ANNUAL REPORT 2014-2015

(April 1, 2014 - March 31, 2015)

INDIAN INSTITUTE OF TECHNOLOGY DELHI

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Annual Report

2014-2015

(April 1, 2014 - March 31, 2015)

Our Vision

"To contribute to India and the World through excellence in scientific and technical education and research; to serve as a valuable resource for industry and society; and remain a source of pride for all Indians."

Contents

Director's Report

"IITD Delhi is committed to provide excellent human resource to meet national needs and global expectations. It is a unique institution and a dream destination for those who wish to be leaders in science, technology and management. IITD Delhi is internationally recognised for delivering excellent education as the undergraduate and postgraduate levels, while endeavouring to become a great research institution."

Prof. R.K. Shevgaonkar

Director

IIT Delhi is pleased to release its Annual Report for the year 2014-2015 and I am delighted to share with you the highlights of our major activities, achievements, initiatives and future plans.

At the outset, it is a great pleasure and privilege for me to share that IIT Delhi has been ranked No. 1 among India's Top 75 Engineering Institutions in OUTLOOK's annual ranking, No.17 in Top Universities in Asia (2nd in India), No.13 in BRICS QS University Rankings 2014 (1st in India), No.235 in QS World University Rankings- General (2nd in India) and No. 46 in QS World University Rankings-Engineering and Technology.

In a recent study compiled by PITCH BOOK DATA, IITs are ranked No.4 (just ahead of Harvard) in a new world ranking of top 50 universities that have produced largest venture capital backed founders.

Over the years, quietly but surely, we have built a strong research tradition, which can be seen by the impressive statistics in terms of various research indicators. Specially, we have continuously improved on our credentials in research as evidenced by way of publications and citations and Ph.Ds per faculty. In the last convocation of the Institute, 178 scholars received their Ph.D. degrees. Our target of continuously searching for and significantly increasing the intake of quality candidates into our Ph.D. programmes is on the right course and we have grown to a significant level in this direction over the past few years.

IIT Delhi is committed to provide excellent human resource to meet national needs and global expectations. It is a unique institution and a dream destination for those who wish to be leaders in science, technology and management. IIT Delhi is internationally recognized for delivering excellent education at the undergraduate and postgraduate levels, while endeavoring to become a great research institution.

While excellence has many parameters, setting up of state-of-the-art teaching and research infrastructure does require resources. With the support from the Government of India, industry and the alumni, IIT Delhi has been able to create an excellent infrastructure. While the Government has supported us with generous funding for which we are grateful, our alumni have extended significant support to the institute.

Our faculty is one of the finest in the country and is recognized internationally for their quality of research, teaching and curriculum development. They also contribute greatly for the development of the nation by being associated with a large number of decision making bodies, providing crucial guidance and advice on policy matters and technical issues. Many faculty members received honours/ awards and were elected Fellows of several professional national/ international bodies during the year 2014-15.

During the period, international bibliographic databases have indexed around 1801 research articles published by faculty members and researchers of the institute in international journals including 1471 articles indexed in Scopus, an international indexing service in Science & Technology and

Social Sciences, as reported in the last convocation. The faculty members have also presented a similar number of papers in national and international conferences. Besides, they have also published many books and conducted several continuing education programmes.

The internal & external peer review of academic units at IIT Delhi has been successfully completed in the months of March and September 2014, respectively as per decision of IIT Council/ MHRD. All Departments, Centers and Schools have prepared their vision and the priority areas of research for the next decade. Institute is in the process of preparing the vision document for the period 2015-2025.

The Unnat Bharat workshop was organized at IIT Delhi during 7-9 Sept 2014 to prepare a roadmap/action plan for a National Programme for UNNAT BHARAT ABHIYAN with the help of all IITs, NITs, other leading technical institutions and field agencies/voluntary organizations in villages for holistic rural development. IIT Delhi has been identified as the nodal agency for coordinating the activities for UNNAT BHARAT ABHIYAN.

Prof. S.M. Ishtiaque, Dept. of Textile Technology, IIT Delhi has joined as Executive Director, IITRA, Mauritius in July 2014 for a period of two years. Inauguration of the IITRA was done by Professor R.K. Shevgaonkar in Mauritius on 23rd July 2014. Cluster coordinators in identified areas have been appointed and admission for Ph.D. and M.S.(R) students has been initiated. Action has also been initiated to recruit faculty for IITRA at various levels.

The Growing visibility of the Institute has been steadily leading to a larger role in partnerships. The Institute has been actively involved in collaborative programmes with national and international organizations/universities to remain at the forefront in scientific and technological development and to share the knowledge for mutual benefits. IIT Delhi has currently 105 operational MoUs / Agreements with Foreign Institutions/ Organizations and 69 MoUs / Agreements with Indian Institutions/Organizations.

The Institute provides seed research funding to the new faculty upon joining the Institute to the tune of Rs. 10.00 lakhs (or more when necessary). During the year, the Institute sanctioned the New Faculty Research Grant of a total of Rs. 317 lakhs to 28 faculty members out of the total funds of Rs. 500 lakhs earmarked for this purpose.

During the year under report, 164 Sponsored Research Projects with a total funding of Rs.153.77 crores and 394 consultancy jobs with a total value of Rs.41.59 crores were undertaken. 12 collaborative projects / consultancies with international funding were also undertaken during the period.

Many research activities have taken place at the Institute during the period.

- A portable optoelectronic Haemoglobinometer has been developed by Centre for Biomedical Engineering and marketed by a TBIU unit (successfully validated at AIIMS and in market since August 2014). This device has high social impact.
- Centre for Polymer Science and Engineering was awarded "Centre for Excellence" grant by Ministry of Chemicals & Petrochemicals, Government of India
- The Institute has designed, developed and installed its own cloud computing platform named Baadal. It is deployed on 48 blade servers with about 500 cores and 50 terabytes of virtualized storage. Efforts are on to reach out beyond IIT Delhi in collaboration with NIC (National Informatics Center).
- "Tejas", a multi-core architectural simulator, was recently released for public use. It can simulate complex multicore processors, memory hierarchies, and complex NOCs.
- The SmartCane product has been launched the Chief Disability Commissioner of India. SmartCane is a mobility and navigation aid developed by IIT Delhi and is now a CE marked product available in the market.
- IIT Delhi has established Data Centre which will house High Performance Computing (HPC) facility of 1 Peta FLOPS.
- A Pan IIT-ONGC Collaborative Research Program, initiated by IIT Kharagpur on behalf of six IITs, has been established.
- For the year 2014-15, the actual recurring expenditure Non-Plan & Plan were to the extent of Rs. 29821.31 lakhs and Rs. 2736.69 lakhs respectively and Plan Non-Recurring expenditure was Rs.12471.17 lakhs. The Institute generated about 25.83% of the actual recurring expenditure through internal revenue generation including fees, sponsored research, consultancies and continuing education programmes.
- During the year 2014-15, the Institute received Rs.23622 lakhs as Non Plan Grant, Rs.13630 lakhs as Plan Grant (Normal Non-Recurring Expenditure) and Rs.2370 lakhs as Plan Grant (Normal Recurring Expenditure). The income from internal accrual from the fees, interest and sponsored projects was to the extent of Rs.8408.92 lakhs. Within the financial resources available to the Institute, a number of construction and development activities have been taken up to augment the Institute infrastructure.
- The 45th Annual Convocation of the Institute was held on 1st November 2014. Professor George Smoot, Nobel Laureate (Physics, 2006) was the Chief Guest of the function.

The Institute has made consistent efforts in upgrading its infrastructure to cater to the needs of its expansion plans and for better amenities. Besides planning and building new hostels and additional academic space, the Institute is also engaged in a massive exercise of renovation of old houses, hostels and sports facilities. Some of these initiatives are given below:

- The new Lecture Theatre Complex is ready to be functional.
- An Olympic size swimming pool with small pool for children has been commissioned & the same was inaugurated by the Chairman BoG on 06.09.2014.
- IIT has been allotted 50 Acres land plot each in Rajiv Gandhi Educational City Kundli Sonipat & Jhajjar Haryana.

Compound wall construction is in progress at Sonipat compound. The concept design & expenditure sanction for construction of Innovation Centre for Education in Sonipat has been approved and tenders for the work are being invited by M/s. NBCC Ltd. The Innovation Centre for Education will be having an approximate built up area of 33,500 Sq. mt. in Ground & four floors. This facility will be used as Residential training of Faculty.

- The Institute has recently constructed 96 Faculty flats which have been allotted to eligible Faculty members.
- Solar system of 1MWP capacity is proposed in Academic area. The work was taken up and about 200 KWP has been commissioned till date. Solar system of 20 KWP has been installed & commissioned at Director's lodge.

Training and Placement is an important activity of the Institute. The T & P Unit is mainly responsible for arranging practical training of the undergraduate students to meet their degree requirement and to provide world class job opportunities to undergraduate and postgraduate students after graduation for suitable jobs in the industry and various private and public sector organizations.

IIT Delhi lays great emphasis on interaction between the alumni and the alma mater and supports the activities of the IIT Delhi Alumni Association. We are proud of our alumni and their achievements. The success of the alumni is one of the most important yardsticks by which we measure our achievements.

The Institute recognizes the outstanding contributions made by the alumni in various areas by conferring the Distinguished Alumni Award each year. This award is the highest honour conferred by the Institute on its alumni to recognize their achievements and outstanding contributions to academics, business, profession and / or public service. In the last Convocation, Distinguished Alumni Awards were conferred on Dr. Lalit Pande, Dr. Avinash Chander and Dr. Manish Gupta.

The Silver Jubilee Reunion of Batch of 1990 was held on 26-27 December 2014. About 80 alumni attended the event to make it truly memorable. Second "IIT Delhi Alumni Day" was held on December 28, 2014 on the theme 'Envisioning the Future Together'. Approximately 500 alumni attended the event.

Many delegations from the Industry, Academia and the Government form several countries visited the Institute to explore the possibilities of mutual interaction.

We would like to acknowledge the support received in abundant measure from the Ministry of Human Resource Development, the various sponsoring agencies, the collaborating industries, institutions and alumni.

I personally acknowledge the support and encouragement I have received from the Chairman and Members of the Board of Governors, and from all my colleagues, and extend my appreciation to the students for their exemplary behavior and their contributions towards enriching the campus life.

Wishing IIT Delhi to reach new heights!

Jai Hind !

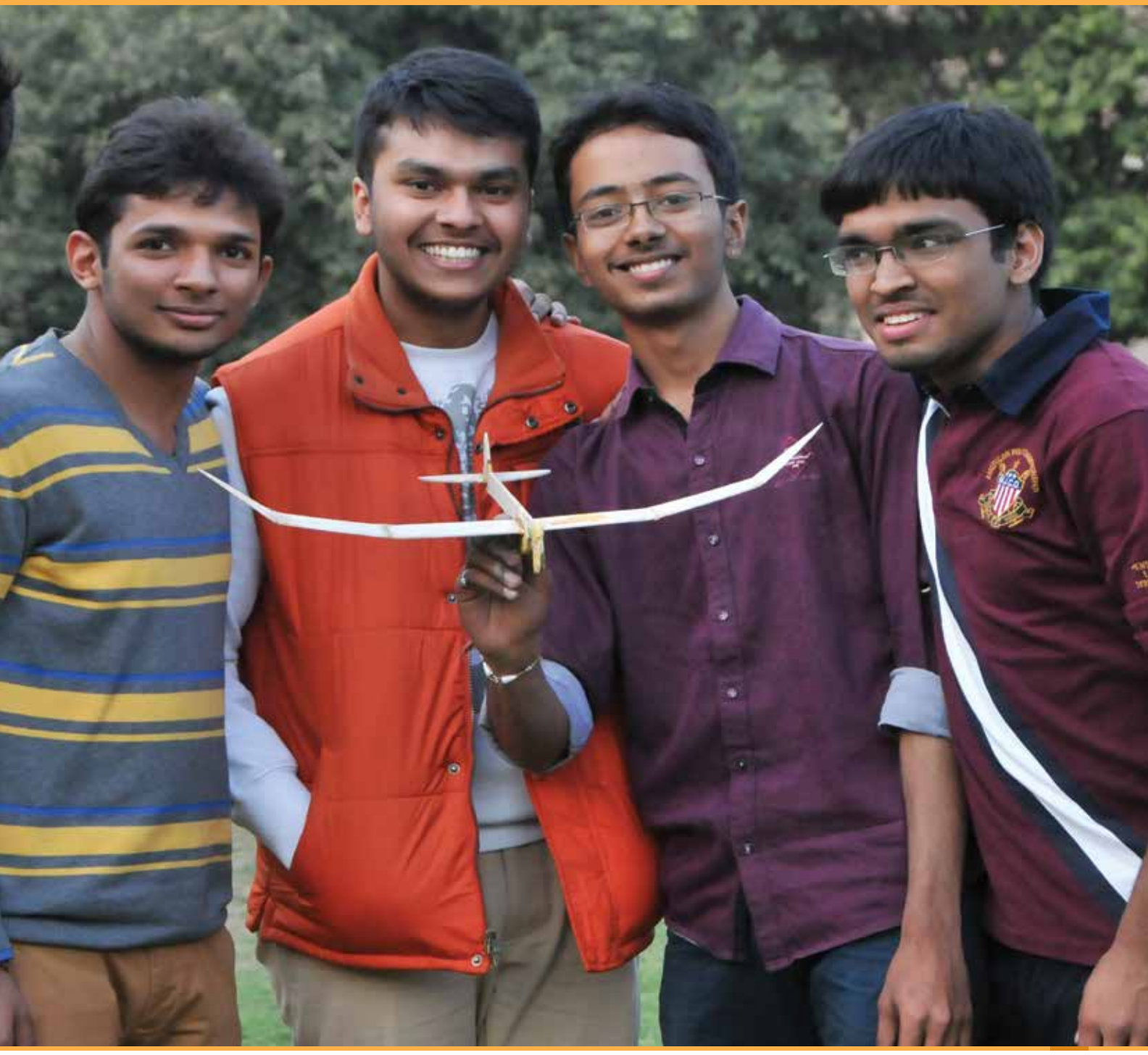
Prof. R.K. Shevgaonkar
Director, Indian Institute of Technology Delhi
Email: director@admin.iitd.ac.in

Our Mission

“

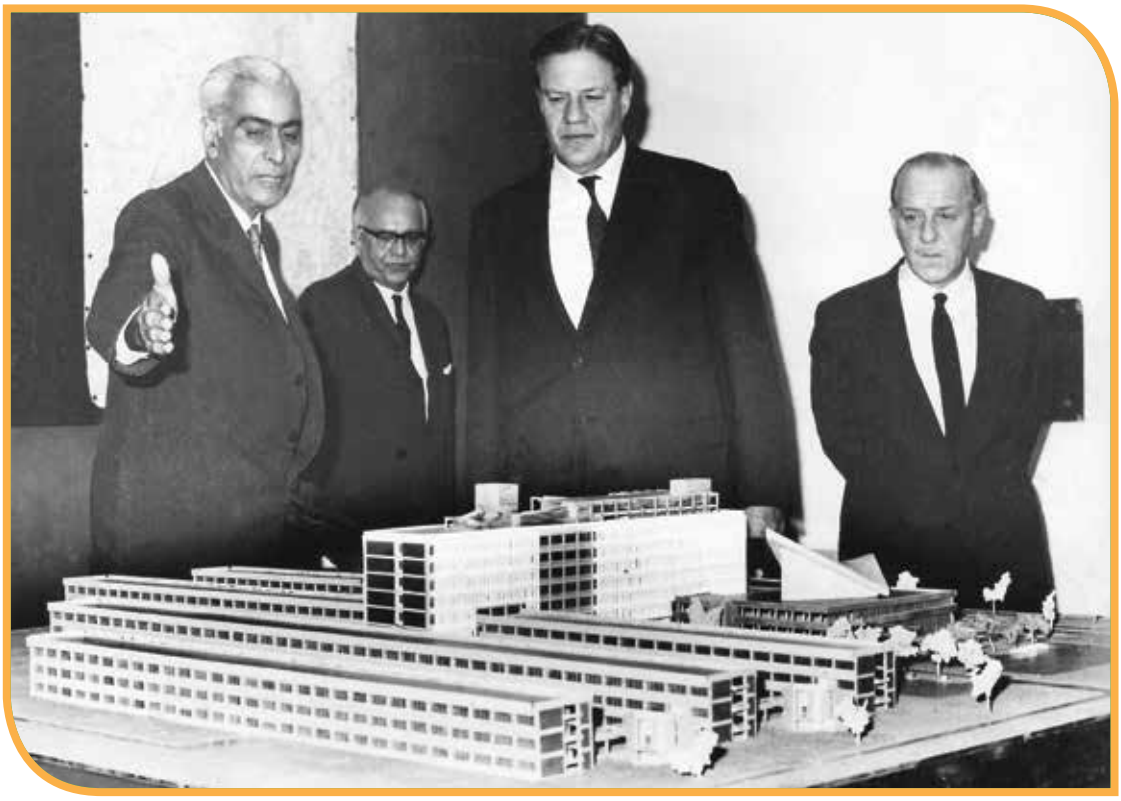
- *To generate new knowledge by engaging in cutting-edge research and to promote academic growth by offering state-of-the-art undergraduate, postgraduate and doctoral programmes.*
- *To identify, based on an informed perception of Indian, regional and global needs, areas of specialization upon which the institute can concentrate.*
- *To undertake collaborative projects which offer opportunities for long-term interaction with academia and industry.*
- *To develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions.*

”



About us

Dreaming big.....



In the formative stages : *Prof. R.N. Dogra, the founding director, IIT Delhi detailing the model of the Institute's building*

HISTORY

The concept of the IITs was first introduced in a report in the year 1945 by Shri. N. M. Sircar, then member of Education on Vicerory's Executive Council. Following his recommendations, the first Indian Institute of Technology was established in the year 1950 in Kharagpur. In his report, Shri Sircar had suggested that such Institutes should also be started in different parts of the country. The Government having accepted these recommendations of the Sircar Committee decided to establish more Institutes of Technology with the assistance of friendly countries who were prepared to help. The first offer of help came from USSR who agreed to collaborate in the establishment of an Institute through UNESCO at Bombay. This was followed by the Institutes of Technology at Madras, Kanpur and Delhi with collaborations with West Germany, USA and UK respectively. Indian Institute of Technology, Guwahati was established in 1995 and the University of Roorkee was converted into an IIT in 2001.

The Institute was later declared an Institute of National Importance under the "Institutes of Technology (Amendment) Act, 1963", re-named as "Indian Institute of Technology Delhi", and accorded the status of a deemed university.

Presently Indian Institute of Technology Delhi is one of the fifteen Institutes of excellence for higher education, research and development in science, engineering and technology and in management in India; the others are at Bhubaneswar, Bombay, Gandhinagar, Guwahati, Hyderabad, Indore, Jodhpur, Kanpur, Kharagpur, Madras, Mandi, Patna, Roorkee and Ropar.

STATUS

Indian Institute of Technology Delhi is an autonomous statutory organisation of the Government of India functioning within the "Institutes of Technology Act, 1961" as amended by the "Institutes of Technology (Amendment) Act, 1963". It is accorded the status of a deemed university with powers to frame its own academic policy, to conduct its own examinations, and to award its own degrees. The fifteen Institutes of Technology are coordinated by an apex body known as IIT Council with the Minister for Human Resource Development of the Government of India as its Chairman.

OBJECTIVES

The objectives of the Institute include :

- Offering instruction in applied sciences, engineering and technology, and management at a level comparable to the very best anywhere in the world;
- Providing leadership in curriculum planning, laboratory development and examination system;
- Developing programmes for faculty development both for its own staff and for teachers of other engineering institutions;
- Developing close collaboration with industry through exchange of personnel and undertaking consultancy projects;
- Developing strong collaboration links with other academic and research institutions in the country and abroad;
- Developing a continuing education programme for employed engineers and making it available both on campus and by distance learning techniques at off campus locations;
- Preparing manpower for the unorganised sector and for self-employment.

CAMPUS

The Institute campus extends over an area of 320 acres. Tastefully laid out with the picturesque landscape and with numerous buildings of various types and, with clean and wide roads, the campus presents a spectacle of harmony in architecture and natural beauty. The campus area has been divided into four functional zones:

- Residential zone for students;
- Residential zone for the faculty and other supporting staff;
- Academic zone for academic buildings and workshops; and
- Cultural-cum-social and recreational zone for students.

IIT Delhi Campus Map

The site being longitudinal in shape, the academic and social-cum- cultural zones have been located mid-way between the two residential zones in order to reduce walking distance. The campus provides several essential amenities for community living like hospital, shopping centre, banks, post office, community centre, staff club, students activities centre, stadium and playing fields etc.

BOARD OF GOVERNORS AND ITS COMMITTEES

IIT Delhi is an autonomous organisation of the Government of India. Responsibility for the general superintendence, direction and control of the affairs of the Institute is vested in the Board of Governors. The Board functions through its standing committees — the Finance Committee, the Buildings & Works Committee and other committees which may be constituted to consider specific issues. The composition of the Board of Governors and its standing committees as on March 31, 2015 is as follows:

BOARD OF GOVERNORS

Vijay P. Bhatkar, Chairman
R.K. Shevgaonkar, Director
R.K. Verma/Punya S. Srivastava (Ms.)
T.V. Ramakrishnan/Akshai Aggarwal
Ashok Misra
Deepak Pental/S.K. Sopory
Patanjali (Patu) G. Keswani/Vijay Thadani
Anurag Sharma/Sanjeev Sanghi
Ashok Gupta
Rakesh Kumar, Secretary

ADMINISTRATION

The Director is the principal academic and executive officer of the Institute and is responsible for the proper administration of the Institute and for the imparting of instruction and maintenance of discipline therein. He is assisted in his day to day work by Deputy Director(s), Registrar, Deans and senior faculty of the Institute. The senior members of the Administration as on March 31, 2015 are as follows:

ADMINISTRATION

R.K. Shevgaonkar
Director

S.N. Singh
Deputy Director, Operations

S.K. Koul
Deputy Director, Strategy & Planning

Kushal Sen
Dean, Faculty

K.S. Rao
Dean, Infrastructure

S.K. Gupta
Dean, Student Affairs

Suneet Tuli
Dean, Research & Development

Anurag Sharma
Dean, Academics

Mukesh Khare
Dean, Alumani Affairs & International Programmes

Rakesh Kumar
Registrar

BOARD OF EDUCATIONAL AND RESEARCH PLANNING (BERP)

Board of Educational and Research Planning is the chief planning and policy making body of the institute for its teaching and research activities. Head of the Planning unit is the Member - Secretary of BERP. The planning unit prepared ground work for all the matters to be considered by BERP. The recommendations of BERP are forwarded to the Senate for approval. BERP is also responsible for the short and long term educational and research planning of the institute. The composition of the Board of Educational and Research Planning as on March 31, 2015 is as follows:

BOARD OF EDUCATIONAL AND RESEARCH PLANNING

R.K. Shevgaonkar, Chairman
S.K. Koul, Dy. Director (S&P)
S.N. Singh, Dy. Director (Operations)
Anurag Sharma, Dean (Academics)
Sushil/Kushal Sen, Dean (Faculty)
Suneet Tuli, Dean (R&D)
S.K. Gupta, Dean (Student Affairs)
Ambuj D. Sagar/Mukesh Khare, Dean (AA&IP)
Ashok Gupta/K.S. Rao, Dean (Infrastructure)
M. Balakrishnan, Nominee of Senate
A.K. Singh, Nominee of Senate
T.C. Kandpal, Nominee of Senate
Sudipto Mukherjee, Prof.-in-charge (Plng.)

Academic Units at IIT Delhi

(April 1, 2014 - March 31, 2015)

The major academic units of the Institute are the departments, centres and schools. Interdisciplinary research is organized in programmes. The various academic units are listed below. The activities of departments include teaching at all levels and research. The centres focus on interdisciplinary research and some teaching, mostly at the postgraduate level.

Departments

1. Applied Mechanics
2. Biochemical Engineering & Biotechnology
3. Chemical Engineering
4. Chemistry
5. Civil Engineering
6. Computer Science & Engineering
7. Electrical Engineering
8. Humanities & Social Sciences
9. Management Studies
10. Mathematics
11. Mechanical Engineering
12. Physics
13. Textile Technology

Inter-disciplinary Centres

1. Applied Research in Electronics
2. Atmospheric Sciences
3. Biomedical Engineering
4. Energy Studies
5. Industrial Tribology Machine Dynamics & Maintenance
6. Instrument Design & Development Centre
7. Polymer Science & Engineering
8. Rural Development & Technology
9. National Resource Centre for Value Education in Engineering

Schools

1. Bharti School of Telecommunication Technology and Management
2. Amar Nath and Shashi Khosla School of Information Technology
3. Kusuma School of Biological Sciences

IIT Delhi has 13 departments. Each department has its own administration structure with the Head of the Department (HoD) at the top of it. The HoD heads the department for a period of three years after which a new head is appointed. Each department offers a program (at the undergraduate or post-graduate level), some departments such as Mechanical Engineering Department, offer two or more undergraduate level programs and some departments collaborate with each other to offer a joint program. An example of the latter is the M.Tech in Optical Communications program which is offered by the Department of Physics and Department of Electrical Engineering. The DMS (Department of Management Studies), IIT Delhi came into existence in 1993 by an amendment to IIT(D) statutes. The department offers a two year full time MBA programme with focus on Management Systems, a two year full time MBA with focus on Telecommunication Systems Management and a three year part time MBA programme with focus on Technology Management.

An inter-disciplinary center differs from a department in the fact that it deals with an overlap of two or more disciplines of engineering or science. Similar to the departments the centers also offer programs though they offer these courses only at the post-graduation level.

Current Degree Programmes

(April 1, 2014 - March 31, 2015)

The Institute offers undergraduate and postgraduate programmes in a number of areas leading to the degrees of B.Tech./ M.Sc./ M.Tech./ M.S.(R)/ DIIT/ M.Des./ MBA and Ph.D. in Science, Engineering and Technology and Management. The primary objective of these teaching programmes is to offer instruction in applied sciences, engineering and management at a level comparable to the very best anywhere in the world. This is achieved through an undergraduate curriculum which places a strong emphasis on the understanding of fundamental principles rather than specialised knowledge, a postgraduate programme, distinguished by its interdisciplinary approach and emphasis on research.

Pedagogy

Teaching at the Institute incorporates a cohesive, contextual and nurturing environment for learning. The emphasis is on self-motivated learning by using information, experience and practice. The teaching methodology aims at using the inputs from core functional areas to inter-disciplinary issues and problem solving. Students undertake classroom and workshop assignments, conduct field observations, make presentations and participate in group discussions and seminars and are encouraged to develop industry linkages.

Evaluation

The academic year consists of two semesters and a summer term. The education system is organised around a credit system which ensures continuous evaluation of student's performance and provides flexibility to choose courses of interest and to progress at an optimum pace suited to student's ability or convenience. Each course is assigned certain number of credits depending upon the class contact hours. A minimum number of credits and CGPA are to be completed satisfactorily in order to qualify for the award of a degree.

The medium of instruction is English.

Curriculum Development

The Senate of the Institute is constantly engaged in reviewing and approving new courses to improve the curriculum. This year several new minor area programs have been designed with a view to offer a second area of specialization. A major Curriculum Review is now underway and likely to come up for discussion in the Senate very soon.

Under a new Academic Welfare Scheme introduced by the Institute this year for weak students, a special student advisor is identified in each department for students who need special help, at the beginning of each semester. Special extra classes are being conducted for such students and the student advisor closely monitors the attendance and performance of these students and also provides support to help improve their performance.

The undergraduate and postgraduate programmes are managed by their respective Boards, as follows.

BOARD OF ACADEMIC PROGRAMMES (BAP)

Prof. Anurag Sharma	Prof. N. Chatterjee	Dr. Deepk Kumar	Mr. Vishwaraj Esham
Prof. K. K. Pant	Dr. Mani Mehra	Mr. S. K. Atreya	Mr. Ayan Debnath
Dr. Vivek V. Buwa	Prof. T. R. Sreekrishnan	Dr. Manav Bhatnagar	Mr. Anshul Goel
Prof. Preeti Ranjan Panda	Dr. D. Sundar	Dr. Parag Singla	Mr. Sanket Jain
Dr. Vinay Ribeiro	Prof. B. P. Patel	Prof. Anurag Singh Rathore	Ms. Yoshita Goyal
Prof. A. K. Nema	Prof. Siddharth Pandey	Prof. Sanjeev Jain	Dr. K. A. Subramanyan
Dr. Kalaga R. Rao	Dr. V. Haridas	Prof. N. D. Kurur	Prof. N. Tandon
Dr. Nilanjan Sen Roy	Dr. Milind Wakankar	Prof. K. K. Pant	Prof. N. Chatterjee
Prof. V. K. Jain	Prof. S. S. Yadav	Prof. Shashi Mathur	Prof. Anshul Kumar
Prof. S. Kohli	Dr. Vimlesh Pant	Prof. T. C. Kandpal	Prof. R. K. Varshney
Dr. Sujeet K. Sinha	Prof. Harpal Singh	Prof. M. R. Ravi	Prof. (Ms.) Geetam Tewari
Prof. Neeraj Khare	Prof. T. S. Bhatti	Prof. D. Ravi Kumar	Mr. Alan V. Sinate
Dr. Santanu Ghosh	Dr. Monika Agarwal	Dr. G. V. Prakash	Dr. Vivek Raman
Prof. Apurba Das	Prof. Satyawati Sharma	Mr. Adyant Agrawal	Prof. C. S. Dey
Dr. Samrat Mukhopadhyay	Prof. A. K. Ghosh	Mr. Vaibhav Anand	

(as on 31.3.2015)

Current Degree Programmes

Below is the list of courses offered currently.

UNDERGRADUATE STUDIES*

Bachelor of Technology [B.Tech.] Duration : 4 years	Dual Degree Programme [B.Tech. and M.Tech.] Duration : 5 years
Biochemical Engineering & Biotechnology	B.Tech. and M.Tech. in Biochemical Engineering & Biotechnology
Chemical Engineering	B.Tech. and M.Tech. in Chemical Engineering
Civil Engineering	B.Tech. and M.Tech. in Computer Science & Engineering
Computer Science & Engineering	B.Tech. and M.Tech. in Mathematics & Computing
Electrical Engineering	
Electrical Engineering (Power and Automation)	
Engineering Physics	
Mechanical Engineering	
Mathematics & Computing	
Production and Industrial Engineering	
Textile Technology	

** Admission to the first year of the four year B.Tech., 5-year dual degree programmes is made through a Joint Entrance Examination (JEE) which is common for all the Indian Institutes of Technology.*

POSTGRADUATE STUDIES & RESEARCH (MASTER)**

M.Sc.	M.Tech.	M.S. (Research)	M.Des.
2 years	**2 years**	**2 years**	**2 years**
1. Chemistry 2. Mathematics 3. Physics	1. Engineering Mechanics 2. Design Engineering 3. Chemical Engineering 4. Molecular Engineering: Chemical Synthesis and Analysis 5. Construction Technology and Management 6. Geotechnical & Geoenvironment Engineering 7. Structural Engineering 8. Water Resources Engineering 9. Construction Engineering and Management 10. Rock Engineering of Underground Structures 11. Environmental Engineering and Management 12. Transportation Engineering 13. Computer Science & Engineering 14. Control and Automation 15. Communications Engineering 16. Power Electronics, Electrical Machines & Drives 17. Computer Technology 18. Integrated Electronics & Circuits 19. Power Systems 20. Computer Applications 21. Thermal Engineering 22. Production Engineering 23. Industrial Engineering 24. Design of Mechanical Equipment 25. Tele-Communication Technology and Management 26. VLSI Tools and Design 27. Radio Frequency Design & Technology 28. Solid State Materials 29. Applied Optics 30. Atmospheric Oceanic Science Technology 31. Fibre Science & Technology 32. Textile Engineering 33. Energy Studies 34. Energy Studies (Evening Programme) 35. Industrial Tribology & Maintenance Engineering 36. Polymer Science & Technology 37. Opto-Electronics & Optical Communication 38. Instrument Technology	1. Information Tech. 2. Bio-chemical Engg. & Bio-technology 3. Chemical Engineering 4. Computer Science & Engineering 5. Electrical Engineering 6. Civil Engineering 7. Mechanical Engineering 8. Telecommunication Technology 9. School of Biological Sciences 10. Amar Nath Shashi Khosla School	1. Industrial Design

contd. ....

POSTGRADUATE STUDIES & RESEARCH (MASTER)**

M.B.A.	M.B.A.	D.I.I.T.
2 years Full Time	3 years Part Time	1½ years
1. Management Systems 2. Tele-Communication Systems Management	1. Technology Management	1. Naval Construction

***The admission to full- time M. Tech. programmes is made on the basis of performance in the Graduate Aptitude Test in Engineering (GATE) — an All India entrance test– and interview at the Institute. A limited number of students are also admitted on part-time basis from amongst working professionals alongwith the regular full-time students, subject to their satisfying certain academic and experience requirements. The Institute also offers a special M.Tech. programme (evening) in the field of Energy and Environmental Management on a part-time basis catering to the needs of working professionals from R&D organisations, public sector undertakings, government departments and private industries.*

DOCTORATE PROGRAMMES

The Institute offers research opportunities for doctoral research in all its Departments / Centres / Schools. Creative and productive enquiry is the basic concept underlying the research work. In order to overcome any deficiency in the breadth of fundamental training or proper foundation for advanced work, special preliminary or pre-doctoral courses are suggested by each department/centre. The award of Ph.D. is in recognition of high achievements, independent research and application of scientific knowledge to the solution of technical and scientific problems. The Institute lays special emphasis on India-centric research activities. A new Ph. D. programme was started in the School of Biological Sciences of the Institute in this period.

The following Departments/ Centres/ School of the Institute offer the Doctorate programme:

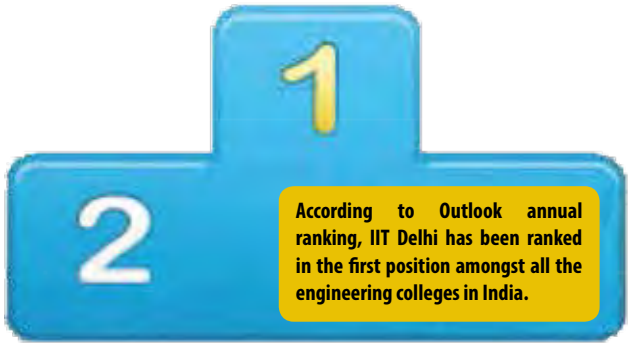
Departments / Centres / Schools
Applied Mechanics
Biochemical Engineering & Biotechnology
Chemical Engineering
Chemistry
Civil Engineering
Computer Science & Engineering
Electrical Engineering
Humanities & Social Sciences
Management Studies
Mathematics
Mechnical Engineering
Physics
Textile Technology
Applied Research in Electronics
Atmospheric Sciences
Biomedical Engineering
Energy Studies
Industrial Tribology, Machine Dynamics & Maintenance Engineering
Instrument Design & Development
Polymer Science & Engineering
Rural Development & Technology
National Resource Centre for Value Education in Engineering
Amar Nath and Shashi Khosla School of Information Technology
Bharti School of Telecommunication Technology and Management
Kusuma School of Biological Sciences

5. Performance Highlights

(April 1, 2014 - March 31, 2015)

Performance Statistics

(April 1, 2014 - March 31, 2015)



According to Outlook annual ranking, IIT Delhi has been ranked in the first position amongst all the engineering colleges in India.

7889 Total students on roll

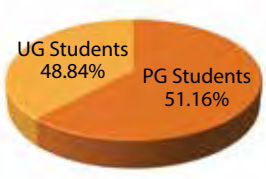
3853 UG students on roll

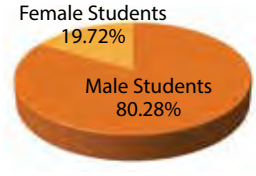
1673 Research Scholars on roll

2363 PG students on roll

1556 Female students

84 Foreign students from 10 countries





178 Scholars received the Ph.D. degree

178 Awards/scholarships/medals given at the Undergraduate and Postgraduate level. In addition, the Institute has a "Loan Scholarship Scheme" which makes it more affordable for the students who take loan from banks.

211 Research Scholar Admissions

25 New faculty members joined the institute this year.

1199 PG Admissions

510 Faculty and Academic Staff

860 UG Admissions

753 Non-academic Staff

2487 Total Admissions

104 Faculty fellows under CEP

Performance Statistics

105
Operational MoUs/Agreements with Foreign Institutions/Organisation

69
MoUs/Agreements Indian Institutions/Organizations

1801
Research articles published by the faculty members and researchers of the institute in international journals

1471
Articles indexed in Scopus, an international indexing service in Science & Technology and Social Sciences

33
Books Published by Faculty

38
Titles of E-books added under the Text Book and Book Bank

100
New Courses developed by Faculty

9
QIP/CEP courses

78
Major New Equipments installed

232
Seminars/Conferences

164
New Sponsored Research Projects with a total funding of Rs.153.77 crores.

394
Consultancy Jobs with a total value of Rs.41.59 crores.

36
Miscellaneous Projects worth Rs.10.88 crores.

12
Collaborative Projects/Consultancies with international funding

429
Companies visited for Placement

867
Total Job Offers

803
Total Placements

555 UG Placements

240 PG Placements

8 Ph.D. Placements

Admissions

(April 1, 2014 - March 31, 2015)

Academic programmes at IITD cover a wide range of science and engineering disciplines. IITD's Bachelor's programs, which are the most sought after even on global scales, and for which the entry is through the Joint Entrance Examination, intake has steadily increased for the last few years and during the year 2014-2015, 3,853 UG students were on roll. These figures include 445 women students. The enrolment of postgraduate students during the year 2014-2015 was 4,036. These figures include 1,556 women students. There were 84 foreign students from 10 countries pursuing postgraduate education at the Institute during the year 2014-15. In order to make IIT Delhi more international in character and to make better use of international intellectual resources, administration is constantly working towards increasing the strength of international students and faculty in the campus.

The Ministry of Human Resource Development, Government of India, has emphasized the need to increase the admission of foreign nationals under the self-financing scheme. The Institute has taken necessary steps in this regard and we hope to increase the strength of the foreign nationals in the coming years.

On the recommendation of the Board of Postgraduate Studies & Research, the Senate has approved starting of a Ph.D. program under the National Resource Centre for Value Education in Engineering (NRCVEE) in the areas such as: Philosophy of Values, Professional Ethics, and Interaction of Science, Technology and Human Values.

ADMISSION PROCEDURE

Undergraduate

Admission to all Undergraduate Programmes listed before are made through the Joint Entrance Examination (JEE). The eligibility for appearing for JEE is as follows:

- The minimum academic qualification is the final examination of 10+2 system or its equivalent. The candidates belonging to the general category and OBC must secure a minimum of 60% marks in aggregate in their Qualifying Examination. Candidates belonging to SC, ST and PD categories must secure a minimum of 55% marks in aggregate in the Qualifying Examination. If any Board awards only letter grades without providing an equivalent percentage of marks on the grade sheet, the candidate should obtain a certificate from the Board specifying equivalent marks, and submit it at the time of counseling.

Those appearing in 10+2 final or its equivalent examination may also appear in JEE for consideration of Provisional admission. All provisional admissions stand cancelled if proof of having passed the qualifying examination (10+2 or equivalent) is not submitted before September 30th of the year in which admission is sought.

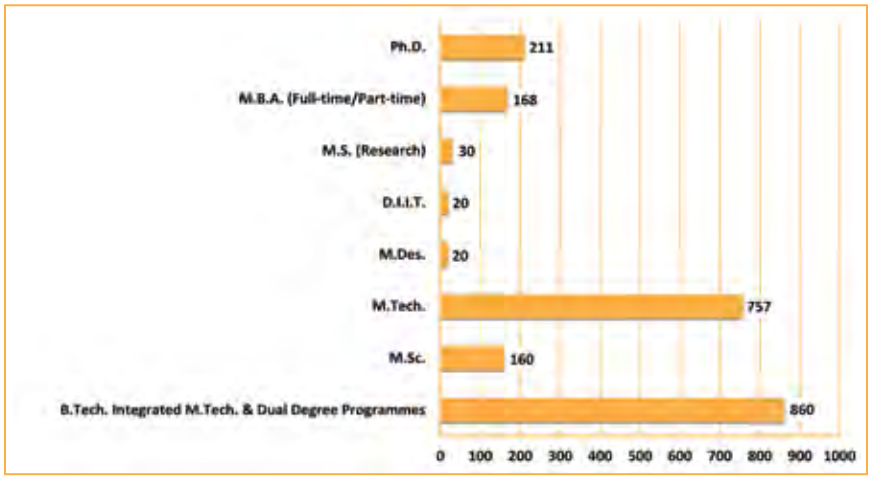
Postgraduate

The admission to full-time M. Tech. programmes is made on the basis of performance in the Graduate Aptitude Test in Engineering (GATE) — an All India entrance test and interview at the Institute. A limited number of students are also admitted on part-time basis from amongst working professionals alongwith the regular full-time students, subject to their satisfying certain academic and experience requirements. The Institute also offers a special M.Tech. programme (evening) in the field of Energy and Environmental Management on a part-time basis catering to the needs of working professionals from R & D organisations, public sector undertakings, government departments and private industries.

Admission to the 2-year M.Des. Programme in Industrial Design is made on the basis of CEED (70% weightage) and test / interview (30% weightage).

All applications are processed by the concerned Department / Centre / School / Programme and shortlisted applicants are called for a written test and / or interview. The date for test / interview is communicated by the Department / Centre / Programme. Selected candidates are given offer letters by the Departments / Centres / Schools after approval of the selection by the Dean, PGS & R. They are required to pay the first installment of fees by a given date, failing which their admission offer stands automatically cancelled. Seats so released are then offered to wait listed candidates.

Graph on the right gives the programme wise details of total number of admissions in 2014-2015.



COURSES AND ADMISSIONS

Following tables (I, II, III) give the details regarding the admissions in the given period in different courses offered at IIT Delhi. Table IV and V shows the total number of students enrolled in different departments and centres. Category wise distribution of students in different programmes is given in Table VII.

