ANNUAL REPORT
2015-16

INDIAN INSTITUTE OF TECHNOLOGY ROPAR

ANNUAL REPORT
2015-2016

INDIAN INSTITUTE OF TECHNOLOGY ROPAR
Nangal Road, Rupnagar, Punjab-140001 (INDIA)

IIT ROPAR: AT GLANCE

2015-16

DEPARTMENT / SCHOOL / CENTRE

Departments	:	6
School	:	1
Centre	:	1

GRANTS (in Crores)

DST	:	5.25
CSIR	:	0.43
DRDO	:	1.11
Others	:	5.02
Total	:	11.81

STUDENTS ADMITTED

B.Tech.	:	122
PG Programme	:	43
PhD	:	59

STUDENTS STRENGTH

B.Tech.	:	473
PG Programme	:	43
PhD	:	167

NUMBER OF DEGREE AWARDEES

B.Tech.	:	112
PhD	:	18

FACULTY/ STAFF STRENGTH

Faculty Positions	:	70
Faculty Promoted	:	12
New joining	:	07

RESEARCH PAPERS

Journals	:	159
Conferences	:	136
Book Chapters	:	4
Book	:	1

CONSULTANCY PROJECTS

Number of New Projects	:	4
Outlay	:	0.19 (in crores)

SPONSORED RESEARCH PROJECTS

Number of New Projects	:	28
Outlay	:	11.81 (in crores)

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FROM THE DIRECTOR'S DESK

Indian Institute of Technology Ropar started functioning from the academic year 2008-09 from the campus of IIT Delhi, the mentor institute. The transit campus of IIT Ropar was inaugurated on 19th August, 2009. Coming year (2017), the Institute will start shifting to its own campus, spread over an area of 500 acres on the banks of the river Satluj. First four batches of Undergraduate students have earned their B.Tech. Degrees. In addition, IIT Ropar has started awarding PhD degrees for the last three years. Presently the Institute has 515 UG, 93 PG and 208 PhD students.

The temporary campus for IIT Ropar is equipped with all the required facilities. Faculty recruitment, creation of laboratories and other support facilities are in full swing. Institute has taken up a new initiative of institute team visiting abroad for faculty recruitment and initiation of linkage with diaspora. One two-weeks long successful visit to UK, Canada and US was carried out in June 2016 and another is planned for Singapore, New Zealand and Australia in December 2016. The new campus under construction is moving at a fast pace. First phase (1A) of the Campus construction will be completed before the beginning of 2017 session. Approvals for the phases 1B and 1C and other processes are in full swing. Institute is planning to shift completely to its own campus by 2019 session with total student strength of more than 2500. The approximate intermediate strength of 1200 in 2017 session and 1800 in 2018 session will to be shared in both the campuses. Institute has set up a task force for deciding the new programs to be initiated in future. As a result, we have started Civil Engineering Department from session 2016 with intake of 25 students. Chemical Engineering Department is going to start from 2017 session. The Centre for Bio-medical Engineering is going to start M.Tech. Programme from 2017.

The overall academic system for IIT Ropar is designed to provide science-based engineering education with a view to produce quality engineers and scientists. The curriculum provides broad based knowledge and simultaneously builds a temper for lifelong learning and exploration. Institute has been working on the curriculum revision for last one year exploring the best global practices of teaching-learning exercises that could create academic and research synergy with fundamental concepts, innovative practices with industrial and societal needs of changing global scenario. Task force for new curriculum was working with faculty, student, alumni and experts from outside institutes. We are planning to start 2017 session with this revised curriculum.

The Institute also undertakes a number of research and consultancy projects sponsored by a wide spectrum of funding agencies, including the Government and Industry. The Institute has undertaken major research activities in areas of national importance such as non-conventional energy, sensors, drug delivery, materials synthesis and their modification, image processing, cloud computing,

networks, robotics, pattern recognition, renewable energy systems, microelectronics and nanodevices, mathematical biology, fluid dynamics, pure mathematics, quantum optics and quantum control, soft matter physics, ion beam physics, renewable energy, nanophotonics and metamaterials, surface patterning, sustainable energy, biomechanics, nanofluids, complex fluids, nanocomposites, Neuro-cognition, financial mathematics and markets, phonetics, etc.

The Institute provides adequate funds to the departments and faculty members for the upgradation of laboratories and creation of research facilities. This has enabled our faculty to take up research projects in frontier and emerging areas of science and technology. Institutes fraternity have shown through the parameters of ranking system initiated by MHRD that we stand within first to ten (ranked 9th) in NIRF ranking list and top in two of the six parameter (Teaching , Learning & Resources and Graduation Outcome). It is a great feeling of satisfaction for the Institute in this short period of hard times.

IIT Ropar organized Industry Academia Conclave (IAC 2016) in which participants from different industries attended the gatherings. In this conclave, sponsored research, consultancy and incubation curriculum as well as incubation and start-ups were discussed at length. New Technology Business Incubator Foundation has been set up and we are working for a research park in coming years.

The Institute conducted a workshop on "Teaching & Learning Skill" in March 2016 in order to implement the best methods for teaching students. We are in the process of setting up the dedicated Teaching Learning Centre to evolve new and upcoming practices in teaching and learning globally.

The Training & Placement cell is actively involved in organizing practical training of the undergraduate students and has been playing a catalytic role in finding placements for its final year students. Reorganization of Training & Placement cell is in the process and soon it will be known as Career Development and Corporate Relations Centre.

IIT Ropar has undertaken the task of redefining its vision and mission and to put a strategic plan to achieve them with the group of IIM Calcutta. IIT Ropar is in the process of finding its research focus particularly in the Interdisciplinary areas.

In fine it can be said that IIT Ropar is in the path of a steep growth for the years to come.

Prof. Sarit K. Das
Director

About the Institute

Indian Institute of Technology Ropar started functioning from the academic year 2008-09 from the campus of IIT Delhi, our mentor institute. The Institute currently operates from the premises of Government Polytechnic College for Women in Ropar. The foundation stone laying ceremony for the permanent campus was held on February 24, 2009. In a few months, the institute will be relocated to its own campus, spread over an area of 500 acres on the banks of the river Satluj.

The Indian Institute of Technology Ropar is ranked 9th best engineering institute in the latest national rankings. IIT Ropar is committed to provide state-of-the-art technical education in a variety of fields. The Institute is facilitating transmission of knowledge in keeping with the latest developments in pedagogy. At present, the Institute offers Bachelor of Technology at UG level in Computer Science and Engineering, Electrical Engineering, Mechanical Engineering and Civil Engineering programmes; M.Sc.-MS (R), MS-(R), M.Tech., and M.Sc. at PG level in Computer Science and Engineering, Electrical Engineering, Mechanical Engineering, Physics, Chemistry and Mathematics. In research, all departments are offering PhD Programmes. The Institute has two inter-disciplinary centers on Biomedical Engineering and Materials & Energy Engineering.

Four batches of undergraduate students have earned their B.Tech. degrees in the Convocation. In addition, IIT Ropar has awarded several PhD degrees. Presently the Institute has 473 UG, 43 PG and 162 PhD students. The temporary campus for IIT Ropar is equipped with all the required facilities. Classrooms fitted with multimedia, faculty offices and administrative wing are all in place. There are four hostels: three for boys and one for girls. These hostels are equipped with modern dining facilities.

Faculty recruitment, creation of laboratories and other support facilities are in full swing. The new campus is under construction and is moving at a fast pace. Campus construction is expected to be completed by mid-2017. The overall academic system for IIT Ropar is designed to provide science-based engineering education with a view to produce quality engineers and scientists. The curriculum provides broad based knowledge and simultaneously builds a temper for lifelong learning and exploration. The undergraduate programme begins with a set of science and general engineering courses which are reflected in the course plan for the first year. These courses provide a foundation for further discipline-specific topics.

The Institute also undertakes a number of research and consultancy projects sponsored by a wide spectrum of

funding agencies, including the Government and Industry. The Institute has undertaken major research activities in areas of national importance such as non-conventional energy, sensors, drug delivery, materials synthesis and their modification, image processing, cloud computing, networks, robotics, pattern recognition, renewable energy systems, microelectronics and nanodevices, mathematical biology, fluid dynamics, pure mathematics, quantum optics and quantum control, soft matter physics, ion beam physics, renewable energy, nanophotonics and metamaterials, surface patterning, sustainable energy, biomechanics, nanofluids, complex fluids, nanocomposites, neuro-cognition, financial mathematics and markets, phonetics, etc. The Institute provides adequate funds to the departments and faculty members for the upgradation of laboratories and creation of research facilities. This has enabled our faculty to take up research projects in frontier areas of science and technology.

The Training & Placement cell is actively involved in organizing practical training of the undergraduate students and has been playing a catalytic role in finding placements for its final year students. Reorganization of Training & Placement cell is in the process and soon it will be known as Career Development and Corporate Relations Centre.

IIT Ropar has undertaken the task of redefining its vision and mission and to put a strategic plan to achieve them. It is actively working on overhauling its UG curriculum and introducing new PG courses. In fine, it can be said that IIT Ropar is in the path of a steep growth in the years to come.

The Town of Ropar

The town of Ropar (also known as Rupnagar) is of great historical importance. The excavations carried out at Rupnagar have proved that this town was the seat of well developed Indus Valley Civilization. In proto - Historic Punjab, perhaps Rupnagar is the only known excavation site which can claim the status of a small town or city. The founds in recent excavations consists of earthen bares, statues, coins etc. The city dates back to Harrappa - Mohanjodharo civilization located east of Satluj river. The excavated artifacts belong to Chandra Gupta, Kushan, Hoon and Mughal period.

Ropar is nested on the foothills of the Shivalik ranges. The weather of Ropar is generally dry with four distinct seasons. It experiences hot summers & cold winters.

The city is very close to Sri Anandpur Sahib - The birth place of Sikhism & several scenic hill stations of Himachal Pradesh.

Main Gate to IIT Ropar Campus (Perspective View)

Location

How to reach us

Chandigarh Airport : 50 kms

Chandigarh Railway Station : 47 Kms
Mohali Railway Station : 41 Kms
Rupnagar Railway Station : 1 Km

ISBT, Sector-17, Chandigarh : 47 Kms
ISBT, Sector-43, Chandigarh : 40 Kms.

Wetlands of Rupnagar

IIT Ropar Achieves 9th Position in National Ranking

In the first set of India Rankings 2016 released on April 4, 2016 by the Hon'ble Minister for Human Resource Development in New Delhi, IIT Ropar ranked 9th in Research and Teaching Institutions in Engineering category amongst several other similar institutions in India that participated in the ranking exercise.

The National Institutional Ranking Framework (www.nirfindia.org), created by the Ministry of Human Resources Development, Govt. of India in 2015, outlines a methodology to rank institutions across the country. The parameters used for ranking broadly cover:

(1) Teaching, Learning & Resources
(2) Research, Professional Practice & Collaborative Performance
(3) Graduation Outcomes
(4) Outreach & Inclusivity and
(5) Perception

(1) **Teaching, Learning & Resources (TLR)** (Weightage: 0.30)

Parameters related to the core activities of any place of learning.
These lay emphasis on measuring numbers and quality of faculty, library and lab resources and general facilities for development of young persons.

(2) **Research, Professional Practice & Collaborative Performa (RPC)** (Weightage: 0.30)

Excellence in teaching and learning is closely associated with the scholarship of the faculty and students. Equally, faculty members are expected to make their knowledge and expertise available to benefit the society and industry. These parameters, therefore, attempt to measure the quantity and quality of research output as seen through international data bases, IPR generation and interface with industry and fellow professionals.

(3) **Graduation Outcomes (GO)** (Weightage: 0.15)

This parameter forms the ultimate test of the effectiveness of the core teaching/learning activity, and measures the student graduation rate and their success in finding appropriate placement in industry and Government or taking up higher studies.

(4) **Outreach & Inclusivity (OI)** (Weightage: 0.15)

The Ranking framework lays special emphasis on representation of women and socially challenged persons in student and/or faculty populations, and also on outreach activities of the institution.

(5) **Perception (P)** (Weightage: 0.10)

The ranking methodology gives a significant importance to the perception of the institution by its stakeholders. This will be accomplished through Stakeholder Surveys.

Process for Peer Rating in Category (PR)

IIT Ropar stands at the Ninth position with weighted score of 74.89. Its rank on different parameters categorized above among top 10 institutes is given in the Table 1. It is worth noting that IIT Ropar has secured 1st rank in the teaching and learning resources (TLR) and graduation outcome (GO) parameters among top 10 institutions in the first ever MHRD's ranking. In research, professional practice & collaborative performance, it has done reasonably well with 8th rank while in outreach & inclusivity and perception scored last rank in the ranking of top 10 institutes.

Table 1: Rank and score of IIT Ropar in various parameters among top 10 institutes.

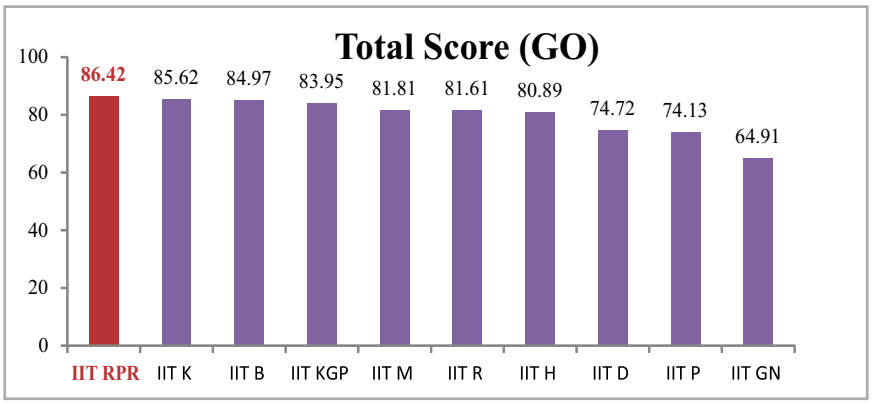
Parameter	TLR	RPC	GO	OI	PR
Rank	1	8	1	10	10
Score	89.96	73.56	86.42	60.67	38

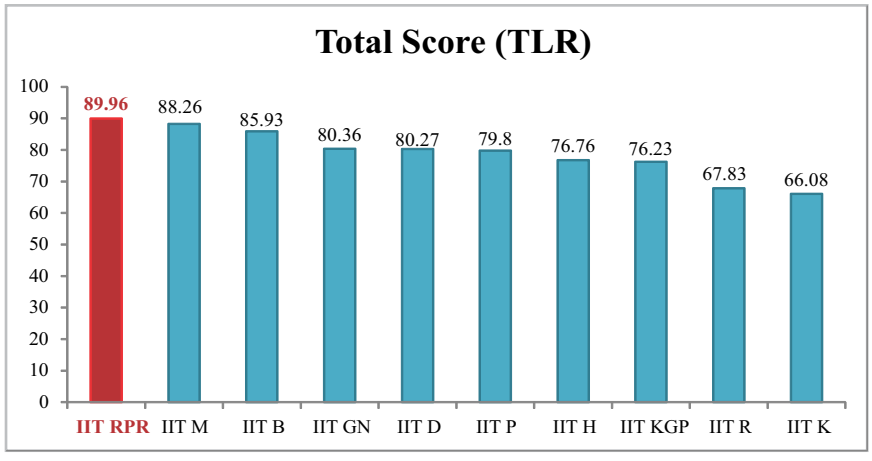
IIT Ropar rank among all the institutes is given. It is worthwhile to note that IIT Ropar has scored 1st rank in the teaching and learning resources parameter among all the institutions better than old IITs including IITK, IITB or IITD.

Individual score obtained in the sub-parameters is shown in the following graph:

From the score obtained in the sub-parameters, it is event that IIT Ropar's (i) IPR and Patents and (ii) Footprint of projects and professional practice are in the lower scale in the RPC parameter which has reflected in the overall rank of 25 among all institutes. In graduation outcome, it has done average due to low score in entrepreneurship sub-parameter with overall rank of 11.

In the outreach and inclusivity parameter, IIT Ropar has scored low marks in the sub-parameters of continuing education, & service, percentage of women students/faculty, and facilities for physically challenged students. Finally, IIT Ropar perception score is found to be 38.35 which is very low among top 10 institutes and in 99th rank among all the institutes which has brought down the IIT Ropar's overall ranking to 9th.





VISION & MISSION

VISION & MISSION

The institute, apart from establishing a robust teaching environment, is keen to facilitate and support cutting-edge research in variety of areas. This aspect, we believe, will enable the students to acquaint themselves with latest developments in their respective areas of study and peruse their own research interests. This would also result in a constant revision of courses that are being taught.

The institute encourages its faculty members to initiate research work and provides an initiation grant and also the basic facilities for its sustenance. It also encourages faculty members to establish collaborative research ventures with other research labs and industry. In this regard, the institute is keen to establish the Central Research Facility. The institute had already started its PhD Programme, so that the research environment is further augmented, expanded, and made even more vibrant.

IIT ROPAR-MILESTONE

Milestone	Date
❖ Date of notification of IIT Ropar (Mentor Institute IIT Delhi)	May 9, 2008
❖ Registered as society under Societies' Registration Act 1860	July 29, 2008
❖ Foundation stone laid on	February 24, 2009
❖ First Director of the Institute joined on	June 10, 2009
❖ First Registrar of the Institute joined on	July 10, 2009
❖ Inauguration of the transit campus	August 19, 2009
❖ Commencement of classes at the transit campus	August 20, 2009
❖ Master plan approval by Board of Governors for the new campus	October 3, 2013
❖ Bhoomi poojan of new campus	November14, 2014
❖ Commencement of actual construction	January 15, 2015

BOARD & COMMITTEE'S

Perspective view of main entrance

BOARD OF GOVERNORS

CHAIRPERSON

Padmashree (Ms.) Lila Poonawalla
Chairperson
Indian Institute of Technology Ropar

MEMBERS

Prof. Sarit K. Das
Director
Indian Institute of Technology Ropar

Shri Sarvesh Kaushal, IAS
Chief Secretary to Government of Punjab
Room No. 28, 6th floor
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Chandigarh – 160 001

Prof. N. Sathyamurthy
Director
Indian Institute of Science Education and Research Mohali
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Mohali PO – 140 306, Punjab

Shri Chetan Pahwa
Director
Avon Ispat & Power Ltd.
Phase VIII, Focal Point, Ludhiana- 141 010

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Shri Sanjiv Goyal
Chairman & Managing Director
Nectar Life sciences Ltd.
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Officiating Registrar
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FINANCE COMMITTEE

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Ministry of Human Resource Development
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Ms. Darshna M Dabral
Joint Secretary & Financial Advisor
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Hauz Khas, New Delhi-110 016

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BUILDING AND WORKS COMMITTEE

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Mr. A. K. Jain
Special Director General (Retired)
CPWD

Er. S. Ramanujam
Ex Director, DCSEM,
Department of Atomic Energy

Prof. Deepak Kashyap
Department of Civil Engineering
Indian Institute of Technology Roorkee

Sh. Sushant Baliga
Additional Director General (Retired)
CPWD

Dr. Balwinder Sodhi
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Honorary Professor
Department of Mechanical Engineering
Indian Institute of Science Bangalore
Bangalore – 560012, India

Prof. P. K. Raina
Professor & Dean (Academics)
Indian Institute of Technology Ropar

Prof. Sanjoy Roy
Professor & Dean (Industrial Consultancy & Sponsored Research)
Department of Electrical Engineering
Indian Institute of Technology Ropar

Prof. Ramesh Garg
Visiting Professor & Dean (Faculty Affairs & Administration)
Indian Institute of Technology Ropar

Dr. Subhendu Sarkar
Associate Dean (Research)
Indian Institute of Technology Ropar

Dr. T. J. Dhilip Kumar
Associate Dean (Academics-PG courses)
Indian Institute of Technology Ropar

Dr. Himanshu Tyagi
Associate Dean (Academics-UG courses)
Indian Institute of Technology Ropar

Dr. Harpreet Singh
Associate Dean (Industrial Relations, International and Alumni Affairs)
Indian Institute of Technology Ropar

Dr. Prabal Banerjee
Associate Dean (Student Affairs)
Indian Institute of Technology Ropar

Dr. Balwinder Singh Sodhi
Associate Dean (Infrastructure)
Indian Institute of Technology Ropar

Dr. J.S. Sahambi
Associate Professor and Head
Department of Electrical Engineering
Indian Institute of Technology Ropar

Dr. Navin Kumar
Associate Professor and Head
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Dr. Somdev Kar
Assistant Professor and Head
Department of Humanities and Social Sciences
Indian Institute of Technology Ropar

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Assistant Professor and Head,
Department of Mathematics
Indian Institute of Technology Ropar

Dr. Apurva Mudgal
Assistant Professor and Head
Department of Computer Science & Engineering
Indian Institute of Technology Ropar

Dr. Rajendra Srivastava
Associate Professor and Head
Department of Chemistry
Indian Institute of Technology Ropar

Dr. Yashveer Singh
Assistant Professor & Head
Centre for Biomedical Engineering
Indian Institute of Technology Ropar

Dr. S. Dasgupta
Assistant Professor & Head
Department of Physics
Indian Institute of Technology Ropar

Dr. Jitendra Prasad
Assistant Professor
School of Mechanical, Materials & Energy Engineering
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Dr. M. Prabhakar
Associate Professor & Chairman, JEE
Department of Mathematics
Indian Institute of Technology Ropar

Dr. Nitin Auluck
Associate Professor & Head
Computer Centre and IT Services
Indian Institute of Technology Ropar

Dr. Vishwajeet Mehandia
Assistant Professor & Chairman Gate
School of Mechanical, Materials & Energy Engineering
Indian Institute of Technology Ropar

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Prof. S. R. Kale
Professor
Department of Mechanical Engineering
Indian Institute of Technology Delhi
Hauz Khas, New Delhi-110 016, India

Prof. T. A.Gonsalves
Director
Indian Institute of Technology Mandi
Himachal Pradesh

Prof. T. Sundararajan
Professor & Head
Department of Mechanical Engineering
Indian Institute of Technology Madras

Prof. Deepak Kashyap
Professor
Department of Civil Engineering
Indian Institute of Technology Roorkee

Dr. Anupam Agrawal
Assistant Professor & Chief Warden
Indian Institute of Technology Ropar

Dr. Dinesh K.S.
Deputy Librarian
Indian Institute of Technology Ropar

ACADEMIC COMMITTEE FOR UNDERGRADUATE STUDIES (ACUGS)

