Engineering) in Collaborated with Trinity College Dublin, Ireland. Our students are doing very well in academics at TCD.

#### **6. New Plans and Projects**

##### **Research labs**

Department is in the process of upgrading the research labs. These labs will cater to PhD students who are working as full time research students in the department. Moreover, it will provide opportunity to faculty members to bring more research projects for which space is already earmarked. The following labs has been set up/ upgraded

- Wireless Research Lab
- VLSI Design Research Lab
- Signal Processing Research Lab
- Antenna research lab
- Microwave lab
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##### **Fibre optic Communication lab**

A new fibre optic communication lab has been set up in the department. The existing lab which is small in size shall be converted into seminar hall.

##### **Seminar Room and VLSI research lab**

Existing seminar hall is small in size; therefore; existing, fiber lab has been merged into seminar hall.

##### **New Labs for UG/PG**

The department still needs two more labs in the area of MEMS and Sensor and Nano Devices to be built.

**7. Major acquisitions during the year and new laboratory development**

Three faculty members have visited TCD for the collaboration Contemporization. Project lab has been strengthened and buggy project has been introduced. Faculty room's renovation work has started.

**8. Departmental Achievements**

- Papers published in SCI Journals:87
- Papers published in Non SCI Journals:1
- Papers published in conferences:14
- Sponsored Research Projects New : Number of Projects and Amount (in Rs Lac): 1 projects (53.95lacs)
- Consultancy Projects : Number of Projects and Amount (in Rs Lac): NIL
- Patent : Filed/Granted: NIL
- Seminar/Conference/Workshop organized: 02
- Short Term courses organized: Nil
- Doctoral Degree Awarded:
- Lectures by visiting experts: 02
- Visits abroad by faculty members: 6
- Awards and Honors: NIL

## **MECHANICAL ENGINEERING DEPARTMENT**

### **1. Academic Programs**

The Department of Mechanical Engineering was established in 1956 with the inception of the Institute to produce high quality engineers the field of Mechanical Engineering to cater the needs of the newly Independent India. Since the Institute became a Deemed University in 1985, the department has increasingly focused on post graduate education and research. The Department offers undergraduate programs leading to B.E. Mechanical Engineering, B.E. Mechatronics Engineering and B.E. Mechanical (Production) Engineering, Postgraduate programs leading to M.E. (CAD/CAM & Robotics), M.E. (Production & Industrial Engineering), M.E. (Thermal Engineering), and Doctoral program leading to PhD Degree. The department also runs a BE-MBA dual degree program in collaboration with LMTSOM, Derabassi campus. The Department aims to produce quality professionals in Mechanical Engineering to compete globally and excel by carrying out basic and applied research in emerging areas by forging strong industry - institute interaction. In January 2008, the undergraduate program of Mechanical Engineering Department had been accredited for 5 years by NBA and now, in year 2017; it has been re-accredited for next 3 years. In addition, the department has been accredited by ABET for six years.

The Department is also notable for its laurels in international forums like Society of Automobile Engineers (SAE) Formula Students. Team FATEH, Thapar University had participated in the international event Formula SAE Italy 2017. The event was held at Riccardo Paletti Circuit, Strada per Fosio 1, Varano de' Melegari, PR 43040, Italy. TeamUltron Sports had Participated in Mega ATV Championship in Ahmednagar, Maharashtra, India from 13-16 March 2017 and secured a rank 51 out of 86 teams present at the event. Students participated in Formula Bharat 2017 from 24th to 29th Jan 2017 at Kari Motor Speedway, Coimbatore, Tamil Nadu, India and the overall rank achieved is 21st out of 55 teams.

### **2. List of faculty**

#### **Senior Professor**

<b>S. No.</b>	<b>Name</b>	<b>Qualification &amp; Specialization</b>
1.	Dr. S. K. Mohapatra	Ph.D. (Thermal Engineering)

#### **Professor**

<b>S. No.</b>	<b>Name</b>	<b>Qualification &amp; Specialization</b>
1.	Dr. Ajay Batish	Ph.D. (Industrial Engineering)

#### **Associate Professor**

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

8	Dr. J. S. Saini	Ph.D. (CAD/CAM)
9	Dr. Vivek Jain	Ph.D. (Machining Science)
10	Dr. Dheeraj Gupta	Ph.D. (Machining Science)

**Assistant Professor**

S. No.	Name	Qualification & Specialization
1.	Dr. Sandeep Sharma	Ph.D. (CAD CAM & Robotics)
2.	Dr. Ravinder Kumar Duvedi	Ph.D (CAD CAM & Robotics)
3.	Dr. Satish Kumar	Ph.D. (Thermal Engineering)
4.	Mr. Kishore Khanna	M.E. (CAD CAM & Robotics)
5.	Dr. Devender Kumar	Ph. D. (Robotics & Automation)
6.	Mr. Kundal Lal	M.E. (Thermal Engineering)
7.	Mr. Bikramjit Sharma	M.E. (CAD CAM & Robotics)
8.	Mr. Daljeet Singh	M.E. (CAD CAM & Robotics)
9.	Dr. Ashish Singla	Ph.D. (Robotics)
10.	Dr. Madhup Kumar Mittal	Ph.D. (Robotics)
11.	Dr. Anant Kumar Singh	Ph.D. (Production Engineering)
12.	Dr. Hira Lal Bhowmik	Ph.D. (Production Engineering/Tribology)
13.	Dr. Vineet Srivastava	Ph.D. (Production Engineering)
14.	Dr. Vikrant Khullar	Ph.D. (Thermal Engineering)
15.	Dr. Neeraj Grover	Ph.D. (Computer Structure and F.E. Analysis )
16.	Dr. Neeraj Kumar	Ph.D. (Design)
17.	Dr. Deepak Jain	Ph.D. (Machine Design, Finite Element Analysis)
18.	Dr. S. S. Ragit	Ph.D. (I. C. Engine)
19.	Dr. Karanvir Saini	Ph.D. (Machine Design)
20.	Dr. Ashish Purohit	Ph.D. (Machine Design)
21.	Dr. Gulshan Kumar	Ph.D. (Metallurgy and Materials)
22.	Dr. Gagandeep Bhardwaj	Ph.D. (Machine Design)
23.	Dr. Anu Mittal	Ph.D. (Thermal Engineering)
24.	Dr. Atanu Das	Ph.D. (Manufacturing)
25.	Dr. Rohit Kumar Singla	Ph.D. (Thermal Engineering)
26.	Dr. Deepa Modgul	Ph.D. (Material Engineering)
27.	Dr. Gautam Setia	Ph.D.(Thermal Engineering)
28.	Dr. Amandeep Singh Oberoi	Ph.D.(Thermal Engineering)
29.	Dr. Arshpreet Singh	Ph.D. (Manufacturing)
30.	Dr. Ravinder S Joshi	Ph.D. (Manufacturing)

**Visiting Assistant Professor**

S. No.	Name	Qualification & Specialization
1.	Dr. Rajendra Kumar	Ph.D. (Machine Design)
2.	Mr. Sachin Singh	M.E. (Manufacturing)

**Lecturers (Ad-hoc)**

S. No.	Name	Qualification & Specialization
1.	Mr. Atul Sharma	M.E.(Production Engineering)

2.	Mr. Harshavardhana Natrajan	M.E. (Manufacturing)
3.	Mr. Sayan Sadhu	M.E. (Thermal Engineering)
4.	Mr. Satish Kumar	M.E. (Manufacturing)

### 3. Thrust areas of research

The department of mechanical engineering is rich in research resources and offers doctoral program leading to Ph.D. degree. The major thrust areas of research are thermo-mechanical engineering, biomass gasification, solar thermal energy, fluidized bed combustion, alternate fuels, bulk solids storage and transportation, micromachining, polymer nano-composites, vibration and noise engineering, biomechanics, structural and aeroelastic analysis, vehicle dynamics, robotics, industrial automation, exoskeleton.

### 4. Brief description of ongoing research activities

In the academic year 2016-17 the faculties of mechanical engineering department have actively participated in number of research and development activities. Department has published total 60 papers in various reputed SCI journals. A number of research projects of worth 112.76 lac have been bagged from the reputed funding agencies as DST, CSIR, etc. Following are the highlights of ongoing research in the department. Salient feature of R&D activities of the department are given below

#### Sponsored Projects

- Reforming of biogas for hydrogen and its utilization in CI engine under dual fuel mode.
- Computational and experimental study of flow-induced vibration of a plate with piezoelectric material to improve performance of wind vibration energy harvester.
- Development of microwave processed cavitation erosion resistant cladding
- Development of electron beam cured carbon fiber/epoxy laminate filled with carbon nano tubes for mechanical joints.

#### Other activities

- 11 PhD dissertations have been awarded in year 2016-17. It is to inform, that Dr. R. K. Duvedi's doctoral thesis is received prestigious INAE award in 2016-17 and Dr. Atanu Das has received Weldwell Speciality Award from Indian Institute of Welding.
- Prof. S K Mohapatra has been nominated member of Research Council DREIMS Cuttack in April 2017.
- Four faculty members have received fellowships for post doctoral research work.

### 5. Activities round the year

- Onsite visit of NBA team during June 2017.
- Modernization of Heat Transfer lab with an expenditure of amount 1.2 crores.
- Project semester monitoring guideline and evaluation scheme have completely redesigned and implemented.
- Showcase of CAPSTONE project in May 2017.
- Process of BOE as per the TCD guideline is implemented.
- Prof. Romesh C. Batra, Virginia Polytechnic Institute and State University, Blacksburg, VA, Dr. Sanjeev Bedi, University of Waterloo, Canada and Prof. R. Mahajan from Virginia Tech College of Engineering, USA visited Mechanical Engineering department in 2017.
- A number of department faculties have visited abroad for various academic activity/conferences etc.

- Various teams of mechanical engineering students participated in the different events organized at the National and International Levels, viz., team FATEHde' Melegari, PR 43040, Italy, team Ultron Sports at Ahmednagar, Maharashtra, etc.



**NBA peer team visit, 2017**



**Team FATEH**



**Team ULTRON**



**Visit of Prof. R. Mahajan from Virginia  
Tech College of Engineering, USA**



**PGBSIA 2016**

## 6. New Plans and Projects

- Department is focused to bag more research projects from various funding agencies as DST, CSIR etc. Therefore, a number of research proposals have been applied to the various funding agencies.
- Teaching methodology/strategy is to be improved where, it will be more focused on the outcome based and as per the contemporisation programme with TCD.
- Modernization of Solid mechanics lab with an expenditure of amount 1.75 crores.
- Outcome based and research based teaching will be strengthened.
- 90% of the department faculty will be Ph.D. degree holder.



## 7. Major acquisitions during the year and new laboratory development

- Modernization of Heat Transfer lab with the expenditure of 1.2 crores.



**Heat Transfer lab**

## 8. Departmental Achievements

Papers published in SCI Journals:	60
Papers published in Non SCI Journals:	20
Papers published in conferences:	16
Sponsored Research Projects New:	04 Projects worth Rs 112.76 lacs
Sponsored Research Projects Ongoing:	06 projects worth Rs 125.73 Lacs
Consultancy Projects:	02
Patent Filed:	00
Seminar/Conference/Workshop organized:	01
Short Term courses organized:	01
Doctoral Degree Awarded:	11
Lectures by visiting experts:	03
Visits abroad by faculty members:	06
Awards and Honors:	03



**Team FATEH**



**Team ULTRON**



**Visit of Prof. R. Mahajan from Virginia Tech  
College of Engineering, USA**



**PGBSIA 2016**

## **SCHOOLS**

**SCHOOL OF HUMANITIES AND SOCIAL SCIENCES**

**SCHOOL OF CHEMISTRY & BIOCHEMISTRY**

**SCHOOL OF ENERGY AND ENVIRONMENT**

**SCHOOL OF MATHEMATICS AND COMPUTER APPLICATIONS**

**SCHOOL OF PHYSICS & MATERIAL SCIENCE**

**L.M. THAPAR SCHOOL OF MANAGEMENT**

## **SCHOOL OF HUMANITIES AND SOCIAL SCIENCES**

### **Section 1**

#### **1. Academic Programs**

The School of Humanities and Social Science offers M.A in Psychology and Economics and also offers Doctoral Programs leading to Ph. D Degree. The School also offers various Core and Elective courses in the area of Humanities & Social Sciences and management to Undergraduate and Postgraduate students of Engineering and Sciences. These courses are aimed at promoting Holistic development of students and to instill ethical values in them.

#### **2. List of faculty**

##### **Professor**

<b>S.No.</b>	<b>Name</b>	<b>Qualification &amp; Specialization</b>
1.	Dr (Ms) Santha Kumari	Ph.D., Cognitive and Experimental Psychology.
2.	Dr ( Ms) Ravi Kiran	M Phil. Ph.D., Industrial Management, E- Business, Business Environment

##### **Assistant Professor**

<b>S.No.</b>	<b>Name</b>	<b>Qualification &amp; Specialization</b>
1	Dr.(Mrs.) Gurvinder Kaur	Ph.D
2	Dr. Apurva Bakshi	Ph.D
3	Mr. Subhash Chandra Bose	MA
4	Dr. Ash Narayan Shah	Ph.D
5	Dr. Rakesh Kumar Sharma	Ph.D
6	Dr. Simerpreet Ahuja	Ph.D
7	Dr. Diksha Sharma	Ph.D
8	Dr. Anupam Sharma	PhD

#### **3. Thrust areas of research:**

Cognitive, Developmental, clinical, Experimental and Neuropsychology; Guidance and Counseling, Economics, Finance, Industrial Management, IPRs in Manufacturing, Knowledge Management, Human Resource Management, Communication skills, English literature, , Organizational Behavior.

#### **4. Brief Description of ongoing Research Activities**

##### **Activities round the year (2016-17)**

- International conference on role and relevance of ethics, innovation and IPRs in changing business scenario (ICREII-2016) organised by School of Humanities and Social Sciences, Thapar University Patiala-147004. (16-17 December, 2016).
- Organized a workshop related to the collaboration between the Clinical Psychology program of Thapar University and Groningen University, Netherlands, from 23rd to 27th January 2017 in the School of Humanities & Social Sciences

#### **5. New Plans and Projects**

Planning to start P.G. Diploma in Professional Skills in Clinical and Counselling Psychology from the session 2018-2019

**SCHOOL OF CHEMISTRY & BIOCHEMISTRY**

School of Chemistry & Biochemistry (SCBC) is unique school of learning and fostering innovative scientific ideas through interdisciplinary teaching and research in frontal areas of the chemical sciences. Faculty members are actively involved in frontier areas of research and having sponsored projects worth Rs. 541.03 (Lacs). The faculty members of School have published 44 research papers in SCI/high Impact factor journals 2016-17. School feels proud in welcoming Dr. Ashutosh Sharan Singh who have joined as Lecturer in this academic year.

School organized workshop and invited lectures for the benefits of students of various University and colleges. M. Sc. Chemistry students have attended summer training program at various industries/academic institutes.

**1. Academic Programs**

- M.Sc. (Biochemistry)
- M.Sc. (Chemistry)
- Ph.D. (Chemistry)

**2. List of faculty****Senior Professor**

S.No	Name	Qualification & Specialization
1.	Dr. Susheel Mittal	Ph.D. (Analytical Chemistry), Analytical Chemistry and Environmental Chemistry

**Professor**

S.No	Name	Qualification & Specialization
1.	Dr. Satnam Singh	Ph.D.
2.	Dr. Bonamali Pal	Ph.D.

**Associate Professor**

S.No	Name	Qualification & Specialization
1.	Dr. Ranjana Prakash	Ph.D.
2.	Dr. Amjad Ali	Ph.D./Inorganic Chemistry
3.	Dr. Manmohan Chhibber	Ph.D, Synthetic Organic Chemistry
4.	Dr. Kamaldeep Paul	PhD, Organic and Medicinal Chemistry

**Assistant Professor**

S.No	Name	Qualification & Specialization
1.	Dr. Satyendra Kumar Pandey	Ph.D., Organic and Medicinal Chemistry
2.	Dr. Vijay Luxami	Organic and Supramolecular Chemistry
3.	Dr. Soumen Basu	PhD & Inorganic Chemistry
4.	Dr. Diptiman Choudhury	Ph.D. & Biochemistry

**Lecturers (Ad-hoc)**

S.No	Name	Qualification & Specialization
1.	Dr. Ashish Kumar	PhD & Inorganic and Physical Chemistry
2.	Dr. Mily Bhattacharya	PhD & Biophysical chemistry & Protein-nanoparticle interactions.
3.	Dr. Davinder Kumar	PhD & Bioinorganic Chemistry, Renewable Energy, Redox-Active Ligands
4.	Dr. Ashutosh Sharan Singh	PhD & Supramolecular Chemistry

**3. Thrust areas of research:**

Electrochemical sensor, Biosensors for heavy metal ions, pesticides using whole cells, Nanoscale materials & Photocatalysis, Heterogeneous & Bio-catalysis, Biophysical chemistry, Organic synthesis, Medicinal & Pharmaceuticals, Organic and Inorganic Chemistry, Biochemistry and Protein chemistry.

**4. Brief description of ongoing research activities**

Research areas of School include basic chemistry, nanomaterial and photocatalysis, electroanalytical chemistry and sensors, heterogeneous and bio-catalysis, biophysical studies, new drug molecules, organic synthesis, biochemistry and environment science. One of the main aim of the school is to facilitate an integrated, multidisciplinary approach for the development of chemical and catalysis science leading to new products and processes.

**5. Departmental Achievements**

- Papers published in SCI Journals: **44**
- Sponsored Research Projects New 2016-2017 : **16 Projects (Rs 541.03 Lacs)**
- Sponsored Research Projects Completed : **4 Projects (Rs 100.98 Lacs)**
- Consultancy Projects : **1 Project (5.0 Lacs)**
- Awards and Honors: **1 (CChem)**

## **SCHOOL OF ENERGY & ENVIRONMENT**

### **1. Academic Programs**

M.Tech. Environmental Science and Technology

M.Tech Program in Energy Technology and Management

Ph.D. programs in the energy, environment and safety areas

### **2. List of faculty**

#### **Professor**

<b>S.No.</b>	<b>Name</b>	<b>Qualification &amp; Specialization</b>
1.	N.Tejo Prakash	Ph.D, Metal Biotransformations
2.	A S Reddy	Ph.D, Environmental Technology & Management

#### **Associate Professor**

<b>S.No.</b>	<b>Name</b>	<b>Qualification &amp; Specialization</b>
1.	Anita Rajor	Ph.D , Environmental Microbiology & Bioremediation
2.	Anita Rajor	Ph.D , Environmental Microbiology & Bioremediation

#### **Assistant Professor**

<b>S.No.</b>	<b>Name</b>	<b>Qualification &amp; Specialization</b>
1.	Babu, KS	M.Tech, Water and Wastewater Treatment Engineering
2.	Anoop Verma	Ph.D, Chemical & Biochemical Engineering Processes; AOP based treatment Technologies
3.	Venkatasubramanian, A	Ph.D, Solid Oxide Fuel Cells

### **3. Thrust areas of research**

- Environmental Management
- Energy Management
- Water and Wastewater Treatment
- Solid Oxide Fuel Cells
- Bioenergy and Hydrogen Generation
- Bioremediation
- Metal bioaccessibility and Bioactivity

### **4. Brief description of ongoing research activities**

HPLC, TOC analyzer, Energy Monitoring Equipment, Biodiesel generation and testing apparatus, air quality monitoring equipment.

### **5. Activities round the year**

Invited lecture by Dr. Amit Sinha, Sr. Scientist, BARC, Mumbai

### **6. New plans and projects**

Sponsored research project on Bioenergy and Hydrogen fuel generation; Laboratory setup for bioenergy research.

**7. Departmental Achievements**

- Papers published in SCI Journals : 17
- Papers published in Non SCI Journals : 02
- Papers published in conferences : 02
- Sponsored Research Projects Ongoing : 01 ( Rs 24.9 Lacs)
- Consultancy Projects : 07(Rs 1.4 Cr. )
- Doctoral Degree Awarded : NIL
- Visits abroad by faculty members : 01
- LECTURE by visiting expert : 01



**SCHOOL OF ENERGY & ENVIRONMENT****1. Academic Programs**

- M.Tech. Program in Environmental Science and Technology
- M.Tech Program in Energy Technology and Management
- Ph.D. program in the Energy and Environment

**2. List of faculty****Professors**

S.No	Name	Qualification & Specialization
1	Dr. A.S. Reddy	Ph.D.
2	Dr. N TejoParkash	Ph.D.

**Associate Professors**

S.No	Name	Qualification & Specialization
1	Dr.(Mrs.) Anita Rajor	Ph.D
2	Dr. Amit Dhir	Ph.D.

**Assistant Professors**

S.No	Name	Qualification & Specialization
1	Mr. K. SudhakarBabu	M.Sc
2	Dr. AnoopVerma	Ph.D
3	Dr. A.Venkatasubramanian	Ph.D.

**3. Thrust areas of research**

- Environmental Management
- Water and Wastewater Treatment
- Solid Oxide Fuel Cells
- Bioenergy and Hydrogen Generation
- Bioremediation
- Metal bioaccessibility and Bioactivity

**4. Brief description of ongoing research activities**

HPLC, TOC analyzer, Energy Monitoring Equipment, Biodiesel generation and testing apparatus, air quality monitoring equipment.

**5. New plans and projects**

Sponsored research project on Bioenergy and Hydrogen fuel generation; Laboratory setup for bioenergy research.

**6. Departmental Achievements**

- Papers published in SCI Journals : 27
- Papers published in Non SCI Journals : 02
- Papers published in conferences : 07
- Sponsored Research Projects Ongoing : 03
- Consultancy Projects : 03
- Doctoral Degree Awarded : 01
- Visits abroad by faculty members : 02

## **SCHOOL OF MATHEMATICS**

School of Mathematics (SoM) contributes to the mission of the University by providing mathematics majors to other engineering department and schools and also run own courses of PG level M.Sc. and Ph.D. SoM seeks to provide the students with experiences that will assist them in defining their career objectives. The faculty of SoM is committed for maintaining the high standards of teaching and research in mathematics and its applications. The School is committed to provide quality teaching with modern infrastructure and syllabus. Our syllabus is as per the international standards and relevant to industrial applications. 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 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. From time to time School also invited various expertize to deliver their lectures.

During the period: 1<sup>st</sup> July 2016 to 30<sup>th</sup> June 2017, the faculty of the School:

1. Has published 59 SCI papers and 06 Non SCI (referred) journals.
2. Completed 02 Ph.D. theses have been completed and 47 Ph.D. theses are ongoing.
3. 24 M.Sc. thesis have also been guided by the various faculty of the School.

### **1. Academic Programs**

The school offers M.Sc. programme in Mathematics and Computing (Regular mode). School also offers doctoral programme in Mathematics leading to PhD degree. Post Doctoral Fellows are also working under the supervision of the faculty. Further school is also engaged in imparting instructions in core courses on Mathematics to UG and PG students of the University.

