



॥ त्वं ज्ञानमयो विज्ञानमयोऽसि ॥

# ANNUAL REPORT 2016-17

Indian Institute of Technology Jodhpur

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# Annual Report

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## 2016-17

**Indian Institute of Technology Jodhpur**

NH 65, Nagaur Road, Karwar, Jodhpur 342037

### Editorial Board

**Deepakkumar M. Fulwani**, Coordinator (Faculty)

**Atul Kumar**, Coordinator (Academics)

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## Preface

Into the *eighth* year of its existence, the Institute has taken yet another step forward by forming three new departments. They are the Departments of *Chemical Engineering*, *Civil Engineering* and *Materials Engineering*. Selection of Faculty Members is underway for these new departments. Also, in line with the vision of the Institute, the Department of *Biology* has been renamed as the Department of *Bioscience and Bioengineering*.

In terms of academics, the Institute is steadily marching forward with its education programs at the four levels, namely B.Tech., M.Sc., M.Tech., and Ph.D. Programs. With the formation of three new departments in this year, it is hoped to roll out new streams of B.Tech., M.Tech. and Ph.D. Programs in these areas too, in the years to come. And, on the research front, the number of sponsored projects increased from 47 to 53, this year. There is an increase in total number of research publications as well,

from 112 of previous year to 124 this year, with journal papers increasing from 75 to 89.

At the pinnacle of the events of the year, the 3rd Convocation of IIT Jodhpur was organized on 8 December 2016 – 157 students received degrees at the B.Tech., M.Tech. and Ph.D. levels for their hard work and dedication, and for the sacrifices of their parents. The major event on which the eyes of *entire* IIT Jodhpur community are set and hopes pinned, is our movement into the *Permanent Campus*. Most of the buildings of Phase I construction are moving towards the completion stage. The migration is slated to take place during July – August 2017.

11 new Faculty Members and 9 new Staff Members joined the IIT Jodhpur fraternity during the year. With this new energy, it is hoped that the Institute will begin the run for new academic initiatives in a deeper sense...

C. V. R. Murty

# IIT Jodhpur

## Vision, Mission & Core Values

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### VISION

#### The Institute shall

- (1) Promote technology thought and action, and
- (2) Prepare needed technical human resources to meet the technology challenges of the nation.

### MISSION

#### The Institute shall

1. Create a vibrant technology institute that incubates and promotes learning, research, invention and eventually innovation; and
2. Prepare each primary stakeholder towards their dharma, while continuing to adhere to its core values:
  - a) Prepare competent Technology Graduates ready to meet Grand Challenges of India;
  - b) Train active functionaries of a process driven professional institute;
  - c) Facilitate builders of an internationally competitive academic institute; and
  - d) Provide technology innovation as a force to as many industries as possible for economic value creation.

### CORE VALUES

The Institute stands for a set of core values, wherein each member of the IIT Jodhpur community shall

- (1) Uphold highest levels of human integrity and dignity;
- (2) Not take unfair advantage of any stakeholder of the Institute;
- (3) Work towards building the most admired technology Institute furthering interests of Students, Industries and Society;
- (4) Commit to economic development of India through technological thought and action;
- (5) Be ethical, sincere and open in all transactions; and
- (6) Be continually responsible for upholding utmost confidentiality of all information and circumstances arising out of any interaction.

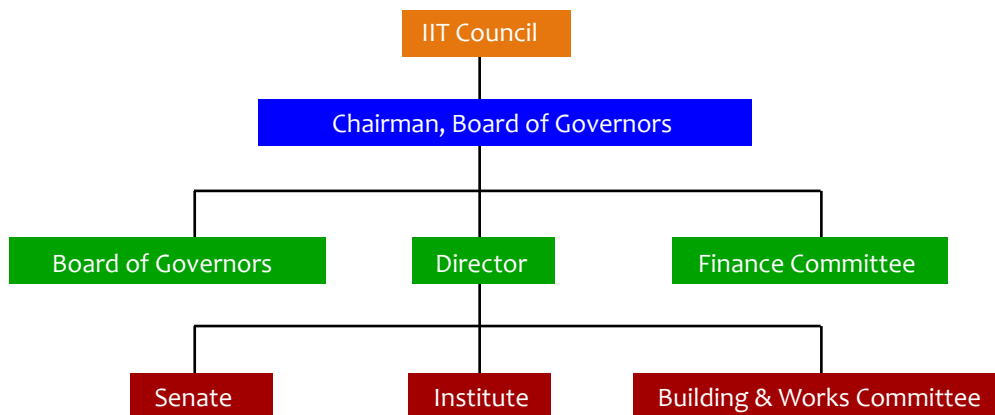


# Organization

## Organizational Structure

Under the broad umbrella of IIT Council, IIT Jodhpur functions under the guidance of the following statutory bodies.

- (1) Board of Governors;
- (2) Finance Committee;
- (3) Senate; and
- (4) Buildings & Works Committee.



Member details of these Statutory Bodies are given in the pages to follow.

## Board of Governors

### Chairman

**1. Professor C. V. R. Murty**

Director

IIT Jodhpur

Old Residency Road, Ratanada, Jodhpur 342011

**2. Director (Ex-officio)**

**Professor C. V. R. Murty Director**

IIT Jodhpur

Old Residency Road, Ratanada, Jodhpur 342011

### Member-Nominees of the IIT Council

**1. Professor Pankaj Chandra**

Former Director

Indian Institute of Management Bangalore 560076

**2. Professor N. S. Vyas**

Chairman, Technology Mission for Indian Railways Ministry of Railways

Government of India New Delhi 110001

**3. Mr. Kiran Karnik**

Former President, NASSCOM S-315 Panchsheel Park

New Delhi 110017

**4. Mr. D. R. Mehta**

Founder & Chief Patron

Bhagwan Mahaveer Viklang Sahayata Samiti 13A-Gurunanak Path

Main Malviya Nagar Jaipur 302017

### State Government Nominee

**1. Principal Secretary**

Higher & Technical Education Main Building Secretariat Government of Rajasthan Jaipur 302005

# Finance Committee

## Chairman

**1. Professor C. V. R. Murty**

Director  
IIT Jodhpur  
Old Residency Road, Ratanada, Jodhpur 342011

## Members

**1. Professor C. V. R. Murty**

Director  
IIT Jodhpur  
Old Residency Road, Ratanada Jodhpur 342011

**2. Additional Secretary (Technical Education)**

Department of Higher Education  
Ministry of Human Resources and Development Government of India  
Shastri Bhawan New Delhi 110001

**3. Financial Advisor**

Department of Higher Education  
Ministry of Human Resources and Development Government of India  
Shastri Bhawan New Delhi 110001

**4. Mr. G. S. Sood,**

IDAS House No. 1090 Sector 29  
Faridabad 121008

**5. CA S. S. Bhandari**

Director, Non-Executive Director on the Board Bank of Baroda  
P-7, Tilak Marg, C-Scheme Jaipur 302005

**6. Dr. Gaurav Harit**

Assistant Professor  
Indian Institute of Technology Jodhpur Jodhpur 342011

## Senate

**Professor C. V. R. Murty**

Chairman

**Professor Pratap Bhanu Mehta**

Member

(Nominee of Board of Governors)

**Professor H. P. Khincha**

Member

(Nominee of Board of Governors)

**Professor Sanjeev Misra**

Member

(Nominee of Board of Governors)

### Members

Coordinator (Faculty)

Coordinator (R&D)

Coordinator (Academics)

Coordinator (Students)

Head, Department of Biosciences & Bioengineering

Head, Department of Chemistry

Head, Department of Computer Science & Engineering

Head, Department of Electrical Engineering

Head, Department of Humanities & Social Sciences

Head, Department of Mathematics

Head, Department of Mechanical Engineering

Head, Department of Physics

Chairman, Wardens Committee

Chairman, Library Committee

Laboratory In-Charge, Workshop

# Buildings and Works Committee

## Chairman

**1. Professor C. V. R. Murty**

Director  
IIT Jodhpur  
Old Residency Road, Ratanada, Jodhpur 342011

## Members

**1. Ms. Usha Kasana**

Chief Architect  
Public Works Department Government of Rajasthan Jacob Road, Civil Lines Jaipur 302006

**2. Mr. R. K. Govil**

Additional Director General Civil (Retd.), CPWD 26, Ankur Apartments  
7, I.P. Extension  
Delhi 110092

**3. Mr. V. K. Bansal**

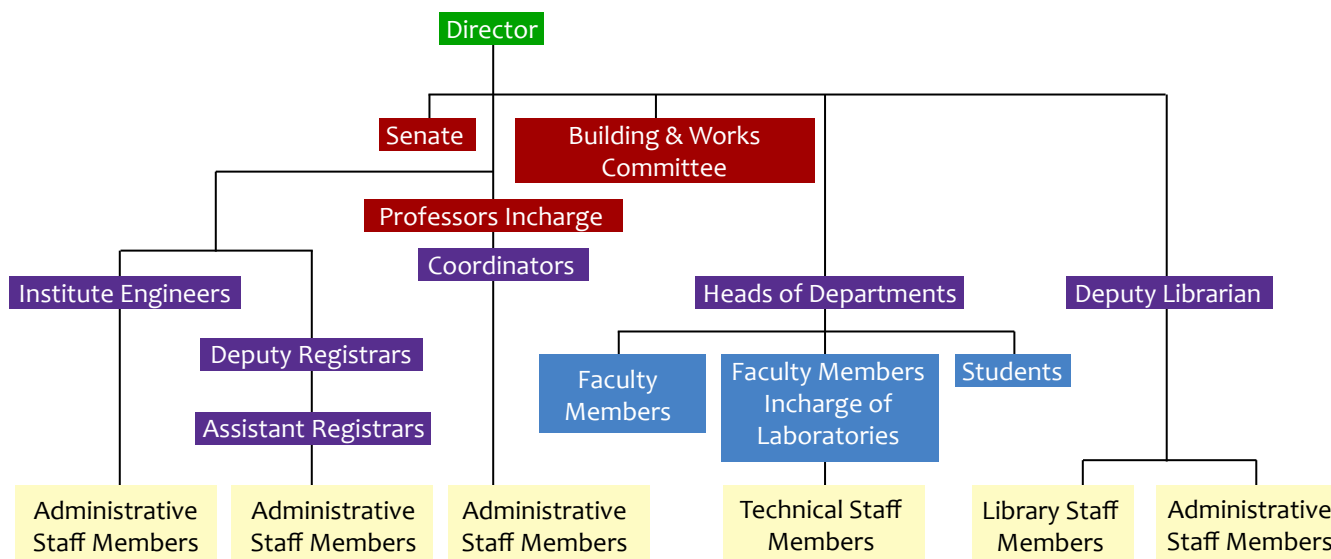
Chief Engineer Electrical (Retd.), CPWD 721 Sky Lark Apartment,  
Sector-6, Plot No.35, Dwarka New Delhi 110075

**4. Dr. B. Ravindra**

Associate Professor  
Indian Institute of Technology Jodhpur Jodhpur 342011

## Key Functionaries

The Institute has organized its activities through various key functionaries, as depicted in the organogram below.



Details of various key functionaries of the Institute are as follow.