Sr. No.	Name
1	Prof. P. K. Raina, Dean (Academics)
2	Dr. Dhilip K. Thogluva, Associate Dean, Academic PG
3	Dr. Himanshu Tyagi, Associate Dean, Academic UG
4	Dr. Arvind Kumar Gupta, Department of Mathematics
5	Dr. Apurva Mudgal, Department of Computer Science & Engineering
6	Dr. Jyotindra S. Sahambi, Head of Department, Department of Electrical Engineering
7	Dr. Kailash Chandra Jena, Department of Physics
8	Dr. Nitin Auluck, Department of Computer Science & Engineering
9	Dr. Navin Kumar, Head of Department, Department of Mechanical Engineering
10	Dr. Rajendra Srivastava, Head of Department, Department of Chemistry
11	Dr. Ravi Shankar R. V., Department of Electrical Engineering
12	Dr. Ravi Mohan Prasad, Faculty Incharge (Training & Placement)
13	Dr. Samaresh Bardhan, Department of Humanities & Social Science
14	Dr. Subash Martha, Head of Department, Department of Mathematics
15	Dr. Shubhrangshu Dasgupta, Head of Department, Department Physics
16	Dr. Satwinder Jit Singh, Department of Mechanical Engineering
17	Dr. Somdev Kar, Head of Department, Department of Humanities & Social Science
18	Dr. Bibhu Prasad Padhy, Department of Electrical Engineering
19	Dr. Tharamani C.N., Department of Chemistry
20	Dr. Yashveer Singh, Head of Department, Centre for Biomedical Engineering
21	Mr. C. S. Sham Sunder, Assistant Registrar (Academics)

RESEARCH PROGRESS EVALUATION COMMITTEE (RPEC)

Sr. No.	Name
1	Prof. P. K. Raina, Dean (Academics)
2	Dr. Subhendu Sarkar, Associate Dean (Research)
3	Dr. T. J. Dhilip Kumar, Associate Dean, Academic PG
4	Dr. Himanshu Tyagi, Associate Dean, Academic UG
5	Dr. Jyotindra S. Sahambi, Head of Department, Department of Electrical Engineering
6	Dr. Kamal Kumar Choudhary, Department of Humanities & Social Science
7	Dr. Kailash Chandra Jena, Department of Physics
8	Dr. Manoranjan Mishra, Department of Mathematics
9	Dr. Narayanan C. Krishnan Department of Computer Science & Engineering
10	Dr. Nagaraja C. Mallaiah, Department of Chemistry
11	Dr. Navin Kumar, Head of Department, Department of Mechanical Engineering
12	Dr. Nitin Auluck, Department of Computer Science & Engineering
13	Dr. Pushpendra P. Singh, Department of Physics
14	Dr. Rajendra Srivastava, Head of Department, Department of Chemistry
15	Dr. Ramjee Repaka, Department of Mechanical Engineering
16	Dr. Rohit Y. Sharma, Department of Electrical Engineering
17	Dr. Somdev Kar, Head of Department, Department of Humanities & Social Science
18	Dr. Subash Martha, Head of Department, Department of Mathematics
19	Dr. Shubhrangshu Dasgupta, Head of Department, Department Physics
20	Dr. Yashveer Singh, Head of Department, Centre for Biomedical Engineering
21	Mr. C. S. Sham Sunder, Assistant Registrar (Academics)

ADMINISTRATION

KEY OFFICIALS		
Sr. No.	**Designation**	**Name**
1	Director	Prof. Sarit K. Das
2	Dean (Academics)	Prof. P. K. Raina
3	Dean (Industrial Consultancy & Sponsored Research)	Prof. Sanjoy Roy
4	Dean (Faculty affairs & Administration)	Prof. Ramesh Garg
5	Registrar (Officiating)	Prof. Javagal K. Sridhar
6	Associate Dean (Academics UG)	Dr. Himanshu Tyagi
7	Associate Dean (Academics PG)	Dr. T.J. Dhilip Kumar
8	Associate Dean (Research)	Dr. Subhendu Sarkar
9	Associate Dean(Industrial Relations, International & Alumni Affairs)	Dr. Harpreet Singh
10	Associate Dean (Student Affairs)	Dr. Prabal Banerjee
11	Associate Dean (Infrastructure)	Dr. Balwinder Singh Sodhi
OTHER OFFICIALS		
12	Head, Centre for Biomedical Engg.	Dr. Yashveer Singh
13	Head,Centre for Materials & Energy Engg.	Dr. Navin Kumar
14	Head, Department of Chemistry	Dr. Rajendra Srivastava
15	Head, Department of Computer Science & Engg.	Dr. Nitin Auluck
16	Head, Department of Civil Engg.	Prof. P.K. Raina (Officiating)
17	Head, Department of Electrical Engg.	Dr. J.S. Sahambi
18	Head, Department of Humanities & Social Sciences	Dr. Somdev Kar
19	Head, Department of Mathematics	Dr. Subash Chandra Martha
20	Head, Department of Physics	Dr. S. Dasgupta
21	Head, Department of Mechanical Engg.	Dr. Navin Kumar
22	UG Coordinator (Curriculum)	Dr. Jitendra Prasad
23	Chairman, Vigilance Committee	Dr. Rajendra Srivastava
24	Faculty In-charge (Training and Placement)	Dr. Ravi Mohan Prasad
25	Faculty In-charge (Guest House)	Dr. Rajesh V. Nair Dr. Partha Sharathi Dutta
26	Hostel Wardens	I. Dr. Anupam Agrawal (Chief Warden) II. Dr. C. N. Tharamani III. Dr. Ramjee Repaka IV. Dr.S.C. Martha V. Dr. Vishwajeet Mehandia
27	Chairman, Counseling Cell	Prof. Sanjoy Roy
28	Deputy Librarian	Dr. Dinesh K. S.
29	Deputy Registrar, Establishment & Stores & Purchase	Sh. Ravinder Kumar
30	Deputy Registrar, Accounts	Sh. Lagvish Kumar
31	Executive Engineer	Sh. T. S. Anand
32	Assistant Registrar, Academics	Sh. C. S. Sham Sundar
33	Assistant Registrar, Student Affairs	Sh. Gautam Sharma
34	Sports Officer	Sh. Ajeetpal Singh
35	Assistant Executive Engineer (Civil)	Sh. Saurabh Sharma

LIBRARY COMMITTEE

CHAIRMAN

Prof. P. K. Raina
Dean, Academics

MEMBERS

Dr. Dinesh K.S.
Deputy Librarian

Dr. Rajendra Srivastava
Assistant Professor
Department of Chemistry

Dr. C. K. Narayanan
Assistant Professor
Department of Computer Science & Engineering

Dr. Asoka Biswas
Assistant Professor
Department of Physics

Dr. Ramjee Repaka
Assistant Professor
Department of Mechanical Engineering

Dr. Subrahmanyam Murala
Assistant Professor
Department of Electrical Engineering

Dr. Rano Ringo
Assistant Professor
Department of Humanities & Social Sciences

Dr. Manju Khan
Assistant Professor
Department of Mathematics

STUDENTS' BODY

The students listed below are the office holders for various student activities for the academic year 2015-16.

Secretaries

Name of the post	Entry Number	Name of Student
General Secretary	2013 MEB 1100	Prashant Sharma
Sport Secretary	2013 MEB 1090	Atish Sepahiya
Cultural Secretary	2013 MEB 1116	Swapnil Rai
Hostel Secretary	2013 MEB 1106	Rishabh Kochar
S & T Secretary	2013 EEB 1079	Mayur Anil Yadav

Board of Cultural Activities (BOCA) Representative

Name of Club	Entry Number	Name of Student
Arturo : Photography	2014 CSB 1013	Gurkaranpreet Singh
Dance	2014 MEB 1096	Manjunath
Dramatics	2014 EEB 1064	Pawan Jha
Fine and Arts	2014 CSB 1020	Mahak Sarin
Literary	2013 CSB 1114	Shubham Sharma
Movie	2013 MEB 1093	Harbir
Music	2014 EEB 1057	Harsh Sahay

Board of Science & Technology (BOST) Representative

Name of Club	Entry Number	Name of Student
Zenith - Astronomy Club	2013 EEB 1060	Kshitij Aggarwal
Coding Club	2013 CSB 1031	Shaikh Ali Jafri
Finance & Economics Club	2013 CSB 1039	Vikash Singh Hada
Robotics Club	2014 EEB 1046	Basil M Varghese
Monochrome - Design & Animation club	2014 EEB 1041	Abhishek Jangra
Enigma - Quiz and Puzzle Club	2014 CSB 1017	Jatin Garg
Computer Integrated & Manufacturing Club	2014 MEB 1095	Manish Parihar

Board of Sports Activities (BOSA) Representatives

Name of Club	Entry Number	Name of the Student
Athletics	2014 EEB 1051	Dhanesh Kumar
Badminton	2014 EEB 1047	Deepak Attri
Basketball	2014 CSB 1118	Tushar Mittal
Cricket	2014 MEB 1111	Rohit Kumar
Football	2014 EEB 1076	Siddharth Khera
Table Tennis	2013 CSB 1037	Vaibhav Malik
Tennis	2014 CSB 1007	Arjun Kumar Jha
Volleyball	2014 EEB 1066	Preetam Kumar
GYM	2013 EEB 1077	Vipan Jyani
Chess	2014 CSB 1001	Aakarshan Gupta
Girls Rep (Ground Sports)	2013 EEB 1057	Jinia Rao
Girls Rep (Racquet Sports)	2014 CSB 1031	Saumya Goyal

Mess Secretaries (BOHA)

Mess Secretaries	Entry Number	Name of Student
MESS-1	2014MEB1107	Rahil Bhimani
MESS-2	2013 MEB 1085	Akshay Kumar Jaiswal


4th

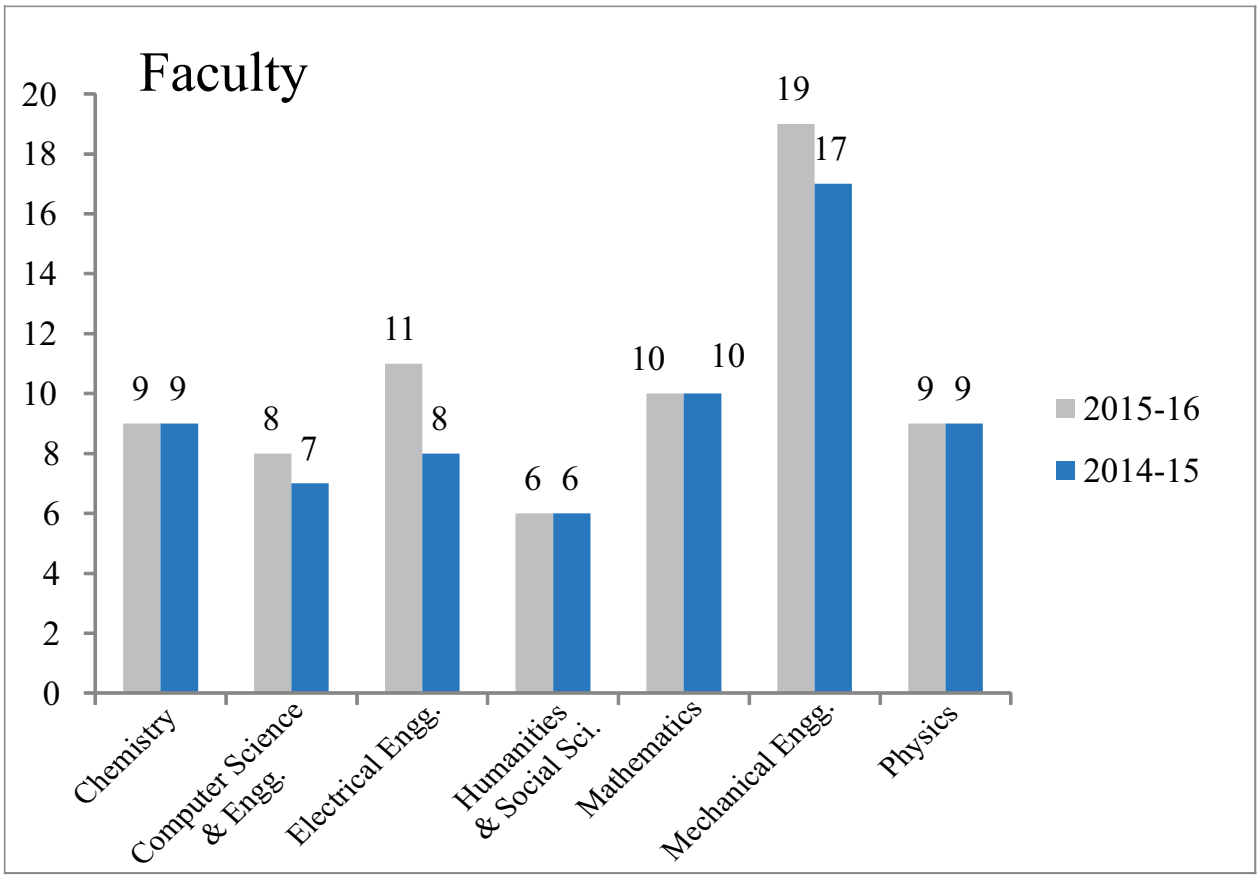
FACULTY & STAFF JOINED FINANCE & ACCOUNTS

FACULTY JOINED DURING 2015-16

Sr.No.	Name of Faculty	Designation	Department
1	Dr. Rajendra Srivastava	Associate Professor	Chemistry
2	Dr. T.J. Dhilip Kumar	Associate Professor	Chemistry
3	Dr. Narinder Singh	Associate Professor	Chemistry
4	Dr. Nitin Auluck	Associate Professor	Computer Science & Engg.
5	Dr. Neeraj Goel	Assistant Professor	Computer Science & Engg
6	Dr. Bibhu Prasad Padhy	Assistant Professor	Electrical Engineering
7	Dr. Ch. Chakradhar Reddy	Associate Professor	Electrical Engineering
8	Dr. Ramesh Garg	Visiting Professor	Electrical Engineering
9	Dr. J. Kalaiselvi	Visiting Faculty	Electrical Engineering
10	Dr. Ansu Louis	Assistant Professor	Humanities & Social Sciences
11	Dr. M. Prabhakar	Associate Professor	Mathematics
12	Dr. Arvind Kumar Gupta	Associate Professor	Mathematics
13	Dr. Manoranjan Mishra	Associate Professor	Mathematics
14	Dr. Himanshu Tyagi	Associate Professor	Mechanical Engineering
15	Dr. Navin Kumar	Associate Professor	Mechanical Engineering
16	Dr. Ramjee Repaka	Associate Professor	Mechanical Engineering
17	Dr. Anupam Agrawal	Associate Professor	Mechanical Engineering
18	Dr. Purbarun Dhar	Visiting Faculty	Mechanical Engineering
19	Prof. Hans-Jurgen Wollersheim	Visiting Professor	Physics

NON-TEACHING STAFF JOINED DURING 2015-16

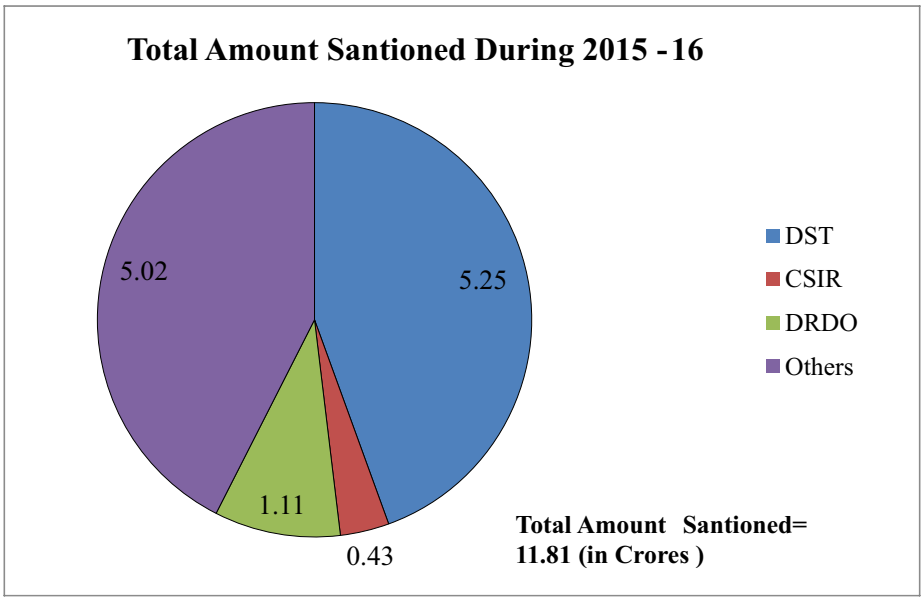
Sr. No.	Name of Faculty	Designation	Department
1	Sh. Lagvish Kumar	Deputy Registrar	Accounts
2	Sh. Gautam Sharma	Assistant Registrar	Student Affairs



Graph No. 1 : Number of faculty join during 2015-16 & 2014-15

FINANCE & ACCOUNTS

External Research & Consultancy Project Sanctioned During Financial Year 2015-16



Graph No. 2 : Consultancy projects sanctioned

Sr. No.	Funding Agency	Name of Faculty Member	Department	Title of Project	Total Sanctioned Amount (in crores)
1	SERB	Dr. T J Dhilip Kumar	Chemistry	Quantum dynamics of energy transfer processes in atom - molecular ion interaction	0.24
2	DST	Ms. Anamika Chhabra	Computer Science & Engieering	Crowd sourced annotations: A next generation e -textbook technology	0.19
3	DST	Dr. Harpreet Singh	SMMEE	DST (FIST Program)	2.25
4	DST	Dr. Mukesh Kumar	Physics	Studies on the growth kinetics of earth abundant Cu-Zn..... through photon management	0.54
5	DST	Dr. Dhiraj Kumar Mahajan	SMMEE	Study of the effect of Microstructure of Fatigue Crack Initiation in Nickel under Hydrogen Environment using coupled framework of Crystal Plasticity and Hydrogen Transport Model	0.29
6	DST	Dr. Asoka Biswas	Physics	Spin assisted squeezing and quantum computing in cavity optomechanics	0.23

7	DST	Dr. Narinder Singh	Chemistry	Design and Synthesis of 1,8 -Napthalimide -Based Receptors Chemosensor and Biosensor Development	0.39
8	DST-SERB	Dr. Partha Sharathi Dutta	Mathematics	Dispersal Synchrony and Stability in Population Dynamics	0.16
9	DST	Dr. G. Sankara Rajukosuru	Mathematics	On The Existence of Best Proximity Pairs and Generalized Equilibrium for Constrained Games	0.15
10	DST	Dr. Pushpendra Pal Singh	Physics	Understanding the transaction of Nuclear Reactions from Sub -to Above-Barrier Energies	0.25
11	CSIR	Dr. Prabal Banerjee	Chemistry	Tandem Takeda Olefination, Mukaiyama Aldol, and prins cyclization (TOMAP): Modular Synthesis of Spiroethers	0.23
12	CSIR	Dr. Yashveer Singh	Chemistry	Polymeric Micellric For Sustained and Targeted Delivery of A microbicde (Dapivirine) to Dendritic (DCs) and Langerhans Cells (LCs), The Virus Reservoirs Present in Vaginal Mucosal and Sub -Mucosal Regions to Prevent HIV-1 Infection	0.20
13	DAE	Dr. Mukesh Kumar	Physics	Growth and characterization of 2 -D MoS2 monolayers for high sensitivity gas sensor device	0.23
14	DAE	Dr Harpreet Singh	SMMEE	Development of Thick pure Cu cladding/coating on SS 304/SS316 substrates with cold spray technology	0.44
15	Industrial Consultancy	Dr. Jitendra Prasad and Dr. Anshu Dhar Jayal	SMMEE	Tire Engineering / Mechanics	0.02
16	Industrial Consultancy	Dr. Subrahmanyam Murala	Electrical Engineering	Development of Image Recognition Technology, Android Application to collect image and data and online reports/dashborad for Retail Store Tracking	0.12
17	DeitY	Dr. Rohit Y Sharma	Electrical Engineering	Special Manpower Development Programme for Chips to System Design	0.60
18	DeitY (Media Lab Asia)	Dr. Rohit Y Sharma	Electrical Engineering	Visvesvaraya PhD Scheme for Electronics and IT	2.02

19	NAM S&T Centre Research Training Fellowship	Dr. Manoranjan Mishra	Mathematics	Study of the Transient Flow of Hydrogen - Natural Gas Mixture in Pipeline Networks	0.03
20	DRDO	Dr. Harpreet Singh	SMMEE	Parametric Studies on modulation assisted machining of difficult -to- machine materials and its effect on chip characteristics	0.25
21	DST	Dr. Srikant Sekhar Padhee	SMMEE	Analysis of Non -linear and Non-classical effects in Inhomogeneous Stiffened Panel	0.22
22	DRDO	Dr. Navin Kumar	SMMEE	Finite Element Based modeling and experimental Characterization C -SiC Composite	0.62
23	DRDO	Dr. Kailash Chandra Jena	Physics	Confined interfacial structure and orientation of polyphosphazene polymers at solid and liquid surfaces	0.24
24	INDO-US Joint Clean Energy Research and Development Center (JCERDC)	Dr. Himanshu Tyagi	SMMEE	Energy Effcient Technology for Smart Building	1.46
25	DST	Dr. Prabir Sarkar	SMMEE	Study of aesthetics in product design using eye - tracking equipment from a cognitive view	0.16
26	Apen Bulter Hill, USA(for ORACLE) Consultancy	Dr. Somdev Kar	Humanities & Social Science	Annotating a frequency based list of inflected words, providing the stem and Part of Speech, besides performing linguistic tasks for Sentiment Analysis, tagging data for nam ed Entity Recognition, providing translation for different concept groups etc. for Bengali	0.04
27	SERB-DST	Dr. C.K. Narayanan	Computer Science & Engineering	"Activity Learning in Smart Environments"	0.19
28	Industrial Consultancy	Dr. Dhiraj Kumar Mahajan	SMMEE	"Design & Development of a Customized Elastomeric Balloon for a Constant Air Pressure Output Bio Medical Device"	0.05
Total (In crores)					**11.81**

Receipt & payment for the financial year 2015-16

RECEIPT	Amount (in Rs.) 31.03.2016	PAYMENT	Amount (in Rs.) 31.03.2016
I. Opening Balances		**I. Expenses**	
a) Cash Balance	0	a)Establishment Expenses	158051601
b) Bank Balance		b) Academic Expenses	92127837
i) In Current accounts	0	c) Administrative Expenses	48992011
ii) In deposit accounts (FDR with SBI)	388507765	d) Transportation Expenses	3919543
iii) Savings accounts (Institute)	15762199	e) Repair & Maintenance	11231119
iv) Savings accounts (R & D)	7835228	f) Prior Period Expenses	0
II. Grant-in-Aid	1656600000	**II. Payment against Earmarked/ Endowment Funds**	0
III. Academic Receipts	37614109	**III. Payment against Sponsored Projects/ Schemes**	30873783
IV. Receipt against Earmarked/ Endowment Funds	0	**IV. Payment against Sponsored Fellowships and Scholarships**	4630509
V. Receipt against Sponsored Projects/Schemes	48466614	**V. Investment and Deposits made**	
		a) Out of Earmarked/ Endowment Funds	0
VI. Receipt against Sponsored Fellowships and Scholarships	4872388	b) Out of Own Funds (Investments - Others)	0
VII. Income on Investments from		**VI. Term Deposits with Scheduled Banks**	
a) Earmarked/ Endowment Funds	0	FDR (R&D)	112587602
b) Other Investments	0	FDR (R&D-PDIF)	21467920