### **2. List of faculty**

S. No.	Name	Designation	Qualification & Specialization
1	Dr. S. S. Bhatia	Professor	Ph.D.
2	Dr. A. K. Lal	Associate Professor	Ph.D.
3	Dr. Mahesh K. Sharma	Associate Professor	Ph.D.
4	Dr. Deepak Kr Gumber	Associate Professor	Ph.D.
5	Dr. Amit Kumar	Associate Professor	Ph.D.
6	Dr.(Ms.) MeenakshiRana	Assistant Professor	Ph.D.
7	Dr. Satish Kumar Sharma	Assistant Professor	Ph.D.
8	Dr. AnkushPathania	Assistant Professor	Ph.D.
9	Dr. Vivek	Assistant Professor	Ph.D.
10	Dr. (Ms.) Jatinderdeep Kaur	Assistant Professor	Ph.D.
11	Dr. Sanjeev Kumar	Assistant Professor	Ph.D.
12	Dr. Paramjeet Singh	Assistant Professor	Ph.D.
13	Dr. Vikas	Assistant Professor	Ph.D.
14	Dr. Harish Garg	Assistant Professor	Ph.D.
15	Dr. Sapna Sharma	Assistant Professor	Ph.D.
16	Dr. HemantKalra	Assistant Professor	Ph.D.
17	Dr. SumitChandok	Assistant Professor	Ph.D.
18	Dr. Kavita	Assistant Professor	Ph.D.

19	Dr. Raj Nandkeolyar	Assistant Professor	Ph.D.
20	Dr. Parmita Roy	Assistant Professor	Ph.D.
21	Mr. Anuj Kumar	Visiting Asst Prof	Ph.D.
22	Dr. Navdeep Kailey	Lecturer (Contr)	Ph.D.
23	Dr. Jolly Puri	Lecturer (Contr)	Ph.D.
24	Dr. Ram Niwas	Lecturer (Contr)	Ph.D.
25	Mr. Rajvir Singh Chauhan	Lecturer (Contr)	Ph.D.
26	Ms. Nisu Jain	Lecturer (Contr)	Ph.D.
27	Ms. IshaDhiman	Lecturer (Contr)	Ph.D.
28	Mr. Pramod Kumar Vaishnav	Lecturer (Contr)	Ph.D.

### 3. Thrust areas of research

Functional Analysis, Theoretical Astrophysics, Reliability, Operations Research, Numerical Analysis, Partial Differential Equations, Algebra, Fuzzy Reliability Analysis, Fuzzy Optimization, Partition Theory, Number Theory, Mechanics, Mathematical Programming, Biomathematics, Computational Fluid Dynamics, Seismology, Modeling of Transport Process.

### 4. Brief description of ongoing research activities

The faculty members of the School are actively working in different thrust areas of research. The research done by the faculty members is very useful for solving several real life problems. Faculty members are also serving as editorial board members, reviewers in different reputed journals and involved in the evaluation of M.Sc./Ph.D. thesis of other institutions. Some of the research output(s) are outlined below:

- Finite element analysis for mass-lumped Three-step Taylor Galerkin method for time dependant singular perturbed problems.
- Fitted mesh methods for numerical solutions of singularly perturbed problem.
- Numerical study on the SPGHH equation governing the ionic processes of real nerve propagation.
- Lattice hydrodynamic approach for traffic flow modeling.
- Reliability, availability and maintainability modeling of industrial process.
- Modeling of structure and oscillations of stellar systems in the rotating frame of reference.
- Some fixed point-problems in abstract spaces and applications.
- Finite b-groups with central automorphis group of minimal order.
- Applications of wavelets in uncertainty quantification.
- Numerical study of MHD nonfluid flow in the presence of induced magnetic fields.
- On q-series split n-colour partitions and F-partitions.
- Divisibility conjecture and existence of non-linear automorphisms of order p for non-abelian finite p-group.
- Integrated behavior and performance analysis of some industrial system.
- Algorithms for solving single and multi-criterial decision making problems in fuzzy environment.
- Construction of some new eterative methods for solving nonlinear equations.
- On  $L^1$  convergence of trigonometric series, with special coefficients.

### 5. Activities round the year (2016-17)

In addition to teaching various courses of UG and PG level during the session 2016-17, faculty of the School was involved in various research activities which produced good quality publications in refereed international

journals. The research activity also includes the supervising of Ph.D and M.Sc thesis. Details of thesis and publications are followed in following sections.

Several faculty members and students have participated in several national and international conferences and academic events. Various expertises also visited our department and delivered expert lectures. The School organized an international conference on “**Soft Computing for Problem Solving (SocProS 2016)**”. School of Mathematics established a “**Thapar Mathematical Society**” and organized various events during this period.

## 6. New Plans and Projects

The forthcoming activities of the School includes (but not limited to)

- I. 2 short term Courses/Workshops/Conferences.
- II. To publish high quality research papers in SCI Journals (50 SCI papers).
- III. Set of new infrastructure which includes one Lab with modern high-speed computers and software.
- IV. Around 5 major research projects with funding amount Rs 60 Lakhs from various central funding agencies as CSIR, DST, UGC, NBHM etc.
- V. To start new four year B.Tech. programme in Mathematics and Computing.

## 7. Major acquisitions during the year and new laboratory development

- a. New upcoming Seminar hall for the School of Mathematics (under implementation)
- b. One PG Laboratory.

## 8. Departmental Achievements

Papers published in SCI Journals	59
Papers published in Non SCI Journals	06
Sponsored Research Projects	06
Sponsored Research Projects Ongoing	08
Seminar/Conference/Workshop organized	01
Doctoral Degree Awarded	02
Lectures by visiting experts	04
Visits abroad by faculty members	-
Awards and Honors	-

## **SCHOOL OF PHYSICS & MATERIALS SCIENCE**

### **1. Academic Programs**

The school offers core courses of Physics and Materials science to all the undergraduate students of the university. Besides the following three programs which are run exclusively by the school, other free courses, namely, Biophysics, Modern Physics and Nanoscience and Nanomaterials, Engineering Materials, Applied Physics etc are offered to the university students.

- Master of Science in Physics (2 Years)
- Doctor of Philosophy in Physics

### **2. List of faculty**

S. No.	Name	Designation	Qualification
1.	Dr. K. K. Raina (EOL)	Distinguished Prof	PhD
2.	Dr. O P. Pandey	Sr Professor	PhD
3.	Dr. Kulvir Singh	Professor	PhD
4.	Dr. Manoj K. Sharma	Professor	PhD
5.	Dr.(Ms.) AlkaUpadhyay	Associate Professor	PhD
6.	Dr. Puneet Sharma	Associate Professor	PhD
7.	Dr. Chudasama.B. Nanubhai	Associate Professor	PhD
8.	Dr. SurendraDeo Tiwari	Associate Professor	PhD
9.	Dr. Dwijendra Pratap Singh	Associate Professor	PhD
10.	Dr. Bhaskar C. Mohanty	Associate Professor	PhD
11.	Dr. Soumendu Jana	Associate Professor	PhD
12.	Dr. Poonam Uniyal	Associate Professor	PhD
13.	Dr. Loveleen Kaur Brar	Asst Prof	PhD
14.	Dr. Debabrata Deb	Asst Prof	PhD
15.	Dr. Raj Kumar	Asst Prof	PhD
16.	Dr. Sunil Devi	Asst Prof	PhD
17.	Dr. N.K. Verma	Visiting Professor	PhD
18.	Dr. GudveenSawhney	Lecturer (Contr)	PhD
19.	Dr. Mukesh Kumar	Asst Prof (Contr)	PhD
20.	Dr. Jayant T. Kolte	Visiting Assistant Professor	PhD
21.	Dr. Chandni	Lecturer (Contr)	PhD
22.	Dr. Prabal Pratap Singh Bhadauria	Lecturer (Contr)	PhD

### **3. Thrust areas of research**

- Theoretical Nuclear & Particle Physics
- Energy Materials
- Condensed Matter Physics
- Nanomaterials
- Non-linear Optics

### **4. Brief description of ongoing research activities**

The main research focus of the faculties of the department is divided into three groups. Theory group (Theoretical Nuclear & Particle Physics, Non-linear Optics, Computational Soft Matter Physics), Energy Materials (Solar Cell, Solid State Fuel), and Experimental Condensed Matter

(Nano-materials, Nano- Magnetism, Ceramics, Composite Materials, Electro Magnetics, Nano-medicine) Pictures are as attached.

### **5. Activities round the year**

Apart from regular courses and academic activities, the school also engages in many different co-curricular and outreach activities. The school organizes expert lectures, conference, short-term schools and a list of such activities is attached below as a part of this report. The main outreach activities and expert lectures are organized by our school's Materials and Physics Society (MAPS).

### **6. New Plans and Projects**

To start a new B.Sc. (Hons. Physics) program. To be recognized as Centre of Excellence in higher education, research and innovation in the areas of Nuclear Physics and Condensed Matter Physics.

### **7. Major acquisitions during the year and new laboratory development**

Duplicate Applied Physics Laboratory was setup in view of increased strength of undergraduate students. Besides this a computational laboratory was setup for MSc (Physics) students.

### **8. Departmental Achievements (Pl provide numbers only in this section –**

- Papers published in SCI Journals: 85
- Papers published in Non SCI Journals: 0
- Papers published in conferences: 12
- Sponsored Research Projects New : Number of Projects: 5 and Amount 100.26 (in Rs Lac)
- Sponsored Research Projects Ongoing : 10 and Amount 249.284 (in Rs Lac)
- Consultancy Projects : Nil
- Patent : Filed/Granted: Nil
- Seminar/Conference/Workshop organized: 2
- Short Term courses organized: nil
- Doctoral Degree Awarded: 13
- Lectures by visiting experts: 5
- Visits abroad by faculty members: 3
- Awards and Honors: 2



Workshop on career awareness for science graduates



**LMThapar School of Management****Our Mission**

**To influence the way world conducts business and Business Schools engage the world.**

**World Conducts Business**

- In our view, everything outside our school's campus is the world. We influence the world through developing graduates with global sensitivity and scholarly & social entrepreneurial mindset. Through our programs, we help them understand the value of efficiency-enhancing mechanism of the free market and at the same time educating them the power and limitations of profit-maximizing mechanisms. Our graduates are prepared to create economically and environmentally sustainable businesses and communities.

**Business Schools Engage the World**

- As a School, we are committed to becoming a role model for other schools in the way we engage the community, other institutions and corporations around us and beyond. Our curriculum incorporates various activities which are relevant to sustainable energy use, literacy, environmental protection & pollution prevention and economic sustainability.

**Core Values**

**1. Ethical decision making:** We strive to be moral, rational, transparent and accountable in our decisions and actions. Our attempt is to imbibe the same approach and mannerism among our students by inculcating in them the spirit of ownership for their decisions. They are also guided to recognize and execute their professional responsibilities in an ethical way.

**2. Inclusiveness:** We want to create socially aware managers who understand the value of the productive capacity of the masses in India, and who can see beyond all social and economic class divisions in the society. Our students are guided to understand the effects of their professional pursuits on various sections of the society. They are also advised to work towards larger good of the masses while maximizing benefit of their organizations.

**3. Sustainability orientation:** We are working towards developing students with a sustainability mindset. Our students should be passionate about social, economic, environmental and resource sustainability challenges. They should also recognize the relationship of social and economic growth with environment, and understand the fact that their present actions can influence and force future generations to compromise on their ability to meet their own needs.

**4. Entrepreneurial mindset:** We try to promote professional development of our students to inculcate entrepreneurial attitude and skills by exposing them to a creative and responsive curriculum. Students are not only mentored to occupy jobs but also guided to create jobs. We want them to develop their analytical, problem-solving, communication and interpersonal skills for undertaking innovation and scholarly endeavors for their contribution in business practices.

**5. Confidence with humility:** Our endeavor is to prepare confident students who have trust in their knowledge and abilities. At the same time, we want them to grow as humble professionals with right attitude and conduct. The students are advised to learn the art of humble confidence so that they exhibit confidence to persuade others with their business acumen, and also have the humility to learn from others during their professional and life journey. The confidence gained as a result of professional expertise and success should not make them bigheaded.

### ***Post-Graduate: Master of Business Administration (MBA) Program***

#### **MBA Program Goals**

We develop Globally Sensitive Practitioners with a Scholarly and Social Entrepreneurial Mindset.

- We want to groom a generation of thinkers, practitioners and leaders who are adept at solving both local and global problems with utmost global sensitivity. Global sensitivity has a much broader scope than just cultural sensitivity. It encompasses everything from rules and regulations to economic realities to geographic peculiarities.
- We base our philosophy of educating the practitioners with a scholarly mindset on the following two assertions:
  - “Nothing is as practical as a good theory” by Kurt Lewin
  - “Nothing is as dangerous as a bad theory” by Sumantra Ghoshal
    - We want our graduates to be able to understand the power of good science and at the same time recognize its limitations. We pay special attention to generating new ideas and synthesizing and integrating existing ideas for applying them to solve real world problems.
- We believe that what is good for the corporation should be good for the community and what is good for the community should be good for the nation and ultimately the entire world. We want every graduate to have a strong entrepreneurial orientation with an emphasis on doing social good. Irrespective of what kind of enterprises they create or work for, a strong orientation toward societal good must be the starting point of any decision they make. We believe that a right balance between social and economic good can produce sustainable businesses. Also, we see considerable overlap between social entrepreneurial mindset and sustainability mindset.

### MBA Program Learning Outcomes

- **Global Sensitivity**
  - Students will be able to understand the socio-economic and political differences across the globe
  - Students will be able to analyze contemporary issues related to international management
- **Scholarly Practice**
  - Students will be able to comprehend the power and limitations of management as a discipline
  - Students will be able to apply theoretical concepts to solving real world business problem
- **Social Entrepreneurial Mind-set**
  - Students will be able to appreciate the notion that “what is good for the business should be good for the community and ultimately good for the country”
  - Students will be able to reframe social issues for creating innovative solutions for producing social good in a sustainable way

#### ***Doctoral: Ph. D. Program***

### Doctoral Research Program Goals

Our doctoral program aims at developing engaged scholarship with true professionalism.

### Doctoral Research Program Learning Outcomes

- **Engaged Scholarship**
  - Students will be able to formulate research questions addressing social and organizational issues
  - Students will be able to apply scientific methods and theoretical insights to address real-world business and societal challenges
- **True Professionalism**
  - Students will develop an appreciation for the importance of balancing between rigor and relevance in teaching and research
  - Students will develop skills for effective oral and written communication of scholarly findings

## 1. List of faculty

### **Professor**

S. No.	Name	Qualification & Specialization
1	Dr.Padmakumar Nair	Dr. Eng., Ph. D. ,M. Tech. (IIT), MBA Sustainability, Material Science, Nanotechnology, Social Entrepreneurship and Leadership
2	Dr. Girish Jaswal	Ph.D, MBA, MA, LLM Marketing, Business and Corporate Laws

**Associate Professor**

S. No.	Name	Qualification & Specialization
1	Dr.M. Kanchan	M.Com, Ph.D Finance and Accounting
2	Dr. Karminder Ghuman	Ph.D, MBA, M.Sc Marketing and Entrepreneurship
3	Dr. Piyush Verma	Ph.D. (Applied Economics), Master of Business Economics (MBE), Diploma in German Language Economics, Strategy and Technology Innovation
4	Dr. Snehlata Jaswal	Ph. D. Psychology, HR & OB

**Assistant Professor**

S. No.	Name	Qualification & Specialization
1	Dr. Gurparkash Singh	Ph.D., Masters in Information Systems, PGD(IT); Information Systems, Ethics and Knowledge Management
2	Dr. Amit K. Bhardwaj	M.Sc, ME,MBA, PhD Information Systems
3	Mr. Pradeep K. Gupta	B.S c., MBA, FDP-IIMA, PhD Pursuing. Accounting and Finance
4	Mr. Ankit Mahindroo	BE(Industrial), MBA, Pursuing PhD Information Systems
5	Dr. Harjot Singh	BE, MBA, PhD Marketing
6	Mr. Gaurav Goyal	B.Tech, M.Tech, MBA, Pursuing PhD Operations and Quantitative Techniques
7	Ms. Niti Chatterjee	B.Com.(H), MBA, Pursuing PhD OB, HR and Communication
8	Dr. Vipul Gupta	BE , MBA, PhD Operations and Quantitative Techniques
9	Dr. Sonia Garg	B.Tech,MBA, PhD Finance
10	Mr. Sanjiv Dhir	Pursuing Ph.D, MBA,MS, B.E, Marketing and Finance
11	Dr. Rudra Rameshwar	B.Tech.(Electrical Engg.), GATE (E&C Engg.), M.Tech. (Alternate Hydro Energy Systems, IIT Roorkee), D.B.E. (Business Entrepreneurship, EDI Ahmedabad), Ph.D. (Strategic- Technology Management, IIT Roorkee)
12	Dr. Arunesh Garg	BE, MBA, PhD Research Methods & Marketing
13	Dr. Anita Sharma	Ph.D. , MBA; Strategy & Entrepreneurship
14	Dr. Ridhi Arora	Ph.D. , M. Phil, M.L.L & L.W. PGDM-PM&HRD; HR & OB

**Lecturers (Ad-hoc)**

S. No.	Name	Qualification & Specialization
1	Mr. Hemant Sharma	B.Sc (H) Physics, PGDM , PhD pursuing. Quantitative Techniques, Strategy & Technology Innovation

## **2. Thrust areas of research**

- Main focus areas of research are innovation, sustainable development, technology management, social entrepreneurship, organizational behavior and theory, information systems, marketing, finance, quality management, healthcare, corporate and academic leadership.

## **3. Brief description of ongoing research activities**

Research activities on the following themes are presently going on:

- Dynamic Capabilities and Technology Strategy
- Quality Management Practices and Supply Chain Process
- Green IT orientation
- Cloud Computing Adoption
- Public Private Partnership models and firm performance
- Impact of Sustainable Growth on Stock Returns and Systematic Risk
- Electronic Health Records
- Consumer switching behaviour in telecom sector
- marketing intelligence
- Performance Appraisal
- Work Life Conflict
- Brand awareness
- Optimizing Reverse Logistics Performance
- Teacher Empowerment and Teaching Effectiveness
- Scientific Knowledge Creation
- Transformational Leaders
- Social Entrepreneurship and Leadership
- CSR Practice
- Earnings Management

## **4. Activities round the year (2016-17)**

- A reading of the play Murh aa Lama To(n)- by playwright Atamjit on 17 April 2017
- Blood Donation Camp organized by NSS on 23 Nov, 2017
- Moral Education Lecture to School students of Village Behra organized by NSS on 22 Nov 2016
- Interaction with SEBI officials on financial planning and commodity derivatives at SEBI Chandigarh Local Office, Sector 17C, Chandigarh on 15 Sep 2017
- International conference on 14 Nov 2017
- Book Reading Day organized on 15 Mar 2017
- Sessions by Mr. HS Cheema, MD, Cheema Boilers Ltd. on 1 Dec 2016
- Annual Business Fest- Nimaya 2017 was organized from 20-22 April 2017

- A PanIndia expedition was flagged off on 7 Oct 2016. The expedition covered all the states & Union territories of India and in order to undertake ethnographic and video graphic research for connecting with new emerging India.
- A counseling session by Dr. Dr. Sonam Dullat (Professional Student Counselor at Thapar University, Patiala) was organized on 25 Nov 2016
- Following Sport Events were conducted in 2016-17
- SIT DISPUTATIO organized two sessions dated 19 Aug 2016 & 19 Sep 2016 and organized events like Lets Talk, Bolly- Holly, Quiz & JAM
- Frosh Week 2016 was organized from 1-5 Aug 2016
- Freshers' Night 2016 was organized on 20 Sep 2016
- Earth Day Celebration (Cycle Rally to Chhatbir Zoo) on 22 Apr 2017
- International Women's Day Celebration on 8 Mar 2017 at Village Behra
- Diwali Fest 2016 celebration in Oct 2016

#### Activities:

- Decision for starting new academic programs - Executive MBA, Executive PhD and M.Phil from the academic session 2017-18 onwards was taken
- Our Initial Eligibility Application for grant of Accreditation by AACSB was accepted
- Two of our students joined M.A. program in Environmental Studies at Porter School of Environmental Studies, Tel Aviv University, Israel under credit exchange program
- Two of our students joined Danube University, Krems, Austria for a semester under credit exchange program
- Two of our students got placed in foreign countries
- Sixteen of our students completed summer internships in international universities like University of Twente, the Netherlands; University of Malta, Malta; & University of Tampere, Finland
- We were selected amongst the 19 colleges of India for Volvo Eicher Campus Connect program
- We were ranked in the band of 76-100 in the Management category by NIRF-2017
- We were included in U-Multirank 2017 rankings among 1497 international universities/ institutions
- New MoUs with University of Twente, Twente, the Netherlands and University of Malta, Malta for student exchange and research collaborations were signed
- There was 15% increase in the number of applications for MBA admissions in 2016-17 (for 2017-18 batch) as compared to 2015-16 (for 2016-17 batch)

#### 5. New Plans and Projects

- The school proposes to acquire international accreditation of EQUIS (EFMD) and AACSB in the next five years.
- The school plans to admit students in the new academic programs - Executive MBA, Executive PhD and M.Phil
- A new centre- Centre for Quantitative Cultural Studies is proposed to be established in 2017-18
- The school has applied for funding from The European Union's Erasmus Mundus programme
- The school with an MoU with the following Universities proposes to start research and student exchange programs:
  - a. University of Groningen, The Netherlands
  - b. University of Rome, Italy
  - c. University of Texas, Dallas, USA
  - d. University of Waterloo, Canada

g. University of Malta, Malta

h. Eötvös Loránd University, Hungary

6. *Major acquisitions during the year and new laboratory development:*

Date	Item	Qty
6-5-2016	Lenovo Laptop	1
15-7-2016	Toshiba HDD	1
18-8-2016	Laserjet Printer 1005MFP	3
21-10-2016	Epson Thermal Printer	1
11-11-2016	Laserjet Printer 1005MFP	3
25-11-2016	Epson L220	1
25-11-2016	Google chrome Media Dence	1
17-11-2016	POE Switch Networking	1
20-2-2017	Laptop Lenovo	4
20-2-2017	Laptop Lenovo	2
2-3-2017	psychology software	1
24-3-2017	CCTV Camera	6

7. *Departmental Achievements (Pl provide numbers only in this section – details to be provided in subsequent sections)*

- Papers published in SCI Journals: 07
- Papers published in Non SCI Journals: 24
- Papers published in conferences: 06
- Sponsored Research Projects New : Number of Projects and Amount (in Rs Lac): Nil
- Sponsored Research Projects Ongoing : Number of Projects and Amount (in Rs Lac): Nil
- Consultancy Projects : Number of Projects and Amount (in Rs Lac): Nil
- Patent : Filed/Granted: Nil
- Seminar/Conference/Workshop organized: 05
- Short Term courses organized: Nil
- Doctoral Degree Awarded: 02
- Lectures by visiting experts: 24
- Visits abroad by faculty members: 18
- Awards and Honors: Nil

**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 LAISION AND PLACEMENT (CILP)****CAMPUS PLACEMENT/RECRUITMENT OF FINAL YEAR STUDENTS**