Table I : Break-up of Admissions through Joint Entrance Examination during 2014-2015 according to the Various Disciplines

Discipline	Sanctioned Strength	Actual Admissions
B.Tech. in Biochemical Engineering and Biotechnology	45	45
B.Tech. in Chemical Engineering	75	76
B.Tech. in Civil Engineering	105	105
B.Tech. in Computer Science & Engineering	68	68
B.Tech. in Electrical Engineering	75	76
B. Tech. in Electrical Engineering (Power and Automation)	45	45
B. Tech. in Mathematics & Computer Applications	36	36
B.Tech. in Mechanical Engineering	68	68
B.Tech. in Production Engineering	67	69
B.Tech. in Engineering Physics	60	60
B.Tech. in Textile Technology	105	106
M.Tech. in Mathematics & Computer Applications (5-year Integrated)	20	21
B.Tech. and M.Tech. in Computer Science & Engineering (5-year Dual Degree)	22	22
B.Tech. and M.Tech. in Chemical Engg. (5-year Dual Degree)	45	48
B.Tech. and M.Tech. in Biochemical Engineering and Biotechnology (5-year dual Degree)	15	15

Table II : Students Admitted to First Year of the M.Tech./M.Des./MS(R)/D.I.I.T., M.B.A. & M.Sc. Programmes as on July 31, 2014 (the last date for late registration in Ist Semester 2014-2015)

Course	Students with Institute Assistantship	Others (including part-timers)	Total
Master of Technology (M.Tech.)			
Department of Applied Mechanic			
Design Engineering (AMD)	26	7	33
Engineering Mechanics (AME)	24	4	28
Department of Chemical Engineering			
Chemical Engineering (CHE)	29	4	33
Department of Chemistry			
Molecular Engineering: Chemical Synthesis and Analysis	16	1	17
Department of Civil Engineering			
Geotechnical Geoenvironmental Engineering	6	1	7
Structural Engineering	13	22	35
Water Resources Engineering	15	6	21
Rock Engineering Under Ground Structures	18	5	23
Construction Engineering and Management	23	9	32

Table II, contd.

Environmental Engineering and Management	14	5	19
Transportation Engineering	10	9	19
Department of Computer Science & Engineering			
Computer Science & Engineering	33	7	40
Department of Electrical Engineering			
Integrated Electronics & Circuits (EEN)	10	6	16
Communications Engineering (EEE)	15	5	20
Control & Automation (EEA)	12	5	17
Power Electronics, Electrical Machines & Drives (EEP)	11	10	21
Computer Technology (EET)	21	4	25
Power System (EES)	9	9	18
Department of Mechanical Engineering			
Thermal Engineering (MET)	5	13	18
Design of Mechanical Equipment (MEM)	11	11	22
Production Engineering (MEP)	9	5	14
Industrial Engineering (MEE)	4	8	12
Department of Physics			
Applied Optics	9	3	12
Solid State Materials	15	2	17
Department of Textile Technology			
Textile Engineering	9	2	11
Fibre Science & Technology	8	—	8
Centre for Applied Research in Electronics			
Radio Frequency Design and Technology	15	19	34
Centre for Atmospheric Sciences			
Atmospheric Oceanic Science Technology	12	—	12
Interdisciplinary Programmes			
Computer Applications	12	5	17
Energy Studies	29	6	35
Industrial Tribology & Maintenance Engineering	12	4	16
Instrument Technology	11	2	13
Polymer Science & Technology	22	2	24
Opto-Electronics & Optical Communication	22	7	29
Tele-communication Technology and Management	19	1	20
VLSI Tools and Design	—	19	19
Total	**529**	**228**	**757**
Master of Design (M.Des.)			
Industrial Design	19	1	20
Naval Construction	—	20	20
Master of Science (M.Sc.)			
Chemistry	—	52	52
Mathematics	—	54	54
Physics	—	54	54
M.S. (Research)			
Mechanical Engineering	7	—	7
Civil Engineering	2	—	2
Applied Mechanics	1	—	1

Table II, contd.

Amar Nath Shashi Khosla School of Information Technology	—	3	3
Bharti School of Telecommunication Technology	—	1	1
Computer Science & Engineering	1	1	2
Electrical Engineering	—	3	3
Chemical Engineering	1	1	2
Biochemical Engineering & Biotech.	9	—	9
M.B.A.			
Full Time	—	121	121
Part Time	—	47	47
Total	**569**	**586**	**1154**

Table III : Research Scholars Admitted in both the Semesters of the Session 2014-2015

Department/Centre	I Semester		II Semester		Total
	Institute Supported Scholars	Scholars Supported from Other Sources	Institute Supported Scholars	Scholars Supported from Other Sources	
Applied Mechanics (AM2)	4	1	2	—	7
Biochemical Engineering & Biotechnology	4	1	2	3	10
Chemical Engineering	9	—	6	1	16
Chemistry	5	6	1	1	13
Civil Engineering	3	2	5	—	10
Computer Science & Engineering	4	3	—	1	8
Electrical Engineering	11	1	8	2	22
Humanities & Social Sciences	4	—	4	—	8
Management Studies	4	—	1	—	5
Mathematics	3	2	1	3	9
Mechanical Engineering	9	2	5	—	16
Physics	13	8	3	4	28
Textile Technology	—	—	—	—	—
Centre for Applied Research in Electronics	3	—	1	—	4
Centre for Atmospheric Sciences	6	1	2	—	9
Centre for Biomedical Engineering	4	—	1	—	5
Centre for Energy Studies	7	2	3	—	12
Industrial Tribology, Machine Dynamics & Maintenance Engineering Centre	4	—	1	—	5
Instrument Design & Development Centre	2	—	—	—	2
Centre for Rural Development & Technology	4	—	1	—	5
Centre for Polymer Science & Engineering	—	—	1	—	1
Amar Nath and Shashi Khosla School of Information Technology	—	—	—	—	—
School of Biological Sciences	3	7	2	3	15
Bharti School of Telecommunication Technology Management	—	—	1	—	1
Transportation Research & Injury Prevention Programmes	—	—	—	—	—
National Resource Centre for Value Education Engineering	—	—	—	—	—
Total	**106**	**36**	**51**	**18**	**211**

Table IV : Total number of M.Tech./MS (R)/M.Sc./D.I.I.T.Students on Rolls as on July 31, 2014 (the last date for late registration in Ist Semester, 2014-2015)

Course	Institute Supported Students	Students Supported from Other Sources	Total
Master of Technology (M.Tech.)			
Department of Applied Mechanics			
Engineering Mechanics	34	2	36
Design Engineering	41	1	42
Department of Chemical Engineering			
Chemical Engineering	51	1	52
Department of Chemistry			
Molecular Engineering Chemical Synthesis and Analysis	30	—	30
Department of Civil Engineering			
Geotechnical & Geoenvironment Engineering	12	—	12
Rock Engineering Underground Structures	28	—	28
Structural Engineering	29	2	31
Water Resources Engineering	22	—	22
Environmental Engineering and Management	22	—	22
Construction Engineering and Management	31	1	32
Transportation Engineering	19	1	20
Department of Computer Science & Engineering			
Computer Science & Engineering	66	1	67
Total	**385**	**9**	**394**
Department of Electrical Engineering			
Integrated Electronics & Circuits	21	2	23
Communication Engineering	27	2	29
Control & Automation	20	3	23
Power Electronics, Electrical Machines & Drives	21	—	21
Computer Technology	37	1	38
Power System	19	—	19
Department of Mechanical Engineering			
Thermal Engineering	14	—	14
Design of Mechanical Equipment	22	1	23
Production Engineering	29	—	29
Industrial Engineering	13	—	13
Department of Physics			
Applied Optics	16	—	16
Solid State Materials	27	—	27
Department of Textile Technology			
Textile Engineering	22	1	23
Fibre Science & Technology	19	—	19
Centre for Atmospheric Sciences			
Atmospheric Oceanic Science & Technology	20	—	20
Centre for Applied Research in Electronics			
Radio Frequency Design and Technology	35	—	35
Total	**747**	**19**	**766**

Table IV, contd.

Interdisciplinary Programmes			
Computer Applications	25	—	25
Energy Studies	42	2	44
Instrument Technology	22	—	22
Industrial Tribology & Maint. Engineering	19	—	19
Polymer Science & Technology	39	—	39
Opto-Electronics & Optical Communication	35	—	35
Tele-Communication Technology and Management	39	—	39
VLSI Design Tools and Technology	—	—	—
Master of Design (M. Des.)	—	—	—
Industrial Design	36	—	36
Total	**1004**	**21**	**1025**
M.B.A.	—	—	—
M.S. (Research)			
Applied Mechanics	2	—	2
Amar Nath and Shashi Khosla School of Information Technology	—	—	—
Bio-Chemical Engineering & Bio-Technology	14	—	14
Chemical Engineering	1	—	1
Computer Science & Engineering	2	—	2
Civil Engineering	3	—	3
Electrical Engineering	—	—	—
Mechanical Engineering	8	—	8
Bharti School of Telecommunication Technology	—	—	—
Total	**1034**	**21**	**1055**

Table V : Research Scholars on the Institute Rolls as on July 31, 2014 (the last date for late registration in the Ist semester, 2014-2015)

Department/Centre/School	Students with Institute Assistantship	Others (including part-timers)	Total
Amar Nath and Shashi Khosla School of Information Technology	6	14	20
Applied Mechanics	28	41	69
Biochemical Engineering & Biotechnology	19	25	44
Chemical Engineering	32	106	138
Chemistry	19	110	129
Civil Engineering	48	159	207
Computer Science & Engineering	17	35	52
Electrical Engineering	59	132	191
Humanities & Social Sciences	14	48	62
Management Studies	20	71	91
Mathematics	11	44	55
Mechanical Engineering	52	108	160
Physics	55	100	155
Textile Technology	18	29	47
Centre for Applied Research in Electronics	10	22	32
Centre for Atmospheric Sciences	19	27	46
Centre for Biomedical Engineering	19	35	54
Transportation Research and Injury Prevention Programme	2	6	8
Centre for Energy Studies	34	84	118
Industrial Tribology, Machine Dynamics & Maintenance Engineering Centre	9	10	19
Instrument Design & Development Centre	7	16	23
Centre for Polymer Science & Engineering	15	16	31
Centre for Rural Development & Technology	16	29	45
School of Biological Sciences	12	38	50
Bharti School of Telecommunication Technology & Management	17	19	36
Total	**558**	**1324**	**1882**

Admissions

Table VI : Category and Genderwise distribution of enrolled students in UG and PG courses

Program	General		OBC		SC		ST		PH		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	M	F	
P.G.	**1274**	**352**	**362**	**82**	**182**	**48**	**42**	**21**	-	-	**1860**	**503**	**2363**
Ph.D.	963	561	17	14	78	29	7	4	-	-	1065	608	1673
Total (a)	**2237**	**913**	**379**	**96**	**260**	**77**	**49**	**25**	-	-	**2925**	**1111**	**4036**
B.Tech. (b)	**1708**	**232**	**914**	**77**	**490**	**85**	**251**	**46**	**45**	**5**	**3408**	**445**	**3853**
Total (a+b)	**3945**	**1145**	**1293**	**173**	**750**	**162**	**300**	**71**	**45**	**5**	**6333**	**1556**	**7889**

(as on November 2014)

Academic Performance

(April 1, 2014 - March 31, 2015)

All the IITs follow the credits system of performance evaluation, with proportional weighting of courses based on their importance. The total marks (usually out of 100) form the basis of grades, with a grade value (out of 10) assigned to a range of marks. Sometimes, relative grading is done considering the overall performance of the whole class.

1867 candidates awarded of various degrees of the Institute at the 45th Annual Convocation held in November 2014. Details of the same are given in the following graph and Tables I, II and III.

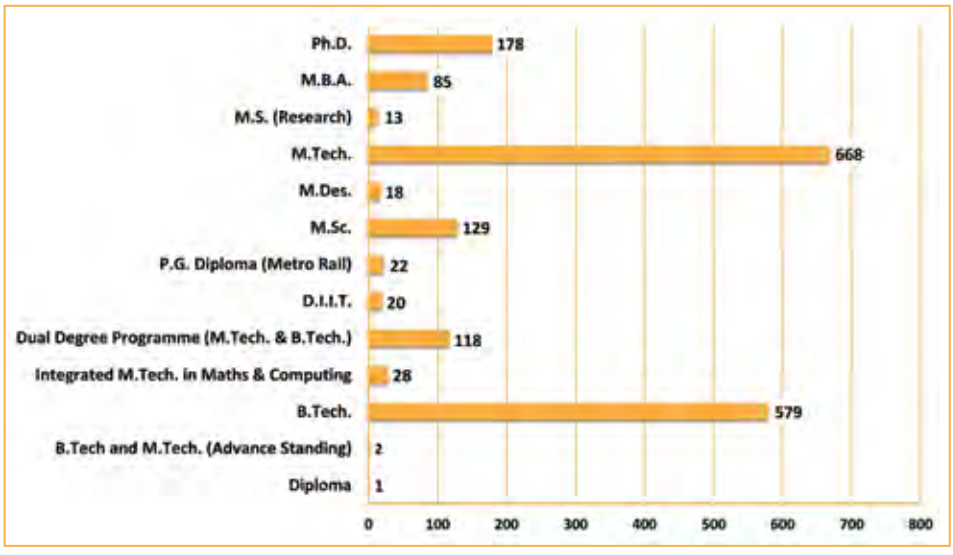


Table I : Number of Undergraduate Students Graduated/Degree Awarded in Convocation 2014

Discipline	No. of Students Passed
5 Year Dual Degree/ Integrated	
B.Tech. in Biochemical Engineering & Biotechnology and M.Tech. in Biochemical Engineering & Biotechnology	30
B.Tech. and M. Tech in Chemical Engineering	38
B.Tech. in Computer Science & Engineering and M.Tech. in Computer Science & Engineering	29
B.Tech in Electrical Engineering and M.Tech in Information and communication	21
M.Tech. in Mathematics and Computing	28
B.Tech. Degree	
Civil Engineering	108
Chemical Engineering	63
Computer Science & Engineering	62
Electrical Engineering	60
Electrical Engineering (Power)	33
Machanical Engineering	90
Production and Industrial Engineering	43
Engineering Physics	50
Textile Technology	71
B.Tech and M.Tech. (Advance Standing)	02
Diploma	01
Total	**729**

Table II : Number of Students Awarded of Degrees / Diplomas in 2014

	Programme	No. of Degrees Awarded	No. of Diplomas Awarded
(a)	**M.Tech.**		
	Engineering Mechanics	25	—
	Design Engineering	22	—
	Molecular Engineering: Chemical Synthesis	12	—
	Chemical Engineering	30	—
	Construction Technology & Management	27	—
	Geotechnical and Geoenvironmental Engineering	12	—
	Structural Engineering	24	—
	Water Resources Engineering	17	3
	Rock Engineering & Underground Structures	17	—
	Construction Engineering and Management	19	—
	Environmental Engineering and Management	17	—
	Transportation Engineering	9	—
	Computer Science & Engineering	51	1
	Control and Automation	8	—
	Communications Engineering	14	—
	Power Electronics, Electrical Machines & Drives	16	—
	Computer Technology	16	—
	Integrated Electronics & Circuits	9	—
	Power Systems	13	—
	Computer Applications	14	—
	Thermal Engineering	12	—
	Production Engineering	20	—
	Industrial Engineering	9	1
	Energy and Environmental Management (Evening)	46	—
	Ocean Sciences and Technology	12	—
	Instrument Technology	15	—
	Design of Mechanical Equipment	5	—
	Applied Optics	7	—
	Solid State Materials	12	—
	Fibre Science & Technology	12	—
	Textile Engineering	10	—
	Radio Frequency Design and Technology	30	—
	Energy Studies	25	—
	Industrial Tribology & Maintenance Engineering	13	—
	Polymer Science & Technology	15	—
	Opto-Electronics & Optical Communication	19	—
	VLS M.Tech. VLSI Design Tools and Technology	17	—
	Telecommunication Technology and Mangement	17	—
(b)	**MBA**		
	Management Systems (SMF)	44	—
	Technology Management (SMN)	39	—
	Telecommunication System Management (SMT)	2	—
(c)	**D.I.I.T. (2-Year)**		
	Naval Construction	—	20
(d)	**P.G. Diploma in Metro Rail Transport : Technology & Management**	—	**22**
(e)	**M.Sc.**	**129**	—
(f)	**M.Des.**	**18**	—
(g)	**M.S. (Research)**		—
	Civil Engineering	1	—
	Chemical Engineering	1	—
	BioChemical Engineering	4	—
	Applied Mechanics	1	—
	Electrical Engineering	6	—
	Total	**913**	**47**

Table III : Number of Ph.D. Degrees Awarded in 2014

Department/Centre	No.of Degrees Awarded
Applied Mechanics	5
Biochemical Engineering & Biotechnology	7
Chemical Engineering	10
Chemistry	13
Civil Engineering	15
Computer Science & Engineering	4
Electrical Engineering	22
Humanities & Social Sciences	4
Management Studies	8
Mathematics	10
Mechanical Engineering	11
Physics	19
Textile Technology	7
Applied Research in Electronics	8
Centre for Bio-medical Engineering	3
Centre for Energy Studies	13
Industrial Tribology, Machine Dynamics & Maintenance Engineering Centre	3
Instrument Design & Development Centre	3
Centre for Polymer Science & Engineering	6
Centre for Rural Development & Technology	—
Amarnath and Shashi Khosla School of IT	1
Centre for Atmospheric Sciences	2
Telecommunication Technology and Management (BSZ)	3
School of Biological Sciences	1
Total	**178**

Academic Performance

For each semester, the students are graded on a scale of 0 to 10 based on their performance, by taking a weighted average of the grade points from all the courses, with their respective credit points. Each semester evaluation is done independently and then the weighted average over all semesters is used to calculate the cumulative grade point average (known as CGPA or CPI—Cumulative Performance Index). The following table gives the Discipline-wise break-up of CGPA for the two Academic Semesters:

Table IV: Discipline-wise break-up of CGPA for the two Academic Semesters (Undergraduate Courses) (Academic Session 2013-2014 (2010 Entry Students)]

Discipline	10.00- 9.00	8.99-8.00	7.99-7.00	6.99-6.00	5.99-5.00	4.99-4.00	3.99-3.00	2.99-2.00	Less than 2.00	Total
First Semester										
Biochemical Engineering and Biotechnology (BB1)	0	0	0	0	1	0	0	0	0	1
Dual-Degree in Biochemical Engineering & Biotechnology (BB5)*	1	6	22	7	3	1	0	0	0	40
Civil Engineering (CE1)	11	14	31	29	21	5	0	0	11	122
Dual-Degree in Transportation Engineering & Civil Engineering (CEA)	0	0	1	0	0	0	0	0	0	1
Chemical Engineering (CH1)	4	19	19	20	12	1	0	0	2	77
Dual Degree in Chemical Engineering (CH7)	0	10	20	16	6	0	0	0	1	53
Computer Science & Engineering (CS1)	9	20	18	10	7	1	0	0	16	81
Dual-Degree in Computer Science & Engineering (CS5)	0	6	6	15	4	2	0	0	0	33
Dual-Degree in Computer Science & Engineering Physics (CSA)	0	0	1	0	0	0	0	0	0	1
Dual-Degree in Computer Science & Textile Engineering (CSB)	0	1	0	0	0	0	0	0	0	1
Electrical Engineering (EE1)	2	21	21	15	4	0	0	0	26	89
Electrical Engineering (Power) (EE2)	2	8	9	14	1	0	0	0	0	34
Electrical Engineering (EE5)	0	10	7	8	3	0	0	0	0	28
Mechanical Engineering (ME1)	9	23	41	16	12	5	0	0	5	111
Mechanical Engineering (ME2)	1	13	11	14	11	0	0	0	2	52
Mathematics and Computing (MT5)	1	9	19	13	8	1	0	0	4	55
Engineering Physics (PH1)	4	11	14	18	9	2	0	0	3	61
Textile Engineering (TT1)	1	11	26	11	22	5	0	0	7	83
Total	**45**	**182**	**266**	**206**	**124**	**23**	**0**	**0**	**77**	**923**
Second Semester										
Biochemical Engineering and Biotechnology (BB1)	0	0	0	0	1	0	0	0	0	1
Dual-Degree in Biochemical Engineering & Biotechnology (BB5)	2	7	20	8	2	1	0	0	0	40
Civil Engineering (CE1)	11	14	31	31	20	3	0	0	0	110
Dual-Degree in Transportation Engineering & Civil Engineering (CEA)	0	0	1	0	0	0	0	0	0	1
Chemical Engineering (CH1)	4	19	17	23	11	0	0	0	0	74
Dual-Degree in Chemical Engineering (CH7)	0	10	20	15	7	0	0	0	1	53
Computer Science & Engineering (CS1)	7	22	19	9	7	1	0	0	0	65
Dual-Degree in Computer Science & Engineering (CS5)	0	6	7	15	3	2	0	0	0	33
Dual-Degree in Computer Science & Engineering Physics (CSA)	0	0	1	0	0	0	0	0	0	1
Dual-Degree in Computer Science & Textile Engineering (CSB)	0	0	1	0	0	0	0	0	0	1
Electrical Engineering (EE1)	3	19	22	14	4	0	0	0	1	63
Electrical Engineering (EE2)	2	8	8	15	1	0	0	0	0	34
Electrical Engineering (EE5)	0	10	7	7	4	0	0	0	0	28
Mechanical Engineering (ME1)	10	21	42	17	12	4	0	0	0	106
Mechanical Engineering (ME2)	1	12	12	15	10	0	0	0	0	50
Mathematics and Computing (MT5)	2	8	87	13	6	1	0	0	0	51
Engineering Physics (PH1)	3	12	16	16	9	1	0	0	0	57
Textile Engineering (TT1)	1	11	29	12	21	3	0	0	0	74
Total	**46**	**179**	**271**	**210**	**118**	**16**	**0**	**0**	**2**	**842**

Academic Performance

Table V : Academic Performance of 1st year Students of Postgraduate Programmes

	Programme	No. of students admitted (2014)	No. of students qualified to continue*
(a)	**M.Tech.**		
	Engineering Mechanics	28	27
	Design Engineering	33	28
	Chemical Engineering	33	29
	Molecular Engineering: Chemical Synthesis and Analysis	17	15
	Construction Technology and Management	27	24
	Geotechnical & Geoenvironment Engineering	7	5
	Structural Engineering	35	26
	Water Resources Engineering	21	17
	Construction Engineering and Management	32	25
	Rock Engineering of Underground Structures	23	16
	Environmental Engineering and Management	19	15
	Transportation Engineering	19	15
	Computer Science & Engineering	40	39
	Control and Automation	17	12
	Communications Engineering	20	16
	Power Electronics, Electrical Machines & Drives	21	11
	Computer Technology	25	23
	Integrated Electronics & Circuits	16	13
	Power Systems	18	10
	Computer Applications	17	16
	Thermal Engineering	18	9
	Production Engineering	14	11
	Industrial Engineering	12	6
	Design of Mechanical Equipment	22	18
	Telecommunication Technology and Management	20	16
	VLSI Tools and Design	19	18
	Radio Frequency Design & Technology	34	32
	Solid State Materials	17	15
	Applied Optics	12	10
	Atmospheric Oceanic Science Technology	12	7
	Fibre Science & Technology	8	8
	Textile Engineering	11	10
	Energy Studies	35	30
	Industrial Tribology & Maintenance Engineering	16	11
	Polymer Science & Technology	24	23
	Opto-Electronics & Optical Communication	29	26
	Instrument Technology	13	9
(b)	**M.S. (Research)**		
	Amar Nath & Shashi Khosla School of In formation Technology	3	3
	Computer Science	2	2

contd.

	Chemical Engineering	2	2
	Civil Engineering	2	2
	Bio-chemical Engineering & Bio-technology	9	9
	Applied Mechanic	1	1
	School of Biological Sciences	1	1
	Mechanical Engineering	1	1
	Electrical Engineering	3	3
(c)	**M.Des.**		
	Industrial Design	20	20
(d)	**D.I.I.T. (2 year)**		
	Naval Construction	20	20
(f)	**M.Sc.**		
	Chemistry	52	47
	Mathematics	54	48
	Physics	54	44
	Management Studies		
	M.B.A. Programme (Full-time)	121	48
	M.B.A. Programme (Part-time)	47	35
	Total	**1176**	**927**

**The remaining students either left the Institute or failed to meet the minimum C.G.P.A. requirements to continue in the next semester.*

Internship and Placement

(April 1, 2014 - March 31, 2015)

Training & Placement activities are guided by an Institute Level Committee consisting of Faculty members and students. The student committees, i.e. Central Committee at the Institute level as well as Nucleus Committees at departmental level, actively participated in the Training & Placement activities.

As in the past the Training and Placement Unit continued to plan, organise and consolidate the Training and Placement activities for students. It actively interacted with various industrial, technical, management and research organisations in the country. The dual aim of establishing this rapport is to ensure that students are given adequate technical exposure/industrial training during their pre-final year and subsequently get employment in organisations which match their aspirations and objectives.

As in previous years, web based placement services were provided using the internal T&P server this year as well. The students got all information on their desktop PCs / laptops, they applied on-line and could see the progress of their application including the final results. The companies too were issued user name and password for accessing and short-listing CVs and uploading their presentations and files. This considerably reduced the conventional pre-placement talks on the campus.

The analysis of the past training and placement activities was presented to the students to help them decide their future course of action. Constant liaison with industries was maintained throughout the year to ensure student placements across sectors.

This office also organised some pre-placement workshops, panel discussions and career counselling talks by distinguished persons from reputed technical, industrial, management and research organisations for the benefit of the graduating students. Some of the Institute alumni who are holding very senior positions in private and public sector organisations were also invited to share their personal experiences with the student community of the Institute.

An online interview preparation personality development & career guidance system was also made available to all students of the institute.

Training / Internship

A personal dialogue with top executives of a large number of industries resulted in better understanding of their functional requirements and training activities. This effort also helped the T&P Unit in the effective planning of summer practical training for 3rd year B.Tech./Dual degree/Integrated M.Tech. students, besides obtaining a good number of stipends and other facilities such as transport, accommodation, etc.

The T&P unit with the active cooperation of Nucleus Committees of the departments was able to arrange the required number of seats for internships. Stipends were committed for 380 students and other perquisites for 260 students. Detailed instructions to students were also issued prior to the commencement of the training programme. A list of data regarding the summer practical training for 3rd year students is given in Table-I.

Placement

A letter of invitation for Campus Interviews was sent to a large number of public and private sector organisations especially to those which visited the Institute for campus interviews during the last three years. A large number of them gave electronic copies of their job profiles which were made available to the students through the internal web server. This vigorous drive resulted in requisitions being obtained from industries from 429 Companies for 595 profiles with selections on 233 profiles as a result of which 803 students were placed making a total of 867 jobs (some students got multiple jobs). The sector-wise distribution of profiles opened for placement are given in Table II :

Table II : Sector -wise distribution of Profiles Opened for Placement

Sector	Profiles Opened	Students Placed
Analytics	28	47
Consulting	51	92
Core (Technical)	122	236
Finance	29	66
Information Technology	160	148
Management	02	01
Others	167	173
Teaching & Research	36	40
Total	**595**	**803**

Ground rules for placement evolved in consultation with the students and faculty members led to a just and equitable distribution of job opportunities amongst the student community.

The discipline wise break-up of on campus placement position is shown in Table III and IV.

Table I : 3rd Year Students Summer Training - 2015

Discipline	Seats-Required	Seats-Obtained	Stipend	Other Facilities
(a) B. Tech/Dual Degree				
Chemical Engineering/Dual Degree	124	120	31	18
Computer Science & Engineering/Dual Degree	95	94	87	64
Civil Engineering	105	103	26	09
Electrical Engg/Power/Dual Degree	128	125	86	61
Engineering Physics	55	55	28	15
Mechanical Engineering	97	95	50	44
Industrial & Production Engineering	47	47	08	10
Textile Technology	72	72	15	15
(b) 5-Year Integrated M.Tech. Programme				
Bio-Chemical Engineering & Bio-Tech	35	32	12	06
Math & Computer Application	43	43	37	18
Total	**801**	**786**	**380**	**260**

Table III : Discipline-wise break-up of On-Campus Placement Position of B.Tech. / Dual and 5-year integrated M. Tech. Students during 2014-15

Discipline	No. of Students Registered	No.of Effective Placements*	No.of Students with more than one job**
(a) B.Tech.			
Chemical Engineering	62	53	01
Civil Engineering	61	54	04
Computer Science & Engineering	50	50	05
Electrical Engineering	50	50	04
Electrical Engineering (Power)	27	27	03
Mechanical Engineering	76	68	06
Industrial & Production Engineering	42	24	
Textile Technology	59	49	01
Physics Engineering	31	27	02
(b) Dual / 5-Year Integrated M. Tech. Programmes			
Mathematics & Computer Appn.	44	43	08
Bio-chemical Engineering & Bio. Tech.	19	17	
Chemical Engineering Dual	38	35	01
Computer Science & Engineering Dual (CO)	25	25	06
Electrical Dual (EI)	23	20	01
Advanced Standing	04	03	02
Total	**611**	**555**	**44**

**Others would have obtained jobs via off-campus mode or opted for higher studies or for Civil Services.*

***This is because more than one company declared the results on the same day.*

Table IV : On-campus Placement Position of M.Tech. Students during 2014-15

Department / Interdiscip. Programme	No. of Students Registered	No. of Effective Placements*	No. of Students with More than one job**
Applied Mechanics	27	20	3
Atmospheric Oceanic Science	6	0	
Chemical Engineering	15	8	
Molecular Engineering/Chemical Synthesis	0	0	
Civil Engineering	28	14	
Computer Science & Engineering	39	38	7
Electrical Engineering	34	30	
Computer Application (Maths)	8	7	
Mechanical Engineering	36	25	1
Physics	9	2	
Textile Technology	21	12	
Energy Studies	7	5	1
ITMMEC	8	2	
Opto-Electronics and Communication	8	7	
Polymer Science & Technology	12	3	
Instrument Technology	9	8	
VLSI	8	8	1
CRF (Care)	12	6	
Tele Communications	16	16	1
Total	**303**	**211**	**14**

In addition 12 M. Des., 14 M.Sc., 03 MS Research, and 08 Ph.D. students also were placed through our campus activities. MBA students did their placement separately.

**Others have got placement via off-campus mode. Some would have gone for higher studies or for Civil Services.*

***This is because more than one company declared the results on the same day.*

Total Jobs = B.Tech. & Dual + M.Tech. + M. Des. + M.Sc. + MS Res. + Ph.D. = 412+143+211+12+14+3+8 = 803

Staff Training Programmes

(April 1, 2014 - March 31, 2015)

The Institute continues to take particular care of its staff so that they are properly equipped with the skill/knowledge that is required to keep pace with the developments taking place in both administrative and technical spheres. It deputes its technical, secretarial and ministerial staff to various training institutions in and outside Delhi. During the year under report 13 staff members /officers belonging to administrative and technical cadres were deputed/sponsored for training outside the Institute. Details are as follows :

Staff Training Programmes

Table I : Group A Officers Deputed for Various Staff Training Programmes in 2014-2015

S. No.	Name	Title of Training/programme	Place	Period of Training
1	Dr. Rakesh Kumar	National Abilympics	Chandigarh	05/11/2014
		Strategizing on forest policy in Developing India & conserving forest	Dehradun	05/02/2015 to 06/02/2015
2	Sh. M.K. Gulati	Strategizing on forest policy in Developing India & conserving forest	Dehradun	05/02/2015 to 06/02/2015
		Ethics & Value in Public Governance	ISTM	18/03/2014 to 20/03/2014
		Implementation of Accounting Standards in Educational Institutes	IIT, Bombay	11/05/2014 to 15/05/2014
		MACP and other Financial matters	IIT, Kanpur	08/08/2014
3	Sh. N.C. Chauhan	RTI Act 2005	ISTM	10/03/2014 to 11/03/2014
4	Dr. Vivek Raman	Finance for Non-finance Executives	IIM, Raipur	24/07/2014 to 26/07/2014
5	Dr. K.K. Bhattacharjee	Finance for Non-finance Executives	IIM, Raipur	24/07/2014 to 26/07/2014
		Knowledge Management and Level D Programme	ISTM	16/10/2014 and 29/10/2014
		Orientation Programme basic Training	CVC, New Delhi	24/02/2015 to 25/02/2015
6	Sh. Atul Vyas	Management of Internationalization	Germany	30/08/2014 to 14/09/2014
7	Sh. V.K. Vashistha	MS Word	ISTM	20/08/2014 to 22/08/2014
8	Sh. N. Bhaskar	RTI	ISTM	10/03/2014 to 11/03/2014
		Outcome Budget	ISTM	11/08/2014 to 12/08/2014
		Orientation Programme basic Training	CVC, New Delhi	24/02/2015 to 25/02/2015
9	Sh. Anup Kuksal	Project formation & Appraisal	ISTM	12/06/2014 to 13/06/2014
		Outcome Budget	ISTM	25/08/2014 to 26/08/2014
10	Mohd. Shamim	Outcome Budget	ISTM	25/08/2014 to 26/08/2014
		Project formation & Appraisal	ISTM	12/06/2014 to 13/06/2014
11	Sh. R.K. Thareja	MS Word	ISTM	20/08/2014 to 22/08/2014
		MACP and other Financial matters	IIT, Kanpur	08/08/2014
12	Sh. Mukesh Chand	MACP and other Financial matters	IIT, Kanpur	08/08/2014
		MS Word	ISTM	20/08/2014 to 22/08/2014
		Orientation Programme basic Training	CVC, New Delhi	24/02/2015 to 25/02/2015
13	Sh. Sanjay Pande	Enhancing Personal Effectiveness for organizational excellence	IIPA, New Delhi	23/01/2015

Scholarships, Assistantships and Awards

(April 1, 2014 - March 31, 2015)

The Institute believes in the maxim that no deserving student, however weak in financial backing, should be denied the opportunity of education at IIT Delhi. To encourage and to provide financial incentives to meritorious students and assistance to the needy students of the institute, individuals, trusts and organisations have been instituting scholarships, awards, etc. at the Institute. At present, there are 178 awards/scholarships/medals being given at the Undergraduate and Postgraduate level. This is in addition to more than 1942 awards instituted by the Institute directly in the form of merit-cum-means scholarships, cash prizes and freeships.

In addition, the Institute has a "Loan Scholarship Scheme" which makes it more affordable for the students who take loan from banks. Additional Medals, Awards, Fellowships and Scholarships instituted during the previous year include Sadashiv Shankar Gokhale Scholarship, Akshat Gupta Scholarship, Shri Beni Madho Singh Scholarship, Koul Basu Research Award, Prof. P.K. Katti Award, NRCVEE Best Project and Essay Award, Punita and Jayant Sinha Awards and Shri O.P. Bansal Cash Award, etc.

Below is a summary of cash prizes and merit-cum means scholarships offered to B.Tech. students during the session 2014-2015.

Scholarships / Assistantships / Freeships and Awards

Table I : Number of Cash Prizes Merit-cum-Means Scholarships/Freeships offered to B.Tech. Students during the Session 2014-2015

Class	Cash Prizes (SCHII028)	No. of Scholarships Awarded (SCHII035)	Free Mess Services (SCHII036)	Freeships for General & OBC (SCHOI305)	UG TA (SCHII054/ (SCHII045/ (SCHII058)	Sponsored Awards/ Fellowships/ Scholarships*
I - Year	62	194	69	8	0	68
II - Year	106	137	56	23	0	36
III - Year	67	131	52	32	0	22
IV - Year	74	107	44	49	49	18
V - Year	16	0	9	0	5	1
Backlog	2	0	1	0	0	0
Total	**327**	**569**	**231**	**112**	**54**	**145**

Table II : Assistantships to Dual Degree Students during the Session 2014-2015

Course	No. of Assistantships Renewed (SCHII045 / SCHII058 / SCHII057)	No. of Assistantships Awarded (SCHII045 / SCHII058 / SCHII057)
Biochemical Engineering & Biotechnology	20	47
Computer Science & Engineering	16	25
Electrical Engineering	21	35
Chemical Engineering	29	65
Mathematics and Computing	32	47
Total	**118**	**219**

Scholarships, Assistantships and Awards

Students pursuing M.Tech./M.Des./M.S. (R) are eligible for institute assistantship at the time of admission. However, for continuation of the assistantship they have to maintain a minimum SGPA (semester grade point average) at the end of every semester. The table below shows the assistantship awarded to 2014 entry students and renewed to the existing students. A total of 552 students were awarded assistantship in 2014-15.

Table III: Assistantships Offered to the Students of M.Tech., M.Des., M.S.(R) and M.Sc. Programmes during the Session 2014-2015.

(i) M.Tech./M.Des.		
Course	**No. of Assistantships Renewed**	**No. of Assistantships Awarded (first year)**
(a) M.Tech.		
Engineering Mechanics	10	24
Design Engineering	15	26
Chemical Engineering	22	29
Molecular Engineering : Chemical Synthesis & Analysis	14	16
Geotechnical and Geoenvironmental Engineering	6	6
Structural Engineering	16	13
Construction Engineering and Management	8	23
Environmental Engineering and Management	8	14
Rock Engineering and Underground Structures	10	18
Water Resources Engineering	7	15
Transportation Engineering	9	10
Computer Science & Engineering	33	33
Power Electronics, Electrical Machines & Drives	10	11
Communications Engineering	12	15
Control and Automation	8	12
Computer Technology	16	21
Power System	10	9
Integrated Electronics & Circuits	11	10
Computer Applications	13	12
Thermal Engineering	9	5
Production Engineering	20	9
Industrial Engineering	9	4
Design of Mechanical Equipment	11	11
Applied Optics	7	9
Solid State Materials	12	15
Textile Engineering	13	9
Fibre Science & Technology	11	8
Atmospheric-Oceanic Science & Technology	8	12
Radio Frequency Design and Technology	20	15
Energy Studies	30	12
Industrial Tribology & Maintenance Engineering	10	12

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Polymer Science & Technology	17	22
Opto-electronics & Optical Communication	13	22
Instrument Technology	11	11
Telecommunication Technology and Management	20	19
(b) M.Des.		
Industrial Design	17	19
(c) M.S. (Research)		
Biochemical Engineering & Biotechnology	5	9
Bharti School of Telecommunication Technology & Management	—	—
Amar Nath & Shashi Khosla School of Information Technology	—	—
Computer Science & Engineering	1	1
Civil Engineering	1	2
Chemical Engineering	1	—
Mechanical Engineering	1	7
Applied Mechanic	1	1
Total	**486**	**552**

List of the merit-cum-means scholarships awarded for M.Sc. is as follows:

Table IV : Merit-cum-means Scholarships Awarded to M.Sc. Students

		2013	2014
Chemistry	I Year	14	14
	II Year	14	14
Mathematics	I Year	14	11
	II Year	14	11
Physics	I Year	14	14
	II Year	14	14
Total		**84**	**78**

Other than these, fifteen M.Tech. students of the Institute had gone to Germany under the DAAD Scholarship Scheme to do part of their thesis research under the Indo-German collaboration program. The 13th batch of 21 students for this year has been selected and they departed on September 2014.

Student's Awards/ Achievements

Department of Chemical Engineering

- Ph.D. student Vikas Pandey (along with another Ph.D. student, Saurabh Singh, from KSBS) won the IIT Delhi Class of '89 Innovation Award for their portable immunomagnetic capture device project 2015.
- Chemmie undergrads bag 1st prize and Rs. 10 lakhs in the GE Edison Challenge 2014 for their affordable power idea.
- Meenakshi Mazumder won the 2014 IIChE award for the best technical paper presented in CHEMCON 2013 (Mrs. Chinnamaul and M. H. Shukla prize).
- Loveleen Sharma won the Best Poster Award at the 23rd International Symposium of Chemical Reaction Engineering held in Bangkok, Thailand.
- Amandeep Jindal won the best poster award at the International Conference on Electrochemical Science and Technology 2014.

Scholarships, Assistantships and Awards

Department of Civil Engineering

- Mukul Gupta, Puneet Kumar Singh, Raman Kunwar (Class of 1989) , Innovation Award 2014: for "Pre-Engineered Bamboo Structures for Modern Construction: A Green Sustainable Solution".
- Abhilash Achuthan (2013CES2091) M.Tech., DAAD (Sandwich-Model Scholarship) : on "Variable Friction Damper with Restoring Mechanism for Impulsive Dynamic Excitations", the Universität der Bundeswehr (UniBW) München and TechnischeUniversitätMünchen (TUM), Munich, Germany.
- Deepika Gill (2013CES8375) M.Tech. in Structural Engineering, DAAD (Sandwich-Model Scholarship) : on "Multi-Mode Control of Tall Building using Distributed Multiple Tuned Mass Dampers", TechnischeUniversität (TU) Berlin, Germany.
- Nikhil Garg (2013CEC8327) M.Tech, DAAD (Sandwich-Model Scholarship) : on "Progressive Failure Design of Pre-Stressed Concrete Beams with Carbon Fibre Reinforced Polymer (CFRP) Tendons", Technische Universität (TU) Berlin, Germany.
- Romanbabu M. Oinam, Best Experimental Research Paper Award : (in the Structural Engineering Convention - 2014) for his paper "Enhancement of Lateral Capacity of Damaged Non-Ductile RC Frame using Combined-Yielding Metallic Damper" authored by Romanbabu M. Oinam; Dipti Ranjan Sahoo.
- Said Elias, Best Theoretical Research Paper Award : (in the Structural Engineering Convention - 2014) for his paper "Optimum Tuned Mass Damper for Wind and Earthquake Responses Control of High-Rise Building" authored by Said Elias; Vasant Matsagar.
- Amarpreet Kaur, Best Theoretical Research Paper Award : (in the Structural Engineering Convention 2014) for her paper "Modelling Strength of Mortars Containing Fly Ash" authored by Amarpreet Kaur; Shiju Joseph; Shashank Bishnoi.
- L. S. Sowmiya, Best Paper Award : (in the 9th International Symposium on Lowland Technology - ISLT 2014) for her paper "Study on the Performances of the Geosynthetic Reinforcement on the Ballasted Railway Track - Model Test and Numerical Analysis" authored by Sowmiya, L. S.; Shahu, J. T.; Gupta, K. K.

Department of Chemistry

- Divya Nayar, Best Poster Award for "Gordon Research Seminar & Conference on Water and Aqueous Solution" NH, USA.