VIII. Interest received on		VII. Expenditure on Fixed Assets and Capital Works in Progress	
a) FDR	31014534	a) Fixed Assets	134519574
b) Loans and Advances	0	b) Capital Work in Progress	263164736
c) Savings Bank Accounts	1919493		
d) Savings Bank Accounts(TIDE)	271576	VIII. Other Payments including statutory payments	28761601
e) FDR (R&D)	3963490		
f) FDR (R&D-PDIF)	2101939	IX. Refunds of Grants (Projects)	0
IX. Investments Encashed		X. Deposits and Advances	676286428
Endowment Fund	0		
		XI. Other Payments	0
X. Term Deposits with Scheduled Banks Encashed			
FDR (R&D)	130118492		
FDR (R&D-PDIF)	46813755	XII. Closing Balances	
		a) Cash Balance	0
XI. Other Income (including Prior Period Income)	2660952	b) Bank Balance	
		i) In Current accounts	0
XII. Deposits and Advances	6139618	ii) In deposit accounts (FDR with SBI)	664373918
		iii) Savings accounts (Institute)	62648217
XIII. Miscellaneous Receipts including Statutory Receipts	3802088	iv) Savings accounts (R & D)	74827842
Total	**2388464240**	**Total**	**2388464240**

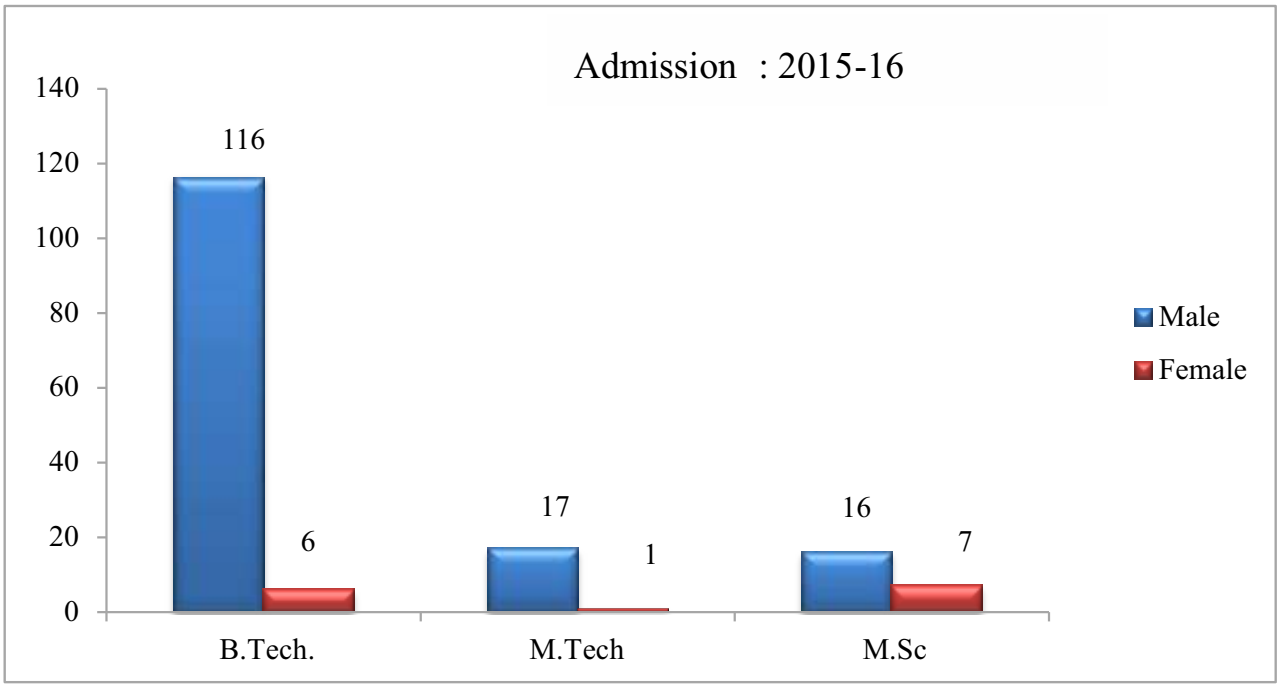
ACADEMICS


IIT ROPAR

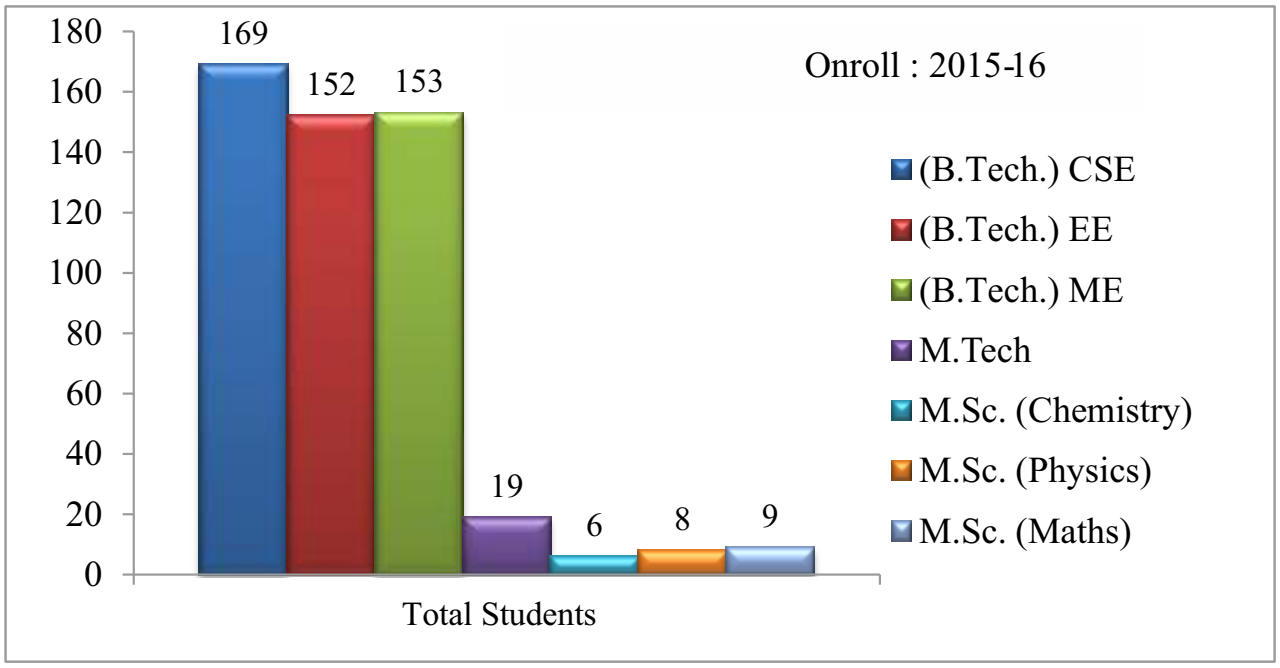
STUDENTS STATISTICS

Enrollment

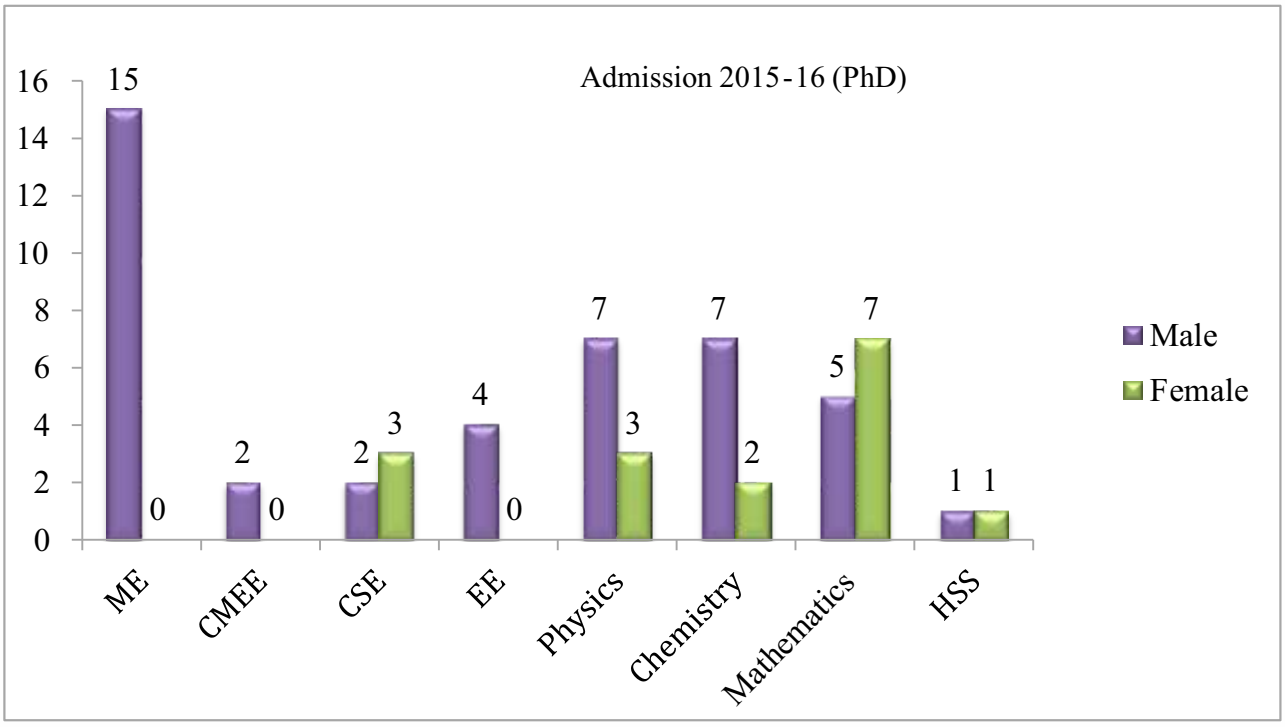
The Institute started functioning from the transit campus since August 19, 2009. The Institute admitted 163 students to the B.Tech. programme during the Academic Year 2015-16. These students were selected through the All India Joint Entrance Examination. The Institute offers courses in Computer Science and Engineering, Electrical Engineering and Mechanical Engineering. The details of students admitted to the various Departments are as follows:



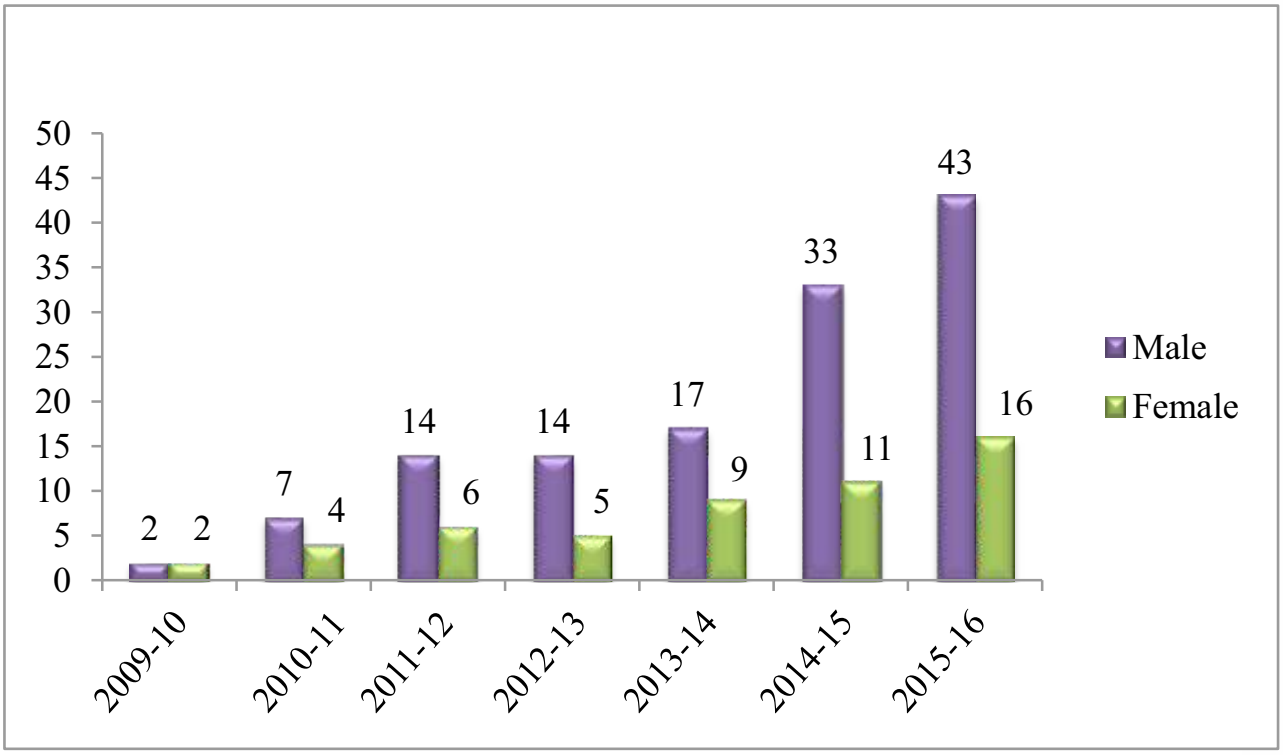
Graph No. 3 : Distribution of students according to discipline and gender.



Graph No. 4 : Distribution of students according to programme

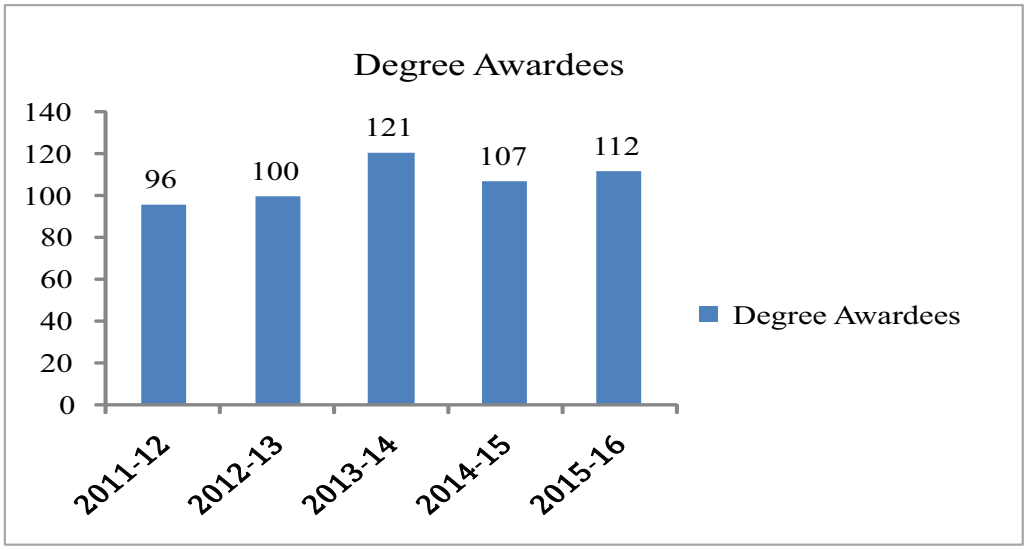


Graph No. 5 : Admissions in PhD in 2015-16



Graph No. 6 : Gender Distribution of PhD scholars (Year Wise)

Degree Awardees



Graph No. 7 : Number of degree awardees from 2011 to 2016

Hostels

Year	Number	Hostel
Undergraduate boys		
First Year	116	Neptune (Boys Hostel)
Second Year	104	Jupiter (Boys Hostel)
Third Year	113	Mercury (Boys Hostel)
Fourth Year	107	Mercury (Boys Hostel)
Undergraduate girls		
First Year	6	Venus (Girls Hostel)
Second Year	8	
Third Year	4	
Fourth Year	8	
Undergraduate backloggers		
Fifth Year (2011 entry)	7	Mercury (Boys Hostel)
Sixth Year (2010 entry)	1	
Research Scholars		
Boys	52	Mercury (Boys Hostel)/ Sun Enclave apartments
Girls	40	Venus(Girls Hostel)
M.Tech./M.Sc. / MS		
Boys	33	Mercury (Boys Hostel)
Girls	09	Venus (Girls Hostel)
Total	533 Boys &75 Girls	608 in all hostels

Boys Hostel : 4 | Girls Hostel : 1

Students' Activity Center

1. Board of Hostel Affairs (BOHA)
2. Board of Cultural Activities (BOCA)
3. Board of Science & Technology (BOST)
4. Board of Sports Activities (BOSA)

For the first time, a Constitution of the student body has been prepared with the participation of students and the same was circulated to student community before it was adopted. Elections were held on the September 5, 2015 under this constitution wherein one student General Secretary and four respective Board Secretaries were elected by the students.

Chief Warden was appointed for the first time and the activities of BOHA were extended to the new leased hostel. The BOCA has conducted several functions, including Fresher's night and Gandhi Jayanti. BOCA encourages its students to organize various cultural events in the institute one of such mega event is Zeitgeist 2016 which takes place annually. The duration of this fest ranges from 3-4 days and various artist -from different fields are invited to performance in front of the students, faculty and staff of IIT Ropar & students from other institutes. Zeitgeist also encourages students from other institute and IIT to participate in various competitions. This fest not only enhances the event management, administrative and other skills of the student but also give them the chance to compete with students of other institutes. The Constitution of ZEITGEIST was made and approved by the Competent Authority in December 2016.

Board of Cultural Activities (BOCA) Movie Club IIT Ropar host movies every week for the entertainment of the campus community. It also conducted annual poetic festival Rashmi with the aim to let the budding poets and connoisseurs of poetry come on stage and showcase their talent.

BOCA also conducted the following SPIC MACAY events under its ages:
1. Odissi Dance by Vidushi Kavita Dwibedi
2. Classical Instrumental Music Concert by Padma Vibhushan Pandit Hari Prasad Chaurasia

The BOST has conducted workshops on Android, Automobile, Androbot, Sparshott and 3D printing, Intra college manual robot task (Robotics Club) and Monochrome Design. BOST is working towards the establishment of Centre of Innovation which provides ample opportunities to the students in Science & Technology.

The following were conducted/participated by the students under the ages of BOST:
1. Workshop Weekend In association with 'ENTRENCH ELECTRONICS' from October 3-4, 2015.
2. Quintessence – Intra IIT Tech Championship. QUINTESSENCE was a three day event packed with melange of exciting and dynamic technical events. It was a plethora of quizzes, financial debate, workshop and much more was held on November 6-8, 2015.
3. PUNJ ROBOTICS 2016, A two-day Robotics meet organized by Punj Robotics group in association with Robotics Club, IIT Ropar.
4. Inter IIT Tech-Meet 2016 at IIT Mandi on January 29-31, 2016. 15 students participated from IIT Ropar participated and stood 1st in Tech-Quiz held during this meet.

Board of Sports Activities (BOSA) supports inter hostel sports activities, annually. In this activity the students are encouraged to participate in local/inter college sports activities to boost their performance in inter IIT Sports meet. Professional guides/coaches are taking care of training the students for training the

students for these inter IIT Sports meet.
Further, the students were encouraged to participate in local/inter college sports activities to boost their performance in inter IIT Sports meet. Professional guides/coaches are taking care of training the students in individual sports. The sports facilities including gymnasium are being upgraded to enhance the quality of facilities at the institute. BOSA encourages the students to participate in various sports activities. From the year 2016 IIT Ropar has started celebrating Sports Day "AAROHAN" on annual basis. Various other institutes of the states like IISER, Chandigarh University and Youth Welfare Club Ropar (Mianpur) were invited to participate in the Sports activities.
IIT Ropar also conducted Inter Batch Cultural Championship (IBCC), a two days mega event, where students belonging to B.Tech., M.Tech. and PhD scholars fight tooth and nail to win the inter batch trophy. This time it also included talks by two eminent professionals named Mr. Rifat Jawaid and Mr. Ravi Naval.

IIT Ropar feels proud in announcing that its Students emerged as semi-finalists at the national level PCTE British Parliamentary Debate competition held at PCTE group of Institutions Ludhiana where more than 120 students participated in the competition with teams from different places all across India. IIT Ropar was the only engineering team among the quarter finalists. Further, IIT Ropar Students namely Mr. Skthidasan. K, Mr. Kustav Das and Mr. Naman Goyal, have been adjudged as the best entry from this region in the RBI Policy Challenge contest duly organized by the RBI.

IIT Ropar also provides gymnasium facility within its campus for its students. Lush green IIT campus adds enormous fuel in the daily life of the students.IIT Ropar has lively and enchanting campus life wherein the students are provided with all the amenities for the recreational activities.
Here at IIT Ropar students rejuvenate their hidden talent and relive their hobbies. State of the art classroom with Audio visual aids and state of the art laboratories with latest research facilities enhance the teaching-learning process while High-tech library with tremendous books, journals, periodicals etc helps them to connect with the entire word of information and knowledge.
From the year 2016 the we are going to make a drastic changes to the Mess Menu with detailed options to be given to students w.r.t the food items they would like to have in the Mess by fixing the base menu and providing extra items in the menu which they student can opt for at an extra cost. The institute is also going to start Innovation Club under the ages of BOST wherein the students are encouraged to participate and evolve innovative ideas for implementation. In near future we are also going to have a separate webpage for the Students affairs which will give information regarding various activities to the students and all other concerned who wish to have the same. At IIT, Students relished research and extracurricular activities to grow as an aspiring engineer with moral and ethical integrity.

FINANCIAL ASSISTANCE TO STUDENTS

Merits-cum-means scholarship

The merit-cum-means scholarship is given to deserving undergraduate students. These are permissible to about 25% of the students. The present value of merit-cum-means scholarship is Rs. 1000/- per month for general students and the recipient is exempted from paying tuition fee. The criterion of merit for first year is the All India Rank in the JEE.

Institute free studentship

The Institute offers free studentship to 10% of the students on the basis of means alone.

Institute merit prizes and certificates

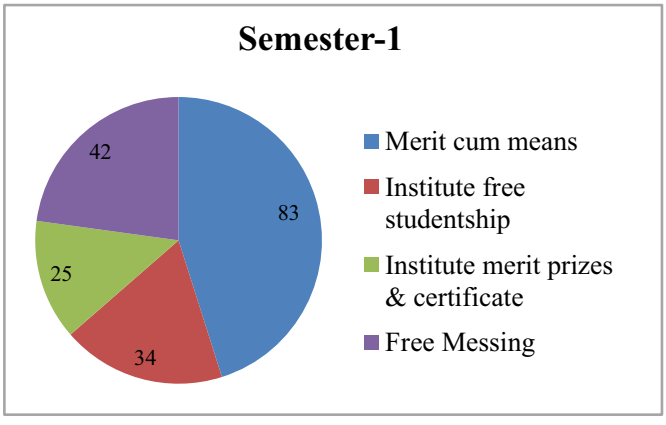
The Institute offers merit prizes and certificates to top 7% of the students of each 4 year B. Tech. programme for the 1st and 2nd semester. A total amount of Rs. 2500/- and a merit certificate is given to these students.