### Director

**C. V. R. Murty**

### Coordinators

**Deepakkumar M. Fulwani**, Faculty

**V. Narayanan**, Research & Development

**Atul Kumar**, Academics

**C. V. R. Murty**, Students

**Kaushalkumar A. Desai**, Laboratory In-Charge, Workshop

### Heads of the Departments

**Venkata Ramana Badarla**, Computer Science & Engineering

**Anil K. Tiwari**, Electrical Engineering

**B. Ravindra**, Mechanical Engineering

**Sushmita Jha**, Bioscience & Bioengineering

**Rakesh Kumar Sharma**, Chemistry

**Kirankumar R. Hiremath**, Mathematics

**Subhashish Banerjee**, Physics

**Vidya Sarveswaran**, Humanities & Social Sciences

### Convenors of Focus Groups

**Sushmita Jha**, Biologically Inspired System Science

**V. V. M. S. Chandramouli**, System Science

### Professors In-Charge

**Ashish Garg**, Faculty

**Navratan Mal Bhandari**, Research & Development

## Chairman / Chairperson

**Samanwita Pal**, Wardens Committee  
**P. Manikandan**, Student Placement Committee  
**Satyajit Sahu**, Medical Services Committee  
**Satyajit Sahu**, Library Committee  
**V. V. M. Sarma Chandramouli**, Logistics Committee  
**V. V. M. Sarma Chandramouli**, Scholarships and Prizes Committee  
**Anand Krishnan Plappally**, Alumni, Relations Committee  
**Ankita Sharma**, Counselling Services Committee

## Officers

**Gaurav Harit**, Chief Vigilance Officer  
**Gaurav Bhatnagar**, Transparency Officer  
**Puneet Sharma**, Hindi Officer  
**Mahesh Kumar**, Green Initiative Officer  
**Satyajit Sahu**, Nodal Officer for OBC, PwD, and Minorities  
**Barun Pratiher**, Nodal Officer for SC and ST  
**Kshema Prakash**, Women Cell Officer  
**Amardeep Sharma**, Public Relations Officer  
**Sanjeeb Mukherjee**, Infrastructure Engineer  
**Amardeep Sharma**, Infrastructure Manager  
**Ashok Kumar Khanduri**, Central Public Information Officer

## Academic Committee

Coordinator (Academics) Chairman

### Members

Head, Department of Computer Science & Engineering  
 Head, Department of Electrical Engineering  
 Head, Department of Mechanical Engineering  
 Head, Department of Bioscience & Bioengineering  
 Head, Department of Chemistry  
 Head, Department of Mathematics  
 Head, Department of Physics  
 Head, Department of Humanities & Social Sciences  
 Convener (Focus Group Biologically Inspired System Science)  
 Convener (Focus Group System Science)  
 Liaison Officer (SC/ST Cell)

### Student Representatives

Secretary, ARA Society, Students Gymkhana  
 Three Student Representatives from ARA Society, Students Gymkhana  
 (one each from B.Tech., M.Tech. and Ph.D. Programs)

# Departments and Associated Faculty Members

The Institute has organised its academic activities to be conducted through eight Departments, and two Focus Groups. They are:

## I. Departments

1. Bioscience & Bioengineering,
2. Chemistry,
3. Computer Science & Engineering,
4. Electrical Engineering,
5. Humanities & Social Sciences,
6. Mathematics,
7. Mechanical Engineering, and
8. Physics

## II. Focus Groups

1. Biologically Inspired System Science, and
2. System Science.

The Institute welcomed 11 new Faculty Members into the IIT Jodhpur community. Details of Departments and associated Faculty Members are given in the pages to follow.

Additionally, this year, three new departments have been formed in the Institute, namely:

- (1) Department of Chemical Engineering,
- (2) Department of Civil Engineering, and
- (3) Department of Materials Engineering.

Also, the Department of Biology has been renamed as the Department of Bioscience & Bioengineering. Recruitment of Faculty Members for the new departments is underway.







## Department of Bioscience & Bioengineering

The new Department of Bioscience & Bioengineering (formerly Department of Biology) is planned to be the hub at IIT Jodhpur of biological sciences, medical sciences, and technology. It aims at providing quality education, and undertaking research towards addressing the national needs (especially those leading to development of technologies for diagnostics and treatment by medical professionals). The Department of Bioscience & Bioengineering is looking for Faculty Members, whose competence spans over a wide range of domains needed to meet the national needs.

The Department is planning to offer B.Tech. (Biotechnology), M.Tech. (Bioscience & Bioengineering) and Ph.D. Program with specialisation in biological sciences, medical sciences, technology, and their interfaces. The department will offer a wide range of courses from foundational level to advanced level in the said domains for the various degree programs. Hands-on learning will be emphasized using state-of-the-art centralized research facilities.

The Department of Bioscience & Bioengineering will focus on collaboration, both within and outside the Institute, to enhance research potential and productivity. In particular, special effort is being made to interact with Faculty Members of the All India Institute of Medical Sciences (AIIMS), Jodhpur, towards developing technologies that are needed by the medical profession.

Following are the Faculty Members associated with the department:

Name	Research Areas
 Sushmita Jha <i>Head of Department</i>	Cellular and Molecular Neuroscience, Cell and Molecular Physiology
 Amit Kumar Mishra	Cellular and Molecular Neuroscience, Cell Cycle Regulation and Cancer
 Meenu Chhabra	Biological Science & Bio-Engineering: Renewable Bioenergy Bioremediation
 Sushmita Paul	Computational Biology and Bioinformatics

## Department of Chemistry






Chemistry at IIT Jodhpur is where Chemistry sees Technology. At IIT Jodhpur, Chemistry embraces a distinctive locus in science and technology collaboration. The department is making technological contribution to new materials for energy solutions, catalysis and water. Fundamental understanding of chemical dynamics, biological phenomena, Nuclear Magnetic Resonance and Quantum Chemistry are growing in prominence. The vision of the Department of Chemistry is to strive to be acknowledged for excellence in teaching, research, and outreach. The following Faculty Members are associated with the department:

Name	Research Areas
 Rakesh Kumar Sharma <i>Head of Department</i>	Catalysis for Energy and Stereocontrol, Feedstock Chemistry, Fuel and Lubricants, Energy Storage and Water Treatment Technology
 Ananya Debnath	Theoretical and Computational Chemistry
 Atul Kumar	Quantum Information Processing
 Manikandan Paranjothy	Theoretical and Computational Chemistry, Chemical Reaction Dynamics
 Ritu Gupta	Nanomaterials & Nanodevices for Water, Energy and Healthcare
 Samanwita Pal	Solution and solid state NMR and NQR spectroscopy
 Ramesh K. Metre	Main-group organometallic chemistry, Coordination polymers, Inorganic-organic hybrid materials and Metal phosphonate and phosphate chemistry

## Department of Computer Science & Engineering

The Department offers B.Tech. (Computer Science & Engineering) and Ph.D. Program with specialisation in Computer Science & Engineering. It has some state-of- the-art laboratory and research facilities.

Following are the Faculty Members associated with the department:

Name	Research Areas
 Venkata Ramana Badarla <i>Head of Department</i>	Wireless Networks, and Cloud Computing
 Gaurav Harit	Image and Video Analysis
 Chiranjoy Chattopadhyay	Computer Vision
 Aritra Banik	Computational Geometry
 Manas Khatua	Wireless Networks





The department also has an Adjunct Faculty Member, Professor Venkatesh Raman from Institute of Mathematical Sciences, Chennai.

## Department of Electrical Engineering

The Department offers B.Tech. (Electrical Engineering), M.Tech. (Electrical Engineering) and Ph.D. Program with specialisation in Electrical Engineering. It has some state-of-the-art laboratory and research facilities.

The following Faculty Members are associated with the department:

Name	Research Areas
 <p>Anil Kumar Tiwari Head of Department</p>	<p>Electrical Engineering: Image Processing, Video Processing, and Signal Processing application in Bio-Medical</p>
 <p>Abdul Gafoor Shaik</p>	<p>Protection of various components of Power System, Protection of Distribution Network with DG penetration, Power Quality assessment and mitigation in Distribution Networks with Renewable Energy Source penetration</p>
 <p>Arun Kumar Singh</p>	<p>Communication Theory, Wireless and Mobile Communications, Satellite based Navigation Systems, Spread Spectrum Systems</p>
 <p>Deepakkumar M. Fulwani</p>	<p>Control and state estimation of uncertain systems, Power system, Control issues in wind energy conversion system</p>
 <p>Mahesh Kumar</p>	<p>Group III-V quantum structures by MBE, Growth of thin films and nanostructures, Group III-nitride alloys for LEDs, HEMTs and photovoltaic applications, Inorganic-Inorganic hybrid structures with special attention to band gap engineering, Si and wide band gap semiconductors for MEMS, Micro and Nano device fabrications</p>
 <p>Sandeep Kumar Yadav</p>	<p>Signal Processing, Condition Monitoring, Image Processing, Data Compression, Blind Source Separation, Artificial Neural Network</p>

Name	Research Areas
 Shree Prakash Tiwari	Microelectronics & VLSI Technology, Microfabrication, Organic Electronics, Device Physics and Characterization, New Device Structures
 Rajlaxmi Chouhan	Image processing, Noise-aided image processing using Stochastic Resonance, Image enhancement, Digital watermarking, Image quality assessment
 Mahima Arrawatia	Antenna Design, Microwave circuits and RFIC design
 Soumava Mukherjee	Microwave Communication







The department also has a Scholar-in-Residence, Professor R. K. Shyama Sunder, who is a Senior Professor and J. C. Bose National Fellow at Tata Institute of Fundamental Research, Mumbai.

Kota V. Murali, Chief Technologist, Semiconductor Research and Development Center, IBM India, Bangalore is associated with the department as an Adjunct Faculty Member.

## Department of Humanities and Social Sciences

The Department of Humanities and Social Sciences operates from spaces that give us an opportunity to act as an interface between empirical and experiential knowledge systems. Playing a significant role in the academic curriculum of the young engineers, we offer both core and elective courses at the Bachelors, Masters, and Doctoral levels. The ability to provide tools and skills for specific aims notwithstanding, the essence of Humanities and Social Sciences involves the sensitizing of individuals. Acting as facilitators, thus, we engage in meaningful interactions with students and help them witness, study, and understand the interplays among technology, society, and humanity. This task assumes even more significance in an educational context where the brightest young minds of India come together.






With Faculty Members who specialize in diverse disciplines (including Philosophy, Economics, Psychology, and Literature) and with students from a spectrum of backgrounds, the Department provides an enriching platform -where technical education can be complemented with human and social understanding. Following are the faculty members associated with the department:

Name	Research Areas
 Vidya Sarveswaran <i>Head of Department</i>	English: Literature and Environment (Ecocriticism), Film and Literature, Literatures of the Global South, Regional Literatures in Translation, American Literature
 Ankita Sharma	Psychology: Gerontology, Clinical and Positive Psychology
 K. J. George	Philosophy: Applied Ethics, Ethics of Technology, Bioethics
 Rijo M. John	Economics: Health Economics, Health Policy, Applied Econometrics, Development Studies
 V. Hari Narayanan	Philosophy: Cognitive Studies, Evolutionary Theory, Analytic Philosophy and Mindfulness
 Mayurakshi Chaudhury	Sociology/Sociocultural Anthropology: Gender Studies; Postcolonial South Asia; International and Transnational Migrations, Qualitative Research

## Department of Mathematics

Mathematics, being the basis of many disciplines, is a subject that evolves with time and creates new theories and models to solve challenging problems of today. Since its inception, the department has been taking a leading role in developing new methods and models that can be used in diverse areas of computer science, engineering and basic sciences. The department has faculty with research interests in the areas of Mathematical Physics, Scientific Computation, Numerical Analysis, Differential Equations, Topological Dynamics, Low Dimensional Chaos, Dynamical Systems, Renormalization in Low-dimensional dynamics, Wavelet Analysis, Fractional Transform Theory, Image Processing, Financial Risk Analysis, and Categorical Data Analysis.

The department offers at undergraduate and postgraduate levels. It runs a four year B.Tech. Program in System Science, and a Ph.D. Program with specialization in different areas of Mathematics. Following are the Faculty Members associated with the department:

Name	Research Areas
 Kirankumar R. Hiremath <i>Head of Department</i>	Theoretical, mathematical and computational aspects of wave-matter interactions
 Gaurav Bhatnagar	Wavelet Analysis, Fractional Transform Theory, Multimedia Security, Image Processing, Information Fusion
 Puneet Sharma	Topological Dynamics, Low Dimensional Chaos
 V. V. M. S. Chandramouli	Smooth Dynamical Systems, Renormalization of Unimodal maps and Henon-like maps
 Vivek Vijay	Financial Risk Analysis, Categorical Data Analysis, Regression

## Department of Mechanical Engineering

The desire to contribute to national and global causes such as the solar mission and climate change is at the heart of the academic activities carried out within the Department of Mechanical Engineering. Several application domains of interest in Mechanical Engineering (such as solar energy, automotive technologies and health) motivate Students, Staff Members and Faculty Members.

The B.Tech. Program in Mechanical Engineering commenced in 2008, since the inception of the Institute. Since then three batches have graduated and most of the Alumni are pursuing successful careers in the industry. Some of them have chosen to pursue higher studies in India, Europe and the United States of America.








During the last six years, several collaborative projects have been initiated with a number of industries and research laboratories across India (such as Thermax, Sunborne, Areva, STEAG, BHEL, IOCL, ONGC, BARC, and NFTDC) to pursue research and development in the area of mechanical engineering.