Department of Computer Science & Engineering

- Neeta Meshram and Heena Bansal won "Cadence Design Contest 2014 - Tensilica Project" under M.E./M.Tech. category.
- Ankit Kumar, Dhruv Gupta, Pulkit Sapra from ASSISTECH won award for project "development of Refreshable Braille cells"
  - Padmashri Manmohan Suri Project Award: The best innovative hardware-oriented Major Project in Mechanical Engineering , 2013-14
  - TechTop 2014 Best Innovation Award, Trivandrum
  - Pan IIT Research Expo - Shaastra 2014, IIT Madras
  - JED-I Project Challenge 2014 - Runners Up (Electrical Division), Bangalore
- Harveen Kaur from ASSISTECH : ICIM Stay Ahead 201 Award, Saurabh Runwal the BOSS Award 2014
- Pranay and Anshul from ASSISTECH won "Louis Braille - Touch of Genius Prize for Innovation", National Braille Press, Boston

Department of Electrical Engineering

- Chinmay Jain, Alumni Research and Innovation Award-Open House 2014 (First prize in PG category).
- Vashist Bist, Third Prize - RS India Design Spark PCB Contest-2014 (National Level PCB Design Contest) for designing the PCB entitled "Optical Isolation for Three-Phase Inverter" (Also includes a cash prize of INR 10,000/-).
- Vashist Bist, Second Prize - Poster Presentation (on the occasion of Research Scholar Day) IIT Delhi- 2014
- POSOCO Power System Award (PPSA) - 2015 : Narent Bharatwaj V., Madishetti Sandeep, Shikha Singh, Ujjwal Kumar Kalla, Nitin Anand Shrivastava, Zarina P. P., Ram Niwas, N. Krishna Swami Naidu, Krishan Kant, Avishek Paul, B. Srikanta Achary
- Best Paper Award : Sanat Sarangi, Akshat Bisht, Vijay Rao and SubratKar (IIT Delhi, India), Tushan Kumar Mohanty and Anand Prakash Ruhil (National Dairy Research Institute Karnal, India), "Development of a Wireless Sensor Network for Animal Management : Experiences with Moosense", IEEE ANTS 2014, New Delhi, India, 14-17 Dec 2014
- Best Paper Award : Prabhmandeep Kaur, V. K. Jain, S. Kar, "BER Performance Improvement of FSO Links with Aperture Averaging and Receiver Diversity Technique under Various Atmospheric Conditions", IIS 2014 IEEE International Conference ICIIS – 2014, ABVIIITM, Gwalior, India, Dec 15-17, 2014
- Best Paper Award : C. Peoples, G. P. Parr, B. W. Scotney, S. Sarangi, S. Kar, "Profiling User Behavior for Efficient and Resilient Cloud Management", in Int. Conf. Advances in Computer, Communication and Informatics (ICACCI 2014) New Delhi, Sep 24-27, 2014. (Best Paper Award – in session 'Data Management, Exploration and Mining – I' chaired by Dr. Veena B. Mendiratta, Bell Labs, Alcatel-Lucent, USA)
- Best Paper Award: V. Rao, V. Chawla, P. Priyesh, S. Sarangi, S. Kar, "Health Sense - A Portable IoT Enabled Monitoring Platform for Primary Health Centres", in APAMI 2014, New Delhi, India, Nov 1-2, 2014. [Poster] (2nd Best Poster Paper Award in APAMI 2014).

Scholarships, Assistantships and Awards

Department of Management

- Sahil Kapoor, (3rd year Part Time Student) represented DMS, IIT Delhi in CNBC IN 18 Channel Conversation with PEPSICO CEO INDIA
- Neelam Rani (Phd Student), The NSE Award : for the "Best Thesis in Financial Economics", 2014.
- Neelam Rani (Ph.D. Student), Third outstanding paper award by Indian Institute of Capital Markets, Mumbai, April 11- 2014
- Neelam Rani (Ph.D. Student), Young Researchers Travel Grant to present paper at 17th World Congress at Jordan, 2014

Department of Mechanical

- Ankit Kumar, Dhruv Gupta, Pulkit Sapra (B.Tech.), Best Project Award : (for An affordable refreshable Braille display for visually challenged.), Ninth National Innovation Contest — TechTop 2014, Thiruvananthapuram
- Roll-on/Roll-off Design Challenge Project of Lockheed Martin Corporation, USA. Three-phase competition, Students qualified the first phase and working on the project for further achievement
- GYTI - Porous Sheet for Low Cost Water Filter

Department of Physics

- Kavita Yadav got Best Poster Award in Open House-2015
- Pratibha Goel got Best Poster Award at International Conference on Recent Advances in Nanoscience & Nanotechnology-2014 (ICRANN), JNU, Delhi, INDIA, 15-16 December, 2014
- Pratibha Goel got ASSD Student Award at AVS 61st International Symposium & Exhibition, Baltimore, Maryland, USA, 09-14 November, 2014
- Pratibha Goel got Best Poster Award at International Conference on Soft Materials (ICSM), MNIT, Jaipur, INDIA, 06-10 October, 2014

Department of Textile Technology

- Sanskrita Das (Ph.D. student), Best Oral Presentation Award : for 3D Bioprinting in Research Scholar Day of IIT Delhi, April- 2015
- Sanskrita Das, Best Oral Presentation Award : SYIS (Student and Young Investigator) section at TERMIS -Asia pacific meeting at Daegu, Korea, 27 September, 2014
- Rashmi Thakur, APA Innovation Award, October- 2014.

Centre for Applied Research in Electronics

- Ruchi Tiwari, FITT Best Industry relevant Ph.D. Thesis Award, 2014
- Sukomal Dey, Best Poster (1st Prize) at the Science Day, IIT Delhi

Centre for Biomedical Engineering

- Dr. Shantanu Lale , Dogra Award by IIT Delhi

Centre for Rural Development and Technology

- Dr. Pravakar Mohanty, Hari Om Ashram Prerit Research Award on Renewable Energy
- Prachi Kaushik, Best Paper Award, ICESD - 2015
- Ritika Pathak, Best Paper Award : "2nd International Conference on Prospects and Challenges in Biotechnology" Mumbai, 9 -11 Jan- 2015
- Sapna, CSIR RA, 2014
- Arghya Bhatacharya, CSIR SRF, 2014
- Poonam Choudhary, CSIR SRF, 2015

Instrument Design & Development Centre

- Asim Siddiqui, Nishant Kumar, Prashant Kumar, Alok Kajla and Kapil Kesharvani, recognition and award for outstanding contribution by GOC in CARTRAC, ATB meet Secundrabad, 2015

Amar Nath and Shahi Khosla School

- Dipanjan Chakraborty (Ph.D. Student), Proposal on using mobile phones to improve transparency and accountability in government schemes, has been accepted for funding by the Google IIT pilot program.

School of Biological Sciences

- Ph.D. degree awarded to Mr. Suhas Vasikar
- Ph.D. viva defended by
  a) Ms. Vinay Dahiya
  b) Ms. Vinay Dahiya
  c) Mr. Aditya Padhi
- Synopsis submitted by
  a) Ms. Aastha Jain
  b) Ms. Rachan Tomar
  c) Ms. Mohita
- Ms. Suneyna Bansal - recipient of the American Society for Cell Biology (ASCB) International Travel Award (USD 1500), IIT Delhi for presenting her work titled "On the symbiotic origins of eukaryotic plasma membranes" at the 2014 ASCB/IFCB Meeting in Philadelphia, PA, USA, from December 6-10, 2014
- Ms. Kamalika Banerjee – recipient of the American Society of Virology travel award (USD 500), IIT Delhi for presenting her work titled "Antagonistic interaction of 3C protease of Hepatitis A virus with p65/RelA of the NK-kB signaling module" at the 2014 Annual American Society of Virology meeting in Fort Collins, Denver, USA from 21-25 June, 2014
- IIT Delhi Class of `89 Innovator Awards: Saurabh Singh, Ph.D. student of Kusuma School of Biological Sciences and Vikas Pandey, Ph.D. student of Department of Chemical Engineering for their innovation "Portable immuno-magnetic capture system (iMC2) for early stage typhoid diagnosis in 6 hrs" Mentored by faculty members Dr. Ravikrishnan Elangovan, Dr. Vivekanandan Perumal and Dr. Shalini Gupta. (Cash prize of INR 2,00,000)

Scholarships, Assistantships and Awards

The students pursuing Ph.D. are also eligible for assistantships. This year 157 students were awarded assistantships. Assistantship to existing students continues provided, they show satisfactory progress. The table below gives a discipline wise break-up of assistantships awaited during the period.

Table V : Institute Assistantships Awarded to Research Scholars during the Session 2014-2015

Department/Centre	No. of Assistantships Renewed	No. of Assistantship Awarded (2014 entry)
Amar Nath and Shashi Khosla School of Information Technology	6	—
Bharti School of Telecommunication Technology & Management	16	1
Applied Mechanics	22	6
Biochemical Engineering & Biotechnology	13	6
Chemical Engineering	17	15
Chemistry	13	6
Civil Engineering	40	8
Computer Science & Engineering	13	4
Electrical Engineering	40	19
Humanities & Social Sciences	6	8
Management Studies	15	5
Mathematics	7	4
Mechanical Engineering	38	14
Physics	39	16
Textile Technology	18	—
Centre for Applied Research in Electronics	6	4
Centre for Atmospheric Sciences	11	8
Centre for Biomedical Engineering	14	5
Centre for Energy Studies	24	10
Industrial Tribology, Machine Dynamics & Maintenance Engineering Centre	4	5
I.D.D. Centre	5	2
Centre for Polymer Science & Engineering	14	1
Centre for Rural Development & Technology	11	5
School of Biological Sciences	7	5
Transport and Energy Prevention	2	—
Total	**401**	**157**

Infrastructure Development

(April 1, 2014 - March 31, 2015)

PHYSICAL INFRASTRUCTURE

All infrastructure related activity is managed by the Building and Works Committee as given in Appendix III. The revised Master Plan has been taken up with MCD / DUAC. The Master Plan is suitably prepared to provide for further expansion plans of the Institute. In the year 2015-16, the Institute has taken up the following major projects which are under construction / proposed for construction.

1. Construction of Institute (Student) Activities Centre

The conceptual design of Institute activities centre has been prepared. The B&WC considered and accepted the conceptual design. The modified drawings were submitted to MCD/ DUAC for approval. The construction work shall be taken up after obtaining statutory approvals.

2. Indoor Sports Complex

The In order to meet the increased demand of students for an Indoor Sports Complex, Institute has proposed to construct an Indoor Sports Complex in sports field. The concept design and Expenditure Sanction for construction of an Indoor Sports Complex has been approved. The proposed Indoor Sports Complex will be of Ground + 2 Floors will cater to the requirement of residents of the Campus.

3. Solar System of 1MWP in Academic Area

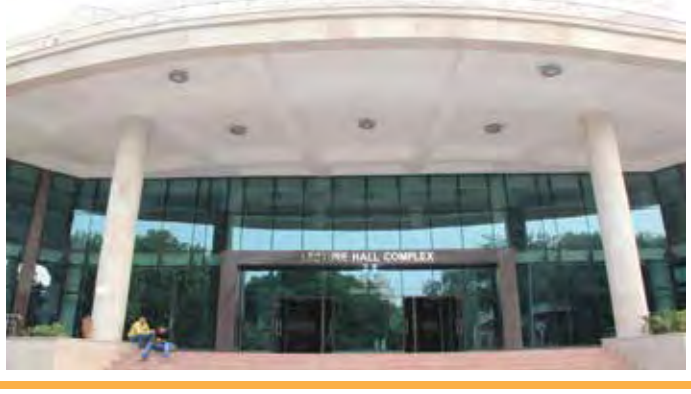
Solar system of 1MWP capacity was installed and commissioned in the academic area. The solar system has generated more than 12 lacs KWh power till date.

4. Online Fuel Monitoring of DG Sets

IIT Delhi has installed fuel monitoring system of DG sets in the campus. Out of the 18 DG sets, online fuel monitoring is being done for 6 DG sets.

5. Shopping Complex in East Campus

Institute is planning to construct a shopping complex in East campus after demolishing the existing old shopping complex. The concept design and Expenditure Sanction for construction of Shopping Centre has been approved. The proposed Shopping Complex will be a Ground + 2 Floors will cater to the requirement of residents of the Campus.



6. Construction of Boys Hostel 'E'

Institute is planning for construction of another Boys' Hostel (Hostel 'E'). This Hostel will cater to 1000 students (approx.). The conceptual design of Hostel 'E' was approved by B&WC Committee. The submission drawings have been submitted to MCD/DUAC for approval. The Construction work was assigned to CPWD. The work shall be taken up for construction after obtaining statutory approvals.

7. Construction of New Girls Hostel

The Institute has assigned the work of designing the New Girls Hostel to Panel Architect. This hostel will accommodate 414 students. The proposed hostel shall be constructed along North Avenue adjacent to Himadri Hostel, which also involves demolishing 2 Blocks in North Avenue in the East campus. The concept design was approved by B&WC and the building plans have been submitted to SDMC / DUAC for approval. The Construction work of the hostel has been assigned to CPWD. The work shall be taken up for construction after obtaining statutory approvals

8. Construction of Additional Faculty Flats in West Campus Near Vikramshila Apartments

In order to meet with the increased demand for houses for Faculty, the Institute is considering for construction of 173 Faculty flats. Concept design of faculty flats was accepted and approved by the B&WC. The work is assigned to M/s. NBCC Ltd. as deposit work and the work shall be taken up for construction after obtaining statutory approvals.

9. Construction of STP/ETP and Network Connecting Sewer Lines to STP/ETP

The Institute is planning to construct STP/ETP for compliance of the requirements of Environment Clearance accorded by the MoEF. Accordingly it was proposed to construct STP and ETP in the campus. A consultant was appointed by the Institute to design STP required for the campus. The Consultant has submitted the conceptual design and preliminary estimate which has been approved by B&WC. EOI is being invited to shortlist the contractors/firms for execution of the work of STP in the campus.

10. Redevelopment of Nalanda Married Scholar Apartments

Institute is proposing to redevelop the Nalanda Apartments to cater to the requirement of married scholar accommodation in the campus. The project has been assigned to M/s NBCC Ltd. as deposit work and the concept design and expenditure sanction has already been approved. M/s NBCC Ltd. will take up with MCD for necessary approval for redevelopment of Nalanda Apartments.

11. Replacement of LED lighting in place of fluorescent tube in the Campus

Institute has replaced most of the fluorescent light fittings with energy saving LED lights across the campus.

12. Re-development of Open Air Theatre at IIT Delhi

It has been decided to redevelop the Open Air Theatre to make it a fully functional activity theatre for large gathering etc. the re-development includes openable roof for the entire open air theatre along with other amenities. The proposal shall be taken up for necessary expenditure sanction shortly

13. Renovation of Main Guest House

The Main Guest House was renovated and refurbished completely

Academic Infrastructure

1. Lecture Hall-cum-Lab Complex

Lecture Hall cum Lab Complex construction work is completed and classes are being conducted in Lecture Hall Complex. The complex comprises of lecture halls of 2 No. x 500 seater, 3No.X300 seater and 12 No. x 150 seater capacity and 9 class rooms of 60 seater capacity each. The Lab block of the L.H. Complex shall cater for facilities for Physics lab, Language lab, Graphic lab, Chemistry lab, Applied Mech. Lab, Bio Science lab, Electrical Engineering and Computer lab. The labs of various departments are being shifted and are expected to function from the next semester.

2. Construction of Engineering Block 99B and 99C

The conceptual design for the proposed Engineering Block 99B and 99C was placed before the B&WC and the same was accepted and approved. The two blocks shall be constructed on either sides of L.H. cum Lab Complex. The two blocks shall provide additional area for Labs, Workshops, Faculty rooms etc. The available floor area for Engineering Block 99B shall be 32,000 Sq.mt. and for Engineering Block 99C shall be 26,000 Sq. mt.

3. Development of Rajiv Gandhi Educational Centre Campus of IIT Delhi at Kondli, Sonipat

IIT was allotted 50 Acres of land in Rajiv Gandhi Educational City Kundli Sonipat. Compound wall construction was completed. The concept design and Expenditure Sanction for construction of Innovation Centre for Education has been approved. The Innovation Centre for Education will be having an approximate built up area of 33,500 Sq. mt. in Ground & Four floors and will be used for training of Faculty. The construction work has been assigned to M/s NBCC Ltd as deposit work. Work is in progress at site and basement and ground floor structural work has been completed as on date.

4. Construction of Golden Jubilee G.H. Keshwani Research Centre

The IITD alumnus Sh. G.H. Keshwani has agreed to donate funds for construction of Golden Jubilee G.H. Keshwani Research Centre at IIT Delhi. Approx. 11,000 Sq.mt. of area shall be constructed for research facilities at Ground + 6 floors. The Architect has prepared the submission drawings and the same is submitted to SDMC for necessary approval. The work shall be taken up for construction after obtaining statutory approvals.

5. Construction of Clean room on the Ground and First floors in block VI for Nano scale Research Facilities (NRF)

The renovation work for creating clean room on the ground and first floors in block VI for Nano scale research facilities (NRF) is completed and is being used by the Department.

6. Construction of Science and Innovation Park

The Institute is planning to set up a Science and Innovation Park to cater to the needs of R&D activities. The concept design and Expenditure Sanction for construction of Science and Innovation Park has been approved. The proposed Science and Innovation Park will be a 2 Basement + Ground + 6 Floors buildings with all state of the art facility for Research and Development Activity in IIT.

MAJOR NEW EQUIPMENTS INSTALLED

Department of Chemical Engineering

- Eppendorf Fermenter (ASR)
- Electrochemical Potentiostat/Galvanostat (MAH)
- Mass Spectroscope (SB)
- Screen Printer (SB)
- CHNO Analyzer

Department of Chemistry

- Tensiometer (SP)
- Benchtop Transmission electron Microscope (TEM) (SS Lab)
- GC-MS (Instrumentation Room)
- Gel Permeation Chromatograph (GPC) (Instrumentation Room)

Department of Civil Engineering

- 500 KN Hydraulic Servo-Controlled Actuator with Controller
- 500 Litre Concrete Mixing Machine
- Air Sampler Pump and Solid Sample Module
- Data Acquisition Systems
- Dynamic Shear Rheometer
- Fluid Friction in Pipes and Fittings
- Laser Doppler Velocimeter(LDV)
- Laser Particle Image Velocimetry (PIV) System
- Plaxis 3D Suite
- Pulser Receiver
- Solid Sample Module
- Stainless Steel Cyclone
- Video Conferencing Facility
- Weather Station and Weathering Monitor

Department of Computer Science and Engineering

- Additional Storage Disk
- Servers

Department of Electrical Engineering

- SDR Radio
- Dell Server
- 5 year Floating License Atlas Framework

- RT – Lab Series
- Special 5 user ICCAP University License
- Multicore Development Environment (JLS-MDE-h)
- Tilencore – GX36 Card
- Prcess Control Trainer with PID Unit
- DC Modular Servo System with Power Function Generator
- LCS – 100 Series small Area Solar Simulator
- R&S SMB40, SMB140, SMB26, SMB1H, SMB32
- 20GHz Vector Network Analyzer
- Target Machine for Real Time Simulation and Control
- Agilent 6GHz VNA
- Tektronix make Mixed Domain Oscilloscope
- Constant Temperature Chamber
- ACE Kits Advanced Control Education Kit
- AC Modular Servo System with Function Generator

Department of Management Studies

- Strategy & Competitiveness Lab: 6 Computers, System Dynamics Software (Vensim & I-Think)

Department of Mechanical Engineering

- Fine Gas Analyser with Smoke Meter
- IBM ILDE CP Lex Opt.Software
- Pressure Scanner
- Ether CAT/IO Drives & Motors
- Automation Modules
- Mass Flow Controller
- Video Based Contact Angle Measuring System (being installed)

Department of Physics

- Purchase of ppLN waveguide device unit
- Part of Ultra-Fast Optics group that installed the DST-FIST sponsored Femto-second Laser facility
- High Frequency probe station
- Ferromagnetic resonance set-up
- Three-Target magnetron sputtering system
- Variable temperature magnetotransport set up
- Low temperature Horiba JobinYuonLabRAM 800 Photoluminescence system

Centre for Applied Research in Electronics

- Agilent MXG Vector Signal Generator Model No. N5182B, May 2014

Centre for Atmospheric Sciences

- Albedometer

Centre for Biomedical Engineering

- Inverted brightfield and phase contrast microscope (Nikon), Dr. Sandeep Jha
- Fiber Optic Spectrofluorimeter (Ocean Optics), Dr. Sandeep Jha
- RF Hyperthermia Unit, Dr. Veena Koul

Centre for Energy Studies

- Impedance spectrometer for A.C. frequency analysis of solar cells with MNRE financial support

Industrial Tribology Machine Mynamic and Maintenance Engineering Centre

- EHL Ultra-fine thin film measurement rig
- Nano Particle Size Analyzer
- 'Goniometer'.
- Four Ball Tester

Centre for Polymer Sciences

- Flueroscene Spectrometer
- Vector Network Analyzer
- Keithley 4-probe Conductivity measurement apparatus
- Under Centre of Excellence or "Advanced Poly Materials"

Centre for Rural Development and Technology

- Lyophilizer
- Aqua pro multi parameter process analyzer
- Denaturing Gradient Gel Electrophoresis (DGGE)
- Microtiter Plate Reader

Amar Nath and Shashi Khosla School of Information Technology

- HP Elite desk 800 desktop - 12 no's
- 40 KVA online UPS (BPE Ablex)

EDUCATIONAL TECHNOLOGY SERVICES CENTRE

The Educational Technology Services Centre (ETSC) is actively engaged in promoting the use of Educational Technology at the Institute and also at the national level. Some of its major activities are:

- Design & Development of Instructional Resources - in the form of videos and web based material
- Provision and maintenance of Audio/Video equipment for classroom teaching.
- Organize training programmes for faculty and professionals across the country
- Video conferencing for faculty selection interviews and meetings
- E-learning and distance education
- Undertake sponsored research and consultancy projects
- Transmission of an independent 24 x 7 EKLAVYA technology channel to telecast video courses under NPTEL and other in-house programmes on EKLAVYA

Services Offered

The Centre has a modern video studio with recording and editing facilities. A studio-classroom with seating capacity of 60 is available for on-line recording of courses. Non linear editing set up and Apple Streaming server are available for post production and video streaming. ETSC takes care of the audio-visual needs of faculty and students. ETSC has procured and installed Sony ANYCAST system in the Video Studio and

in two lecture theatres for non liner editing and recording. In addition to equipping the classroom with these facilities, ETSC runs a loan service.

State of the art audio visual facilities has been designed for the new lecture hall complex. The facilities will include live video recording of lectures, tablets PCs for projection of the written lectures on the screens, document visualizers and microphone and speakers in the class rooms. This complex will become operational in the later half of 2015.

A media reference library with multiple viewing cabins has been set up in the Central Library for the use of students and faculty. The Educational Technology Services Centre has a computer laboratory with modern multimedia capabilities and internet connectivity. Computer Aided Instruction/ Computer Aided Learning courses/packages are developed in the computer laboratory. Learning materials generated by ETSC are disseminated at nominal price throughout the country and abroad.

The Centre conducts short courses and modular programmes on different aspects of educational technology for teachers from the Institute and from other educational institutions and industry institutions. These courses are designed to sensitize and guide the faculty to optimize their effort and time for classroom and laboratory instruction as well as professional development.

The Centre has the expertise and experience of undertaking national and international level consultancy and sponsored research projects. It has worked with agencies such as the World Bank, AT&T, AICTE, UNESCO, UNDP Commonwealth of learning, the British Council and Adis Ababa University, Ethiopia.

NPTEL Project

The NPTEL project funded by MHRD has been successfully completed. Under this programme, all the seven IITs and Indian Institute of Science have worked together to develop web and video based educational material for undergraduates courses initially in five disciplines, viz., Civil Engineering, Computer Science and Engineering, Electrical Engineering, Electronics and Communication Engineering and Mechanical Engineering. The web courses so developed are available through the various servers authorized by NPTEL. Phase II of NPTEL Project has also started where its sco pe has been further expanded to include more disciplines and advanced/ post graduate courses.

Video Conferencing and Outreach

Video Conferencing facilities have been installed in two lecture theatres and in the Conference Room of ETSC. The facility is being used for faculty interviews, meetings and distance education. For connectivity both ISDN and IP based network connection are used. For classes to Adis Ababa University (AAU), two lecture delivery rooms have been equipped with remote teaching facility. A dedicated two-way video link is also provided for live delivery from IIT Delhi to AAU, Ethiopia.

The new lecture rooms as temporary structures have also been equipped with audio/video, projection, distance education and recording facilities. In addition, three Virtual Classrooms are also being equipped under National Knowledge Network (NKN). Live classes ae run for IIT-Ropar, IIT-Mandi and Dayalbagh Educational Institute, Agra using the NKN.

ETSC is current run by a team of four faculty members. The current core committee of ETSC met on 6.2.2015 it was decided that was current core group may be extended to include the following Faculty members.

1. Dr. Kolin Paul, Computer Science & Engineering Dept.
2. Dr. S.Chaterjee, Electrical Engineering Dept.
3. Dr. S.Balaji, Applied Mechanics Dept.
4. Dr. Amit Gupta, Mechanical Dept.
5. Dr. Shalini Gupta, Chemical Dept.

NATIONAL RESOURCE CENTRE FOR VALUE EDUCATION IN ENGINEERING

The main mandate of this Centre is different from the Teaching and Research activities of other departments and centres. Thus, most of the heads under which the information has been asked are not applicable to us. Thus, the information is organised in a format more relevant to the Centre's activities.

1. Expanding the courses offered by NRCVEE :

Considering the fact that NRCVEE does not have any full time faculty, the centre decided to include some 1-credit special modules on broad topics of relevance to NRCVEE, under which a variety of courses can be offered by any visiting/guest faculty or any faculty member of the institute from any department/ centre or school. The following 1 credit modules were identified, which were subsequently approved by the senate.

a) VEV731 & VEV732 : Special Module on Inner Development 1 & 2
b) VEV733 & VEV734 : Special Module on Leadership 1 & 2
c) VEV735 & VEV736 : Special Module on Sustainability 1 & 2
d) VEV737 & VEV738 : Special Module on Civilization and Peace 1 & 2
e) VEV739 & VEV740 : Special Module on Professional Ethics 1 & 2

One 1 credit course on Professional Ethics was offered in II Semester 2014-15 by a senior alumnus of IITD, another one on Inner Development was offered in I Semester 2015-16 during August-September by a retired faculty and ex-Head of NRCVEE and third one on Sustainability is being offered by a Fulbright fellow from Arizona State University, USA.

2. Administration of the course on Professional Ethics and Social Responsibility:

The administration of this course takes major share of the time of the NRCVEE staff and the concerned faculty. In the period under consideration, the following were taken up for the PESR course.

(i) Preparing the framework for PESR components to be completed by the students after the first year. It was decided that apart from the compulsory courses NEN100 and NEN101, NEN200 (Professional ethics case studies) will be mandatory for all UG students to help them appreciate various dimensions of professional ethics. They would do this course in their 6th semester. Besides,

the students will choose one of the following : (a) NEN201 PESR Internships (b) NEN202 PESR Workshops (c) NEN203 PESR Projects. NEN201 will be done with NGOs. NEN202 will help students get an exposure to issues related to PESR through intense workshops conducted by experts. NEN203 will help the students understand the concerned issues through involvement in making the campus life more wholesome particularly for students.

(ii) Working out details related to the PESR for Courses of Study.

(iii) Hiring personnel for helping in various aspects of the course. Also, an Assistant Registrar was identified for taking care of implementation of the non-graded components.

(iv) Preparation for outsourcing design of activities for the NEN100 and NEN101 courses.

(v) Streamlining the conduction of the course so that faculty members for the course can be identified through departments/centres/schools.

3. Launching of the Vivekananda Study Circle on Oct 15, 2014.

With the initiative of several faculty members and students, a study circle bearing the name of Swami Vivekananda was launched as part of NRCVEE to bring together all those interested in spiritual discussions irrespective of the faith and religion. Several lectures have been organised under this banner:

- "Why study Vivekananda", Human Personality", "Modern Problems, Ancient Remedies", "Contentment vs. Development" by Pravrajika Divyanandaprana (monastic member of Sri Sarada Mission, Delhi).
- "Vivekananda : A historical perspective" by Mr. Sankar Sen, (Ex-IPS officer who served in the IB for 7 years. Additional DG of the BSF, Director of SVP National Police Academy, First DG of the National Human Rights Commission).
- "Thought vs. Memory" by Prof. Avadhesh Singh (former Director of IGNOU).
- "The Busy Trap" by Pravrajika Vivekaprana (secretary and monastic member of Sri Sarada.
- "Science and Religion" by Pravrajika Atandraprana (Assistant Secretary of Sri Sarada Mission, Dakshineswar).
- "Islam and Peace" by Dr. Farida Khanam (Associate Professor of Islamic Studies at Jamia Millia Islamia and the Chairperson of Centre for Peace and Spirituality, an organization founded by the world-renowned Islamic Scholar, MaulanaWahiduddin Khan).
- "Transforming Work into Yoga" by Swami Atmashraddhananda (senior monk of R.K. Mission and editor of Vedanta Kesari).

4. Regular Yoga Classes for campus residents: In August 2104, NRCVEE joined Board for Sports Activities (BSA) for starting regular yoga sessions in the morning as well as evening by trained yoga instructors. To ensure seriousness in the participants, these are paid classes with monthly registration. The classes have been running for more than a year now.

5. Meditation Workshops : Several one day workshops on "Mindfulness Meditation" were organised during the period. These workshops are very well attended by students, staff and faculty and are very well received.

6. Gandhi Jayanti Celebrations: Since 2012, Dean of Students' office and NRCVEE have bene jointly organising the institute function on October 2. In 2014, the theme of the function was "Gandhi to Gandhigiri". The salient features of the Gandhi Jayanti celebrations in 2014 were as follows:

- Bhajans and Sadbhavana Geet by institute community including students, staff and families of staff and faculty.
- Recognition of the work by the cleaning staff of the institute by presenting coupons of Rs 500 each to selected 30 contractual staff. These coupons could be used at the Khadi Gramodyog (KVIC) shop in the IITD campus.
- Distribution of small books on Gandhiji (in English as well as Hindi).
- Screening of films (Richard Attenborough's) "Gandhi" and "Lage Raho Munnabhai".

COMPUTER AND INTERNET SERVICE

The main objectives of the Computer Services Centre are to :

- Provide round the clock computing and networking facilities to serve a user population of more than 9000 users consisting of undergraduate, postgraduate, research scholars, faculty and staff of the Institute and provide advice on all the aspects of academic computing. The centre also participates in the Academic programmes of some of the departments and centres.
- Implement and maintain systems and application software.
- Implement and manage the Institute Network.
- Impart Introductory and advanced instructions to users.
- Work on cutting edge technology and provide the user community with services based on new technology.
- Provide support to Institute Computerization efforts.
- Computational labs facility to students for the conduct of UG/PG Lab courses.
- Do in-house development in IT related areas.

Activities undertaken during the year 2014-15

The following activities have been undertaken during the year 2014-15 :

- CSC has commissioned a new disaster recovery data centre (DRDC) in the SIT building on September 13, 2014. The DRDC has been built by IBM and can support a total IT load of 60 KW. It has redundant UPS power supplies and precision air conditioners in N+N and N+1configurations respectively. All the CSC infrastructure and ERP data (except Baadal and ACSS data) will be available live in two different locations - CSC and DRDC. The hardware details are:-
- Cisco UCS B200 M3: Two chassis with 16 blade servers each with 2 x 12 Cores Intel(R) Xeon(R) CPU E5-2695 v2 @ 2.40GHz ("Ivy Bridge" Generation) and 128 GB RAM. Each blade has five virtual NICs connected to two Fibre Interconnects with redundant paths.

- A new 40 Rack Data Centre in the ground floor of Library building is under construction which will have the IT infrastructure and a HPC facility. The Infrastructure Servers have become operational in June,2015 and by October, 2015 HPC will be operational.
- IITD has upgraded the routers and switches for internet access and in the core and distribution network, the existing multimode fiber has been replaced with new single mode fiber. The backbone is now ready for dual redundant connectivity and 10 Gbps. The core switches have been upgraded to Nexus -7010's in the DR site and in DC after DC becomes operational.
- CSC has created Health Graphs using RRD tools for monitoring the health status of the IITD Network switches, UPS etc. on the campus.
- Developed portal for Alumni Affairs & International Programs (AAIP), new websites of Mechanical Engineering department, Technical Education QIP and IIT Research Academy.
- During the past one year about eight MATLAB workshops have been conducted for the benefit of the Institute students and two Mathematica workshops have been conducted in the Seminar Hall.
- CSC has applied the recommended patches on all its servers to protect against the Shellshock bug vulnerability. CSC has carried out an audit to assess the vulnerability to the Heartbleed bug in OpenSSL in our services. Most of our services were not vulnerable to the bug but a few were. The recommended security patches have been applied to all the services managed by CSC.

Computing Facilities

- The Centre is equipped with 48HP blade servers (32 servers each with 2x6 core Intel(R) Xeon(R) CPU X5670 @ 2.93GHz and 16 GB RAM and dual 10Gbps ethernet and 16 servers each with 2x4 core Intel(R) Xeon(R) CPU E5540 @ 2.53GHz and 12 GB RAM and dual 1 Gbps ethernet) used for cloud computing with 55 TB of virtualized storage. There are 32 blade servers (Cisco UCS B200 M3: two chassis with 16 blade servers each with 2 x 12 Cores Intel(R) Xeon(R) CPU E5-2695 v2 @ 2.40GHz) ("Ivy Bridge" Generation) and 128 GB RAM. Each blade has five virtual NICs connected to two Fibre Interconnects with redundant paths with 50 TB of storage for User homes and Infrastructure services like email, proxy, web services etc.
- CSC also has 20 workstations for Simulation facility, and about 220 desktop computers connected over a switched fast Ethernet. Uninterrupted Power Supply is provided through 3x80 KVA MGE UPS system and DG set.

HPC CUDA cluster

The Centre also has a CUDA based high performance computing GPU mini-cluster environment of 16 nodes, each with 2x8 core ES-2670 (Sandybridge) CPU, 64 GB RAM and 2xNvidia K20 GPUs. The nodes have 64Gbps IB interconnect. Very soon within next few months this will be extended to 750 Tera flops system in the new Data Centre.

Storage Servers

The storage server Netapp FAS3250, HP EVA6400 and NetApp V3210 have usable space of 69TB , 70TB. NetApp v3210 and 55TB respectively.

Major Facilities/Services

- The Email facility is provided to all students, staff and faculty with webmail interfaces Roundcube and Squirrel mail using User and mailing list definitions from the IITD LDAP and Kerberos for user authentication.
- The CSC provides Infrastructure services through virtualization technology.
- Compute facilities for research and projects are provided through the Baadal, the cloud computing environment.
- The Centre maintains local repositories of several popular open-source and commercial licensed software.
- The CSC has Microsoft Volume Licensing EES agreement for the Campus under which Microsoft software are available for use.
- The Centre has the following software packages: Matlab, Mathematica, Abaqus, Ansys, Fluent, Comsol, Visual Studio etc.
- IITD campus Wifi Service – IITD_WIFI1, IITD_WIFI2, IITD_WIFI3 and IITD_Guests are available in the academic area, guest houses. The campus Wi-fi provides secure wi-fi access using 802.1x authentication. IIT Delhi is in the process of replacing the current WIFI solution with the CISCO WIFI solution within next few months.
- IIT Delhi is also a part of Eduroam, a global Wifi roaming programme across academic campuses through ERNET India.

Web Services

- Virtual web hosting facility can be used for securely hosting all websites of the form http://xyz.iitd.ernet.in which are not maintained by CSC.
- Network Time Protocol (NTP) servers are available for use. These time servers are synchronized with standard internet time servers with time drift less than a few milliseconds.

PC Services

There are five PC Labs in the Centre having 212 Desktop computers under Windows and Linux environment. The PC Labs I, II, III and IV have 152 computers running Ubuntu 14.10 and PC Lab-V has about 60 computers running Windows 7. The PC Labs I, II having Linux systems and the main Hall housing Windows machines are open round-the-clock for authorized users from April, 2014.

Simulation Lab

The simulation lab is equipped with 20 Dell workstations under Windows 7 for CAD/CAE/CUDA and High Performance Computing (HPC).

Network Services

The Institute LAN is a state of the art switched network with Fiber Optics and enhanced CAT5/CAT6 UTP backbone. It consists of more than 9000 network access points spread over the campus using about 175 Cisco switches and about 75 virtual LANs. Network access is provided to every student, faculty, Doctor, Laboratory and rooms in guest houses. Internet connection has been provided through a router, redundant firewall switching modules, 4x2Mbps leased circuits from VSNL, 1x2 Mbps circuit from ERNET and 1 Gbps (1:4) internet leased circuit. The CSC network backbone is of 10 Gbps. The storage servers are connected to the backbone using multiple 10 Gbps and 1 Gbps (port channel/link aggregation and redundant) paths. The CSC backbone supports multiple VLANs for security of the infrastructure and computing clouds.

Internet and Intranet access is provided to faculty/officer homes via ADSL connectivity over internal telephone lines. The academic area is also connected through secure Wi-Fi. An independent network has been provided for administrative functions. Many network services including mail, web, domain name, and anti-virus are being provided over this network. IIT Delhi is connected to the National Knowledge Network (NKN) with 1Gbps dual connectivity from PowerGrid and RailTel. This connectivity provides virtual routing service for Garuda Network, Internet Connectivity, and connectivity with other Institutes connected on the NKN backbone.

CENTRAL LIBRARY

The IIT Delhi Library System comprises of a Central Library and 18 departmental libraries that collectively support the teaching, research and extension programmes of the Institute. All students, faculty and employees of the Institute are entitled to make use of the Library facilities. The Alumni of the Institute are also entitled to Library services provided they are members of the Institutes Alumni Association. Similarly, industrial establishments can avail the Library services on taking corporate membership of the Library. Library consultation facilities are extended to faculty, students of outside organizations and the wards of IIT faculty and staff on their request. Retired teaching and non-teaching staff members can also avail Library facilities. The Library has over 9500 registered members.

Library Hours

The Library remains open throughout the year except on six days, namely; Republic Day, Independence Day, Dussehra, Diwali, Holi, Mahatma Gandhi's Birthday and any other holiday declared as a special holiday. The book stack area at 1st floor and Ground floor is open from 9:00 AM to 9:00 PM (Weekdays) and 10:00 AM to 6:30 PM (Weekends & Holidays). Reading Area at Ground floor and 2nd Floor is open 24x7.

Library Resources

a. Collection

The Central Library, IIT Delhi has a strong collection pertaining to physical sciences, engineering and technology, biotechnology, computer and information technology, social sciences and management.

As on 31st March 2015, the collection of the Library is as follows:

Books	1,72,469
Journals (Bound Volume)	1,05,765
Theses	4,703
Video Cassettes	1,800
CDs	5,550
Books in Text Book & Book Bank	22,638
Online Electronic Journals	10,000
Online Databases	4
CD-ROM Databases	2

b. Video Library

The Library is equipped with video viewing facility and has a collection of more than 2,500 CDs and kept in the Computer Application Division of the Central Library for viewing

c. Reference Collection

The Library maintains a separate reference collection consisting of encyclopedias, dictionaries, handbooks, technical data, almanacs, atlases, bibliographies, etc.

d. Hindi Collection

The Central Library has built up a good collection of books in Hindi. Books in Hindi include books on various subjects being taught and researched at the Institute as well as books on literature in Hindi. Books in Hindi are prominently kept near the reference area in the Library to promote its usage. To increase the use of Rajbhasha Hindi, Central library offers borrowing facility of one extra Hindi Book to all its members apart from their entitlement.

Electronic Journals and Online Bibliographic Databases

The Library subscribes to 441 current journals (online) and 30 online packages(Current and Archives) which are also accessible online from the publishers' web site. Links to these electronic journals are available through the Library web site as well through the Library Web OPAC. More than 1 lakh bound volumes of journals are available in print form.

Besides, the Institute has access to over 15,000 full-text electronic journals and 6 bibliographic databases from a number of publishers and aggregators through the INDEST-AICTE Consortium. The INDEST-AICTE Web Site (http://paniit.iitd.ac.in/indest) hosts search and browse interface to locate these journals and their URLs. Details of resources made accessible to IIT Delhi through the Consortium along with their URLs are given in "Library Reference Guide" and on the Library & INDEST websites. Tutorials on e-resources accessible through

the INDEST-AICTE Consortium are available on the INDEST-AICTE Web Site and are also published in "Compendium for the Members of the INDEST-AICTE Consortium".

a. E-Resources available through Central Library

- Online Miscellaneous Journals
- Lecture Notes in Computer Science, Mathematics and Physics (Vol.1/1969-Vol. 476/1996)
- ACS Archives
- American Mathematical Society Journals
- American Meteorological Society Journals and Archives
- ASME Digital and Archives
- Availability of Hindi on the Internet
- Cambridge University Press HSS and S&T package
- E-Books from Textbooks Section
- EBSCO Textile & Technology Complete
- I.C.E. and their Archives
- Imech E Publications Current
- INFORMS Current Journals
- IoP Science and their Archival collection
- ISI Emerging Markets [Tutorial]
- JSTOR [Tutorial]
- Oxford Journals on Mathematics, Life Science, Humanities and Social Science
- Project MUSE Journals
- RSC Journals Archive Titles (1841 - 2004)
- Sage HSS & Management Journals and their Archives
- Science (Current and Archives)
- SIAM Journals and their Archives
- Taylor & Francis, Current Core Science & Technology Titles+ Chemistry Backfiles
- Wiley Journal Titles
- World Scientific Publication Mathematics
- World Textiles

b. E-Resources available through INDEST-AICTE Consortium

- ABI / Inform Complete
- ACM Digital Library
- AIP/APS Journals
- ASCE Journals
- ASME Journals (+ A M R)
- ASTM Standards & Digital Library
- Capitaline
- EBSCO Databases
- Elsevier's Science Direct
- Emerald Full-text
- Euromonitor (GMID)
- IEEE / IEE Library Online (IEL)
- INSIGHT
- Nature
- Optical Society of America (OSA)
- ProQuest Science
- Springer Link
- MathSciNet

c. Electronic Books

The Institute has access to electronic books from the following publishers / aggregators:

- Elsevier Book Series on Chemistry, Business, Management & Economics, Life Sciences and Methods in Enzymology through the Science Direct (http://www.sciencedirect.com)
- Springer's Electronic Books (about 100 e-books) (http://ebooks.springerlink.com)
- Wiley InterScience Electronic Books (about 100 e-books)
- Myilibrary
- E-Text Books (38 books)

Computer and Networking Facilities

The Library has its own sub-LAN, which, in turn, is connected to the Campus LAN. It has over 100 PCs and eight servers spread over three floors of the Library.