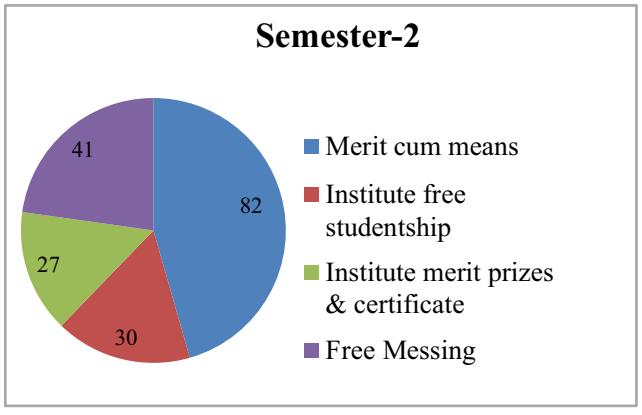
Free messing

The Institute offers the award of free mess facilities to SC/ST students.

Representation chart of the different scholarships

Sr. No.	Scholarship	Semester - 1	Semester - 2
1	Merit cum means	83	82
2	Institute free studentship	34	30
3	Institute merit prizes & certificate	25	27
4	Free Messing	42	41



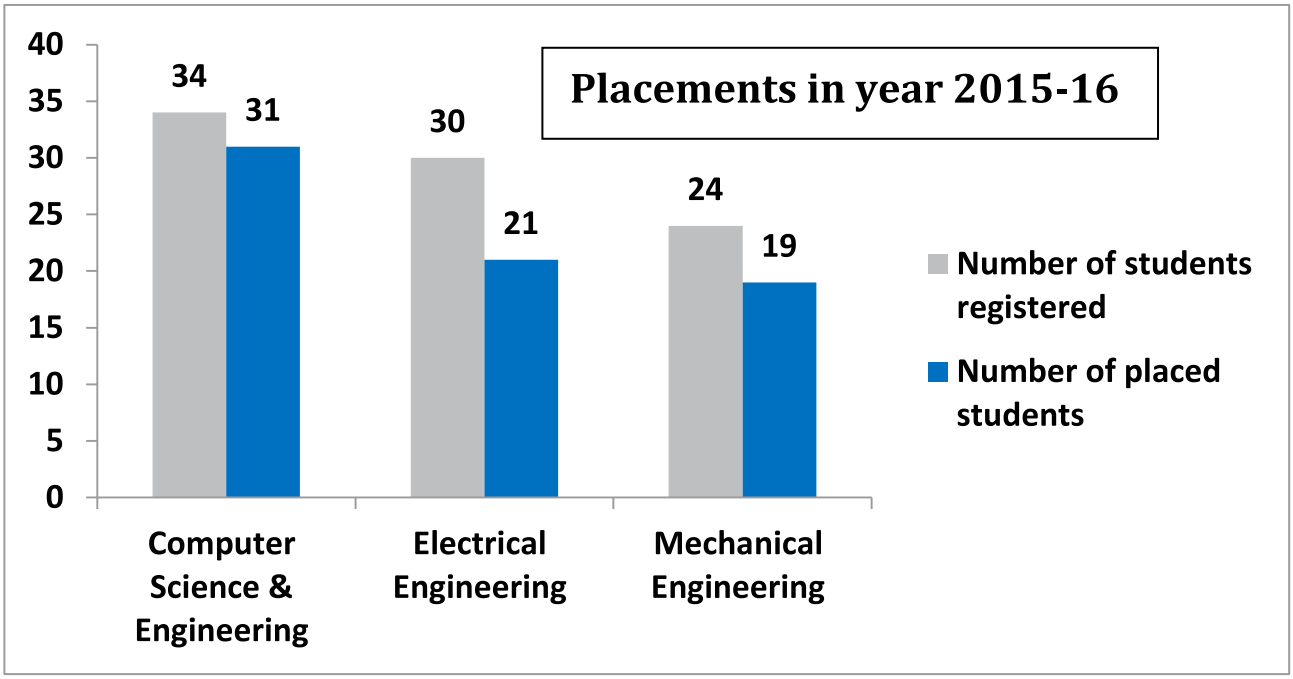


Graph No. 8 : Number of students received scholarship

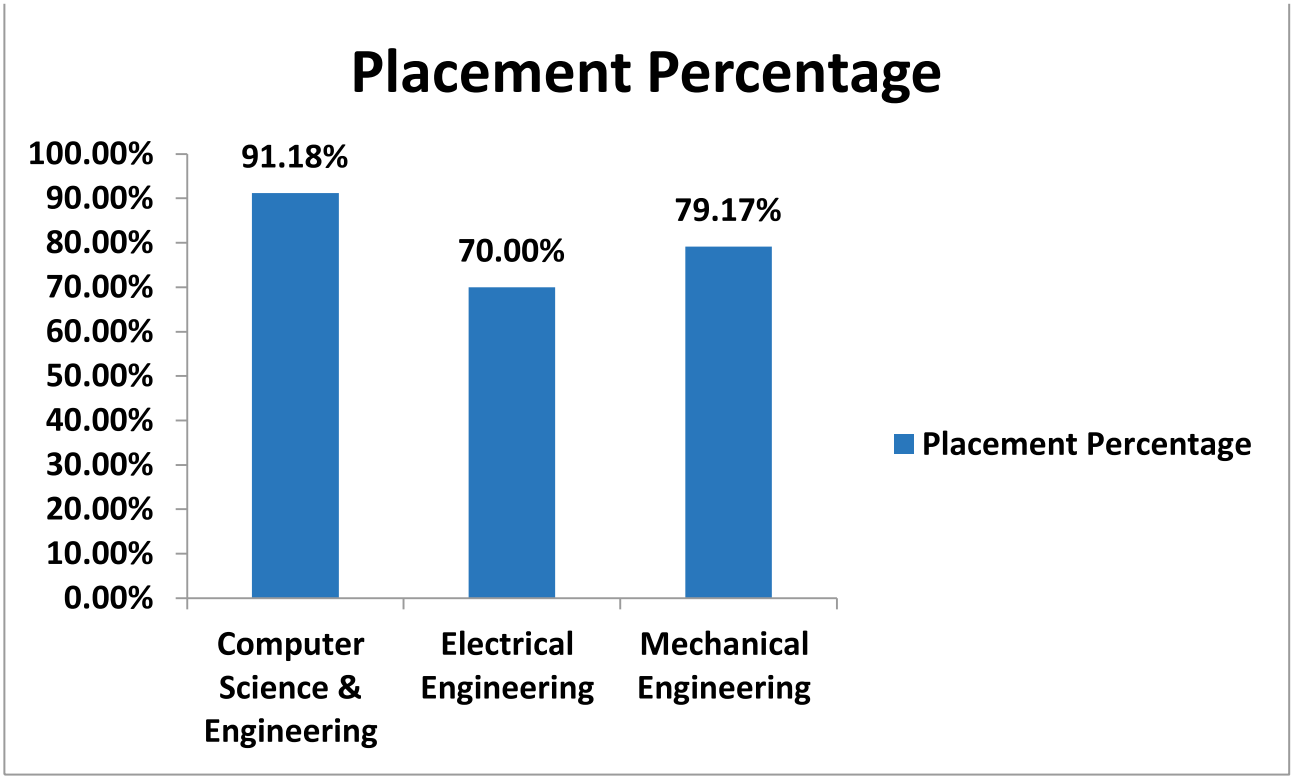
TRAINING & PLACEMENT CELL

The placement results during October 2015 to March 2016 at IIT Ropar have been very encouraging. The organizations that participated in the final placement included premier companies, such as Amazon, Microsoft, Google, Paypal, Arista Networks, Tata Motors, Mahindra & Mahindra, Larsen & Toubro, Cognizant, Nagarro, SCA Technologies, Nucleus Software, HCL, R Systems, etc. Some of the new organizations that took part in the placement process were Saavn, Grofers, Practo, Coupondunia, Steelwedge, Coal India Limited, Unitedhealth Group, Click Labs, Axtria, Rockon, Gemini Solutions Private Limited, etc. An overwhelming response from industry was seen for campus recruitment process as result of which 80 % of our students were placed. More than 90 % of the Computer Science students and close to 60 % of the Mechanical Engineering students have been offered positions in core-technical organizations. An average package of over 12 lakhs per annum was offered to students this year, an increase of 10 % compared to the last season.

A good number of internship opportunities were also offered to the students this year by national as well as international organizations. Nine students of the B.Tech. 2013 entry batch have secured summer internship 2016 in prestigious universities such as University of Southern California (Viterbi), Virginia Tech University, Technische Universitaet Darmstadt, Technische Universitaet Dresden (DAAD), Technische Universität München (DAAD), RWTH Aachen (DAAD), Ruhr University Bochum, Loughborough University, and Hong Kong University of Science & Technology. Such experiences are likely to boost their career prospects to a great extent. All internships are funded by host institution.



Graph No. 9 : Placements in year 2015-16



Graph No. 10 : Department wise placement percentage

Training and Placement Team

Head, Training and Placement Cell

Dr. Ravi Mohan Prasad
Assistant Professor
Department of Mechanical Engineering

Faculty advisor

Dr. Nitin Auluck
Associate Professor
Department of Computer Science & Engineering

Dr. C. C. Reddy
Associate Professor
Department of Electrical Engineering

Student Representatives

For Placements

- **Department of Computer Science & Engineering**
  Kaushal Yagnik, Abhishek Raj Nigam, Savyasachi
- **Department of Electrical Engineering**
  Atri Gulati, Amit Goyal, Mohit Jasapara
- **Department of Mechanical Engineering**
  Blesson Xavier, Sai Harish, Piyush Rai

For Internship

- **Department of Computer Science & Engineering**
  Himanshu Gupta, Saurabh Khoria, Prateek Raina
- **Department of Electrical Engineering**
  Assem Garg, Jinia Rao, Shubham Gupta
- **Department of Mechanical Engineering**
  Anshu Kaushal, Jitin Madhu, Harbir

Convocation 2015

The fourth convocation of IIT Ropar was held on November 3, 2015. The convocation was declared open by Ms. Lila Poonawalla, Chairperson, Board of Governors of IIT Ropar. The Director, Prof. Das introduced the Chief Guest, Dr. T. Ramasami, Former Secretary, Department of Science & Technology (2006 – 2015) to the Government of India. Dr. Ramasami played a pivotal role in coordinating and promoting scientific and technological activities in the country. One of the very successful initiatives, which carries the signature of Dr. Ramasami is the INSPIRE programme of Government of India. As a scientist, Dr. Ramasami has set a standard of his own, emerging as an international expert in Chromium Chemistry. His research efforts at CLRI have saved the Indian leather industry from a disaster when an environmental ban was slammed on this industry. Prof. Das also introduced Ms. Lila Poonawalla, Chairperson of IIT Ropar's Board of Governors, Chairperson of Lila Poonawalla Foundation and Former CMD Alfa Laval-Tetra Pak, India. The Director presented Institute's report. He has highlighted major achievements of Institute such as academics transformation, research output, infrastructure development, externally funded projects & industrial consultancy, reorganization of administration and industrial relations, international and alumni affairs etc. Chairperson BoG, Ms. Lila Poonawalla addressed the gathering. She expressed that it has been a unique experience participating in the developments at IIT Ropar. She appreciated the fast progress on the construction of new campus and on starting of new academic programs such as new PG programmers, Civil Engineering at UG and Ph.D. Ms. Lila Poonawalla highlighted that there are enormous expectations from everyone about this Institute's role in building New India. She shared her views on four major situations that one faces in the course of life i.e disappointment, frustration, unfairness and isolation but if you can deal with these, all others would be easy to handle. She inspired and motivated the students and offered her best wishes to the students receiving their degrees and shown her happiness for addressing for the second time from same dais.

The Chief Guest, Dr. T. Ramasami, thanked Prof. Das and authorities of IIT Ropar for inviting him as Chief Guest. He described the roles and responsibilities of the younger generation and the role of new IITs in shaping future of India. He expressed that educational institutions limit their focus for preparation of unprepared minds. Research systems aim to question the known answers and frame new thought paradigms. He stressed that the strength of individual Indian minds, especially in analysis, is well know. Attributes of a "Minds-on" society became globally visible. However, world technology order relies on

"Hands-on" approaches. Leadership in technology demands a different game plan. It calls for ability to synthesize. It demands team effort. Individual successes do not often add up into team performance. Connecting minds and developing a mindset to synthesize unique solutions to intractable problems is a new challenge ahead of our research systems. Dr. Ramasami congratulated the graduating students and pointed out their need for the development of country and highlighted that the country is going to throw plenty of opportunities for them. The Chief Guest's speech was followed by the award of degrees by the Chairman of the Senate, Medals were presented by the Chief Guest and the Chairperson, BoG to the meritorious students. The President of India's Gold Medal & Director's Gold Medal for obtaining the highest CGPA amongst the graduating students of B.Tech. in the year 2014-15 was awarded to Mr. Pulkit Gera of the Department of Electrical Engineering. Institute Silver Medals for obtaining the highest CGPA amongst the students graduating of the B. Tech. programme has been awarded to Mr. Gourav Bansal of Computer Science and Engineering and to Mr. R. Rohan Prasad of Mechanical Engineering.

DEPARTMENTS & CENTRE

Department of Chemistry

Programmes offered : PhD & M.Sc.
No. of Students : PhD : 46
M.Sc. : 6
No. of Publications : 63

Head of the Department: Dr. Rajendra Srivastava

1. **Dr. Avijit Goswami**
PhD (Heidelberg University, Germany)
Synthetic organic and polymer chemistry

2. **Dr. Debaprasad Mandal**
PhD (Indian Institute of Technology Kanpur)
Organic and organometallics chemistry

3. **Dr. Nagaraja C. Mallaiah**
PhD (Indian Institute of Science, Bangalore)
Inorganic, organometallics and materials chemistry

4. **Dr. Narinder Singh**
PhD (Guru Nanak Dev University, Amritsar)
Nano - particles and calix [n] arene and tripodal frameworks for chemo-sensor development

5. **Dr. Prabal Banerjee**
PhD (National Chemical Laboratory, Pune)
Synthetic organic chemistry

6. **Dr. Rajendra Srivastava**
PhD (National Chemical Laboratory, Pune)
The design, synthesis and catalytic investigation of functional nanoporous materials and ionic liquids

7. **Dr. T. J. Dhilip Kumar**
PhD (Indian Institute of Technology Madras)
Electronic structure calculations, chemical kinetics and reaction dynamics

8. **Dr. Tharamani C. N.**
PhD (Bangalore University, Bangalore)
Electrochemistry, fuel cells, nano-structured materials, electrocatalysis, metal finishing

9. **Dr. Yashveer Singh**
PhD (University of Allahabad, Allahabad)
Design, development and evaluation of polymeric biomaterials for drug (anticancer),microbicide (HIV-prevention) and biotherapeutic (protein/siRNA) delivery

❖ Ongoing activities

- Teaching and Research

❖ Thrust areas

- Synthetic organic and polymer chemistry
- Organic and Organometallics chemistry
- Electronic Structure Calculations, Chemical Kinetics and Reaction Dynamics, Ultracold Collisions
- Inorganic, Organometallic and Materials Chemistry
- Supra-molecular Chemistry
- Synthetic Organic Chemistry
- Catalysis
- Materials Electrochemistry, Energy and Sensors
- Biomaterials for drug delivery and tissue engineering applications
- Bioinorganic chemistry and crystallography

❖ Facilities

- B. Tech. Chemistry Laboratory
- M.Sc. Wet Chemistry Lab
- M.Sc. Instrumentation Lab
- Cell Culture Laboratory
- Materials Electrochemistry Research Laboratory
- Sophisticated Instrumentation Labs
- Synthesis Laboratory - I
- Synthesis Laboratory - II
- Supramolecular Synthesis & Materials Chemistry Laboratory
- Catalysis Laboratory
- Biomaterials Laboratory
- High Resolution Mass Spectro-photometer Lab
- State-of-the-art NMR facility
- State-of-the-art single crystal X-ray diffractometer

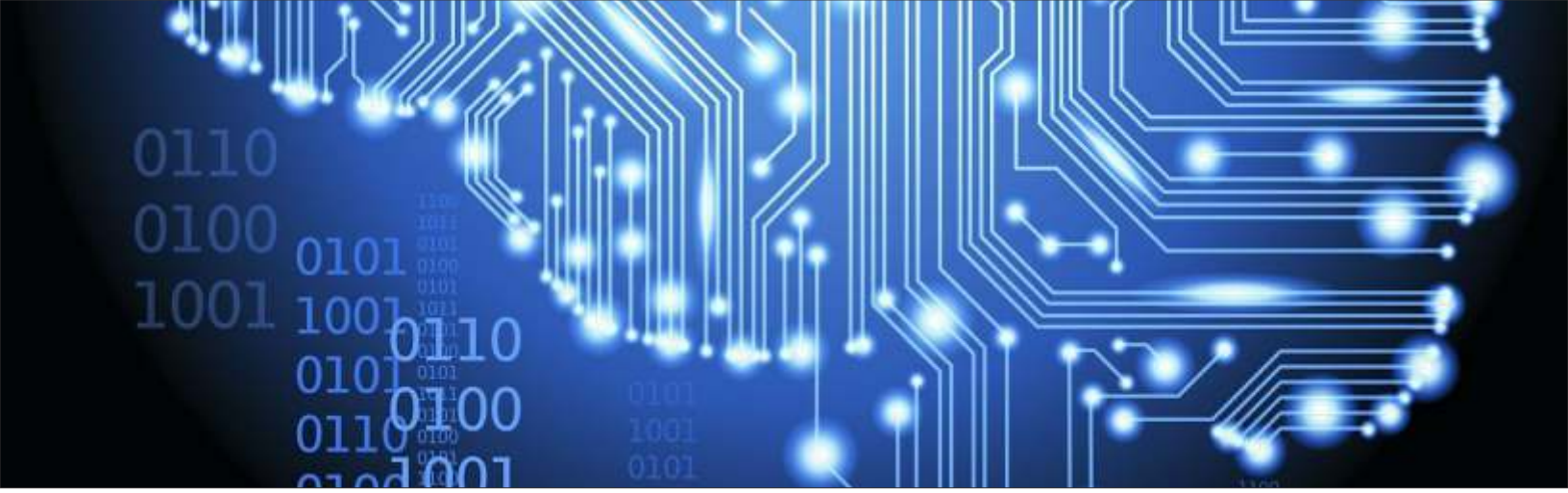
Lectures by visiting experts

Sr. No.	Name of the expert with affiliation	Topic	Date
1	Prof. Pratim K. Chattaraj Department of Chemistry and Centre for Theoretical Studies, IIT Kharagpur	"All Metal Aromaticity and Conceptual DFT"	June 29, 2015
2	Dr. Sameer Sapra Department of Chemistry, Indian Institute of Technology Delhi	"Charge separation and extraction from colloidally synthesized nanostructures"	June 05,2015
3	Dr. Manas K . Panda Dept. of Chemistry, New York University, Abu Dhabi, United Arab Emirates	"Smart, Adaptive and Actuating Crystalline Materials: Towards Artificial Molecular Machinery"	July 20, 2015
4	Dr. Abhijit Saha Dept. of Health Science and Technology, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland	"Organic Nano/functional materials"	July 22, 2015

5	Prof. Prasad V. Bharatam NIPER Mohali	"Arrows or no arrows: The dilemma in di valent N(I) compounds"	August 01, 2015
6	Dr. S. S. V. Ramasastry IISER Mohali	"Novel Cascade approaches for the rapid assembly of complex heterocyclic scaffolds"	August 01, 2015
7	Dr. Sanjib Banerjee Department of Chemistry, University of Massachusetts Lowell, USA	"Smart, High Performance Polymer - based Materials via Controlled Polymerizations "	August 19, 2015
8	Dr. Harish Kumar Potukuchi Chemistry Research Laboratory, University of Oxford, United Kingdom	"Transition -metal catalysed cross-coupling reactions and direct arylations"	January 23, 2016
9	Dr. Oleg Pryma k German Scientist , University of Duisburg Essen, Germany	"Investigation of Nanostructural materials by means of X -ray powder diffraction"	February 25, 2016
10	Dr. Vivek Bagchi Institute of Nano Science and Technology, Mohali, Punjab	"Theoretical aspects on nanoscience using a transition metal based biocatalyst"	February 25, 2016
11	Dr. Mohan Pal Dalhousie University, Halifax, Canada, Seminar	"Rational Design and Synthesis of Substrate-Product Analogue Inhibitors of Racemases"	April 22, 2016
12	Dr. Santosh Kumar Alamsetti Institute of Organic Chemistry, University of Leipzig, Germany	"Rapid Construction of Divers Heterocycles Employing Transition Metals and Organocatalysts"	April 28, 2016

Invited lectures by faculty

1. **Dr. Rajendra Srivastava**
   - "Advanced Materials and Characterization Techniques" at National Institute of Technology Jalandhar, Punjab, India, June 4, 2015.
   - "International Conference on Sustainable Chemistry and Engineering" at Institute of Chemical Technology, Mumbai, India, October 8-9, 2015.
2. **Dr. Yashveer Singh**
   - "Polymer and peptide-based hydrogels/gels for drug delivery" International Conference on Current Challenges in Drug Discovery Research (CCDDR-2015)" at MNIT, Jaipur, India, November 23-25, 2015.
   - "Hydrogels/gels for microbicide delivery, Prof. R. C. Paul National Symposium on Progressive Trends in Chemical Sciences" at Department of Chemistry and Center of Advanced Studies, Panjab University, Chandigarh, India, January 23, 2016.
3. **Dr. C. M. Nagaraja**
   - "Development of materials for generation and storage of hydrogen (FTAMP)-2016" at Central Scientific Instruments Organization (CSIO), Chandigarh, India, February 23-24, 2016.
4. **Dr. T. J. Dhilip Kumar**
   - "Ion-Neutral Collision Processes: Potential Energy Surfaces and Quantum Chemical Kinetics" at Space Physics Lab, VSSC Thiruvananthapuram, India, April 29, 2016.