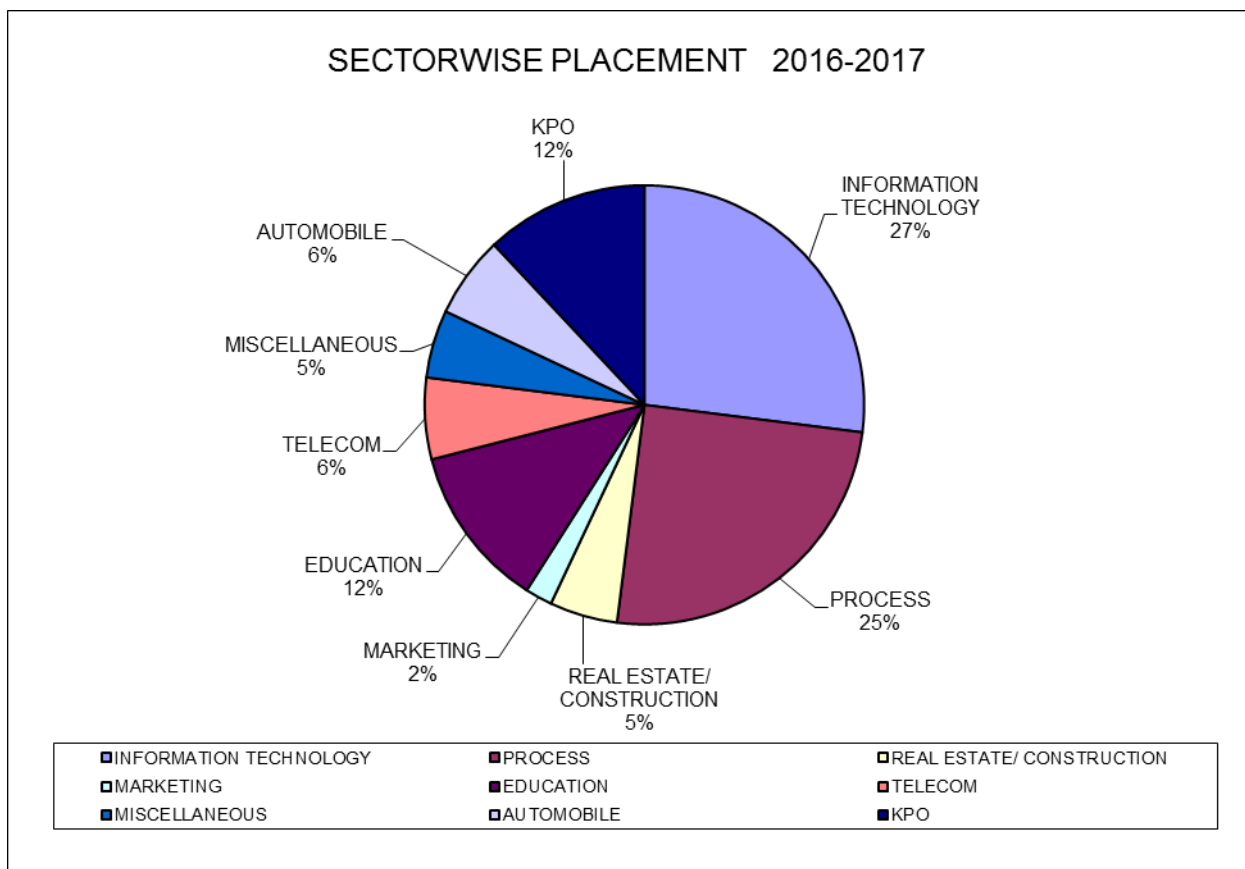
In the academic year 2016-17, 241 companies visited TU and 875 students were offered jobs through campus placement. In BE, Bio-Tech 03 out of 04, Civil 25 out of 78. Chemical 25 out of 48, Computer Sc. 156 out of 193, Electronics Communication 151 out of 187, Electrical 82 out of 120, Instrumentation & Control 61 out of 101, Mechanical 75 out of 111, Mechatronics 18 out of 31 & MCA 39 out of 70 students securing CGPA 6.00 and above got placed through campus interviews. The over all placement being 87% for CGPA greater than 6.00 and 74% over all in all the BE Branches & MCA. Apart from BE and MCA students, 135 master's students (ME & M.Tech) also got placement through campus interviews, making it 50% overall in Master's of Engineering. **(Annexure-I&II). The above data is updated till 15<sup>th</sup> September, 2017. Results from 52 organizations are still awaited as they have extended the internship/joining of the students. Organizations are still visiting (22 organizations have already confirmed) our campus for the students those have already passed out from our University, and hence the percentage mentioned above is likely to improve.**

Apart from regular visitors, 25 organizations including five startups visited the campus for first time for campus interviews. The first timers are Evive Health, Okutech, General Electric Digital, ION Trading India (Fin Software), Bosch Ltd., Intel Corporation, TATA Projects Ltd, Addverb Technologies, Soft Prodigy Software Solutions, AppDirect., FITSO, Trantor Software Pvt. Ltd., Gyan Dhan, J Mitra, B & S Engineering Consultants Pvt. Ltd., Xion Multiventures, Allan Lloyds Group, Zyduz Cadila, My Advo Tech Serve Pvt. Ltd., Tinymesh Rediocrfts, Myntra Design, Procter & Gamble, Advantage Club, J.P.Morgan, Varroc Group.

Major organizations visited for campus interviews are

1 Work Application Co. Ltd.	17 Tata Consultancy Services
2 D.E.Shaw (I) Software	18 Wipro Technologies
3 Walmart Labs	19 Juniper Netwroks India
4 Microsoft India	20 Maruti Suzuki (I)Ltd.
5 Taxes Instruments	21 Tata Motors
6 Zomato	22 Reliance Industries
7 ST Microelectronics	23 Samsung Groups
8 Oracle Corporation	24 Gwynniebee
9 Amazon India	25 Schneider Electric
10 Informatica Corporation	26 Hindustan Unilever Ltd.
11 Sandisk Corporation	27 Whirlpool of India
12 Amadeus Software Labs	28 Royal Enfield
13 ZS Associates	29 Crompton Greaves Ltd.
14 Deloitte Consulting	30 Honda Cars
15 MU Sigma	31 Futures First Info Services
16 Royal Bank of Scotland	32 HSBC Software Development

The Maximum CTC offered for the year 2016-17 is Rs. 40.00 lakhs p.a. offered to 01 student from Work Application Co. Japan. Average CTC offered to BE/B.Tech./MCA, ME/M.Tech, being Rs. 5.85, 3.92 lakhs p.a. 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.

## **PROJECT SEMESTER**

Final year Civil, Bio-technology & Chemical Engineering students were sent to Industry for the Project Semester from July-December, 2016. CILP was instrumental in arranging the slots for the students.

CILP extended all help in finding Project Semester slots for the pre final year students of Mechanical, Industrial and Mechatronics Engineering during January to June, 2017. 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, 2017. CILP also extended help in finding slots for System Development Project (SDP) for final year MCA students and also for thesis work for Post Graduate students.

## **SUMMER TRAINING PROGRAMME**

Summer training of 6 to 8 weeks was arranged in industrial organizations for B.E. 2<sup>nd</sup> 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, 2017.

## **VISIT TO DIFFERENCE PLACES**

- i) Sh. H.S.Bawa and Sh. Davinder Pal Singh, attended the Sparsh 2016, Placement Officer's meet conveyed by TCS, in Gurgaon on 18<sup>th</sup> – 20<sup>th</sup> July, 2016 and exchange the ideas regarding IT initiatives by TCS to various institutions.
- ii) Sh. H.S.Bawa, attended the meeting of Training & Placement Officers conveyed by Sapient on 21<sup>th</sup> July, 2017, called primarily for the exchange of idea regarding academic interaction. The topic being What's Next is now ?
- iii) Sh. Davinder Pal Singh, attended the meeting of Training & Placement Officers conveyed by Wipro on 27<sup>th</sup> July, 2017, called primarily for the exchange of idea regarding academic interaction.

## **ACADEMIA INDUSTRY PARTENERSHIP MEET**

Centre for Industrial Liaison & Placement (CILP) initiated an event named "Academia Industry Partnership (AIP) Meet " in March 2017, which provide a platform for the leaders of human resource and technical department of top organizations of various sectors to discuss and innovate solutions to bridge the academia industry gap and seek their support to leverage their resources.

We had successfully organized the 1st AIP meet in Bangalore on 17th March 2017 where leaders of top organizations like Oracle, Walmart Labs, Sandisk, Amadeus, Informatica, TE Connectivity and GE Digital participated.

As the number of our regular recruiters are from South, we had to organize our 2nd AIP meet in Hyderabad on 7th June 2017 and 3rd AIP meet again in Bangalore on 8th June 2017. Leaders from top organizations like DE Shaw, Arcesium, Deloitte, TCS, Synopsys, Infovity, HCL, Century Link, Myntra, Tavant, JDA Software, Wipro, Agilent, Infineon etc had participated and contributed thoughtfully.

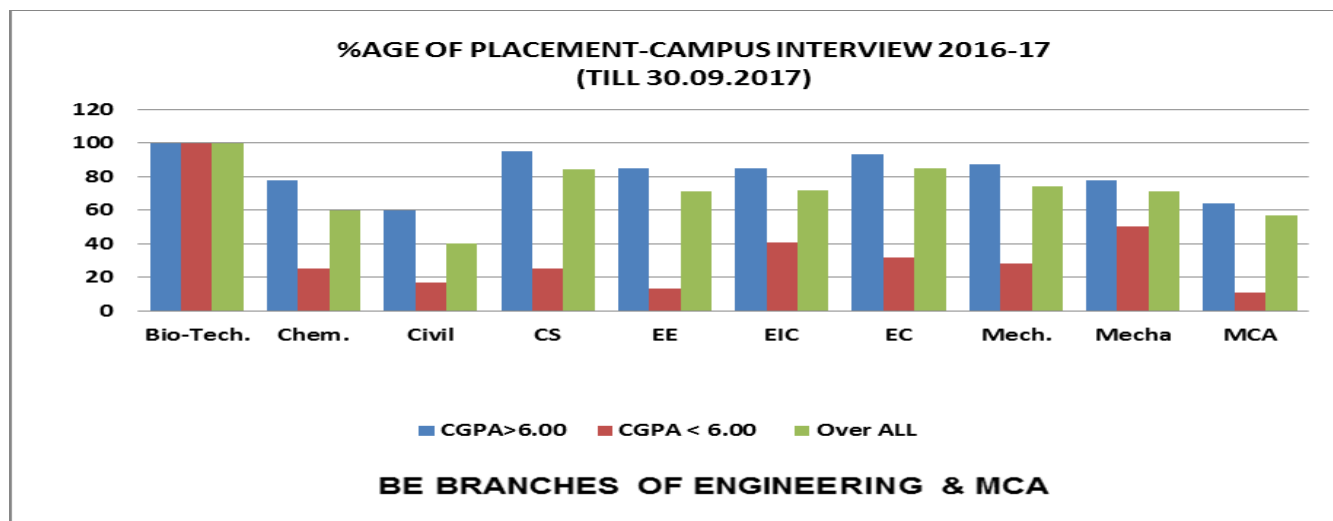
In the first three AIP meet's the participation was primary from the IT industry and to take feedback from all other sectors we had decided to organize another meet in NCR to bring leaders of top organizations from others sectors as well. The 4th AIP meet had been organized in New Delhi on 24th July 2017 where leaders of top organization of other sectors like Maruti, Honda Car, Atria, VE Commercial Anand Group, Ericsson, Philips, Triune Energy Siemens, Panasonic, G.Rail, Bechtel, Hero Motocorp. Flour Dainel, Centrodorstroy India, interacted and shared their valuable feedbacks.

Following major area as discussed are

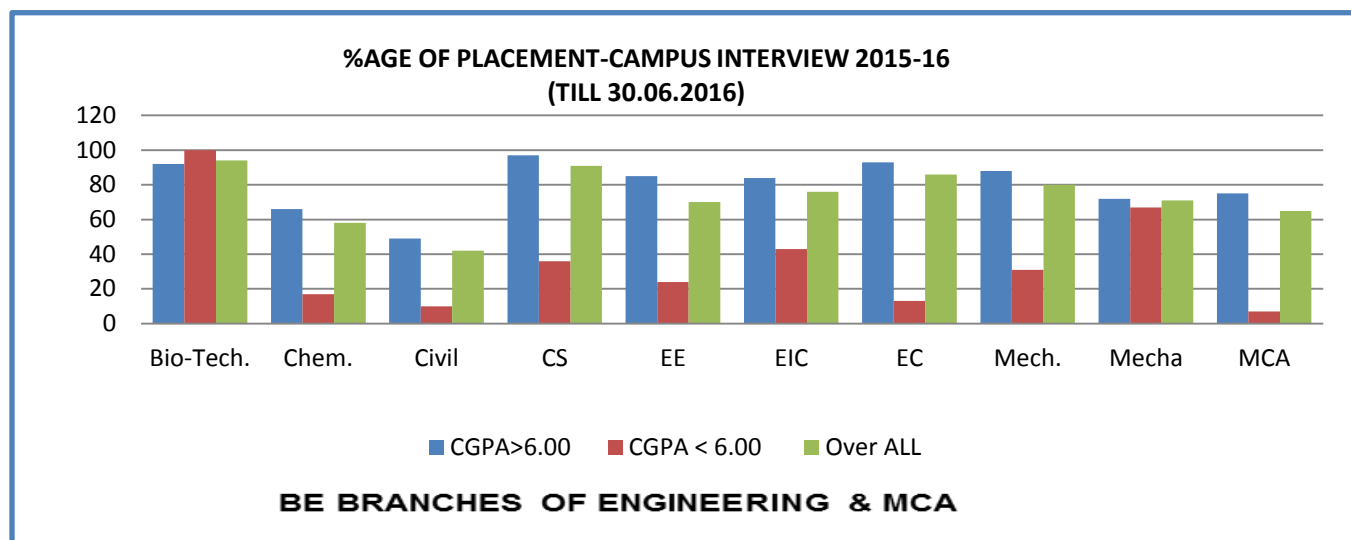
- i) Internships and placements for undergraduate and postgraduate students in engineering streams as well as management program.
- ii) Four year comprehensive engagement programme starting from 1st year for students admitted to Thapar University.
- iii) Organization specific sponsored project program in related technologies
- iv) Curriculum development and modernization of lab infrastructure
- v) Organizing periodic expert lectures by Industry Leaders to senior year students

The impact of this initiation is that within a span of few months the internship slots for our BE 2017 passing out batch students have increased exponentially and organizations like Informatica Corporation, Maruti Suzuki, Schenider Electric, General Electric Digital etc have collaborated with Thapar University for curriculum development, series of expert lectures and Faculty development programs.

## ANNEXURE – II



## ANNEXURE – II



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.

### **CENTRE OF INFORMATION AND TECHNOLOGY MANAGEMENT (CITM)**

Centre of Information and Technology Management (CITM) has been established in the University after integrating three units, namely, Computer Centre, Centre for Information Super-Highway and University Science Instrumentation Centre. This centre has been established to cater the needs of users involving implementation, maintenance and support activities related to LAN/WLAN, software and hardware; procurement, support and maintenance of various equipments of users.

CITM offers Internet access and network services to Thapar University. CITM has two static leased line connections: 1085 Mbps leased line from Reliance and 1000 Mbps from National Knowledge Network (NKN). The Campus-wide Local Area Network (LAN), which currently has 7400 live nodes (wired and wireless), is backboneed by Optical Fiber connected with layer-3 and layer-2 switches, structured with CAT6 cabling.

The CITM has state-of-the-art computational labs and one DATA CENTRE. CITM Labs remain open from 8.00 AM to 6.30 PM on all working days and from 9.00 AM to 5.30 PM on Saturdays. The computational facility in the Centre includes 14 Dell Power Edge servers and 97 nodes and other peripherals. CITM is a member of MATHWORKS Campus Agreement and Microsoft Campus Agreement. CITM organizes online courses under Quality Enhancement in Engineering Education an initiative by MHRD. Thapar university has been consistently highly ranked by QEEE organizer IIT Madras.

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**

<b>S.No.</b>	<b>Name</b>	<b>Designation</b>	<b>Qualification &amp; Specialization</b>
1.	Dr. Maninder Singh	Professor Head CSED & Head CITM	Ph.D. in Network Security, ME with honours in Software Engineering B.E. (Computer Engineering) Certifications: Certified Ethical Hacker (C EH), Security Analyst (ECSA) and Licensed Penetration Tester (LPT)
2.	Mr. Harcharan Jit Singh	Sr. System Analyst - cum - Programmer	Ph.D. (Pursuing), M.E. with honours in Computer Science and Engineering, B. Tech. (CSE) Certifications : [CCNSP, ORACLE 10g -DBA, IBM DB2 9 Database]
3.	Mr. Prem Lal Sharma	System Analyst	ALCCS ( eq. to M. Tech, CSE), AMIE (CS)

4.	Mr. Hunish Bansal	System Analyst	System Administration, Cross Platform Networking, Web Based Applications
5.	Mr. Ajay Kumar Verma	Sr. Instructor	ME (SE), B. Tech. (EIC) Database Administration, Microsoft Technologies
6.	Mr. Aeiman Preet Singh	Jr. Associate	ITI, Instrumentation
7.	Mr. Ishmeet Singh	Associate	M.Sc. in Information Technology, PGDCA, Desktop Publishing, Animator
8.	Mr. Harjaspreet Singh	Associate	B. Tech. Electronics
9.	Mr. Jaswinder Singh	Electrician	CCNA
10.	Mr. Ghana Nand	Jr. Assistant	M.Sc. in Information Technology, PGDCA
11.	Mr. Rajinder Singh	Attendant	Networking
12.	Mr. Ashish Thakur	Network Attendant	10th
13.	Mr. Amrit Lal	Network Attendant	10+2
14.	Mr. Ranjeet Singh	Network Trainee	Diploma in ECE
15.	Mr. Sukhvinder Singh	Lab Attendant	BCA (Pursuing), Diploma in Hardware and Networking
16.	Mr. Harish Chandra	Helper	B.A.,ITI
			PGDCA (Pursuing), B.Sc (IT), Diploma of Computer Application
			10+2
			10th

## 2. List of equipments procured

S. No.	Name of the equipment (Qty)	Make	Name of the laboratory	Date of Purchase	Amount (in Rs.)
1	DLINK OFC 6 CORE SM			30/08/2016	37,997
2	Microsoft Campus Agreement Get Genuine Windows License (300) Software Desktop(450) Windows Std Server (03)	MICROSOFT	Campus Wide	2/8/2016	3,418,136
3	Digilink CAT6 (06)17U Rack Make			2/8/2016	80,411
4	MATHWORKS Campus wide Unlimited License for one Year	MATHWORKS	Campus Wide	29/08/2016	28,65,490
5	Dell Optiplex 7440 All in One	DELL	CITM MAIN LAB	5/9/2016	20,87,520
6	Citrix Xen Server Edition Perpetual pre socket	Xen Citrix	NOC	14/09/2016	107,287
7	Wireless Access Point		Hostel K & L	23/09/2016	6,643,196
8	LAN/WLAN Upgradation deployment and Laying Hostel		Campus wide	21/09/2016	970,567

	PEB 600/300				
9	Digilink CAT 6 305			6/10/2016	182,991
10	LAN/WLAN Upgradation deployment and Laying /Cabling of Hostel-K & L		Hostel K & L	26-10-2016	1,756,136
11	Fire Extinguisher -05			4/11/2016	7,017
12	UTM Firewall	SOPHOS	NOC	6/12/2016	4,050,001
13	LAN/WLAN Upgradation deployment and Laying /Cabling of Hostel-E		Hostel E	7/12/2016 25/01/2017	190,882
14	LAN/WLAN Upgradation deployment and Laying /Cabling of Hostel-J		Hostel J	7/12/2016 25/01/2017	2,282,398
15	LAN Upgradation deployment and Laying /Cabling of D112 MED, ECED, B212 & B213 EIED		D112 MED, ECED, B212 & B213 EIED	16-12-2016	332,271
16	APC Backup UPS 1000 VA-4 No and 16U Wall Mount Rack	APC		29-12-2016	58,416
17	IP Surveillance and LAN/WLAN deployment & Labour Charges of Thapar University Main Chowns(Under Corporate Social Responsibly)		Thapar University Main Chowns(Under Corporate Social Responsibly)	10/1/2017	1,196,346
18	Acunetix standard edition concurrent License in CITM NOC		NOC	9/3/2017	468,000
19	LAN deployment and Laying /Cabling of R&D Block Room No 303, SEE, EIED		R&D Block Room No 303, SEE, EIED	27-03-2017 19-4-2017	77,405
20	Campus Wide Subscription/renewal for Plagiarism Turnitin Software	TURNITIN	Campus Wide	17-4-2017	558,293
21	Split Air Conditioner- 02 in CITM NOC	VOLTAS	NOC	10/5/2017	81,000
22	Student Attendance Soft. Solution for Whole University		Campus Wide	16-5-2017	120,000
23	Semester Evaluation online Portal for Whole University		Campus Wide	19-5-2017	400,000
24	HP Printer Laserjet 128FW	HP	NOC	26-5-2017	19,100



## 3. Computing facilities in the CITM

S. No.	Details of the Hardware/Software	Name of the Laboratory
	<b>Hardware</b>	
I.	Dell Servers – <b>10</b> KVM Switch - <b>01</b> Central Storage- <b>01</b> Server Rack - <b>03</b> Dell Optiplex 330 P-IV – <b>02</b> Dell Optiplex 360 P-IV – <b>02</b> Dell Optiplex 9010 – <b>01</b>	DATA CENTRE
II.	Dell Power Edge R 730 Storage Server- <b>02</b> HP SAN P4300 - <b>01</b> HP Proliant ML 350P Storage Server- <b>01</b> Dell Optiplex 9010 – <b>01</b> Dell Optiplex 330 P-IV – <b>01</b> Dell Optiplex 380 P-IV – <b>01</b> Dell Optiplex AIO Series 7440- <b>02</b>	CITM NOC
III.	Dell Optiplex 9010 – <b>28</b> Dell Optiplex 380 P-IV – <b>05</b> Dell Optiplex AIO Series 7440- <b>13</b>	CITM -MAIN
IV.	Dell Optiplex AIO Series 7440- <b>23</b>	CITM Computing Lab
V.	Laptop DELL D-520 – <b>01</b> Laptop DELL Latitude-E 5410 - <b>03</b>	Used Across all Labs
VI.	Laptops HP Pro-book - <b>04</b>	
VII.	<b>Printers:</b> Lipi T6100 Line Printer – <b>01</b> HP Laser Jet Printer – <b>07</b>	
VIII.	DLP Data Sharp Projector XR – 1x - <b>02</b> DLP Projector PG-LW 3000- <b>02</b>	
IX.	Wireless Access Point	
X.	PM3213 20Mhz Dual Trace Analog Oscilloscope	CITM Instrument and PC Repair Lab
XI.	Soldering & Disordering Station	CITM Instrument and PC Repair Lab
XII.	Multi output Power Supply	CITM Instrument and PC Repair Lab
XIII.	1.1Ghz Universal Frequency Counter	CITM Instrument and PC Repair Lab
XIV.	Function Generator	CITM Instrument and PC Repair Lab
XV.	Digital storage Oscilloscope	CITM Instrument and PC Repair Lab
XVI.	Frequency counter	CITM Instrument and PC Repair Lab