The Library is a part of fibre optic-based campus-LAN. Of 100 PCs in the Library, 70 Internet-enabled PCs are exclusively devoted for the Library users. As a member of the DELNET, the users can access databases offered by the DELNET. The Library Home Page provides a link to the DELNET database.

a. Computerization of In-house Activities

All in-house activities in the Library including Acquisition, Cataloguing, Circulation and Serials Control are fully computerized using Libsys Software Package. The Online Public Access Catalogue (OPAC) of the Library is operational both on Intranet and Internet. It can be accessed online to search more than 1,75,000 bibliographic records, available in the Library database through a web-based search interface or with a window client of the Libsys on Intranet as well as on Internet. The editing and updation activities are done on regular basis. Besides, the Central Library has two in-house databases for specialized collections. These databases include: Database of Ph.D. theses submitted to the IIT Delhi and Database of research articles by the faculty and researchers of the Institute.

The Library uses bar-code technology for computerized circulation system. Every document in the Library (except reference sources and bound volumes of journals) bear a bar-code tag that facilitates identification of document and the borrower in the circulation process. Similarly, all categories of users have a bar-coded patron cards. The Library has developed in-house facility for bar coding of books and patron cards

b. RFID Implementation in the Library

The Library also has the Radio Frequescy IDentification (RFID) based system. It is the best automated library automation system used world wide and is an effective way of managing collections of the library and providing enhanced services to the users having benefits like: self check-out of books, self-check-in (book drop), to control theft, to find misplaced reading material, sorting, inventory accuracy, stock verification procedures, security control, video surveillance, people counter, Smart Card issuance, etc. It is an automatic data capture technology that uses tiny microchips and miniature antennas affixed to documents. RFID plays a vital role in redefining the library processes to make everyone's job easier right from the users to library staff.

Library Services and Facilities

a. Reader's Assistance

The Library provides assistance to its users ranging from location of a book to finding specific information required by a user. A suggestion book is maintained with Incharge, Reader's Services where the users of the Library can suggest measures for improvements in its facilities and services.

b. Circulation of Books and Library Membership

The Library members, according to their borrowing category can borrow stipulated number of books at a time against their bar-coded patron card. During the period under report, about 70,000 volumes were borrowed by the members of the Library from general collection.

c. Inter Library Loan (ILL) and Resource Sharing Facility

The Library arranges books and journals from other libraries in Delhi on Inter Library Loan (ILL). Photocopies of research articles are also arranged from other IITs under a resource sharing agreement signed by all IITs. The Library also facilitates Demand based procurement of research publications, photocopies of research articles, etc. from other IITs and institutions in Delhi as well as from other parts of India on reciprocal basis.

d. Database of Ph.D. Theses Submitted to the IIT Delhi

The library has in-house design and developed PhD theses database. Contains approximately 5000 bibliographic records of Ph.D. theses submitted to the IIT Delhi. In the year 1966 the first Ph.D. has awarded after that number of Ph.D. research has been continuously increseing every year till dated. The Database developed and maintained in MySQL Database and programmed using PHP language to facilitate access on the Intranet and Internet.

e. Photocopying Facility

The Library provides photocopying facility within its premises through an external vendor on payment basis.

f. Book Bank Facilities

The Book Bank holds multiple copies of selected textbooks for making them available to the students for the entire period of a semester. During the period under report, approximately 800 students (including SC/ST students) availed the benefit of book bank scheme.

g. Text Books Facilities (Print and Online)

The text books are most useful collection of the library especially for course/syllabus related reading. The section has approximately 10,000 syllabus related text books. The books for this section are purchased generally on the recommendations from different faculty members through the concerned Heads of the Department. The timings for issuing the books from the Text Book Section are from 2 PM to 5 PM during Monday to Friday and the same are issued for overnight only (for one day). The books of this section may be returned back during 9 AM to 1 PM only. A maximum total of 2 of books are issued from the section at a time. The Central Library also has 35 e-textbooks for undergraduate students and the same are accessible in the campus through library website - http://library.iitd.ac.in/index.php/e-resourc/e-textbooks.

h. Theses Consultation Facilities

Central Library receives all the Ph.D. Theses awarded by IIT Delhi in Hard copy along with their CDs. Print copies of theses are housed in Text Book & Book Bank Section located at the ground floor of the library for consultation purpose only. The abstracts of theses are made available through library Online Public Access Catalog (OPAC) -http://libcat.iitd.ac.in:8080/jopacv11/html/ and also through another interface especially designed for searching the theses at: http://library.iitd.ac.in/thesis.

Web-based Computerized Services from the Library

The Central Library offers the following services to the Institute:

a. Network-based CD ROM Search Services

The Library has complete collection of Indian Standards and ASTM Standards on CD ROM that is available on the Campus network. The resources can be accessed on the Intranet at the URLs given below or through library website at http://library.iitd.ac.in:

- Indian Standards
  http://10.116.2.102/bis/
- ASTM Standards
  http://10.116.2.102/astm/
- IEC Standards
  http://10.116.2.102/iec/

b. Institutional Repository at IIT Delhi (http://eprint.iitd.ac.in/dspace/)

The Eprints @ IIT Delhi has been set-up to host full-text of research publications of faculty and researchers of the IIT Delhi using Dspace, an open source Digital Library software developed by the Massachusetts Institute of Technology. The Dspace supports the Open Archives Initiative's Protocol for Metadata Harvesting (OAI-PMH), an internationally recognized protocol and interoperability standard. The Eprints@IIT Delhi provides a platform for faculty and researchers to deposit,

reuse and share their research publications. The repository also has the ability to capture, index, store, disseminate and preserve digital materials created in any part of the Institute. Faculty and researchers can register themselves with the digital repository and submit their pre-prints (pre-refereed version of an article), post-prints (post-refereed final version) and publisher PDFs (if allowed by the publisher). The repository has around 2,100 full-text research articles.

INDEST-AICTE Consortium

The "Indian National Digital Library in Engineering Sciences and Technology (INDEST) Consortium" was set-up in 2003 by the Ministry of Human Resource Development (MHRD) on the recommendation of an Expert Group appointed by the Ministry. The IIT Delhi has been designated as the Consortium Headquarters to coordinate its activities. The Consortium enrolls engineering and technological institutions as its members and subscribes to electronic resources for them at discounted rates of subscription and favourable terms and conditions. The Ministry provides funds required for subscription to electronic resources for 65 centrally-funded Government institutions including IITs, IISc Bangalore, NITs, IIITs, IIMs and few other Institutions that are considered as core members of the Consortium. The benefit of consortia-based subscription to electronic resources is not confined to its core members but is also extended to all educational institutions under its open-ended proposition. 94 Govt. / Govt.-aided engineering colleges are provided access to selected electronic resources with financial support from the AICTE. The Consortium was re-named as INDEST-AICTE Consortium in December 2005 with the AICTE playing a pivotal role in enrolling its approved engineering colleges and institutions as members of the Consortium for selected e-resources at much lower rates of subscription. Presently, Prof. R.K. Shevgaonkar, Director, IIT Delhi is the Chairman of the National Steering Committee of the INDEST-AICTE Consortium, which formulates guidelines for the Consortium and Prof. B.D. Gupta is National Coordinator, INDEST-AICTE Consortium.

MECHANICAL FABRICATION FACILITY (IDDC)

The Mechanical Fabrication Facility was a Central Facility located at IDDC Centre to cater to the entire post graduate mechanical fabrication needs of the institute. However, it is under re-organization and is being clubbed with Central Workshop.

CENTRAL WORKSHOP

Central Workshop is one of the pivoting units of the institute which teaches conceptually "how" a product comes to its present form by way of imparting core manufacturing education to all the first year students of IIT Delhi. It also provides product manufacturing support to entire institute community in general and undergraduate students in particular. More than 900 undergraduate students in their first year acquire hands-on manufacturing skills in this Central Workshop. The Central workshop not only introduces art and science of manufacturing but also infuses confidence to take up product design and manufacturing activities in future. Central Workshop is also a place where B.Tech students of Mechanical Engineering and B.Tech students of Production & Industrial Engineering acquire training and knowledge in specialized areas of manufacturing like Metal Casting, Metal Forming, Metal Machining, Welding & Joining, Metal Forging Woodworking, CNC programming and 3D Printing, Plastic Product manufacturing etc. M.Tech. students of Production group also use central workshop facilities for their practical classes in various courses as well as for project and research work.

The central workshop is fully equipped with latest power tools, equipments and facilities in all areas of manufacturing technologies. It also caters to the fabrication needs of students doing product design & manufacturing courses, minor projects, B.Tech, project, Masters thesis and Doctoral research. Large numbers of students use this facility to build products and compete at national and international level product building competitions like Formula student car, mini Baja, Robocon etc. The facility can also be used by external agencies for their manufacturing and training needs during the vacation period.

Central workshop has undertaken efforts to reorganize, modernized and prepare it for continuously changing global manufacturing scenario. Efforts are also on to prepare students for a broader view of manufacturing which involves planning and deploying optimum ways to transformation of raw material into goods by integration of people, capital, processes, systems and enterprises to deliver products of value to the society.

A new shop 'CNC Learning' is created in 2013-14 to imbibe product realization through computer generated geometries. A rapid prototype model can also be visualized by use of state of art 3D Printing technology in this new shop of Central Workshop.

IIT HOSPITAL

The Institute has a computerized hospital centrally situated in the campus, headed by the Head Hospital Services with a team of 9 full-time Medical Officers and 2 medical officer (on Contract). The Hospital is also visited by part-time specialists from All India Institute of Medical Sciences in the fields of Orthopaedics, ENT, Ophthalmology, Skin disease, Radio Diagnosis, Psychiatry, Endocrinology, Cardiology and Neurology. It provides facilities for OPD and limited In-Patient treatment. The Hospital is well equipped to take care of primary emergencies. It has a Dental Unit, a Pathology Lab, and an Radio diagnosis unit which undertakes routine radiography and ultrasonography

There is also a Physiotherapy Unit with modern equipment. The Electrocardiogram (ECG) facility is available in the OPD and Emergency. The emergency medical facilities are available round the clock. Some of the new initiatives taken in this year to improve the efficiency of the hospital are as under:

- Construction of New OPD Block having 11 new OPD Rooms, new Dental OPD clinic and centrally located patents waiting hall of 1600 sq. ft. seating capacity of 140.
- Number of patients booked and seen by each doctor is displayed on online basis.
- The hospital OPD services are increase from 40 hours to 73 hours per week.
- A chemist shop has been established, for easy availability of medicines at discounted rates.

The Institute has a medical Insurance scheme (see section 7.18) that provides cashless facility for indoor admissions in panel hospital.

Hospital Statistics 2014-2015	
Patients Attended in OPD	98,073
X-Ray	2,589
Ultra Sound	410
Patients Admitted	311
Physiotherapy	4,223
Surgical Dressing	3,127
Dental Treatment	4,193
Pathology Lab Test	36,131
ECG	1,679

Hospital Facilities

a. OPD facility

Hospital has a large new OPD complex with excellent waiting facilities for patients where, prompt OPD services are provided by doctors. There is also a waiting hall with chairs, a TV, public utilities like drinking water and toilets. Wheel chairs, trolleys and attendants are there to help very sick patients.

b. Dental facility

Dental surgeon carries out procedures like Dental extractions, scaling /cleaning, extractions, fillings, & RCT.

c. Ward/ Indoor facility

Patients are kept for observation and admitted for treatment of medical problems like typhoid, acute gastroenteritis, COPD, bronchial asthma, malaria, Dengue pneumonias etc.

d. Minor OT

Minor surgical procedure like dressing of lacerated wound, suturing of minor lacerations & resuturing, excision of corns and sebaceous cysts are done.

e. Physiotherapy

Physiotherapy services are provided for a wide range of musculoskeletal painful disorders. Modalities available are MWD, SWD, U/S, TENS, IFC laser therapy traction unit, magnolia.

f. Laboratory services

Trained laboratory staff are conducting basic blood urine & stool tests during week days. Services of one NABL accredited laboratory are also available for carrying out specialised tests.

g. Pharmacy

Well equipped pharmacy (Allopathic & Homoeopathic) provides free reliable quality medicines to beneficiaries on doctor's prescription during OPD hours (8 AM to 8PM).

h. Radiology / X-ray facility

X-Ray pleophos-D, 300 MA Siemens available, X-rays done on all working days during OPD hours. Sonoline G-50 U/s machine Siemens ultrasound is available and ultrasounds are done once a week by visiting specialist

i. ECG services

24hours ECG services, including machine report, carried out by tranined staff.

j. Ambulance services

24 hours patient transport vehicle available.

k. Specialist OPD services

Expert specialists from AIIMS from various specialities visit the IIT Hospital in the evening 5.30 -7.30 pm

OTHER CENTRAL FACILITIES

In addition, several other central facilities during the given period located in various Departments and Centres are as mentioned below :

1. Rapid Prototyping: Can automatically construct physical models of Computer- Aided Design (CAD) data.
2. Super Computing Facility for Bio-informatics & Computational Biology.
3. MALDI/MS-MS:- MALDI/MS-MS houses QSTAR XL Pro system. A quadrupole LINAC collision cell is available in the system which follows the first mass filter and is used for efficient MS/MS fragmentation.
4. SEM:- The SEM Central Facility is equipped with following equipments:
   - ZEISS EVO Series Scanning Electron Microscope Model EVO 50
   - Bruker-AXS Energy Dispersive X-ray System (model Quan Tax 200). Ultra-microtome (Leica EM UC6).
   - Polaron Gold/Silver Sputter Coating unit.
5. High Resolution NMR Spectrometer.
6. ESCA/UPS/AES facility:- ESCA/UPS/AES facility installed in 2007 is used for surface characterization.
7. GC- MS System:- GC-MS System perform Qualitative and Quantitative measurement of organic molecules.
8. Glass Blowing Workshop.

New Initiatives

(April 1, 2014 - March 31, 2015)

NEW COURSES PROPOSED/INTRODUCED

During the period, the following new courses have been proposed/ developed/initiated :

Department of Chemical

- Principles of Electrochemical Engineering CLL720 (3-0-0), for UG/PG, Developed by Prof. S. Basu, Dr. Anupam Shukla, Dr. Anil Verma, Dr. M. A. Haider
- Electrochemical Methods CLL721 (3-0-0), for UG/PG, Developed by Prof. S. Basu, Dr. Anupam Shukla, Dr. Anil Verma, Dr. M. A. Haider
- Electrochemical Conversion and Storage Devices CLL722 (3-0-0), for UG/PG, Developed by Prof. S. Basu, Dr. Anupam Shukla, Dr. Anil Verma, Dr. M. A. Haider
- Introduction to Complex Fluids CLL771 (3-0-0), for UG/PG, Developed by Dr. Gaurav Goel, Dr. Shalini Gupta, Dr. Paresh Chokshi, Dr. Jayati Sarkar, Dr. Sanat Mohanty, Dr. S. K. Pattanayek, Prof. Rajesh Khanna
- Transport Phenomena in Complex Fluids CLL772 (3-0-0), for UG/PG): Developed by Dr. Gaurav Goel, Dr. Shalini Gupta, Dr. Paresh Chokshi, Dr. Jayati Sarkar, Dr. Sanat Mohanty, Dr. S. K. Pattanayek, Prof. Rajesh Khanna
- Thermodynamics of Complex Fluids CLL773 (3-0-0), for UG/PG, Developed by Dr. Gaurav Goel, Dr. Shalini Gupta, Dr. Paresh Chokshi, Dr. Jayati Sarkar, Dr. Sanat Mohanty, Dr. S. K. Pattanayek, Prof. Rajesh Khanna
- Simulation Techniques for Complex Fluids CLL774 (3-0-0), for UG/PG, Developed by Dr. Gaurav Goel, Dr. Shalini Gupta, Dr. Paresh Chokshi, Dr. Jayati Sarkar, Dr. Sanat Mohanty, Dr. S. K. Pattanayek, Prof. Rajesh Khanna
- Polymerization Process Modeling CLL775 (3-0-0), for UG/PG, Developed by Dr. Gaurav Goel, Dr. Shalini Gupta, Dr. Paresh Chokshi, Dr. Jayati Sarkar, Dr. Sanat Mohanty, Dr. S. K. Pattanayek, Prof. Rajesh Khanna
- Granular Materials CLL776 (3-0-0), for UG/PG, Developed by Dr. Gaurav Goel, Dr. Shalini Gupta, Dr. Paresh Chokshi, Dr. Jayati Sarkar, Dr. Sanat Mohanty, Dr. S. K. Pattanayek, Prof. Rajesh Khanna
- Complex Fluids Technology CLL777 (3-0-0), for UG/PG, Developed by Dr. Gaurav Goel, Dr. Shalini Gupta, Dr. Paresh Chokshi, Dr. Jayati Sarkar, Dr. Sanat Mohanty, Dr. S. K. Pattanayek, Prof. Rajesh Khanna
- Instrumentation and Automation CLL361 (1-0-3), for UG/PG, Developed by Dr. Munawar A. Shaik
- Advanced Process Control CLL783 (3-0-0), for UG/PG, Developed by: Dr. Munawar A. Shaik
- Process Modeling & Simulation CLL784 (3-0-0), for UG/PG, Developed by Dr. Munawar A. Shaik
- Evolutionary Computation CLL785 (3-0-0), for UG/PG, Developed by Dr. Munawar A. Shaik, Dr. M.C. Ramteke
- Air Pollution Control Engineering CLL725 (3-0-0), for UG/PG, Developed by Prof. Shantanu Roy, Dr. Divesh Bhatia
- Petroleum Reservoir Engineering CLL705 (3-0-0), for UG/PG, Developed by Dr. Jyoti Phirani
- Petroleum Production Engineering CLL706 (3-0-0), for UG/PG, Developed by Dr. Jyoti Phirani

Department of Chemistry

- Biosynthetic Approach Towards Natural Products
- Food Chemistry and Biochemistry
- Molecular Modelling & Simulations: Concepts & Techniques

Department of Civil Engineering

- Several new courses have been developed by the Civil Engineering Department in the new undergraduate and postgraduate curriculum

Department of Electrical

- ELL301- Electrical and Electronic Instrumentation
- ELL231- Power Electronics and Energy Devices
- ELP305 - Design and System laboratory
- ELL312 - Semiconductor Process Technology
- ELL333 - Multivariable Control
- ELL409 - Machine Intelligence and Learning
- ELL410 - Multicore Systems
- ELL437 - Switched Mode Power Conversion
- ELL436 - Digital Control
- ELL704 - Advanced Robotics
- ELL705 - Stochastic Filtering and Identification
- ELL762 - Intelligent Motor Controllers
- ELL707 - Systems Biology
- ELV700 - Special Modules in Systems and Control
- ELL756 - Special Electrical Machines
- ELL754 - Permanent Magnet Machines
- ELL766 - Appliance System
- ELL450 - Selected Topics in AE – I
- ELV750 - Special Modules in AE – I
- ELL772 - Planning and Operation of Smart Grid
- ELL765 - Smart Grid Technology
- ELL417 - Renewable Energy Systems
- ELL771 - Special Topics in SG&RE – I
- ELV451 - Special Modules in SG&RE – I
- ELL743 - Photovoltaics
- ELL757 - Energy Efficient Motors
- ELL763 - Advanced Electrical Drives
- ELL797 - Energy Efficient Computing
- ELL721 - Power Aware Communication
- ELL408 - Low Power Circuit Design
- ELL452 - Special Topics in EET –I

New Initiatives

- ELL752 - Special Modules in EET – I
- ELL764 - Electric Vehicles
- ELL750 - Modeling of Electrical Machines
- ELL755 - Variable Reluctance Machines
- ELL454 - Special Topics in ET – I
- ELV753 - Special Modules in ET – I
- ELL748 - System-on-Chip Design and Test
- ELL740 - Compact Modeling of Semiconductor Devices
- ELL736 - Solid State Imaging Sensors
- ELL749 - Semiconductor Memory Design
- ELL741 - Neuromorphic Engineering
- ELL747 - Active and Passive Filter Design
- ELL733 - Design ASIC Design
- ELL455 - Special Topics in V&ES – I
- ELV730 - Special modules in V&ES – I
- ELL732 - Micro and Nanoelectronics
- ELL739 - Advanced Semiconductor Devices
- ELL738 - Micro and Nano Photonics
- ELL744 - Electronic and Photonic Nanomaterials
- CRL707 - Human and Machine Speech Communications
- ELL794 - Human-Computer Interface
- ELL795 - Swarm Intelligence
- ELL796 - Signal and Systems in Biology
- ELL788 - Computational Cognition and Perception
- EEV704 - Selected Topics in Computers – I – "SDN : Software Defined Networking" taught by Prof. SubratKar

Department of Humanities and Social Sciences

- HUL821 - Performance/ Theatre: Theory/Practice

Department of Management Studies

- Three new MBA Programes initiated – MBA Full Time, MBA Full Time (Telecom) and Executive MBA (Technology Management)
- 60 courses have been added / revised in the new curriculum designed for MBA, MBA (Telecom) and MBA (Technology Management)

Department of Mechanical Engineering

- MCP 101 - Product Realization by Manufacturing (A core course for UG)
- MCL750 - Product Design & Manufacturing (An elective course for students of all branches)
- MCL 799 - Entrepreneurship (An elective course students of all branches)

Department of Physics

- PYL 100 - Electromagnetic Waves & Quantum Mechanics
- PHL 792 - Optical Electronics
- PHL727 - Energy Materials and devices (PG)
- PYL 302 - Nuclear science and engineering (UG)

Department of Textile

- Supply chain management in Textile Industry, for UG/ PG, developed by Abhijit Majumdar
- NPTEL course on "High Performance and Speciality Fibres" developed by Dr. Manjeet Jassal
- NPTEL course on "Fabric Manufacture - I" developed by Dr. Abhijit Majumdar

Centre for Biomedical Engineering

- BMV700 - Biomechanical Design of Medical Devices course developed by Dinesh K.
- BML750 - Point of care medical diagnostic devices course developed by Sandeep K. Jha
- BML770 - Fundamentals of Biomechanics course developed by Dinesh K.
- BML735 - Biomedical signal and Image Processing course developed by Anup Singh & Amit Mehndiratta
- BML720 - Medical Imaging course developed by Anup Singh & Amit Mehndiratta
- BML736 - Mathematics for Biomedical Engineers course developed by Anup Singh
- BML790 - Modern Medicine: An Engineering Perspective course developed by Amit Mehndiratta

Instrument Design & Development Centre

- Five hour module for free hand sketching for 1st year UG students was developed and delivered to 900 students covering both the semesters in academic session 2014-15. The sessions were delivered in August 2014 and January 2015 respectively

Centre for Polymer Sciences

- Polymer Blends and Composites
- Biopolymers and Biodegradable Polymers

School of Biological Sciences

- SBL100 - Biology for Engineers

NEW MOUS SIGNED BY THE INSTITUTE

A) Memorandum of Understanding

Inorder to have close cooperation in the field of teaching and research, the Institute has signed MoUs / Agreements with Institutions / organization in India and abroad. Currently there are 105 MoUs with foreign Institutions / Organizations and 69 MoUs with Indian Institutions / organizations. The objectives of these MoUs include exchange of students and faculty, joint research activities and fellowships for training at doctoral and postdoctoral level etc.

During the period under report the Institute has signed the MoUs with the following Institutions/ Organizations:

National

1. C-DAC, Pune
2. NIFTEM, Sonepat
3. Jawahar Lal Nehru University
4. Sify Technologies Ltd, Chennai
5. Engineers India Ltd, New Delhi
6. Savitribai Phule Pune University

7. Google India Pvt. Ltd.
8. Institute for Plasma Research, Gandhinagar
9. National Brain Research Centre, Manesar
10. BHEL
11. NITIE Mumbai
12. MHRD under the scheme "Establishment of Centres of Excellence for Training and Research in Frontier areas of Science and Technology (FAST).

International

1. ST Engineering Ltd., Singapore
2. University of Sao Paulo, Brazil
3. Ghent University, Belgium
4. University of Oldenburg, Germany
5. Alliance 4 Universities, Spain
6. Chalmers University, Gothenburg
7. Tel Aviv University, Israel
8. Kyushu Institute of Technology, Japan
9. University of Edinburgh, UK
10. University of Technology (TUT), Pretoria, South Africa
11. Aizu University, Japan
12. National Tsing Hua University, Taiwan
13. Loughborough University, UK
14. Riga Technical University, Latvia
15. Delft University of Technology, Netherland
16. Hogskole I Gjovik, Norway
17. Aksum University, Ethiopia
18. University of Gothenburg, Sweden
19. KTH Stockholm, Sweden
20. University of Leibniz Hannover, Germany
21. Technological Units of Santander (UTS), Colombia
22. UIT the arctic University of Norway
23. HOGSKOLE I GJOVIK

B) Institutions of Chairs

The Industry and the alumni of the Institute have extended significant support to the Institute for its academic and research programmes by way of instituting chairs in various fields. As on date, 38 Chairs are functional at the Institute.

C) Scholarships/Medals/Awards/Fellowships

To encourage and to provide financial assistance to needy students of the Institute, individuals, trusts and organizations have been instituting scholarships etc. At present there are 178 awards/ scholarships/medal being given at Undergraduate and Postgraduate levels. In addition the Institute has a "Loan Scholarship Scheme" which makes it more affordable for the students in comparison to taking loan from the banks.

During the period under report following scholarships have been instituted:

1. Ganga Devi and Khem Chand Memorial Award
2. Prof. B. Karunes Memorial Award
3. Prof. A. K. Sinha Award
4. Prof. C. S. Jha Memorial Excellence Award
5. Dipak Sengupta Memorial Award
6. Leela Khushiram Award

D) New faculty research grant

To encourage the new faculty for developing research facilities in the area of their expertise, during the period under report the Institute allocated a sum of Rs. 317 lakhs.

BOOK PUBLISHED

- "Graphene: A potential candidate for PEM fuel cell components: development, characterization and performance evaluation" Scholar's Press, (2014) (ISBN-978-3639661972), Dr. Anil Verma, Dr. A. Ghosh
- "Electrochemical reduction of carbon dioxide to value added product: Role of solid electrolyte", Scholar's Press, (2015) (ISBN-978-3639761535) Dr. Anil Verma, Dr. L. M. Aeshala
- UGC E-Book on Biochemistry (under project mode through IRD)
- B. R. Chahar "Groundwater Hydrology" McGraw Hill, New Delhi, 2014
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- P.K. Jain, Seema Gupta & Surendra S. Yadav, "Public Sector Enterprises in India", Springer, 2014
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- Sushil, "Physical Systems Modelling and Management Applications", New Age International, New Delhi, 2014
- Prof. S. K. Saha, Introduction to Robotics, 2e
- Problems and solutions in electromagnetic, by Ajoy Ghatak, K. Thyagarajan and R. K. Varshney, Viva Books, New Delhi, 2015
- D. Gupta and N. Zacharia, "Anthropometry, apparel sizing and design", Woodhead publishers (Elsevier), 2014, ISBN: 978-0-85709-681-4
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- A Book written by Ananjan Basu , "An Introduction to Microwave Measurements" , CRC Press (Taylor & Francis Group), 2015
- Sagnik Dey and S. N. Tripathi (Author), Book Chapter - Remote Sensing of Atmospheric aerosols, Book - Aerosol Science: Technology and Application , Published by John Wiley & Sons
- Vasudevan P., Sharma S., Sharma V. P. and Verma M., "Women, Technology and Development"
- Perminder Jit Kaur, Vikas Kardam, Santosh Satya, S. N. Naik, K. K. Pant, "Eco-friendly preservative for bamboo treatment" (Both English and Hindi)
- Poonam Singhal, Lalit Bal, Santosh Satya, S. N. Naik, Deepa Choudhary, Vikas Kardam, Arjoo "Bamboo Shoot and Leafy Biomass- Food and Fodder Potential"
- Smruti Ranjan Sarangi, "Computer Organization and Architecture", released on 14th August 2014, Publisher: McGraw-Hill India

MAJOR RESEARCH INITIATIVES / RESEARCH PROJECTS UNDERTAKEN

- Recipient of DST-EPSRC India-UK Collaborative Research Initiative in Advanced Manufacturing, 4.5 crores by Prof. A. S. Rathore
- Development of direct hydrocarbon solid oxide fuel cell, DRDO 1.32 crores by Prof. S. Basu
- Critical Assessment of protein Structure Prediction (CASP) Performance (BJ)
- IIT Delhi jointly with Phoenix medical Systems, 'KritiKal Solutions' and 'Saksham Trust' was awarded a translational research project on Refreshable Braille Display by Welcome Trust under their Affordable Health care in India. Grant, Rs. 6 crores over a period of 2 years
- IIT Delhi was awarded the Centre of Excellence in Tactile Graphics by Department of information Technology (DietY). The centre is expected to create an end to end solution for production of Tactile Diagrams for the visually impaired. Grant, nearly Rs. 2.25 crores over three years
- Automotive Technologies Special Interest Group formed by SubratKar between Bharti School of Telecom / EE, Mechanical Engineering, Applied Mech., IDDC, CES – EoI filed for National Electric Vehicle Mission
- No. of faculty publication – more than 50 in international Journal and Conferences
- The following major research initiated by Prof. Anup Chawla : 1. Area : Human Body Modeling and Analysing injuries on HB during crashes using FE : Work has been going on for some time; has been strengthened further. Following projects going on/ have been initiated : (a) Positioning and Personalizing Advanced Human Body Model for injury prevention; (b) Development of an Indian Human Body Finite Element Human Body Models for use in impact, Textile and Medical Applications; (c) Analysis of the knee complex of an FE HBM.
- 2. Effect of Blast on HB and designing for blast : Following project has been initiated, other proposals are in the offing: (a) Injury Mechanisms in Blast and Blunt TBI - a comparative study based on clinical data and numerical analysis.
- 3. Road Safety, Crash Epidemiology and Analysis : Work has been going on for some time; has been strengthened further. Following projects going on/have been initiated : (a) Setting up an in-depth serious accident data collection system on highways: pilot project on Delhi Jaipur Stretch of NH-8; Besides, the department has undertaken major research work with the reputed institutions . Some of these are : DRDO; ONGC; Railways; BHEL, Haridwar; AIA; Ministry of Heavy Industries.
- Dr. Joyee Ghosh is active member (Vertical IV) in the IITD-DRDO research initiative for the Joint Advanced Technology Centre (JATC)
- University of Madrid and IIT collaborative research under UMD-Asai scheme. Department students can use facility of UMD and vice versa.
- 3D printed tissue engineered structures have been implanted in 3 oral cancer patients at Lady Hardinge Medical college. Patients are in regular follow up since last 5-6 months, and so far the results are very encouraging. This is the first human clinical trial from our lab, probably one of the rarest surgical trials in Delhi NCR
- Two research projects were initiated with National Physical Oceanographic Laboratory (NPOL), DRDO, Kochi, in the

areas of 'DIFAR Sensor Signal Processing and 'Underwater Communications'.

- A collaborative research initiative in the area of Algorithmic Framework for MEMS Sensor Fusion Applications was initiated with ST Microelectronics USA, a leading sensor design and manufacturing company
- A major research project for the development of multi-sensor data fusion and distribution algorithms and their hardware implementation was initiated for a naval application
- DST network program on Climate Change and Health
- Common Chemistry laboratory (Wet lab), Dr. Veena Koul & Dr. Neetu Singh
- Biosensors and Lab-on-a-chip Laboratory, Dr. Sandeep Jha
- Medical Image processing laboratory, Dr. Anup Singh & Dr. Amit Mehndiratta
- Prototyping laboratory, Dr. Dinesh Kalyansundaram
- Window integrated solar collector project initiated under New Indigo Project partnership programme with European Union collaboration, 3 years start from October 2014
- A MoU signed between IIT Delhi and Institute of Plasma Research, Gandhinagar (November, 2014) to establish a programme of academic cooperation in areas of mutual interest. Under this MoU, a project proposal for development of a Large Area Negative Ion Beam for the National Fusion Programme of the country has been submitted recently by the Plasma Lab of the Centre
- Testing of micro-optics using digital holographic interferometry. Design and development of digital holographic microscope for cell imaging
- Diffractive optics as null elements for absolute aspheric metrology
- Development of Nano lubricants, emulsified lubricants and cutting oils
- Development of environment friendly friction materials and high performance bearing materials.
- Acoustic emission studies for failure diagnosis of machines and components.
- Fault detection of very slow speed rotating machinery
- Design and development of mechanical systems from green maintenance initiatives
- Herbal products for Houseflies
- Algal Biofuel
- Biomethane production for microalgae
- Bioharvesting of microalgae
- Bioremediation of heavy metals from drainage water
- Research on "Lignocellulose bioethanol production" focused on "Breaking lignin barrier"
- Bioremediation and bioethanol potential of Switch grass grown in Indian conditions
- Biopesticide development for the control and management of Fusarium wilt, Verticilium wilt and root not nematode
- Value addition and propagation of Calocybeindicamushroom in the villages of Haryana
- Cultivation and value addition ofLentinusedodesmushroom in non-traditional area
- Neurosurgery Training collaboration with AIIMS
- Assistive Technologies with Saksham Trust, Phoenix Medical, Kritikal Solutions
- IoT& Advance Technologies with ILS Tech & Kripalani Foundation
- A research Project entitled "Chromatin Remodeling: To Understand The Mechanism Of Chromatin Remodeling To Comprehend Biologically Diverse Processes Transcriptional Activation, Elongation, Gene Silencing Thus Cancer And Birth Defects (RP02870)" of Rs. 20.00 Lakhs was sanctioned to Dr. Ashok Patel (PI) by Department of Science and Technology w.e.f. 01-04-14
- A research Project entitled " Structurally Understanding the Mechanism of Pyruvate Kinase M2 in Tumor Cell Proliferation Transcription of Genes, Cell-cycle Progression and Brain Tumorgenesis (Under Ramalingaswami Fellowship)" (MI01134)" of Rs. 32.5 Lakhs was sanctioned to Dr. Ashok Patel (PI) by Department of Biotechnology w.e.f 01-04-14
- Operation of UGC Post Doctoral Fellowship for women project on "Development of Herbal Therapeutics Based on Single or Polyherbal Extracts From High Altitude Plants (MIOO1131) of Rs. 3.85 Lakhs was approved to Ms. Pratibha Gautam under the supervision of Dr. Ashok Patel w.e.f. 06-05-14
- A research Project entitled "Investigating the role of gelsolin as a common cellular player for modulating amyloid load and neurodegeneration (RP02820)" of Rs. 72.246 Lakhs was sanctioned to Dr. B. Kundu (PI) by Department of Biotechnology, w.e.f 12-10-2014
- A research Project entitled "Characterization of Refolding Intermediates of Multi Domain Protein Malate Synthase G Using Mass Spectrometric Method" (RP02950)" of Rs. 19.10 Lakhs was sanctioned to Dr. Shikha Taneja, Women Scientist PI under the supervision of Prof. Tapan Kumar Chaudhuri by Department of Science and Technology, w.e.f 15-09-2014
- A research Project entitled "Virtual Centre of Excellence on Multidisciplinary Approaches Aimed at Interventions Against Mycobacterium Tuberculosis (Phase-II) (RP03037)" of Rs. 184.72 Lakhs was sanctioned to Prof. S. E. Hasnain (PI) by Department of Biotechnology, w.e.f. 25-03-2015
- Operation of the Direct DBT Research Associate – ship of Rs.3.932 Lakhs was approved to Dr. Sonam Grover under the supervision of Prof. S. E. Hasnain w.e.f. 01-07-14
- A Research Project entitled" Improving the Accuracies of Protein Tertiary Structure Predication: The Bhageerath Effort" (RP03028)" for Rs. 41.98 Lakhs was sanctioned to Prof. B. Jayaram (PI) by DST (SERB), w.e.f 02-3-2015
- A Research Project entitled "Supercomputing Facility for Bioinformatics Computational Biology as DBT's Centre for Excellence" (Phase-II)(RP02813)" for Rs. 46.18 Lakhs was sanctioned to Prof. B. Jayaram (PI) by Department of Biotechnology w.e.f. 01-9-2014

The Year in Perspective

(April 1, 2014 - March 31, 2015)

Glimpses of various activities during 2014-15

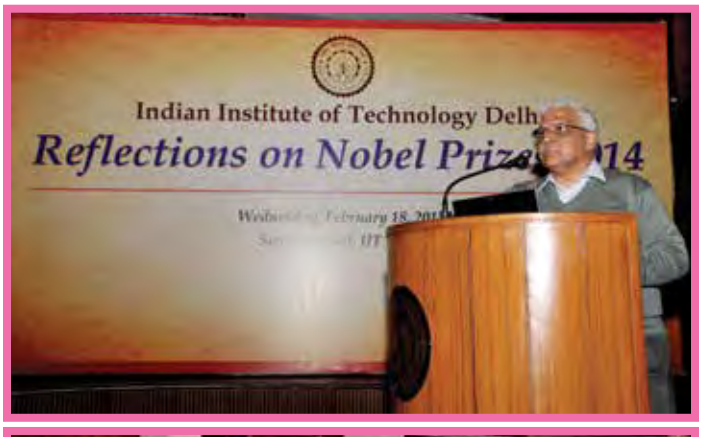
SWACHCHA BHARAT ABHIYAAN

Glimpses of various activities during 2014-15

UNNAT BHARAT ABHIYAAN

Glimpses of various activities during 2014-15

Glimpses of various activities during 2014-15



Glimpses of various activities during 2014-15

Glimpses of various activities during 2014-15

OPEN HOUSE

Glimpses of various activities during 2014-15

RENDEZVOUS

Glimpses of various activities during 2014-15

CRDT ACTIVITIES

Glimpses of various activities during 2014-15

Research at the core!

Lab activities at IIT Delhi

Glimpses of various activities during 2014-15

Student Life in the Campus

6. Research & Development

(April 1, 2014 - March 31, 2015)

Research Thrust

Atmospheric Sciences, Embedded Systems, Environmental Science & Engineering, Rural Industrialization, Bioinformatics, Nanotechnology, Fibre Optics and Optical Communications, Biotechnology, Bio-catalysis, Smart and Industrial Textiles, Transportation, Photo-thermal energy conversion, Material Science, Photo-acoustic Microscopy, Power Technology, Signal processing, Opto-electronics, Computer Science, Computer Aided Design & Manufacturing, Smart Buildings and Infrastructure, Artificial Intelligence and Robotics



Academic & Sponsored Research

(April 1, 2014 - March 31, 2015)

ACADEMIC RESEARCH

The academic research carried out by the students for the Ph.D. degree, the final semester major project included in the four-year B.Tech. programme, the five-year integrated M.Tech. programmes, and the four-semester M.Tech./ M.S.(R)/M.Des. programmes make a significant contribution to the research output.

The principal source of academic research, however, continues to be through Ph.D. research projects. With a total of 1673 students enrolled for a research degree during the year under review, the emphasis on and commitment to academic research is evident. During the two semesters of 2014-2015, 211 candidates were admitted out of which 157 were full-time Institute scholars with the remaining 54 belonging to other categories like sponsored, part-time etc. A total of 178 theses were approved for the award of Ph.D. degree.

IIT Delhi faculty remain engaged in publishing their research results in various journals, Conferences and Seminar proceedings. The number of publication along with citation and h-index for the last 5 years is stated below:

Year	No. of Publications	No. of Citations	h-index
2015	1351	506	7
2014	1399	1649	12
2013	1589	1611	12
2012	1350	611	08
2011	1339	2098	12

Source : Scopus as on 24th November 2015.

SPONSORED RESEARCH

Along with teaching and academic research leading to doctoral degree, IIT Delhi gives high priority to research and development projects sponsored by outside national and international agencies and user organizations. The Institute has as one of its cardinal guiding principles continuous, and meaningful interaction with the world of science & technology and industry.

INDUSTRIAL RESEARCH AND DEVELOPMENT UNIT (IRD)

The Industrial Research & Development (IRD) Unit has been specifically set up in the Institute to provide specialized administrative and managerial support for the operation of Sponsored Research Projects, Consultancy Jobs and other related R&D activities. Over the years, the institute has set up many modern laboratories and is continuously supporting infrastructure through these projects.

Under the scheme called Summer Undergraduate Research Award (SURA), the students are required to submit the project proposals in association with identified Faculty of a Department/Centre to act as an Administrative Facilitator and a Guide.

IRD Unit plays an important role by providing a one-time grant of upto Rupees One Lakh to new faculty member who joins the Institute. This assistance is being given to the new faculty so that they can initiate new projects, which may subsequently be submitted to various funding agencies.

Assistantships/Fellowships are provided by IRD to the Ph.D. students during their 5th year. IRD provides support in the form of Gap Period Assistantship for both M.Tech./MS(R) and Ph.D. students who are drawing their fellowship/assistantship from the projects. These assistantships will be provided to the students once the projects get over and there is no other project to pay their assistantship. M.Tech/M.S.(R.) students can be supported for a maximum gap period of six months and Ph.D. students would be supported for a maximum gap period of one year.

Institute has been organizing Open House to exhibit an extensive collection of innovative research and product development projects since last eight consecutive years. The ninth edition of Open House was held successfully on 19th April, 2014. Open House targets young school kids in NCR region and the footfall is approx.. 5000 visitors in a day.

HIGHLIGHTS (2014-15)

Some important highlights about research are:

- 164 Sponsored Research Projects with a total funding of Rs. 153.77 crores and 36 Miscellaneous Projects worth Rs. 10.88 crores were undertaken.
- 394 Consultancy Assignments worth Rs. 24.81 crores were undertaken by IRD Unit. Besides, 96 Technology Development Projects/Contract Research Projects worth Rs. 16.78 crores were undertaken/organized by FITT.
- 35 UG Projects have been selected under the Summer Undergraduate Research Award (SURA) scheme for the year 2015.
- 32 faculty members who joined the Institute during the year received a research grant of Rs. 1 lakh each under the Research Grant for New Faculty (RGNF) scheme of IRD.
- Scholarship is provided by IRD, in exceptional cases, to the Ph.D. scholars after completion of 4 years and until the end of 5th year. IRD spent Rs. 140.011 Lacs (approx.) on these scholarships during the year 2014-15.

Research Projects & Consultancy

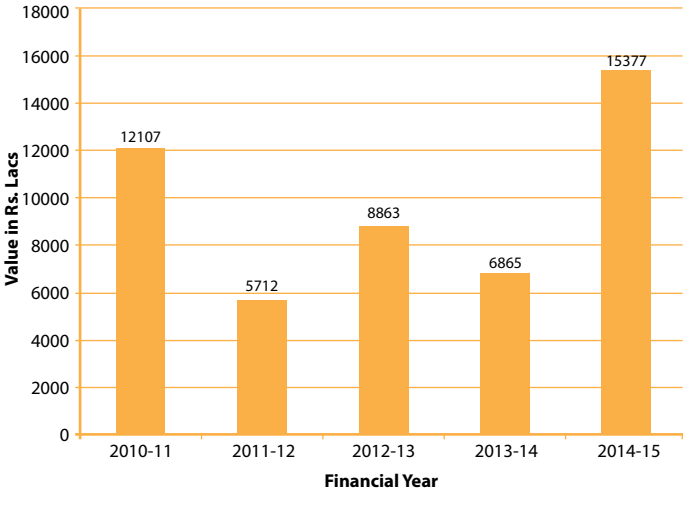
(April 1, 2014 - March 31, 2015)

The trend in research funding and their number for last five years is shown in Table I & Fig. I.