Department of Computer Science & Engineering

Programmes offered	:	B. Tech., MS(R) & PhD
No. of Students	:	B. Tech. : 169 MS(R) : 02 PhD : 14
No. of Publications	:	15

Head of the Department: Dr. Apurva Mudgal

1. **Dr. Apurva Mudgal**
   PhD (Georgia Tech, USA)
   Theoretical Computer Science, Approximation Algorithms, Theoretical Robotics, Computational Geometry

2. **Dr. Balwinder Sodhi**
   PhD (Indian Institute of Technology Kanpur, India)
   Cloud computing, Software and its Engineering, Applied Computing

3. **Dr. Narayanan C Krishnan**
   PhD (Arizona State University, USA)
   Activity Recognition, Pattern Recognition, Machine Learning, Pervasive and Mobile Computing, Pervasive Health Care, Assistive and Rehabilitative Technology

4. **Dr. Deepti R. Bathula**
   PhD (Yale University, USA)
   Medical Image Processing and Analysis, Pattern Recognition, Machine Learning and Computer Vision

5. **Dr. Jung Hyun Jun**
   PhD (University of Cincinnati, USA)
   Cyber-Physical systems, Mobile Computing, Sensor Networks, Participatory Sensing, Wireless Networks, Energy Management

6. **Dr. Neeraj Goel**
   PhD (Indian Institute of Technology Delhi)
   Processor architecture, SoC design and modeling, Low power design, behaviour synthesis, Reconfigurable computing and FPGAs, Retargatable code generation and compiler optimizations

7. **Dr. Nitin Auluck**
   PhD (University of Cincinnati, USA)
   Scheduling and Resource Allocation in Parallel and Distributed Systems, Real-Time Systems

8. **Dr. Sudarshan Iyengar**
   PhD (Indian Institute of Science, Bangalore)
   Network Science, Theoretical Computer Science, Cryptography, Evolutionary Psychology

❖ Ongoing Activities

- Teaching and Research

❖ Thrust Areas

- Approximation algorithms
- Image processing and pattern recognition
- Computational geometry
- Cloud computing and software architecture
- Performance modeling
- Cryptography
- Machine learning and artificial intelligence
- Network science
- Sensor networks
- Computer Architecture

❖ Facilities

- 3 UG labs, 1 PG lab, HPC facility (central facility)

Lectures by visiting experts

Sr. No.	Name of the expert with affiliation	Topic	Date
1	Dr. Puneet Goyal Graphic Era University, Dehradun	"Electro-Photographic-Model-Based Halftoning and Analysis of Clustered-dot halftoning with Direct Binary Search"	August 14, 2015
2	Prof. Daya Gaur Department of Mathematics and Computer Science, University of Lethbridge	"Approximation Algorithms for Cumulative VRP with Stochastic Demands"	September 10, 2015
3	Dr. Philipp Leitner University of Zurich, Switzerland	" Trends, Opportunities and Challenges of Software Development for the Cloud"	November 14, 2015

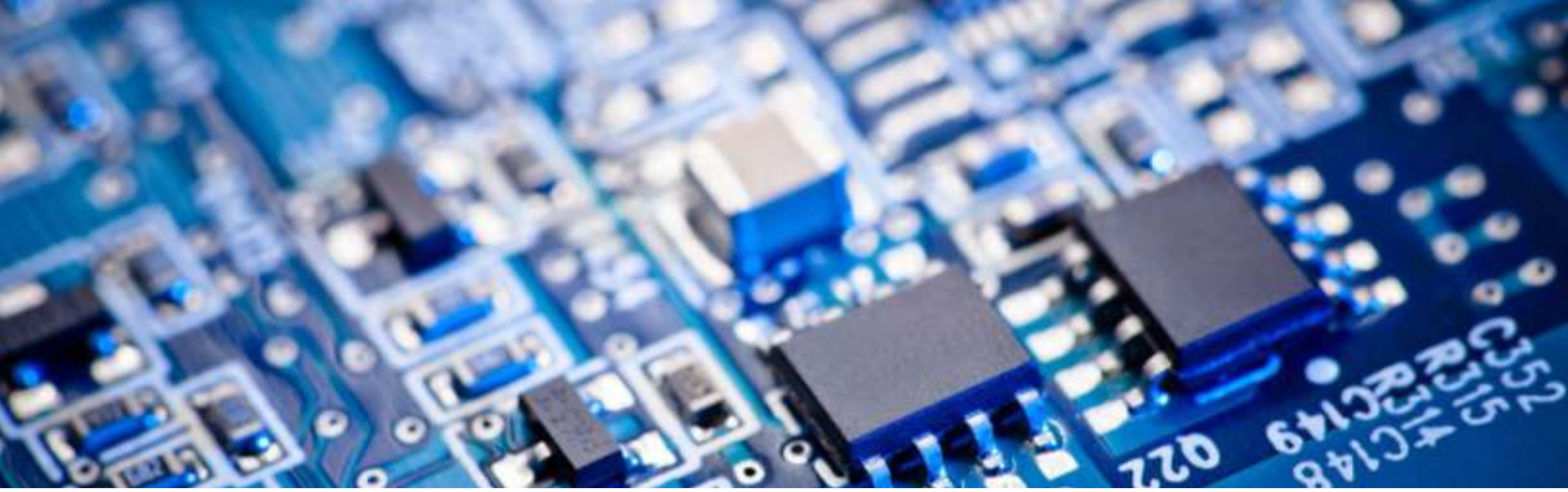
Invited lectures by faculty

1. **Dr. Deepti R. Bathula**
   - "MRI Modalities: Emerging tools for studying brain development Speaker", Industry Institute Interaction Week, PEC University of Technology, Chandigarh, India , April 2015 .

2. **Dr. Sudarshan Iyengar:**
   - "Technology in Teaching basic Sciences", HMV Jalandhar, April 27, 2016.
   - "Crowdsourcing and the theory of Innovation: A Computational Perspective", Invited talk, UIET Chandigarh, November 2015.
   - "On the next generation knowledge dynamics", Invited talk, NIT Delhi, November 2015.
   - "Secure Multiparty Computation", Invited talk, Thapar University, October 2015.
   - "Understanding Spreading Patterns on Social Networks Based on Network Topology", ASONAM, Paris, September 2015.

Visits abroad by faculty

Sr. No.	Name of the faculty member	Country	Details of visit
1	Dr. Sudarshan Iyengar	Paris, France	Conference: Advances in Social Networks and mining, August 25-28, 2015



Department of Electrical Engineering

Programmes offered : B. Tech. & PhD
No. of Students : B. Tech. : 152
PhD : 15
No. of Publications : 16

Head of the Department: Dr. J. S. Sahambi

1. **Dr. Bibhu Prasad Padhy**
   PhD (Indian Institute of Technology Kanpur)
   Power system dynamics & stability studies, Synchrophasor technology & its applications, State estimation in power systems, Smart grid

2. **Dr. C. Chakradhar Reddy**
   PhD (Indian Institute of Science Bangalore)
   Mechanism of Conduction and Breakdown in Dielectrics; Space Charges in Dielectrics; Power equipment (Transformers, Machines, HVDC/AC Cables and accessories); Nano-composite Dielectrics

3. **Dr. J. Kalaiselvi**
   PhD (Indian Institute of Technology Madras)
   Power electronics and drives

4. **Dr. J. S. Sahambi**
   PhD (Indian Institute of Technology Delhi)
   Signal processing, image processing, wavelets, biomedical image processing, embedded systems, DSP based systems

5. **Dr. Ramesh Garg**
   PhD (Indian Institute of Technology, Kanpur)
   Electromagnetics

6. **Dr. Ranjana Sodhi**
   PhD (Indian Institute of Technology Kanpur)
   Wide area monitoring and control systems, application of optimization techniques to power systems, voltage stability assessment and control, power system state estimation, power system restructuring

7. **Dr. Ravibabu Mulaveesala**
   PhD (Indian Institute of Technology Delhi)
   Infrared vision and video processing, signal and image processing techniques for non-invasive imaging methods, photo - thermal diagnostics of solids, non-destructive testing & evaluation

8. **Dr. Ravi Shankar R. Velampati**
   PhD (University of Connecticut, USA)
   Nanoelectronic device fabrication and characterization, nanocrystal nonvolatile memory devices, quantum dot photovoltaic devices, rad-hard devices.

9. **Dr. Rohit Y. Sharma**
   PhD (Jaypee University of Information Technology, Solan)
   Design of high-speed chip-chip and 3d interconnects communication schemes for multi-core architecture, technology development for high-performance electrical connectivity

10. **Prof. Sanjoy Roy**
PhD (University of Calgary, Canada)
Renewable energy systems: planning and economics, decision making in power network management

11. **Dr. Subrahmanyam Murala**
PhD (Indian Institute of Technology Roorkee)
Content based image retrieval, medical imaging and object tracking

❖ Ongoing activities

- Setting up of Centre for Micro and Nano Fabrication (CMNF)
- Setting up of Nano devices Lab
- External expert for four M. Tech. theses in Indian Institute of Space Science & Technology (IIST)
- External expert for curriculum development of M. Tech program in Nano biotechnology at "The Energy and Resources Institute" (TERI) University

❖ Facilities

1. Experimental Facilities in the area of High Voltage

a) Space charge measurement equipment
b) Femto ampere current measurement facility
c) High voltage arbitrary waveform generator
d) High voltage DC generator, 140 kV
e) Capacitance and Tan δ measurement facility
f) High voltage Transformers (200kV, 50 Hz)
g) Lightning/Switching Impulse Generator
h) Partial Discharge Measuring System

2. Equipment acquired for preparation and testing of nanocomposite dielectrics

a) Vacuum and Corona Gauge-MF,DkU, KR
b) Trinocular Inverted Metallurgical Microscope, Model:RBMt-101A with Digital camera
c) Hydraulic Press-30 Tons
d) Two Roll Mill
e) High speed Heater Mixture
f) Testing Transformer(Cascaded)100kv
g) Sphere Gap Arrangement-500mm Dia

3. Infrared Imaging, Non Destructive Testing & Evaluation

4. Experimental facilities in the area of Embedded Systems

a) Experimental boards of MCB 2140, 2479
b) Experimental boards of PIC from microchip
c) Experimental boards of Texas Instrument (MSP 430)
d) Compilers for above microcontroller kits

5. Computational/Analytical Research Facilities

a) Research facilities in the area of VLSI Design:

- Full-custom Cadence Design Suite (25 users)
- Xilinx Virtex-5 FPGA boards (8 nos.)
- HDL simulator (25 users)
- Ansys high-frequency and low-frequency EM solvers (25 and 5 users, respectively)
- A dedicated 3D simulator tool, Synopsys TCAD-Full university bundle and HSPICE simulator.
- All the above software tools are hosted on two dedicated servers

b) Computational research facilities in the area of Power engineering:

For transient and other time domain network studies, the laboratory has networked twenty-five user version of the PSCAD/EMTDC 4.2. This additionally allows time domain simulation of power electronic circuits, including applications to drives, HVDC, and FACTS. HVDC and FACTS. Apart from this, the department has also got the Eurostag software for simulation of power system dynamics

Lectures by visiting experts

Sr. No.	Name of the expert with affiliation	Topic	Date
1	Mr. Narendra Singh Sodha, Former Executive Director, Power Grid Corporation of India	"Unified Real Time Dynamic State Measurement (URTDSM) Smart Grid Project in India"	November 5, 2015
2	Prof. S. C. Srivastava, Former Deputy Director, Indian Institute of Technology Kanpur	"Supervisory Scheme for Distance Relays & Fast State Estimation for Avoiding Grid Disturbances and Applications of Real Time Simulator"	November 27, 2015
3	Prof. Chanan Singh, Department of Electrical & Computer Engg, Texas A&M University, USA	"Wind Farm Geographical Diversification to Smooth Intermittency and Improve Reliability"	December 22, 2015

Department of Humanities & Social Sciences

Programmes offered : PhD
No. of Students : 12
No. of Publications : 11

Head of the Department: Dr. Somdev Kar

1. **Dr. Ansu Louis**
   PhD (Indian Institute of Technology Kanpur)
   American Literature, Philosophy and Literature, Literary and Critical Theory, Greek Tragedy, and Visual Culture

2. **Dr. Kamal Kumar Choudhary**
   PhD (University of Leipzig, Germany)
   Psycho/Neurolinguistics (Language processing, Neurocognition/ Neuroscience of Language, EEG), Typology, Syntax, Cognitive Science, NLP

3. **Dr. Rano Ringo**
   PhD (Indian Institute of Technology Roorkee)
   Gender studies, Postcolonial studies, and Modern fiction

4. **Dr. Samaresh Bardhan**
   PhD (Jadavpur University)
   Financial Markets, Credit Related Issues, Industrial Finance, Development Economics, Applied Econometrics

5. **Dr. Smruti Ranjan Behera**
   PhD (Delhi School of Economics, University of Delhi)
   Applied Econometrics, Industrial Economics, International Economics and Finance, Energy and Environmental Economics

6. **Dr. Somdev Kar**
   PhD (University of Tübingen, Germany)
   Theoretical Linguistics, Phonetics, Phonology, Optimality Theory, Morphology, Speech Processing, NLP

❖ Ongoing activities

Teaching and research activities in the areas of Economics, English literature, Linguistics and Management

❖ Thrust areas

Banking and Finance, Development Economics and Finance, Energy and Environmental Economics, International Economics and Finance, North American Literatures, Gender Studies, Visual Culture Studies, Language and cognition, Theoretical Linguistics, Natural Language Processing

❖ Facilities

- Cognitive Lab
- Language and Linguistics Lab

Lectures by visiting experts

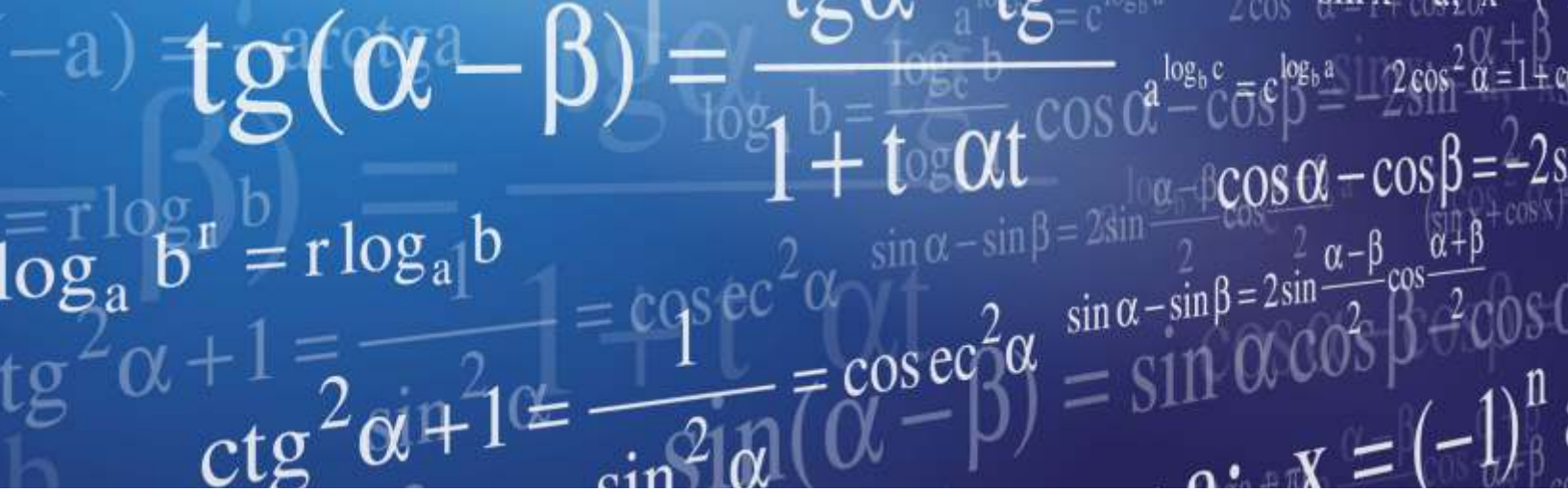
Sr. No.	Name of the expert with affiliation	Topic	Date
1	Prof. Arup Mitra, Institute of Economic Growth, New Delhi India	"Can industry be the key to pro-poor growth"	October 9, 2015
2	Prof. Bijoy H Boruah, IIT Delhi, New Delhi	"I and Me: Oneself as another: Metaphysics of the Self in the Parables of Jorge Luis Borges"	April 10, 2015
3	Padma Shri Keki N. Daruwalla	"Poetry and Poet in the 21st Century"	September 22, 2015
4	Prof. Pramod Kumar Pandey, Jawaharlal Nehru University, New Delhi	"Integrating computational programming and linguistic insights"	July 10, 2015

Invited lectures by faculty

1. **Dr. Kamal Kumar Choudhary**
   Indian Institute of Technology Gandhinagar, India, December 7-8, 2015.

Visits abroad by faculty

Sr. No.	Name of the faculty member	Country	Details of visit
1	Dr. Smruti Ranjan Behera	China	International Conference on Institutions, Reforms and Economic Development at School of Economics, Peking University, Beijing, China, September 19-20, 2015,
2	Dr. Samaresh Bardhan	Belgium	Presented the paper titled: Financial development, inflation and growth: Evidences from dynamic panel threshold model at the 14th European Economics and Finance Society Conference (EEFS) at Centre for European Policy Studies (CEPS), Brussels, Belgium, June 11-14, 2015.



Department of Mathematics

Programmes offered : PhD & M. Sc.
No. of students : PhD : 21
M. Sc. : 09
No. of publications : 20

Head of the Department : Dr. S. C. Martha

1. **Dr. Arvind Kumar Gupta**
   PhD (Indian Institute of Technology Roorkee)
   Mathematical modelling of traffic flow, cellular automata

2. **Dr. Chittaranjan Mishra**
   PhD (University of Antwerp, Belgium)
   Computational finance, numerical solution of financial option pricing equations, HPC in finance

3. **Dr. G. Sankara Raju**
   PhD (Indian Institute of Technology Madras)
   Functional analysis, operator theory, matrix analysis .

4. **Prof. J. K. Sridhar**
   PhD (Indian Institute of Technology Bombay)
   Numerical analysis, mathematical modelling of dynamic systems, theory of elasticity, systems
   and control, data analysis

5. **Dr. M. Prabhakar**
   PhD (Indian Institute of Technology Delhi)
   Low-dimensional topology

6. **Dr. Manju Khan**
   PhD (Indian Institute of Technology Delhi)
   Algebra

7. **Dr. Manoranjan Mishra**
   PhD (Indian Institute of Science, Bangalore)
   Fluid dynamics, scientific computing

8. **Dr. Partha Sharathi Dutta**
   PhD (Indian Institute of Technology Kharagpur)
   Nonlinear dynamics, mathematical biology, theoretical ecology

9. **Dr. Subash Chandra Martha**
   PhD (Indian Institute of Technology Guwahati)
   Mathematical modeling on water waves phenomenon, integral equation

10. **Dr. Tapas Chatterjee**
    PhD (The Institute of Mathematical Sciences, Chennai)
    Number Theory

❖ Ongoing activities

- Teaching & Research

❖ Thrust areas

- Algebra
- Dynamical Systems
- Fluid dynamics
- Cellular Automata
- Scientific Computing
- Integral Equation
- Mathematical Modeling
- Low-dimensional modeling
- Theory of Elasticity
- Systems and Control
- Number Theory
- Functional analysis
- Operator theory
- Matrix Analysis
- Computational Finance
- GPU computing

❖ Facilities

- Computational Lab

Lectures by visiting experts

Sr. No.	Name of the expert with affiliation	Topic	Date
1	Prof. Andrei Vesnin, Sobolev Institute of Mathematics, Siberian Branch of Russian Academy of Sciences, Russia	"Polynomial invariants of knots, graphs and spatial graphs"	October 13, 2015
2	Prof. Dipendra Prasad, FNA, FASc, FNASc, Tata Institute of Fundamental Research, Mumbai	"Factorization of integer polynomials over finite fields"	September 29, 2015
3	Prof. G. P. Kapoor, Department of Mathematics and Statistics, Indian Institute of Technology Kanpur, India	"Discrete Dynamical Systems and Fractals"	May 6, 2015
4	Prof. G. Ambika, Professor of Physics and Dean of Graduate Studies, IISER Pune	"Complex Networks and Time Series"	August 10, 2015
5	Prof. Hideki Miyachi, Graduate School of Science, Osaka University, Japan	"Hyperbolic and nonhyperbolic nature of Teichmuller space"	October 14, 2015

6	Prof. Ken'ichi Ohshika, Graduate School of Science, Osaka University, Japan	“Kleinian groups: crossroads where low-dimensional topology and complex analysis meet”	October 14, 2015
7	Dr. Krishnendu , IISER Mohali	“Hopf-Rinow Theorem”	April 28, 2016
8	Prof. M. Ram Murty, FRSC, FNA, FNASc, Queen's Research Chair, Queen's University, Kingston, Canada	“Measurement, Mathematics and Information Technology”	May 18, 2015
9	Prof. M. Ram Murty, FRSC, FNA, FNASc, Queen's Research Chair, Queen's University, Kingston, Canada	“The Chowla problem and non-vanishing of L-functions”	May 19, 2015
10	Prof. M. V Neshchadim, Sobolev Institute of Mathematics, Russia	“Braids and group of link”	November 2, 2015
11	Prof. Radhakant Padhi, Department of Aerospace Engineering, Indian Institute of Science, Bangalore-560012, India	“Nonlinear Control of Distributed Parameter Systems Using Optimal Dynamic Inversion”	May 8, 2015
12	Prof. R. I. Sujith, Professor of Aerospace Engineering Indian Institute of Technology Madras	“Prognosis of an Impending Combustion Instability”	April 27, 2016
13	Prof. S. Pushpavanam, Department of Chemical Engineering, Indian Institute of Technology Madras	“Combining Mathematics and Physics: The hall mark of an Engineer`	August 24, 2015
14	Prof. V. G. Bardakov, Sobolev Institute of Mathematics, Russia	“Groups of virtual torus links”	November 2, 2015
15	Prof. V. K. Katiyar, Professor of Mathematics and Head of the Department Indian Institute of Technology Roorkee	“Modeling in health care management system”	March 11, 2016

Invited lectures by faculty

1. **Dr. Manoranjan Mishra**
   - "Theoretical study on Korteweg stress effects on miscible viscous fingering" Osaka University, Japan May 28, 2015.
   - "Hydrodynamical instability in miscible fluids system: Applications in liquid chromatography" Tokyo University of Agriculture and Technology, Tokyo, Japan June 24, 2015.
   - "Interfacial instability of miscible displacement flow in liquid chromatographic separation" Tokyo University of Science, Japan, July 2, 2015.
   - "Stability analysis of viscous fingering effects on the adsorbed solute dynamics" ICFD 2015, Tohoku University, Sendai, Japan, October 27, 2015.