To respond to the diverse needs of students, broad based Bachelors and Masters Programs in Mechanical Engineering are being designed, with scope to let students specialize in interdisciplinary as well as sub-domains of Mechanical Engineering. A Doctoral Program is underway in the Department. Currently, about 10 Ph.D. students are pursuing research in thermal, design and manufacturing streams of Mechanical Engineering. The main objective of the academic programs is to build capacity and capability necessary to make the nation competitive in the globalized world. Also, the students are being made aware of professional skills, such as seeking patentable innovations, taking up technology transfer tasks and active collaboration with industrial partners.

The following Faculty Members are associated with the department:







Name	Research Areas
 B. Ravindra <i>Head of Department</i>	Design, Dynamics, Vibration and Control
 Akshay Prakash	Computational Fluid Dynamics
 Anand Krishnan Plappally	Water, Water Management and Characterization of Engineered Materials
 Barun Pratiher	Dynamics of Machines and Structures, Flexible Robots, MEMS, Rotor Dynamics, Nonlinear Oscillations




Name	Research Areas
 Kaushalkumar A. Desai	Modeling of Manufacturing Processes, CAD/CAM, CNC Machining, Error compensation
 Laltu Chandra	Solar thermal sub-systems (open volumetric air receiver, thermal energy storage, air-water heat exchanger), Thermal hydraulics, Turbulence simulation (DNS/LES/HYBRID/RANS) & model development, Computational Fluid Dynamics.
 Prodyut R. Chakraborty	Heat and mass transfer, Latent heat based storage device for high temperature applications, Alloy solidification process, Active and passive solar cooling systems, Electronic cooling
 Rahul Chibber	Welding and joining, Manufacturing and materials processing, Mechanical behaviour of materials
 Suril V. Shah	Robotics, Multibody Dynamics and Control
 Sriram G. Srinivasan	Development and application of reactive force fields (ReaxFF), Density Functional Theory (DFT) and Tight Binding (DFTB) methods for studying combustion, solid-liquid interfaces, surface chemistry and catalysis
 Sudipto Mukhopadhyay	Energy Technology, Combustion Technology, Computational Fluid Dynamics, Turbulent flows, Sprays

## Department of Physics

A visible research in fundamental Physics along with its applications is the major theme of Physics Department at IIT Jodhpur. The Faculty members carry out research in the field of Astrophysics, Condensed Matter Physics & Material Science, Particle Physics, Experimental and Theoretical Quantum Optics, Quantum Information and Foundations of Quantum Mechanics. The research facilities available in the department include SQUID magnetometer, Physics Property Measurement Systems (PPMS), Raman Spectrometer and Scanning Tunnelling Microscope (STM). Following are the faculty members associated with the department:

Name	Research Areas
 <p>Subhashish Banerjee <i>Head of Department</i></p>	Open Quantum Systems; Quantum Information; Non-Equilibrium Statistical Mechanics; Quantum Optics
 <p>Ambesh Dixit</p>	Semiconductors, multifunctional ferroics & materials for energy-fabrication & characterization, Photovoltaic materials & devices ab initio DFT study and device simulations
 <p>Ashutosh Kumar Alok</p>	Particle Physics and Cosmology
 <p>Monika Sinha</p>	Astrophysics, Astroparticle physics
 <p>Satyajit Sahu</p>	Information Processing in Biological Systems
 <p>V. Narayanan</p>	Optics and Solar Field Design, Plasmonics, Laser Produced Plasmas (LPP), Pulsed Laser Deposition (PLD), Plasma Diagnostics (Interferometry & Optical Emission Spectroscopy (OES)), Laser Matter Interaction and Laser Cluster Interaction

Name	Research Areas
 <p data-bbox="240 405 423 428">Somnath Ghosh</p>	<p data-bbox="521 226 1463 285">Light in disordered and complex systems, Mid-IR photonics and unconventional devices</p>

The department also has a Scholar-in-Residence, Professor K. L. Chopra, Advisor, Thin Film Laboratory, IIT Delhi.

## Focus Groups

### Biologically Inspired System Science (BISS)

Biologically Inspired System Science (BISS) is a stream initiated with the broad objective to design novel, adaptive and sustainable technological solutions inspired by biological systems and processes. The Institute recognises the need for a test-oriented singular education towards a creativity-oriented quality multidisciplinary education, thereby blur existing boundaries between biology and engineering. B.Tech. Program in Biologically Inspired System Science (BISS) is run by this focus group in collaboration with the Department of Biology.

### System Science (SS)

The System Science stream was initiated in 2011 to promote and implement interdisciplinary education and research by adopting a holistic systems thinking approach. Its vision is to transform students into trained graduates with the spirit of systems thinking in diverse domains of engineered systems, natural systems, and financial systems. The focus group runs an undergraduate program, B.Tech. in System Science (SS) in collaboration with the Department of Mathematics.

## Staff Members

Nine new Staff Members joined the Institute during the FY 2016-17. The following are the Staff Members engaged in various Offices and Departments of the Institute.

### Administrative & Academic Staff Members

#### Office of Academics

**Ashok Kumar Khanduri**, Deputy Registrar  
**Gaurav Nigam**, Superintendent  
**Abhay Kumar Awasthi**, Junior Assistant  
**Rashmi Dhyani**, Junior Assistant

#### Office of Accounts & Internal Audit

**Manish Kumar Bhomia**, Assistant Registrar  
**Ashish Kachhawaha**, Superintendent  
**Naresh Chouhan**, Junior Superintendent  
**Rakesh Kumar**, Junior Assistant  
**Biswajit Pramanik**, Junior Assistant  
**Sapna Sankhla**, Junior Assistant

#### Office of Administration

**Amardeep Sharma**, Deputy Registrar  
**Sandeep Singh Chandel**, Superintendent  
**Neeraj Kumar**, Junior Assistant

#### Office of Alumni Relations & Student Placement

**Amardeep Sharma**, Deputy Registrar  
**Gaurav Nigam**, Superintendent  
**Gurpreet Kaur Viridi**, Assistant

#### Office of Director

**Darsh Kumar Khatwani**, Assistant  
**T. Madhavi Lata**, Stenographer (*on Deputation to IIT Tirupati*)

#### Office of Establishment

**Amardeep Sharma**, Deputy Registrar  
**Sandeep Singh Chandel**, Superintendent  
**Sharad Srivastava**, Senior Assistant  
**Ajay Kumar Singh**, Junior Assistant  
**Narayan Dadhich**, Junior Assistant

#### Office of Infrastructure Engineering

**Sanjeeb Mukherjee**, Executive Engineer (Civil)  
**Vinay Kumar**, Assistant Engineer (Electrical)  
**Chandresh Pareek**, Junior Engineer (Civil)  
**Dheeraj Updhyay**, Junior Assistant

#### Office of Infrastructure Management

**Shashank Choudhary**, Junior Assistant

#### Office of Library

**Kshema Prakash**, Deputy Librarian  
**Amit Kumar Soni**, Senior Library & Information Assistant

**Chunni Chhatwani**, Senior Library & Information Assistant  
**Kamleshkumar J. Patel**, Senior Library & Information Assistant

#### Office of Planning

**Amardeep Sharma**, Deputy Registrar (Planning)  
**Trilotama Singh**, Junior Assistant

#### Office of Recruitment

**Sandeep Pareek**, Junior Superintendent  
**Achinta Mondal**, Junior Assistant

#### Office of Students,

**Ashok Kumar Khanduri**, Deputy Registrar  
**Gaurav Nigam**, Superintendent  
**Dhani Ram Choudhary**, Stenographer  
**Swati Kushwaha**, Junior Assistant  
**Ram Niwas Dhayal**, Junior Assistant

#### Office of Stores & Purchase

**Sharabh Pradhan**, Junior Superintendent  
**Suresh Chandra Phulara**, Junior Assistant

## Technical Staff Members

### Department of Computer Science & Engineering

**Rimpesh Katiyar**, Technical Superintendent  
**Dheerendra Kumar Yadav**, Junior Technical Superintendent  
**Rinkesh Kumar Mangal**, Junior Technical Superintendent  
**Poonam Chand Sankhla**, Junior Technical Superintendent  
**Ram Singh Ratnu**, Technician  
**Vivek Verma**, Junior Technician

### Department of Electrical Engineering

**Bhanprakash Goswami**, Junior Technical Superintendent  
**Gajraj Sharma**, Junior Technician  
**Hemraj Dhodhawat**, Junior Technician  
**Kailash Chander**, Junior Technician

### Department of Mechanical Engineering

**Praveen Suthar**, Junior Technician  
**Bhagya Wardhan**, Junior Technician  
**Rambeer Singh**, Junior Technician

### Department of Bioscience & Bioengineering

**Bharat Pareek**, Junior Technical Superintendent  
**Poonam**, Junior Technician

### Department of Chemistry

**Ganpat Chowdhary**, Junior Technician  
**Shubham Pandey**, Junior Technician

### Department of Physics

**Narendra Kumar Singh**, Technical Superintendent

# Academics

## Academic Programs

Currently, the Institute offers the following four sets of Programs:

1. Bachelor of Technology Programs:
  1. B.Tech. (Computer Science and Engineering)
  2. B.Tech. (Electrical Engineering)
  3. B.Tech. (Mechanical Engineering)
2. Master of Science Programs
  1. M.Sc. (Chemistry)
  2. M.Sc. (Mathematics)
  3. M.Sc. (Physics)
3. Master of Technology Programs
  1. M.Tech. (Electrical Engineering)
  2. M.Tech. (Mechanical Engineering)
4. Doctor of Philosophy Programs
  1. Ph.D. with specialisation in Computer Science & Engineering
  2. Ph.D. with specialisation in Electrical Engineering
  3. Ph.D. with specialisation in Mechanical Engineering
  4. Ph.D. with specialisation in Biology
  5. Ph.D. with specialisation in Chemistry
  6. Ph.D. with specialisation in Mathematics
  7. Ph.D. with specialisation in Physics
  8. Ph.D. with specialisation in Humanities & Social Sciences

## Ph.D. Theses

Following Ph.D. Students defended their theses successfully in this year.

S. No.	Name of the Student	Title of Thesis	Supervisor	Department	Date of Defense
1.	Abhay Samant	Reconfigurable Architecture for Cross Layer Design Optimization and its Applications	Sandeep Yadav & Venkata Ramana Badarla	Electrical Engineering	25 April 2016
2.	Suresh Singh	Mitigation of Negative Impedance Instabilities in DC/DC Converters and DC Microgrids using Nonlinear Control	Deepakkumar M. Fulwani	Electrical Engineering	3 May 2016
3.	Belal Usmani	Development of Spectrally Selective Absorber Materials and Coatings for Photothermal Applications	Ambesh Dixit	Physics	6 March 2017

## Collaborations with Academia

The Institute has signed Memoranda of Understanding (MoUs) with six international universities, two international agencies, three national institutes and universities, and one national agency for furthering cooperation on specific fronts. These MoUs are:

### (a) International Institutes and Universities

#### 1. University of Western Ontario, Canada (9 August 2010)

To explore the possibilities for cooperation in education, training, and research and also to encourage direct contact and mutual cooperation between faculty members, departments, and research centers.

#### 2. Universitat Rovira I Virgili, Tarragona, Spain (29 August 2010)

For the development of mutually beneficial academic program and courses; coordination of academic staff travel for the purposes of teaching, research, and training; cooperation of student mobility program for study, research, and for joint academic activities such as research publications, conferences and symposia; exchange of documentation and research materials in the field of mutual interest provided that there are no legal barriers against exchange and collaboration in international master's and doctoral programs between both the institutions.

#### 3. University of Waterloo, Canada (25 November 2010)

For collaborative measures to foster international experience and advancement of knowledge on the basis of reciprocity, mutual benefit, interaction and exchange of students in graduate programs.

#### 4. University of Manitoba, Canada (9 December 2010)

For the development of mutually beneficial programs for student internships and graduate study in order to provide students opportunities for advancement of knowledge and international experience.

#### 5. University of California, Merced (26 April 2011)

For the development of mutually beneficial relationships for promoting academic exchange, scholarly cooperation, and collaborations under mutually agreeable terms and conditions: the exchange of faculty members, scientists and students and scientific material, access to library resources, pursuit of joint meetings, symposia and/or conferences and access to laboratories as may be appropriate and feasible in the two institutes.

#### 6. Arid Forest Research Institute, Jodhpur, India (15 August 2011)

For the development of sheltering belt plantation as urban forestry model for at a selected site at IIT Jodhpur.