XVII.	Pulse Generator	CITM Instrument and PC Repair Lab
XVIII.	Digital Multimeters	CITM Instrument and PC Repair Lab
XIX.	Multimeter 8X MK3 with 25Kv Probe	CITM Instrument and PC Repair Lab
XX.	LCR-Meter	CITM Instrument and PC Repair Lab
XXI.	Digital Earth Tester	CITM Instrument and PC Repair Lab
XXII.	SMT rework station	CITM Instrument and PC Repair Lab

### **XXIII. Software**

#### **System Software**

- Win Svr Ent 2008 - 01
- MS Window 7
- MS – Windows Vista Business Upg OLP NL AE – 30
- MS – Windows Vista Business media kit – 01
- MS-Windows XP Professional
- MS-Windows 2003 server
- MS-Windows Terminal servers CAL 2003 OLP NL AE – 20
- 50 CAL and 50 TCAL for Windows 2003
- Windows 2000 Advance Server
- Windows 2000 Professional
- Windows 98
- Windows NT 4.0
- Red Hat Linux 9.0
- Sun Solaris 10

#### **Utility Software**

- Antivirus: Kaspersky Endpoint Security 10
- Adobe Acrobat Professional 9.00AE – 05
- Web Publishing Tools
- MATHWORKS MATLAB
- Crystal Reports 9.0
- Staler 4.0

#### **Application Software**

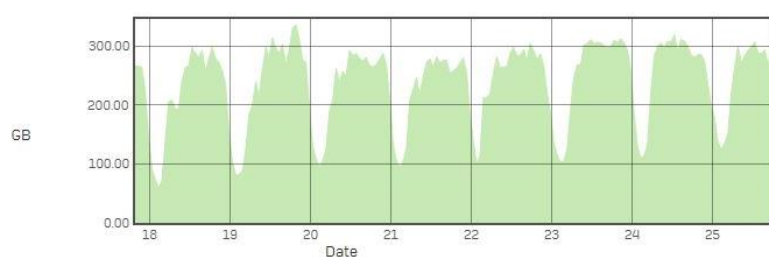
- SQL Svr Ent 2008
- Oracle 10g
- Oracle 9.i (30 User)
- MS Visual Studio 2010
- MS Visual Studio 2008
- MS Visual Studio 6.0
- MS Office 2007
- MS Office 2000 Professional

- MS Office 4.3
- Nash Pack 3.0
- VC++ 2.0
- VB 4.0
- MS Project 4.0
- Neural Connection
- SPSS 20.0
- Citrix Xen Server 6.2

#### Academia Alliances

- Microsoft Ed-vantage Program
- Kaspersky Endpoint Security 10
- MATHWORKS Campus

#### Monthly Bandwidth Consumption over Reliance Link

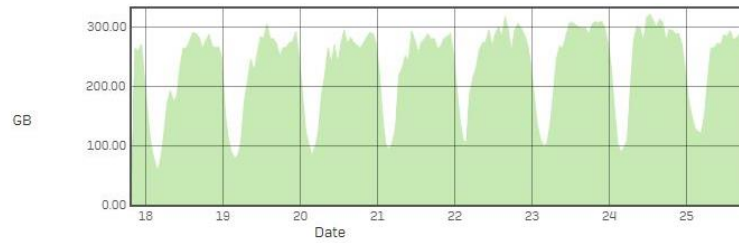


Date (mm/dd/yyyy)	Upload Network Traffic (GB)	Download Network Traffic (GB)	Total Network Traffic (GB)
09/18/2017	465.92	4705.59	5171.51
09/19/2017	488.04	4968.22	5456.26
09/20/2017	508.39	5089.47	5597.86
09/21/2017	458.09	5001.32	5459.41
09/22/2017	545.15	5355.88	5901.03
09/23/2017	525.54	5319.33	5844.87
09/24/2017	553.66	5717.06	6270.72
09/25/2017	554.80	5426.50	5981.30
<b>Total</b>	<b>4099.58</b>	<b>41583.37</b>	<b>45682.95</b>

#### Repair and maintenance work taken by CITM

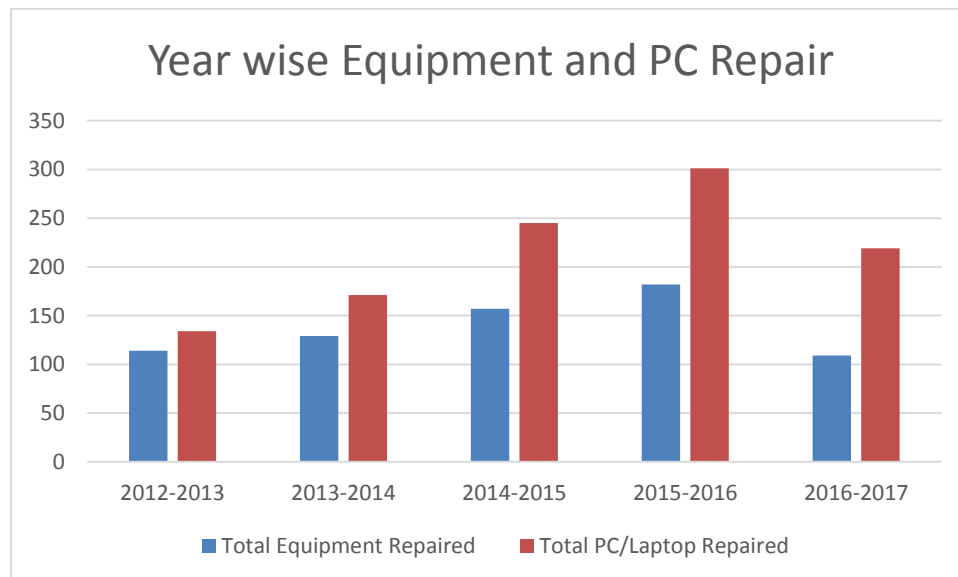


### Monthly Bandwidth Consumption over NKN Link



Date (mm/dd/yyyy)	Upload Network Traffic (GB)	Download Network Traffic (GB)	Total Network Traffic (GB)
09/18/2017	361.92	4371.19	4733.10
09/19/2017	384.08	4893.48	5277.55
09/20/2017	400.37	5012.66	5413.03
09/21/2017	394.05	5225.44	5619.48
09/22/2017	439.75	5517.16	5956.91
09/23/2017	415.06	5398.61	5813.66
09/24/2017	433.40	5638.78	6072.19
09/25/2017	421.03	5352.21	5773.25
<b>Total</b>	<b>3249.66</b>	<b>41409.52</b>	<b>44659.18</b>

Graphical representation includes the figures on repair and maintenance work taken by CITM during last five years.



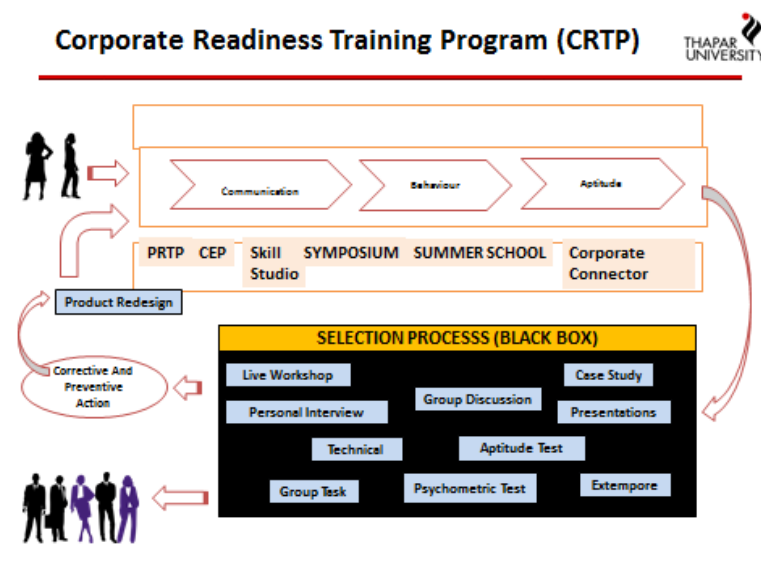
## CENTRE FOR TRAINING & DEVELOPMENT (CTD)

### 1. Training Objectives

- To be amongst the top choice for students by providing quality education leading to 100% placements.
- To be amongst the top choice for employers by making students experience the rigor of an intensive Smart Skills Development Programme.
- To prepare students to be better citizens of tomorrow with a strong sense of social cause and to enable them to meet the demands of an ever-changing world.

### 2. Strategic Training Plan

Strategic Goals	Training to achieve the Goals CRTP (Corporate Readiness Training Program)
Familiarize students with current employability challenges.	Skill Studio
Familiarize students with various placement selection tools/methodologies and be amongst top choice for the students by providing 100% placements.	Prepare students on personality, aptitude tests etc. through <b>Placement Readiness Training Program (PRTT) &amp; Summer School</b>
Ensure that students can fluently communicate their ideas, view and opinions	Enhance listening, writing, reading and speaking proficiency in English through <b>Communicative English Program (CEP)</b>
To be amongst top choice for the employers by ensuring corporate ready students.	Prepare students for final placements through <b>Placement Symposium</b> and <b>Corporate Connector</b>



### 3. Training Programs

Program	No. of Programs / Sessions	Days / Program	Total Days	When conducted?	Target Group
Communicative English Program (CEP)	Modular flow, 6 week per module, 4 sessions @2hrs/week	18	Continuous	Monday, Tuesday, Thursday	Open to all
Skill Studio	20 (2 hrs/session)	1	20	Wednesday (during academic sem)	Open to all
Summer School	1	30	30	May-June-July (Mon-Fri)	2 <sup>nd</sup> + 3 <sup>rd</sup> Year
Placement Symposium	1	5	5	August (1 <sup>st</sup> /2 <sup>nd</sup> week, before placement)	4 <sup>th</sup> Year
Placement Readiness Training Program	2	10	20	Saturdays (during academic sem)	2 <sup>nd</sup> /3 <sup>rd</sup> Year
Corporate Connector	Need Based	1	Need Based	August-December (academic sem)	4 <sup>th</sup> Year

### 4. Communicative English Program (CEP)

#### Program Rationale

It is believed that English is truly the world language. With more than 350 million people around the world speaking English as a first language and more than 430 million speaking it as a second language, there are English

speakers in most countries around the world. People often call English the international language of business, and it's increasingly true as global trade expands every year, bringing new countries into contact. Most multinational companies require a certain degree of English proficiency from potential employees. At the campus placement level, students with good communicative English skills have a definite competitive advantage over the counterparts.

#### Program Content

Week 1: Orientation & Goal Setting

Week 2: Writing - Develop confidence in writing with correct usage & grammar; Story Writing; Essay Writing; Thematic appreciation through writing tasks

Week 3: Speaking I - Develop speaking capability with correct pronunciation; Interactive exercises on phonetics & pronunciation; Presentations

Week 4: Reading- Develop ability to comprehend passages; Improve Vocabulary; Reading comprehension drills; Grammar exercises

Week 5 : Listening – Understand conversational English; Organizing listening tasks of progressively increasing levels of difficulty

Week 6 Speaking II - Develop speaking fluency in a group; Group Discussions; Group Presentations

## 5. **Skill Studio**

### Program Rationale

This program aims to sensitize students with the gamut of skills which facilitate them to enhance their employability quotient and do well in the professional space. These skills are imperative for students to establish a stronger connect with the environment in which they operate. An understanding of these skills will enable students to manage the placement challenges more effectively.

### Program Content

Emotional Intelligence: Understanding Emotional Intelligence (EI); Daniel Goleman's EI Model : Self Awareness, Self Regulation, Internal Motivation, Empathy, Social Skills; Application of EI during Group Discussions & Personal Interviews; Application of EI at the workplace

Team Dynamics: Understanding the challenges of working within a team format in today's complex organizational environments; Appreciating forces that influence the direction of a team's behaviour and performance; Cross-functional teams; Conflict in Teams- leveraging differences to create opportunity Leadership in the team setting & energizing team efforts; Application of team dynamics & collaboration in Group Discussions; Application of team dynamics at the workplace

Complex Problem Solving: Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions; Understanding a working model for complex problem solving - framing the problem, diagnosing the problem, identifying solutions & executing the solutions; Appreciation of complex problem solving at the workplace through case studies

Lateral Thinking: Understanding lateral thinking & appreciating the difference between vertical and lateral thinking; Solving of problems by an indirect and creative approach, typically through viewing the problem in a new and unusual light; Application of lateral thinking during Group Discussions & Personal Interviews; Application of lateral thinking at the workplace

Presentation Skills: Understanding the components of an effective presentation; Understanding the various steps in creating & delivering powerful presentations; Appreciating the do's and don'ts in effective presentations; Application of presentation skills in Group Discussions & Personal Interviews; Application of presentation skills for professional & life success

Quantitative Reasoning: Thinking critically and applying basic mathematics skills to interpret data, draw conclusions, and solve problems; Developing proficiency in numerical reasoning; Application of quantitative reasoning in aptitude tests; Application of quantitative reasoning at the workplace

Verbal Reasoning: Understanding and reasoning using concepts framed in words; Critical verbal reasoning; Reading Comprehension; Application of verbal reasoning in aptitude tests; Application of verbal reasoning at the workplace

## **6. Summer School**

### Program Rationale

This program is meant for students who choose to stay on campus during the summer vacation – May last week till third week July. The objective is to offer some value to these students in terms of enhancing their employability skills as most of these students are from third year, about to graduate to final year.

### Program Content

Group Discussions: Concept sessions on Group Discussions, covering different types of group discussion topics (factual, general and abstract); practice sessions on all three types of topics with exhaustive content, individual and group feedback

Case Studies : Concept sessions on ways of handling a case study; practice sessions on different types of case studies with exhaustive content, individual and group feedback

Personal Interviews : Concept sessions on managing the various challenges in personal interviews; practice interview sessions (one on one) with exhaustive feedback on performance and action plan to improve

Quantitative Aptitude Sessions: Concept and application sessions on arithmetic, algebra, geometry & modern math; special thrust on tricks and quicker approach to solving problems

Data Interpretation & Logical Reasoning : Concepts and application sessions on various data interpretation tools like numerical tables, line charts, pie charts, bar graphs, combo DI tools; approach to solve questions on logical reasoning

Verbal Ability : Concept and application sessions on verbal usage & grammar, critical reasoning and reading comprehension

## **7. Placement Symposium**

### Program Rationale

This is a warm up program for final year students on the verge of facing campus placement challenges. The program sets the pitch for the placement season by providing last minute concept and practice sessions for various assessment tools used by companies to evaluate students.



### Program Content

This is an event for final year, where exhaustive concept and practice GDPI (Group Discussion and Personal Interview) *sessions* are organized for the participants, with a comprehensive performance feedback, enabling them to bridge the gap between actual and expected levels.

It is typically conducted as a five day program in the first week of August, before the start of the placement season. Each of these days, students of a different branch are trained on employability related challenges. Day long concept sessions are held in the C-Hall/Auditorium; there are five sessions in all spanned across one and a half hours each:- "Marketing Yourself", "How to excel in Group Discussions", "How to excel in Interviews", "How to brace up for Aptitude Tests" and "Preparing a winning Resume". Parallely, students are made to participate in Group Discussions, Case Studies and Interviews; every student gets to experience one GD, one Case Study and one Interview.

The sessions are taken by in house team as well as professionals with relevant experience; these professionals represent diverse facets of industry and academia and included trainers who are entrepreneurs, established authors as well as from premier institutions like the IIMs.

Training is imparted to over 1000 students. On the last day, an Aptitude Test is organized, covering areas like Quantitative, Verbal and Logical Reasoning.

## **8. Placement Readiness Training Program (P RTP)**

### Program Rationale

This is a carefully crafted training program for students in different years of UG/PG. It is based on the vision of bracing students with a range of industry and society centric skills - effective communication & presentation, interpersonal skills, group dynamics, problem solving, decision making, data analysis, cultural sensitivity, change management – collectively known as ‘Smart Skills’. While thrust is more on concepts & fundamentals for students in formative years, there is a strong application orientation for students in conclusive years of UG/PG. Training is imparted on weekends and select weekdays without disturbing the academic equilibrium.

### Program Content

It is conducted in two modules –I and II. Module I is on “Communication & Behaviour” and is designed to sensitize students w.r.t various skills imperative for professional and life success. Module II focuses on “Enhancing quantitative and verbal aptitude”.

#### *Module I sessions:*

Introduction and Orientation – This is the introductory session where the course curriculum is shared in detail with the students. They are also given some assignments to check their current level vis-à-vis their verbal ability. They are also taken through the process of how to introduce themselves, how to develop reading as a hobby and a blueprint for improving their communication skills over the next 6 weeks

Developing a good vocabulary – Words are the foundation on which good communication skills are based. The technique of learning words through etymology is used to increase the vocabulary of the student by more than 1000 words over a few sessions, spread across all weeks. There is additional focus on learning correct pronunciation as well, since that is oftentimes the area where students falter, in spite of knowing the actual meaning of the words

Active reading and how to read a newspaper – The students are taught how to read fast along with better comprehension, thus setting the base for doing well in verbal ability section of various aptitude exams. A habit of reading the editorial sections of the newspaper in an analytical manner is inculcated in the students, while specifically focusing on the technique of Active reading.

Encouraging a multi-disciplinary approach to education through nonfiction books – Students are encouraged to become ‘Friends’ with different authors from all the important diverse domains of education like Science, Philosophy, Psychology, History, Management etc. by being introduced to various books from these domains. Developing the habit of diverse active reading is paramount in becoming more aware individuals with superior communication skills. Students are encouraged to read a few nonfiction books and share their learning from the books in the classroom.

Improving Public speaking through various confident building activities – The students are provided with a framework based approach on becoming better public speakers. They are divided into teams and made to play different communication based games and activities like Extempore, JAM etc. to boost their confidence in a very gentle way. They are also asked to make 1-2 minute solo presentations/reviews on various assignments.

Goal setting and motivation – This includes learning how to set clear specific goals in all walks of life, along with examples and motivational stories of some of the greatest business leaders, learning to do an effective SWOT analysis, Managing stress and conflict in a world of high expectations by setting clear well defined actionable goals and staying motivated in trying to achieve them.

Panel discussions – This involves different kinds of group activities focused on developing confidence, diction and good delivery of speech. The group activities change every week with different topics being covered every week, for which the student will have to prepare before coming to the classroom. The participants grab the basic concepts of understanding team dynamics and developing good leadership as well as good team skills - an individual feedback is given to each student.

Developing analytical framework for Case Studies – This includes understanding what a case study is, how is it different from a regular GD and the different frameworks for solving case studies along with practice cases, developing analytical skills for solving problems through the case method.

Learning Presentation skills using a practice based approach – The students are taught the basics of how to give a dynamic and impactful presentation, and it is followed by individual and team based assignments, wherein students are given individual feedback for improvement

Writing a professional CV and Cover Letter and Business writing etiquette – Understanding the different industry standards when it comes to making a professional CV and a cover letter, and how to tailor it for specific industries and job roles. This allows students to envision and plan on having a strong profile,

while having the opportunities to do so before they sit for placements. This is a great stage for them to understand what a powerful CV looks like, as they can build up their CV by the time they sit for their final placements or internship interviews. They are also taught business writing etiquette and other writing tools to develop a strong grip over the medium of written communication.

### ***Module II Sessions***

This module aims to prepare students for the aptitude tests of various companies for employment. The course is designed in a way to improve the quantitative, verbal and logical aptitude of students. Each of these modules follows a three pronged approach- building concepts, developing an application orientation and mastering test taking techniques.

**Quantitative Aptitude:** Number theory; percentage; profit & loss; ratio & proportion; averages; partnership; mixtures & alligation; time, Speed & Distance; time & work; geometry & mensuration; trigonometry; functions & graphs; permutations & combinations; probability

**Data Interpretation (DI):** Organizing data to draw meaningful conclusion; speed calculations; numerical tables & line graphs; pie charts; bar graphs; combinations of different DI tools; data sufficiency

**Logical Reasoning:** Arrangements (linear & complex); family trees & codes; symbol based problems; syllogisms

**Verbal Aptitude:** Spotting errors; jumbled sentences; sentence completion; synonyms & antonyms; critical reasoning; reading comprehension

## **9. Corporate Connector**

### **Program Rationale**

This program is meant for final year students appearing for campus placements. The program gives an opportunity to students for facing simulated group discussions, case studies & personal interviews. Special sessions are conducted to familiarize the students w.r.t the selection processes of various companies.

### **Program Content**

Practice sessions on Group Discussions & Case studies, followed by comprehensive feedback on content as well as individual and group performance.

Simulated Personal Interviews followed by comprehensive feedback on performance and ways & methods to improve. Feedback is given on a form specially designed for this purpose.

## **10. Trainer Identification**

Trainers are identified and selected in a very elaborate and phased manner, entailing the following steps:-

- Shortlisting and screening of potential trainers based on the scope and nature of the training program. The trainer pool is identified through contacts, past experience and search engines.

- Detailed discussions/meetings with the shortlisted trainers. This requires a mapping between the intended training deliverables and the profile/abilities of shortlisted trainers.
- Final selection of the most appropriate trainer, based on parameters like training budget, target audience, trainer experience & testimonials, word of mouth etc. It is to be noted that the trainer hence identified may not necessarily be the most affordable one, but the one most suitable for conducting the program to ensure high quality delivery.

**11. Operational Dimensions of Training: Conducting Training Programs**

- Registration (if applicable) is encouraged for the program and the same needs to conform to a time line.
- Venue selection is made on the basis of the number of students, available training facilities etc.
- Communication about the program is made through social media tools as well as SMS/e-mail.
- Necessary venue arrangements are made to ensure that the training proceeds in the best possible manner.
- Training material (if applicable) is organized well in advance.
- Trainer travel/boarding and lodging is organized.
- Attendance norms are strictly adhered to.
- Training material is shared with the students.

## **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**

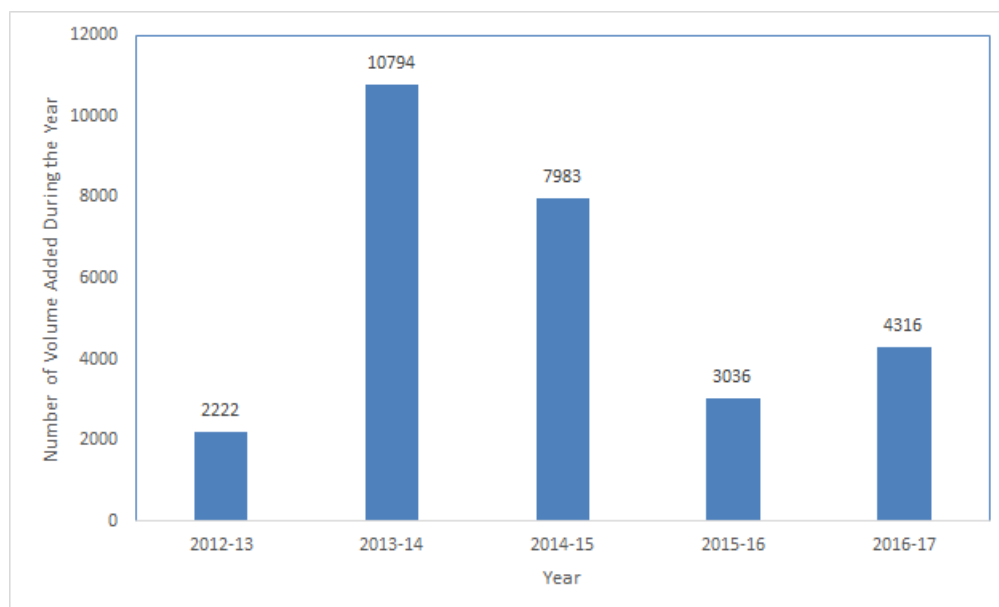
The Central Library Thapar University is housed in a centrally air conditioned spacious premises covering an area of 25,000 square feet. The central library is the core of academic services, and therefore, become a key place in academic and research activities. With its collection of over **1.10 Lac**, it provides the ready to use information support to its users. Besides printed books and journals, central library collection includes e-Books, bound volume of journals, CD-ROMs, DVD, On-line databases, audio-video material, standards, specifications, theses, reports etc. in the field of all engineering disciplines, sciences, and humanities.