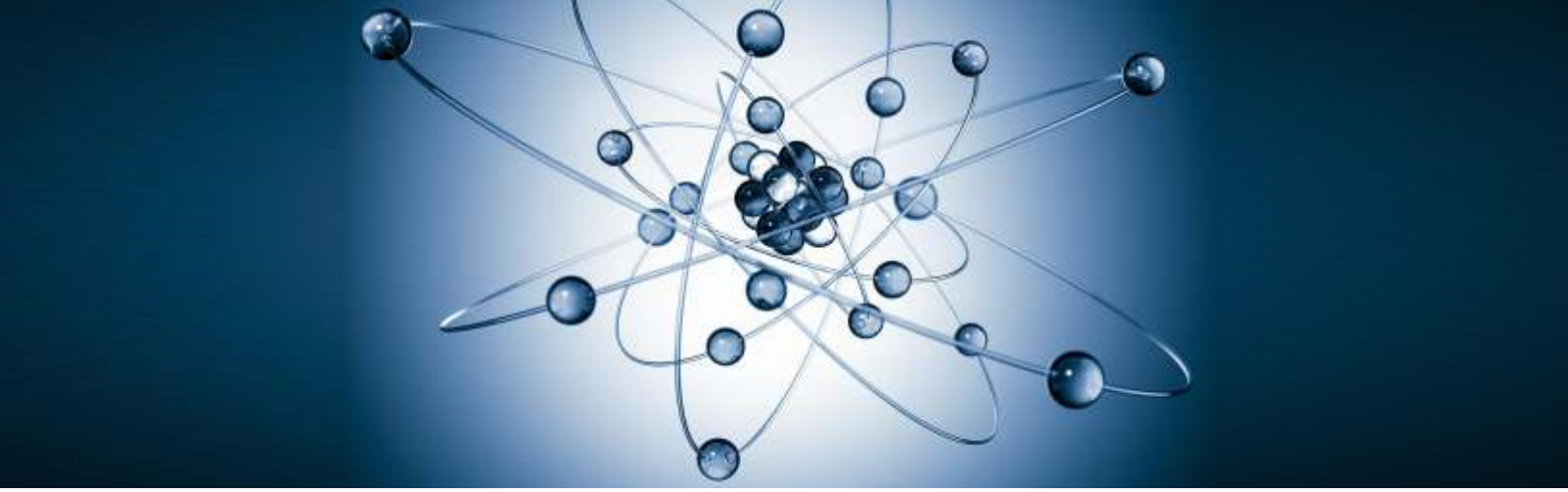
Visits abroad by faculty

Sr. No.	Name of the faculty member	Country	Details of visit
1	Dr. Arvind Kumar Gupta	Beijing, China	Phase transitions in three-channel totally asymmetric simple exclusion process with Langmuir kinetics at 8th International Congress on Industrial and Applied Mathematics, August 10-14, 2015
2	Dr. Arvind Kumar Gupta	Nootdrop, TU Delft, Netherland	To present paper October 27–30, 2015
3	Dr. Chittaranjan Mishra	Beijing, China	Presented a paper & poster on Stability of ADI Schemes with applications in FX Options Pricing at 8th International Congress on Industrial and Applied Mathematics, August 10-14, 2015
4	Dr. Chittaranjan Mishra	South Asian University, Delhi	International conference on current trends in PDEs - theory and computation, December 28-30, 2015
5	Dr. Chittaranjan Mishra	Osaka, Japan	Presented a paper titled -Pricing FX options in the Heston framework with alternating direction implicit schemes: some computational challenges in Fourth Asian Quantitative Conference, February 21-23, 2016.

6	Dr. G. Sankara Raju	Shanghai, China	Delivered a talk in the International conference of Functional Analysis-2015, July 19 – 22 , 2015
7	Dr. Partha Sharathi Dutta	University of Oldenburg, Germany	DST-DAAD Collaborative research project, June 04-25, 2015
8	Dr. M. Prabhakar	Novosibirsk, Russia	Knots, Braids and Automorphism Groups, July 18-24, 2015
9	Dr. Manoranjan Mishra	Tokyo University of Science and Technology, Japan	JSPS invitation fellowship program, May 20 - July 10, 2015
10	Dr. Manoranjan Mishra	Sendai, Japan	Invited talk and Chaired session at 12th International Conference on Flow Dynamics, October 27–29, 2015
11	Dr. Manoranjan Mishra	Boston, USA	68th APS – DFD Meeting, Presented a paper on Comet-shape deformation and transition to viscous fingering of a miscible circular blob in porous media, November 22 - 24, 2015
12	Dr. Subash Chandra Martha	Shanghai University Shanghai, China	Wave scattering in single-layer and two-layer fluid, August 7-8, 2015
13	Dr. Subash Chandra Martha	Beijing, China	Paper presented on Interaction of water waves with a pair of semi-infinite elastic plates over undulating bed topography at 8th International Congress on Industrial and Applied Mathematics, August 10-14, 2015
14	Dr. Tapas Chatterjee	IMSC Chennai	A conference celebrating 65th birthday of R. Balasubramanian, December 14-18, 2015

Workshops

1. Organized the Departmental Research Day "Cynosure-2015" on November 07, 2015.



Department of Physics

Programmes offered	:	PhD & M. Sc.
No. of students	:	PhD : 23 M.Sc. : 08
No. of publications	:	(International Journals) 27 (conferences) 21

Head of the Department : Dr. S. Dasgupta

1. **Dr. Asoka Biswas**
   PhD (Physical Research Laboratory, Ahmedabad)
   Quantum Computation and Information, Cavity Optomechanics

2. **Dr. Kailash Chandra Jena**
   PhD (Indian Institute of Technology Madras)
   Nonlinear Optics, Laser Spectroscopy, Sum Frequency Generation Vibrational Spectroscopy, ATR-FTIR Spectroscopy, Bio Mimicking Model Systems, Interfacial Water Structure, Air/water and Solid/Biopolymer/Water Interfaces, Optofluidics, Two Photon Excitation Flourescence Spectroscopy

3. **Dr. Mukesh Kumar**
   PhD (Indian Institute of Technology Delhi)
   Renewable energy materials development, Combinatorial thin films materials and sensors

4. **Prof. P. K. Raina**
   PhD (Indian Institute of Technology Kanpur)
   Nuclear structure, Neutrino Physics and Astrophysics

5. **Dr. Pushpendra P. Singh**
   PhD (Inter-University Accelerator Center, New Delhi / A. M. University, Aligarh)
   Experimental nuclear physics & its applications

6. **Dr. Rakesh Kumar**
   PhD (Indian Institute of Technology Bombay)
   Experimental Condensed Matter Physics

7. **Dr. Rajesh V. Nair**
   PhD (Indian Institute of Technology Bombay)
   Nano-Optics and cavities in nanostructures. Meta-materials, Optics of layered materials

8. **Dr. Shubhrangshu Dasgupta**
PhD (Physical Research Laboratory, Ahmedabad)
Physical modeling in quantum optics, nano-systems, and decoherence in physical systems

9. **Dr. Subhendu Sarkar**
PhD (Saha Institute of Nuclear Physics, Kolkata)
Low energy ion beam physics, fabrication of nanostructures on semiconductor surfaces using ion beams, and secondary ion mass spectroscopy

❖ Ongoing activities

- Teaching & Research

Sr. No.	Name of the expert with affiliation	Topic	Date
1	Dr. Tulasi Prashar University of Delaware, Newark, USA	"Seminar on Kinetic Physics of Collisionless Turbulent Plasmas"	May 8, 2015
2	Prof. Bimlendu Deb Dept. of Material Science, Indian Association for the Cultivation of Science, Kolkata	"Scientific Discussion and Seminar"	May 9- 12, 2015
3	Prof. Avinash Deshpande Raman Research Institute (RRI), Bangalore	"Fascinating Life-stories of Cosmic Light-houses"	August 13, 2015
4	Prof. Debabrata Goswami, IIT Kanpur	"Measuring in situ Micro-Viscosity Changes in Liquids through Femtosecond Laser-Matter Manipulation"	November 6,2015
5	Dr.Santosh Roy, TIFR, Mumbai	"Effect of deformation on low Energy nuclear structure"	February 9,2016
6	Dr. Smriti Mahajan, IISER Mohali	"Star formation and nuclear activity of galaxies in different environments"	March 07, 2016
7	Prof. R. Chary from the Department of Engineering Physics, University of Saskatchewan, Canada	"Nuclear Physics PhD and M.Sc. students other than preparation of a joint scientific proposal with new SUBARU Japan"	March 12 - April 01 2016
8	Prof. Debabrata Goswami, IIT Kanpur	"Measuring in situ Micro-Viscosity Changes in Liquids through Femtosecond Laser-Matter Manipulation"	November 6,2015

Invited lectures by faculty

1. Dr. Rajesh V. Nair

- "National Level Seminar on "Photonics & its Applications" at Chandigarh University, Gharuan (Punjab), April 23, 2015.
- "Current Development in Atomic, Molecular, Optical and Nano Physics with Applications" (CDAMOP 2015), University of Delhi, Delhi, India.
- "Tailoring light-matter interactions using 3D photonic crystals," National Workshop on Material Chemistry (Optical Materials) as part of IYL-2015 at BARC Mumbai, November 20-21, 2015.
- "International conference on Nanoscience and Nanotechnology (COCHIN-2016), Cochin, Cochin India, February 2016.
- "10th Chandigarh Science Congress, Punjab University, Chandigarh India, March, 2016.

2. Dr. Kailash C. Jena

- "Symposium on Innovations in Product Design, "Nonlinear Light Scattering Spectroscopy and its Relevance for Probing the Hidden Soft Matter and Planar Interfaces", Indian Institute of Information Technology , Design and Manufacturing, Jabalpur, May 11-13, 2015.
- "Nonlinear Light Scattering Spectroscopy and its Relevance for Probing the Hidden Soft and Planar interfaces", American Association of Pharmaceutical Scientists (AAPS) NIPER Student Chapter, Central Seminar Hall, NIPER, Mohali, January 28, 2016.

3. Dr. S. Dasgupta

- "Role of Physics in Engineering", Chandigarh Engineering College, Landran (Punjab), May 08, 2015.

4. Prof. P. K. Raina

- Nuclear Physics Meet at Institute of Physics, Bhubaneswar, July 25- 26, 2015.
- "Recent Trends in Nuclear structure and its Implication in Astrophysics" at Puri organized jointly by TIFR, Mumbai & Institute of Physics, Bhubaneswar, January 7, 2016.
- "Advances in Nuclear and Particle Physics: Present and Future" organized by department of Physics, NIT Jalandhar under TEQIP-II program on Feb 10, 2016.

5. Dr. Rakesh Kumar

- "International Conference on emerging technologies: Micro to Nano", October 24-25, 2015, Manipal University, Jaipur.
- "International conference on emerging technologies: Micro to Nano" Manipal University, New Delhi, October 24-25, 2015.
- "Band Gap in Rough Edged Graphene Nanoribbons", ICNM 2015,Agra, India, December 12-14, 2015 .
- "Nanoscience and Nanotechnology: Changing our lives" Lecture series on "Recent trends in Nanoscience and Nanotechnology, March 23, 2016, Panjab University.
- "Edge configurational effect on band gaps in GNRs"Lecture series on "Recent trends in Nanoscience and Nanotechnology, March 23, 2016, Panjab University.
- "Edge configurational effect on band gaps of GNRs" EMN meeting on carbon nanostructures 2016, Hawaii, USA, March 27-31, 2016.

6. **Dr. Pushpendra P. Singh**

- "Photonuclear Reactions at LCS" during international workshop on "Laser Compton Scattering Gamma Ray Sources and their Applications" at New SUBARU, University of Hyogo, Japan, November 11 – 12, 2015 .
- "Hindrance or no-hindrance: what do we (don't) know about sub-barrier fusion" during a national conference on "Recent Trends in Nuclear Physics" at Department of Physics of A. M. University Aligarh, February 15 – 16, 2016.

7. **Dr. Mukesh Kumar**

- "International Conference on Materials Science & Technology 2016, Delhi University, March 01-04, 2016.

Visits abroad by faculty

Sr. No.	Name of the faculty member	Country	Details of visit
1	Dr. Mukesh Kumar	US	Under Bhaskara Solar Energy Research Fellowship, Indo -US Science and Technology Forum (May-July 2015)
2	Dr. Rajesh V. Nair	ICTP-ECAR, Izmir, Turkey	Workshop on photonics and its applications August 27- 29,2015.
3	Dr. Rajesh V. Nair	Technical University, Berlin, Germany	DFG Visiting Scientist for 2 Months (16th May-16th July 2016) on a collaborative project on "Nanodiamonds in colloidal systems".
4	Dr. Pushpendra P. Singh	Spring8, University of Hyogo, Japan	International workshop on "Laser Compton Scattering Gamma Ray Sources and their Applications", University of Hyogo, JAPAN, November 10 – 15, 2015
5	Dr. Kailash C. Jena	Saitama University	Invited by Prof. S. Nakabayashi (President of International Affairs, Vice -director of Saitama University) for a prospective research collaboration (March 25 -30, 2016) Delivered a talk on "Physics of atoms and molecules at the surface and interface"

Department of Mechanical Engineering

Programmes offered	:	B. Tech., M. Tech. & PhD
No. of students	:	B. Tech. : 153
		PhD : 35
		M. Tech. : 18
No. of publications	:	45

Head of the Department : Dr Navin Kumar

1. **Dr. Anshu Dhar Jayal**
   PhD (University of Utah)
   Sustainable manufacturing technologies

2. **Dr. Anupam Agrawal**
   PhD (Indian Institute of Technology Kanpur)
   Analysis of Metal Forming Processes, Deformation Analysis, CAD/CAM

3. **Dr. Dhiraj K. Mahajan**
   PhD (Indian Institute of Technology Kanpur)
   Simulation and experiment assisted development of high performance elastomeric and polymeric materials, mechanics and physics of polymers, adhesion at polymer-solid interfaces, fatigue failure of polycrystalline metals under aggressive environment with immediate focus on hydrogen based degradation of steels

4. **Dr. Ekta Singla**
   PhD (Indian Institute of Technology Kanpur)
   Robotics, redundant manipulators, robot path planning,collision detection, obstacle avoidance, applied optimization methods - classical and evolutionary, optimal mechanical design

5. **Dr. Harpreet Singh**
   PhD (Indian Institute of Technology Roorkee)
   Surface Engineering-Degradation of Materials, High Temperature Corrosion and its Protection, Slurry Erosion of Hydraulic Turbines and its Control, Biomedical Coatings

6. **Dr. Himanshu Tyagi**
   PhD (Arizona State University, USA)
   Thermo-fluids, Bio-heat Transfer, Nanofluids, Nanoscale heat transfer, Clean & Sustainable Energy, Solar Energy, Energy Storage, Turbulent Flows, Combustion, Thermodynamics, Biomass Pyrolysis & Gasification, Ignition Properties of Fuels Containing Nano-Particles, Thermal Management and Packaging of Micro-Electronic Devices

7. **Dr. Jitendra Prasad**
   PhD (Michigan State University, USA)
   Biomechanics, Bone Fracture Healing, Mechanotransduction, Structural and Multidisciplinary Design Optimization, Computational Mechanics, and Agent Based Modelling

8. **Dr. Navin Kumar**
   PhD (Indian Institute of Technology Delhi)
   Biomaterials, Biomechanics, Biological and Bio materials characterization, Mechanics of Nano materials, Finite element modeling (FEM), Biomedical Engineering, Biomedical Instrumentation and Bio-implants, Active and passive vibration control, Noise control, Active vibration isolation in MEMS devices, Fault diagnostics and condition-monitoring

9. **Dr. Prabir Sarkar**
   PhD (Indian Institute of Science, Bangalore)
   Product design, Sustainability and eco design, Creativity and innovation, Engineering design and industrial design, Manufacturing

10. **Dr. Prabhat K. Agnihotri**
    PhD (Indian Institute of Technology Kanpur)
    Processing, characterization and modelling of nanomaterials, multiscale hybrid composites, fracture mechanics, discrete dislocation plasticity, molecular dynamics simulations

11. **Dr. Purbarun Dhar**
    PhD (Indian Institute of Technology Madras)
    Nanotechnology, Microfluidics, Biomedical Engineering, Applied Multiphysics

12. **Dr. Rakesh K. Maurya**
    PhD (Indian Institute of Technology Kanpur)
    HCCI and Low Temperature Combustion for IC Engines, Alternative fuels, Engine Emission Control, Engine management systems

13. **Dr. Ramjee Repaka**
    PhD (Indian Institute of Technology Kharagpur)
    Bioheat Transfer, Cancer Diagnosis and Therapy, Heat Transfer, Thermal Engineering

14. **Dr. Ranjan Das**
    PhD (Indian Institute of Technology Guwahati)
    Thermal and Fluids Engineering, Optimization, Renewable Energy

15. **Dr. Ravi Mohan Prasad**
    PhD (Technische Universität Darmstadt, Germany)
    Polymer-derived porous ceramics and nanocomposites, Ceramic membranes for hydrogen purification, Chemiresistor gas sensors, Photocatalysts for wastewater decontamination, Hydrogen storage materials

16. **Prof. Sarit K. Das**
    PhD (Sambalpur University)
    Heat Transfer in Nano-Fluids, Micro channel Fluid Flow and Heat Transfer, Heat and Mass Transfer in Biological Systems, Boiling Heat Transfer

17. **Dr. Satwinder Jit Singh**
    PhD (Indian Institute of Science, Bangalore)
    Applied Mechanics, Numerical Methods

18. **Dr. Srikant Sekhar Padhee**
    PhD (Department of Aerospace Engineering, IISc., Bangalore)
    Research Interests: Variational Asymptotic Method, Multifunctional and Functionally Graded Composites

19. **Dr. Vishwajeet Mehandia**
    PhD (Indian Institute of Science, Bangalore)
    Complex fluids (Active suspensions), Dynamics of Granular Materials, Biophysics (Active cellular processes, Physics of Tissue morphology)

❖ Thrust Areas

- Additive manufacturing, combustion
- Energy & Environment
- Health
- Advance Material
- Transport
- Indigenous Technology / Technology for India

❖ Facilities

- Advanced Manufacturing Technology Laboratory (AMTL)
- Product Design & Realization Computer Laboratory
- Biomechanical Creativity and Innovation Lab
- Materials Science Lab (UG, PG & Research Lab)
- Metal Casting Lab (UG, PG & Research Lab)
- Ropar Mechanics of Materials Laboratory (RMML)
- Engine Laboratory
- Thermo-Fluids Laboratory
- Thermal Therapy Lab
- Noise and Vibration Lab
- Biomaterials and Nano Materials Characterization Laboratory
- Indoor Environment Control Laboratory
- Machine Design Lab
- Material Science Lab
- Product Design & Realization Laboratory
- Product Design and Realization Workshop
- Mechatronics with Robotics Applications Lab
- Sustainable Design and Manufacturing Laboratory
- Design Research Laboratory
- Control Lab

❖ Workshop

- Traditional Machining Section
- CNC Section
- Wire EDM and Rapid Prototyping Section
- Welding Section
- Casting Section
- CMM Section

Lectures by visiting experts

Sr. No.	Name of the expert with affiliation	Topic	Date
1	Prof. B.S. Murty, Department of Metallurgical and Materials Engineering, Indian Institute of Technology Madras	"Atom Probe Tomography"	July 27, 2015
2	Dr. B.P.S. Parmar, Parmar Hospital, Ropar	"Laparoscopic Bariatric Surgery"	August 14, 2015
3	Prof. C. Lakshmana Rao, Indian Institute of Technology Madras.	"Prof. Rao visited IIT Ropar to interact with SMMEE faculty"	September 11, 2015
4	Dr. Divya Gowda, Department of Materials Science and Metallurgy, University of Cambridge, UK	"Engineering alloy development for high temperature applications"	January 8, 2016
5	Prof. K. Ramamurthi, Indian Institute of Technology Madras	Lectures on MEL 412 course (Propulsion Technologies)	January - March 2016
6	Dr. Purbarun Dhar from Department of Mechanical Engineering, Indian Institute of Technology Madras	"Augmented Thermophysical and Electromagnetic Transport Characteristics of Graphene Nanosuspensions"	November 9, 2015
7	Dr. -Ing. Rajini Kumar Ramalingam	"Fiber Bragg Grating sensors for Cryogenics and Superconducting Magnet Applications"	September 1, 2015
8	Dr. Sanjay Bhadada, Dept. of Endocrinology, Postgraduate Institute of Medical Education and Research, Chandigarh	"Endocrinologists (Metabolic bone disorder) and Engineers: What they can learn from each other"	October 27, 2015
9	Dr. Satyapriya Gupta, Department of Mechanical Science and Engineering, University of Illinois at Urbana-Champaign, USA	"Micromechanical modeling of martensitic phase transformation in steels based on non-local crystal plasticity"	January 7, 2016
10	Dr. T.N.C. Anand, Department of Mechanical Engineering, Indian Institute of Technology Madras	"Fundamental and applied studies of droplets and sprays"	April 1, 2016

Center for Biomedical Engineering

Head : Dr. Yashveer Singh

❖ Ongoing Activities

- Center is organising expert talks in the field of Biomedical Engineering

❖ Thrust Areas

- Biomedical Imaging
- Bioinstrumentation and Biomaterials
- Cancer Diagnostics and Therapy

❖ Facilities

- Phase contrast microscope
- Autoclave
- Freeze dryer
- Biosafety cabinet
- CO2 Incubator

Lectures by visiting experts

Sr. No.	Name of the expert with affiliation	Topic	Date
1	Prof. Harcharan Singh Ranu, President, American Orthopaedic Biomechanics Research Institute (AOBRI), Atlanta, GA, USA	"Contribution to Orthopaedic Biomechanics"	September 28, 2015
2	Prof. Veena Koul, Head, Center for Biomedical Engineering (CBME), Indian Institute of Technology Delhi, New Delhi	"Polymeric nanoparticles as efficient carriers for drug delivery systems"	January 21, 2016
3	Mr. Sushil Chandra, Scientist F, Institute of Nuclear Medicine and Allied Sciences, New Delhi	"Technical advancements and human cognition"	March 11, 2016

Center for Material Energy & Engineering

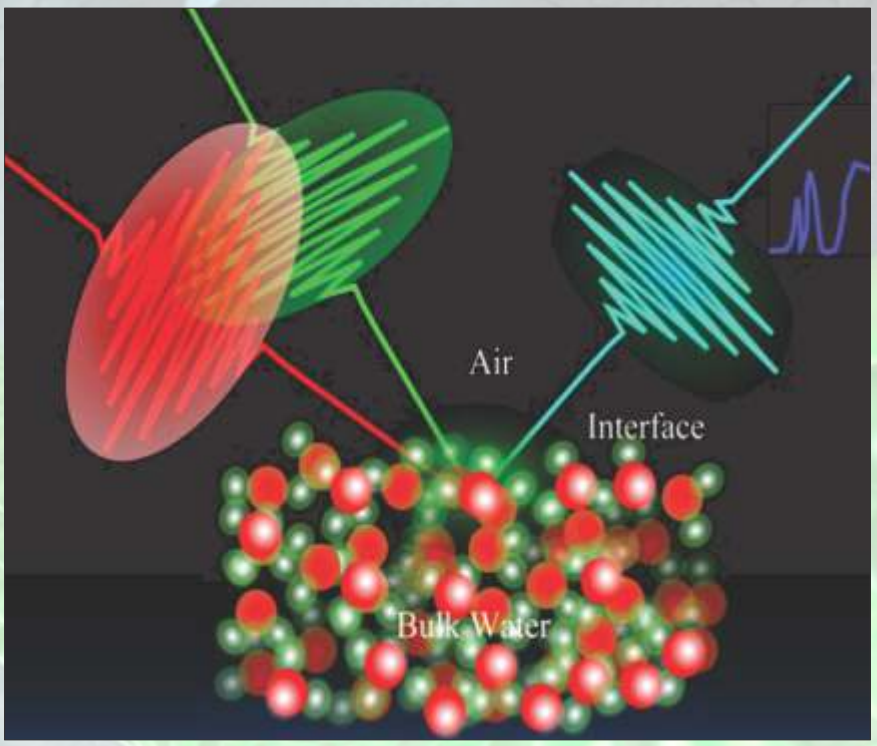
Head: Dr. Navin Kumar

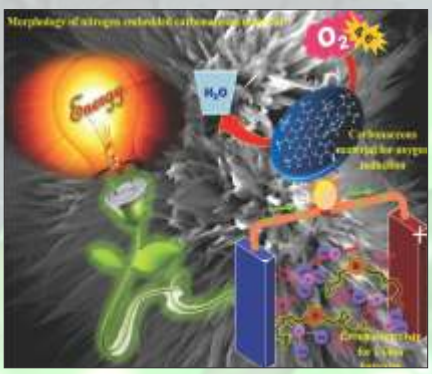
The programme is intended to provide a comprehensive exposure in Materials and Energy Engineering to students. The center has initiated PhD programme from Autumn 2015-16. It has plans to offer M.Tech. courses in future.