#### 7. Institute of Science and Technology, Nara, Japan (28 February 2012)

To promote academic exchanges in fields where each party needs to enhance its educational and academic programs: the academic exchanges will include, implementation of collaborative research, joint symposia, lectures and education and exchange of scholars, researchers, and administrative staff; exchange of information in fields which are of interest to both parties and exchange of graduate students in fields of interest to both parties.

### (b) International Agencies

#### 1. The Commissariat a l'Energie Atomique et aux Energies Alternatives, France (22 November 2010)

To cooperate in areas of solar energy research, such as Concentrated Solar Power (CSP) and Concentrated Photovoltaic (CPV), water production by using solar energy, renewable energy storage and smart management, integration of solar energies and energy efficiency in buildings.

#### 2. Embassy of France in India (28 March 2011)

To explore prospective domains for students and scholars to learn French language effectively.

### (c) National Institutes and Universities

1. *All India Institute of Medical Sciences, Jodhpur*

To collaborate in various academic activities in the spheres of expertise.

2. *National Law University, Jodhpur*

To collaborate in various academic activities in the spheres of expertise.

3. *Sardar Patel University of Police, Security, and Criminal Justice, Jodhpur (12 June 2013)*

To promote academic exchanges in fields where each party needs to enhance its educational and academic programs.

## Collaborations with Industry

IIT Jodhpur has initiated to collaborate with industry towards enhancing the learning experience of students and collaboration opportunities for Faculty Members. These include:

1. Vanguard Lectures; and
2. Industry Immersion Program.

### Vanguard Lectures

The Vanguard Lecture Series is an integral part of Blended B.Tech. Program. It enables the Students to listen to inspirational talks given by experts from Industry and Academia, and to get a big-picture of the technological advances and emerging trends in different fields.

In the year 2016-17, two more series of Vanguard Lectures were organised since July 2016, namely:

1. Series 5: July 2016, and
2. Series 6: January 2017.

The following are the details of speakers and topics covered in the two series.

S. No.	Speaker & Topic
<b>Series 5: July 2016</b>	
1.	S. Devarajan Senior Vice President TVS Motors “Future of Manufacturing Technologies” 28 July 2016
2.	Arun T. Ramchandani Vice President Larsen & Toubro Limited, Mumbai “Defence Technologies and Products” 29 July 2016
3.	A. K. Jindal Head Engineering Commercial Vehicles Tata Motors India “Automotive Technologies” 01 August 2016
4.	Prakash Rao Malathkar Associate Chief Engineer Mahindra & Mahindra Limited “Global Technological Advancement Trends of Automotive Passenger Car Powertrains” 05 August 2016



5.	Lipika Dey Principal Scientist Tata Consultancy Services “Real Time Contextual Intelligence for Enterprises” 08 August 2016
6.	Ashok Kumar Panda Head, Core Technology Tata Power Company Limited “Overview of Challenges in Thermal Power & The Role of C&I in Power Industry” 09 August 2016
<b>Series 6: January 2017</b>	
1.	Shankar Iyer Consulting Member Oracle India “Distributed Computing + Databases = Distributed Databases” 10 January 2017
2.	Professor N. Ramakrishnan Professor IIT Gandhinagar “Innovation, Design & Product Development” 20 January 2017
3.	Professor Subir Kumar Saha Professor and Head, Department of Mechanical Engineering IIT Delhi “R2: Robotics to Rural” 01 February 2017

## Industry Immersion Program

In July 2014, when the Institute launched the blended Technical Education model at the B.Tech. level, the intent was to inspire students to build passion for technology to solve the grand technology challenges of the Indian Industry. One of the elements of the model is to have industry captains give the first lectures of each course to lay the cornerstone by giving the big-picture of sectoral technologies, industry needs and research opportunities. The model gained momentum with *Vanguard Lecture Series*, and now this has become a distinctive feature of the *blended Technical Education Model* for the B.Tech. Program of the Institute. Then, this is being followed by the *Grand Technology Projects (GTPs) Competition* that is held during January-March, every year. Most students prefer converting their *B.Tech. Projects* to *GTPs*.

Currently, five industry partners have joined the Industry Immersion Program at the B.Tech. level, namely:

- (1) Mahindra & Mahindra Limited, Mumbai;
- (2) Larsen & Toubro Limited, Mumbai;
- (3) Tata Motors Limited, Mumbai;
- (4) TVS Motor Company Limited, Chennai; and
- (5) Tata Power Limited, Mumbai.

# Research

## R & D Projects

The Faculty Members in the Institute are currently working on 55 sponsored research projects. Their details are:

S. No.	Project Title
<b>Department of Bioscience &amp; Bioengineering</b>	
1.	<b>Identification, assessment and characterization of E3 ubiquitin ligases implicated in the neurodegenerative diseases</b> Department of Biotechnology (DBT), Government of India PI: Amit Mishra Rs. 74.5 Lakhs
2.	<b>Understanding the molecular function of MGRN1 in Chaperone Mediated Autophagy</b> Department of Biotechnology (DBT), Government of India PI: Amit Mishra Rs. 41.19 Lakhs
3.	<b>How AMFR gene regulates cell division and cancer after stress exposure?</b> Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy (DAE), Government of India PI: Amit Mishra Rs. 23.9 Lakhs
4.	<b>How LRASM1 gene regulates cellular protein quality control functions? Implications in neurodegeneration and ageing</b> Science and Engineering Research Board (SERB), Department of Science & Technology (DST), Government of India PI: Amit Mishra Rs. 23.10 Lakhs
5.	<b>Bioremediation of low level wastes including denitrification using microbial fuel cells</b> Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy (DAE), Government of India PI: Meenu Chhabra; Co-PI: Atul Kumar Rs. 23.73 Lakhs
6.	<b>Development of low cost Microbial Carbon capture (MCC) cells for algae cultivation and powers generation</b> Department of Biotechnology (DBT), Government of India PI: Meenu Chhabra Rs. 172 Lakhs
7.	<b>Deposition of particulate matter in lungs</b> Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy (DAE), Government of India PI: Sushmita Jha Rs. 24.79 Lakhs
8.	<b>Role of the inflammasome associated proteins in glioma</b> Science and Engineering Research Board (SERB), Department of Science & Technology (DST), Government of India PI: Sushmita Jha Rs. 22.30 Lakhs
9.	<b>Integrative Approach for Identification of Disease Genes of Type II Diabetes</b> Science and Engineering Research Board (SERB), Department of Science & Technology (DST), Government of India PI: Sushmita Paul Rs. 26.76 Lakhs

## Department of Chemistry

- |     |  |
|-----|--|
| 10. | <b>Dual scale simulations of surfactant, co-surfactant water system</b><br>Science and Engineering Research Board (SERB), Department of Science & Technology (DST), Government of India<br>PI: Ananya Debnath<br>Rs. 21.7 Lakhs  |
| 11. | <b>Chemical Dynamics Simulations of Complex Organic Reactions</b><br>Science and Engineering Research Board (SERB), Department of Science & Technology (DST), Government of India<br>PI: Manikandan Paranjothy<br>Rs. 18.7 Lakhs |
| 12. | <b>Catalytic Upgrading of Bio-Oil to Transport Fuel</b><br>Department of Biotechnology (DBT), Government of India<br>PI: Rakesh Kumar Sharma<br>Rs. 94.79 Lakhs  |
| 13. | <b>Development of electrochemical energy storage from carbon rich waste</b><br>Science and Engineering Research Board (SERB), Department of Science & Technology (DST), Government of India<br>PI: Ritu Gupta<br>Rs. 37.17 Lakhs |

## Department of Computer Science & Engineering

- |     |   |
|-----|---|
| 14. | <b>Design of efficient algorithms for multiple choice resource allocation problem</b><br>Science and Engineering Research Board (SERB), Department of Science & Technology (DST), Government of India<br>PI: Aritra Banik<br>Rs. 9.78 Lakhs     |
| 15. | <b>Development of Multimodal Search Framework For Architectural Floor Plan</b><br>Science and Engineering Research Board (SERB), Department of Science & Technology (DST), Government of India<br>PI: Chiranjoy Chattopadhyay<br>Rs. 24.5 Lakhs |
| 16. | <b>Energy Efficient Technologies for Smart Buildings</b><br>The Indo-US Science and Technology Forum (IUSSTF), Department of Science & Technology, Government of India<br>PI: Venkata Ramana Badarla<br>Rs. 1.3 Crores                          |

## Department of Electrical Engineering

- |     |   |
|-----|---|
| 17. | <b>Enabling Technologies for Intelligent Wireless Sensor Network for Health and Environment Monitoring</b><br>Department of Science & Technology (DST), Government of India<br>PI: Anil Kumar Tiwari<br>Rs. 75 Lakhs  |
| 18. | <b>Visveswaraya Ph.D. Scholarship scheme for Electronics &amp; IT</b><br>Department of Electronics & Information Technology (DeitY), Government of India<br>PI: Anil Kumar Tiwari<br>Rs. 16.25 Lakhs  |
| 19. | <b>Computationally efficient fixed complexity sphere decodes for multiuser MIMO communications</b><br>Science and Engineering Research Board (SERB), Department of Science & Technology (DST), Government of India<br>PI: Arun Kumar Singh<br>Rs. 22.82 Lakhs                 |
| 20. | <b>Development of Programmable Emulator for Photovoltaic Plant to Facilitate Complex Testing Requirements</b><br>Science and Engineering Research Board (SERB), Department of Science & Technology (DST), Government of India<br>PI: Deepakkumar M. Fulwani<br>Rs. 9.48 Lakhs |
| 21. | <b>Development of Metal Doped TiO<sub>2</sub> Low Dimension Structures by Sputtering for Gas Sensing Applications</b><br>Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy (DAE), Government of India<br>PI: Mahesh Kumar<br>Rs. 17.46 Lakhs          |

22.	<p><b>Ion-Beam Synthesis and Characterization of Gallium Nitride Based Nanocrystals embedded in Si based Matrices for New-Generation Photodetector and Light-Emitter Applications</b></p> <p>Department of Science &amp; Technology (DST), Government of India            PI: Mahesh Kumar            Rs. 55.72 Lakhs</p>
23.	<p><b>Development of mems based gas sensors using RF sputtered transition metal doped ZnO Nanostructures</b></p> <p>Science and Engineering Research Board (SERB), Department of Science &amp; Technology (DST), Government of India            PI: Mahesh Kumar            Rs. 24.17 Lakhs</p>
24.	<p><b>Development of Tunable RF Filter Based on Ferroelectric Thin Film by Sputtering</b></p> <p>Indian National Science Academy            PI: Mahesh Kumar            Rs. 5 Lakhs</p>
25.	<p><b>Noise-enhanced Edge-preserving Image Denoising using Stochastic Resonance</b></p> <p>Science and Engineering Research Board (SERB), Department of Science &amp; Technology (DST), Government of India            PI: Rajlaxmi Chouhan            Rs. 26.64 Lakhs</p>
26.	<p><b>Algorithms for Blind Signal Detection and Demodulation</b></p> <p>Defense Research &amp; Development Organization (DRDO), Jodhpur, Government of India            PI: Sandeep Kumar Yadav            Rs. 55.24 Lakhs</p>
27.	<p><b>Developing Dielectric Semiconductor Combinations and Processes for Flexible Organic Electronics</b></p> <p>Science and Engineering Research Board (SERB), Department of Science &amp; Technology (DST), Government of India            PI: Shree Prakash Tiwari            Rs. 12.84 Lakhs</p>
28.	<p><b>Design of a sensor signal conditioning system(I) &amp; multiprocessor Scheduling Algorithms using control theoretic Approach(II)</b></p> <p>Department of Electronics &amp; Information Technology (DeitY), Government of India            PI: Shree Prakash Tiwari            Rs. 99.72 Lakhs</p>
29.	<p><b>Encapsulation of Organic devices by atomic layer deposition(DRDO CAR Proposal)</b></p> <p>Defense Research &amp; Development Organization (DRDO), Jodhpur, Government of India            PI: Shree Prakash Tiwari            Rs. 9.96 Lakhs</p>
<b>Department of Humanities &amp; Social Sciences</b>	
30.	<p><b>Wisdom as cognitive and motivational-emotional heuristics in ecologically rational decision making</b></p> <p>Department of Science &amp; Technology, Government of India            PI: Ankita Sharma            Rs. 22.3 Lakhs</p>
31.	<p><b>Where the Bougainvillea Blooms: Stories of Place from a Resilient Landscape</b></p> <p>M. R. A. R. Educational Foundation            PI: Vidya Sarveswaran            Rs. 0.5 Lakhs</p>
<b>Department of Mathematics</b>	
32.	<p><b>Multimedia security based on biometrics for copyright protection and authentication</b></p> <p>Science and Engineering Research Board (SERB),            Department of Science &amp; Technology (DST), Government of India            PI: Gaurav Bhatnagar            Rs. 22 Lakhs</p>