Library remains open 24x7 throughout the year, even on gazette holidays. However, Essential services are available till 8:30 PM. Most of the library operations are automated. Library catalogue (OPAC) can be searched from anywhere and subscribed e-resources can be accessed from the Campus only.

The emphasis of the library is to provide personalized information services in terms of subject support, research support, and content delivery to target user with minimum time. The library services are fully automated with modern web based library management system with automatic alert system.

#### **Library Collection – Print**

<b>Collection</b>	<b>Copies</b>
Book Bank	2326
Books	96884
Bound Volumes	5182
CD-ROM	456
Print Journals	108
Standards	4284
Thesis	2692



New Books Added During Last Five Year

**Library Collection – Electronic**

Central Library is subscribing and have access to following category of electronic resources

<b>Subscription of e-Resources in Year 2017</b>			
Type	S. No.	Electronic Resources	Count
Databases	1	ISID	Single
	2	EBSCO Database	Single
	3	MathSciNet	Single
	4	RSC	6
	5	Web of Science	Single
	6	J-Gate Complete	Single
	7	Prowess Database	Single
e-Books		e-Books from Pearson	562
	1	e-Books from IEEE Wiley	657
	2	e-Books from EBSCO	195
	3	e-Books from Kindle	965
	4	World e-Books Library	32,000
		<b>Total</b>	<b>33,817</b>
		ACM Digital Library	145
e-Journals	1	American Chemical Society (ACS)	49
	2	American Institute of Physics (AIP)	19
	3	American Physical Society (APS)	13
	4	American Society of Civil Engineers (ASCE)	37
	5	American Society of Mechanical Engineers (ASME)	28
	6	Annual Reviews	43
	7	Cambridge University Press	224
	8	Economic and Political Weekly	1
	9	Emerald	234
	10	IEEE/IEE Publications (IEL Online)-	488
	11	Institute of Physics Publishing (IOP)	45
	12	Nature Journal	1
	13	Oxford University Press-	262
	14	Portland Press	8
	15	Project Euclid	39
	16	Project MUSE	648
	17	Royal Society of Chemistry	29
	18	Science Direct from Elsevier(ESS)	1036
	19	Society of Industrial & Applied Mathematics	16

	20	Springer Journals	1439
	21	Taylor and Francis	1079
	22	Through SAGE – 6 Journals	6
	23	Wiley Blackwell	908
	24	World Scientific Publishing company	2
	25	EBSCO Journal Aggregator	2183
		Total	9095
Standards	1	IEEE Standards	3610
	2	ASTM Standards	5500
		Total	9110
Proceedings	1	ACM Proceedings	1003
	2	IEEE Proceedings	19859
		Total	20862

### Library Services

The Library offers the following facilities/services:

#### 1. Library Automation

The Central Library has shifted its library resources on new platform KOHA from SOUL due to emerging demand of the time. The library is now fully functional on this platform with new features of automatic email alerts, SMS alerts, Online WebOPAC, Book Images, Table of Content, etc. The library catalogue is accessible throughout the globe at <http://library.thapar.edu>

Collection	Titles	Copies
Book Bank	437	2324
CD-ROM	200	429
Com. Library	467	507
DVD-ROM	52	83
General Book	26161	50646
Journals	598	3663
Kindle Devices	1	8



## 2. Digital Resource Centre:

The Digital Resource Center of Central library is digitizing its old archive collection and the digitization of all the previous thesis is over. The digitization of standards, old question papers, news clippings is in progress.

## 3. 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.

## 4. 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.

## 5. Information and communication infrastructure:

The Library is equipped with state of the art facility which includes 800 nodes for Wi-Fi network in addition to wired connectivity. A number of computers are dedicated for library users. Resources like digital scanners, printers, photocopiers and surveillance system for security etc. are available.

## 6. Thapar University Digital Repository (TuDR)

The library also manages the University's digital archive Thapar University Digital Repository (TuDR) which can be accessed at <http://tudr.thapar.edu:8080/jspui>. All the dissertations and theses are directly submitted to the digital repository.

## 7. Publication Database:

Central Library is very keen to disseminate and promote research publication. The library has developed in-house database "**Publication@Thapar** - Thapar University Publication Database" where all the publication has been indexed in helpful sequence. Various statistics are available in the form of annual publication count, department publication count, individual faculty publication count, journal impact factor and linking to full text access. The database can be accessed over <http://publications.thapar.edu>



## Publications@Thapar

Thapar University  
Patiala, Punjab - 147004

About	BioTech	Chemical	Civil	CSE	ECE	MED	EED	Physics	Maths	Chemistry	HSS	LMTSOM
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<b>Publication@Thapar</b>				
2016 (195)	2015 (518)	2014 (574)	2013 (474)	2012 (374)
2011 (358)	2010 (207)	2009 (196)	2008 (113)	2007 (89)
2006 (79)	2005 (65)	2004 (50)	2003 (38)	2002 (22)
2001 (9)	2000 (21)	1999 (18)	1998 (11)	1997 (11)
1996 (7)	1995 (7)	1994 (9)	1993 (6)	1992 (3)
1991 (2)	1990 (2)	1989 (2)	1988 (4)	1986 (5)
1985 (3)	1984 (4)	1983 (1)	1982 (1)	1981 (1)
1974 (1)	1973 (2)	1972 (1)	(4)	All

Search Title	Search Author
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Publication Types		
Publication	Numbers	Scopus
Books	10	1
Book Chapters	15	11
Journals	2910	2588
Conferences	552	543
Abstract	0	
<b>Grand Total</b>	<b>3487</b>	<b>3143</b>

Department wise Publications		
Department	Publications	Scopus
BT	266	239
CHEM	82	69
CHEMISTRY	196	153
CIVIL	96	93
CSE	168	128
ECE	290	278

## 8. Membership:

Library caters to faculty, staff and students of Thapar University.

## 9. 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.

Library is an active member of Developing Library Network (DELNET) for the document supply and Inter Library Loan services.

## 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. Library Hours:

The library resources are available for access through interactive library website <http://cl.thapar.edu>.

**Computing Facilities in the Library**

Sr. No.	Details of the Hardware/Software	
	Software	Qty.
1.	Windows 2008 server, Windows 2007, 2008, Windows XP, SOUL, MS-Office 2010, OFFICE XP	
	Hardware	
2.	Surveillance System ( <b>Cameras and TV</b> )	1 unit with 16 Cameras
3.	Lamination Machines	2
4.	External USB HDD for Backup and Storage	6
5.	DSLR Camera	1
6.	HP Flatbed Scanner	1
7.	LCD Projector	1
8.	HP Deskjet Printer	1
9.	IBM x226 Servers Xeon Server	2
10.	IBM PIV	2
11.	Dell PoweEdge T4P Sever	1
12.	IBM System X, 3620 series Server	2
13.	WIPRO Dual Core computer systems	15
14.	LAPTOPS	5
15.	Dell Optiplex Computer Systems	10
16.	Dell Vostro 430 Minitower Intel Core i5	7
17.	Dell Optilex 7010	5
18.	Colored Scanner/ printer (multifunctional)	1
19.	Sharp photo copier	3
20.	Sharp 45 (ppm) Multi-functional machine	1
21.	Barcode Printer	1
22.	Bar Code Scanners	7
23.	Bar Code Scanner for stock verification in built storage	1
24.	Servers Rack	1
25.	Lenovo Think server	1

**Head Central Library**

Dr. Seema Bawa, Professor Computer Science, has been appointed as Professor in-Charge of the Central Library.

**Orientation Programme for First Year Student**

An orientation program was organized for the first year student during FROSH Week in July 2017 in order to orient the new entrants with library services and activities.

**PhD. Degree Awarded**

Dr. Har Singh, Assistant Librarian, NNCL has awarded PhD degree from Department of Library and Information Science, Panjab University, Chandigarh on 1st May 2017. He has carried out his research work on the topic ‘**Collection Development in University Libraries: Problems & Prospects – A Study of the Universities of Panjab, Haryana and Chandigarh**’.

**Conference Attended**

Dr Shri Ram has attended an “**Emerging Trends in Business Librarianship**” (ETBL2016) held at Indian School of Business, Mohali during December 4 - 7, 2016 and presented his paper on “Patron Driven Acquisition Model for eBooks: A case study of LM Thapar School of Management”.

**Orientation Programme Attended**

Attended 4 weeks UGC Sponsored Orientation Programme organized by UGC Human Resource Development Centre, Punjabi University, Patiala from 02.11.2016 to 29.11.2016.

**Publications****Journal(s):**

Shri Ram (2017). Global muscular dystrophy research: A 25-year bibliometric perspective. *Neurology India*, 65 (5), 993-1000. [IF (2015) : 1.758] .

- Shri Ram (2017). Indian contribution to breast cancer research: a bibliometric analysis. *Annals of Library and Information Studies*, 64 (2), 99-105.
- Shri Ram (2016). Global Ice Bucket Challenge (Amyotrophic Lateral Sclerosis) Research. *Annals of Neurosciences*, 24 (4), 209-217.
- Har Singh and Preeti Mahajan (2017), Relationship between budget allocation and growth of resources at the university libraries of Northern India - A study. *Collection Building*, 36(3), 127-134.
- Har Singh and Preeti Mahajan (2017). University Libraries in North India: A Comparative Study. 'Pearl : A Journal of Library and Information Science', 11(3), 238-249

**Book Chapter(s):**

- Shri Ram (2017). Library Services for Bioinformatics: Establishing Synergy Data Information and Knowledge. In Shri Ram, *Library and Information Services for Bioinformatics Education and Research* (pp. 18-33). USA: IGI Global. [ISBN: 9781522518723].
- Shri Ram (2017). Web Resources on Zea mays: An Overview. In Shri Ram, *Library and Information Services for Bioinformatics Education and Research* (pp. 241-252). USA: IGI Global. [ISBN: 9781522518723].

**Book:**

- Shri Ram (2017). *Library and Information Services for Bioinformatics Education and Research*: USA: IGI Global. [ISBN: 9781522518723].

## SCIENCE AND TECHNOLOGY ENTREPRENEURS' PARK (STEP)

### VENTURE LAB

Venture Lab has been established to promote entrepreneurial activities in Thapar University with a mission “To nucleate entrepreneurial spirit and nurture startups thereby making TU **the most entrepreneurial university of India**”. Venture Lab is working in association with Science & Tech. Entrepreneurship Park (STEP) and Entrepreneurship Development Cell (ED Cell) of Thapar University.

In February 2017, Dr. Karminder Singh Ghuman has appointed as Coordinator and Dr. MD Singh as co-coordinator of Venture Lab and STEP. Presently there are two Design Labs having **5 high performance workstations** and **6 (six) 3-D printers** for rapid prototyping to name a few facilities developed in last year. One Laser cutter and one complete electronic workbench have already been in the process of procurement.

Venture Lab is very dynamic in student community, as it organized a very successful “Venture Lab weekend” program moderated by **Mr. Neil Sheridan UK** in November 2016, followed by Startup Expo and Young Entrepreneur’s Summit (YES) in Jan-Feb 2017. It also provided seed money to budding entrepreneurs and other types of supports to nurture their startups.

Venture Lab also provided a golden opportunity to its students, by providing an incubation space and other logistic support in addition to mentoring and technical guidance. Presently there are **10 startups working with Venture Lab**. Venture Lab also applied for Government funding under Atal Innovation Mission in August 2017. Recently Venture Lab has developed an eco system in collaboration with Punjab Angel Networks, TiE, National Small Scale Industries Corporation, SAAC, 91-Springboard etc.



# ANNEXURES

## Annexure-I(a)

**BOARD OF GOVERNORS (FROM 1.1.2016 TO 31.12.2018)**

<b>Sr. No.</b>	<b>CONSTITUENCY</b>	<b>NAME &amp; ADDRESS</b>
(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 <sup>rd</sup> 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 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 BANGALORE.
(vi)	Two persons with industry background to be nominated by the President;	Shri Rahul Sarin Tower 2, Flat 1201, Vipul Belmonte, Golf Course Road, Sector 53, Gurgaon 122011.  Shri Anil Bhargava Group Director Thapar House, 124, Janpath



Sr. No.	CONSTITUENCY	NAME & ADDRESS
		NEW DELHI.
(vii)	One person nominated by the Ministry of Education Govt. of India, Ministry of Human Resource & Development	-Nomination awaited -
(viii)	One person nominated by the Chairman, Northern Regional Council, AICTE	- Nomination awaited -
(ix)	One person nominated by the Chairman, UGC	- Nomination awaited -
(x)	The Secretary, Department of Technical Education, Punjab Government (ex-officio)	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 Deputy Secretary, Finance, Pb. Govt.	<b>Principal Secretary to Govt. Punjab</b> Department of Finance Punjab Mini Secretariat Sector - 9 CHANDIGARH – 160 003.
(xii)	One Distinguished Professor / Professor of the University by rotation in order of seniority; (1.1.2016 to 31.12.2017)	Dr. R.S. Kaler Senior Professor Department of Electronics & Communication Engineering
(xiii)	One Associate Professor of the University in the order of Seniority (1.1.2016 to 31.12.2017)	Dr. A.K. Lal Associate Professor School of Mathematics
(xiv)	One Assistant Professor of the University by rotation in order of Seniority (1.1.2017 to 31.12.2018)	Dr. Sanjeev Kumar Ahuja Assistant Professor Department of Chemical Engineering
(xv)	Director, National Institute of Technical Teachers' Training & Research, Chandigarh	Dr. (Ms.) P.K. Tulsi Officiating Director National Institute of Technical Teachers' Training & Research Sector 26 CHANDIGARH – 160 019.
(xvi)	Registrar, (Ex-Officio)	Shri Gurbinder Singh

Sr. No.	CONSTITUENCY	NAME & ADDRESS
	Secretary	
	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. S.S. Bhatia COE
	Special Invitees	Dr. Padmakumar Nair Director, LMTSM
		Shri Sharad Sanjay Sen Group Vice President, HR

## Annexure-I(b)

**PLANNING & MONITORING BOARD (1.1.2015 to 31.12.2017)**

<b>Sr. No</b>	<b>CONSTITUENCY</b>	<b>NAME &amp; ADDRESS</b>
1.	Director, Thapar University (Ex-Officio) – Chairman	Prof. Prakash Gopalan
2.	Director, LMTSOM (Derabassi Off campus)	Dr. Padmakumar Nair
3.	Deputy Director (Ex-Officio)	Dr. R.S. Kaler
4.	Deans (Ex-Officio)	
	(a) Dean, Academic Affairs	Dr. S.S. Bhatia
	(b) Dean, Faculty Affairs	Dr. R.K. Sharma
	(c) Dean of Student Affairs	Dr. Maneek Kumar
	(d) Dean of Research & Sponsored Projects	Dr. O.P. Pandey
	(e) Dean of Contemporization and Accreditation	Dr. Ajay Batish
	(f) Dean of Resource Mobilization & Organization Effectiveness	Dr. Padmakumar Nair
	(g) Associate Dean of Resource Mobilization Organization Effectiveness	Dr. M.S. Reddy
	(h) Associate Dean Strategy	Dr. Kulvir Singh
5.	Controller of Examination (Ex-Officio)	Dr. D. Gangacharyulu
6.	Head of Departments / Schools / Centres (Ex-Officio)	
	(a) Department of Biotechnology	Dr. Dinesh Goyal
	(b) Department of Chemical Engineering	Dr. Raj Kumar Gupta
	(c) Department of Civil Engineering	Dr. Naveen Kwatra

<b>Sr. No</b>	<b>CONSTITUENCY</b>	<b>NAME &amp; ADDRESS</b>
	(d) Department of Computer Science & Engineering	Dr. Maninder Singh
	(e) Department of Electronics & Communication Engineering	Dr. Sanjay K. Sharma
	(f) Department of Electrical & Instrumentation Engineering	Dr. Ravinder Aggarwal
	(g) Department of Mechanical Engineering	Dr. S.K. Mohapatra
	(h) School of Chemistry & Biochemistry	Dr. Bonamali Pal
	(i) School of Humanities & Social Sciences	Dr. (Mrs.) Santha Kumari
	(j) School of Mathematics	Dr. A.K. Lal
	(k) School of Physics & Material Science	Dr. Manoj Sharma
	(l) School of Energy & Environment	Dr. N. Tejo Parkash
	(m) Centre of Information and Technology Management	Dr. Maninder Singh
	(n) Centre of Relevance & Excellence (CORE)	Dr. Sanjai Saxena Coordinator
	(o) Centre of Continuing Education	Dr. Rajesh Khanna
	(p) Science & Technology Entrepreneurship Park (STEP)	Dr. Dinesh Goyal, Officiating Executive Director
	(q) Central Library	Dr. Susheel Mittal Officiating Head
	(r) Centre for Training & Development	Shri Sanmeetinder Singh Sidhu
7.	Head, Placement & Coordination (Ex-Officio)	Shri H.S. Bawa
8.	One member nominated by University Grants Commission	Dr. R.P. Dahiya Professor

Sr. No	CONSTITUENCY	NAME & ADDRESS
		Centre for Energy Studies Indian Institute of Technology, Delhi NEW DELHI – 110 016.
9.	Four outside experts to be nominated by the Chairman, Board of Governors	<p>Prof. (Dr.) Surendra Kumar Kaushik R-273, Dera Baba Jaimal Singh BEAS – 143 204</p> <p>Mr. Rakesh Kad President M/s Kads Enterprises House No. 13-Y, Yadvindra Colony, The Mall, PATIALA.</p> <p>Dr. S. Hariharan Joint Managing Director Solaris Chemtech Industries Limited First Floor, Tower-C, First India Place, Mehrauli Gurgaon Road GURGAON – 122 002.</p> <p>Mr. Manish Tiwari Chief Executive Officer Biltech Building Elements Ltd. 232-B, Ground Floor Okhla Industrial Area, Phase-3 Behind SBI NEW DELHI – 110 020.</p>
10.	Three persons nominated by the Director from amongst the University Staff for their special knowledge.	<p>Dr. Prem Pal Bansal Associate Professor Department of Civil Engineering</p> <p>Dr. Sanjay Kumar Jain Associate Professor Department of Electrical &amp; Instrumentation Engineering</p> <p>Dr. Tanuj Chopra Assistant Professor Department of Civil Engineering</p>
11.	General Manager (Estate) (Ex-officio)	Shri R.K. Nigam
12.	Deputy General Manager (CMS) (Ex-officio)	Shri Sanjeev Soni

Sr. No	CONSTITUENCY	NAME & ADDRESS
13.	Registrar (Ex-Officio) Secretary	Shri Gurbinder Singh

**Annexure-I(c)****SENATE (Term 1.1.2016 to 31.12.2017)**

S. No.	CONSTITUENCY	NAME & ADDRESS
1.	The Director - Chairman	Prof. Prakash Gopalan
2.	Director, LMTSM	Dr. Padmakumar Nair
3.	Deputy Director, if any (ex-officio)	Dr. R.S. Kaler
4.	Deans (Ex-Officio)	
	(a) Dean, Academic Affairs	Dr. S.S. Bhatia
	(b) Dean, Faculty Affairs	Dr. R.K. Sharma
	(c) Dean of Student Affairs	Dr. Maneek Kumar
	(d) Dean of Research & Sponsored Projects	Dr. O.P. Pandey
	(e) Dean of Contemporization and Accreditation	Dr. Ajay Batish
	(f) Dean of Resource Mobilization & Organization Effectiveness	Dr. Padmakumar Nair
	(g) Associate Dean of Resource Mobilization Organization Effectiveness	Dr. M.S. Reddy
	(h) Associate Dean Strategy	Dr. Kulvir Singh
5.	Controller of Examination	Dr. S.S. Bhatia
6.	Head of Departments / Schools / Centres (Ex-Officio)	
	(a) Department of Biotechnology	Dr. Moushumi Ghosh
	(b) Department of Chemical	Dr. Raj Kumar Gupta

S. No.	CONSTITUENCY	NAME & ADDRESS
	Engineering	
(c)	Department of Civil Engineering	Dr. Naveen Kwatra
(d)	Department of Computer Science & Engineering	Dr. Maninder Singh
(e)	Department of Electronics & Communication Engineering	Dr. Alpana Aggarwal
(f)	Department of Electrical & Instrumentation Engineering	Dr. Ravinder Aggarwal
(g)	Department of Mechanical Engineering	Dr. S.K. Mohapatra
(h)	School of Chemistry & Biochemistry	Dr. Bonamali Pal
(i)	School of Humanities & Social Sciences	Dr. (Mrs.) Santha Kumari
(j)	School of Mathematics	Dr. A.K. Lal
(k)	School of Physics & Material Science	Dr. Manoj Sharma
(l)	School of Energy & Environment	Dr. N. Tejo Parkash
(m)	Centre of Information and Technology Management	Dr. Maninder Singh
(n)	Centre of Relevance & Excellence (CORE)	Dr. Anil Kumar Coordinator
(o)	Centre of Continuing Education	Dr. Rajesh Khanna
(p)	Science & Technology Entrepreneurship Park (STEP)	Dr. Karminder Singh Coordinator
(q)	Centre for Industrial Liaison & Placement	Shri H.S. Bawa
(r)	Centre for Training & Development	Shri Sanmeetinder Singh Sidhu
7.	Distinguished Professors / Professors, other than the Heads of Departments,	Dr. Susheel Mittal Senior Professor

S. No.	CONSTITUENCY	NAME & ADDRESS
	Schools	<p>School of Chemistry &amp; Bio-Chemistry</p> <p>Dr. D. Gangacharyulu Professor Department of Chemical Engineering</p> <p>Dr. Rafat Siddique Senior Professor Department of Civil Engineering</p> <p>Dr. (Mrs.) Ravi Kiran Professor School of Humanities &amp; Social Sciences</p> <p>Dr. Smarajit Ghosh Professor Department of Electrical &amp; Instrumentation Engineering</p> <p>Dr. A.S. Reddy Professor School of Energy &amp; Environment</p> <p>Dr. Niranjana Das Professor Department of Biotechnology</p> <p>Dr. Rajeev Mehta Professor Department of Chemical Engineering</p> <p>Dr. Satnam Singh Professor School of Chemistry &amp; Biochemistry</p> <p>Dr. Haripada Bhunia Professor Department of Chemical Engineering</p> <p>Dr. Dinesh Goyal Professor Department of Biotechnology</p> <p>Dr. Rajesh Kumar Professor Department of Computer Science &amp; Engineering</p>