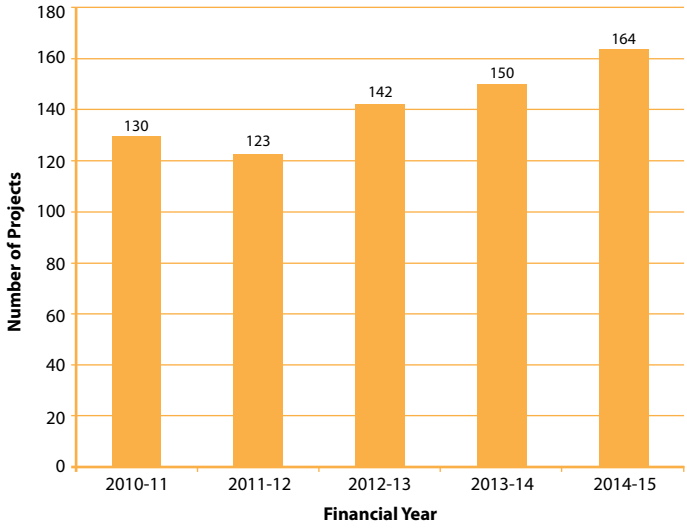
Table I: Statistics of Sponsored Research Project

Financial Year	Sponsored Research Projects	
	Numbers	Value in Rs. Lacs
2010-11	130	12107
2011-12	123	5712
2012-13	142	8863
2013-14	150	6865
2014-15	164	15377

Fig. I: Trends in Sponsored Research Projects



(a) in Value



(b) in Numbers

Fig. II: Funding agency-wise Break Up of Sponsored Research Projects Undertaken During 2014-15

INDUSTRIAL RESEARCH AND DEVELOPMENT BOARD (2014-15) - As on 31.3.2015

Chairman	**Ex-Officio**	
Suneet Tuli	S. N. Singh	Naresh Bhatnagar
	S. K. Koul	Anil Wali
Representatives of Department / Centre		
S. V. Veeravalli, Dept. of Applied Mechanics	B. K. Behera, *Dept. of Textile Technology*	
Saroj Mishra (Ms.), *Dept. of Biochemical Engineering & Biotechnology*	Ananjan Basu, *Centre for Applied Research in Electronics*	
A. J. Elias, *Dept. of Chemistry*	Sagnik Dey, *Centre for Atmospheric Sciences*	
A. K. Jain, *Dept. of Civil Engineering*	N. Karmakar Gohil (Ms.), *Centre for Biomedical Engineering*	
Prem Kalra, *Dept. of Computer Science & Engineering*	T. S. Bhatti, *Centre for Energy Studies*	
Bhim Singh, *Dept. of Electrical Engineering*	B. K. Satpathy, *Centre for Polymer Science & Engineering*	
Purnima Singh (Ms.), *Dept. of HUSS*	Gufran Sayeed Khan, *Instrument Design Development Centre*	
Mahim Sagar, *Dept. of Management Studies*	Jayashree Bijwe (Ms.), *Industrial Tribology Machine Dynamic and Maintenance Centre*	
Aparna Mehra (Ms.), *Dept. of Mathematics*	S. N. Naik, *Centre for Rural Development & Technology*	
Anjan Ray, *Dept. of Mechanical Engineering*	Pragya Jain (Ms.), *Computer Services Centre*	
Neeraj Khare, *Dept. of Physics*		
Outside Experts		
Anand Srivastava, *Head, Network Solutions, Alcatel-Lucent, Gurgaon*	Salil Singhal, *Chairman & Managing Director, PI Industries Ltd., Gurgaon*	
D. N. Singh, *CTO, Indo-Solar Ltd., Greater Noida*	President, *Ginni Filaments Ltd., Mathura*	
G. S. Kapur, *Sr. Research Manager Petrochemical & Polymers, Indian Oil Corporation, Faridabad*	Mukesh Mohania, *Sr. Manager IBM India Research Lab, Delhi*	
Ajay Pradhan, *Managing Director, CH2M HILL, Gurgaon*	J. S. Saini, *Petrochemical Marketing Group, GAIL (India) Ltd., New Delhi*	
Secretary		
V.K. Vashistha		

Some of the major projects undertaken during the period are listed below:

Table II: Financial Outlay of Some of the Major Projects during 2014-15 (above 100 Lacs)

Name of the Project	Sponsoring Agency	Financial Outlay in Rs. Lacs
Virtual Labs (Phase - II)	Ministry of Human Resource Development	6,899.16
Affordable Refreshable Braille Displays Based on Shape Memory Actuation	Wellcome Trust, U.K.	618.15
To Augment the Research Facilities in the Department of Chemistry under FIST scheme	Department of Science & Technology	590.00
Improvement of S & T Infrastructure (under FIST Scheme)	Department of Science & Technology	440.00

contd. .....

Reliable and Efficient Systems for Community Energy Solution - RESCUES	International Division, Dept. of Science & Technology	397.10
Creation of a Process Understanding of Chromatographic Performance Loss During Biotherapeutic Manufacture : A UK-India Partnership	International Division, Dept. of Science & Technology (DST-EPSC)	276.10
ICT Centre of Excellence on Tactile Graphics	Ministry of Communications & Information Technology	221.00
DST Centre for Policy Research	Department of Science & Technology (DST)	200.00
Advanced Communication and Control for the Prevention of Blackouts (ACCEPT)	International Division, Dept. of Science & Technology (under Indo-UK Partnership SEGES Programme)	186.15
Virtual Centre of Excellence on Multidisciplinary Approaches Aimed at Interventions Against Mycobacterium Tuberculosis (Phase - II)	Department of Biotechnology	184.72
Development of Multifunctional Polyolefin Nanoclay Hybrid Nanocomposites	GAIL(India)Limited	158.11
Development of Self-Lubricated Bush Bearings with Polymeric Nano-Composites	Science and Engineering Research Board, DST	132.42
Development of Direct Hydrocarbon Solid Oxide Full Cell	Directorate of Extramural Research & Intellectual, DRDO	122.22
Production of courseware e-Content development for Post-Graduate subjects (e-PG-Pathshala)	University Grants Commission	112.00
Design and Development of High Performance Multi-functional Modular Multilevel converter Topologies for Renewable Energy Integration in Smart DC Grid (M3C)	International Division, Dept. of Science & Technology (DST-Netherland Joint Research Project Scheme)	109.06
Modelling of Advanced Materials for Simulation of Transformative Manufacturing Processes	International Division, Dept. of Science & Technology (DST-RCUK [EPSRC])	100.44
Design and development of a Integrated Locomotive driver warning system for Preventing elephant Collisions	Ministry of Railways	100.00

Industrial consultancy is another significant area of activity of the Institute. The nature and extent of the industrial consultancy projects undertaken by the Institute is an index of its credibility with the industry and is symbolic of the relevance of a centre of excellence in the context of nation's socio-economic development. The consultancy jobs undertaken during last five years is shown in Table III.

Table III: Consultancy Jobs Undertaken During Last Five Years (2010-11 to 2014-15)

Financial Year	Consultancy Jobs (IRD)		Technology Development Projects / Contract Research (FITT)		HRD Programmes (FITT)		TOTAL
	No.	Value in Rs. Lacs	No.	Value in Rs. Lacs	No.	Value in Rs. Lacs	Value in Rs. Lacs
2010-11	519	2,250	71	872	46	145	3,267
2011-12	420	2,110	83	936	50	112	3,158
2012-13	348	1,829	61	898	48	199	2,926
2013-14	430	2,731	72	1,411	41	288	4,430
2014-15	394	2,481	96	1,678			4,159

COLLABORATIVE RESEARCH

The Institute is actively involved in collaborative programmes with national and international organizations/ universities to remain at the forefront of scientific and technological developments and to share knowledge. A large number of collaborative Research Projects are under operation with Institutes/Organizations of Austria, Australia, Brazil, Canada, Denmark, Ethiopia, European Commission, France, Finland, Germany, Holland, Hungary, Ireland, Israel, Italy, Japan, Korea, Kuwait, Netherland, Nepal, Portugal, Russia, Slovenia, Sweden, Switzerland, Taiwan, UK, USA, etc. Major research activities have also been undertaken in the areas of national importance.

During the year under report, the Institute has undertaken 35 new Collaborative Sponsored Research Projects with International funding.

International sponsored Research Projects undertaken during the year 2014-15

Project No.	Project Title	Sponsoring Agency	Collaborating Institute(s)	Name of Principal Investigator/ Department
RP02887	Affordable Refreshable Braille Displays Based on Shape Memory Actuation	Wellcome Trust U.K.		M. Balakrishnan, Dept. of Computer Science & Engg.
RP02979	Reliable and Efficient Systems for Community Energy Solution - RESCUES	International Division, Dept. of Science & Technology (under Indo-UK Partnership in SEGES programme)	Imperial College of London, UK	Bhim Singh, Dept. of Electrical Engineering
RP02961	Creation of a Process Understanding of Chromatographic Performance Loss During Biotherapeutic Manufacture: A UK-India Partnership	International Division, Dept. of Science & Technology (DST-EPSC Joint Project)	University College London, UK University of Kent, UK	Anurag Singh, Rathore, Dept. of Chemical Engineering
RP02978	Advanced Communication and Control for the Prevention of Blackouts (ACCEPT)	International Division, Dept. of Science & Technology (under Indo-UK Partnership SEGES programme)	Imperial College London, UK University of Manchester, UK University of Strathclyde, UK	Nilanjan Senroy, Dept. of Electrical Engineering
RP02973	Design and Development of High Performance Multi-functional Modular Multilevel converter Topologies for Renewable Energy Integration in Smart DC Grid (M3C)	International Division, Dept. of Science & Technology (Under DST-Netherland Joint Research Project Scheme)	Delft University of technology, Netherlands University of Twente, Netherlands	Mummadi Veerachary, Dept. of Electrical Engineering
RP02994	Modelling of Advanced Materials for Simulation of Transformative Manufacturing Processes	International Division, Dept. of Science & Technology (DST-RCUK (EPSRC))	Loughborough University, UK University of Oxford, UK	Pulak Mohan Pandey, Dept. of Mechanical Engineering
RP02868	Select Study of Fright Movement in Delhi	The Volvo Research Foundations Sweden		Nomesh Bhojkumar Bolia, Dept. of Mechanical Engineering
RP02975	High Energy and Power Density (HEAPD) Solutions to Large Energy Deficits	Department of Science & Technology (DST) (under Indo-UK Partnership SEGES programme)	University of Bath, UK Cardiff University, UK Durham University, UK	Sukumar Mishra, Dept. of Electrical Engineering
RP02889	Smart Cane- Development Course for National and International Dissemination.	Wellcome Trust U.K.		M. Balakrishnan, Dept. of Computer Science & Engg.

contd. .....

RP02942	Innovative Material Systems for Solar Energy Harvesting in Photoelectrochemical Cells (InSOL)	International Division, Dept. of Science & Technology (Under India-EU S&T Technology Cooperation Agreement)	FMF University of Freiburg, Germany University of Antwerp, Belgium Max Plank Institute for Polymer Research, Germany	Bodh Raj, Dept. of Physics
RP03008	Indo-Norwegian Collaborative Research Programme on Optics and Photonics for Bio-Medical Imaging and Environment Monitoring	University Grants Commission (under Indo-Norwegian Cooperation Programme)	The Artic University Norway	Anurag Sharma, Dept. of Physics
RP02949	Window Integrated Solar Collector	International Division, Dept. of Science & Technology (Under Indo-European Union Science & Technology Cooperation Agreement)	Institute of Photonic Technology, Jena, Germany, University of Jyvaskyla, Finland University of Trondheim, Norway	Vamsi Krishna Komarala, Centre for Energy Studies (CES)
RP02936	Multi-Functional Nanocomposite Materials for Low-Temperature Ceramic Fuel Cells Indian Coordinator	International Division, Dept. of Science & Technology (under India-EU S&T Cooperation Agreement)	Aalto University, Finland University of Aveiro, Portugal University of Oslo, Norway VSS Turkey	Suddhasatwa Basu, Dept. of Chemical Engineering
RP02879	Pedestrian Safe Public Transport Systems: Infrastructure, Operations, Vehicles, Policies and Legislation	The Volvo Research Foundations South Africa		Geetam Tewari, Dept. of Civil Engineering
RP03023	Novel Semiconductor Nanowire Photovoltaic (NWIRES)	International Division, Dept. of Science & Technology (under PoC with Finland)	Aalto University Finland	Sujeet Chaudhary, Dept. of Physics
RP02997	New Directions in Data Clustering	University Grants Commission (under India-Israel Joint Research Project Scheme)	Technion Institute Israel	Ragesh Jaiswal, Dept. of Computer Science & Engg.
RP02935	Adaptive Clustering for decentralised Resilient energy management (ADREM)	International Division, Dept. of Science & Technology	TU Delft, Netherlands CWI, Netherlands	Abhijit Ramchandra Abhyankar, Dept. of Electrical Engineering
RP02904	Advanced Debug Architecture and Methodology for Heterogeneous Multicore Platforms	Semiconductor Research Corporation, USA		Preeti Ranjan Panda, Dept. of Computer Science & Engg.
RP02963	Cost and Efficient MFC Materials for Bioelectricity Production from Waste Materials Bio-e-MAT	International Division, Dept. of Science & Technology (Under Indo-European Science & Technology Cooperation Agreement)	Tampere University of Technology, Finland Yildiz Technical University, Turkey	Anil Verma, Dept. of Chemical Engineering
RP02937	Open Interface Rule learning	Google Inc. USA		Mausam, Dept. of Computer Science & Engg.

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RP02911	Global Partnership for the development of Sustainable Technologies to Investigate, Restore and Protect the Urban water environment	British Council Division	New Castle University, UK University of Maryland Baltimore Country, US Federal University of Minas Gerais, Brazil	Shaikh Ziauddin Ahammad, Dept. of Biochemical Engineering & Biotechnology
RP02940	CO2 conversion to synthetic fuel via fischer tropsch process	International Division, Dept. of Science & Technology (Under South Africa India Agreement on S&T Cooperation)	University of Johannesburg, South Africa	Sreedevi Upadhyayula, Dept. of Chemical Engineering
RP02883	Magnetic Nanoparticles for Hyperthermia and Spintronics	Indo-French Centre for the Promotion of Advanced Research	INSA Toulouse France	Varsha Banerjee, Dept. of Physics
RP03020	Development of Anode for Direct Hydrocarbon Solid Oxide Fuel Cell	International Division, Dept. of Science & Technology (under DST-UKIERI Joint Programme)	University of St. Andrews Scotland, UK	Suddhasatwa Basu, Dept. of Chemical Engineering
RP02899	Noval anode nanocatalysts and electrolyte for ethylene glycol as fuels for fuel cells	Global Innovation and Technology Alliance (GITA), Taiwan		Suddhasatwa Basu, Dept. of Chemical Engineering
RP02900	Nanoscale surface engineering in inorganic hetero-structures with enhancement photocatalysts activity for sustainable solar hydrogen production	International Division, Dept. of Science & Tech. (DST-UKIERI Joint Project)	University of Nottingham, UK	Bodh Raj, Dept. of Physics
RP02893	Nanocomposite Oxide Films with Enhanced Functionality for Novel Device Applications	International Division, Dept. of Science & Technology (UKIERI-DST Scheme)	University of Cambridge, UK	Neeraj Khare, Dept. of Physics
RP03025*	Modeling of the Processes of Fabrication, Deformation and Fracture of Structures and Materials	International Division, Dept. of Science & Technology	Institute for Problems in Mechanics, Moscow	N. K. Gupta* Dept. of Applied Mechanics
RP02976	Water Resources Studies of Large Basins	International Centre of Excellence in Water Resources, Australia		A.K. Gosain, Dept. of Civil Engineering
RP02866	A Comparative Study of Hierarchical Materials for Biomedical and Lightweight Applications: Manufacture, Characterization and Modeling under UGC-UKIERI Thematic Partnership-2013	University Grants Commission (Under UGC-UKIERI Scheme)	University of Southampton, UK	Naresh Bhatnagar, Dept. of Mechanical Engineering
RP02915	Studying Binder Admixture Interaction for Sustainable Construction in India	Chryso SAS (IU) France		Shashank Bishnoi, Dept. of Civil Engineering

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RP02869	Electro-optical Properties of Magnetically Modulated Graphene, under UGC-UKIERI Thematic Partnership-2013	University Grants Commission (Under UGC-UKIERI Scheme)	University of Bath, UK University of Cambridge, UK University of Exeter, UK	Sankalpa Ghosh, Dept. of Physics
RP02896	Co-creating water & sanitation courses and providing immersive & collaborative e-team learning opportunities for ASU and IIT Delhi students	National Collegiate Inventors and Innovators Allia, USA		Vijayaraghavan M. Chariar, Centre for Rural Development Technology (CRDT)
RP02993	Design of Surface Force Apparatus and Tribological Studies of Soft Boundary Lubricants	International Division, Dept. of Science & Technology (under India-Japan S&T Cooperation)	Doshisha University, Japan	Sujeet Kumar Sinha, Dept. of Mechanical Engineering
RP02999	Assessing Value of Agro- Met Advisory Services of India Metrological Department to Farmers of India	South Asian Network for Development and Environmental Economics, Nepal		UPASNA SHARMA, Dept. of Humanities & Social Sciences

CONSULTANCY ASSIGNMENTS WITH INTERNATIONAL ORGANISATIONS

The Institute has been undertaking Consultancy Assignments with International Organizations like Bulk Testing International, France; Japan Automobile Research Institute, Japan; U.S. Air Force Research Laboratory (AFRL), Asian Office of Aerospace R&D, Japan; Nippon Steel & Sumitomo Metal Corp., Japan; LG Electronics Inc, Korea; Panchkanya Plast (P) Ltd., Nepal; Common Fund for Commodities, Netherlands; Escom Research and Innovation Department, South Africa; Uppasala University, Sweden; National Property Board, Sweden; McLellan and Partners Ltd, UK; Marvel Chemicals Ltd, UK; Aquatech International Corp., USA; Fushi Copperweld Inc., USA; PPG Industries Inc., USA; United Technologies Corp./ Pratt & Whitney, USA; McAfee Inc., USA; Safe Water Network, USA; Gulf Coast Technical Service, USA; Corning Inc., USA; Biomorphic VLSI Inc., USA; Institute for the Future, USA; Yardi Systems, USA, Dezaview LLC, USA, Jaipraksh Associates Ltd., Bhutan, Owens Corning Sales, LLC,USA, Ahlstrom Nonwovens LLC, USA and Universities/Institutions abroad.

During the year under report, the Institute has undertaken 5 new Consultancy Jobs with International funding.

International Consultancy Jobs undertaken during the year 2014-15

Project No.	Project Title	Sponsoring Agency	Name of the Consultant Incharge / Department
CW13234	Develop Appropriate Outline for a High Quality Course Content and for Web Based Technical Education and Learning for Skill Development	Dezaview LLC USA	Neeraj Khare, Dept. of Physics
CW13121	Evaluation of Electrical Properties of Flyash Samples and Performance Prediction of ESP	Bulk Testing Inc (BTI) France	Mrs. R. Uma, Centre for Energy Studies (CES)
CW13098	Assessment of Permeability and Triaxial Compressive Strength of Concrete Cut-off Wall Cores from Mangdechhu H P Project Bhutan	Jaipraksh Associates Ltd. Bhutan	K. S. Rao, Dept. of Civil Engineering
CW13259	Investigation of Compression and Recovery Behavior of Fiberglass Insulation	Owens Corning Sales LLC,USA	Dipayan Das, Dept. of Textile Technology
CW12982	Pressure ulcer Detection and Prevention	Ahlstrom Nonwovens LLC, USA	Ashwini K. Agarwal, Dept. of Textile Technology

OTHER ACTIVITIES

Besides handling Direct Fellowships sponsored by various funding agencies, sponsored Chairs, PAC/Expert Committee Meetings, new faculty grants, PDF management, DDF/CDF Management, IRD has also undertaken the following activities during 2014-2015:

1. National Workshop on Unnat Bharat Abhiyan.
2. Workshop on Mobile Application Development.
3. Training and Dissemination of Green Technologies; Biopesticides, cattle feed, fodder management and rapid composting.
4. SERC School on High Power Laser Plasma Interaction.
5. Panel Discussion on Orthopedic Devices.
6. DST Expert Committee Meetings.
7. PAC meeting of Electrical, Electronics & Computer Engineering of SERB, DST.
8. Review Meeting of Materials, Mining and Minerals Engineering.
9. Review Meeting of Food Processing.
10. Chair Professorships.
11. IBM Faculty Award.
12. INSPIRE Faculty Awards.
13. Post Doctoral Fellowships.
14. Direct Research Associateships.
15. DAE Graduate Fellowship Scheme (DGFS) of fast Track on seismic response control of benchmark tall building using semi-active magneto-rheological damper under different earthquake excitations.

Foundation for Innovation and Technology Transfer (FITT)

(April 1, 2014 - March 31, 2015)

FITT has been operating as an autonomous technology transfer organization since 1992 at Indian Institute of Technology Delhi (IIT Delhi). The foundation is mandated to be an effective interface with the industry to promote and sustain commercialization of science and technology. For over two decades now, FITT has been in a mission mode to formulate innovative ways to create partnerships and linkages with business and the community to enable knowledge transfer for societal good and economic development. The successful outreach and extensive S&T collaborations at IIT Delhi by the team at FITT have been possible with the active support of academic fraternity.

The expansive roles of FITT include: working with business, fostering technology development, consultancy, collaborative R&D, technology commercialization, development programs, corporate membership etc. These roles are necessitated by the key agenda of the Foundation to showcase and transfer the Institute's "intellectual ware" to industry and also instill industrial relevance in teaching and research at IIT Delhi.

- FITT is a DSIR approved Scientific and Industrial Research Organization (SIRO) by virtue of its charter to implement, inter-alia, industrial R&D projects. During FY 2014-15, 96 technology development / transfer projects worth Rs.1677.86 lakh have been contracted at FITT.
- FITT manages the Institute's IP and IPRs. During the last financial year 56 invention disclosures were processed, out of which 35 cases were approved for filing patents and 3 licensing deals were closed. To augment its outreach and technology commercialization efforts, FITT has entered into MoUs / Agreements with specialist outside agencies. Besides enabling regular industry academia meetings, FITT organized a number of visits by IIT Delhi faculty to industrial units in order to assess their R&D needs so as to initiate industry-relevant R&D programs at the Institute. FITT has also organised several visits by overseas companies and delegations enabling exchange between the visiting delegates and academic community of the institute.
- The "Professional Candidate Registration" has been adopted towards extending the academic courses at the Institute amongst the targeted segments of industry, research and academic establishments. Through this program, suitably qualified professionals can undertake relevant semester-long course modules here at IIT Delhi and thus enhance their knowledge and skill set. During the academic year 2014-15, 68 candidates participated in this program.
- As an avenue towards techno-entrepreneurship, FITT has enabled the establishment and operation of a thriving Technology Business Incubation Unit (TBIU) on the campus.
- Towards fostering techno-entrepreneurship, FITT has enabled establishment and operation of the Technology Business Incubation Unit (TBIU) on the campus. This is a flagship institute program designed primarily to promote partnership with new technology entrepreneurs and start-up companies, and also serve as a medium of technology transfer. 11 companies are presently resident at the TBIU. Out of 44 companies admitted so far in the incubator since its inception in the year 2000, 19 companies have started their upscaling/commercial operation after completing their incubation at the Institute and are reported to be growing at a steady pace. The TBIU companies are working in the technology domains of IT, Biotechnology, Engineering design, Cleantech etc. FITT has opened up a Bio-incubator facility thereby providing incubation facility along with co-share equipment facility to bio-tech start-ups. FITT is also collaborating with Wallonia Trade and Investment Agency (AWEX) of Belgium towards internationalization of innovation led technology start-ups in the country.

FITT has been at the forefront in managing several innovation and entrepreneurship programs in the country as a nodal agency in several Government schemes. The Ministry of Micro, Small and Medium Enterprises(MSME), Government of India has extended grants to FITT for promoting and supporting innovation amongst micro and small enterprises leveraging the knowledge resources at IIT Delhi. Seed support in the broad area of ICT is also forthcoming under the Department of Electronic and Information Technology (DietY) program – "Technology Incubation and Development of Entrepreneurs" (TIDE) scheme. FITT is also a beneficiary of the grant assistance of Rs.1.00 cr. from the Technology Development Board (TDB) for the specific purpose of providing early stage financial support to start-up units incubated at IIT Delhi's TBIU. More recently, FITT has secured the coveted status of a BIG Partner of BIRAC (DBT) towards implementing their Biotechnology Ignition Grant (BIG) scheme in the country.

FITT has added nearly 10 new corporate members in the FY-2014-15 representing small/medium/large scale industrial and R&D units. Corporate members receive preferential treatment in matters of collaboration with the Institute in addition to information and technical services that FITT provides through the Institute's resources. FITT's gamut of services and activities include:

- Transfer of technology relating to proven R&D outputs
- Research partnership with industry for technology development and its commercial applications
- Innovative problem solving consultancy with industry clients
- Information support service to industry and R&D organizations
- Specialist development programmes
- Corporate membership of FITT
- Facilitate funding for the development of innovative ideas of commercial implications

Bio-Incubator Facility inaugurated @ IIT Delhi

Examples of R&D Collaborators:

- Renault Nissan
- Safran
- BHEL
- Mercedez Benz
- Borealis AG
- SADC Switzerland
- SRF Ltd.
- Corning Inc.
- Samsung India Ltd.
- GE India Tech
- PALL Corporation
- Dr. Reddy's Laboratories Ltd.

20th AGM of FITT on October 29, 2014

Partners: Innovation / Entrepreneurship

- ICICI
- Ericsson
- POSOCO
- Indian Angle Network (IAN)
- Technology Development Board (TDB)
- Department of Electronics and Information Technology (DeitY), Govt. of India
- Department of Scientific and Industrial Research (DSIR), Govt. of India
- Ministry of Micro, Small and Medium Enterprises (MSME), Govt. of India

Start-up Successes 2014-2015

Wrig Nano Systems Pvt. Ltd.

- Founded by Mr. A Srivastava in November 2009, under the mentorship of Prof. Veena Koul, CBME, Wrig Nano has developed a **TrueHb Hemometer** to test haemoglobin, This device has been validated by the All India Institute of Medical Sciences (AIIMS) for its efficacy. The device has been developed for identifying and preventing anaemia, which is highly prevalent and the cause behind maternal deaths.

Genesis Location Services Pvt. Ltd.

- Under the mentorship of Prof. S. Choudhury, Department of Electrical Engineering, the start-up began its operation in January 2011. The start-up has developed location based products and services for the global audience in a variety of formats and across several verticals. It has deployed Telematic Services for Rural Bus Operations in Rajasthan for Payment Collection.

Indo-finnish Workshop organised by FITT December 20, 2014

7. Events

(April 1, 2014 - March 31, 2015)

Convocation

(April 1, 2014 - March 31, 2015)

Distinguished Alumni Award

IIT Delhi lays great emphasis on interaction with its alumni and supports the activities of the IIT Delhi Alumni Association (IITDAA). The Institute is proud of its alumni and their achievements. The success of the alumni is one of the most important yardsticks by which the Institute measures its achievements in academic/professional fields.

The Institute recognizes the outstanding contributions made by its alumni in various areas by conferring the Distinguished Alumni Award each year. This award is the highest honour conferred by the Institute on its alumni to recognize their achievements and outstanding contributions to academics, business, profession and / or public services. For the year under report, the prestigious award was conferred upon (i) Dr. Lalit Pande (B.Tech. Mechanical Engineering, 1970), Director, Uttarakhand Seva Nidhi Paryavaran Shiksha Sansthan, Uttaranchal, India (ii) Dr. Avinash Chander, (B.Tech. Electrical Engineering, 1972) Director General, DRDO and Distinguished Scientist & Secretary, Defence R&D, New Delhi (iii) Dr. Manish Gupta (B.Tech. Computer Science & Engineering, 1987), Director, Xerox Research Centre, India and Vice President at Xerox Corporation, Bangalore.

Dr. Lalit Pande

Distinguished Alumni Award

(B.Tech. in Mechanical Engineering, 1982), Director, Uttarakhand Seva Nidhi Paryavaran Shiksha Sansthan (USNPSS), Almora.

Dr. Avinash Chander

Distinguished Alumni Award

(B.Tech. in Electrical Engineering, 1972), Scientific Adviser to the Raksha Mantri & Secretary, Department of Defence R&D, and Director General, DRDO.

Dr. Manish Gupta

Distinguished Alumni Award

(B.Tech. in Computer Science & Engineering, 1987), Vice President and Director of Xerox Research Center India.

Medals and Awards winners at the 45th Convocation

Following is the list of award winning students at the convocation.

President's Gold Medal

Ishan Arora

Director's Gold Medal

Utkarsh Ohm

Perfect Ten Gold Medal

Prativa Das

Shachi Mittal

Nikhil Goyal

Suyash Roongta

Sahil Garg

Deepesh Bharani

Aaditya Agarwal

Kush Bhatia

Amit Garg

Anubhav jain

Utkarsh Goel

Ishan Jain

Ayushman Shukla

Mayank Garg

Abhinav Dhupar Memorial Award
Jashanveer Singh

Amit Garg Memorial Research Award
Sabha Raj Arya

Prof. A.K. Sinha Cash Prize
Banda Joseph Kiran

Dr. Amrik Singh Medal & Prize
Chavan Vikrant Vitthal

Lt. Arpan Banerjee Award
Rohit Kumar

Alok Saxena Memorial Award
Ankit Rao

Buti Foundation Bodh Raj Gold Medal (for best women student)
Prativa Das

Bimla Jain Medal
Kanika Khanna

Boss Award
Saurabh Runwal
Harveen Kaur
Vanya Bisht
Palash Biswas
Mayank Garg
Ishan Jain
Shachi Mittal
Gaurav Maheshwari
Gaurav Kumar
Mehta Vishal Dinesh Kumar

Chand Rani-Banarsi Dass Duggal Memorial Award
Pratik Ashok Lahane

Dogra Medal
Sheba Susan George

Dogra Educational Endowment Medal
Shantanu V. Lale

FITT Award for Best Industry Relevent Project
Ruchi Tiwari

Harsha Vardhan Dwarkadas Motiwala Memorial Prize
Mayank Garg

ICIM Stay Ahead Award
Harveen Kaur

IEEE-PEDES 96 Award
Banda Joseph Kiran

Jayant Sinha Award
Abhishek Tayal

Dr. Kewal Krishan Baveja Medal
Ishan Arora

K.S. Prakasa Rao Memorial Award
Amit Tripathi

K. Vasudevan Award
Mayank Garg

Laxmi Bai-Lal Chand Khurana Memorial Award
Deepesh Bharani

Mrs. Chander Kanta Nanda Excellence Award
Divyam Rastogi
Payal Goyal

Prof. M.C. Puri Memorial Medal
Puneet Pasricha

Prof. M.M. Chawla Gold Medal
Sameer Saksena

M.M. Chawla Gold Medal
Deepesh Bharani

Mudit Sharma Memorial Gold Medal
Ayushman Shukla

NBCC Prize of Excellence
Anoop K.

Nayyar Perwez Shahabuddin Medal
Sourav Sinha

Dr. Neeraj Srivastava Prize
Tajinder Singh

Prof. O.P. Gupta Medal
Rupam Mukherjee

Prof. Pushpa Bajaj Gold Medal
Thakur Kapeeshkumar

Parampujya Baba Sant Nagpalji Gold Medal
Bhawna Jain

Punita Kumar - Sinha Award for All Round Excellence
Chahat Abrol

Padmashri Man Mohan Suri Project Award
Ankush Sharma

Padmashri Man Mohan Suri Project Awards
Ankit Kumar
Dhruv Gupta
Pulkit Sapra

Prem Sheel Bhatnagar Memorial Award
Aaditya Agarwal

Rajiv Bambawale Cash Award
Ishan Arora

Rajiv Bambawale Cash Prize
Vinayak Agarawal
Parijat Mazumdar

Rahul Giri Memorial Medal
Utkarsh Ohm

Rajindra Kumari Malhotra Memorial Prize
Robin Singh

Suresh Chandra Memorial Award
Geetika & Siddharth Bora

Mrs. Santokh Gill Award
Puneet Pasricha

S.L. Duggal Excellence Cash Award
Robin Singh

Shrimati Vijay-Usha Sodha Research Award
Narayan Lal Panwar

Suman - Upma Memorial Gold Medal
Shachi Mittal

Shashank Vikram Garg Award
Shivansh Aggarwal

Ujjal Jeewan Charitable Trust Award
Kanika Khanna

Conferences/ Seminars/ Workshops/ Lectures

(April 1, 2014 - March 31, 2015)

The departments and centres of the Institute organized many conferences, seminars and workshops and some major of them are highlighted here under:

Departments/Cetres/Schools	Title of the Conference/Seminar/ Workshop/ Lecture
Chemical	'Nanofabrication: Top-Down meets Bottom-up, Dr. Ankur Verma, Johns Hopkins University, USA', 20.02.2014
	'Particle Shapes that Align in Simple Shear Flow, Dr. Vikram Singh, Cornell University, USA', 25.02.2014
	'Exploiting multi-drop interactions in microfluidic networks Platforms for high throughtput material and biological analysis, Prof. Siva A. Vanapalli, Texas Tech University, USA', 5.12.2014
	'Chromatography in Pharmacoology, Prof. HubaKalasz, Semmelweis University, Hungary', 07.01.2015
	'Effects of Torrecfaction on Biomass Structure and Hydrocarbons Production by Fast Pyrolysis, Prof. SushilAdhikari, Auburn University, USA', 12.01.2015
	'Development of low-cost snake anti-venom for rural India, Prof. Claire Komives, San Jose State University, USA', 22.01.2015
	'Engineering Order through Entropy: Role of Particle Shape Anisotropy in Assembly and Dynamics, Dr. Umang Agarwal, Shell Technology Centre, Bangalore', 06.04.2015
	'Catalysis in Biomass Transformation to Chemicals and Fuels, Dr. Basudeb Saha, Purdue University USA', 20.04.2015
	'Computational and Experimental Studies for Advancement of Electronics, Oil and Gas, and Solar Energy Systems, Dr. PramodWarrier, Colorado School of Mines, USA'
	Dr. M. A. Shaik, Programme Coordinator & Speaker, Two-day Workshop on"Scheduling & Optimization of Batch and Continuous Process Operations",conducted at School of Chemical Technology, Aalto University, Finland, June 11 – 12, 2014. (10 participants)
	'Challenges in Shale oil Hydrocracking, Mr. Raju chopra, Haldor-Topsoe, India', 03.02.2014
	'The Influence of Fluid-Solid Interaction on Diffusion in Nanopores and Nanoporous Materials, Dr. Suresh K. Bhatia, University of Queensland, Australia', 31.03.2014
	'Breaking the Tradition – Whole Crude Oil Fractionation then Hydrotreating or Whole Crude Oil Hydrotreatingthen Fractionation?, Dr. I. M. Mujtaba, University of Bradford, UK', 01.04.0214
	'Prof. Philippe Tanguy, Ecole Polytechnique du Montreal, Canada / Total S. A., France', 15.07.2014
	'Ionic Liquids: A Solution to energy and environmental concerns in Materials Processing, Prof. Ramana G. Reddy, University of Alabama, USA', 25.07.2014
	'Reservoir Forecasting and Decision Making under Uncertainty, Prof. JefCaers, Standford University, USA', 15.10.2014
	'Combining Granular Dynamics with Lattice-Boltzmann Methods, Prof. Ulrich Ruede, University of Erlangen-Nuremberg, Germany', 01.12.2014
	'Immunogenicity of Therapeutic Proteins, Dr. Narendra Chirmule, 7immune Consulting, USA', 05.12.2014
	'The Development of Whole Bioprocess Models, Prof. AjoyVelayudhan, University College, London, UK', 22.12.2014
	'Recent Advances in Experimental Multiphase Research with relevance to Energy and Environmental Applications, Prof.Muthanna Al-Dahhan, Missouri University of Science and Technology, USA', 29.12.2014
	'Hybrid Techniques to Improve Oil Recovery, Prof. Kishore K. Mohanty, University of Texas at Austin, USA', 02.01.2015
	'Advanced Materials and Diagnostics for Electrochemical Energy Conversion and Storage, Prof. Vijay K. Ramani, Illinois Institute of Technology, USA', 12.01.2015
	'Chemistry on the edge: Perovskite Exsolutions, Prof. John Thomas Sirr Irvine, University of St. Andrews, UK', 03.02.2015
	'Nano-Engineered Fischer-Tropsch Catalysts for Synfuel Production, Dr. Daniela Mainardi, Louisiana Tech University, USA', 09.03.2015
	'Construction and Future Applications of X-ray (and Neutron) Tomography with Stepped-Grating Interferometer, Prof. Leslie G. Butler, Louisiana State University, USA', 09.04.2015
	'Catalysis in Biomass Transformation to Chemicals and Fuels, Prof. BasudebSaha, Delhi University', 21.04.2015
	'Safety practices by Honeywell India Technology Centre' 15.04.2015
Chemistry	Royal Society of Chemistry (RSC) India Raodshow and Symposium Series (November, 2014)
	3 M's of Chemistry: Molecules, Materials & Medicines (In-House Symposium), (December, 2014)
	Safety Aspects in Chemical Laboratories by Prof.Bhalchandra Bhanage (ICT, Mumbai)
	"Breaking Bonds to Order – A Dream Still Alive" by PadmaShri Prof. J. P. Mittal

Conferences / Workshops / Seminar / Lectures

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Civil Engineering	"Conference on Technologies for Safe and Smart Cities" Shimizu Open Academy Programme - supported by the Shimizu Institute of Technology and Shimizu Corporation (21st January 2015)
	"Deep Foundation Technologies for Infrastructure Development in India" a conference conducted under the aegis of Deep Foundation Institute (DFI) of India, (in collaboration with the Indian Geotechnical Society (IGS)-Delhi Chapter and Construction Industry Development Council), Chairman- Prof. Manoj Datta, Coordinater : Dr. R. Ayothiraman (September 19-20, 2014)
	Indo-US Summer School on "International Perspectives on Microbial Risk Assessment" (June 2014)
	National Seminar on "Thermal and Other Treatment Techniques for Waste Management" jointly with National Institute of Technology (NIT) Calicut under the memorandum of understanding (MoU) between NIT Calicut and IIT Delhi (March 7- 9 2014) at NIT Calicut
	Structural Engineering Convention (SEC) 2014 : "9th Biennial Event" under the Auspices of Indian Association for Structural Engineering (IASE), Chairman- Prof. A. K. Jain, Coordinater - Dr. Vasant Matsagar. (December 22-24, 2014)
	Indian Army, Ministry of Defence (MoD), Government of India sponsored one-week long course on "Blast Resistant and Anti-Terrorism Design of Structures" under the aegis of (FITT), Coordinators: Dr. Tanusree Chakraborty, Dr. Vasant Matsagar (June 7-14, 2014)
	Delivered special lecture on "Managing Water Crisis in California: Archetype of Global Water Challenges" by Dr. Ashmita Sen gupta , Southern California Coastal Water Research Project (SCCWRP), (25th March 2015)
	Delivered special lecture on "Use of HAZUS for Efficient Evaluation of Seismic Adequacy of Hospital Buildings in California" by Dr. Balram Gupta (10th February 2015)
	Delivered special lecture on "Sediment Transport and Bed/Bank Morphodynamics for River Applications" by Prof. Yasuyuki Shimizu, Hokkaido University, Japan (25th July 2014)
Computer Science and Engineering	Embedded Systems Week, (October 12-17, 2014)
	34th Foundations of Software Technology and Theoretical Computer Science conference (FSTTCS'14), (December 15-17, 2014)
	Big data Analytics (Dec 2014)
	Avalokan: ASSISTIVE technology Showcase (30th Oct 2014)
	Workshop on "New Developments in Exact Algorithms and Lower Bounds" (December 13–14, 2014)
	INFINITY 2014 workshop: 16th International Workshop on "Verification of Infinite State Systems" (18 December, 2014)
	Workshop on "Recent Advances in Cryptography" (December 18–19, 2014)
	Precise and Scalable Dynamic Symbolic Analysis of Distributed Software by Subodh Sharma, Post-doctoral fellow in the Department of Computer Science at the University of Oxford (19th Aug, 2014)
	Spatially Parallel Architectures, Angshuman Parashar, Intel Angshuman Parashar, Architecture Research Engineer at VSSAD group in Intel Corporation (19th August, 2014)
	Current trends in programming languages research by Dr. Aditya Kanade, IISc Bangalore (12th August 2014)
	Google Ads Data Infrastructure: Challenges in building Big Data System by Ashish Gupta (Distinguished software engineer, Google, US) 9:30 to 10:50 AM (22nd September, 2014)
	It's All About The Data: Data-Driven Content Creation and Human Pose Estimation by Arjun Jain, NYU, (28th October, 2014)
	Sublinear Algorithms in Big Data by Dr. Rameshwar Pratap, TCS (31st October, 2014)
	Redefining Processes, Participation and Products of Science and Data by Puneet Kishor, Manager, Science and Data Policy, Creative Commons, USA (November 5th, 2014).
	Flexible Bayesian Models for Complex and Heterogeneous Data by Piyush Rai, Duke University (7 Nov, 2014)
	Interactive Playspaces for 3D Content Creation by Ankit Gupta, Microsoft (2014)
	Correlation decay, Phase transitions, and Counting by Piyush Srivastava, Caltech (1st December, 2014)
	Propositions as Sessions by Philip Wadler, University of Edinburgh (8th December, 2014)
	Correlation decay, Phase transitions, and Counting by Piyush Srivastava, Caltech (1st December, 2014)
	Ensemble Learning in the Crowd-sourcing Era by Gaurav Pandey, Mount Sinai School of Medicine, New York (7th January, 2015)
	Proofs for Performance by Rahul Sharma, Stanford University (8th January, 2015)
	Reinventing Education by Prof. Anant Agrawal, CEO, edX (13th January 2015)
	Multi-Scale Flow Modeling by AbhinavGolas, Samsung Research America (7th January, 2015)
	Detailed Scene Understanding from RGB-D Images by Saurabh Gupta, UC Berkeley (8th January, 2015)
	Visual Cortex on Silicon by Vijay Narayanan, Dept. of Computer Science and Engineering, Pennsylvania State University (13th January 2015)
	Approximating and Testing Equilibria by Siddharth Barman, CalTech (27th January, 2015)
	Perception, Drawing and Interactive Modeling by Karan Singh, Professor of Computer Science at the University of Toronto (23rd Feburary, 2015)
	Law Breakers to Law Makers: How Pirate Radio Activists Changed the Laws to Open up the Airwaves, Pete, Founder of the Prometheus Radio project 4pm (10th February, 2015)
	Video with no Photographers by Prof. Shmuel Peleg, Hebrew University, Jerusalem, Israel (11th February, 2015)
	Online bin packing: Old algorithms and new results, Jiri Sgall, Charles University, Praha, Czech Republic (3rd February, 2015)
	Virtual Memory in Next-Generation Heterogeneous Manycore Systems by Dr.Abhishek Bhattacharjee, Rutgers University (6th February 2015)
	Swarm intelligence: principles, algorithmic frameworks, and applications, Professor Gianni di Caro, Senior Researcher at IDSIA: the Swiss AI Lab (30th January 2015)