33.	<b>Automorphism Groups of Induced Symbolic Systems</b> National Board for Higher Mathematics (NBHM), Department of Atomic Energy (DAE), Government of India PI: Puneet Sharma Rs. 3.32 Lakhs
<b>Department of Mechanical Engineering</b>	
34.	<b>Local Composite geotextile mats for soil and water conservation in western Rajasthan</b> Science and Engineering Research Board (SERB), Department of Science & Technology (DST), Government of India PI: Anand Krishnan Plappally Rs. 21.5 Lakhs
35.	<b>Unnat Bharat Abhiyan</b> Ministry of Human Resources Development (MHRD), Government of India PI: Anand Krishnan Plappally Rs. 3.77 Lakhs
36.	<b>Bifurcation and Stability Assessment of a Highly Lightweight Rotor-Bearing System with Moving Platform</b> Science and Engineering Research Board (SERB), Department of Science & Technology (DST), Government of India PI: Barun Pratiher Rs. 21.8 Lakhs
37.	<b>Minimizing deflection induced surface errors in end milling of thin walled components</b> Science and Engineering Research Board (SERB), Department of Science & Technology (DST), Government of India PI: Kaushalkumar A. Desai Rs. 15.3 Lakhs
38.	<b>Establishment of the Centre of Excellence in Solar Thermal Research and Education</b> Ministry of New & Renewable Energy, Government of India PI: Laltu Chandra Rs. 40 Crores
39.	<b>IOC-BHEL-IITJ CSP Plant</b> Indian Oil Corporation Ltd. PI: Laltu Chandra Rs. 60 Lakhs
40.	<b>Thermal Design of PCM Cool and Warm Vest</b> Defense Research & Development Organization (DRDO), Jodhpur, Government of India PI: Prodyut Ranjan Chakraborty Rs. 9.96 Lakhs
41.	<b>Hybrid reactionless manipulation and visual serving of a satellite mounted robot for autonomous on orbit services</b> Department of Science & Technology (DST), Government of India PI: Suril Vijaykumar Shah Rs. 35 Lakhs
42.	<b>Singularity free reactionless manipulation of a satellite mounted dual-arm robot for capture of tumbling orbiting object</b> Department of Science & Technology (DST), Government of India PI: Suril Vijaykumar Shah Rs. 24.77 Lakhs
<b>Department of Physics</b>	
43.	<b>Development of III-Nitrides thin film(s) for high frequency saw device applications</b> Department of Space, Government of India PI: Ambesh Dixit Rs. 22.62 Lakhs

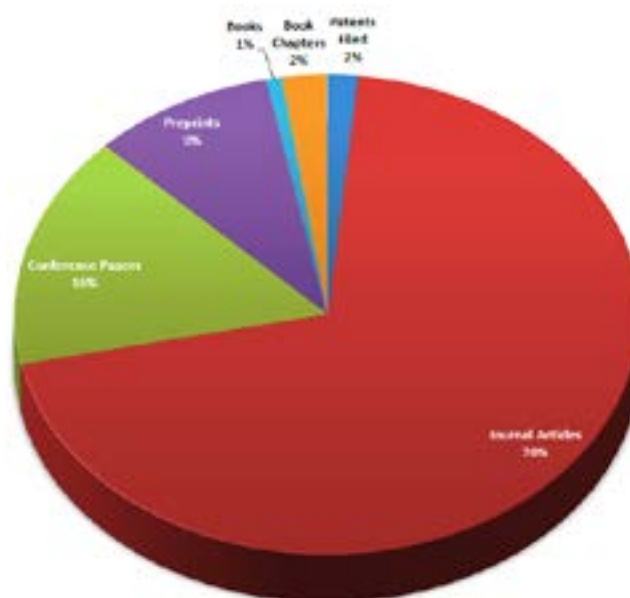
44.	<p><b>Development of Ferroelectric and their composite with hexaferrites for microwave absorption applications</b>  <i>Defense Research &amp; Development Organization (DRDO), Jodhpur, Government of India</i>  <i>PI: Ambesh Dixit</i>  <i>Rs. 9.55 Lakhs</i></p>
45.	<p><b>Investigation of Magnetoelectric coupling in Cu<sub>1-x</sub>TM<sub>x</sub>O Multiferroic System</b>  <i>Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy (DAE), Government of India</i>  <i>PI: Ambesh Dixit</i>  <i>Rs. 23.42 Lakhs</i></p>
46.	<p><b>Development of plasmonic metal hybrid electrode system for II-VI quantum dot sensitized solar cells (QDSSCs) realization of carrier multiplication for better efficiency</b>  <i>Department of Science &amp; Technology (DST), Government of India</i>  <i>PI: Ambesh Dixit</i>  <i>Rs. 32.87 Lakhs</i></p>
47.	<p><b>Design and development of high capacity and low cost Li<sub>2</sub>TMSiO<sub>4</sub>(TM=transition metals) silicate materials for future rechargeable lithium ion battery</b>  <i>Department of Science &amp; Technology (DST), Government of India</i>  <i>PI: Ambesh Dixit</i>  <i>Rs. 23.88 Lakhs</i></p>
48.	<p><b>Probing Magnetic Structures and Spin Flop transition in bulk and nanostructured FeVo<sub>4</sub> Multiferroic System</b>  <i>UGC-DAE, Department of Science &amp; Technology (DST), Government of India</i>  <i>PI: Ambesh Dixit</i></p>
49.	<p><b>Development of nanostructured Cu<sub>2</sub>ZnSn(S/Se)<sub>4</sub> thin films and their electronic properties for next generation solar photovoltaic applications</b>  <i>Department of Science &amp; Technology (DST), Government of India</i>  <i>PI: Ambesh Dixit</i>  <i>Rs. 37.22 Lakhs</i></p>
50.	<p><b>Hunting of New Physics Through b-<math>\rightarrow</math> S Transitions</b>  <i>Council of Scientific &amp; Industrial Research (CSIR), Government of India</i>  <i>PI: Ashutosh K. Alok</i>  <i>Co-PI: Subhashish Banerjee Rs. 11.92 Lakhs</i></p>
51.	<p><b>Synchrony Based Evolution of Various Biological and Artificial Systems to Understand Complex Computational Aspects</b>  <i>Department of Science &amp; Technology (DST), Government of India</i>  <i>PI: Satyajit Sahu</i>  <i>Rs. 35 Lakhs</i></p>
52.	<p><b>Application specialty optical fibres and towards 1D random lasers in disordered lattices</b>  <i>Department of Science &amp; Technology (DST), Government of India</i>  <i>PI: Somnath Ghosh</i>  <i>Rs. 35 Lakhs</i></p>
53.	<p><b>Graph Theoretical Aspects in Quantum Information Processing</b>  <i>Council of Scientific and Industrial Research (CSIR), Government of India</i>  <i>PI: Subhashish Banerjee</i>  <i>Rs. 9.92 Lakhs</i></p>
54.	<p><b>A Study of quantum correlations : Squeezing and its various facets</b>  <i>Council of Scientific and Industrial Research (CSIR), Government of India</i>  <i>PI: Subhashish Banerjee</i>  <i>Rs. 5.10 Lakhs</i></p>
55.	<p><b>Probing the Foundations of Quantum Mechanics in Neutrino Oscillations</b>  <i>Department of Science &amp; Technology (DST), Government of India</i>  <i>PI: Subhashish Banerjee</i>  <i>Rs. 10.08 Lakhs</i></p>

## Patents & Publications

In 2016-17, our Faculty Members have filed 2 patents, published 89 research papers and articles in scholarly journals; 20 of their works have been covered as conference presentations and in conference proceedings; 12 preprints, 1 authored book and 3 book chapters have been contributed.

Department	Patents Filed	Journal Articles	Conference Papers	Preprints	Books	Book Chapters	Total
Bioscience & Bioengineering		12				2	14
Chemistry	2	15					17
Computer Science & Engineering		3	6	1			10
Electrical Engineering		19	8		1		28
Humanities & Social Sciences		4					4
Mathematics		3		2		1	6
Mechanical Engineering		15	3	1			19
Physics		18	3	8			29
<b>Total</b>	<b>2</b>	<b>89</b>	<b>20</b>	<b>12</b>	<b>1</b>	<b>3</b>	<b>124</b>

Category-wise Break up of Scholarly Publications



The following is the department-wise list of patents and publications.

Department of Bioscience & Bioengineering	
<b>Journal Articles</b>	
1.	Amanullah, A., Upadhyay, A., Chhangani, D., Joshi, V., Mishra, R., Yamanaka, K., & <b>Mishra, A.</b> (2016). <i>Proteasomal Dysfunction Induced by Diclofenac Engenders Apoptosis through Mitochondrial Pathway</i> . Journal of Cellular Biochemistry. ISSN: 1097-4644. <a href="http://doi.org/10.1002/jcb.25666">http://doi.org/10.1002/jcb.25666</a>
2.	Anand, B. G., Dubey, K., Shekhawat, D. S., & <b>Kar, K.</b> (2016). <i>Capsaicin-coated silver nanoparticles inhibit amyloid fibril formation of serum albumin</i> . Biochemistry. ISSN: 0006-2960. <a href="http://doi.org/10.1021/acs.biochem.6b00418">http://doi.org/10.1021/acs.biochem.6b00418</a>
3.	Arora, N., Tripathi, S., Sao, R., Mondal, P., <b>Mishra, A. K.</b> , & Prasad, A. (2017). <i>Molecular Neuro-Pathomechanism of Neurocysticercosis: How Host Genetic Factors Influence Disease Susceptibility</i> . Molecular Neurobiology, 1–7. ISSN: 1559-1182. <a href="https://doi.org/10.1007/s12035-016-0373-6">https://doi.org/10.1007/s12035-016-0373-6</a>
4.	Harinipriya, S., Kalra, A., & <b>Mishra, A. K.</b> (2016). <i>Physicochemical Characterization of tubulin from Arachis hypogaea</i> . Synthetic Metals, 220, 86–94. ISSN: 0379-6779. <a href="http://doi.org/10.1016/j.synthmet.2016.04.021">http://doi.org/10.1016/j.synthmet.2016.04.021</a>
5.	Hoop, C. L., Lin, H.-K., <b>Kar, K.</b> , Magyarfalvi, G., Lamley, J. M., Boatz, J. C., Mandal, A., Lewandowski, J. R., Wetzel, R. & Van der Wel, P. C. A. (2016). <i>Huntingtin exon 1 fibrils feature an interdigitated <math>\beta</math>-hairpin-based polyglutamine core</i> . Proceedings of the National Academy of Sciences, 113(6), 1546–1551. ISSN: 1091-6490. <a href="https://doi.org/10.1073/pnas.1521933113">https://doi.org/10.1073/pnas.1521933113</a>
6.	<b>Jha, S.</b> , Brickey, W. J., & Ting, J. P.-Y. (2017). <i>Inflammasomes in Myeloid Cells: Warriors Within</i> . Microbiology Spectrum, 5(1). ISSN: 2165-0497. <a href="https://doi.org/10.1128/microbiolspec.MCHD-0049-2016">https://doi.org/10.1128/microbiolspec.MCHD-0049-2016</a>
7.	Joshi, V., Amanullah, A., Upadhyay, A., Mishra, R., Kumar, A., & <b>Mishra, A.</b> (2016). <i>A Decade of Boon or Burden: What Has the CHIP Ever Done for Cellular Protein Quality Control Mechanism Implicated in Neurodegeneration and Aging?</i> Frontiers in Molecular Neuroscience, 93. ISSN: 1662-5099. <a href="https://doi.org/10.3389/fnmol.2016.00093">https://doi.org/10.3389/fnmol.2016.00093</a>
8.	<b>Paul, S.</b> , Lakatos, P., Hartmann, A., Schneider-Stock, R., & Vera, J. (2017). <i>Identification of miRNA-mRNA Modules in Colorectal Cancer Using Rough Hypercuboid Based Supervised Clustering</i> . Scientific Reports, 7, 42809. ISSN: 2045-2322. <a href="https://doi.org/10.1038/srep42809">https://doi.org/10.1038/srep42809</a>
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## Department of Chemistry