S. No.	CONSTITUENCY	NAME & ADDRESS
		Dr. (Mrs.) Inderveer Chana Professor Department of Computer Science & Engineering
		Dr. Sanjay Sharma Professor Department of Electronics & Communication Engineering
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. Sarbjit Singh Associate Professor Department of Civil Engineering  Mr. A.S. Jawanda Associate Professor Department of Mechanical Engineering  Mr. Rajesh Pathak Associate Professor Department of Civil Engineering
9.	three Assistant Professors from the Departments / Schools by rotation in order of seniority nominated by the Director;	Mr. K.S. Babu Assistant Professor School of Energy & Environment  Dr. Hardeep Singh Assistant Professor Department of Electronics & Communication Engineering  Dr. Vikas Handa Assistant Professor Department of Biotechnology
10.	Two teachers of the University for their special knowledge appointed by the Director	Mr. Karun Verma Assistant Professor Department of Computer Science & Engineering  Mr. Ankush Kansal Assistant Professor Department of Electronics & Communication Engineering
11.	The Librarian of the University	Dr. Seema Bawa

S. No.	CONSTITUENCY	NAME & ADDRESS
	(ex-officio)	Incharge, Central Library
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	Dr. A.S. Chawla Dean of Academic Affairs Punjabi University PATIALA.  Prof. S.K. Kaushik R-273, Dera Baba Jaimal Singh Radha Swami Satsang BEAS – 143 204 (Distt. Amritsar)  Dr. Daljit Singh House No. 693 Sector – 8 CHANDIGARH.
14.	Three persons who are not members of the teaching staff coopted by the Senate for their specialized knowledge.	Shri Pankaj Sinha Finance Officer  Shri Tejinder Singh AR (Academics)  Shri Sanjeev Guleria System Analyst
15.	Director, National Institute of Technical Teachers' Training & Research, Chandigarh (ex-officio)	Dr. (Mrs.) P.K. Tulsi Officiating Director National Institute of Technical Teachers' Training & Research Sector 26 CHANDIGARH – 160 019.
16.	Registrar (Ex-Officio) Secretary	Shri Gurbinder Singh

## Annexure-I(d)

**FINANCE COMMITTEE (1.1.2016 to 31.12.2018)**

<b>S. No.</b>	<b>CONSTITUENCY</b>	<b>NAME &amp; ADDRESS</b>
(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 <sup>rd</sup> Floor Mehrauli Gurgaon Road
		<b>GURGAON – 122 002.</b>
(iv)	Four persons nominated by the Board, one of whom shall be a person with special knowledge of Accounts and Finance (Term expired on 31.12.2015)	Shri S.K. Khandelwal Executive Director Avantha Holdings Thapar House, 124, Janpath NEW DELHI.  Sh. R. Rajagopal Associate Vice President, Accounts BILT  Sh. Apoorva Sharma Head, Internal Audit BILT  Shri Rahul Sarin Tower 2, Flat 1201, Vipul Belmonte, Golf Course Road, Sector 53, Gurgaon 122011.
(v)	A representative of the UGC	-- Nomination awaited ---
(vi)	A representative of the State Government	Shri M.P. Singh, IAS Principal Secretary to Govt. Punjab Department of Technical Education &

S. No.	CONSTITUENCY	NAME & ADDRESS
		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 (1.1.2016 to 31.12.2018)**

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 <sup>rd</sup> 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, LMTSM	Dr. Padmakumar Nair
(iv)	Finance Officer (Ex-officio)	Shri Pankaj Sinha Finance Officer

S. No.	CONSTITUENCY	NAME & ADDRESS
(v)	Three teachers of the University to be nominated from the members of the Board of Governors (1.1.2016 to 31.12.2017)	Dr. R.S. Kaler Senior Professor Department of Electronics & Communication Engineering
	(1.1.2017 to 31.12.2018)	Dr. A.K. Lal Associate Professor School of Mathematics
		Dr. Sanjeev Kumar Ahuja Assistant Professor Department of Chemical Engineering
(vi)	Registrar (Ex-Officio) Secretary	Shri Gurbinder Singh
	Special Invitees	Mr. Patrick Collins Mr. Vinod Kumar Sablok

**Annexure-I(f)****BUILDING & WORKS COMMITTEE (1.1.2017 to 31.12.2019)**

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)	Dr. R.S. Kaler
(iii)	Superintending Engineer, PWD (B&R) Patiala Circle, (Ex-Officio)	Er. Jaswinder Singh Mann Superintending Engineer Patiala Circle No. 1 , PWD B&R Branch, Mini Secretariat, Block-C, Nirman Bhawan PATIALA – 147 001.
(iv)	Head, Civil Engineering Department, (Ex-Officio)	Dr. Naveen Kwatra Professor & 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	Prof. S.K. Kaushik R-273, Dera Baba Jaimal Singh Radha Swami Satsang BEAS – 143 204 (Distt. Amritsar)

S. No.	CONSTITUENCY	NAME & ADDRESS
	three years	Prof. S.K. Madan Professor Department of Civil Engineering NIT, Kurukshetra
(vi)	One member having knowledge of Finance/Accounts to be nominated by Chairman, BOG for three years	Mr. Pankaj Sinha Finance Officer
(vii)	General Manager (Estate)	Shri R.K. Nigam
(viii)	Deputy General Manager (CMS)	Shri Sanjeev Soni
(ix)	Faculty Advisors (Civil & Electrical)	Dr. Prem Pal Bansal Associate Professor Department of Civil Engineering  Sh. S.K. Jain Associate Professor Department of Electrical & Instrumentation Engineering
(xi)	Registrar, Ex-officio (Secretary)	Shri Gurbinder Singh

## Annexure-II

**ACADEMIC CALENDAR 2016-2017 (Revised)**

<b>FIRST SEMESTER</b>	
- Registration* (other than first & second year UG students)	18.07.2016 to 22.07.2016
- Registration for second year UG students	08.08.2016 (First Half)
- Commencement of classes (other than first & second year UG students)	18.07.2016 at 13:00 Hours
- Late Registration (with late registration fee) (other than first & second year UG students)	25.07.2016 to 07.08.2016 (with late registration fee of Rs 1000/-)
- Orientation Program (First year UG)	25.07.2016 to 29.07.2016
- Orientation Program (First year PG)	18.07.2016 to 19.07.2016
- Commencement of classes (First year UG)	01.08.2016
- Commencement of classes (First year PG)	20.07.2016
- Commencement of classes (Second year UG)	08.08.2016 (Second Half)
- Teaching (except second year UG students)	18.07.2016 to 16.09.2016
- Teaching (second year UG students)	08.08.2016 to 16.09.2016
- Reading week (for UG students admitted in July 2016 and for PG students admitted w.e.f. July 2015)	12.09.2016 to 16.09.2016
- Mid-Semester Test	19.09.2016 to 26.09.2016
- Teaching	27.09.2016 to 28.10.2016
- Mid Semester Vacations * (5 days)	31.10.2016 to 04.11.2016
- Teaching	07.11.2016 to 02.12.2016
- Reading week (for UG students admitted in July 2016 and for PG students admitted w.e.f. July 2015)	28.11.2016 to 02.12.2016
- End Semester Examination	05.12.2016 to 19.12.2016
- Winter Vacations* (13 days)	20.12.2016 to 01.01.2017
<b>SECOND SEMESTER</b>	
- Registration*	02.01.2017 to 06.01.2017
- Commencement of Classes	02.01.2017 at 13:00 Hours
- Late Registration (with late registration fee)	07.01.2017 to 20.01.2017 (with late registration fee of Rs 1000/-)
- Teaching	02.01.2017 to 10.03.2017
- Reading week (for UG and PG students admitted w.e.f. July 2015)	06.03.2017 to 10.03.2017
- Mid-Semester Test	13.03.2017 to 20.03.2017
- Teaching	21.03.2017 to 05.05.2017
- Reading week (for UG and PG students admitted w.e.f. July 2015)	01.05.2017 to 05.05.2017
- End Semester Examination	08.05.2017 to 22.05.2017
- Summer Vacations	23.05.2017 to 16.07.2017

Approved  19/8/2016

## Annexure – III

**1. Statement of degrees to be awarded as on 26.10.2017:**

<b>Sr. No.</b>	<b>Programme/Discipline</b>	<b>Number of students graduating</b>
1	PhD	43
2	MTech (Regular & Part-Time)	77
3	ME (Regular & Part-Time)	278
4	Post Graduate Diploma	3
5	Master of Computer Applications (MCA)	79
6	MSc (Biotechnology)	21
7	MSc (Chemistry)	37
8	MSc (Mathematics & Computing)	24
9	MSc (Physics)	37
10	MSc (Bio-Chemistry)	9
11	MA (PSYCHOLOGY)	13
12	MA (ECONOMICS)	3
13	MBA & BE-MBA	113
14	BE/BTech (2013+2012+2011) (939+21+1)	961
<b>Total</b>		<b>1698</b>



## Annexure IV

**1. Detail of admission made in the year: 2017-18 as on 10-10-2017**

<b>Sr. No.</b>	<b>Programme/Discipline</b>	<b>No. of Students Admitted</b>	<b>Starting Score(JEE Main 2017)</b>	<b>Ending Score (JEE Main 2017)</b>
01.	BE/BTech	1541 (Including 81 Over & Above)	225	48
02.	BEMBA	74	125	51
03.	BE-IEP	35	142	49
04.	BTech – Biotechnology	56 (Including 1 Over & Above)	536 (NEET-2017 Score)	160 (NEET-2017 Score)
05.	BE/BTech-LEET	119		
06.	ME	225		
07.	MTech	30		
08.	Master of Computer Applications (MCA)	07		
09.	Master of Computer Applications (MCA) (LATERAL ENTRY)	64		
10.	MBA	164		
11.	MSc (Biotechnology)	28		
12.	MSc (Chemistry)	39		
13.	MSc (Mathematics & Computing)	30		
14.	MSc (Physics)	35		
15.	MSc (Bio-Chemistry)	18		
16.	Master of Art (Psychology and Economic)	24		
17.	MPhil	05		
18.	PhD	99		

## Annexure 'V'

**LIST OF STUDENTS TO BE AWARDED MEDALS**

List of students who are eligible for the award of Medals to be awarded during the 31<sup>st</sup> Convocation to be held in November 2017:

**List of Students Awarded Medals:**

SR. NO.	REG N. 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
<b>PRESIDENT MEDAL</b>						
1	10130 6052	DIVANSHUKAPILA	SATISHKAPILA	ANUKAPILA	9.96	JUNE 2017
<b>S. RANBIR SINGH MEMORIAL MEDAL</b>						
1	10130 6040	CELESTE GOEL	HARI RAM GOEL	EKTAGOEL	9.74	JUNE 2017
<b>PROF. V. RAJARAMAN COMPUTER SCIENCE/ENGINEERING AWARD</b>						
1	10130 3156	SHREYA	KHUSHPREETGO YAL	RENUGOYAL	9.92	JUNE 2017
<b>S. RAM S. SIDHU MEMORIAL MEDAL</b>						
1	10130 4058	NAMANGARG	RAJIV GARG	SUMANGARG	9.93	JULY 2017
<b>UNIVERSITY MEDAL</b>						
<b>BACHELOR OF TECHNOLOGY</b>						
<b>BIOTECHNOLOGY</b>						
		<i>No student eligible</i>				
<b>BACHELOR OF ENGINEERING</b>						
<b>CHEMICAL ENGINEERING</b>						
1	10130 1020	DHANVIR SINGH	HARDEEP SINGH	RAJ PAL	9.70	JUNE 2017
<b>CIVIL ENGINEERING</b>						
1	10130 2060	NISCHAL GUPTA	SATISH CHANDRA	SUNITA CHANDRA	9.80	JULY 2017
<b>COMPUTER ENGINEERING</b>						
1	10130 3156	SHREYA	KHUSHPREETGO YAL	RENUGOYAL	9.92	JUNE 2017
<b>ELECTRICAL ENGINEERING</b>						
1	10130 4058	NAMANGARG	RAJIV GARG	SUMANGARG	9.93	JULY 2017
<b>ELECTRONICS (INSTRUMENTATION &amp; CONTROL) ENGINEERING</b>						
1	10130 5070	NAVARSHIDHIMA N	JASPAL SINGH DHIMAN	JASWINDERKAU RDHIMAN	9.60	JULY 2017

<b>ELECTRONICS &amp; COMMUNICATION ENGINEERING</b>						
1	10130 6052	DIVANSHUKAPILA	SATISHKAPILA	ANUKAPILA	9.96	JUNE 2017
<b>MECHANICAL ENGINEERING</b>						
1	10130 8083	PARAS	MAHESH KUMAR	VEENA	9.71	JUNE 2017
<b>MECHATRONICS ENGINEERING</b>						
		No student eligible				
<b>B.E.(IE)-MBA</b>						
1.	40125 7007	YOSHITA	MADANLAL	VEENA RANI	9.55	JUNE 2017
<b>MASTER OF BUSINESS ADMINISTRATION (M.B.A.)</b>						
1	50150 4100	SAMEER KUMAR JASRA	RAJNISH KUMAR JASRA	NARESHKUMAR I	9.36	JUNE 2017
<b>MASTER OF COMPUTER APPLICATIONS (M.C.A.)</b>						
1	20158 0027	VARUNSHUKLA	ANIL KUMAR SHUKLA	RENUSHUKLA	9.97	JUNE 2017
<b>MASTER OF SCIENCE</b>						
<b>BIOTECHNOLOGY</b>						
1	30150 1019	TAVLEENKAUR	ARGINDER SINGH SAINI	BHUPINDERKAUR	9.71	SEPTEMBER 2017
<b>CHEMISTRY</b>						
1	30150 2013	DIMPLE GARG	RAVINDERGARG	MITHLESH	9.65	SEPTEMBER 2017
<b>MATHEMATICS &amp; COMPUTING</b>						
1	30150 3013	MANPREETKAUR	RANJIT SINGH	MANJITKAUR	9.93	AUGUST 2017
<b>PHYSICS</b>						
1	30150 4011	DISHAARORA	VIJAY ARORA	POONAMARORA	9.29	SEPTEMBER 2017
<b>BIOCHEMISTRY</b>						
1	301507004	PALAKMIDDHA	HARBANSLA L	RAJ RANI MIDDHA	8.65	SEPTEMBER 2017
<b>MASTER OF ARTS</b>						
<b>ECONOMICS</b>						
		Four students only				
<b>PSYCHOLOGY</b>						
1	861502001	AMANPREETKAUR	GURMEET SINGH	BALBIRKAUR	10.00	AUGUST 2017
<b>UNIVERSITY MEDAL</b>						
<b>MASTER OF TECHNOLOGY</b>						
<b>ENVIRONMENTAL SCIENCE &amp; TECHNOLOGY</b>						
1	6015010 06	NIMISH GUPTA	JANARDAN GUPTA	KAVITA GUPTA	9.71	JULY 2017
<b>BIOTECHNOLOGY</b>						
1	6015040	AKRITIKODESI	SHALABHKODESI	ARCHANAKODES	9.80	SEPTEMBER

	02	A	A	IA		2017
<b>VLSI DESIGN</b>						
1	6015620 07	CAFFEY	RAVINDER JINDAL	USHA JINDAL	9.74	SEPTEMBER 2017
<b>ENERGY TECHNOLOGY &amp; MANAGEMENT</b>						
1	6015050 06	MANOJGAUTA M	RAJANLAL SHARMA	VIMALA SHARMA	9.83	AUGUST 2017
<b>METALLURGICAL &amp; MATERIALS ENGINEERING</b>						
1	6015020 02	NAVDEEP KUMAR	KAMLESH KUMAR	ANGURI DEVI	9.21	SEPTEMBER 2017
<b>COMPUTER APPLICATIONS</b>						
1	6015340 10	PRIYANKAT AKKAR	SATISHTAKKAR	ANJUTAKKAR	9.18	AUGUST 2017
<b>CHEMICAL ENGINEERING</b>						
1	6015110 02	MANJURAW AT	DARWAN SINGH	DEVKY DEVI	9.42	SEPTEMBER 2017
<b>MASTER OF ENGINEERING</b>						
<b>STRUCTURAL ENGINEERING</b>						
1		RESULT PENDING				OCTOBER 2017
<b>INFRASTRUCTURE ENGINEERING</b>						
1	8015230 11	SAMBHAV JAIN	NARANDAR KUMAR JAIN	REKHA JAIN	8.97	AUGUST 2017
<b>SOFTWARE ENGINEERING</b>						
1	8015310 07	KIRTIDHIMAN	PURSHOTAMDAS S	USHA RANI	9.77	AUGUST 2017
<b>COMPUTER SCIENCE &amp; ENGINEERING</b>						
1	8015320 49	SHRUTISACHD EVA	S L SACHDEVA	MEENUSACHDEV A	9.77	AUGUST 2017
<b>INFORMATION SECURITY</b>						
1	8015330 10	JOBANJEETKA UR	BALWANT SINGH	BIKRAMJEETKA UR	9.27	AUGUST 2017
<b>WIRELESS COMMUNICATIONS</b>						
1	8015630 09	JASON PREETKAUR	SATINDER SINGH SANDHU	PARMINDERKA UR	9.78	AUGUST 2017
<b>ELECTRONICS &amp; COMMUNICATION ENGINEERING</b>						
1	8015610 09	JASHU SHARMA	RAJESH KUMAR	REENA	9.90	SEPTEMBER 2017
<b>POWER SYSTEMS</b>						
1	8015420 08	INDERMOHAN SINGH JUNEJA	JAGMOHAN SINGH JUNEJA	IQBALKAUR	9.83	AUGUST 2017
<b>POWER ELECTRONICS AND DRIVES</b>						
1	8015430 03	JULAKANTISAN THOSH REDDY	JULAKANTI DHARMA REDDY	JULAKANTIVIJA YALAXMI	9.34	AUGUST 2017
<b>ELECTRONIC INSTRUMENTATION &amp; CONTROL ENGINEERING</b>						
1	8015510 03	HARLEENKAUR	BALWINDER SINGH	PRITPALKAUR	9.61	AUGUST 2017
<b>CAD/CAM ENGINEERING</b>						
1	8015840	AMARDEEP	AMRIK SINGH	RAVINDERKAU	9.31	AUGUST 2017

	03	SINGH		R		
<b>PRODUCTION ENGINEERING</b>						
1	8015850 24	SOHAIB AHMAD SIRWAL	RAFIQ AHMAD SIRWAL	ZAMROODA BEGUM	9.53	SEPTEMBER 2017
<b>THERMAL ENGINEERING</b>						
1	8015830 15	NEHAVISHNOI	ANIL KUMAR VISHNOI	VEENAVISHNOI	9.93	JULY 2017

## Annexure 'VI'

**Department wise list of onroll Ph.D Candidates as on 10.10.2017.**

Sr. No.	Department/School	No. of students
1	Biotechnology	152
2	Chemical Engineering	26
3	Civil Engineering	46
4	Computer Science & Engineering	139
5	Electronics & Communication Engineering	104
6	Electrical & Instrumentation Engineering	78
7	Mechanical Engineering	53
8	Chemistry & Bio-chemistry	55
9	Energy and Environment	11
10	Humanities & Social Sciences	31
11	LMTSOM	31
12	Mathematics	58
13	Physics & Material Sciences	62
<b>Total</b>		<b>746</b>

**Phd awarded in 2017: as on 11.10.2017.**

Sr. No.	REGN No.	Name	Title of Ph.D Candidate
1	900900010	Vineet Meshram	Studies on Fibrinolytic Agent(s) from Endophytic Fungi
2	901110002	Sandeep Singh	A Strategic Framework for Enhancing Productivity and Competitiveness in Agri-Biotech Sector of Punjab
3	950906007	Sabhyata Uppal	Design of Improved Coding Schemes with Low Peak to Average Power Ratio for OFDM System
4	901000006	Neha Lohia	Immunogenic Peptide Identification in H1N1 Virus as Target for Vaccine Design
5	951112006	Manju Middha	Self-Organizational Behaviour of Chiral Nematic Liquid Crystals Doped with Nanoparticles
6	901109011	Rajesh Kumar	Kinetic and Thermodynamic Studies on the Effect of Amino Acids, Alcohols, Crowding Agents, and Lyotropic Salts on Proteins
7	9051002	Siddhartha Sharma	Water Quality Management Studies on the River Satluj for the Protection of the Harike Wetland System
8	951108001	Vikas Sharma	Investigation of Machining Characteristics of LBMed Al/Al <sub>2</sub> O <sub>3</sub> , Al/SiC And Al/ZrO <sub>2</sub> MMCs
9	951201002	Alok Garg	Modeling and Optimization of Degradation of Dyes Present in Textile Waste Water using Supported Photocatalyst
10	951004003	Shakti Singh	Optimal Power Management of Hybrid Renewable Energy Systems
11	950808002	Hamender Kumar Aggarwal	Designing a Rig For Investigating Thermal Fatigue of Bimetallic Welds
12	901309008	Akul Sen Gupta	Synthesis and Studies of Molecules Exhibiting Excited State Proton Transfer and Aggregation Induced Emission as Sensors and Logic Devices
13	950808001	Deepak Bhandari	Design of Electrode Coatings for Bimetallic Welds
14	901112014	Satwinder Singh	Structural and Bioactive Properties of Fe/Mn Oxides Substituted Sodium Silicate Glasses
15	90714501	Puneet Pal Singh Cheema	Integrated Water Resource Management Studies in Rural Human Settlements
16	951212001	Loveleen Kaur Brar	Role of Sub-Stoichiometric Carbon Content on the Structural, Thermal and Electrochemical Properties of TaC <sub>x</sub>
17	950800006	M Vasundhara	Isolation and Characterization of Bioactive Molecules from Endophytic Fungi
18	951008001	Hemant Kumar	CFD Analysis of a Bubbling Fluidized Bed Combustor Based on Co - Firing Biomass & Coal
19	901003001	Nidhi Jain	Energy-aware Load Balancing Techniques for Cloud Computing
20	951202001	Gurpreet Singh	Performance Characteristics of Self-compacting Concrete Containing Iron Slag
21	950911011	Pankaj Kumar	On Generalized Convergence and Related Concept for Sequences of Fuzzy Numbers