Conferences / Workshops / Seminar / Lectures

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Electrical Engineering	International Workshop on "Autonomous Vehicle and Mobile Robotics 2014" by Dr. Shubhendu Bhasin (July 6-8, 2014)
	Project workshop on "High Energy and Power Density Solutions to Large Energy Deficits" by Prof. Sukumar Mishra (January 5-6, 2015)
	Internation Workshop on "IDH" by Prof. S. Chaudhury (November 18-19, 2014)
	International Workshop on "HISENS" by Prof. S. Chaudhury (12th February 2015)
	Talk on "Consequences of stochastic gene expression – a tale of two viruses" by Dr. Abhyudai Singh, University of Delaware, Newark, Delaware, USA (25.09.2014)
	Distinguished Lecture on "IEEE Circuits & Systems/ Control Society (CAS-CS), Delhi Chapter" by Dr. David Atienza, Director, Embedded Systems Laboratory, EPFL, Switzerland (20.08.2014)
	Lecture on "IEEE Circuits and Systems/ Control Society (CAS-CS), Delhi Chapter" by Prof. Radu Marculsecu, Carnegie Mellon University-USA, Prof. Partha Pratim Pande, Washington State University-USA (16.10.2014)
	Lecture on "Ultra-Low Power Wireless Body Sensor Networks for Smart Bio-Signals Monitoring Systems" by Dr. David Atienza (20.08.2014)
	Lecture on "SCADA Systems" by Dr. A.K. Sinha (29.09.2014)
	Lecture on "Emerging Trends in Power Electronics Converters" by Dr. Yash (13.10.2014)
	Lecture on "Renewable Energy and Micro-grids" by Prof. S. S. Murthy (15.10.2014)
	Lecture on "Monitoring and Diagnositc of Electrical Machines" by Dr. Rupam (4.11.2014)
	Lecture on "The Physics and Modeling of MOSFETs" by Dr. Mitiko Miura-Mattausch, (13.11.2014)
	Lecture on "Generator Protection" by Dr. Akhil, (13.11.2014)
	Lecture on "Efficient Wireless Power Transfer Technologies" by Dr. Arun (18.11.2014)
	Lecture on "Smart Power Flow Controller for Smart Grid Applications" Dr. Kalyan Sen (12.12.2014)
	Lecture on "Power Electronics in Modern VLSI Systems" by Dr. Subrato (12.01.2015)
	Lecture on "Renewable Energy" by Dr. Ramesh (16.01.2015)
	Lecture on "Future Wireless Communication Technologies 2020-30" by Dr. Upkar Dhaliwal, (16.03.2015)
Humanities and Social Sciences	9th Student Conference of Linguistics in India (SCONLI9): https://sites.google.com/site/sconli9iitd/ One Day Graduate Students' Conference on "Life in the Indian City: Aspirations, Expressions and Planning"
	QIP funded workshop on "Case and Agreement in South Asian Languages"
	Special Lecture in HUL253: Moral Literacy, Moral Choices by David Orban (Faculty and Advisor, Singularity University, and Founder of Network Society Research) on "The Necessity of a Science and an Engineering of Morality" (9th March 2015)
	Panel Discussion on "How to Build Lasting Peace Between India and Pakistan", organised with students and faculty from Lahore University of Management Sciences (26th March)
	Special lecture for HUL 232, open to all. "Hindi Sahitya aur Dalit Vimarsh" (Hindi Literature and Dalit Thought) by Dr. Ajay Navaria, Jamia Millia Islamia (10th April)
Management Studies	Business and Entrepreneurship Development in a "Globalized Era and the Rise of India Under New Leadership" AGBA, USA (November 21-23, 2014)
	MBA Curriculum Review Stakeholders' Consultation Workshop (20th September 2014)
	Training Program for Managerial Effectiveness by Dr. Harish Chaudhry (July 10-11, 2014)
	Management Development Program for HPCL Employee (2014)
	Innovations in Supply Chain Management in Dynamic Business Scenario
	Leveraging IT to achieve Operational Excellence in IT
	Corporate Ethics: Getting it Right from Top to Bottom
	Managing the objective of Customers First through Employees First measures
	Digital Marketing: Challenging Conventions
	Emerging Issues and Challenges in the Indian Financial System
	Relevance of IT in Business
	Challenges of managing a business in today's environment
	Rewarding emotional intelligence
	Recipe of a successful and satisfying career
	Mega Trends
	Impact of IT on various Industries
Mathematics	Iwahori-Hekce model for supersingular representation for GL2 (Qp) by Dr.Gautam Borisagar, Zakir Husain Delhi College (17th March, 2015)
	Roots, Stochastic Processes and Computers by Prof. M.L. Chaudhry, Royal Military college of Canada, Ontario, Canada (10th March, 2015)
	On a form of degree d in $2d+1$ variables by Dr. Manoj Verma, Post Doctoral Fellow, IMSc., Chennai (25th February, 2015)
	Wave propagation by sound-soft small bodies by Dr. Durga Prasad Challa, Postdoctoral Researcher, INHA University, South Korea (19th February, 2015)
	Introduction to Probability Theory by Prof. Krishna Athreya, Iowa State University, USA (29th January , 2015)
	A survey lecture on "The classical obstacle problem" by Prof. Roberta Musina, Department of mathematics, Universitadeglistudi di udine, Italy (20th January, 2015)

Conferences / Workshops / Seminar / Lectures

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	The Dirichlet and Niavier Fractional Laplacians by Prof. Roberta Musina, Department of mathematics, Universitadeglistudi di udine, Italy (23rd January, 2015)
	Fixed Width Confidence Interval for Gini Index by Dr. Bhargab Chattopadhyay Univ. of Texas at Dallas, USA (9th January, 2015)
	Performance analysis of MAC Protocol of EDCA on Common Channel and reservation on service channels for IEEE 802.11p/1609.4 wave by Prof. Bong Dae Choi , Sungkyunkwan University, Seoul, Korea (24th December, 2014)
	Positive solutions to classes of semipositone problems by Dr. Lakshmi Sankar (3rd Dec, 2014)
	Combinatorial identities arising from representation theory of affine lie algebras by Dr. Debajyoti Nandi, Rutgers Univ. USA (25th November, 2014)
Mechanical	American Welding Society (AWS) Lecture Series VII "Construction of Steel Structures" - IIT Delhi with Indian Institute of Welding by Dr. S. Aravindan (13th December, 2014)
	EPSRC-DST sponsored project by Prof. P.M. Pandey (February 26-28, 2015)
	International Workshop on Urban Freight by Dr. Nomesh Bolia (April 7-8, 2014)
	Workshop on "Need of Accident Data Collection & Analysis in India and Future Roadmap for Pan-India Implementation" organized ADAC of National Automotive Testing and R&D infrastructure Project, Society of Indian Automobile Manufacturers and IIT Delhi by Prof. Anup Chawla (30/07/2014)
	Workshop on Accident Analysis by Prof.Anup Chawla (sponsored by UKIERI and Ministry of Heavy Industries (March 4-5, 2015)
	Dr. David Millar, CTO, NASA
	14th Lecture in Course MEL770 "Introduction to Stochastic Modelling and Simulation" by Dr. Sudhanshu Shekher Singh, IBR IRL, Gurgaon
Physics	Integrated quantum photonics, Half Day Workshop on "Trends in Modern Physics", NPL, Delhi, March 30, 2015.
	Investigating the role of oxygen vacancy defects responsible for wetting properties of indium oxide nanostructures, NANOSMAT-Asia Kayseri, Turkey, 24-28 March, 2015.
	KPFM based studies of nanoscale solar cell devices, India Singapore joint symposium in condensed matter physics, Indian Institute of Technology Kanpur, March 25, 2015.
	Durham UKIERI workshop on magnetization processes 2015, Durham University, UK, 19-20 March, 2015.
	Discussion cum Network Meeting of INSPIRE Faculty awardees, IISER, Mohali, 15-16 March, 2015.
	Ion beam modification in nanostructures, DST-SERB school on Ion beams in Materials, Saurashtra University Rajkot, March 3, 2015.
	International conference CDAMOP-2015, March 2015, New Delhi, India.
	Interface formation in single nanorod junctions, Conference on Nanotechnology and Life, Banaras Hindu University, February 27, 2015.
	Current Trends in Condensed Matter Physics, National Institute of Science Education and Research (NISER), Bhubaneswar, 19-22 February, 2015.
	Hydrogenation properties of size selected Pd and Pd alloy nanoparticles, Delhi Technical University, February 16, 2015.
	Eyes and Hands of Nanotechnology, Department of Physics, Deen Dyal Upadyhaya college, Delhi, February 16, 2015.
	Detection of P. Aeruginosa bacteria by buckled silver nanorods arrays as an active SERS cage, Nanoplasmonics- Faraday Discussion 178, Royal Society of Chemistry, London, UK 16-18 February, 2015.
	Nanoscale resistive memory and solar cell devices, Indian Institute of Technology Roorkee, 14 February, 2015.
	International (ICTP) workshop on ``Current trends in Frustrated Magnetism", held at JNU, New Delhi, India,9-13 February, 2015.
	Indo-Japan Workshop on Magnetism at Nanoscale, NISER, Bhubaneswar, India, 9-12 February, 2015.
	Growth of size selected metal, alloy and core shell nanoparticles, SRM University, Chennai, February 6, 2015.
	Nanoscale interface formation and charge transfer in CZTS thin film and nanorod based junctions, 2015.
	Integrated quantum optics, ICTS School and discussion meeting on ON FRONTIERS IN LIGHT-MATTER INTERACTIONS, Indian Association for the Cultivation of Science (IACS), Jadavpur, Kolkata 700032, 19-22 December, 2014.
	Photonics 2014: 12th International Conference on Fiber Optics and Photonics in Indian Institute of Technology (IIT) Kharagpur, INDIA, 13-18 December, 2014.
	International Conference on Fiber Optics and Photonics, to be held at the IIT Kharagpur, 13-16 December, 2014.
	International conference ICNMA, 2014, December, 2014, Kerala, INDIA.
	Workshop on "Bring the Nanoworld Together: Emerging Materials for Nanoscale Devices", held at IIT Delhi, INDIA, 27-28November, 2014.
	Bouncing droplets on Si nanosprings, ICAMN, Katmandu, Nepal, 4-6 November, 2014.
	International workshop on ``Probing and understanding exotic superconductors and superfluids", held at Miramare, ICTP Trieste, Italy, 27-31 October, 2014.
	Quantum photonics, TECHNICAL EDUCATION QUALITY IMPROVEMEN PROGRAMME-II, Short Term Training Program On Photonics, Optical Communication Systems and Networks, NITK, Surathkal, 8-10 September, 2014.
	International Conference on Microwave Magnetics 2014, June 29th - July 2nd, 2014, Sendai, Japan.
	Computational Optical Imaging and Sensing, Hawaii, USA, June 2014.
	Lecture in "Introduction to Engineering Physics"
	Indo-Finnish Workshop (20-21,October, 2014)
	Organized 4 talks in the "Journal Club", Department of Physics, IIT Delhi by Dr. Joyee Ghosh
	Multi-functional manifestations of III-Nitride nanostructures and films by Prof. S.M. Shivaprasad, International Centre for Material Science (ICMS) & Chemistry and Physics of Materials Unit (CPMU), JNCASR, Bangalore-560064, India

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	Screen-display-induced photoresponse mapping for large area photovoltaics by G. U. Kulkarni, Chemistry and Physics of Materials Unit (CPMU), JNCASR, Bangalore -560064, India
	Nanofabrication using top-down and bottom-up techniques: recent progress to improve control, throughput and cost-efficiency by Prof. Juergen Brugger, Microengineering and Material Science, Director, Microsystems Laboratory, Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland
	Quantum Information Technologies with Photons & Atoms by Dr. Joyee Ghosh (22 April, 2015)
	Magnetism at nanometer as well as sub-nanometer (atomic) length scale by Dr. Pintu Das (30 March, 2015)
	Building with artificial atoms: Transport studies in mesoscopic quantum dot arrays by Dr. Nirat Ray (11 February, 2015)
	Magnetism at nanometer as well as sub-nanometer (atomic) length scale by Dr. Pintu Das (04 February, 2015)
	Few topological aspects in an exactly solvable spin model by Dr. Saptarshi Mandal (12 February, 2015)
	Quantum Communication Network by Dr. R. Prabhu (22 January, 2015)
	Active motion: Exploring the path of microswimmers by Prof. Holger Stark (13 January, 2015)
	Boundary Fidelity and Entanglement in Su-Schrieffer-Heeger Model by Dr. Moitri Maity (08 January, 2015)
	Integrated Photonics for Biomedical Imaging and Optical Trapping by Dr. Balpreet Singh Ahluwalia (06 January, 2015)
	Structure-Property-Correlation of Nanostructured Materials for the Energy Technology by Prof. Oliver Eibl (17 December, 2014)
	Epitaxial Lateral Overgrowth of InP on Si for Monolithic Integration by Prof. Sebastian Lourdudoss (10 December, 2014)
	Self-assembly of functionalized superparamagnetic particles for point of care medical diagnostics by Prof. Adarsh Sandhu (10 December, 2014)
	Self-assembly of functionalized superparamagnetic particles for point of care medical diagnostics by Prof. Adarsh Sandhu (10 December, 2014)
	2nd-order Raman Scattering in Graphene by Dr. Rohit Narula (27 November, 2014)
	Galaxy Cluster merger blast wave: an engine of Cosmic Ray production by Dr. Surajit Paul (20 November, 2014)
	What does ARPES tell about recently discovered FeAs based High Tc Superconductors? by Dr. Rajendra S. Dhaka (14 November, 2014)
	Can heavy quarkonia be used as a thermometer for QGP? by Nirupam Dutta (10 November, 2014)
	High Accuracy Atomic Force Microscope with Self-Optimizing Scan Control by Mr. Ahram Kim (27 October, 2014)
	Physical Review Letters today by Samindranath Mitra (07 November, 2014)
	Multi-functional manifestations of III-Nitride nanostructures and films by Prof. S.M. Shivaprasad (22 September, 2014)
	Irreversible to reversible aggregation of Colloidal particles by Dr. Sujin Babu (13 September, 2014)
	Cluster-glass behavior in CeRuSn3 and PrRhSn3 by Dr. V. K. Anand (09 September, 2014)
	Controllable Growth of Nanostructures by Prof. Bodh Raj Mehta (21 August, 2014)
	Standoff Raman Spectroscopy for Detection of Inorganic and Organic Materials to 100 m Distance by Shiv K. Sharma (07July, 2014)
	Heusler Alloys: Magnetic materials with multifunctional properties by Prof. A. K. Nigam (27 March, 2014)
Textile Technology	International Conference on Polymeric Biomaterials, Bioengineering & Biodiagnostics by Bhuvanesh Gupta & Dipayan Das (October 27-30, 2014)
	International Conference on Technical Textiles & Nonwovens (ICTN-2014) at IIT Delhi by R Alagirusamy, Apurba Das, Abhijit Majumdar and Samrat Mukhopadhyay (November 6 - 8, 2014)
	Special Lectures on Theory of Yarn Structure, Speaker: Prof. Ing. Bohuslav Neckar, DrSc., Faculty Coordinator : Dipayan Das (27.10.2014 - 06.11.2014)
Applied Research in Electronics	CommunicationTechnologiesforSurveillanceApplications,sponsoredbyCabinetSecretariat,Govt.ofIndia(April5-17,2014)
	Future Wireless Communication Technologies 2020-30, Speaker: Dr. Upkar Dhaliwal, Future Wireless Technologies (16th March, 2015)
	The Physics and Modeling of MOSFETs, Speaker: Mitiko Miura-Mattausch, IEEE Distinguished Lecturer (13th November, 2014)
Atmospheric Sciences	Workshop on "Climate change Science & modelling" by Dr. S.K. Mishra (January 9-10, 2014)
Biomedical Engineering	Workshop for research scholars at IIT Delhi on "Manage Your Scientific Literature using freeware Mendeley Desktop" by Dr. Amit Mehndiratta
	Lecture on "Mycoplasma Detection and Prevention" by Divay Bagga, Lonza India (18th September, 2014)
	Lecture on "Development of medical products and technology to create a societal impact in the healthcare field in India" by Dr. Pawan Mehrotra, National Centre for Biological Sciences (NCBS), Bangalore, India (10th November, 2014)
	Lecture on "Using Public Domain and Streaming Data for Improved Predictive Models, More Efficient Drug Trials, and Targeted Drug Delivery" by Prof. Vishwesh Kulkarni, Department of Electrical Engineering, University of Warwick, Coventry, U.K. (23rd January, 2015)
	Lecture on "Advancement in small animal In-vivo Imaging" by Bruker, India (27th January, 2015)
	Lecture on "Towards Biocompatible Medical Devices and Artificial Extracellular Matrices" (27th March, 2015)
	Lecture on "Development of stimuli responsive polymeric nanosystems for cancer therapeutics" by Shantanu Lale
	Lecture on " Talk to cells – Our Questions Their Answers" by Vasundhara Shukla
Energy Studies	"India-UK APEX-II Kick off Meet and Mini Conference / Poster"(India-UK Solar Energy Program) at IIT Delhi by Prof. V. Dutta (6th Febuary, 2015)
	HRD Programme on "Economics and Financing of Renewable Energy Technologies" by Prof. T.C. Kandpal, (July 16 -20, 2014)

Conferences / Workshops / Seminar / Lectures

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	Delivered a lecture on "Smart Grid and Power Generation" by Prof. Tarlochan Sidhu, Associate Professor of Faculty of Engineering, University of Ontario Institute of Technology (8th August, 2014)
	Delivered a lecture on "Design and operation of a large-area high-VHF capacitively-coupled plasma source; with application to large-area thin film growth" by Prof. Albert Rogers Ellingboe, Research Director, Plasma Physics Lab, Dublin City University, Ireland, (16th December, 2014)
Instrument Design & Development Centre	Workshop on 'Creative product design' by designers from LG electronics (April 23-24, 2014)
	India HCI 2015: National Conference on "Human Computer Interaction"
	Workshop on 'Automobile Design' by Maruti Suzuki Professional design team (March 2015)
	Lecture on product design and entrepreneurship by Raja Thomas, an alumnus of IITD and a Practicing designer in Netherlands (9th November 2014)
	Lecture on "Design Driven Innovation" by Dr. Shujoy Chakraborty, faculty of Interaction Design, Universidade da Madeira, Portugal (11th February 2015)
	Lecture on "Automotive styling, skill development, opportunities in automotive industry" by Sh. G. Sathyaseelan, General Manager- Designs, Ashok Leyland (23rd August, 2014)
	Organised an interactive session with design students and faculties from IDC, IIT Bombay by Prof. B.K. Chakraborty, Alka Hingorani and Raja Mohanty.
	"Application of Optics in Defense Instruments" by Dr. A. K. Gupta
	"Defense Application of Holography" by Dr. A. K. Gupta (March 11-12, 2015)
Industrial Tribology Machine Dynamics	Organized Course on 'Coal and Flyash handling, transportation and storage' by Prof. V.K. Agarwal (October 29-31, 2014)
Polymer Sciences	"Polymer Nanocomposites Technology: When it is important to go Nano?", CSIR, South Africa by Prof. Suprakash Sinha Roy, (28th April 2014)
	"The rheometry revolution with two motors for past, present and future" by Patrick Heyer, Anton-Paar, Germany (29th May, 2014)
	"Viscoelastic phase separation process and development of micro and nanomorphologies in epoxy based blends for super toughening", M.G. University, Kottayam, Kerala by Prof. Sabu Thomas, (24th June 2014)
Rural Development and Technology	"Unnat Bharat Abhiyan" : (With a view to uplift rural India) The program is being launched in collaboration with the Indian Institutes of Technology (IIT) and the National Institutes of Technology (NITs) across the country (September 7–9, 2014)
	Biogas staff training program of Nodal officer of Haryana, U.P. and Delhi-NCR at Biogas Development and Training Centre, IIT Delhi (8th November, 2014)
	Biogas User Training Program in U.P. and Haryana (28th November, 2014)
	Training and dissemination of green technologies: "Biopesticides, cattle feed and fodder management and solid waste management" (December 9 - 11, 2014)
	"Safe water and sustainable sanitation for underserved communities in urban India" (January 16-17, 2015)
	Biogas Masson Training Program: 2 Nos. at Jhansi, U.P. (February 8–17, 2015)
	Biogas Turnkey worker Program: 1 Nos. at Barsana, Mathura, U.P. (March 16–30, 2015)
	"Women ,S & T and Rural Development" by Dr. Manju Sharma , Ex-secretary, DBT
	Invited keynote speech on " Developments in Biogas Upgrading & Bottling for Transportation and cooking applications and their prospects in India", 1st International Conference on Renewable Energy Gas Technology (REGATEC 2014), Malmo, Sweden (May 22-23, 2014)
	Invited lecture on "Developments in Biogas production, upgradation and bottling Technology", Dept. of Process and Energy Engineering, TU Delft, The Netherlands (28th May 2014)
	Invited Lecture on "Prospects of biogas for waste management in India and commercialisation through biogas upgradation" in Advance Approaches for bio-waste and waste water treatment, organised by TERI and Embassy of Italy (December 9-10, 2014)
	Invited Speaker in 'Hello Tomorrow Challenge 2015' Kick off at Embassy of France, New Delhi on "entrepreneurship opportunities on biogas related technology".
Amar Nath and Shashi Khosla School	Recent Advances in Cryptography (December 18-19, 2015)
	Demonstration of projects by ASSISTECH group (March 2, 2015)
Kusum School of Biological Sciences	"Bio World 2014: Protein Structure and Function" (December 10-12 2014)
	"Protein Kinases as molecular switch" by Dr. Navratna Vajpai from UK on 06.06.2014
	"Purification of An Active Complex of The Retinal Photoreceptor, Rhodopsin in Complex With its Cognate- Prtein, Transducin For Structural Studies" by Dr. S. Ramachandran from Cornell University , USA on 11.07.2014
	"Fibrosis; understanding the structural mechanism of regulation of BMP-1/Tolloid Protienase activity in Procollagen process" by Dr. Urvashi Sharma from Institute of Biology and Chemistry proteins , Lyon , France on 25.07.2014
	"Disentangling Galectin -1- Based Patterning Functions in Organogenesis" by Dr. Ramray Bhat from Life Sciences Divison, CA, US on 07.11.2014
	"Serial Femtosecond Crystallography" by Dr. Amit Sharma from Department of Chemistry and Molecular Biology, University of Gotenbeig, Sweden on 13.01.2015
	"Recurrent Gene Alterations in Prostate cancer: Biology and translational feathers" by Prof. Shiv Srivastava from Centre for Prostate Disease Research, University of Health Sciences, USA on 18.02.2015
Hindi Cell	First time in the Institute under the 'Institute Lecture Series' Hindi lecture on "Paramparik Gyan, Samaj aur Pani" by Shri Anupam Mishra was organized on 23.04.2014.
	Hindi Pakhwara was organized during the 14-30 September, 2014 in which many activities were organized.
	One day workshop on 'Hindi Ke Pragami Proyog Mein Suchna Prodhyogiki Tool Avem Software' was held on 25 July, 2014 for 'B', 'C' Staff member and Hindi Nodal Officer of the Institute.
	Half day workshop on 'Unicode Software Mein Prashikshan Karyshala' was held on 30 Dec., 2014 for 'B', 'C' Staff member and Hindi Nodal Officer of the Institute.
	Debate Competition on "Use of Technology and Innovations in promoting Good Governance" has held on 24 Dec., 2014 for B,C Staff members and Hindi Nodal Officer of the Institute. A prize distribution programme was also held on 25.02.2015, for the same.

Interaction with Alumni

(April 1, 2014 - March 31, 2015)

Interaction With Alumni

- Silver Jubilee Reunion Batch of 1990 held during 26-27th December 2014. 92 alumni participated along with their families.
- "Alumni Day" was celebrated on 28th December 2014. The theme was 'ENVISIONING THE FUTURE TOGETHER'. Batches of Alumni spread over fifty glorious years of history enthusiastically joined the celebration. Approximately 500 alumni attended the event which included a number of activities e.g. panel discussions, felicitation function, cultural program followed by dinner.
- Pearl Reunion of 1978 & 1979 Batches was held on 8th March 2015. About 40 alumni participated along with their spouses.
- A new programme, "Programme for Accelerated Engagement and Collaboration (PACE)" was also launched during the Alumni Day on 28th December 2014 to further strengthen the Alumni engagements with IIT Delhi.

The other Alumni related events held during the period under report are as follows:

- IITDAA Annual General Body Meeting & Annual Get-together 2014 on 26th April, 2014.
- IITDAA organized a talk on "The Art of Persuasive Leadership" on 31st May 2014.
- IITDAA in association with Your Score organized a seminar on "Aspiring Engineers Mentorship" on 22nd June 2014.
- IITDAA organized "3, Sakina Manzil" Timeless Love Story (in English) on 27th July 2014 at Seminar Hall, IIT Delhi.
- IITDAA organized a Workshops on "Leadership through Self-discovery" during 1-3rd August 2014 at IIT Delhi.
- The Event-Unique Institute Day Celebration was organized on 16th August 2014. Enthusiastic alumni of IIT Delhi came together to celebrate this Unique Institute Day and the spirit of togetherness that bonds them.
- Sportsy get-together for 2004-2009 entries of IIT-Delhi was held on 31st August 2014. On a rainy Sunday afternoon, the event kicked off with a football fixture with 45 alums.
- IITDAA in collaboration with T&P and BSW hold a Panel Discussion on "CAREER OPTIONS FOR IITIANS" on 14th September 2014.
- "SAAZ" a tribute concert on 16th October 2014. It was a cultural event organized jointly with Rendezvous 2014 – a concert SAAZ as tribute to the Shehenshah-E-Qawwali 'Nusrat Fateh Ali Khan' by the 'House of Symphony' at Dogra Hall, IIT Delhi.
- The Ruby Reunion of Batch 1974 was held in Delhi during 17-19th October 2014. 60 alumni of the 1974 batch participated, including 17 from overseas with their spouses. It was a highly successful event.
- The Eminent Alumni Lecture Series was started. Chetan Bhagat delivered the lecture on the topic "From Institute to Bollywood" on 18th October 2014 at Dogra Hall, IIT Delhi. This was in association with BRCA.
- IIT Delhi Distinguished Alumni Awards Felicitation Function, 2014 was held on 1st November 2014. The awards were conferred during the Convocation Function.
- IITDAA Award for Outstanding Contribution to National Development for the year 2013-2014 was conferred on the Alumni Day 2014 during the concluding Session to the following awardees:
  1. Dr. S. K. Chaudhuri (1972, M.Tech., Text. Tech.)
  2. Mr. Sunil Parekh (1976, B.Tech., Mech. Engg.)

Distinguished Visitors

(April 1, 2014 - March 31, 2015)

Many delegations from the Industry, Academia and the Government from several countries visited the Institute to explore the possibilities of mutual interaction. Some of these are highlighted below:

- A 3 member delegation led by Mr. Esteban Quiros Salazar, Charge d"Affaires, Costa Rican University, USA, visited the Institute on Apr. 03, 2014.
- A 7 member delegation led by Ms. Anne-Marie Loef, Director, Saab Global Innovation Program, (Indo-Swedish Industry-Academia Research, Innovation and Higher Education Network), Sweden, visited the Institute on May 19, 2014.
- A 3 member delegation led by Prof. Mahendra Gupta, Dean, Olin Business School, Washington University, USA, visited the Institute on July 03, 2014.
- A 3 member delegation led by Prof. Hiroshi Yoshinu, Director, University of Tokyo, Japan, visited the Institute on July 17, 2014.
- A 5 member delegation led by H.E. Mr. Tadsse Haile, State Minister, Ministry of Industry, Ethiopia, visited the Institute on July 30, 2014.
- A 3 member delegation led by Prof. Ian Young AO, Vice Chancellor of Australian National University (ANU) visitedthe Institute on 11th September, 2014.
- A 16 member delegation led by Prof. Stephen Flint, Associate Dean, Internationalization from the University of Manchester, UK visited the Institute on 12th September, 2014.
- A 6 member delegation led by J.Y. Marzin, Director of the National Institute for Engineering & Systems Sciences (INSIS), CNRS, France visited the Institute on 30th October, 2014.
- A 4 member delegation led by Prof. Robert Allison, Vice Chancellor of Loughborough University, UK visited the Institute on 3rd November, 2014.
- Ms. LiliannePolumen, Honourable Minister of Foreign Trade and Development Co-operation, Netherlands with Mr. KailashSatyarthi, Nobel Peace Prizewinner of 2014 visited the Institute on 5th November, 2014.
- A 5 member delegation led by Ambassador Emmanuel Tungamwese, Advisor (International Cooperation), Ministry of Higher Education and Scientific Research, Government of Burundi visitedthe Institute on 13th November, 2014.
- A 5 member delegation led by Prof. Alvaro Escribano, Vice-Chancellor of International Relations at Universidad Carlos III de Madrid visited the Institute on 14th November, 2014.
- A 9 member delegation led by Mr. Maximilian Metzger, BMBF – Federal Ministry of Education and Research, Deputy Director General for International Cooperation in Education and Research from Germany visitedthe Institute on 18th November, 2014.
- A 3 member delegation led by Prof. FransCoenen, Deputy Head of the Department of Computer Science from University of Liverpool, UK visited the Institute on 19th November, 2014.
- A 6 member delegation from Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan and Japan Science and Technology (JST) led by Dr. YasuoKishimoto, Senior Deputy Director General, Science and Technology Policy Bureau, MEXT, visited the Institute on 21th November, 2014.
- A 3 member delegation led by Vice Minister of Education, Mr. Rimantas, Vaitkus from Lituania and Vice Rector for International Relations in Vilnius Gediminas Technical University, Luthuania visited the Institute on 1st December, 2014.
- A 6 member delegation led by David Rutherford, President of the Applied Science Technologists and Technicians of British Columbia (ASTTBC) Council visited the Institute on 2nd December, 2014.
- A 7 member delegation led by Chairperson of the Council from Nelson Mandela Metropolitan University, South Africa visitedthe Institute on 8th December, 2014.
- A 4 member delegation led by Mr. IlyushchankaAliaksandr, Director General of the State Research & Production Powder Metallurgy Association, Belarus visitedthe Institute on 12th December, 2014.
- A delegation led by Prof. Jang Gyu (John) Lee from Adama Science and Technology University, Ethiopia visitedthe Institute on 18th December, 2014.
- A delegation of 20 student group with Prof. Solomon Darwin, Executive Director, Centre for Corporate Innovation, Haas School of Business, University of California, Berkeley visited the Institute on 2nd January, 2015.
- A 8 member delegation led by Mr. Gerard de Graaf, Director, DG CONNECT from European Union visitedthe Institute on 15th January, 2015.
- A 7 member delegation led by Mr. Fumiaki Takahashi, Principal Fellow from JST, Japan visited the Institute on 20th January, 2015.
- A 6 member delegation led by Mr. Kazuo Nakamoto, Director, International Division, Shimzu Corporation visited the Institute on 21th January, 2015.
- A 4 member delegation led by Dr. ZulkaraminHanafi, Vice Chancellor & President, University of Brunei Darussalam (UBD) & Permanent Secretary, Ministry of Education, Brunei Darussalam visitedthe Institute on 4th February, 2015.
- A 4 member delegation led by Prof. SatishNarayanaSrirama, Head of Mobile Computing Lab, Institute of Computer Science from UniversityofTartu,EstoniavisitedtheInstituteon20thFebruary,2015
- A delegation led by Prof. Nader Azarmi who heads the Etisalat-British Telecom Innovation Center (EBTIC) located in the Khalifa University Campus, Abu Dhabi UAE visited the Institute on 11th March, 2015
- A 3 member delegation from Norway, Gjovik University visited the Institute on 18th March, 2015.
- A 6 member delegation from Kazakhstan led by Mr. GalimkairMutanov, Rector of Kazakh National University, named after Al-Farabi visitedthe Institute on 23rd March, 2015.

Mr. Fumiaki Takahashi, Principal Fellow from JST, Japan in a meeting with Director, IITD. Mr. Fumiaki Takahashi visited the Institute on January 20, 2015.

Mr. Galimkair Mutanov, Rector of Kazakh National University in a meeting with Director, IITD. Mr. Galimkair Mutanov visited the Institute on March 23, 2015

8. Faculty

(April 1, 2014 - March 31, 2015)

Faculty Awards / Recognitions

(April 1, 2014 - March 31, 2015)

The quality of an academic institution primarily depends on its faculty. Our faculty is one of the finest in the country and is recognized internationally for their quality of research, teaching and curriculum development. They also contribute greatly for the development of the nation by being associated with a large number of decision making bodies, providing crucial guidance and advice on policy matters and technical issues. Many of our faculty members serve on the editorial Boards of reputed journals, peer-review papers for publications, serve on committees for recruitment of professionals, and are on the Boards of many institutions and organizations. 25 new faculty members have joined the Institute this year, which has enhanced our competence in several emerging areas, while bringing new energy into our academic endeavors. Offers of appointment have been issued to 4 selected candidates who are expected to join soon.

Recruitment of bright faculty is one of our most important missions, since therein lies the future of the Institute. Our Board of Governors (BoG) is seized of this issue, and has played a very positive and constructive role in approving policies, which empower the faculty to deliver their best in both teaching and research. We are continuously trying to reach out to the potential faculty members through a variety of means, including round-the-year search and recruitment and on-line submission and processing of applications.

During the period under report, international bibliographic databases have indexed 1801 research articles published by faculty members and researchers of the institute in international journals including 1471 articles indexed in Scopus, an international indexing service in Science & Technology and Social Sciences. The faculty members have also presented a similar number of papers in national and international conferences. Besides, they have also published many books and conducted several continuing education programs. The Institute supported participation of 132 faculty members to international conferences and 87 faculty members for national conferences this year. Many more participated with financial support from sponsored projects, and other funding agencies. The Institute provides seed research funding to the new faculty upon joining the Institute to the tune of Rs.10 lakhs (or more when necessary). During the year, 17 Young Faculty Fellowships have been awarded. To encourage the new faculty for developing research facilities in the area of their expertise, the Institute sanctioned the New Faculty Research Grant of a total of Rs.317 lakhs to 27 faculty members during the financial year 2014-2015.

Faculty Awards/Recognitions

Our distinguished faculty colleagues continue to make a difference to the world of Science, Engineering, Humanities and Management, and continue to earn recognition and awards, which bring glory to the Institute. Many of them have been bestowed with honours/awards and elected as Fellows of several professional national/international bodies during the year 2014-2015. Some of these recognitions are highlighted below:

- Dr. M. A. Shaik, Visiting Associate Professor (May-June 2014), Aalto University, Finland (under Erasmus Mundus India4EU II Scholarship 2013 foracademic staff exchange)
- Prof. S. Basu and Amandep Jindal received best paper award in IntConf of ElectrochemSoc of India, IISc Bangalore, Aug 7-9, 2014
- Prof S. Basu appointed Editor of journal titled Global Challenges Energy and Environment, published by Wiley Inc. UK
- Prof. K. K. Pant, 'Dr. S. S. Deshpande National award-2013, for the contribution in research in catalysis. M.P. Govt. Holker Science College Indore M.P. (Announced during October 2014)
- Prof. K. K. Pant, HARI OM AWARD for best thesis for the period 2011-2014. Sardar Patel Renewable Energy Research Institute (SPRERI) (Ahmedabad), From Gujrat Govt. (Student Dr. Pravakar Mohanty). Thesis Title : Thermocatalytic conversion of lingo (Hemi) cellulosicbiomass to green fuels
- Prof. K. K. Pant, Elected as Member of council of The Biotech research society (BRSI) INDIA
- Prof. K. K. Pant, MEMBER OF SELECTION COMMITTEE of various academic Institutes (IITS andNITS)
- Prof. K. K. Pant, MEMBER OF EDITORIAL BOARD (EXECUTIVE EDITOR) for Research Journal of Thermodynamics and Catalysis (OMICS Group, USA)
- Prof. Shantanu Roy, Appointed to Scientific Advisory Committee of the Ministry of Petroleum and Natural Gas for 3 years w.e.f. 16.10.2014
- Member of National Auto Fuel Policy 2025 Committee, which has submitted its final report to Government of India (http://petroleum.nic.in/docs/reports/autopol.pdf)

Faculty Awards / Recognitions

- IBM Faculty Award (BJ)
- National Award for Nano Science & Technology 2015 (AKG)
- Fellow of the National Academy of Sciences Indian (NASI) (CC)
- Fellow of the Royal Society of Chemistry (FRSC) (SP)
- Fellow, International Forum on Bioprocesses France (SKK)
- Prof. K.C. Iyer, Project Management Institute (PMI) India Distinguished Scholar Award, February 2015
- Dr. J. Uma Maheswari, Project Management Institute (PMI) India Young Research Scholar Award, February 2015
- Dr. Suresh Bhalla, NASI-SCOPUS Young Scientist Award, 2014
- Prof. Sanjiva Prasad, Mausam has been granted Senior Member status in the Association for the Advancement of Artificial Intelligence (AAAI)
- Mausam awarded Google research grant worth USD50K for research on open inference rule learning June'14 - Dr. Mausam
- Dr. Parag Singla, Best Teaching Excellence Award by IIT Delhi
- Prof.Bhim Singh, Shri Om Prakash Bhasin Award 2014(Engg. including Energy & Aerospace)
- Prof.SubratKar, Shri Om Prakash Bhasin Award 2014 (Electronics and IT)
- Prof.Ranjan Bose, Vikram Sarabhai Research Award, August 2014
- Prof.Sukuma Mishra, Fellow, NASI
- Dr.Kushal Shah, INAE Young Engineer Award 2014
- Dr.MananSuri, French Nanoscience Foundation Thesis Award 2014
- Brands Academy Education Excellence Awards 2015
- Leadership Award" (2015): Global Conference on Business and Finance - The Institute for Business and Finance Research
- DMS, IIT Delhi covered in The Economist - "How not to treat Brand Britain", November 2014
- Stanford Ranking: DMS Rank 2nd
- DMS, IIT Delhi 3rd in B-School Survey 2015- Career 360, 2
- DMS, IIT Delhi Rank 2nd in Research in India 2015 - Career 360
- Overall Survey DMS, IIT Delhi 2015 - Career 360
- DMS, IIT Delhi is awarded the AASBI (Asian Association of Schools of Business International) award for the top B-School with Significant Internation Influence 2014
- Dr. Shveta Singh, "Best in Session Award" (2015) in Global Conference on Business and Finance – The Institute of Business and Finance Research
- Prof. D. K. Banwet, Honorary Fellowship Award by Indian Institute of Material Management, November 2014
- Prof. S. Bhatnagar, 5th National Award on Innovation, Ministry of Chemical & Fertilizers, Govt. of India for "Design & Development of Light Weight orthotic knee Joint for Polio Patients"
- Teaching Excellence Award 2014 to Dr. Joyee Ghosh
- DST Fast track award to Dr. P. K. Muduli
- Prof. R. Chattopadhyay, Eminent Engineer Award-2015 by The Institution of Engineers India on the Inaugural Session of 28th National Convention of Textile Engineers', Agartala (March 7-8, 2015)
- Dr Amit Rawal, 'Humboldt Research Fellowship' for Experienced Researchers, 2015
- Prof. Shiban K. Koul, IEEE Microwave Theory and Techniques Society Distinguished Educator Award, 2014
- Prof. A.D. Rao, Fellow, Andhra Pradesh Akademi of Sciences (FAPAS), Hyderabad
- Dr. S.K. Mishra, Member of the Advisory Board, Caiex Globel (a private sector corporation) located in India & USA

Faculty Awards / Recognitions

- Dr. Neetu Singh, Innovative Young Biotechnologist Award by DBT
- Dr. Anup Singh, E.K. Zavoisky Award - 2015 by International Society for Magnetic Resonance Medicine (ISMRM), Toronto, Canada
- Dr. Amit Mehndiratta, E.K. Zavoisky Award - 2015 by International Society for Magnetic Resonance Medicine (ISMRM), Toronto, Canada
- Prof. Chandra Shakher, Galileo Galilei Award for outstanding contribution to the field of holographic and speckle metrology by International Commission of Optics, 2014
- Prof. D.T. Shahani, recognition and award for outstanding contribution by GOC-in-C ARTRAC at ATB meet Secundrabad, 2015
- Prof. N. Tandon, Elected Fellow of Indian National Academy of Engineering (INAE), October 2014
- Prof. N. Tandon, Elected Fellow of The Institution of Engineers (India), December 2014
- Prof. A. K. Ghosh, 5th National Award for Technology Innovation by Ministry of Chemicals and Fertilizers, Department of Chemicals and Petrochemicals, Government of India, New Delhi
- Anushree Malik, Technology selected among Top 50 Technologies by India Innovation Growth Program (IIGP) 2015
- S. N. Naik, Vice President, Research Investigation & Implementation Committee, Oil Technologist of India
- Satyawati Sharma, Co-chaired the session in 7th national seminar on "Sustainable rural livelihood: Technological and institutional perspective", Jammu (J & K), January 8-10, 2015
- Prof. Aditya Mittal received Teaching Excellence Award from IIT Delhi.
- Dr. Archana Chugh received M C Luthra Gold Medal for the best paper presented during "Uttraeyecon 2014" from Uttarakhand Opthalmologocal Society
- Dr. Archana Chugh, DBT Task Force on Value- Added Biomass & Products from Natural Resources, DBT, GoI.
- Dr. Ashok Patel received Ramalingaswami Fellowship from Department of Biotechnology, India, 2014
- Prof. B. Jayaram received 2014 IBM Faculty Award from Global University Programs
- Prof. C.S. Dey received membership from EASD, Germany, European Association for the Study of Diabetes. Germany
- Prof. C. S. Dey- Head, Department of Central Research Facility (CRF)
- Prof. C. S. Dey- Member, Task Force, Medical Research Committee, CSIR, GoI.
- Prof. C. S. Dey-Member, Academic Council, JNU-IMTECH.
- Prof. C. S. Dey-Member, Special Academic Committee, SLS-JNU.
- Prof. James Gomes- Head, Kusuma School of Biological Sciences
- Prof. S. E. Hasnain received membership from Academic Council, Jamia Hamdard , New Delhi
- Prof. S. E. Hasnain appointed as an Academic Editor of Editorial Board , PLOS ONE
- Prof. S. E. Hasnain- Member of the Governing Council, Lore India Foundation, New Delhi
- Prof. S. E. Hasnain – Chairman of the Academic Standard Committee of all NIPERs
- Prof. S. E. Hasnain- Member of the Selection Committee for G. N. Ramachandran Award, CSIR, New Delhi
- Prof. S. E. Hasnain -Member of the Committee for Advance Studies & Research, Faculty of Medicine, Aligarh Muslim University, Aligarh
- Prof. S. E. Hasnain -Chairman of the Committee to review ICMR EMS Scheme, ICMR, New Delhi
- Prof. S. E. Hasnain -Member of the Research Advisory Council, AIIMS, New Delhi
- Prof. S. E. Hasnain received the The Order of Merit (Das Verdienstkreuz, 1.Klasse), Germany's Highest Civilian Award, 2014
- Prof. S. E. Hasnain elected as a Fellow of the American Academy of Microbiology, ASM USA 2014
- Prof. S. E. Hasnain recently elected for the Dr. B. R. Ambedkar Award for Excellence in Biomedical Sciences, (ICMR)15.
- Prof. Hasnain received the Doctor of Sciences (hc), Amity University, Jaipur (2014)
- Prof. S. E. Hasnain recently elected for the Dr. B. R. Ambedkar Award for Excellence in Biomedical Sciences, (ICMR)15.
- Prof. S. E. Hasnain recently elected for Canadian Alumni High Achievers Award.