## Patents Filed

1.	Title “Sub-zero Temperature process for production of high surface area, phase and dimensionally controlled nano-titania for solar cell and water treatment application thereof”
	Inventors Rakesh K. Sharma & Kiran Prakash Shejale
	Patent Application Number 201611022531
	Date 08 June 2016
2.	Title “Facet controlled preparation of metal hexagonal nano crystal/carbon materials catalyst and application thereof”
	Inventors Rakesh K. Sharma & Poonam Darshana Sharma
	Patent Application Number 201611022543
	Date 08 June 2016

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2.	<b>Gupta, R.</b> , & Fisher, T. S. (2016). <i>Scalable Coating of Single Source Ni Hexadecanethiolate Precursor on 3D-Graphitic Petals for Asymmetric Supercapacitor</i> . <i>Energy Technology</i> . ISSN: 2194-4296. <a href="http://doi.org/10.1002/ente.201600475">http://doi.org/10.1002/ente.201600475</a>
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6.	Sharma, K., & <b>Badarla, V.</b> (2016). <i>FlowFurl: A flow-level routing for faulty data center networks</i> . In 2016 IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS) (pp. 1–6). ISBN: 978-1-5090-2193-2. <a href="https://doi.org/10.1109/ANTS.2016.7947837">https://doi.org/10.1109/ANTS.2016.7947837</a>

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2.	Barala, S. S., Roul, B., Banerjee, N., & <b>Kumar, M.</b> (2016). <i>Modulation of Pb Chemical state of epitaxial lead zirconate titanate thin films under high energy irradiation</i> . <i>Journal of Applied Physics</i> , 120(11), 115305. ISSN: 1089-7550. <a href="https://doi.org/10.1063/1.4962860">https://doi.org/10.1063/1.4962860</a>
3.	Bharti, D., & <b>Tiwari, S. P.</b> (2016). <i>Phase separation induced high mobility and electrical stability in organic field-effect transistors</i> . <i>Synthetic Metals</i> . 221, 186-191. ISSN: 0379-6779. <a href="http://doi.org/10.1016/j.synthmet.2016.09.002">http://doi.org/10.1016/j.synthmet.2016.09.002</a>
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4.	Mahela, O. P., & <b>Shaik, A. G.</b> (2016). <i>Recognition of power quality disturbances using S-transform and Fuzzy C-means clustering</i> . In 2016 International Conference on Cogeneration, Small Power Plants and District Energy (ICUE) (pp. 1–6). ISBN: 978-9-7482-5792-1. <a href="https://doi.org/10.1109/COGEN.2016.7728955">https://doi.org/10.1109/COGEN.2016.7728955</a>
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6.	Rathore, N., & <b>Fulwani, D. M.</b> (2016). <i>Event triggered control scheme for power converters</i> . In IECON 2016 - 42nd Annual Conference of the IEEE Industrial Electronics Society (pp. 1342–1347). ISBN: 978-1-5090-3474-1. <a href="https://doi.org/10.1109/IECON.2016.7794129">https://doi.org/10.1109/IECON.2016.7794129</a>

7. Singh, M., & **Shaik, A. G.** (2016). *Bearing fault diagnosis of a three phase induction motor using stockwell transform*. In 2016 IEEE Annual India Conference (INDICON) (pp. 1–6). ISBN: 978-1-5090-3646-2. <https://doi.org/10.1109/INDICON.2016.7838972>
8. Sree, Y. M., Kumar, G. R., & **Shaik, A. G.** (2016). *Multi-terminal transmission line protection using wavelet based digital relay in the presence of wind energy source*. In 2016 International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT) (pp. 4124–4128). ISBN: 978-1-4673-9939-5. <https://doi.org/10.1109/ICEEOT.2016.7755492>

#### Books

1. **Fulwani, D. M.,** & Singh, S. (2017). *Mitigation of Negative Impedance Instabilities in DC Distribution Systems*. Singapore: Springer Singapore. ISBN: 978-981-10-2071-1. <http://link.springer.com/10.1007/978-981-10-2071-1>

### Department of Humanities & Social Sciences

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1. **Narayanan, V. H.** (2016). *Voice in the Head: The Road Ahead*. Journal of Indian Council of Philosophical Research, 1–16. ISSN: 0970-7794. <http://doi.org/10.1007/s40961-016-0057-7>
2. Owusu, D., Mamudu, H. M., **John, R. M.,** Ibrahim, A., Ouma, A. E. O., & Veeranki, S. P. (2016). *Never-Smoking Adolescents' Exposure to Secondhand Smoke in Africa*. American Journal of Preventive Medicine, 51(6), 983–998. ISSN: 0749-3797. <https://doi.org/10.1016/j.amepre.2016.08.040>
3. Thimm, V., **Chaudhuri, M.,** & Mahler, S. J. (2017). *Enhancing Intersectional Analyses with Polyvocality: Making and Illustrating the Model*. Social Sciences, 6(2), 37. ISSN: 2076-0760. <https://doi.org/10.3390/socsci6020037>
4. Veeranki, S. P., **John, R. M.,** Ibrahim, A., Pillendla, D., Thrasher, J. F., Owusu, D., Ouma, A. E. O., and Mamudu, H. M. (2016). *Age of smoking initiation among adolescents in Africa*. International Journal of Public Health, 1–10. ISSN: 1661-8564. <http://doi.org/10.1007/s00038-016-0888-7>

### Department of Mathematics

#### Journal Articles

1. **Bhatnagar, G.** (2016). *Robust covert communication using high capacity watermarking*. Multimedia Tools and Applications, 1–25. ISSN: 1573-7721. <https://doi.org/10.1007/s11042-016-3978-x>
2. Chakrawarty, P., & **Bhatnagar, G.** (2016). *Image thresholding based on local activity feature matrix*. Optik - International Journal for Light and Electron Optics, 127(20), 9037–9045. ISSN: 0030-4026. <http://doi.org/10.1016/j.ijleo.2016.06.114>
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#### Book Chapters

1. Singh, S. P., & **Bhatnagar, G.** (2017). *A Novel Chaos Based Robust Watermarking Framework*. In B. Raman, S. Kumar, P. P. Roy, & D. Sen (Eds.), Proceedings of International Conference on Computer Vision and Image Processing (pp. 439–447). Springer Singapore. ISBN: 978-981-10-2107-7. [https://doi.org/10.1007/978-981-10-2107-7\\_40](https://doi.org/10.1007/978-981-10-2107-7_40)

#### Pre-prints

1. **Sharma, P.** (2017). *Induced Dynamics of Non-Autonomous Discrete Dynamical Systems*. arXiv:1703.05897 [Math]. <http://arxiv.org/abs/1703.05897>
2. **Sharma, P.,** & Raghav, M. (2017). *On Dynamics Generated by a Uniformly Convergent Sequence of Maps*. arXiv:1703.06640 [Math]. <http://arxiv.org/abs/1703.06640>

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1.	Aggarwal, H. K., <b>Chhibber, R.</b> , Arora, N., & Mehta, R. (2017). <i>Experimental Analysis of Thermal Fatigue in Bimetallic Welds</i> . Materials Science Forum, 880, 124–127. ISSN: 1662-9752. <a href="https://doi.org/10.4028/www.scientific.net/MSF.880.124">https://doi.org/10.4028/www.scientific.net/MSF.880.124</a>
2.	Bhandari, D., <b>Chhibber, R.</b> , Arora, N., & Mehta, R. (2016). <i>Investigation of TiO<sub>2</sub>-SiO<sub>2</sub>-CaO-CaF<sub>2</sub> based electrode coatings on weld metal chemistry and mechanical behaviour of bimetallic welds</i> . Journal of Manufacturing Processes, 23, 61–74. ISSN: 1526-6125. <a href="http://doi.org/10.1016/j.jmapro.2016.05.013">http://doi.org/10.1016/j.jmapro.2016.05.013</a>
3.	<b>Chakraborty, P. R.</b> (2017). <i>Enthalpy porosity model for melting and solidification of pure-substances with large difference in phase specific heats</i> . International Communications in Heat and Mass Transfer, 81,183-189. ISSN: 0735-1933. <a href="https://doi.org/10.1016/j.icheatmasstransfer.2016.12.023">https://doi.org/10.1016/j.icheatmasstransfer.2016.12.023</a>
4.	<b>Chakraborty, P. R.</b> , <b>Hiremath, K. R.</b> , & Sharma, M. (2016, in press). <i>Evaluation of evaporation coefficient for micro-droplets exposed to low pressure: A semi-analytical approach</i> . Physics Letters A. ISSN: 0375-9601. <a href="https://doi.org/10.1016/j.physleta.2016.11.036">https://doi.org/10.1016/j.physleta.2016.11.036</a>
5.	Hafez, A. H. A., Mithun, P., Anurag, V. V., <b>Shah, S. V.</b> , & Krishna, K. M. (2017). <i>Reactionless visual servoing of a multi-arm space robot combined with other manipulation tasks</i> . Robotics and Autonomous Systems, 91, 1-10. ISSN: 0921-8890. <a href="https://doi.org/10.1016/j.robot.2016.12.010">https://doi.org/10.1016/j.robot.2016.12.010</a>
6.	Harsha, C. S., Prasanth, C. S. R., & <b>Pratiher, B.</b> (2016). <i>Effect of Squeeze Film Damping and AC Actuation Voltage on Pull-in Phenomenon of Electrostatically Actuated Microswitch</i> . Procedia Engineering, 144, 891–899. ISSN: 1877-7058. <a href="http://doi.org/10.1016/j.proeng.2016.05.108">http://doi.org/10.1016/j.proeng.2016.05.108</a>
7.	Harsha, C. S., Prasanth, C. S., & <b>Pratiher, B.</b> (2016). <i>Prediction of pull-in phenomena and structural stability analysis of an electrostatically actuated microswitch</i> . Acta Mechanica, 1–18. ISSN: 1619-6937. <a href="http://doi.org/10.1007/s00707-016-1633-2">http://doi.org/10.1007/s00707-016-1633-2</a>
8.	James, F., <b>Shah, S. V.</b> , Singh, A. K., Krishna, K. M., & Misra, A. K. (2016). <i>Reactionless Maneuvering of a Space Robot in Precapture Phase</i> . Journal of Guidance, Control, and Dynamics, 0(0), 1–7. ISSN: 1533-3884. <a href="http://doi.org/10.2514/1.G001828">http://doi.org/10.2514/1.G001828</a>
9.	Moges, T. M., <b>Desai, K. A.</b> , & Rao, P. V. M. (2016). <i>Improved Process Geometry Model with Cutter Runout and Elastic Recovery in Micro-end Milling</i> . Procedia Manufacturing, 5, 478–494. ISSN: 2351-9789. <a href="https://doi.org/10.1016/j.promfg.2016.08.040">https://doi.org/10.1016/j.promfg.2016.08.040</a>
10.	Phadatare, H. P., & <b>Pratiher, B.</b> (2016). <i>Nonlinear Frequencies and Unbalanced Response Analysis of High Speed Rotor-Bearing Systems</i> . Procedia Engineering, 144, 801–809. ISSN: 1877-7058. <a href="http://doi.org/10.1016/j.proeng.2016.05.089">http://doi.org/10.1016/j.proeng.2016.05.089</a>
11.	Rajpurohit, D. S. & <b>Chhibber, R.</b> (2016). <i>Design Optimization of Two Input Multimode Applicator for Efficient Microwave Heating</i> . International Journal of Advances in Microwave Technology, 1 (3). ISSN: 2456-4346. <a href="http://ijamt.com/abstract.php?article_id=1676">http://ijamt.com/abstract.php?article_id=1676</a>
12.	Rao, S. S., <b>Chhibber, R.</b> , Arora, K. S., & Shome, M. (2017; In press). <i>Resistance spot welding of galvanized high strength interstitial free steel</i> . Journal of Materials Processing Technology. ISSN: 0924-0136. <a href="https://doi.org/10.1016/j.jmatprotec.2017.03.027">https://doi.org/10.1016/j.jmatprotec.2017.03.027</a>
13.	Saha, A. K., Kumar, R., Usmani, B., <b>Chandra, L.</b> , & <b>Dixit, A.</b> (2016). <i>Development Of Nickel Modified Fe<sub>3</sub>O<sub>4</sub> Solar Selective Coatings for Solar Absorber Applications</i> . Advanced Materials Proceedings, 1(2), 140–145. ISSN: 2002-4428. <a href="https://doi.org/10.5185/amp.2016/205">https://doi.org/10.5185/amp.2016/205</a>
14.	Saini, A., <b>Chhibber, R.</b> , & Chattopadhyay, A. (2016). <i>Effect of combined fatigue and hygrothermal loading on structural properties of E-glass/polymers</i> . Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science. ISSN: 0954-4062. <a href="http://doi.org/10.1177/0954406216644268">http://doi.org/10.1177/0954406216644268</a>