22	950802002	Birinder Jit Singh	Evaluation Of Microbial Bioherbicides For Eichhornia Crassipes to Rejuvenate Water Bodies of Punjab
23	901001002	Harkirat	Studies on Heat Transfer and Pressure Drop Characteristics of Nanofluids in Microchannels
24	901306004	Balveer Painam	Design and Performance Analysis of Photonic Crystal Waveguide for Bio-Chemical Sensing Applications
25	9020358	Thokchom	Off-Line Handwritten Character Recognition of Manipuri Script
26	901403005	Tangkeshwar Singh Nidhi Kalra	On Variant of Regulated Grammar and Regulated Automaton
27	951011002	Poonam Panwar	Optimal Software Reliability and Optimal Multiprocessor Scheduling Problems
28	901309007	Yuvraj	Asymmetric Total Synthesis of Biologically Active Natural Products Employing Chiral Catalysts
29	950806008	Ajay Sharma	Performance Analysis of Atmospheric Turbulence Mitigation Techniques for Free Space Optical Communication
30	950803009	Rajiv Kumar	Computing Techniques for Classifying Community Sensor Network Data
31	901000008	Neha Kapoor	Isolation and Characterization of Xanthine Oxidase Inhibitor(S) from Endophytic Fungi
32	901201002	Arshdeep Kaur	Studies on Catalytic Hydrogen Generation from Sodium Borohydride
33	951006003	Garg Harish Kumar	Improved EEG Signal Analysis Techniques for Epileptic Spike Detection and Artifact Excision
34	901212008	Pooja Singla	Preparation and Characterization of Undoped and Transition Metal Doped TiO <sub>2</sub> Nanoparticles for the Photocatalytic Degradation of Phthalate Esters
35	950806015	Shivani Pasricha	Efficient Design of Iterative Decoding Algorithm and Architecture for Channel Coding
36	950903040	Kailash Chander	A Framework for Efficient Web Services Discovery
37	950903015	Karun Verma	Efficient Hidden Markov Models for Online Handwritten Gurmukhi Script Recognition
38	901210001	Urvashi Tandon	Designing a Model for Improving Online Retailing Performance: A Study of Selective Online Retailers in North India
39	951108003	Devender Kumar	Studies on Structural and Mechanical Properties of Carbon Nanotube Dispersed Tungsten Carbide-Cobalt Nano/Micro Composites
40	901303006	Asmita Pandey	Efficient Approaches for Solving Multi-Attribute Decision Making Problems with Imprecise Data
41	951211003	Anshu Singla	Development of Advanced Techniques for Pattern Recognition
42	901309011	Rayees Ahmad	Plasmonic Metal-TiO <sub>2</sub> Nanocatalysts for Water Splitting Under Visible Light Irradiation
43	901109008	Richa Rani	Fluorescent Dyads as Sensors for Particular Cations and Anions

## Annexure – VII

**PLACEMENT DATA 2016-17**

LIST OF ORGANIZATIONS WHO HAVE VISITED OUR UNIVERSITY FOR CAMPUS RECRUITMENT TILL June 30, 2017 ALONG WITH PLACEMENT DATA (2016-17) DATED: 30/06/2017																																						
NO. OF STUDENTS OFFERED CAMPUS PLACEMENT																																						
		B.E./B. TECH.										M.E./M. TECH.										M.Sc.					MBA											
S. No	Organization	BT	CE	CH	CS	EE	EC	EIC	ME H	ME CA	MC A	ST R	INF R	EN V	E& M	CH	CS	CS A	S W	IS	P O W	PE D	EC	VL SI	WR	EL C	CA D	PRO	MS E	THE	BT Y	CH EM	MA TH	BIO CH EM	BT IN D	BE G IN D	Total	
1	Microsoft IDC	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
2	Tata Motors	-	-	-	-	2	-	-	12	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
3	Alstom Transport	-	-	-	0	0	0	1	2	1	-	-	-	-	-	-	-	-	-	-	2	0	-	-	-	-	0	1	-	0	-	-	-	-	-	-	-	7
4	Royal Bank of Scotland	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
5	Royal Bank of Scotland (R&D)	-	-	-	0	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
6	Works Applications Co. - Japan	0	0	0	0+1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	-	-	-	-	0+1
7	Amazon	-	-	-	4	0	0	0	-	-	0	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	4
8	DE Shaw	-	-	-	1	0	0	0	-	-	0	-	-	-	-	-	0	0	0	0	0	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	1
9	Arcesium India	-	-	-	2	0	0	0	-	-	0	-	-	-	-	-	0	0	0	0	0	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	2
10	Whirlpool	-	-	-	-	1	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
11	Walmart Lab.	0	0	0	8, 1TG	0	1TG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-	-	-	-	-	8
12	Zomato	-	-	-	1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
13	Maruti Suzuki India Ltd	-	1	-	3	2	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	
14	Gwynniebee	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
15	Sandisk Corporation	-	-	-	4, 4TG	0	0	0	-	-	-	-	-	-	-	-	0	0	0	0	0	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	4
16	ZS Associates	0	0	0	1	0	3	1	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
17	Juniper Networks India	-	-	-	7TG	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
18	HSBC software Development	-	-	-	4	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
19	Shapoorji Pallonji Ltd	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
20	Samsung R&D Bangalore	-	-	-	2	-	0	0	-	-	-	-	-	-	-	-	0	0	0	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	2
21	ISGEC	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
22	Informatica Corporation	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
23	Black Rock	-	-	-	19 TG	0	1TG	0	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA
24	Okutech	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
25	General Electric Digital	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
26	Amadeus Software Labs. India	-	-	-	4, 1TG	-	4, 1TG	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8, 2TG
27	Ascentx software	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
28	Futures First	0	0	0	0+1	0+2	3	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	-	3+3
29	Axtria India Pvt.	-	-	-	15	0	1	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
30	Deloitte Consulting India	-	0	1	3	4	12	6	1	0	2	-	-	-	-	-	1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
31	Edelweiss Financial	0	0	0	2	0	0	2	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
32	ION Trading India (Fin Software)	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
33	Evive Health	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	1
34	Exl Service (Inductis India)	0	1	0	4	1	4	1	0	0	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	
35	MU Sigma	-	-	-	1	2	16	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	



S. No	Organization	BT	CE	CH	CS	EE	EC	EIC	ME	ME	MC	ST	INF	EN	E&	CH	CS	CS	SW	IS	PO	PE	EC	VL	WR	EIC	CA	PRD	MS	THE	BT	PY	CH	MA	BIO	BT	BE	GE	Total	
36	Naukri.com	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
37	Oxygen services Pvt.	-	-	-	0+1	-	0	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	
38	Click Labs	-	-	-	8+1	-	5+1	1+0+1	-	0	-	-	-	-	-	-	0	0	0	0	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14+2+1	
39	Jugnoo	-	-	-	1	-	0	-	-	0	-	-	-	-	-	-	0	0	0	0	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
40	United Health Group	0	0	0	2	0	2	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4		
41	Blackngreen	-	-	-	2, 1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2		
42	Honda Car	-	-	-	-	2	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4		
43	J.P.Morgan	-	-	3	1+1	-	0+1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5+2		
44	Varroc Group	-	-	-	-	4	0+1	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4+1		
45	Proptiger.Com	-	-	-	0+1, 3TG	0	0	0	-	-	0	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	0+1	
46	VE Commercial Vehicles	-	-	-	-	-	-	-	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0	-	-	-	-	-	-	4		
47	NXP Semiconductors	-	-	-	2+2, 4TG	-	12+3, 4TG	1, 1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15+5	
48	Kuliza	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2		
49	Integreon (Grail Research)	0	0	0	0	0	3	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4		
50	Mahindra Comviva	-	-	-	6	-	3	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9		
51	Schneider Electric Ltd.	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7		
52	Asian Paints	-	-	-	-	1	-	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6		
53	NIT Technologies	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5		
54	Edifecs Technologies	-	-	-	1	0	3	1	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8		
55	Tavant Technologies	-	-	-	2	-	2	-	-	-	3	-	-	-	-	-	4	2	0	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	
56	Nagarro Software	-	-	-	5	-	4	-	-	-	-	-	-	-	-	-	1	0	0	0	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	
57	Reliance Industries Ltd.	-	-	7	-	9	-	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29		
58	Advantage Club	0	0	0	1TG	0	1	2	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3		
59	Amdocs	-	-	-	5	-	3	-	-	-	2	-	-	-	-	-	3	1	0	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	
60	Wipro Technologies	-	-	-	9	8	30+2	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56+2	
61	Sapient Nitro	-	-	-	0	1	0+1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+1	
62	Procter & Gamble	-	-	-	-	1TG	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
63	TCS-DESS	-	-	-	0	0	0	1	0	0	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	-	-	-	0	-	-	1
64	Exicom Tele Systems	-	-	-	-	0	-	0, 1TG	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
65	Anand Group	-	-	-	0	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2		
66	SML Isuzu Ltd. (Swaraj Mazda Ltd.)	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
67	Mynta Design	-	-	-	0+1, 5TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1		
68	ST Microelectronics	-	-	-	6TG	0	9TG	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
69	SAP Labs	-	-	-	1+4	-	-	-	-	-	0	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+4	
70	Mahindra & Mahindra	-	-	-	-	0+1	-	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6+1	

S. No	Organization	BT	CE	CH	CS	EE	EC	EIC	ME	ME	MC	ST	INF	EN	E&	CH	CS	CS	SW	IS	PO	PE	EC	VL	WR	EIC	CA	PRD	MS	THE	BT	PY	CH	MA	BIO	BT	BE	GE	Total	
71	Larson & Tourbo Const.	-	3	-	-	2+2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6+2	
72	Elucidata	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
73	Texas Instruments	-	-	-	-	0	2TG	0	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	RA	
74	Synopsis	-	-	-	0+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1		
75	Azom Technology	-	-	-	1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1		
76	Steel Strips & Wheels	-	0	-	-	-	-	-	0+1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	3+1		
77	Hindustan Zink (Vedanta Group)	-	-	-	-	1+1	0	1+1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3+2		
78	Samsung R&D (Noida)	-	-	-	0+1	-	0+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+2		
79	Tinymesh Rediocrfts	-	-	-	0	0	0	2	TG	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	2TG	
80	Shore Tel Inc	-	-	-	0+2	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+2		
81	United Lex	-	-	-	0	-	3	0	-	-	-	-	-	-	-	-	1	0	0	0	-	-	0	1	0	0	-	-	-	-	-	-	-	-	-	-	-	-	5	
82	Infogain	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	2	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
83	Libsys Corporations	-	-	-	0	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
84	HCL Technologies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0	2	1	0	0	1	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-	8	
85	Think & Learn	0	0	0	4+1	6	8+2	6+3	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	5	24+6
86	Tata Consultancy Services	0	2	1	0	7	6	4	0	0	0	0	0	0	0	0	3	2	0	1	2	0	3	6	1	0	2	0	-	0	0	0	-	-	-	-	6	0	46	
87	Infosys Technologies	-	1	0	1	11	8	10	5	4	1	-	-	-	-	-	1	1	-	1	-	-	5	1	-	-	-	-	-	-	-	2	-	3	-	-	-	-	55	
88	Philips lighting India	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	0	0	0+1	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0+2	
89	Hero Motocorp	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2		
90	Roots Analysis	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	0	-	-		
91	IDL Chemical & Pharmaceuticals	-	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	5		
92	Paxcom India	-	-	-	0	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
93	TT Consultants	-	-	-	0	0	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2		
94	Squadrun Solutions	-	-	-	0	-	-	-	-	0	-	-	-	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	0		
95	IBM	-	-	-	0	7	5	2	-	-	0	-	-	-	-	-	0	1	0	0+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15+1	
96	Aakash Educational services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	1	0	0	0+1	0	1	-	-	2+1	
97	Newgen Software Tech.	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA		
98	JDA Software	-	-	-	1	-	-	-	-	-	1+2	-	-	-	-	-	-	0+1	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+3	
99	Jubilant Life Sciences	-	1+1	-	-	0+1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+2	
100	Orient Electric	-	-	-	-	1+1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+1		
101	Spineor	-	-	-	1	-	-	-	0	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3		
102	Honda Motorcycle & Scooter	-	-	-	-	-	-	-	1+1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+1		
103	Century Link Technologies	-	-	-	0	0	0+1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+1		
104	My Advo Tech Serve Pvt. Ltd	0	1	0	0	1	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2		
105	Debut Infotech Pvt. Ltd.	-	-	-	0	-	-	-	-	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1		
106	Nucleus Software Exports	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA		
107	Royal Enfield	-	-	-	0	-	-	-	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2		

S. No	Organization	BT	CE	CH	CS	EE	EC	EIC	ME	MC	ST	INF	EN	E&M	CH	CS	CS	SW	IS	PO	PE	EC	VL	WR	EIC	CA	PRD	MS	THE	BT	PY	CH	MA	BIO	BT	BE	CE	Total		
109	Lakshya Institute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	-	-	1	0	0	0	0	1	0	-	-	4	
110	Adobe	-	-	-	0	-	0	0	-	-	0	-	-	-	-	0+1	0	0	0	0	-	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	
111	NIIT University	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0+1	0	0	0	0	0	0	0	0	0	-	-	-	-	0	-	-	-	-	-	-	-	0+1	
112	Spectra Medix	0	1+1	1	0	0	1	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	7+1	
113	Crompton Greaves Ltd.	-	-	-	-	0	-	2	-	-	-	-	-	-	-	-	0	-	-	2	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
114	Agilent Technologies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	0	1+1	-	-	2	
115	Federal Mogul India	-	-	-	-	-	-	1+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1+1	
116	Fiserv India	-	-	-	0	-	0+1	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	
117	Spice Digital	-	-	-	1	-	-	-	-	1	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
118	Software AG	-	-	-	0	0	1	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
119	SRF Ltd.	-	-	0+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	
120	Development Bank of Singapore (DBS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA		
121	Zydus Cadila	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	2+1	-	-	4+1	
122	Xion Multiventures	0	0+1	2	0	0+1	1	0	2+1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5+3	
123	Allan Lloyds Group	0	0	1	0	1	0+1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+1	
124	Edynamic	-	-	-	0	-	0+1	-	0	-	0	-	-	-	-	1+1	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+2
125	Om Careers	0	0	1	0	0	0	0+1	0	0+1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	-	-	-	-	-	-	-	2	5+2
126	Reliance Pertochemical Industries Ltd.	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
127	DIT University, Dehradun	-	-	-	-	-	-	-	-	-	0	0	-	-	-	0	0	0	0	-	-	-	-	-	-	-	0	0	-	0	-	-	-	-	-	-	-	-	-	RA
128	B & S Engineering Consultants Pvt. Ltd.	-	-	-	-	-	-	-	-	-	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
129	Akal Academy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
130	J Mitra	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
131	Chegg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
132	Infomaths	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	-	-	2	
133	Connect2teach	-	-	-	0	0	0	0	-	0	-	-	-	-	-	0	0+1	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1
134	Azue Power	-	2	-	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
135	Saviance Technology	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
136	WSP Group	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
137	Pump Kart	-	-	-	2TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
138	CoCubes	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
139	Clear Tax	-	-	-	2TG	-	1TG	-	-	-	2TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA
140	Magictap Solutions Pvt Ltd.	-	-	-	4TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
141	Telcoma Technologies Pvt.	-	-	-	-	-	-	-	-	-	-	-	-	-</																										

S. No	Organization	BT	CE	CH	CS	EE	EC	EIC	ME	MC	ST	INF	EN	E&M	CH	CS	SW	IS	PO	PE	EC	VL	WR	EIC	CA	PRD	MS	THE	BT	PY	CH	MA	BIO	BT	BE	GE	Total
143	Frankly Inc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA
144	Fella Homes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA
145	Hindustan times Media Ltd	-	-	-	-	0	-	-	0+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1	
146	Play Buff Studios Pvt. Ltd.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
147	Bluestacks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
148	Gyan Dhan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
149	Evok Analysis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
150	Cue learn Pvt. Ltd.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
151	NameKart.com	-	-	-	-	1TG	1TG	2TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA
152	Axiom.com	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
153	IMG Technologies Pvt. Ltd.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
154	Tata Institute of Social Science	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
155	AppDirect	-	-	-	8TG	-	-	-	-	3TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA
156	ET Medialabs Pvt. Ltd.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
157	Trantor Software Pvt. Ltd.	-	-	-	2TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
158	National Physical Laboratory	-	-	-	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
159	Untravel	-	-	-	1, 2TG	-	-	2, 2TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
160	Addverb Technologies	-	-	-	3TG	-	-	1	-	2TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
161	Soft Prodigy Software Solutions	-	-	-	4TG	-	-	-	-	2TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
162	Edios Global	-	-	-	-	-	-	-	-	2TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
163	CS Soft Solutions	-	-	-	-	-	-	-	-	6TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
164	Solitaire Infosys Pvt. Ltd.	-	-	-	-	-	-	-	-	9TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
165	Megrisoft Ltd.	-	-	-	-	-	-	-	-	4TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
166	Altruist Technologies	-	-	-	-	-	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
167	Vity Mobi Systems	-	-	-	-	-	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
168	Webner Solution Pvt. Ltd.	-	-	-	-	-	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
169	Keysight Technologies	-	-	-	-	-	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
170	Basware Corporation	-	-	-	-	-	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
171	Bridge SGI	-	-	-	-	-	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
172	GHS Infotech Pvt. Ltd.	-	-	-	-	-	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
173	Elite Smart Care Solutions	-	-	-	-	-	-	-	-	2TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
174	Nerdapp Labs	-	-	-	-	-	-	-	-	2TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
175	Pissoft Informatics Pvt. Ltd.	-	-	-	-	-	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
176	Drish Infotech Pvt. Ltd.	-	-	-	-	-	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
177	Tata Power-DDL	-	-	-	-	-	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
178	Solvay Tech Solutions Pvt. Ltd.	-	-	-	-	-	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
179	FITSD	-	-	-	3TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
180	Mettl	-	-	-	4TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
181	Nav Gurukul	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
182	Eat Treat Food Pvt. Ltd.	-	-	-	3TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
183	Security Weaver India Pvt.	-	-	-	1TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	
184	Advisor Logic	-	-	-	2TG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA	

[illegible]

S. No	Organization	BT	CE	CH	CS	EE	EC	EIC	ME H	ME CA	MC A	ST R	INF R	EN V	E& M	CH	CS A	SW	IS	PO W	PE D	EC	VL SI	WR	EIC D	CA D	PRD	MS E	THE	BT	PY	CH EM	MA TH	BIO-CH EM	BT	BE-IND	GE N	Total		
218	Mikuni India Pvt. Ltd			0																																		RA		
219	Techahead			0							0						0	0	0	0																		RA		
220	Decathlon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA		
221	Triune Energy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA		
222	Rayat Bahra	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2+0+1	1	-	-	-	-	-	-	-	-	-	-	-	3+0+1	
223	Intel Corporation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA		
224	Eastman Industries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA		
225	Lava International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA		
226	Asahi India Glass	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA		
227	Ostro Energy Pvt. Ltd.	-	-	-	-	-	-	0+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0+1		
228	Awign	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA		
229	Sigma S.M.S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA		
230	Tekizma India Solution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA		
231	Atotech Development Centre	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA		
232	Yash Papers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RA		
233	Triune Energy	-	2+1	0+1	-	2+1	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4+3		
	Total	2+2	20+6+1	23+5+1	132+19+1	70+15	136+18	62+09+1	69+8	14+6	27+2	4	1	0	0	0	27+6	5+3	8	3+1+1	8+5+1	2	9	12+2	6+1	0+1	4+0+1	9+1	0	6+0+1	7	4	9	2+1	3	6+2	12	13	715+112+9	
Note:- In total, first figure (715) shows the number of students having one placement, second figure (112) shows the students having two placements,(9) show the students having three placements hence number of students placed are 836.																																								
S. No	Organization	BT	CE	CH	CS	EE	EC	EIC	ME H	ME CA	MC A	ST R	INF R	EN V	E& M	CH	CS A	SW	IS	PO W	PE D	EC	VL SI	WR	EIC D	CA D	PRD	MS E	THE	BT	PY	CH EM	MA TH	BIO-CH EM	BT	BE-IND	GE N	Total		
	No. of students having one offer	2	20	23	132	70	136	62	69	14	27	4	1	0	0	0	27	5	8	3	8	2	9	12	6	0	4	9	0	6	7	4	9	2	3	6	12	13	715	
	No. of students having two offers	2	6	5	19	15	18	9	8	6	2						6	2		1	5		2	1	1	0	1		0				1		2			112		
	No. of students having three offers	0	1	1	1	0	0	1	0	0	0							1		1	1					1			1									9		
	Total no. of students placed	4	27	29	152	85	154	72	77	20	29	4	1	0	0	0	33	8	8	5	14	2	9	14	7	1	5	10	0	7	7	4	9	3	3	8	12	13	836	
	Total no. of offers received	6	35	36	173	100	172	83	85	26	31	4	1	0	0	0	39	12	8	8	21	2	9	16	8	2	7	11	0	9	7	4	9	4	3	10	12	13	966	

## Annexure VIII (a)

**LIST OF SPONSORED PROJECTS (INFRASTRUCTURE AND RESEARCH) RECEIVED**

S.No.	Name of the Funding Agency	Project Title	Sanctioned Amount ( In Lacs )	Deptt .	Principal Investigator	Date of Start
1	CSIR	ON q-Series, split n-Color partitions and F-Partitions	16.96	SOM	Meenakshi Rana	27.7.2016
2	CSIR	Energy management of the smart home using cloud infrastructure-A utility perspective.	21.96	CSED	Neeraj Kumar / Mukesh Singh-Co PI	27.7.16
3	DAE/ NBHM	On combinatorics of q-series, Rogers-Ramanujan type identities and split n-color partitions.	9.00	SOM	Meenakshi Rana	18/11/16
4	DRDO	Detection of physiological based concealed information in the brain of suspect using machine learning techniques.	9.90	EIED	Ravinder Agarwal	09-12-2016
5	DRDO/ CARS	Development of transition metal oxide decorated graphene-polypyrrole nanocomposites as radar absorbing materials.	9.91	SPMS	D.P.Singh	13.6.16
6	DST	Utilization of Banana stem juice for renewable energy and value added products.	25.28	DBT	M.S.Reddy	24.6.16
7	DST SEEDD	Automatic generation of sign language from Hindi Text for communication and education of hearing impaired people.	17.27	CSED	Parteek Kumar	08-12-2016
8	DST SERB	Tox2020: Toxicity prediction of pre clinical trial drug using physicochemical properties and machine learning approaches.	25.87	CSED	Prashant Singh Rana,Deepak Garg & Vijay Kumar	04.8.2016
9	DST SERB	Design and development of the Reconfigurable plasma Antenna.	25.47	ECE	Rana Pratap Yadav	26.7.2016

10	DST SERB	Divisibility Conjecture and Existence of Non-Inner Automorphisms of order P for Non-Abelian Finite p Groups	20.56	SOM	Deepak Kumar Gumber	18.08.2016
11	DST SERB	Structural response characteristics of CNT reinforced multilayered composites and sandwich plates in hygro thermal environment	18.97	MED	Neeraj Grover	21.09.2016
12	DST SERB	Theoretical Modeling and Experimental investigation of nanofluid based volumetric absorption concentrating solar collector.	24.92	MED	Vikrant Khuller	04.11.2016
13	DST-SERB	Dynamical behavior of nuclear system formed via light particles and heavy ion induced reactions.	17.84	SPMS	Manoj K Sharma	17.6.2016
14	DST-SERB	Design and development of a novel honing type magnetorheological finishing process.	29.70	MED	Anant Kumar Singh	12.08.2016
15	MNRE	Reforming of biogas for hydrogen production and its utilization in CI engine under dual mode.	38.95	SEE	Amit Dhir	16.09.2016
16	SERB	Electric vehicle charging station as a voltage and frequency regulator within the real time capability of the Evs available, in presence of intermittent renewable energy source.	44.22	EIED	Mukesh Singh	11.5.2016
17	SERB	Low-complexity power efficient reconfigurable implementation of fractional order filters for weak ECG Nonstationary biomedical signal processing applications	53.95	ECED	Sanjay Kumar	28.09.2016
18	CSIR	Novel Gene Pool from copper polluted soil ecosystem using metatranscriptomic approach	25.20	DBT	M.S.Reddy	19.11.2016
19	CSIR	Enantioselective organocatalyzed transformation of aldehyde and epoxide: new eco-compatible approaches for the total synthesis of bioactive natural products.	25.46	SCBC	S.K.Pandey	29.03.2017 / DOS