Faculty in Position

(April 1, 2014 - March 31, 2015)

Department of Applied Mechanics

Professor and Head

Puneet Mahajan, Ph.D.

Professors

S. Ahmed, Ph.D.
Anupam Dewan, Ph.D.
Rajesh Prasad, Ph.D.
Sanjeev Sanghi, Ph.D.
S.N. Singh, Ph.D.
S.V. Veeravalli, Ph.D.
Santosh Kapuria, Ph.D.

Associate Professors

Badri Prasad Patel, Ph. D.
Maloy K. Singha, Ph.D.

Assistant Professors

Ajeet Kumar, Ph. D.
M.R. Cholemari, Ph.D.
Jayant Jain, Ph.D.
S. Pradyumna, Ph.D.
Anamika Prasad, Ph.D.
Balaji Srinivasan, Ph.D.
Sawan Suman, Ph.D.
Vikrant Tiwari, Ph.D.
Sitikantha Roy, Ph.D.
Samaresh Das, Ph.D.

Adjunct Faculty (Naval Construction Wing)

Cdr. R. Vijaya Kumar
Lt. Cdr. Amit Ray
Capt. V.K. Satyam (Officer-in-charge)
Dharam Singh
LT. Cdr. S.K. Rao

Emeritus Fellow

D.K. Sehgal
P.K. Sen, Ph.D.

Department of Biochemical Engineering & Biotechnology

Professor and Head

T.R. Sreekrishnan, Ph.D.

Professors

G.P. Agarwal, Ph.D.
V.S. Bisaria, Ph.D.
P.K. Roychoudhury, Ph.D.
Sunil Nath, Ph.D.
Prashant Mishra, Ph.D.
Saroj Mishra (Ms), Ph.D.
A.K. Srivastava, Ph.D.
Atul Narang, Ph.D.

Associate Professor

D. Sundar, Ph.D.
Shilpi Sharma, Ph.D.

Assistant Professors

Ravi Krishnan Elangovan, Ph.D.
Ritu Kulshreshtha, Ph.D.
Preeti Srivastava, Ph.D.
Shaikh Ziauddin Ahammad

Emeritus Fellow

Subhash Chand, Ph.D.
M.N. Gupta, Ph.D.

Department of Chemical Engineering

Professor and Head

Rajesh Khanna, Ph.D.

Professors

A.N. Bhaskarwar, Ph.D.
S.K. Gupta, Ph.D.
S. Basu, Ph.D.
Ratan Mohan, Ph.D.
K.K. Pant, Ph.D.
Anurag Singh Rathore, Ph.D.
Shantanu Roy, Ph.D.
Anil K. Saroha, Ph.D.

Associate Professors

Vivek V. Buwa, Ph.D.
Shaik Abdul Munawar, Ph.D.
Sudip K. Pattanayek, Ph.D.
Anupam Shukla, Ph.D.
Sreedevi U., Ph.D.

Assistant Professors

Jayati Sarkar, Ph.D.
Shalini Gupta, Ph.D.
Gaurav Goel, Ph.D.
Paresh P. Chokshi, Ph.D.
Jyoti Phirani, Ph.D.
M.A. Haider, Ph.D.
M.K.C. Ramteke, Ph.D.
Divesh Bhatia, Ph.D.
Vikram Singh, Ph.D.

Emritus Fellow

K.D.P. Nigam, Ph.D.

Department of Chemistry

Professor and Head

D. A. Ramanan, Ph.D.

Professors

A.K. Singh, Ph.D.
D.K. Bandyopadhyay, Ph.D.
C. Chakravarty (Ms), Ph.D.
Anil Jacob Elias, Ph.D.
N.D. Kurur, Ph.D.
Ravi Shankar, Ph.
S.K. Khare
B. Jayaram, Ph.D.
Siddharth Pandey, Ph.D.
Nalin Pant, Ph.D.
N.G. Ramesh, Ph.D.
A.K. Ganguli, Ph.D.
Jai Deo Singh, Ph.D.

Associate Professors

Pramit K. Chowdhury, Ph.D.
Shashank Deep, Ph.D.
V. Haridas, Ph.D.
S. Nagendran, Ph.D.
Sameer Sapra, Ph.D.
Nidhi Jain, Ph.D.

Assistant Professors

G.S. Lahu, Ph.D
Ravi P. Singh
Hemant Kumar Kashyap
P.P. Ingole
Tanmay Dutta

Department of Civil Engineering

Professor and Head

Manoj Datta, Ph.D.

Professors

B.J. Alappat, Ph.D.
B. Bhattacharjee, Ph.D.
Bhagu Ram Chahar, Ph.D.
A.K. Jain, Ph.D.
N.K. Garg, Ph.D.
Ashok Gupta, Ph.D.
V.R. Guntari, Ph.D.
K.C. Iyer, Ph.D.
A.K. Keshari, Ph.D.
Mukesh Khare, Ph.D.
Shashi Mathur, Ph.D.
A.K. Gosain, Ph.D.
Alok Madan, Ph.D.
A.K. Mittal, Ph.D.
A.K. Nema, Ph.D.
K.S. Rao, Ph.D.
Geetam Tewari, Ph.D.
J.T. Shahu, Ph.D.
Rakesh Khosa, Ph.D.

Associate Professors

R. Ayothiraman, Ph.D.
Suresh Bhalla, Ph.D.
G.S. Benipal, Ph.D.
R.R. Kalaga, Ph.D.
S.K. Deb, Ph.D.
Kumar Neeraj Jha, Ph.D.
Deo Raj Kaushal, Ph.D.
Vasant Matsagar, Ph.D.

Assistant Professors

Supratic Gupta, Ph.D.
Gazala Habib, Ph.D.
J. Uma Maheshwari, Ph.D.
Bappaditya Manna, Ph.D.
Shashank Bishnoi, Ph.D.
Arun Kumar, Ph.D.
Tanusree Chokrabarty, Ph.D.
Dipti Ranjan Sahoo, Ph.D.
Abhijit Ganguli, Ph.D.
Dhanya C.T., Ph.D.
Arvind K. Swamy, Ph.D.
Sumedha Chakma

Emeritus Fellow

K.G. Sharma, Ph.D.
A.K. Nagpal, Ph.D.

Senior Programmer

M. Malikharjuna Rao, M.E.

Department of Computer Science & Engineering

Professor and Head

Saroj Kaushik, Ph.D.

Professors

Amit Kumar, Ph.D.
Anshul Kumar, Ph.D.
S. Arun Kumar Ph.D.
M. Balakrishnan, Ph.D.
S. Banerjee, Ph.D.
Naveen Garg, Ph.D.
S.K. Gupta, Ph.D.
Prem Kumar Kalra, Ph.D.
Huzur Saran, Ph.D.
Preeti Ranjan Panda, Ph.D.
Sanjiva Prasad, Ph.D.
Sandeep Sen, Ph.D.
Pankaj Jalote, Ph.D.

Associate Professors

Amitabh Bagchi, Ph.D.
Subodh Kumar, Ph.D.
Kolin Paul, Ph.D.
Mausam, Ph.D.
Vinay Joseph Ribeiro, Ph.D.

Assistant Professors

Ragesh Jaiswal, Ph.D.
Sorav Bansal, Ph.D.
Smruti R Sarangi, Ph.D.
Maya Ramanath, Ph.D.
Aaditeshwar Seth, Ph.D.
Parag Singla, Ph.D.
Subodh Vishnu Sharma, Ph.D.

Department of Electrical Engineering

Professor and Head

B. Bhowmik (Ms.), Ph.D.

Professors

Ranjan Bose, Ph.D.
G. Bhuvaneswari (Ms.), Ph.D.
S. Chaudhury, Ph.D.
V.K. Jain, Ph.D.
Jayadeva, Ph.D.
S.D. Joshi, Ph.D.
I.N. Kar, Ph.D.
Subrat Kar, Ph.D.
M.J. Kumar, Ph.D.
R.K. Mallik, Ph.D.
Sukumar Mishra, Ph.D.
Shankar Prakriya, Ph.D.
K.R. Rajagopal, Ph.D.
Bhim Singh, Ph.D.
M. Veerachary, Ph.D.

Associate Professors

Manav Bhatnagar, Ph.D.

Faculty in Position

Shouribrata Chatterjee, Ph.D.
Swades K. De, Ph.D.
Brijesh Lal, Ph.D.
Mashuq-un-Nabi, Ph.D.
B.K. Panigrahi, Ph.D.
Sumantra Dutta Roy, Ph.D.
Nilanjan Senroy, Ph.D
Madhusudan Singh
Umesh Kumar, Ph.D.
Abhijit R. Abhyankar, Ph.D.

Assistant Professors

Jun Bae Seo, Ph.D.
Sumeet Agarwal, Ph.D.
Anand Rup Das, Ph.D.
Shubhendu Bhasin, Ph.D.
Anuj Dhawan, Ph.D.
Amit Kumar Jain, Ph.D.
S. Janardhanan, Ph.D.
Saif Khan Mohammed, Ph.D.
Mukul Sarkar, Ph.D.
Saunak Sen, Ph.D.
Kushal Kumar Shah, Ph.D.
Uday Kiran Khankhoje, Ph.D.
Abhisek Dixit, Ph.D.
Bhaskar Mitra, Ph.D.
S. Srirangarajan, Ph.D.
Manan Suri, Ph.D.
R. Maheshwari, Ph.D.
Turbo Majumder, Ph.D.

Emeritus Fellow

Surendra Prasad, Ph.D.
R.K.P. Bhatt, Ph.D.
R.K. Patney, Ph.D.
P.R. Bijwe, Ph.D.
M. Hanmandlu, Ph.D.
H.M. Gupta, Ph.D.

Department of Humanities & Social Sciences

Professor and Head

V. Sanil, Ph.D.

Professors

Bijoy H. Boruah, Ph.D.
Ravinder Kaur (Ms), Ph.D.
R.B. Nair (Ms.), Ph.D.
Ambuj D. Sagar, Ph.D.
Purnima Singh, Ph.D.
C.A. Tomy, Ph.D.
V. Upadhyay, Ph.D.

Associate Professors

Vibha Arora, Ph.D.
Reetika Khera, Ph.D.
Arjun Ghosh, Ph.D.
Angelie Multani, Ph.D.
M. Wakankar, Ph.D.
Bharati Puri, Ph.D.
J.J. Thomas, Ph.D.
Kamlesh Singh, Ph.D.
Farhan Ibrahim, Ph.D.
Simona Sawhney
Pritha Chandra, Ph.D.

Assistant Professors

Ankush Agarwal, Ph.D.
Arudra Venkata Burra, Ph.D.
Divya Dwivedi, Ph.D.
Saptarshi Mukherjee, Ph.D.
Naveen Thayyil Kamaluddin, Ph.D.
Stuti Khanna, Ph.D.
Samar Husain, Ph.D.
Richa Kumar, Ph.D.
Debasis Mondal, Ph.D.
Saurabh Bikas Paul, Ph.D.
Rajakrishnan Rajkumar, Ph.D.
Sarbeswar Sahoo, Ph.D.
Paroma Sanyal, Ph.D.
Upasana Sharma, Ph.D.
Varsha Singh
Manohar Kumar, Ph.D.

English Language Instructor

Rajiv Ranjan Mahto, Ph.D.
Bharti shokeen, Ph.D.

Department of Management Studies

Professor and Head

Kanika T. Bhal (Ms.), Ph.D.

Professors

M.P. Gupta, Ph.D.
P.K. Jain, Ph.D.
Ravishankar, Ph.D.
Sudhir K. Jain, Ph.D.
Sushil, Ph.D.
S.S. Yadav, Ph.D.

Associate Professors

Mahim Sagar, Ph.D.
S.P. Singh, Ph.D.
Seema Sharma (Ms.), Ph.D.
P. Vigneswara Ilavarasan, Ph.D.
Shveta Singh, Ph.D.

Assistant Professors

Harish Choudhary, Ph.D.
Jitendra Madan, Ph.D.
A.K. Kar, Ph.D.
Shuchi Sinha (Ms.), Ph.D.
Smita Kashiramka
Sanjay Dhir
A.K. Dube, Ph.D.

Emeritus Fellow

D.K. Banwet, Ph.D.

Department of Mathematics

Professor and Head

B.S. Panda, Ph.D.

Professor

B. Chandra, Ph.D.
R.K. Sharma, Ph.D.
S.C. Sekhara Rao
A. Tripathi
S. Dharmaraja, Ph.D.
N. Chatterjee, Ph.D.
Subiman Kundu, Ph.D.

Associate Professors

Aparna Mehra, Ph.D.
Anima Nagar, Ph.D.
K. Sreenadh, Ph.D.
Mani Mehra, Ph.D.

Assistant Professors

Harish Kumar, Ph.D.
N. Shravan Kumar, Ph.D.
Amit Priyadarshi, Ph.D.
Sivnathan Sampath, Ph.D.
Ritumoni Sarma, Ph.D.
Anuradha Sharma, Ph.D.
V.V.K. Srinivas Kumar, Ph.D
Rupam Barman

Department of Mechanical Engineering

Professor and Head

S.K. Saha, Ph.D.

Professors

Naresh Bhatnagar, Ph.D.
Anoop Chawla, Ph.D.
S.G. Deshmukh, Ph.D.
J.K. Dutt, Ph.D.
Kshitij Gupta, Ph.D.
Sanjeev Jain, Ph.D.
Sangeeta Kohli, Ph.D
D. Ravi Kumar, Ph.D.
Sudipto Mukherjee, Ph.D.
Sunil Pandey, Ph.D.
P.V. Rao, Ph.D.
P.V. Madhusudhan Rao, Ph.D.
M.R. Ravi, Ph.D.
Anjan Ray, Ph.D.
S.R. Kale, Ph.D.
S.P. Singh, Ph.D.
P.M.V. Subbarao, Ph.D.
Harish Hirani, Ph.D.

Associate Professors

B. Premachandran, Ph.D.
S. Aravindan, Ph.D.
Ashish K. Darpe, Ph.D.
Sudarsan Ghosh, Ph.D.
Sunil Jha, Ph.D.
M.S. Kulkarni, Ph.D.
S.V. Modak, Ph.D.
Pulak Mohan Pandey, Ph.D.
Prabal Talukdar, Ph.D.
R.K Pandey, Ph.D.
Sujit Kumar Sinha, Ph.D.

Assistant Professors

Nomesh B. Bolia, Ph.D.
Subhra Datta, Ph.D.
Amit Gupta, Ph.D.
Naresh Varma Datla, Ph.D.
Jitendra P. Khatait, Ph.D.
K. Hariharan, Ph.D.
Vipul Jain, Ph.D.
Supreet Singh Bahga, Ph.D.
Devendra Kumar Dubey, Ph.D.

Emeritus Fellow

Kiran Seth, Ph.D.

Visiting Faculty

A.D. Gupta, M.Tech.
Siddarth Mahajan

Department of Physics

Professor and Head

K. Thyagarajan, Ph.D.

Professors

Ajit Kumar, Ph.D.
Arun Kumar, Ph.D.
R. Chatterjee (Ms.), Ph.D.
Sujeet Chaudhary, Ph.D.
B.D. Gupta, Ph.D.
Joby Joseph, Ph.D.
H.K. Malik, Ph.D.
Neeraj Khare Ph.D.
B.R. Mehta, Ph.D.
Dalip Singh Mehta, Ph.D.
G.B. Reddy, Ph.D.
Anurag Sharma, Ph.D.
M.R. Shenoy, Ph.D.
R.K. Soni, Ph.D.
R.K. Varshney, Ph.D.
Pankaj Srivastava, Ph.D.
P. Senthil Kumaran, Ph.D.
V. Ravishankar, Ph.D.

Associate Professors

Versha Banerjee (Ms.), Ph.D.
Mukesh Chander, Ph.D.
Sankalpa Ghosh, Ph.D
Shantanu Ghosh, Ph.D.
Amrita Mishra (Ms.), Ph.D.
G.V. Prakash, Ph.D.
J.P. Singh, Ph.D.
Rajendra Singh, Ph.D.
Aloka Sinha (Ms.), Ph.D.
A.K. Shukla, Ph.D.

Assistant Professors

Kedar Khare, Ph.D.
Pranaba Kishor, Ph.D.
Amartya Sengupta, Ph.D.
Joyee Ghosh, Ph.D.
Pintu Das, Ph.D.
R. Suresh Marthe, Ph.D.
Sujin babu, Ph.D.
R.S. Dhaka, Ph.D.
S. Bhattacharya, Ph.D.

Emeritus Fellow

D.K. Pandey, Ph.D.
V.D. Vankar, Ph.D.

Department of Textile Technology

Professor and Head

R. Chattopadhyay, Ph.D.

Professors

Ashwini K. Agrawal, Ph.D.
R. Alagirusamy, Ph.D.
B.K. Behera, Ph.D.
Apurba Das, Ph.D.

Faculty in Position

Bhuvanesh Gupta, Ph.D.
Deepti Gupta (Ms.), Ph.D.
S.M. Ishtiaque, Ph.D.
Manjeet Jassal (Ms.), Ph.D.
Mangla Joshi (Ms.), Ph.D.
Kushal Sen, Ph.D.
R.S. Rangasamy, Ph.D.

Associate Professors

Dipayan Das, Ph.D.
B.S. Butola, Ph.D.
Sourabh Ghosh, Ph.D.
S. Mukhopadhyay, Ph.D.
Abhijit Majumdar, Ph.D.
Amit Rawal, Ph.D.

Assistant Professors

Md. S. Wazid Ali, Ph.D.
Bhanu Nandan, Ph.D.
Rajiv K. Srivastava, Ph.D.

Emeritus Fellow

B.L. Deopura, Ph.D.
M.L. Gulrajani, Ph.D.
V.K. Kothari, Ph.D.

Centre for Applied Research in Electronics

Professor and Head

Arun Kumar, Ph.D.

Professors

R. Bahl, Ph.D.
Ananjan Basu, Ph.D.
Sudhir Chandra, Ph.D.
S.K. Koul, Ph.D.
B.S. Panwar, Ph.D.
Suneet Tuli, M.Tech.

Associate Professors

Monika Aggarwal (Ms), Ph.D.

Assistant Professors

Mahesh P. Abegaonkar, Ph.D.

Emeritus Fellow

Vikram Kumar, Ph.D.

Centre for Atmospheric Sciences

Professor and Head

A.D. Rao, Ph.D.

Professors

Pramila Goyal (Ms.), Ph.D.
Maithili Sharan, Ph.D.
Manju Mohan (Ms.), Ph.D.

Associate Professors

Krishna Achuta Rao, Ph.D.
H.C. Upadhyay, Ph.D.
Somnath Baidya Roy

Assistant Professor

Sagnik Dey, Ph.D.
Vimlesh Pant, Ph.D.
Saroj Kanta Mishra, Ph.D.
Dilip Ganguly, Ph.D.

Emeritus Fellow

O.P. Sharma, Ph.D.
S.K. Dash, Ph.D.

Senior Scientific Officers-I

P. Agarwal (Ms.), Ph.D.

Centre for Biomedical Engineering

Professor and Head

Veena Koul (Ms.), Ph.D.

Professors

Harpal Singh, Ph.D.

Associate Professor

Nivedita K. Gohil (Ms.), Ph.D.
Anuradha Godavarty (Ms.), Ph.D.

Assistant Professors

S.K. Jha, Ph.D.
Neetu Singh, Ph.D.
Anup Singh, Ph.D.
Amit Mehndiratta, Ph.D.
S.M.K. Rahman, M.Tech.
Dinesh Kalyanasundaram, Ph.D.

Emeritus Fellow

Dinesh Mohan, Ph.D.
Sneh Anand (Ms.), Ph.D.

Computer Services Centre

Professor and Head

Arun Kumar S, Ph.D.
Subhashish Banerjee, Ph.D. (Assoc. Head)

Sr. System Programmers

Pravanjan Kumar Baboo, Ph.D.
Savita Goel (Ms.), Ph.D.
Pradeep Kumar Gupta
Sriram Hegde
Pragya Jain (Ms.) Ph.D.
Rajeshwari Raghvan (Ms.)
K. Narayanan

Senior Programmers

Rajesh Bhat, Ph.D.
R.K. Chauhan, M.C.A.
Jaya, M.Tech.
Sunil Kak, M.Tech.
Ram Lal, M.Sc.
Gopal Krishan, M.Sc.

Senior Manager

N.C. Kalra, M.Tech.

Educational Technology Services Centre

Professor & Head

Sanjeev Sanghi, Ph.D.

Centre for Energy Studies

Professor and Head

Viresh Dutta, Ph.D.

Professors

T.S. Bhatti, Ph.D.
A. Ganguly, Ph.D.
T.C. Kandpal, Ph.D.
S.C. Kaushik, Ph.D.
G.N. Tiwari, Ph.D.

Associate Professors

K.A. Subramanian, Ph.D.
R. Uma, Ph.D.

Assistant Professors

K. Vamsi Krishna
Ramesh Narayanan, Ph.D.
Dibakar Rakshit, Ph.D.
Ashu Verma, Ph.D.

Emeritus Fellow

S.C. Mullick, Ph.D.
M.G. Dastidar, Ph.D.
D.K. Sharma, Ph.D.
L.M. Das, Ph.D.

Industrial Tribology, Machine Dynamics & Maintenance Engineering Centre

Professor and Head

O.P. Gandhi, Ph.D.

Professors

Jayashree Bijwe, Ph.D.
Naresh Tandon, Ph.D.
V.K. Agarwal, Ph.D.

Design Engineer

R.K. Rai, M.Tech.

Assistant Professors

Deepak Kumar, Ph.D.

Instrument Design & Development Centre

Chief Design Engineer (SG) and Head

D.T. Shahani, Ph.D.

Professors

Chandra Shakher, Ph.D.
N.K. Jain, Ph.D. (Retd. Re-employed)

Assistant Professors

Jyoti Kumar, Ph.D.
Gurfan Sayeed, Ph.D.
Sumer Singh, Ph.D.

Chief Design Engineers (SG)

S.K. Atreya, D.I.I.T.

Emeritus Fellow

A.L. Vyas, Ph.D.

Centre for Polymer Science & Engineering

Professor and Head

A.K. Ghosh, Ph.D.

Professors

Veena Choudhary, Ph.D.

Associate Professor

Josemon Jacob, Ph.D.
Bhabani Kumar Satapathy, Ph.D.

Emeritus Fellow

S.N. Maiti, Ph.D.

Centre for Rural Development & Technology

Professor & Head

Satyawati Sharma (Ms.), Ph.D.

Professors

Santosh, Ph.D.
S.N. Naik, Ph.D.
V.K. Vijay, Ph.D.

Associate Professors

V.M. Chariar, Ph.D.
Anushree Malik (Ms.), Ph.D.

Assistant Professors

Hariprasad P., Ph.D.

Emeritus Fellow

Rajendra Prasad, Ph.D.

National Resource Centre for Value Education in Engineering

Professor & Coordinator

Sangeeta Kohli, Ph.D.

Bharti School of Telecommunication Technology and Management

Professor & Coordinator

Ranjan Bose, Ph.D.

Amar Nath and Shashi Khosla School of Information Technology

Professor & Coordinator

Sanjiva Prasad, Ph.D.

School of Biological Sciences

Professor & Co-ordinator

James Gomes, Ph.D.

Professors

Tapan Kr. Choudhari, Ph.D.
C.S. Dey, Ph.D.
Seyed E. Hasnain, Ph.D.
Aditya Mittal, Ph.D.

Associate Professors

Bishwajit Kundu, Ph.D.

Assistant Professors

Manidipa Banerjee, Ph.D.
Archna Chug, Ph.D.
Vivekanandan Perumal, Ph.D.
Ashok Kumar Patel, Ph.D.

Interdisciplinary / Transportation Research and Injury Prevention Programme (TRIPP)

Professor and Co-ordinator

S.R. Kale, Ph.D.

Central Workshop

Professor & Head

Naresh Bhatnagar, Ph.D.

Interdisciplinary Opto-Electronics & Optical Communication Research Programme

Professor and Co-ordinator

M.R. Shenoy, Ph.D.

New Appointments, Retirements etc.

(April 1, 2014 - March 31, 2015)

25 new faculty members have joined the Institute this year. These new additions to our faculty have enhanced our competence in several emerging areas, while bringing new energy into our academic endeavours.

Table I : New Appointments

New Faculty Joined	
Samresh Das, Applied Mechanics	Jun Bae Seo, Electrical Engineering
R. Suresh Marathe, Physics	Anandrup Das, Electrical Engineering
S. Babu, Physics	S. Srirangarajan, Electrical Engineering
Subodh Vishnu Shrama, Computer Science & Engineering	Dibakr Rakshit, Energy Studies
R. S. Dhaka, Physics	R. Maheshwari, Electrical Engineering
Manan Suri, Electrical Engineering	Saptrishi Mukhrjee, Humanities
S. Bhattacharya, Physics	Vikram Singh, Chemical Engineering
Samar Hussain, Humanities	Md. S. Wazid Ali, Textile Technology
Manohar Kumar, Humanities - PDF	A. K. Dubey, Management Studies
A. K. Kar, Management Studies	M. Wakankar, Humanities
Neetu Singh, Biomedical Engineering	K. Hariharan, Mechanical Engineering
Amit Mehndiratta, Biomedical Engineering	Naresh Verma Datla, Mechanical Engineering
J. P. Khatait, Mechanical Engineering	

The list of faculty who resigned or retired or expired in the given period is given below (Table : II) :

Table II : Retirements/ Resignations/ Bereavements

Retirements	
Ms. Amrita Srinivasan, Humanities & Social Sciences	H. M. Chawla, Chemistry
P. S. Pandey, Chemistry	Sneh Anand, Biomedical Engineering
Jayshree Santosh (VRS), Computer Service Centre	A. K. Agrawala, IDDC
P. R. Bijwe, Electrical Engineering	Devi Chadha, Electrical Engineering
G. S. Vishveswaran, Electrical Engineering	
Resigned	
Karun Rawat, Applied Research in Electronics	Arvind Afrawal, Applied Mechanics
Tarun K. Chandrayadalu, Electrical Engineering	Turbo Majumdar, Electrical Engineering
Vishal Argodhe, Management Studies	

9. Student Activities

(April 1, 2014 - March 31, 2015)

Student Activities

(April 1, 2014 - March 31, 2015)

Considerable efforts are made to see that students lead a balanced campus life in harmony with their teachers and fellow students. To ensure that freshers settle down in their new surroundings comfortably, a Freshers' Orientation Programme was organized at the beginning of the academic session.

Counselling Service provides counselling to students on adjustment problems or for the problems arising from financial hardship, and emotional/psychological problems affecting academic pursuits.

Outside the classrooms, facilities for a variety of cocurricular activities, sports, games, student publication etc. are provided for the overall growth and development of students' potentialities and initiative with an emphasis on responsible student leadership.

The pace and mode of student life on the campus is planned and implemented by the following student bodies:

1. Students Affairs Council (SAC) and its five Boards, i.e.,
   (a) Board for Hostel Management (BHM)
   (b) Board for Recreational & Creative Activities (BRCA)
   (c) Board for Sports Activities (BSA)
   (d) Board for Student Publications (BSP)
   (e) Board for Student Welfare (BSW)
2. National Service Scheme (NSS)
3. National Cadet Corps (NCC)
4. Student Counselling Service (SCS)
5. Student-Teacher Interaction Committee (STIC)
6. National Sports Organization (NSO)
7. Departmental Professional Societies.

1. STUDENT AFFAIRS COUNCIL (SAC)

The Students Affairs Council has been quite active. Regular meetings took place between the various representatives of SAC, to ensure that all facts of student issues were discussed. SAC representatives also interacted with student member of senate and other SAC committees to ensure wider participation of students in the affairs of the institute. Many student related issues were discussed. Maintenance problems of hostels and the institute, the no dues process for students, library and computer related issues, as well as safety and security issues were also resolved . Openness in the decision making process of various boards and improvements in the student election process were other matters that were discussed. Another important issue that was raised at SAC was the need for improved student teacher interaction. A student Mentorship Programme to provide consulling of first year students was enhanced. The process of restructring of Boards and constitution review of the student bodies was also started by SAC. The two standing committees of the SAC, namely the Coordination Committee and the Executive Committee contributed as usual in tackling of various issues referred to them.

a. Board for Hostel Management (BHM)

The Board for Hostel Management is an important Board in the SAC to decide the students issues directly.

There are eleven hostels for boys, six with a capacity in the range of 400-450, two with a capacity of 1000 and the others in the range 300-350 each; two hostels for girls students with a capacity of about 500 each. In addition, there is also very limited accomodation for married students. Each hostel has a House Working Committee which decides the pace and pattern of its life. The Board for Hostel Management, with the Dean of Students as the ex-officio president, coordinates the working of all hostels. The Dean of Students is the head of hostel organization. He is assisted in his administrative responsibilities by the Associate Deans of Hostel Management, Students Welfare, Events and the Assistant Registrar (Student Affairs). The BHM has representation from all the hostel and takes decisions on all problems of common interest. The warden is the administrative head of each hostel. He/She is a faculty member of the Institute. The House Working Committee of each hostel is chaired by the House Master who is a professor of the Institute. The committee consists of the Warden, the House Secretary, the Mess Secretary, the Sports Secretary, the Cultural Secretary, the Maintenance Secretary, and the representatives from all classes.

Right from the beginning of this academic year, hostel maintenance problems were undertaken. A number of meetings with the Dean of Students, wardens, hostel functionaries, Institute Engineer and engineering staff were held. For proper implementation of maintenance schedules, long-term and short-term problems were

identified and engineering staff visits to each hostel for monitoring work. Special efforts were made towards the cleaning of common areas.

Security problems in each hostel were reviewed and detail discussion with the wardens, students and security personnel's was held. CCTV monitoring has been initiated.

Considerable efforts were made for providing accommodation to all students.

Continuing dialogue between the mess staff, student representatives and authorities has resulted in better work environment. Five BHM employees were rewarded by special awards for the hard work and excellent services rendered to the Organization. This Award was given on Independence Day during the flag hoisting function. This has been a morale booster for the workers. Regular meetings with the staff improved their punctuality.

The Wardens/House Masters during 2014-15

Hostel	Warden	House Master
Aravali	Dr. Sudarshan Ghosh	Prof. K. Gupta
Jwalamukhi	Dr. Ravi P. Singh	Prof. S. M. Ishtiaque
Kailash	Dr. (Ms.) Seema Sharma	Prof. (Ms.) Manju Mohan
Karakoram	Dr. Ramteke	Prof. Anurag Sharma
Kumaon	Dr. R. Dhaka	Prof. Ashok Gupta
Nilgiri	Dr. Abhijit Majumdar	Prof. Shashi Mathur
Shivalik	Dr. Dipayan Das	Prof. Bhim Singh
Vindhyachal	Dr. Diptiranjan Sahoo	Prof. Viresh Dutta
Himadari	Dr. (Ms.) Upadhayaulu	Prof. (Ms.) Sneh Anand
Satpura	Dr. S. K. Pattanayek	Prof. S. N. Singh
Zanskar	Dr. Saif K. Mohammed	Prof. Kushal Sen
Girnar	Dr. D. Sundar	Prof. R. Chattopadhyaya
Udaigiri	Dr. S. R. Sarangi	Prof. B. R. Mehta
Nalanda	Prof. P. M. V. Subbarao	

This year was devoted to improve the food quality in hostel mess. Regular meetings with Dean of Student, Hostel Representatives and Mess Supervisors were held for the same purpose. Modifications assured for Scheme (MAO) is being implemented for BHM staff.

A BHM dinner was organized during the Student's Week. Each hostel immaculately arranged its counters at a central place. Faculty and students attended with enthusiasm. The cultural programme was a big attraction for the evening. The Kailash and Kumaon Hostel was given BHM trophy and BHC trophy to Kumaon Hostel for their excellent outstanding work.

BHM also arranged the stay and messing for all the delegates of Rendezvous' 2014 and TRYST' 2015 events very successfully.

To simplify the recovery of dues from students, a regular monitoring system has been introduced involving simplified system of payment, by which the students sign a declaration form and the amount is automatically deducted from their bank account, avoiding any personal bank transaction on this account. Use of computers for maintenance of hostel accounts has been in existence from past six years and the staff working in the hostels was encouraged to undergo training in the use of PCs.

Each Hostel was in the forefront in initiating and hosting the celebration on the independence Day and the Republic Day functions at the Institute level.

Hostel Mess Secretaries put in considerable efforts in controlling food wastage and thus were able to keep a check and balance of galloping mess bills. By proper coordination between the students and the wardens, the supply system was improved and new supplies were identified and added.

There were surprise checks by canteen cells for institute canteens. Manopoly of supplies has been reduced by attaching 2-3 suppliers to each hostel.

b. Board for Recreational and Cultural Activities (BRCA)

2014-15 witnessed, implementation of what is perhaps the most significant change in the structure as well as the philosophy of BRCA ever since its inception in 1969. The aim of restructuring was to replace the rigid and regimental structure of inter-hostel competitions with a more open and democratic framework of extra-curricular activities in the institute. Under the new structure, competitive teams were made up of students across several hostels. For the first time ever, girls and boys came together in teams and several clubs came together to plan and showcase events. BRCA extended its reach to involve faculty members, staff members as well as their families, to promote a feeling of kinship and bonhomie amongst members of the IITD community. Clubs explored a multitude of event formats including competitions, workshops, lectures, discussions and visits in order to induce vibrancy, excitement and creativity.

As a part of the Board's restructuring, clubs were split and merged. The new clubs are - Dance Club, Dramatics Club, Debating Club, Literary Club, Fine Arts and Crafts Club, Photography and Film Club, Music Club, Quizzing Club, SPIC MACAY and Hindi Samiti.

The academic session started with the "Orientation to BRCA events for Freshers" in August 2014, which saw all ten clubs come together to put up a gala show. The 3 hour event witnessed a Dogra Hall filled to capacity wherein freshers cheered, danced and sang with seniors as they were introduced to the vibrant extra-curricular realm of IIT Delhi. Other highlights of the year were the inception of a Book Reader's Circle and a visit to the Jaipur Lit Fest by the Literary Club. The Photography and Film club organised a highly successful 3 day PFC weekend which witnessed an impressive participation. Hindi Samiti organised several panel discussions to provide the students a platform to express their views on matters of cultural interest. Some renowned Hindi authors gave motivating and inspirational talks. The Fine arts and Crafts club introduced a host of new competitions that enjoyed participation in large numbers from freshers as well as seniors. Their oil painting exhibition in the Exhibition Hall attracted a wide audience.

The Music club organised "Mehfil", a competition of ghazals and qawwalis which witnessed a jam-packed Seminar hall. The event featured some stellar performances in this genre of Indian music and saw active participation from faculty as well as staff members. Selected performances can be viewed at http://www.youtube.com/watch?v=UwpI_AZaE-c

The year saw students reach attain new heights and cause waves outside IIT as well. Several notable performances by the institute group dance team, won many dance competitions in different colleges across Delhi. IIT Delhi debating and quizzing teams made it to the top stages in intercollege events.

Rendezvous 2014 was the biggest yet in terms of the budget, variety, number and stature of Indian and International artists that it hosted. It featured over 18 music bands. About ten thousand people from six hundred different colleges participated in various competitive and informal events showcasing some outstanding performances.

c. Board for Sports Activities (BSA)

Sports and games are essential components of human resource development, helping to promote good health and spirit of healthy competition, which, in turn, has positive and deep impact on the holistic development of personality of the Youth- a potential source of energy, enthusiasm and inspiration. Sports being practical way of education, facilitate recreation, foster social harmony, inculcate discipline and dedication in general life. Board for Sports Activities (BSA) had been looking after this important component for the development of sports environment in the campus.

Introduction

The Board for Sports Activities is a constituent body of the Student Affairs Council. It is responsible for the coordination of the various sports activities in the institute. It ensures that adequate facilities are given to sportspersons and provides a forum for the students and staff to discuss and formulate policy towards the betterment of sports activities in the campus. The BSA consists of the following members

- President, BSA
- Vice-President, BSA
- Game/Club Presidents.
- All Institute Team Captains and Vice-Captains.
- All Club Secretaries.
- Sports Officer
- Sports Secretaries of Student Hostels.
- General Secretary, BSA.
- Deputy General Secretary, BSA.
- Immediate past General Secretary, BSA.

Facilities

Well laid out fields are available on the campus. A cricket field with three turf wickets, four cricket practice pitches, floodlighted hockey and football ground, three floodlighted volleyball and two basketball courts one of which is ultra-cushioned, eight floodlighted tennis courts having four synthetic and four clay courts, tennis practice wall, three squash courts, one badminton hall, table tennis hall with synthetic flooring, one weight lifting hall, a swimming pool, two multi-gyms, a floodlighted stadium with 400 meters athletics track, jogging track and ancillary arrangements for all the games

are available to the students. Construction of new swimming pool with kid's pool is in progress and will be available very shortly. Construction of one badminton hall which will be having five wooden badminton courts and floodlighting of cricket practice pitches is also under consideration. A team of sports officer, physical training instructors, ground staff and part-time coaches help the students in their pursuit to greater sporting performances.

Activities

The Institute lays considerable emphasis on student's participation in various outdoor and indoor games. The Institute is in constant contact with the local associations in almost all the games to give outlet to the students for participation in different games outside the campus. With participation in these activities, students are able to use their leisure time in a desirable manner. In these activities, emphasis is laid on mass participation by the students. The students take part in the Fresher's event for incoming first year students, friendly matches with the local colleges, inter-hostel events, the annual IIT Delhi inter-collegiate event 'Sportech' and the annual inter-IIT sports meet.

Inter Hostel matches were organized in Football, Volleyball, Swimming, Water Polo, Wt. Lifting, Hockey, Squash, Badminton, Table Tennis, Tennis, Athletics, Basketball and Cricket. Kumaon hostel was declared the winner and Karakoram hostel was declared runners up in the men's section. Kailash hostel was declared winner in the women's section.

Sportech, which over the years has carved a niche for itself with regards to the scale at which it is organized and the kind of varied participation it enjoys was organized from 27th Feb. 14 to 2nd March 2015. All the major games and sports were organized in this four days event. About one hundred fifty teams of various colleges took part this year.

50th Inter IIT Sports Meet was held at IIT Guwahati in the months of October and December 2014. IIT Delhi contingent consisting of 123 boys and 39 girls participated in the sports meet. Boys Volleyball team won the Gold medal in the meet. Girls Volleyball and Basket Ball teams won the Silver Medals in the meet. Inter IIT Staff Sports Meet was also organized in IIT Bombay. IIT Delhi contingent consisting of 55 men and 5 women participated and performed very well. Mr. Neeraj was declared as the Best Athlete of the meet.

Those who excel in any sports activities like inter IIT sports meet are given various certificates, prizes and awards including IIT Delhi Blazers & Blues, etc. This year as recognition of the student's talent in sports and their persistent effort for the development of sports environment, eight students were awarded Blazers, thirteen students were awarded Colours in different games and other awards were also given. Mr. Dhritiraj Das and Ms. Rubha Shenoy were awarded Outstanding Sportspersons of the year award. Volleyball team was awarded with best team of the year award.

Sports is included in the curriculum at IITD. National Sports Organization (NSO) activities are organized by the sports unit as an alternative to NCC and NSS. Around two hundred fifty undergraduate students are register in this every year and get specialized training in games and sports as well as physical fitness. Regular classes are conducted for these students by the physical education staff of the Institute for four days a week in each semester. Regular participation in these activities not only improve the general physical fitness level of the students but also helps in developing psychological attributes like leadership qualities, stress management and group dynamics.

d. Board for Student Publications (BSP)

BSP saw its second year into a non-competitive and selection based structure as opposed to the election based team formation of the other boards. The Journalism Cell was empowered in the new structure while the focus of the Creative Writing Cell shifted from quantity to quality. The work shifted away from hostel and became more institute based with the entire team working for the spirit of the Board.

The Journalism Cell became a reliable source of information for the entire institute with coverage of events spanning all Boards. Institute Lectures and Guest Lectures were given special preference. Apart from covering of events, the team worked collectively on newsletters over the course of the year.