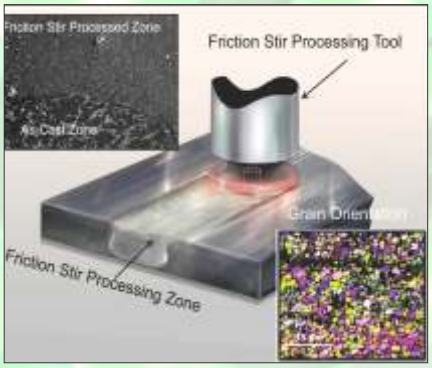
No. of Students: PhD : 2

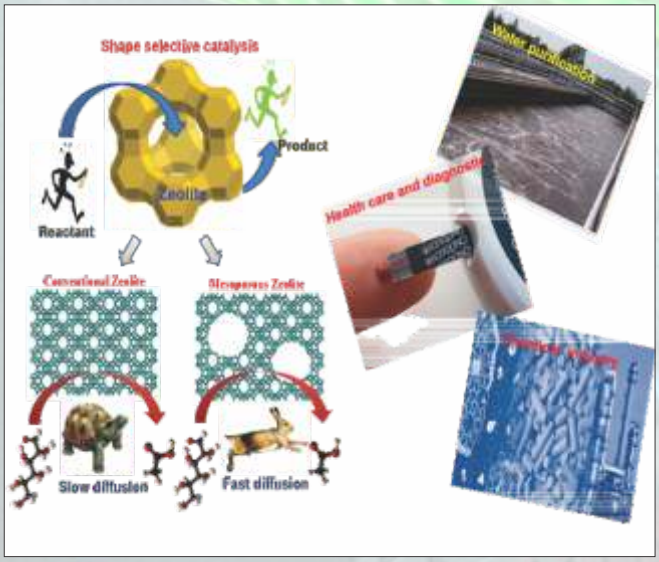
❖ Thrust Areas:

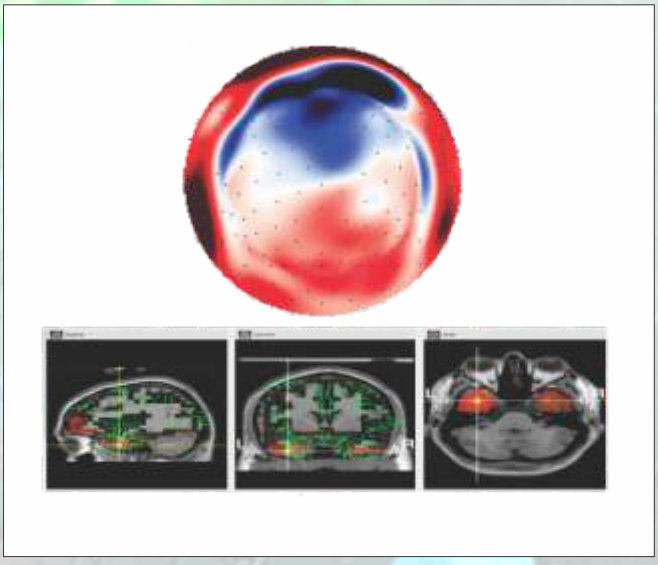
- Nano structured materials for energy conversion/ storage
- Structural materials
- Advanced materials
- Nanocomposites
- Ceramics

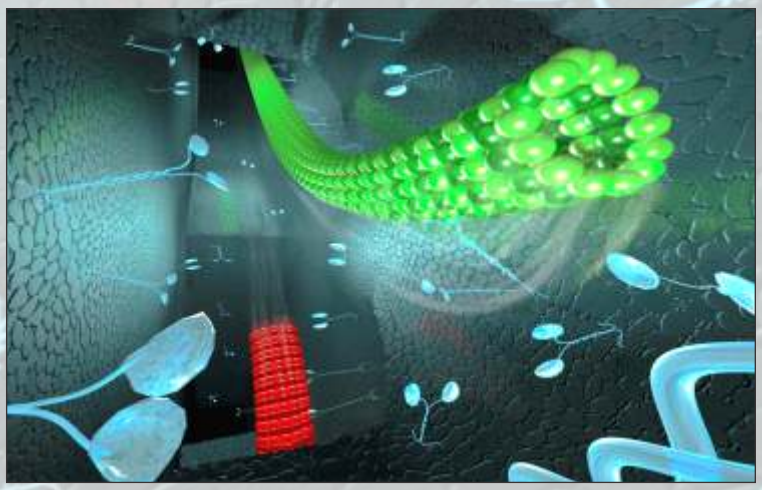

Air
Interface
Bulk Water


Energy
H_2O
O_2


Friction Stir Processed Zone
As Cast Zone
Friction Stir Processing Tool
Grain Orientation
Friction Stir Processing Zone

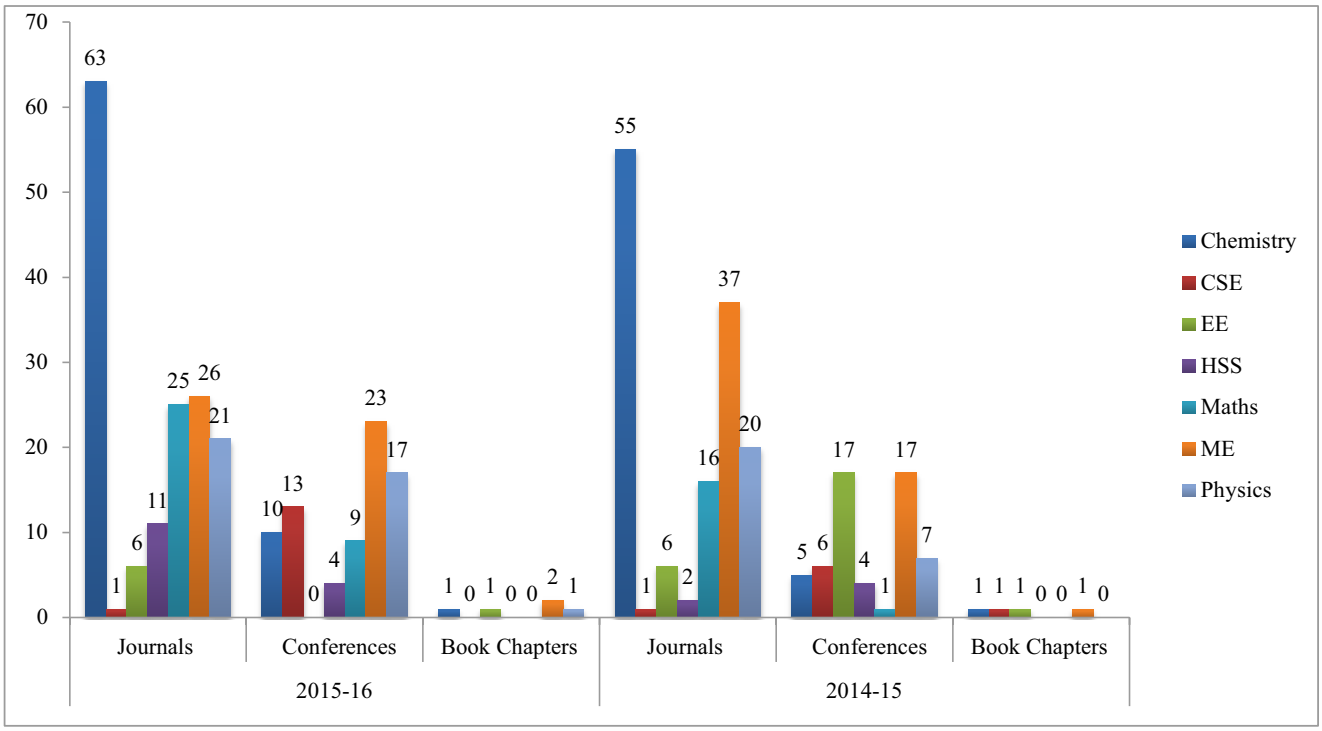

Shape selective catalysis
Product
Zeolite
Reactant
Slow diffusion
Fast diffusion





RESEARCH PUBLICATIONS

RESEARCH PUBLICATIONS



Graph No. 11 : Comparison of the Research Publications

Department of Chemistry

Book Chapters

(1) Kaur N., Bhardwaj V.K., and Singh N., "Surface Decoration of Organic Ligands on Quantum Dots: Fine Tuning of Photophysical Properties" Handbook of Nanoparticles, pp. 1-20, Springer, 2015.

Journals

(1) A. Singh, T. Raj, and N. Singh, "Highly selective and efficient reduction of nitroarenes by imidazolium salt stabilized copper nanoparticles in aqueous medium," Catal. Letters, vol. 145, no. 8, pp. 1606–1611, 2015.

(2) A. Singh, J. Singh, N. Singh, and D. O. Jang, "A benzimidazolium-based mixed organic–inorganic polymer of Cu(II) ions for highly selective sensing of phosphates in water: applications for detection of harmful organophosphates," Tetrahedron, vol. 71, no. 36, pp. 6143–6147, 2015.

(3) A. Saini, A. K. K. Bhasin, N. Singh, and N. Kaur, "Development of a Cr(III) ion selective fluorescence probe using organic nanoparticles and its real time applicability," New J. Chem., vol. 40, no. 1, pp. 278–284, 2016.

(4) A. Huerta Carlos, T. Pandiyan, J. Arenas-Alatorre, and N. Singh, "Oxidation of phenols by TiO2-Fe3O4-M (M=Ag or Au) hybrid composites under visible light," Sep. Purif. Technol., vol. 149, pp. 265–278, 2015.

(5) A. Ghosh, A. K. Pandey, and P. Banerjee, "Lewis Acid Catalyzed Annulation of Donor-Acceptor Cyclopropane and N-Tosyl aziridine dicarboxylate: One-Step Synthesis of Functionalized 2H-Furo[2,3-c]pyrroles," J. Org. Chem., vol. 80, no. 14, pp. 7235–7242, 2015.

(6) A. Joshi, W. Schuhmann, and T. C. Nagaiah, "Mesoporous nitrogen containing carbon materials for the simultaneous detection of ascorbic acid, dopamine and uric acid," Sensors Actuators, B Chem., vol. 230, pp. 544–555, 2016.

(7) A. Joshi and T. C. Nagaiah, “Nitrogen-doped carbon nanotubes for sensitive and selective determination of heavy metals,” RSC Adv., vol. 5, no. 127, pp. 105119–105127, 2015.
(8) A. Tiwari, T. C. Nagaiah, "Mesoporous Nitrogen-Rich Carbon as Metal-free Anode Catalyst for Borohydride Fuel Cells," Energy Technology, vol. 4, no.4.pp. 479-483,2016.
(9) A. Kumari, B. Kaur, R. Srivastava, and R. S. Sangwan, “Isolation and immobilization of alkaline protease on mesoporous silica and mesoporous ZSM-5 zeolite materials for improved catalytic properties,” Biochem. Biophys. Reports, vol. 2, pp. 108–114, 2015.
(10) A. Kaur, G. Kaur, A. Singh, N. Singh, and N. Kaur, “Polyamine Based Ratiometric Fluorescent Chemosensor for Strontium Metal Ion in Aqueous Medium: Application in Tap Water, River Water, and in Oral Care,” 2015.
(11) A. Tiwari, T.C. Nagaiah, A. Bordoloi, “Electrocatalytic Activity of Tungsten Oxide Nanoclusters Grafted on Mesoporous Nitrogen-Rich Carbon Material in the Dioxygen Reduction Reaction,” ChemPlusChem, vol. 80, pp. 1666–1672, 2015.
(12) A. Saini, N. Kaur, and N. Singh, “A highly fluorescent sensor based on hybrid nanoparticles for selective determination of furosemide in aqueous medium,” Sensors Actuators, B Chem., vol. 228, pp. 221–230, 2016.
(13) A. Kaur, T. Raj, S. Kaur, N. Singh, and N. Kaur, “Fluorescent organic nanoparticles of dihydropyrimidone derivatives for selective recognition of iodide using a displacement assay: application of the sensors in water and biological fluids,” Org. Biomol. Chem., vol. 13, no. 4, pp. 1204–1212, 2015.
(14) B. Kaur, R. Srivastava, and B. Satpati, “Highly Efficient CeO2 Decorated Nano-ZSM-5 Catalyst for Electrochemical Oxidation of Methanol,” ACS Catal., vol. 6, no. 4, pp. 2654–2663, 2016.
(15) B. Kaur, R. Srivastava, and B. Satpati, “Copper nanoparticles decorated polyaniline–zeolite nanocomposite for the nanomolar simultaneous detection of hydrazine and phenylhydrazine,” Catal. Sci. Technol., vol. 6, no. October, pp. 1134–1145, 2016.
(16) B. Kaur, R. Srivastava, B. Satpati, K. K. Kondepudi, and M. Bishnoi, “Biomineralization of hydroxyapatite in silver ion-exchanged nanocrystalline ZSM-5 zeolite using simulated body fluid.,” Colloids Surf. B. Biointerfaces, vol. 135, pp. 201–8, 2015.
(17) B. K. Billing, J. Singh, P. K. Agnihotri, and N. Singh, “Development of electrochemical sensor for selective recognition of PO43− ions using organic nanoparticles of dipodal receptor in aqueous medium,” Electrochim. Acta, vol. 182, pp. 1112–1117, 2015.
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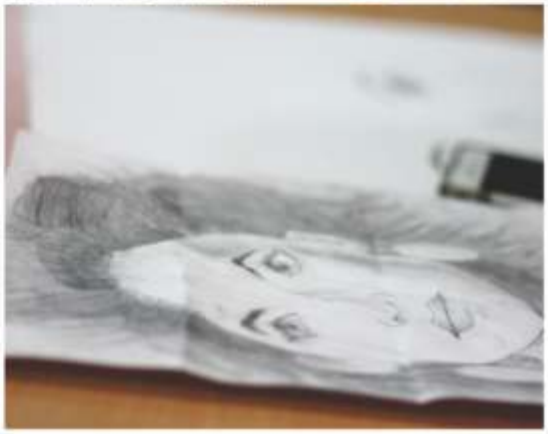
EVENTS & STUDENTS' ACTIVITIES


RASHMI
I.B.C.C


IIT
ROPAR



EVENTS

Director's Meet

IIT Ropar organized Directors'/ Principals'/ Deans' Meet of Engineering Colleges of Punjab. The representatives from PEC University of Technology Chandigarh, Guru Nanak Dev Engineering College Ludhiana, IET Bhaddal Ropar, Baba Banda Singh Bahadur Engineering College Fatehgarh Sahib, Chandigarh University Gharuan, Shaheed Udham Singh College of Engineering & Technology Tangori, Amritsar College of Engineering and Technology Amritsar, Guru Nanak Dev University Sathiala, DAV Institute of Engineering and Technology Jalandhar, DAV University Jalandhar participated in the meet and presented their views to foster eco-friendly collaboration among the participating institutions, so that the standard of technical education in the state could be uplifted.

Prof. Sarit K. Das, Director of IIT Ropar gave the inaugural speech on the occasion and emphasized on need to raise the standard of engineering students so that well trained engineering manpower can be provided to the nation. He added that institutions should learn from each other and work together on areas of common interest. He designated all the participating institutions as associate institutions of IIT Ropar and promised to extend every possible help to the growth of these institutions. Prof. M. K. Arora, Director, PEC University of Technology Chandigarh added that there is a need to "make engineers" rather than "produce engineers".

Based upon the deliberations Dr. Harpreet Singh, Associate Dean (Industrial Relations, International & Alumni Affairs) concluded that the participating institutions can work on the issues such as student internships at IIT Ropar, sharing of central research facilities and library resources, continuing education at IIT Ropar, organising workshops, research consultancy for students and faculty, Ph.D/ M.Tech for faculty and guest lectures at associated Institutions.

In the concluding session Prof. Sarit K. Das constituted Council of Educational Associates, consisting of Director's, Deans of associated colleges under the Chairmanship of Prof. P. K. Raina, Dean (Academics), IIT Ropar. The council will work out and facilitate various activities to be conducted by the participating institutions. The council will formally launch its action plan of joint activities by end of January 2016.

Inauguration of Industry Academia Conclave (IAC 2015)

The School of Mechanical, Materials and Energy Engineering of IIT Ropar organized its First Industry Academia Conclave (IAC 2015), in which approximately 35 representatives from various Industries such as Siemens, Tata Motors, GE, BARC Mumbai, Mahindra and Mahindra, National Instruments, RALSON, JEOL India Pvt., Madhav Alloys Pvt. Ltd. participated. Mr. Dinesh Dua, Vice Chairman, CII, Chandigarh, CEO and Director, Nectar Lifescience Limited inaugurated the conclave, where as Prof. M.K. Surappa, Director IIT Ropar presided-over as Chief Patron. Dr. Navin Kumar,Co-ordinator of the school welcomed the delegates from various Industries.

Prof. M.K.Surappa, strongly emphasized on the need of Industry-Academia partnership. He mentioned that the faculty should work in close association with industry on real world problems and must give the competitive solution to industry. Further he welcomed the inputs from the industrialists in refining the syllabi as per industry requirements.

Mr. Dinesh Dua, emphasized on the need to bridge the gap between academia and industry during his inaugural address. He emphasized that the industries and academic institutions should play pro-active role in working together on the real world problems, so that the young minds could be nurtured as per the specific requirements of the industry. He highlighted that industry-academia collaboration is basically win-win situation for both industry as-well-as academic institutes. He quoted the success stories of few industrialists such as Mr. Bill Gates, Chairman Microsoft, Mr. Steve Jobs, Chairman of Apple Inc., who collaborated with the academic institutes and outsourced their R&D work and created the bench mark of success. He also mentioned about the skill development mapping, a concept proposed by Hon'ble Prime Minister of India, Mr. Narendra Modi, which basically speaks about the need based training to youth. Further he mentioned that it is the time to reverse brain-drain, brains from all over the world are now ready to work in India.

The faculty from the IIT Ropar and neighboring Institutes was present on the inaugural day session. Dr. Harpreet Singh (Associate Professor, SMMEE) presented the vote of thanks. Prof. Javagal K. Sridhar, Registrar and Prof. P.K. Raina, Dean (A&R), IIT Ropar were also present on the occasion.

During IAC-2015, inputs from industrialists with regard to UG and PG Curriculum, Industrial Internship, BTP and Capstone Project, Research and Consultancy, Innovation and Entrepreneurship were taken.

Cynosure – 2015

The Department of Mathematics, IIT Ropar organized the annual research day, Cynosure-2015, on 7th November 2015. The event aims at motivating young students and academicians towards research in mathematics and allied areas.

There were FOUR invited talks by Professor R. B. Bapat (ISI Delhi), Professor Sudhir R. Ghorpade (IIT Bombay), Professor Amiya K. Pani (IIT Bombay) and Professor Govindan Rangarajan (IISc Bangalore). Also 28 participants (out of 75) have presented their research work in the form of posters. The invited speakers selected two best poster presentations. The discussion among participants and experts on various issues affecting frontiers of mathematics was very fruitful and this accomplish the intention of the programme.

Bio-X Consortium

The second Bio-X Consortium meeting was held at IIT Ropar on March 12th and 13th. The brainchild of Prof. S. K. Das and Prof. T. A. Gonsalves, Bio-X is a consortium between IIT Ropar and IIT Mandi, with expansion plans to include PGIMER Chandigarh in the near future. Bio-X endeavors to address big challenges in the field of healthcare and medicine. The consortium aims to facilitate and encourage collaboration between engineering and technological experts from IIT Ropar and Mandi with medical experts of PGIMER to develop low cost diagnostics and therapy for prevalent diseases affecting large number of people in India. Current focus areas of the consortium include (but not limited to): Biomedical Imaging, Biomechanics, Biomedical Nanotechnology, Biomedical Instrumentation and Cancer Diagnostics & Therapy.

Both the directors of IIT Ropar and Mandi have pledged to support the consortium by providing seed grants to projects with significant potential to initiate preliminary studies and attract extramural funding. With sizeable participation from PGIMER, the meeting was productive and successful in forging new and inter-institutional collaborations between mutually interested faculty members. Furthermore, 3 of the 6 project proposals presented during the meeting were awarded seed grants totaling Rs. 48 Lakhs. PGIMER faculty members, attending the meeting for the first time, commended the efforts of the consortium and recognized that such multi-institutional and interdisciplinary collaborations are the need of the hour.

FiLMI 2016

The Department of Physics recently organized a two-day National Conference on “Frontiers in Light-Matter Interaction (FiLMI 2016)” during March 4-5, 2016, partially funded by SERB-DST, Govt. of India and IIT Ropar. In continuation to the 'International Year of Light' announced at the UN General Assembly, this conference focused on cementing the gap between different avenues of light-matter interactions towards bringing the optics and photonics research in India to the next level. The conference covered important topics like Non-Linear Optics & Laser Spectroscopy, Nano – Photonics & Meta Materials, Quantum Optics & Quantum Computing among others.

Speaking at the conference, Director Prof. Sarit K. Das said that the science of light-matter interaction is a very important subject of research internationally. This conference has opened up new avenues of research and discussion to prove how the science of light, photonics and related technologies is the key to sustainable development in practically all sectors including energy, agriculture and health. Experts on different subjects have discussed various possibilities of putting the research of light-matter interaction to end use.

The two-day event at IIT Ropar attracted more than 20 experts in different areas of optics & photonics

across India and also more than 50 students working in these areas, participating in the conference. Lectures on controlling atoms and molecules using ultra-fast lasers have been intensely discussed by plenary speakers. Several lectures have been given by the experts in different aspects of light-matter interactions over the two days and intense poster sessions were arranged for students to broadcast their research findings. In addition, three best student poster awards were also presented during the event. The event concluded with a lot of stimulating discussions on the future trends in the field of light-matter interactions.

STUDENTS' ACTIVITIES

Zeitgeist

Held between 18 Feb and 21 Feb 2016, Zeitgeist saw students from 50+ colleges mark their presence. It kicked off with a beautiful evening hosted by Spic Macay Chapter, IIT Ropar featuring none other than the flute maestro Padma Vubhushan Pt. Hari Prasad Chaurasia, accompanied Pt. Ram Kumar Mishra on Tabla and Vidushi Debopriya Chatterjee on flute. In true Spic Macay fashion, he not only played beautiful music but also discussed topics surrounding his childhood, his love for music and position of classical taste in today's world, in an interactive session with students and faculty. His lively demeanour and witty humour were no less than a treat, just like the music.