15. Sharma, B., **Chhibber, R.**, & Mehta, R. (2017). *Curing studies and mechanical properties of glass fiber reinforced composites based on silanized clay minerals*. *Applied Clay Science*, 138, 89–99. ISSN: 0169-1317. <https://doi.org/10.1016/j.clay.2016.12.038>

#### Conference Papers

1. Agarwal, A., & **Prakash, A.** (2016). *Validation of LBM based on BGK on Poiseuille's Flow and Vortex Street in a Channel Flow*. In Fourth International Conference On Advances in Civil, Structural and Mechanical Engineering (pp. 14–18). USA: Institute of Research

2. Salunkhe, D. H., Sharma, S., Topno, S. A., Darapaneni, C., Kankane, A., & **Shah, S. V.** (2016). *Design, trajectory generation and control of quadrotor research platform*. In 2016 International Conference on Robotics and Automation for Humanitarian Applications (RAHA) (pp. 1–7). ISBN: 978-1-5090-5203-5. <https://doi.org/10.1109/RAHA.2016.7931876>

3. Teja, H., & **Shah, S. V.** (2016). *Learning inverse kinematic solutions of redundant manipulators using multiple internal models*. In 2016 6th IEEE International Conference on Biomedical Robotics and Biomechanics (BioRob) (pp. 1371–1371). ISBN: 978-1-5090-3287-7. <http://doi.org/10.1109/BIOROB.2016.7523824>

#### Pre-prints

1. Bhole, A., Turlapati, S. H., Rajashekhar, V. S., Dixit, J., **Shah, S. V.**, & Krishna, K. M. (2016). *Design of a Robust Stair Climbing Compliant Modular Robot to Tackle Overhang on Stairs*. arXiv:1607.03077 [Cs]. <http://arxiv.org/abs/1607.03077>

### Department of Physics

#### Journal Articles

1. Adhikari, B., **Banerjee, S.**, Adhikari, S., & **Kumar, A.** (2017). *Laplacian matrices of weighted digraphs represented as quantum states*. *Quantum Information Processing*, 16(3), 79. ISSN: 1573-1332. <https://doi.org/10.1007/s11128-017-1530-1>

2. **Alok, A. K.**, **Banerjee, S.**, & Uma Sankar, S. (2016). *Quantum correlations in terms of neutrino oscillation probabilities*. *Nuclear Physics B*, 909, 65–72. ISSN: 0550-3213. <http://doi.org/10.1016/j.nuclphysb.2016.05.001>

3. **Banerjee, S.**, **Alok, A. K.**, & Omkar, S. (2016). *Quantum Fisher and skew information for Unruh accelerated Dirac qubit*. *The European Physical Journal C*, 76(8). ISSN: 1434-6052. <http://doi.org/10.1140/epjc/s10052-016-4290-7>

4. **Banerjee, S.**, **Alok, A. K.**, Omkar, S., & Srikanth, R. (2017). *Characterization of Unruh channel in the context of open quantum systems*. *Journal of High Energy Physics*, 2017(2), 82. ISSN: 1029-8479. [https://doi.org/10.1007/JHEP02\(2017\)082](https://doi.org/10.1007/JHEP02(2017)082)

5. Dutta, S., Adhikari, B., **Banerjee, S.**, & Srikanth, R. (2016). *Bipartite separability and nonlocal quantum operations on graphs*. *Physical Review A*, 94(1), 12306. ISSN: 2469-9934. <http://doi.org/10.1103/PhysRevA.94.012306>

6. Ghosh, S., **Sahu, S.**, Agrawal, L., Shiga, T., & Bandyopadhyay, A. (2017). *Inventing a co-axial atomic resolution patch clamp to study a single resonating protein complex and ultra-low power communication deep inside a living neuron cell*. *Journal of Integrative Neuroscience*, 1–31. ISSN: 0219-6352. <https://doi.org/10.1142/S0219635216500321>

7. Gupta, G. K., & **Dixit, A.** (2017). *Effect of precursor and composition on the physical properties of the low-cost solution processed Cu<sub>2</sub>ZnSnS<sub>4</sub> thin film for solar photovoltaic application*. *Journal of Renewable and Sustainable Energy*, 9(1), 013502-1–013502-10. ISSN: 1941-7012. <https://doi.org/10.1063/1.4974341>

8. Laha, A., & **Ghosh, S.** (2017). *Connected hidden singularities and toward successive state flipping in degenerate optical microcavities*. *Journal of the Optical Society of America B*, 34(2), 238–244. ISSN: 1520-8540. <https://doi.org/10.1364/JOSAB.34.000238>

9.	Laha, S. S., Abdelhamid, E., Arachchige, M. P., Kumar, A., & <b>Dixit, A.</b> (2017). <i>Ferroic ordering and charge-spin-lattice order coupling in Gd-doped Fe<sub>3</sub>O<sub>4</sub> nanoparticles relaxor multiferroic system</i> . Journal of the American Ceramic Society, n/a-n/a. ISSN: 1551-2916. <a href="https://doi.org/10.1111/jace.14739">https://doi.org/10.1111/jace.14739</a>
10.	Omkar, S., Srikanth, R., <b>Banerjee, S.</b> , & Shaji, A. (2016). <i>The two-qubit amplitude damping channel: Characterization using quantum stabilizer codes</i> . Annals of Physics, 373, 145–162. ISSN: 0003-4916. <a href="http://doi.org/10.1016/j.aop.2016.06.024">http://doi.org/10.1016/j.aop.2016.06.024</a>
11.	Saini, L., Janu, Y., Patra, M. K., Jani, R. K., Gupta, G. K., <b>Dixit, A.</b> , & Vadera, S. R. (2016). <i>Dual Band Resonance in Tetragonal BaTiO<sub>3</sub>/NBR Composites for Microwave Absorption Applications</i> . Journal of the American Ceramic Society, n/a-n/a. ISSN: 1551-2916. <a href="http://doi.org/10.1111/jace.14284">http://doi.org/10.1111/jace.14284</a>
12.	Saini, L., Patra, M. K., Jani, R. K., Gupta, G. K., <b>Dixit, A.</b> , & Vadera, S. R. (2017). <i>Tunable Twin Matching Frequency (fm1/fm2) Behavior of Ni<sub>1-x</sub>Zn<sub>x</sub>Fe<sub>2</sub>O<sub>4</sub>/NBR Composites over 2–12.4 GHz: A Strategic Material System for Stealth Applications</i> . Scientific Reports, 7, 44457. ISSN: 2045-2322. <a href="https://doi.org/10.1038/srep44457">https://doi.org/10.1038/srep44457</a>
13.	Sharma, V., Thapliyal, K., Pathak, A., & <b>Banerjee, S.</b> (2016). <i>A comparative study of protocols for secure quantum communication under noisy environment: single-qubit-based protocols versus entangled-state-based protocols</i> . Quantum Information Processing, 1–30. <a href="http://doi.org/10.1007/s11128-016-1396-7">http://doi.org/10.1007/s11128-016-1396-7</a>
14.	Tripathi, B., Tripathi, G., <b>Dixit, A.</b> , Saxena, N., Sharma, K. B., & Katiyar, R. S. (2016). <i>Study of Hydrogen Adsorption on GO/PS Based Flexible Nanocomposites at Room Temperature</i> . Advanced Science Letters, 22(11), 3768–3772. ISSN: 1936-6612. <a href="https://doi.org/10.1166/asl.2016.8056">https://doi.org/10.1166/asl.2016.8056</a>
15.	Usmani, B., & <b>Dixit, A.</b> (2016). <i>Impact of corrosion on microstructure and mechanical properties of ZrOx/ZrC-ZrN/Zr absorber–reflector tandem solar selective structures</i> . Solar Energy Materials and Solar Cells, 157, 733–741. ISSN: 0927-0248. <a href="http://doi.org/10.1016/j.solmat.2016.07.019">http://doi.org/10.1016/j.solmat.2016.07.019</a>
16.	Usmani, B., & <b>Dixit, A.</b> (2016). <i>Spectrally selective response of ZrOx/ZrC–ZrN/Zr absorber–reflector tandem structures on stainless steel and copper substrates for high temperature solar thermal applications</i> . Solar Energy, 134, 353–365. ISSN: 0038-092X. <a href="http://doi.org/10.1016/j.solener.2016.05.014">http://doi.org/10.1016/j.solener.2016.05.014</a>
17.	Usmani, B., <b>Vijay, V.</b> , <b>Chhibber, R.</b> , & <b>Dixit, A.</b> (2016). <i>Investigation of ZrOx/ZrC–ZrN/Zr thin-film structural evolution and their degradation using X-ray diffraction and Raman spectrometry</i> . Applied Physics A, 122(11), 992. ISSN: 1432-0630. <a href="https://doi.org/10.1007/s00339-016-0523-8">https://doi.org/10.1007/s00339-016-0523-8</a>
18.	Vyas, G., Dagar, P., & <b>Sahu, S.</b> (2016). <i>A complementary switching mechanism for organic memory devices to regulate the conductance of binary states</i> . Applied Physics Letters, 108(23), 233301. ISSN: 1077-3118. <a href="http://doi.org/10.1063/1.4953197">http://doi.org/10.1063/1.4953197</a>
<b>Conference Papers</b>	
1.	Gupta, G. K., & <b>Dixit, A.</b> (2016). <i>Room temperature electrical properties of solution derived p-type Cu<sub>2</sub>ZnSnS<sub>4</sub> thin films</i> . In AIP Conference Proceedings (Vol. 1728, p. 20678). AIP Publishing. ISBN: 978-0-7354-1375-7. <a href="http://doi.org/10.1063/1.4946729">http://doi.org/10.1063/1.4946729</a>
2.	Kumar, R., Kumar, R., & <b>Dixit, A.</b> (2016). <i>Thermal phase diagram of acetamide-benzoic acid and benzoic acid-phthalimide binary systems for solar thermal applications</i> . In AIP Conference Proceedings (Vol. 1728, p. 20687). AIP Publishing. ISSN: 978-0-7354-1375-7. <a href="http://doi.org/10.1063/1.4946738">http://doi.org/10.1063/1.4946738</a>
3.	Kumar, R., Vyas, S., Kumar, R., & <b>Dixit, A.</b> (2016). <i>Charging studies of heat packs using parabolic dish solar energy concentrator for extreme conditions</i> . In V. Rajpaul & C. Richter (ed.), 21st SolarPACES International Conference (SolarPACES 2015) (Vol. 1734, p. 50027). American Institute of Physics, Cape Town, South Africa. ISBN: 978-0-7354-1386-3. <a href="http://doi.org/10.1063/1.4949125">http://doi.org/10.1063/1.4949125</a>