The Creative Writing and Outreach Cell organized a number of events during the course of the year along with four magazines; a magazine with special focus on the freshers, two technical journals and a creative writing magazine.

The newly created Media and Web Cell helped with video and photographic coverage of events on camps spread throughout the year.

1. WEBSITE

The Board launched its official website on 25th April. A mailer regarding the same was circulated for the benefit of IIT Delhi Student and Faculty community. The following is a list of content on the website -

- Department Wise Open House Coverage
- All magazines and newsletters from previous year

- Reports on all major events and social initiatives at IIT Delhi
- Creative articles and author interviews

The website witnessed a total of 40,000 hits in its first year itself.

2. CREATIVE

The following is a list of magazines published by the board –

Inception	:	Introductory Magazine for freshers, July 2014
Sync	:	Technical Magazine, October 2014
Muse	:	Creative Magazine, March 2015
Sync Volume 2	:	Technical Magazine, April 2015

3. JOURNALISM

Newsletters –

The Inquirer	:	Newsletter Volume 1, September 2014
The Inquirer	:	Newsletter Volume 2, March 2015
The Inquirer	:	Newsletter Volume 3, April 2015

Event Coverage : Detailed report of every event at IIT Delhi along with photographs have been put up on the Facebook page and website within a few hours of the event. Events covered include all cultural events as well as inter-hostel sports events.

News : The Board also updated regularly any news important for the student community such as cancellation of house days, increment in proxy, and minutes from SAC meetings.

Campus Surveys : Various student body issues have been covered through surveys that have been filled by more than a hundreds of students. Some of the surveys conducted included Deferred Placement, hostel conditions, QS Ranking.

Career Series : The team also plans to execute a career series involving written and video interviews of IIT Delhi alumni and final year students to provide guidance regarding career opportunities, job profiles and academic opportunities.

4. Literati 2014

The 3-day literary festival saw enthusiastic students coming in from across the city to attend various book discussions, workshops on writing and designing skills, quizzes, stand-up comedy and plethora of other events. The I Can conference, organized for the first time at IIT Delhi remained the major attraction and saw a huge participation from colleges across North India inspired by the unique concept.

The festival saw prominent speakers like Sanjaya Baru, Ashwin Sanghi, Vikas Swarup and Shekhar Gupta interacting with students, taking part in discussions and sharing their experiences. The fest also had workshops on etymology and creative writing, with competitive literary events like GOT quiz, Kavyalaya and literature quiz which were heavily attended

e. Board for Student Welfare (BSW)

"It shall be responsibility of BSW to work towards the welfare and well-being of the student community in the campus. It shall do so by organizing welfare activities from time to time and look in to other as-pects of student welfare."

As the name suggests, the initiatives of BSW are for the purpose of "Student Welfare". The BSW works tirelessly through the year, from time to time towards creating an improved environ for the students of IITD. Numerous initiatives are taken by the board for smooth functioning of day-to-day student activities.

The BSW assisted the UG section and NRCVEE for the registration and Orientation program of freshmen. To begin with BSW provided bus service for the first year students and their families during the orientation, as most of them are new to the city. Book camps, mattress camps and cy-cle camps were organised for the students at the beginning of the semesters.

BSW and CAIC collaborated to organise a curriculum session to resolve queries of students re-garding the newly revised academic curriculum. The FAQ tab of the BSW website was updated on the same.The 24*7 open library system was implemented. Also, personal textbooks were allowed inside the library. The BSW website was revamped. A more comprehensive FAQ about the new curriculum, wider database of question papers, lecture videos and a simpler quick help section were the key updates.BSW runs a student cooperative society (SCOOP) that arranges for station-ary items, notebooks, T-shirts and other souvenir of IITD at a discounted price.

The BSW organised trips to Akshardham, Rashtrapati Bhavan which were a huge success and had an amazing turnout. The BSW also organised the auto expo and a book fair which were unique events in their own respect. BSW also supported financially weak students by giving loans and grants for hostel fees. Numerous other workshops, both related to special skills as well as life skills (NRCVEE, self defence, sexuality and RTI, ethical hacking etc.) were organised by BSW from time to time. Multiple PAN CARD, VOTER ID CARD and AADHAR CARD camps were also con-ducted.

Student Mentorship Program is a student initiative of IIT Delhi under the aegis of the BSW which ensures that the transition of freshmen into IIT life is smooth and they can make informed decision when faced with choices in their life at IIT Delhi. For this purpose, every fresher joining the institute is assigned a mentor. They are the friends, philosophers and guides of the freshmen through this beautiful journey in IIT Delhi.

Speranza, the annual youth fest of IITD, a flagship event of BSW was organised from 12th to 14th September 2014. One of a kind events like panel talks on the various avenues available to IITians ,rendezvous with distinguished alumni from various fields of work, talks on social is-sues (sex education, self defence, animal rights etc) were organised . Discussion on importance of extra-curricular vs CGPA, and career counselling were also organised as a part of the fest. Fun events like Lan

Gaming, treasure hunt and film festival added to the wide spectrum of events in Speranza. All in all Speranza succeeded in increasing dynamism and zeal of students.

2. NATIONAL SERVICE SCHEME (NSS)

In the new academic year 2014-2015, NSS IIT Delhi set out to create a paradigm shift. A shift from its perception just as a curriculum requirement, to that of a large family of en thusiastic volunteers who feel a sense of belonging for this organization. The Orientation for first year students was held in August 2014, which followed with a diverse set of events and regular volunteering activities, both in collaboration with NGOs and direct NSS initiatives.

A lot of new NSS initiatives were started last year. The Liter of Light workshop brought Social Innovation to the fore by lighting the slums of nearby Munirka community by glowing plastic bottles. A bicycle sharing system for campus residents has been planned, while an energy survey was done to identify the energy potential of the campus and measures taken towards realizing the same. The Substance Abuse initiative helped make students realize the ill effects of smoking, wherein students who wished to quit smoking were also helped out with the help of Student Counseling Center. The Music Masti project was started by enthusiastic volunteers to teach Music to unprivileged kids, while a similar initiative was taken to teach Chess to these children.

On the same lines, several projects continued and achieved distinction in their performance. The Munirka and Mess teaching projects were refurbished. The Safe Hands smartphone app developed by Stree and NSS won the prestigious Nina Saxena Excellence in Technology Award instituted by IIT Kharagpur. Stree is NSS' initiative towards Gender Sensitization which spread its reach to several Delhi colleges for the same.

Apart from the regular events like Blood Donation Camps, Collection and Cleanliness Drives, Internships, Nature Walks and Independence Day celebrations, this time there was also an Organ Donation campaign, celebration of International Day of the Girl Child and World Hospice and Palliative Care Day, exposure trips and movie screenings on relevant issues.

The NSS unit represented the college in a youth conference held at BITS Pilani, while the environment team won the 2nd prize in the GreenX competition held at IIT BHU for the Green initiatives taken.

3. NATIONAL CADET CORPS (NCC)

The NCC unit at IIT Delhi is affiliated to 7 Delhi Battalion NCC. The NCC unit IIT Delhi organized the following activities during the preceding year:

- Regular training in foot, arms and ceremonial activities.
- Regular parade drills.
- Parade on the Republic Day, where the Director of IIT Delhi undertook the inspection of the NCC cadets.
- Award for the Best Cadet and the Most Disciplined Cadet were conferred to two of the cadets.
- A winter camp was organized on the IIT Delhi premises in December that involved weapons training, map readingactivities, physical fitness and hygiene, firefighting lectures. Cadets were sent to attend annual training camps that were organized by 7 Delhi NCC Battalion, outside the IIT campus, and the cadets participated with full enthusiasm and zeal. Some cadets were given preparation guidelines for the B- and C- certification examinations which they plan to undertake in the current year.

4. STUDENT COUNSELLING SERVICES (SCS)

Student Counselling Service of IITD aims to support students and their parents (As per their requirement). Counselling entails use of cognitive, behavioural, Rational Emotive, Supportive, Interpersonal and intrapersonal therapies.

Student Counselling Service (SCS) organized various useful workshops for freshers. It provides a confidential environment where a student can explore and express aspects of himself / herself that may be painful or uncomfortable.

With an increase in counsellors in 2013-2014 , the Student Counselling Centre was able to deal with the increasing number of students having concerns. There has been a decrease in waiting time for the students, thus saving their time of waiting for a consultation.

SCS provided a Counselling session with parents during orientation period. Session was aimed at sensitizing parents on handling their wards while at IITD and to help their wards in adjusting to the new environment. Counsellor organized visits to all the hotels during September, 2014. Mentor training programme was conducted by SCS from in August 2014. This training was meant for the core group of mentors to identify students facing problems in different areas of life, to help students at the elementary stage of their problem. and to make referrals to SCS in case of urgent or serious problems.

SCS organized a series of lectures in 2014-2015 for the benefit of first year students of IITD covering various topics for the benefit of students. It was mandatory for the first year students.

5. STUDENT-TEACHER INTERACTION COMMITTEE (STIC)

STIC (Student-Teacher Interaction Committee) tried different initiatives to improve student teacher interaction. Dinners were organized for all freshers with their teachers who were teaching in 1st semester of 2014-2015. All hostels hosted STIC dinners for their students during both the semesters of 2014-2015. This programme also supports teachers financially to interact with the students of their class. There was encouraging participation of teachers from all the departments to interact with their students using STIC funding. There is provision in STIC to partially fund professional societies of the departments.

10. Social Responsibility

(April 1, 2014 - March 31, 2015)

Social Responsibility

(April 1, 2014 - March 31, 2015)

RELAXATIONS TO SC/ST/OBC/PD STUDENTS AND STAFF

IIT Delhi is sensitive to the need of the students belonging to the SC/ST community and to those who are having disabilities. Special care and attention are paid to them.

Relaxation in Admissions

Admission to the first year of the four-year B.Tech., dual degree and the 5-year integrated M.Tech. programmes is made through the Joint Entrance Examination (JEE) which is held in April and is common for all the IITs and the Institute of Technology, BHU, Varanasi.

- The minimum qualifying marks for SC/ST candidates are specially prescribed at a lower level than those for the general category of students.
- The age limit is also relaxable in their case by five years.
- Candidates declared successful in this category are paid second class railway fare to and fro from the place of their normal residence to the counsellingcentre.

Reservation of Seats

At IIT Delhi, the percentage of seats reserved for SC/ST/OBC/ PD candidates is as follows :

	B.Tech. Dual Deg.& Int. M.Tech.	M.Sc.	M.Tech.	M.Des.	M.B.A.
Scheduled Castes	15	15	15	15	15
Scheduled Tribes	71/2	71/2	71/2	71/2	71/2
OBC	27	27	27	27	27
PD	3	3	3	3	3

Seats reserved for SC/ST/PD candidates that remain unfilled cannot be filled by applicants belonging to other categories and thus remain vacant.

Persons with Disabilities (PD)

For any category of disability (viz., locomotor, visual, speech and hearing), benefit is given to those candidates who have at least 40% permanent physical impairment in relation to a body part/ system/ extremity/extremities/ whole body etc. The candidates in this category are required to be certified by a Medical Board. The Medical Board decides the following:

- Whether the Candidate qualifies for the benefits under this category, and
- if the disability is likely to interfere in his/her studies.

The Medical Board duly constituted for this purpose meets at the time of counselling. The decision of the Medical Board is held final.

SCHOLARSHIPS AND FINANCIAL ASSISTANCE

All SC/ST students are given scholarships and financial assistance as detailed below:

- All SC/ST Students are exempted from payment of tuition fee.
- Free messing (basic menu) and a pocket allowance of Rs. 250 per month in lieu of the merit-cum-means scholarship for the students having annual family income upto 4.5 lacs. In addition, they are exempted from payment of Hostel seat rent.
- All eligible SC/ST students, while on training or doing courses during semester breaks or required to stay in the Institute during semester breaks or exempted from taking meals from hostels due to medical reasons etc. are given payment of 70 per month and a per diem allowance in lieu of free messing on the basis of prevalent average rate of messing charges as applicable from time to time.
- SC/ST students who fail in the examination for the first time continue to receive the free messing subject to a maximum limit of five years.
- SC/ST students are loaned books upto a value of 500 from the book bank without payment of any loan fee. The books are, however, required to be returned at the end of each semester.

Master of Science

Merit-cum-means scholarship of 1,000 per month and free tuition are permissible to M.Sc. students to the extent of 25% of the sanctioned strength subject to a maximum of five in each department. Only those students are eligible whose parents' gross income is less than 4.5 lacs per annum for all categories of students, including SC/ ST students. The terms and conditions of the award of scholarship including conditions for continuation are laid down in the Rules and Regulations and are subject to change from time to time.

PREPARATORY COURSE

A one-year preparatory course is also run for SC/ST/ PD candidates. Candidates admitted to this programme are amongst those who appeared for the JEE but were unsuccessful in qualifying for admission. The number admitted to this programme varies from year to year depending upon the number of SC/ST/PD candidates who were successful in gaining regular admission with the total number of candidates admitted to the regular B.Tech.

Dual Degree Integrated M.Tech. programmes as well as the preparatory course being limited to the above indicated percentage. Preparatory course students undergo zero level courses in Physics, Chemistry, Mathematics and English.

Candidates who successfully complete the preparatory course are eligible to seek admission during the following academic year against the vacant SC/ST/PD seats of the current year. Alternately, in case they desire a discipline of their choice, they must reappear for the JEE in the subsequent year. SC/ST Preparatory course students are also eligible to receive free messing and pocket allowance on the basis of the same norms as for regular undergraduate students belonging to SC/ST category.

OTHER FACILITIES

- Reduction in the academic load in subsequent semester in case they do not maintain the required semester grade point average (SGPA).
- Tutorial type remedial courses with half the normal credits.
- Special courses during the summer vacations to make up for the credit requirements due to reduced load during the regular semesters.
- Counselling service to help such students to better adjust to campus life and environment.

CONCESSIONS ALLOWED TO STAFF

I.I.T. Delhi follows the Government of India rules governing reservation for Scheduled Castes/Scheduled Tribes, OBC and Physically Handicap persons. Appointments made in respect of these categories during the year under report are given below:

No. of Candidates Appointed*					
Groups	Scheduled Castes	Scheduled Tribes	OBC	PD	Total
A	-	-	01	-	01
B	-	01	-	-	01
C	02	-	01	-	03
D	-	-	-	-	-

**Note : These include contract appointments.*

SUMMER RESEARCH FELLOWSHIP PROGRAMME

The main objectives of this programme are - to help inculcate research culture among the faculty members of educational institutions outside the IIT system, to provide orientation towards research through interaction with the mentors and other research students and exposure to the facilities and labs, with a view to eventually motivate them to undertake higher studies and research activities within or outside IIT Delhi. The feedback received from both the fellows and the mentors so far has been quite positive and encouraging. Under the Summer Faculty Research Fellowship Programme of the Institute organized under the CEP, 104 faculty fellows joined this year and they come from 68 different colleges/institutes representing 15 states of the country. They have been associated with a total of 40 faculty mentors. They spent about six weeks during the summer and worked with IIT faculty mentors.

COMMITMENTS IN SUSTAINABILITY

The solar energy park was established in the year 1996 with research funding received from various Government Ministries. In solar energy park, there are low cost mud house, 5 kWpstand alone PV system , underground water pumping, various design of solar still, evacuated solar water heater, integrated PV hybrid active solar still, water heater, air heater, conventional and green house crop dryer, greenhouse cultivation system. Energy and ExergyAnalysis of Solar Thermal devices and systems, PV-T hybrid systems, HVACR Systems and thermal power plants (including combined cycle and Co-generation Power Plants) is being undertaken by CES and some pioneering work has been carried out by CES which is well cited at international level.

ENVIRONMENT

A new "Biogas Development and Training Centre" (BDTC) started in IIT Delhi in the year 2008 and engaged in research and development of biogas related technologies. BDTCs are supported by Ministry of New and Renewable Energy (MNRE) under National Biogas and Manure Management Programme (NBMMP) for providing technical training and publicity support for quality implementation of biogas programme.

BDTC, IIT Delhi is engaged in research and development of biogas related technologies and its applications. In broader terms, BDTC, IIT Delhi is to provide technical support for National Biogas Manure Management Program (NBMMP) on decided areas with Ministry of New and Renewable Energy and coordinate R&D and consultancy work on biogas technology with expertise available in IIT Delhi.

Services of BDTC IIT Delhi:

- R&D related to bio-methanation
- Training and Human Resource Development
- Consultancy services related to biogas technology
- Technical guidance

COMMUNITY

For the second time this year, a 10-day Special Orientation Programme for Entry Level students was conducted for about 120 participants with the objective of enhancing their learning skills, English language and communication skills, inter-personal relationships and motivation. This programme was conducted with the help of Centre for Research and Education for Social Transformation (CREST), Calicut, Kerala. All those who participated in it appreciated the program. The SC Commission had a special word of praise for the Institute's initiative to help students from weaker sections of society through this self-enrichment program.

A group named ASSISTECH was formed at IIT Delhi to design and develop assistive devices for the visually impaired. ASSISTECH was formed more than two years back with the clear objective of "Making a difference in the lives of million plus visually impaired people by the year 2015". At any one time it is an active association of 12 to 15 students who contribute both through academic projects as well as other activities. Specifically the group is working on the following four projects for the visually impaired:

- Smart Cane: An aid for assisting safe mobility
- Bus Identification Device: An aid for assisting use of public buses
- Braille Tutor: A Braille and language learning device
- Disha – Indoor Navigation Device: An aid for independent mobility within the public buildings
- IIT Delhi also encourages students to take part in service of humanity, working for the education of the under-privileged. Voluntary blood donation and tree planting are undertaken.

11. Alumni Contribution

(April 1, 2014 - March 31, 2015)

The Alumni are a very valuable resource for the Institute, and increasingly, they have started to make a difference to the way things are done at IIT Delhi. The Alumni have directly contributed for instituting Chair Professorships, Young Faculty Incentive Fellowships and Student Awards and even for Infrastructure Development.

Some of the contributions from the Alumni in the previous year are listed below and are gratefully acknowledged:

Contributor	Contribution in Rs.	Contribution For
Dr. Manish Gupta	6,00,000.00	Dhan Parkash and Kamla Gupta Young Faculty Incentive Fellowship
Mr. Rajeev Benodekar	3000.00	IIT UK Alumni Scholarship Endowment Fund
Prof. Amiya Basu	30,54,368.00	Prof. Amiya Basu Research Award in Structural Engineering
Mr. Suvojoy Sengupta	7,50,000.00	Deepak Sengupta Memorial Award

12. Financials

(April 1, 2014 - March 31, 2015)

The Institute is financed by the Department of Higher Education, Ministry of Human Resource Development, Government of India. During 2013-2014, the Institute received a grant of Rs. 37,775.00 lakhs from the Ministry of Human Resource Development to meet its yearly expenses. The Institute receives funds for sponsored research projects and for consultancy assignments being undertaken by the Institute from several funding agencies and Industries. The financial year of the Institute corresponds with that of Govt. of India i.e. Ist April to 31st March. The accounts of the Institute are annually audited by the Director General of Audit & Central Revenue of India. The 110th Finance Committee of the Institute (shown in the box on the side) in its meeting held on 12-03-2015 recommended Plan (Normal) Revised Estimates for Rs. 32,210 lakhs for the year 2014-2015 and Budget Estimates for Rs. 48,700 lakhs for the year 2015-2016 respectively and Non-Plan Revised Estimates for Rs. 32,500 lakhs for the year 2014-15 and Budget Estimates for Rs. 35,000 lakhs for the year 2015-16.

The following are the details for the financial year 2013-2014 and 2014-2015:

FINANCE COMMITTEE

(01.04.2014 to 31.3.2015)

Vijay P. Bhatkar, *Chairman*

R.K. Shevgaonkar

Alok Mishra

Navin Soi / Rajesh Singh

R.K. Verma / Punya S. Srivastava (Ms.)

Anurag Sharma / Ashok Gupta

Rakesh Kumar, *Secretary*

PLAN

Detailed Statement showing the Actual Receipt and Expenditure for 2013-2014 along with Revised Estimates 2014-2015 and Budget Estimates 2015-16

Particulars	Previous Year Actual 2013-2014 *(in Rs Lakhs)*	Revised Estimate 2014-2015 *(in Rs Lakhs)*	Budget Estimates 2015-2016 *(in Rs Lakhs)*
A. Receipt			
Normal Plan Grant from MHRD carryforward	1,160.02		
Normal Grant from MHRD (Normal)	18,475.00	32,210.00	48,700.00
Grant Receivable From MHRD	409.03		
Total A	**20,044.05**	**32,210.00**	**48,700.00**
B. Expenditure			
Normal Development Activities & Increase of Students Intake (including new hostel) New Courses Modernisation & Thrust Areas			
(i) Non-Recurring	17,286.52	29,210.00	45,700.00
(ii) Recurring	2,757.53	3,000.00	3,000.00
Commitments against L.C.'s for the year 2013-2014	—	—	—
Plan (Normal)	—	—	—
Total B	**20,044.05**	**32,210.00**	**48,700.00**

PLAN

Budget Estimates 2015-2016

Head of Expenditure	Actual 2013-2014 *(in Rs Lakhs)*	Revised Estimate 2014-2015 *(in Rs Lakhs)*	Budget Estimates 2015-2016 *(in Rs Lakhs)*
A. Developmental Activities & Increased Intake of Students (Normal)			
Major Works (including On going, Fresh Schemes)	11,372.17	15,000.00	36,000.00
Repair & Maintenance on Buildings	330.84	1,000.00	1,000.00
Teaching Equipment/Computerisation	4,295.86	10,000.00	5,000.00
Office General & Hospital Equipment/Furniture	288.04	650.00	1,000.00
Research Funds, Central Facilities & Thrust Areas	—	500.00	300.00
Motor Vehicals	4.62	10.00	—
Library Books & Journals	994.99	1,200.00	1,500.00
Web Based Academic Systems	—	200.00	200.00
Institute Level Network	—	650.00	700.00
Institute Scholarships	2,754.32	2,800.00	2,800.00
Centres of Excellence	3.21	200.00	200.00
Total	**20,044.05**	**32,210.00**	**48,700.00**

NON-PLAN

Detailed Statement showing the Actual Expenditure for 2013-2014 alongwith Revised Estimates 2014-2015 and Budget Estimates 2015-2016

Head of Income	Actual 2013-2014 *(in Rs Lakhs)*	Revised Estimate 2014-2015 *(in Rs Lakhs)*	Budget Estimates 2015-2016 *(in Rs Lakhs)*
Institute Income	8,507.45	7,682.00	8,482.00
Grant from M.H.R.D.	19,300.00	24,818.00	26,518.00
Total	**27,807.45**	**32,500.00**	**35,000.00**

NON-PLAN

Detailed Statement showing the Actual Expenditure for 2013-2014 alongwith Revised Estimates 2014-2015 and Budget Estimates 2015-2016

Head of Expenditure	Previous Year Actual 2013-2014 *(in Rs Lakhs)*	Revised Estimate 2014-2015 *(in Rs Lakhs)*	Budget Estimates 2015-2016 *(in Rs Lakhs)*
A. Pay & Allowances	13,657.83	16,620.00	18,200.00
B. Pension & Pensionary Benefits	5,807.48	6,980.00	7,300.00
C. Academic Expenses	1,088.49	1,200.00	1,300.00
D. Educational Expenses	785.68	800.00	800.00
E. Estate Maintenance	4,638.38	5,200.00	5,700.00
F. Office Contingencies, Misc. & Commitments/ Provisions	1,495.06	1,700.00	1,700.00
Total	**27,472.92**	**32,500.00**	**35,000.00**

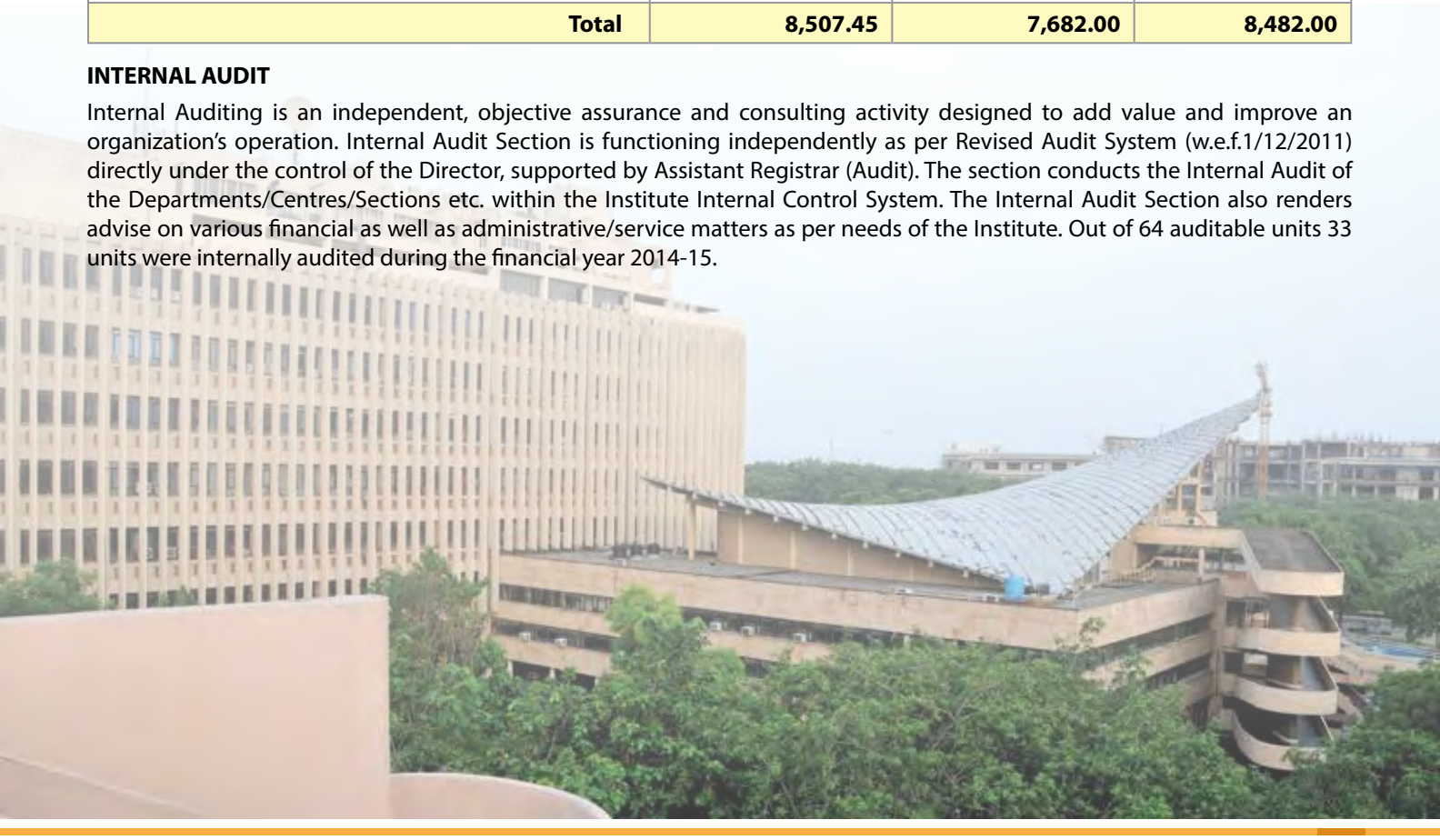
INCOME

Detail Statement showing the Actual Income for 2013-2014 alongwith Revised Estimate 2014-2015 and Budget Estimates 2015-2016

Sources of Income	Previous Year Actual 2013-2014 *(in Rs Lakhs)*	Revised Estimates 2014-2015 *(in Rs Lakhs)*	Budget Estimates 2015-2016 *(in Rs Lakhs)*
Academic Receipts	2,865.25	3,000.00	3,000.00
Receipt-Central Administration			
Interest on Investments	1,768.85	1,000.00	1,500.00
Charges for use of Staff Cars and Buses	5.57	6.00	6.00
Application Fee (Academic Receipt)	71.36	75.00	75.00
Sponsored Project / Consultancy	276.08	300.00	300.00
Works & Building			
Licence Fee	240.12	250.00	250.00
Seat Rent	369.90	375.00	375.00
Water & Electricity	394.80	400.00	400.00
Hospital & Medical	0.82	1.00	1.00
Guest House	230.87	250.00	250.00
Joint Entrance Exam	269.67	300.00	300.00
GATE	1,825.69	1,500.00	1,800.00
Joint Admission Test for M.Sc.	28.46	75.00	75.00
Misc. / Other Receipts (including sale of obsolete equipments)	160.01	150.00	150.00
Total	**8,507.45**	**7,682.00**	**8,482.00**

INTERNAL AUDIT

Internal Auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operation. Internal Audit Section is functioning independently as per Revised Audit System (w.e.f.1/12/2011) directly under the control of the Director, supported by Assistant Registrar (Audit). The section conducts the Internal Audit of the Departments/Centres/Sections etc. within the Institute Internal Control System. The Internal Audit Section also renders advise on various financial as well as administrative/service matters as per needs of the Institute. Out of 64 auditable units 33 units were internally audited during the financial year 2014-15.



Appendix I

SENATE

(01.04.2014 to 31.03.2015)

R. K. Shevgaonkar, Chairman (Director)	A. Ramanan	Sriram Hegde	S. Arun Kumar
A. K. Agarwala	Veena Chaudhary (Ms.)	Harish Hirani	S. Kundu
Ashwini K. Agarwal	Anoop Chawla	S. M. Ishtiaque	N. D. Kurur
G. P. Agarwal	H. M. Chawla	K. C. Iyer	Alok Madan
V. K. Agarwal	Sudhir Chandra	A. K. Jain	Puneet Mahajan
R. Algirusamy	R. Chattopadhyay	P. K. Jain	S. N. Maiti
Suhail Ahmad	Apurba Das	S. K. Jain	Hitendra K. Malik
Babu J. Alappat	R. P. Dahiya	Sanjeev Jain	Ranjan Kumar Mallik
Sneh Anand (Ms.)	S. K. Dash	V. K. Jain	Shashi Mathur
S. K. Atreya	M. G. Dastidar (Ms.)	M. Jagadesh Kumar	B. R. Mehta
Chandra B. (Ms.)	Manoj Datta	Manjeet Jassal (Ms.)	D. S. Mehta
R. Bahl	S. Dharmaraja	Jayadev	Prashant Mishra
M. Balakrishnan	J. K. Dutt	B. Jayaram	Saroj Mishra (Ms.)
D. K. Bandhopadhyay	Viresh Dutta	Joby Joseph	Sukumar Mishra
S. Banerjee	S. G. Deshmukh	Mangla Joshi (Ms.)	Aditya Mittal
Ananjan Basu	Anupam Dewan	S. D. Joshi	A. K. Mittal
S. Basu	Chinmoy Sarkar Dey	S. R. Kale	Manju Mohan (Ms.)
B. K. Behera	Anil Jacob Elias	N. C. Kalra	Ratan Mohan
A. N. Bhaskarwar	O. P. Gandhi	Prem Kumar Kalra	U. C. Mohanti
Kanika T. Bhal (Ms.)	A. Ganguly	T. C. Kandpal	Sudipto Mukherjee
B. Bhattacharjee	A. K. Ganguli	Santosh Kapuria	Atul Narang
Bhim Singh	N. K. Garg	I. N. Kar	S. N. Naik
Naresh Bhatnagar	Naveen Garg	Subrat Kar	R. B. Nair (Ms.)
T. S. Bhatti	Rahul Garg	Ravinder Kaur (Ms.)	Sunil Nath
B. Bhowmik (Ms.)	Anup K. Ghosh	S. C. Kaushik	K. Narayanan
G. Bhuvaneswari (Ms.)	James Gomes	Saroj Kaushik (Ms.)	A. K. Nema
Jayashree Bijwe (Ms.)	Pramila Goyal (Ms.)	A. K. Keshari	B. P. Pal
P. R. Bijwe	A. K. Gosain	Rajesh Khanna	B. S. Panda
V. S. Bisaria	V. R. Gunturi	Mukesh Khare	Preeti Ranjan Panda
Ranjan Bose	Ashok Gupta	Neeraj Khare	P. S. Pandey
Bijoy H. Boruah	B. D. Gupta	S. K. Khare	Siddharth Pandey
Devi Chadha (Ms.)	Bhuvnesh Gupta	Rakesh Khosa	Sunil Pandey (on lien)
Charusita Chakravarty (Ms.)	Deepti Gupta (Ms.)	Sangeeta Kohli (Ms.)	D. K. Pandya
N. Chatterjee	H. C. Gupta	V. K. Kothari	K. K. Pant
Ratnamala Chatterjee (Ms.)	K. Gupta	S. K. Koul	Nalin Pant
Tapan Kumar Chaudhuri	S. K. Gupta (Ch.E.)	Veena Koul (Ms.)	B. S. Panwar
B. R. Chahar	M. N. Gupta	Ajit Kumar	B. P. Patel
V. Chandra	M. P. Gupta	Arun Kumar (Phy.)	Shankar Prakriya
Santanu Chaudhury	S. K. Gupta (CS&E)	Arun Kumar (CARE)	Sanjiva Prasad
Sujeet Chaudhary	M. Hanmandlu	Anshul Kumar	Surendra Prasad
	S. E. Hasnain	Amit Kumar	Rajendra Prasad

contd. .....

Rajesh Prasad	Ambuj D. Sagar	Satyawati Sharma (Ms.)	N. Tandon
K. R. Rajagopal	Subir Kumar Saha	Kushal Sen	Geetam Tiwari (Ms.)
N. G. Ramesh	Sanjeev Sanghi	Sandeep Sen	G. N. Tiwari
A. D. Rao	Sanil V.	P. Senthikumaran	K. Thyagarajan
K. S. Rao	Huzur Saran	Kiran Seth	C. A. Tomy
S. L. S. Rao	Anil Kumar Saroha	M. R. Shenoy	Amitabh Tripathi
P. V. Rao	Santosh Satya (Ms.)	A. K. Singh	Suneet Tuli
P. V. Madhusudan Rao	Maithili Sharan	Harpal Singh	V. Upadhyay
P. M. V. Subba Rao	D. T. Shahani	Jai Deo Singh	R. K. Varshney
Anurag Singh Rathore	Jagdish T. Shahu	Purnima Singh (Ms.)	M. Veerachary
M. R. Ravi	Ravi Shankar (Chy.)	S. N. Singh	S. V. Veeravalli
Ravi Kumar D.	Ravi Shankar (DMS)	S. P. Singh	V. K. Vijay
V. Ravishankar	Anurag Sharma	S. N. Sinha	G. S. Visweswaran
Anjan Ray	D. K. Sharma	R. K. Soni	A. L. Vyas
Rengasamy R. S.	K. G. Sharma	T. R. Sreekrishnan	S. S. Yadav
G. B. Reddy	O. P. Sharma	A. K. Srivastava	Rakesh Kumar (Secretary)
Shantanu Roy	R. K. Sharma	Pankaj Srivastava	
P. K. Roychoudhury	R. P. Sharma	Sushil	

EXECUTIVE COMMITTEE OF THE SENATE (ECS)

(01.04.2014 to 31.03.2015)

R. K. Shevgaonkar, Chairman	S. R. Kale
S. K. Koul	K. Thyagarajan
S. N. Singh	R. Chattopadhyay
Anurag Sharma	Arun Kumar
Sushil / Kushan Sen	(Ms.) Sneh Anand / (Ms.) Veena Koul
Suneet Tuli	Sanjeev Sanghi
Mukesh Khare	S. Arun Kumar
S. K. Gupta	R. P. Sharma / Viresh Dutta
Ashok Gupta / K. S. Rao	O. P. Gandhi
Suhail Ahmad / Puneet Mahajan	A. D. Rao
T. R. Sreekrishnan / Prashant Mishra	D. T. Shahani
S. Basu	(Ms.) Veena Choudhury / A. K. Ghosh
A. Ramanan	(Ms.) Satyawati Sharma
A. K. Jain / Manoj Datta	(Ms.) Sangeeta Kohli
Huzur Saran / (Ms.) Saroj Kaushik	Naresh Bhatnagar / P. V. M. Rao
(Ms.) Basabi Bhaumik/ Bhim Singh	B. D. Gupta
Sanil V.	Narendar Kumar
(Ms.) Kanika T. Bhal	Rakesh Kumar, Registrar, Member Secretary
B. S. Panda / S. Dharmaraja	

Appendix II

ADMINISTRATIVE AND OTHER STAFF

(As on 31.03.2015)

Administration	
Rakesh Kumar	Registrar (on deputation)
M. K. Gulati	Joint Registrar (Accounts)
P. G. Basak	Joint Registrar (Audit)
Nanak Chand Chauhan	Joint Registrar (Legal Cell & E-I Section)
K. K. Bhattacharjee	Deputy Registrar (SP Section, R&I and RTI)
Vivek Raman	Deputy Registrar (PGS)
Atul Vyas	Deputy Registrar (Director's Office)
N. Bhaskar	Assistant Registrar (CDN & Health Unit)
V. K. Vashistha	Assistant Registrar (IRD)
Ram Parsad	Assistant Registrar (Estate)
Alan V. Siante	Assistant Registrar (UGS)
Mohd. Shamim	Assistant Registrar (R&D Accounts)
Raj Kumar Gupta	Assistant Registrar (Accounts)
Mukesh Chand	Assistant Registrar (SAS)
Ramesh Kumar Thareja	Assistant Registrar (E-II & Manpower Training)
S. N. Tiwari	Assistant Registrar (T&P)
Debranjan Mukherjee	Assistant Registrar (Accounts)
Sanjay Pande	Assistant Registrar (Plg, Alumni, Conference, Transport)
Amitabh Mukherjee	Assistant Registrar SAS (Accounts)
G. K. Taneja	Executive Engineer & Offtg. Institute Engineer
K. M. Vijay Kumar	Executive Engineer
Anuj Gaur	Executive Engineer
Sanjiv Kumar	Executive Engineer (on deputation)
Rafat Jamal	Assistant Executive Engineer
V. K. Bharaj	Assistant Executive Engineer
Hitendra Govil	Assistant Executive Engineer
K. P. Mishra	Assistant Executive Engineer
S. Mohan	Assistant Executive Engineer
Prem Kumar	Assistant Executive Engineer
Brahm Prakash	Assistant Executive Engineer
Ashok Kumar	Assistant Executive Engineer
Raju Ram Parihar	Assistant Executive Engineer
Vishal	Assistant Executive Engineer (On Deputation)
Pradip Karmarkar	Assistant Executive Engineer
Anishya Obhrai Madan (Ms.)	Industrial Liaison Officer
Deepak Negi	Sports Officer

contd. .....

Administrative Computerisation Support Service	
S. Arun Kumar	Head
R. Raghavan (Ms.)	Senior System Programmer
K. Narayanan	Senior System Programmer
P. K. Baboo	Senior System Programmer
Pardeep Kumar Gupta	Senior System Programmer

Student Counselling Service	
Saroj Kaushik	Head

Professors-in-Charge of Different Sections	
Sudipto Mukherjee	Professor-in-Charge (Planning)
Naresh Bhatnagar	Professor-in-Charge (Transport)
O. P. Sharma	Professor-in-Charge (Guest Houses)
Kushal Sen	Professor-in-Charge (Training & Placement)

Hindi Cell	
Santosh Satya	Head

Library	
B. D. Gupta	Chairman
J. P. Srivastava	Dy. Librarian
Nabi Hasan	Dy. Librarian

IIT Hospital	
Ajay Kumar Jain	Head Hospital Services & Medical Officer (SS)
Lily Khosa (Ms.)	Medical Officer (SS)
Renu Misuriya (Ms.)	Medical Officer (SS)
Mahesh Kumar Sagar	Medical Officer (SS)
Anila Khosla (Ms.)	Medical Officer
P. K. Rajesh	Medical Officer (Homeo)
Md. Ashafaque Hussain	Medical Officer
Sayed Yasmeen Raunaq	Medical Officer
L. Pangerlemba	Medical Officer

Appendix III

OTHER COMMITTEES

(01.04.2014 to 31.03.2015)

BUILDING AND WORKS COMMITTEE

R. K. Shevgaonkar, Chairman (Director)	
S. Ramanujam	K. J. Singh
Jose Kurian	G. K. Taneja
M. N. Joglekar	Ashok Gupta / K. S. Rao
K. N. Rai	Rakesh Kumar, Secretary

ADVISORY COMMITTEE FOR LIBRARY

B. D. Gupta, Chairman	J. Bijwe
Anupam Dewan	Mahesh P. Abegaonkar / Ananjan Basu
Preeti Srivastava (Ms.)	R. Raghavan (Ms.)
Ali Haider	V. M. Chariar
S. K. Khare / Pravin p. Ingole	P. Hari Prasad
G. V. Ramana	Santosh Satya (Ms.)
Huzur Saran / Kolin Paul	S. N. Maiti / Veena Chaudhary (Ms.)
Jayadeva/I.N. Kar	S. K. Atreya / Chandra Shakhar
Debasis Mondal / Richa Kumar (Ms.)	Rajesh Prasad
Jitendra Madaan	K. K. Pant
Aparna Mehra (Ms.)/R. Barman	Mangala Joshi (Ms.)
S. P. Singh / J. K. Dutt	Parnil Singh (Ms.) / Vaibhav Grover
Joby Joseph	Ekansh Gupta / Kshitij Jain
Mangala Joshi (Ms.) / Amit Rawat	Shashank Kedia / Suraj Kumar
Vimlesh Pant	Amit Kashyap / Preeti (Ms.)
Veena Koul (Ms.)	Narender Kumar, Member Secretary
V. Krishna	

COMPUTER USERS' COMMITTEE

S. Arun Kumar, Chairman	Sneh Anand (Ms.)
Sanjeev Sanghi	R. P. Sharma
A. K. Srivastava	R. K. Rai
Gaurav Goel	R. Bahl
Nalin Pant	Veena Choudhary (Ms.)
Vasant Matsagar	A. K. Agarwala
Maya Ramanath	V. M. Chariar
Kushal Shah	Gopal Krishan
Debasis Mondal	Savita Goel (Ms.)
S. P. Singh	Arushi Jamaiyar (Ms.)
Mani Mehra (Ms.)	Arun Singh
N. Bhatnagar	Siddhant Malviya
G. V. Prakash	Madhur Gupta
R. S. Rengasamy	Saroj Kaushik
Vimlesh Pant	Pragya Jain (Ms.) , Member-Secretary

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- Academic integrity and accountability.
- Respect and tolerance for the views of every individual.
- Attention to issues of national relevance as well as of global concern.
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- Appreciation of intellectual excellence and creativity.
- An unfettered Spirit of exploration, rationality and enterprise.

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