20	CSIR	Lead free relaxor ferroelectric ceramics for electrocaloric applications.	21.96	SPMS	Poonam Uniyal	Waiting
21	DAE/ NBHM	Lie symmetry analysis and exact solutions of some einstein field equations.	14.14	SOM	Rajesh Kumar Gupta	18.11.2016
22	DST-SERB	Development of new synthetic methodologies for the total synthesis of bioactive compounds.	37.27	SCBC	S.K.Pandey	18.2.2017
23	HSCST	Smart demand response framework for load optimization in an electrical grid.	7.28	CSED	Shalini Batra	18.01.2017
24	SERB	Encapsulation of mesoporous carbohydrate nanoparticles on intestinal microflora cell surface for enhancement of drug effectiveness	43.12	SCBC	Diptiman Choudhury	20.02.2017
25	SERB	Drying of polymer-polymer-solvent coatings.....simulation study	41.21	CHED	Raj Kumar Arya	20.02.2017
26	Indsl,Gurgaon	Solution for rotation and translation in image based biometric systems of cloud applications.	5.00	EIED	Sunil K Singla	19.01.2017
27	SERB	Design and synthesis of small glucose binder molecule using computational intelligence approach.	27.19	CSED	Vijay Kumar Dr.	24.03.2017
Total			658.56			

## Annexure VIII (b)

**LIST OF SPONSORED PROJECTS (INFRASTRUCTURE AND RESEARCH) ONGOING 2016-17**

<b>LIST OF ONGOING PROJECTS ON 31.3.2017</b>					
Sr.No	Name of the Funding Agency	Project Title	Sanctioned Amount ( In Lakhs )	Deptt.	Principal Investigator
1	DST/SERB	Low energy properties of baryon JP=1/2+ Decuplets in phenomenological model	17.39	SPMS	Alka Upadhyay
2	UGC	Study of heavy-light D and B meson using HQET	9.91	SPMS	Alka Upadhyay
3	DeitY	Research Start-Up Grant	35.00	ECED	Alpana Agarwal
4	DAE/ BRNS	Mechanism and applications fo ionizing radiation in AOP based degradation of persistant pollutants from aqueous streams	24.83	SEE	Amit Dhir
5	MNRE	Reforming of boigas for hydrogen production and its utilization in CI engine under dual mode.	38.95	SEE	Amit Dhir
6	DST-SERB	Mixed metal oxides as heterogamous catalysts for the triacetin synthesis.	42.11	SCBC	Amjad Ail
7	DST-SERB	Design and development of a novel honing type magnetorheological finishing process.	29.70	MED	Anant Kumar Singh
8	UGC	Green cloud computing framework for efficient and robust management of resources.	12.93	CSED	Anju Sharma
9	DAE/ BRNS	Investigation of hydrodynamics and RTD of pulp digester using radiotracer technique.	21.38	CHED	Avinash Chandra
10	DST-SERB	Photovoltaic and Grain Boundry characteristics of single target sputtered.....	55.26	SPMS	B.C.Mohanty
11	CSIR	Magnetic Fluid based collant to enhance thermal and dielectric properties of transformer oil.	20.25	SPMS	B.K.Chudasama
12	UGC	Studies on antimicrobial properties of metal and metal oxide nanostrucut.res	13.75	SPMS	B.K.Chudasama
13	CSIR	Study of surface charge and zeta potential of coinage metal nanoparticles for their optimum stability and catalytic activity.	15.42	SCBC	Bonamali Pal

14	DST	Bimetallic core-shell nanostructures of transition metals for homogeneous hydrogenation catalysis and heterogeneous co-catalysis.	41.39	SCBC	Bonamali Pal
15	UGC	Size and shape dependent photocatalytic activity of silica-coated metal (M)-zinc sulfide (ZnS) nanocomposites for nitroaromatics reduction.	14.11	SCBC	Bonamali Pal
16	CGL	Application software development to evaluate thermal performance of tube type, air to air heat exchange for CADA high rated electrical motors.	13.82	CHED	D Gangacharyulu
17	DRDO/CARS	Development of transition metal oxide decorated graphene-polypyrrole nanocomposites as radar absorbing materials.	9.91	SPMS	D.P.Singh
18	The Royal Academy of Engg., London	Higher Education Partnership Programme	100.00	CSED	Deepak Garg Dr.
19	UGC	Salary & Research Grant	16.76	SMCA	Deepak Kumar Gumber
20	DST SERB	Divisibility Conjecture and Existence of Non-Inner Automorphisms of order P for Non-Abelian Finite p Groups	20.56	SOM	Deepak Kumar Gumber
21	SERB	Encapsulation of mesoporous carbohydrate nanoparticles on intestinal microflora cell surface for enhancement of drug effectiveness	43.12	SCBC	Diptiman Choudhury
22	DAE/ NBHM	Non-inner and class preserving automorphisms of finite p- groups	10.12	SMCA	Deepak Kumar Gumber
23	DAE/ BRNS	Development of non-eco toxic polyolefins with controlled environmental degradation by using high energy radiation and pro-oxidants.	19.89	CHED	Haripada Bhunia
24	DST	Synthesis and characterization of high capacity adsorbents for CO <sub>2</sub> capture.	25.34	CHED	Haripada Bhunia
25	UGC	Special Assistance Programme	36.50	CED	HCED .Maneek Kr.
26	UGC	Special Assistance Programme- DRS-III	73.50	CIVIL	HCED .Maneek Kr.
27	UGC	PG Diploma under innovative programme- Teaching & Research in interdisciplinary & Emerging Areas during XI plan.	44.00	DBTES	Head DBTES/ M.S.Reddy

28	DST-FIST	DST- FIST Program	43.00	MED	Head MED
29	DST-FIST	FIST Programe on 50:50 Basis (43 lac-DST & 43 lac TU.)	43.00	SCBC	Head SCBC
30	DST-FIST	DST- FIST Program	81.50	SPMS	Head SPMS
31	CSIR	Autonomic Resource prediction and scheduling for cloud based scientific applications	16.45	CSED	Inderveer Chana
32	UGC	On L1-Convergence of trigonometric series with special coefficients	9.73	SMCA	Jatinderdeep Kaur
33	DST	Efficient methods for solving system of solving system of fuzzy complex linear equations.SR/WOS-A/PM-1025/2015 (G)	13.80	SOM	Jeevan Jot Kaur
34	UGC	Electrical and opto-electronic investigations of polymer-low molar mass liquid crystal composites for display applications.	11.78	SPMS	K.K.Raina
35	DST-SERB	Synthesis of fused heteroaromatic derivatives through molecular hybridization technique and their in vitro evaluations as anticancer agents	35.26	SCBC	Kamaldeep Paul
36	UGC	Coupling of substituted quinarzoline/ Xanthine and purine/Pyrimidine/Benzimidazole: A novel scaffold for kinase inhibitors.	11.01	SCBC	Kamaldeep Paul
37	DRDO/DIPAS	Development of Fatigue Detection System.	9.92	EIED	M.D.Singh
38	DBT	Cloning and characterization of genes of glutathione biosynthesis in ectomycorrhizal fungi and their role in metal detoxification	29.50	DBTES	M.S.Reddy
39	DST/SERB	Durability enhancement and prevention damage in RC structure using bacteria	53.70	DBTES	M.S.Reddy
40	Indo French	Gene resources from polluted soils.	33.17	DBTES	M.S.Reddy
41	CSIR	Novel Gene Pool from copper polluted soil ecosystem using metatranscriptomic approach	25.20	DBT	M.S.Reddy
42	DST	Utilization of Banana stem juice for renewable energy and value added products.	25.28	DBT	M.S.Reddy

43	DST	Floating wick type vertical multiple effect diffusion solar still waste heat recovery.	11.22	MED	Madhup Kumar Mittal
44	DRDO/ DIPAS	Development of wireless Embedded system for health monitoring of ambulatory subjects.	9.94	EIED	Mandeep Singh Dr.
45	UGC	Synthesis and characterization of diphenyl/ analogues for their antibacterial activity	6.22	SCBC	Manmohan Chhiber
46	DST-SERB	Dynamical behavior of nuclear system formed via light particles and heavy ion induced reactions.	17.84	SPMS	Manoj K Sharma
47	CSIR	Various Decay Mechanisms of Nuclei Formed in low energy heavy ion reaction.	17.21	SPMS	Manoj K Sharma
48	CSIR	ON q-Series, split n-Color partitions and F-Partitions	16.96	SOM	Meenakshi Rana
49	DAE/ NBHM	On combinatorics of q-series, Rogers-Ramanujan type identities and split n-color partitions.	9.00	SOM	Meenakshi Rana
50	DST	Green polymers for waterborne pathogen detection and treatment.(DST-International Div.)	23.58	DBTES / SEE	Moushumi Ghosh with British counterpart Dr. Helen Bridle.
51	CSIR	Development of treatment and regeneration technology for phytoestrogens from wastewater streams.	14.92	DBTES / SEE	Moushumi Ghosh.
52	SERB	Electric vehicle charging station as a voltage and frequency regulator within the real time capability of the Evs available, in presence of intermittent renewable energy source.	44.22	EIED	Mukesh Singh
53	DST SERB	Structural response characteristics of CNT reinforced multilayered composites and sandwich plates in hygro thermal environment	18.97	MED	Neeraj Grover
54	TCS	TCS Research Scheme	15.52	CSED	Neeraj Kumar
55	UGC	UGC-BSR Research Start-up-Grant for newly recruited faculty at Assistant Professor level in science department.	6.00	CSED	Neeraj Kumar
56	CSIR	Energy management of the smart home using cloud infrastructure-A utility perspective.	21.96	CSED	Neeraj Kumar / Mukesh Singh-Co PI

57	DeitY	Fellowships of IT Students	528.44	SPMS	O.P.Pandey
58	DRDO	Development of porous aluminum foam materials for blast mitigation.	22.03	SPMS	O.P.Pandey
59	DST/SERB	Synthesis and characterization of NA 2S-P2S5 glass ceramic based solid electrolytes for Na-ion batteries.	27.96	SPMS	O.P.Pandey
60	DST SEEDD	Automatic generation of sign language from Hindi Text for communication and education of hearing impaired people.	17.27	CSED	Parteek Kumar
61	CSIR	Lead free relaxor ferroelectric ceramics for electrocaloric applications.	21.96	SPMS	Poonam Uniyal
62	DST SERB	Tox2020: Toxicity prediction of pre clinical trial drug using physicochemical properties and machine learning approaches.	25.87	CSED	Prashant Singh Rana, Deepa k Garg & Vijay Kumar
63	CSIR	Development fo barium hexaferrite (BaFe12O19) Thick films for micro/ millimeter wave device applications.	14.42	SPMS	Puneet Sharma
64	DST/SERB	Development of M-type Hexaferrete films for microwave device Application.	47.46	SPMS	Puneet Sharma
65	UGC	Synthesis and characterization of multiferroci A Fe2O4-BiFeO3(A=Co, Ni,Zn) nanocomposite films	7.27	SPMS	Puneet Sharma
66	DST	Development of photonic crystal biosensor of detection of foodborne pathogens.	30.89	ECED	R.S.Kaler
67	SERB	Drying of polymer-polymer-solvent coatings simulation study	41.21	CHED	Raj Kumar Arya
68	DAE/ BRNS	Measurement of circulation time and optimization of mixing process for ethy acetate reactor using Radiotracer Technique.	23.73	CHED	Raj Kumar Gupta
69	DRDO	Studies on STF- nanoclay based composites for personal armour systems	29.71	CHED	Rajeev Mehta
70	UGC	UGC Special Assistance Programme	61.00	ECED	Rajesh Khanna
71	ICMR	The mechanism of reductive release of iron from serum transferrin.(FIRST YEAR)	30.02	SCB	Rajesh Kumar Dr.
72	DAE/ NBHM	Lie symmetry ananalysis and exact solutions of some einstein field equations.	14.14	SOM	Rajesh Kumar Gupta

73	DAE/ BRNS	Design and development of load resilient mock-up ICRH system of tokamark with variable load	34.35	ECED	Rana Partap Yadev Dr.
74	DST SERB	Design and development of the Reconfigurable plasma Antenna.	25.47	ECE	Rana Pratap Yadav
75	DRDO	Detection of physiological based concealed information in the brain of suspect using machine learning techniques.	9.90	EIED	Ravinder Agarwal
76	CSIR	Effect of magnetic anisotropy and particle size distribution on the magnetization of antiferromagnetic nio nanoparticles	15.92	spms	S.D.Tiwari
77	CSIR	Enantioselective organocatalyzed transformation of aldehyde and epoxide: new eco-compatible approaches for the total synthesis of bioactive natural products.	25.46	SCBC	S.K.Pandey
78	DST-SERB	Development of new synthetic methodologies for the total synthesis of bioactive compounds.	37.27	SCBC	S.K.Pandey
79	CSIR	Developing validated scale-up procedure for densephase pneumatic transport of fine powders using two-layer dune-flow model.	19.47	MED	S.S.Mallick
80	DBT	Isolation and characterization of Xanthine oxidase inhibitors from endophytic fungi for treatment of Hyperurecemia and Gout.	28.93	DBT	Sanjai Saxena
81	SERB	Low-complexity power efficient reconfigurable implentation of fractional order filters for weak ECG Nonstationary biomedical signal processing applications	53.95	ECED	Sanjay Kumar
82	DST	Higher order discontinuous gelerkin method for unsteady incompersible nevier-strokes equation. [TFD FROM DAV UNIVERSITY, JALANDHAR)	13.32	SOM	Sapna Sharma
83	DST-SERB	Experimental investigation and CFD modeling of slurry pipeline for flow of multiparticulate slurry at higher concentrations	37.1	MED	Satish Kumar & SK Mohapatra
84	CSIR	Size and shape dependent photocatalytic activity of TiO2 Nanostructures for selective reduction of nitroaromatics.	10.92	SCBC	Satnam Singh
85	DST	The total synthesis fo the antimalarial natural products, flinderoles.	22.00	SCBC	S.K.Pandey

86	HSCST-GOH	Smart demand response framework for load optimization in an electrical grid.	7.28	CSED	Shalini Batra
87	TCS	TCS Research Scheme	15.52	CSED	Shalini Batra
88	DST	Detection of corrosion by ultrasonic and acoustic emission techniques.	42.00	CIVIL	Shruti Sharma
89	NRB	Investigation of corrosion and its progression in ship hulls.	24.64	CIVIL	Shruti Sharma
90	UGC	Ultrasonic guided wave approach for monitoring setting and hardening of concrete.	5.22	CIVIL	Shruti Sharma
91	UGC	Service life prediction of RC structures	11.17	CED	Shweta Goel
92	DST	Synthesis of transition metal incorporated mesoporous materials and their catalytic application for some industrial reactions.	16.08	SCBC	Shweta Sareen
93	DAE/ BRNS	Removal of Metal Ions from waste waters using Hierarchically porous metal oxide monoliths with tunable mesopore size.	24.61	SCBC	Soumen Basu
94	DST/SERB	Synthesis of clay supported TiO <sub>2</sub> nanoparticles for photocatalytic oxidation of volatile organic compounds (VOCs)	24.98	DBTES	Soumen Basu
95	UGC-BSR	Nanoscience and molecular modelling	6.00	CHED	Sudhir K Singh
96	Indsl,Gurgaon	Solution for rotation and translation in image based biometric systems of cloud applications.	5.00	EIED	Sunil K Singla
97	ICMR	Particulate matter dose relationship with long function efficiency of children during agriculture crop residue burning episodes.	21.37	SCBC	Susheel Mittal
98	IITM	Modelling Atmospheric Pollution and Networking (MAPAN)	20.32	SCBC	Susheel Mittal
99	SERB	Design and synthesis of small glucose binder molecule using computational intelligence approach.	27.19	CSED	Vijay Kumar Dr.
100	DST	ESIPT based Chromophores Application for sensing and white light emitting devices.	83.00	SCBC	Vijay Laxmi
101	DST	Heterocycles based FRET-dyads for chemionic and bioionics.	26.37	SCBC	Vijay Laxmi



102	DAE/ BRNS	Study of hydrodynamics and RTD of Treatment process(biological) using radiotracer technique.	23.11	CHED	Vikas Kumar Sangal
103	DST SERB	Theoretical Modeling and Experimental investigation of nanofluid based volumetric absorption concentrating solar collector.	24.92	MED	Vikrant Khuller
104	UGC-DAE UGC-BSR UGC	Synthesis and characterisation of vanadium carbide nanoparticles.UGC-DAE	6.02	SPMS	O.P.Pandey
105		Research Start-Up Grant	6.00	SCBC	S.K.Pandey
106		UGC-BSR to improve basic scientific research in University.	20.00	ECED	Head Eced/ R.Khanna
107	ICMR	Particular matter dose relationship with long function efficiency of children during agriculture crop residue burning episodes.	21.37	SCBC	Susheel Mittal
108	DST	Medelling Solids Friction and Transport Boundary for fluidised densa-phase pneumatic conveying systems.	21.95	MED	S.S.Mallick
109	DST	Structural and electro-optical investigations on lyotropic liquid crysalline materials and their uses as soft template.	33.06	SPMS	K.K.Raina
<b>Total</b>			<b>3276.38</b>		

## Annexure VIII (c)

**LIST OF SPONSORED PROJECTS (INFRASTRUCTURE AND RESEARCH) COMPLETED**  
**(Year 2016-17)**

List of completed project as on 31-03-2017					
Sr.No.	Funding Agency	Title of the Project	Sanctioned Amount ( In Lakhs )	Deptt.	Name of the Coordinators
1	CSIR	Zirconia supported solid catalyst for simultaneous transesterification and esterification of high free fatty acid containing triglycerides.	13.53	SCBC	Amjad Ali
2	UGC-BSR	Fluid Flow and Heat Transfer, Essential Oil Production and characterization.	6.00	CHED	Avinash Chandra
3	UGC-BSR	Research Start-Up Grant	6.00	SPMS	Bhaskar C Mohanty
4	DST	Lateral and longitudinal hydrodynamic dispersion through rigid and flexible vegetation	14.34	CIVIL	Dwarikanath Ratha
5	DRDO	Study of alkaline earth metals substitution in bismuth based mixed ion conductors for solid oxide fuel cells applications.	14.42	SPMS	Kulvir Singh
6	DST	Study of lanthanum doped mixed conductors for solid electrolytes	34.50	SPMS	Kulvir Singh
7	AICTE	Optimization techniques for design of ultra high performance concrete mixes.	7.50	CIVIL	Maneek Kr.
8	TCS	TCS Research Scheme	13.12	CSED	Maninder Singh
9	CSIR	Cluster Decay and Fusion Fission Dynamics at low energies.	9.96	SPMS	Manoj Kr. Sharma
10	DST	Nuclear reaction dynamics and related aspects at low energies( $E < 15 \text{ MeV/A}$ )	12.50	SPMS	Manoj Kr. Sharma
11	DAE/BRNS	Study of size-dependent multiferroic properties of doped-BiFeO <sub>3</sub> nanostructures	22.45	SPMS	N.K.Verma

12	CSIR	Studies on anti-inflammatory responses as function of bioactive selection from selenium-rich cereal grains.	19.92	DBTES	N.Tejo Prakash
13	DBT	Neuroprotective properties of selenoergothioneine sourced from selenium-rich mushrooms against oxidative stress and nitrosative damage in neuronal cells.	11.86	DBTES	N.Tejo Prakash
14	DBT/ NDB	Biofortification of selenium in edible mushrooms from se-rich crop residues.	17.13	DBTES/ SEE	N.Tejo Prakash
15	DRDO	Development of porous aluminum foam materials for blast mitigation.	17.24	SPMS	O.P.Pandey
16	DST	Tungsten Carbide Powder from Wolframite Ore.	32.73	SPMS	O.P.Pandey
17	Shastri Indo- Canadian Institute	Adsorption process for removal of emerging pollutants from drinking water.(Sanctioned in Canada)	5.50	CHED	P.K.Bajpai as CO PI
18	UGC	Synthesis of fBiFeO <sub>3</sub> thin films for device applications.	13.92	SPMS	Poonam Uniyal
19	CSIR	Fungus mediated biodiesel generation from wasted edible oils.	17.02	SCBC	Ranjana Prakash
20	DAE/ BRNS	Strain improvement of <i>Aspergillus</i> sp.( RBD01) for enhanced transesterification of waste-cooking and non-edible oils using induced mutation by $\gamma$ irradiation.	21.22	SCBC	Ranjana Prakash
21	DST	Study and development of above elbow prosthetic arm.	26.62	USIC	Ravinder Agarwal
22	DST	FRP stay in place structural formwork for concrete floors under women scientist scheme.	24.60	CIVIL	Reema Goyal

23	UGC	Frame for enabling data portability between heterogeneous cloud storage platforms.	8.59	CSED	Rinkle Rani
24	CSIR	Isolation purification and characterization of new fibrinolytic molecules from endophytic fungi for their use as anti-thrombotic agents.	14.67	DBTES	Sanjai Saxena
25	ICMR	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.	18.93	DBTES	Siddhartha Sharma
26	UGC	UGC-BSR Research Start-up-Grant for newly recruited faculty at Assistant Professor level in science department.	6.00	DBTES	Sudipata Sarkar
27	CSIR	Influence of isospin degree of freedom on disappearance of directed and elliptical flow in intermediate energy heavy-ion collisions.	11.82	SPMS	Suneel Kumar
28	DAE/ BRNS	Theoretical study of heavy ion dynamics at superconducting cyclotron(k500sc)energies at VECC	14.58	SPMS	Suneel Kumar
29	DAE/ BRNS	Design and Development of Diphenylether based supramolecules for electroanalytical probes.	22.89	SCBC	Susheel Mittal
30	UGC	Energy Aware Resource Scheduling for Utility Computing.	11.63	CSED	Inderveer Chana
31	DST	In silico and in vitro approach to identify immunogenic peptides of HINI virus as a target for vaccine design.	23.60	DBTES	Manoj Baranwal
32	UGC	Formation and decay of exotic nuclear systems using energy density formalism	12.67	SPMS	Manoj K Sharma

33	MOCIT	Development of online handwriting recognition system for Indian Language ( OHWR).	60.23	SMCA	R.K.Sharma
34	NRB	Processing and characterization of fiber reinforced polymer nanocomposites and their degradation in marine environments.	21.54	CHED	R.Mehta
35	DST-WOS	Study the effects of isotopic contents and clusterization on collective flow and fragmentation.	24.03	SPMS	Rajni Dr.
36	ICSSR	A Strategic framework for enhancing technology adoption and management strategies for women entrepreneurs in food and beverage sector.	5.00	SBSBS	Ravi Kiran
37	DST	Effect of laser photoetching of Au nanostructures of different shapes on the electrokinetic, optical and catalytic properties.	14.28	SCBC	Rupinder Kaur
38	DST	Transalkylation of di-isopropylbenzene (DIPB) with benzene over modified nano zeolite catalyst: A kinetic study.	23.60	CHED	Sanghamitra Barman
<b>Total</b>			<b>656.14</b>		

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