Following such a classy start, were the days of bustling excitement. Over 30+ colleges sent more than 300 participants to compete in various events. The band competition –Torque, music and dance competitions –Saaz, Symphony and Junoon registered huge participation. To cheer the amazing talent IIT Ropar registered largest footfall in its history. Just like last year, Yathartha - the drama competiton and Nukkad Natak gathered huge applause. The streetstyle dance competition- Smack that, proved to be a big hit. Sponsored events like Paint Ball battle, Poker night and Virtual reality filled the gaps too well. While gaming, business, literary, arts, music etc. kept students busy during day, nights featured renowned artists performing live. Bollywood singer Ganjendra Verma and Punjabi heart throb Sharry Mann, brought out the best from the crowd, they were just sensational. Rock bands Spunk!, The Light Ear and DJ Aerrero kept people grooving all night.

Two of the most cheered events of the festival were Mr. And Ms. Zeitgeist and Lashkara. Anjali Raut was a gracious judge for talented students vying for the title

of Mr. And Ms. Zeitgeist. The winners Simran and Abhishek aced the ramp walk, talent and QnA rounds and walked away with the prizes. Lashkara featured different teams putting up Fashion Shows, all trying to be unique and to stand out, while walking and posing effortlessly. Judged by Femina Miss India and Miss World 2012 finalist Vanya Mishra and Ms. Anu from Style Virus, the team from CGC Chandigarh walked away with the big prize.

Rashmi

Rashmi is the annual poetic festival of IIT Ropar celebrated with the aim to let the budding poets and connoisseurs of poetry come on stage and showcase their talent. This time the event witnessed a wide range of poetic performances covering all main genres of poetry right from comical and romantic to motivational and patriotic. The event saw some of the most creatively written poems being recited passionately by the students. Rashmi's popularity in terms of participation from students has been expanding year after year and every time. The poem recitation was followed by a brief address by the chief guest and distribution of prizes to each participant.

IBCC

The month of April also brings along with it one of the most awaited student championships of IIT Ropar – the Inter Batch Cultural Championship. In this two day mega event, students belonging to different years or batches, including B.Tech, M.Tech and PhD scholars fight tooth and nail to win the inter batch trophy. The events comprise of dance, music, literary, debating, drama and fine arts competitions. This time many fun events and inspirational talks are interspersed between these competitions most notable of them being eminent journalist Rifat Jawaid's talk on the - 'What happens when the media's priority is profit?' and distinguished writer Ravi Nawal's talk on - 'Entrepreneurship and Indian youth'. At the end of this two day championship, results of the competitions were declared and congratulations were showered on the students of 2015 batch for bagging the IBCC'16 trophies.

PunjRobotics

To provide an active interaction and networking forum for the academicians and researchers working in Robotics field in the region around IIT Ropar, a two-day Robotics meet was organized on January 16-17, 2016 by PunjRobotics group, in association with Robotics club, IIT Ropar. Keeping in view the major application areas for Indian Robotics, five sessions (Medical, Defense and Security, Agriculture, Industrial and Robotics Education) were planned. Expert talks and research work presentations in these areas were the main features of the event. The invited experts who shared their experienced views were - Prof. Gurvinder Virk (University of Gavle, Sweden), Prof. S. K. Saha (IIT Delhi), Sh. Alok Mukherjee (Head, Robotics Center, DRDO Pune), Dr. Sanjeev Soni (CSIR Lab, Chandigarh), Dr. Dinesh Pal (DRDO Chandigarh), Dr. Swagat Kumar (TCS, Robotics Division, New Delhi), Prof. P. M. Pathak (IIT Roorkee), Prof. Sandipan Bandhopadyay (IIT Madras).Issues related to academic, professional and innovation activities in robotics, building on our strengths, linkages to regional, national, and international activities were discussed.

RSI Students' Chapter

The students' chapter of RSI (Robotics Society of India) was inaugurated during PunjRobotics workshop on January 16, 2016. Nearly 50 students have joined the society and have planned annual activities for the upliftment of RSI and the Robotics field, in general.

Design Exhibition

IIT Ropar hosted a design exhibition on November 17, 2015. The participating departments were Mechanical, Electrical and Computer Science. 62 students under the guidance of Dr. Prabir Srakar and 81 students under Dr. Rohit Sharma displayed their products and outcomes. Further this event was supported by Dr. Nitin Auluck and Dr. Apurva Mudgal of Department of Computer Science. Prof. S.K. Das, Director of IIT Ropar, was very enthusiastic and he awarded six prizes for the students whose designs were selected. The cash prize given was Rs. 30,000, Rs. 20,000 and Rs. 10,000 as first, second and third prizes respectively. Additionally, three special prizes of Rs. 5000 each were given. Mr. Bhogal, Chairman CII, Chandigarh, Mr. Dinesh Dhiman, GM, Design & Development, DCM Ropar, Mr. Gurharminder Singh, Senior Scientific Officer (Environment) & Incharge (PIC & IPFC), PSCST, Chandigarh, Govt. of Punjab and Mr. A.K.Saini, Group Director, Electronic System Group from SCL, DO Space, GOI acted as the judges for selecting the prizes.

Republic Day

The Republic Day was celebrated with the unfurling of the national flag by the Director. In his speech Director mentioned the significance of the day to students and staff. Students, faculty and staff gathered on the occasion and celebrated the day with patriotic fervor. A 'Sadbhavna Daud' was also organised on this occasion.

Lohri

The festival of Lohri was celebrated with the great enthusiasm & energy by the students and residents of IIT Ropar. Students gathered around bonfire and distributed sweets.

Aarohan - Institute's Sports Day

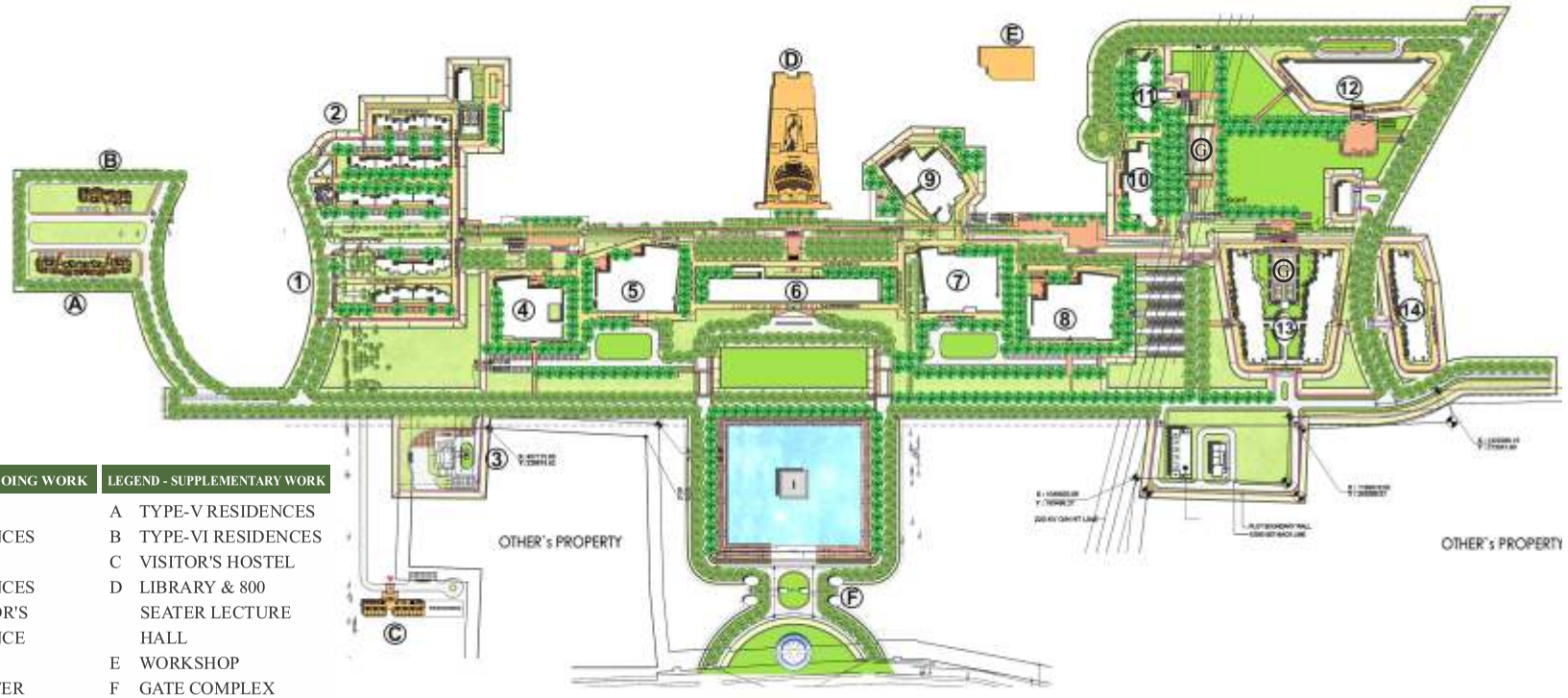
Aarohan, the first annual sports day was celebrated at IIT Ropar on February 18, 2016. The Chief Guest for the day was Ex Hockey Olympian, Arjuna Awardee Shri Surinder Singh Sodhi IPS (presently IG Punjab Police Patiala). The ceremony started with the welcome of Chief Guest and Prof. S. K. Das, Director IIT Ropar on the stage followed by welcome speech by Dr. Prabal Benerjee, Associate Dean, Students Affairs. The Chief Guest and Director IIT Ropar shared their experiences on the importance of sports in student life and encouraged students for larger participation in various sports activities.

On this occasion, IIT Ropar invited Football team of IISER Mohali, Basketball team of Chandigarh University and Volleyball team of Youth Welfare Club Ropar to play friendly matches with IIT Ropar sports teams.

The Chief Guest and Director IIT Ropar, distributed the prizes to the visiting teams and IIT Ropar Inter Year Sports Champions of Athletics, Basketball, Badminton (boys & girls), Chess, Cricket, Football, Table Tennis, Tennis and Volleyball. The ceremony ended with the vote of thanks by Dr. Prabhat Kumar Agnihotri.

Indian Institute of Technology has been awarded with 5 star GRIHA rating.

Master Plan of IIT Ropar



LEGEND - ON GOING WORK	
1	TYPE-II RESIDENCES
2	TYPE-IV RESIDENCES
3	DIRECTOR'S RESIDENCE
4	DEPT. OF COMPUTER SCIENCE & ENGG.
5	DEPT. OF ELECTRICAL ENGG.
6	ADMIN BUILDING
7	DEPT. OF MECHANICAL ENGG.
8	DEPT. OF CHEMISTRY
9	LECTURE HALL
10	UTILITY BLOCK
11	GIRLS HOSTEL
12	DINNING HALL
13	BOYS HOSTEL-1
14	BOYS HOSTEL-2

LEGEND - SUPPLEMENTARY WORK	
A	TYPE-V RESIDENCES
B	TYPE-VI RESIDENCES
C	VISITOR'S HOSTEL
D	LIBRARY & 800 SEATER LECTURE HALL
E	WORKSHOP
F	GATE COMPLEX
G	PLAY FIELD

INFRASTRUCTURE & FACILITIES

CENTRAL LIBRARY

Introduction

Central Library of IIT Ropar plays a pivotal role in support of academic and research activities at the institute. The main functions of the library include acquiring, processing, preserving and dissemination of print and electronic information resources. The objective of the library is to fulfill the academic and research requirements of users by providing access to quality resources with appropriate delivery systems and services in order to support the institute to achieve excellence in teaching, learning, research and community services.

Collection development

Collection building is one of the important functions of the library, which supports academic and research activities of the students, faculty, staff and other users.

The Library has developed its collection by acquiring latest books, journals, reports and other reference and information resources in science, engineering, technology, humanities and social sciences during the year. The Library is holding an excellent print collection of over 13000 documents which includes various resources such as dictionaries, handbooks, encyclopedias, reports of research monographs, multi-volume reference works etc. and books on general reading. Apart from this, the library collection also includes CDs/DVDs, e-journals, annual reports, standards and pamphlets in areas of science, engineering, technology, humanities and social sciences. In the financial year 2015-16, the library added 1271 new books to its collection.

Electronic resources

The Central Library facilitates online access to thousands of e-journals through direct subscription and participation in consortia, such as E-Shodh Sindu. The library also provides online access to bibliographic, abstracting and scientometric databases such as Scopus, Web of Science and MathSci.Net. The library subscribes to the following electronic and print resources.

Full-Text Electronic Journals and Books:

- Acta Arithmetica
- American Chemical Society (ACS) Digital Archive and Current Journals
- American Institute of Physics (AIP) Digital Archive and Current Journals
- American Mathematical Monthly
- American Mathematical Society selected Journals
- American Naturalist
- Annual Reviews
- American Physical Society (APS) Journals
- American Society of Mechanical Engineers (ASME) Digital Archive and Current Journals
- Association for Computing Machinery (ACM) Digital Library
- ASTM COMPASS
- Cambridge University Press (CUP) selected Journals
- Canadian Journal of Mathematics
- IEEE/IEL Electronic Library (IEL) Online
- Institute of Mechanical Engineers (IMech E) Digital Archive
- Institute of Physics (IoP) Science Digital Archive and selected current Journals
- Journal of Biomedical Optics from International Society for Optics & Photonics (SPIE)
- Journal of the European Mathematical Society
- JSTOR
- Nature selected Journals
- Optical Society of America (OSA) Online
- Oxford University Press (OUP) Mathematics and Physical Sciences Journals
- Proceedings of National Academic Sciences (PNAS)
- Project MUSE

- Publications Mathematicae
- Royal Society Proceedings A: Mathematical, Physical and Engineering Sciences
- Royal Society of Chemistry (RSC) Digital Archive and selected current Journals
- SAE Selected Journals
- ScienceDirect Journals
- Science Online
- Springer Lecture Notes in Physics
- Springer Online Journals
- Thieme selected Journals
- Walter de Gruyter selected Mathematics Journals
- World Scientific selected Mathematics Journals

Bliographic, Abstracting and Scientometric databases:

- MathSciNet
- Scifinder
- Scopus
- Web of Science

Print Resources:

- AAAS/Science
- Auto India
- Current Science
- Data Quest
- Economist, The
- Electronic for You
- Frontline
- National Geographic
- PC Quest
- Reader Digest
- Time
- Week, The

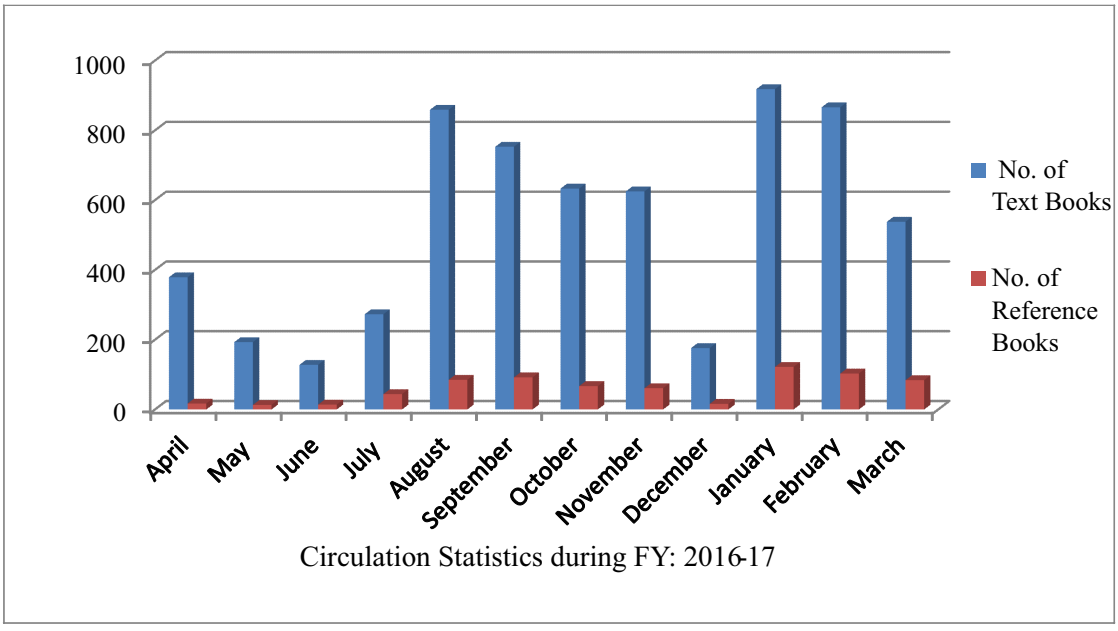
Library services

The library currently provides following services on regular basis:

a) Circulation and Consultation Service

The library circulation operations are automated using LIBSYS-7 software. During the academic year 2015-16, total of 17690 documents were issued/consultations handled at circulation desk to all categories of users. The graph below well depicts the circulation history of text and reference books during financial year 2015-16:

Statistics of Text Books and Reference Books issued/returned/consulted during FY: 2015-16



Circulation Statistics during FY: 2016-17

Document Type	Circulation	Renewal	Sub-Total	% age
Text Books	14383	1336	15719	88.86
References Books	1715	256	1971	11.14
		Total	**17690**	**100.00**

b) Reference Service

The library has a separate reference section meant for in-house reading with a seating capacity for 120 students. Reference queries are responded immediately by qualified library professionals on one-to-one and e-mailing basis.

c) Reprographic Facility

During the financial year 2015-16 the library has installed a multipurpose photocopier to provide printing/photocopy/scaning facilities to the user community with the nominal charges.

d) Library OPAC (Online Public Access Catalogue)

The OPAC is one of the most widely used services of the library and it is accessible 24X7. The Library OPAC, besides listing all the documents available in the library, allows on-line status of an individual's account, i.e. checkout status and circulation history, reservation of desired documents, and current status of a particular book. OPAC is searchable by author, title, publisher, subject and with the several other fields.

Apart from above, the OPAC also enables users to browse electronic journals (title, publisher wise) subscribed by the Institute.

e) Institutional Digital Repository (IDR)

Library has developed Institutional Digital Repository (IDR) using D-Space open source software which preserves the research output of the institute such as theses and dissertations, project reports, research articles which are out of copyrights and also it preserves the institute publications.

f) News Portal of IITs

The library taken an initiative to bring all IIT related news (old and new IITs) at one place through the uniquely developed "IITs News Portal". It is an openly accessible portal where anyone can find IIT related news published in leading newspapers with the institute wise searching facility.

g) e-Resources Lab

A separate facility of digital lab is also provided for users in order to access online full-text journals and 5000+ e-books.

Staff

The library has a team of talented officers and staff who perform their duties very well, and are always appreciated by our users for their ability, enthusiasm and honesty with which they serve them.

Staff Pattern

The Central Library is managed by well qualified and experienced professionals. The present status of the staff managing the library is as follows:

Sr. No.	Designation	Strength
1	Deputy Librarian	1
2	Assistant Library & Information Officer (on contract)	1
3	Sr. Library & Information Assistant	2
4	Library Attendant (Contract)	1

Publications

In addition to their regular duties, the library staff members are also engaged in various academic activities like attending workshops, presenting papers in seminars and conferences and publishing book chapters etc. Some of the publications and other activities are listed below:

Book chapters

1. Kaur, H. (2015). Role of Digital Libraries in Present Era: Challenges and Issues. In Thanuskodi, S. (Ed.), Inventive Digital Tools for Collection Management and Development in Modern Libraries, IGI Global Publishers, USA, pp. 86- 102.

Paper presentation/ Conference proceedings

1. Tarvinder Singh Handa has contributed a paper titled 'An Overview of INDEST-AICTE Consortium with special Reference to Punjab' in a "3rd Day National Conference on Emerging Technologies in Libraries" jointly organized by Chandigarh Librarian's Association and Dev Samaj College for Women, Chandigarh on October 16, 2015, pp. 159-163.
2. Harpreet Kaur has contributed a paper titled "Marketing of Information Products and Services" in a "3rd Day National Conference on Emerging Technologies in Libraries" jointly organized by Chandigarh Librarian's Association and Dev Samaj College for Women, Chandigarh on October 16, 2015.

Awards & Honors

Harpreet Kaur

1. Manohar Research Award for paper in the International Conference on "Institutional Repository and Open Source Software: An Overview" International Conference on Innovations in Library Information Science, Social Science and Technology (ICCLIST' 2016') For Virtual World through Web Conferencing on January 15. 2016.

Tarvinder Singh Handa

2. Rapporteur in Technical Session II of XXXI IATLIS National Conference on the theme of "Hundred Years of LIS Education and Library Services in South Asia: Perceptions and Directions" jointly organized by the IATLIS and A.C. Joshi Library, Panjab University, Chandigarh during November 20-21, 2015.

GUEST HOUSE

The Institute's guest house is conveniently situated adjoining the residential area of the campus. The main guest house has six rooms with en suite facilities, garden, badminton court etc., while the other guest houses have three rooms each, along with lounge and dining facilities for special occasion. All the rooms of guest house are equipped with modern facilities for comfortable stay of our guests.

MEDICAL CENTER AND HOSPITAL

The Institute has medical center adjacent to hostel complex with extended OPD hours. To attend any medical emergency in the campus a doctor, a pharmacist and a nurse is available 24x7. Facilities of ECG, NIBP, oxygen saturation, blood sugar monitor and Fetal hearts Doppler monitor are provided. IIT Ropar has medical empanelment with the major hospitals of Chandigarh & Mohali. E-Awareness of various contagious and noncontagious diseases and various alerts and preventive measures is done through emails for campus fraternity.

HOUSING

IIT Ropar campus has 46 modern style apartment units in two separate one or two storey buildings and 4 bungalows with round the clock security & all standard facilities. The campus has 100 Mbps dedicated internet line serving residential area. The residential buildings have a children play area & parking facilities.

BANK

State Bank of India assists and takes care of the financial requirements of students, staff and faculty members of IIT Ropar. The bank also provides ATM facility on campus.

CRÈCHE

Crèche (Day care) facility was started at IIT Ropar in September 2012 to take care of the children of staff and faculty. The center caters to kids in the age group of 1 – 8 years and provides services. It is also equipped with basic essentials to provide a safe and healthy environment. IIT Ropar parents can experience invaluable peace of mind when it comes to their kids' well-being!

CAFETERIA

The institute cafeteria is a relaxing place exhibiting decorated walls with views of the outdoors and lots of natural light. It provides nutritious, quality food service at a reasonable cost with an opportunity to interact & discuss national & international issues under dense tree cover with a cup of tea or coffee!

TRANSPORT SERVICES

IIT Ropar has multiple buses plying up to Mohali & Chandigarh daily. This facility is used by faculty members and staff who live off campus for their daily commute. It is additionally used to take students to industrial visits.

CONTACT INFORMATION

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