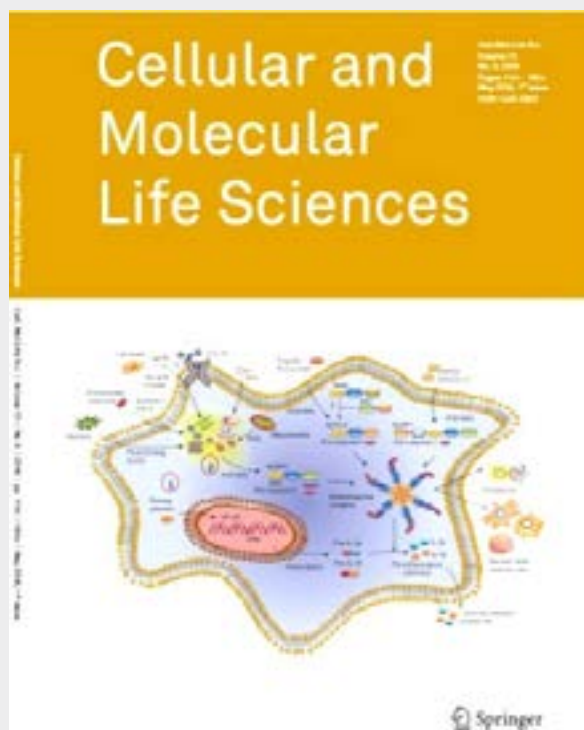
## Pre-prints

1.	<b>Alok, A. K.,</b> Bhattacharya, B., Kumar, D., Kumar, J., London, D., & Sankar, S. U. (2017). <i>New Physics in <math>b\bar{s}\mu+\mu^-</math>: Distinguishing Models through CP-Violating Effects</i> . arXiv:1703.09247 [Hep-Ph]. <a href="http://arxiv.org/abs/1703.09247">http://arxiv.org/abs/1703.09247</a>
2.	<b>Alok, A. K.,</b> Kumar, D., Kumbhakar, S., & Sankar, S. U. (2016). <i>D* polarization as a probe to discriminate new physics in <math>B \rightarrow D^* \tau \text{ nubar}</math></i> . arXiv:1606.03164 [Hep-Ex, Physics:hep-Ph]. <a href="http://arxiv.org/abs/1606.03164">http://arxiv.org/abs/1606.03164</a>
3.	<b>Banerjee, S.,</b> Kumar, N. P., Srikanth, R., Jagadish, V., & Petruccione, F. (2017). <i>Non-Markovian Dynamics of Discrete-Time Quantum Walks</i> . arXiv:1703.08004 [Quant-Ph]. <a href="http://arxiv.org/abs/1703.08004">http://arxiv.org/abs/1703.08004</a>
4.	Dixit, K., <b>Alok, A. K., Banerjee, S.,</b> & Kumar, D. (2017). <i>Geometric phase and neutrino mass hierarchy problem</i> . arXiv:1703.09894 [Hep-Ph, Physics:quant-Ph]. <a href="http://arxiv.org/abs/1703.09894">http://arxiv.org/abs/1703.09894</a>
5.	Dutta, S., Adhikari, B., & <b>Banerjee, S.</b> (2016). <i>Seidel switching for weighted multi-digraphs and its quantum perspective</i> . arXiv:1608.07830 [Math-Ph, Physics:quant-Ph]. <a href="http://arxiv.org/abs/1608.07830">http://arxiv.org/abs/1608.07830</a>
6.	Goyal, R., Jha, R., Tiwari, B., <b>Dixit, A.,</b> & Awana, V. P. S. (2016). <i>Influence of Ni doping on critical parameters of PdTe superconductor</i> . arXiv:1605.04647 [Cond-Mat]. <a href="http://arxiv.org/abs/1605.04647">http://arxiv.org/abs/1605.04647</a>
7.	Sedrakian, A., Huang, X.-G., <b>Sinha, M.,</b> & Clark, J. W. (2017). <i>From microphysics to dynamics of magnetars</i> . arXiv:1701.00895 [Astro-Ph, Physics:nucl-Th]. <a href="http://arxiv.org/abs/1701.00895">http://arxiv.org/abs/1701.00895</a>
8.	Thapliyal, K., Pathak, A., & <b>Banerjee, S.</b> (2016). <i>Quantum cryptography over non-Markovian channels</i> . arXiv:1608.06071 [Quant-Ph]. <a href="http://arxiv.org/abs/1608.06071">http://arxiv.org/abs/1608.06071</a>

## Awards & Recognitions

### Department of Bioscience & Bioengineering

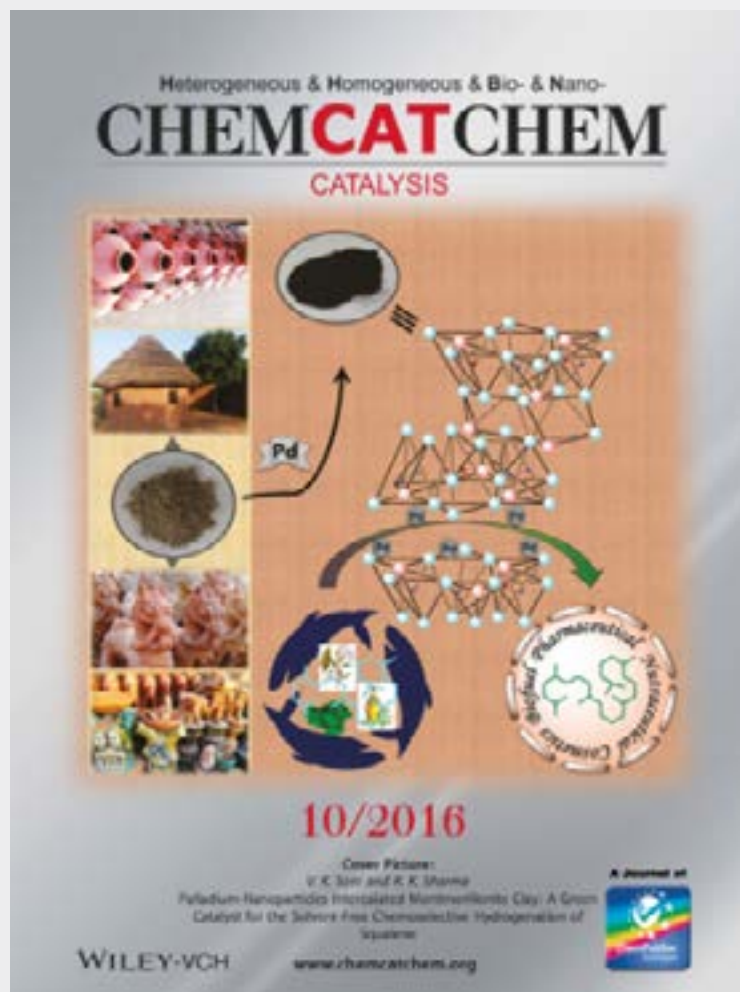
1. Amit Kumar Mishra, Assistant Professor, has won the CSIR-CDRI Medicinal and Process Chemistry Division based Indian Society of Chemists and Biologists “ISCB Young Scientist Award for the year 2017” in the area of Biological Sciences. The award comprises of a cash award of Rs. 5000/- and a citation, which is being conferred in a ceremony at SRM University, Tamil Nadu during 8-10 February 2017.
2. Sushmita Jha’s research placed on cover of Cellular and Molecular Life Sciences, May 2016



From the research paper “NLR-regulated pathways in cancer: opportunities and obstacles for therapeutic interventions” authored by Sushmita Jha, Assistant Professor, Department of Biology and Nidhi Sharma, Ph.D. Student, Department of Biology, which was published in the May 2016 issue of Cellular and Molecular Life Sciences, published by Springer Verlag, the figure depicting the “Summary of NLR inflammasome complex formation (Fig. 2)” has been placed as the cover art on the journal issue. NLRs (nucleotide-binding domain, leucine-rich repeat containing receptors) are pattern recognition receptors associated with immunity and inflammation in response to endogenous and exogenous pathogen and damage associated molecular patterns (PAMPs and DAMPs respectively). Dysregulated NLR function is associated with several diseases including cancers, metabolic diseases, autoimmune disorders and autoinflammatory syndromes. In the last decade, distinct cell and organ specific roles for NLRs have been identified however; their roles in cancer initiation, development and progression remain controversial. This review summarizes the emerging role of NLRs in cancer and their possible future as targets for cancer therapeutics. Full article can be read at [doi:10.1007/s00018-015-2123-8](https://doi.org/10.1007/s00018-015-2123-8).

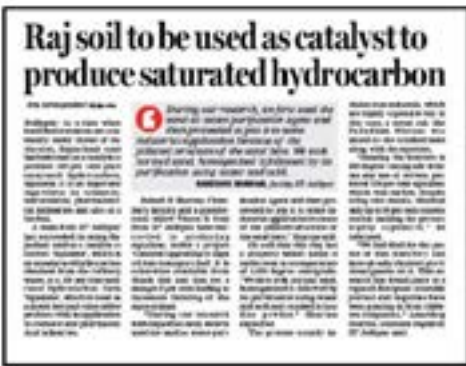
## Department of Chemistry

1. Rakesh K. Sharma's research placed on cover of ChemCatChem, May 2016



The cover shows the interface between the traditional and scientific applications of clay. In their communication, V. K. Soni and R. K. Sharma show the smart utilization of clay as a heterogeneous catalyst by nanometal intercalation for the selective hydrogenation of squalene into squalane under solvent free conditions. Squalane is an important ingredient in the cosmetic, nutraceutical, and pharmaceutical industries. Also, it has been used as a model compound for the hydrocracking of crude and microalgae oil. Thus, a series of green catalysts were prepared. The Pd-nanoparticles-intercalated clay with a dominating Pd(111) facet shows highest reactivity and selectivity. The catalyst is stable with very low Pd leaching, and is recyclable without losing any significant catalytic activity. More information can be found in the communication by V. K. Soni and R. K. Sharma on page 1763 in Volume 8, Issue 10, 2016 (DOI:10.1002/cctc.201600210).

2. Natural Rajasthanani Clay (Jodhpur) for Production of Fuel & Value-added Products from Biomass Feedstocks



In a quest of developing cost effective and green catalytic systems for biomass upgradation, recently, Rakesh K. Sharma, Assistant Professor and Head, Department of Chemistry, and Vineet Kumar Soni, Post-Doctoral Fellow, utilized natural clay as a heterogeneous catalyst by nanometal intercalation for converting squalene into squalane under solvent free conditions. Squalane is an important ingredient in the cosmetic, nutraceutical, and pharmaceutical industries. Also, it has been used as a model compound for the hydrocracking of crude and microalgae oil. The presence of Pd-nanoparticles with dominating Pd(111) plane showed highest reactivity and selectivity. The catalysts are stable and reusable under the proposed reaction conditions. The group is now focusing on exploring new clay-based catalysts for the production of fuel grade hydrocarbons from vegetable oil, algae oil and related compounds.

Department of Electrical Engineering

1. Shree Prakash Tiwari, Assistant Professor, has been elevated as Senior Member of the Institute of Electrical and Electronics Engineers (SMIEEE) as an honour to his contribution to the profession.
2. Mahesh Kumar, Assistant Professor, has been elevated as Senior Member of the Institute of Electrical and Electronics Engineers (SMIEEE) as an honour to his contribution to the profession.

3. Mahesh Kumar, Assistant Professor, has been decorated with the Young Achiever Award by the Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy (DAE), Government of India, for his meritorious contribution in the field of Science, during the 61st Solid State Physics Symposium at KIIT University, Bhubaneswar on 30 December 2016.
4. The Indian National Young Academy of Science (INYNAS), has elected Mahesh Kumar, Assistant Professor, as a Core Committee Member of the Academy. INYNAS was founded by the Indian National Science Academy in December 2014 and came into existence with the selection of its 20 founding members by the INSA Council in May 2015. Aspiring to be the voice of young scientists across the country, INYNAS has 52 members and 7 elected core committee members on board, presently.

### Department of Humanities & Social Sciences

1. Vidya Sarveswaran, Assistant Professor, was awarded the 2016 Rachel Carson Fellowship, by Rachel Carson Center for Environment and Society at the Ludwig Maxmillian University, Munich. The Research Fellowship is supported by the Deutches Museum and the Government of Germany.

### Department of Mechanical Engineering

1. Presentation made by Rahul Chhibber, Assistant Professor, was chosen as one of the best oral presentations and was presented with an Excellent Oral Presentation Certificate at 2016 4<sup>th</sup> Asia Conference on Mechanical and Materials Engineering (ACMME 2016) held at Kuala Lumpur during 14-18 July 2016.

## Outreach

The following Outreach activities have been undertaken by the Faculty Members at IIT Jodhpur during the FY 2016-17.

### Undergraduate Research Initiative

IIT Jodhpur started the Undergraduate Research Initiative (UGRI) Program in 2011 with the objective of promoting research and innovation among undergraduate students. This program is organised every summer; it helps participating students improve their professional knowledge and skills. Students from across the country were encouraged to participate in the UGRI Program. 23 students participated in the UGRI 2016. Students were selected on the basis of their academic achievements and the merit of the research proposal submitted by them, be it an analytical one or an experimental one. It began on 16 May 2016 and ended on 15 July 2016. Selected students were provided accommodation in Students' Hostel at IIT Jodhpur. During this period, the participating students were offered a token financial assistance to meet their basic expenses. During this 10 week program, the students worked on their projects under the mentorship of Faculty Members at IIT Jodhpur.



Participants of UGRI 2016 with Barun Pratiher, Faculty Member Incharge, UGRI 2016

### Ishaan Vikaas Program

A special program in the name of Ishaan Vikaas, an initiative of the Ministry of Human Resource Development, has been launched as a comprehensive plan to bring selected school girls and boys, from the North-Eastern states into close contact with the IITs and IISERs during their vacation periods with the objective of opening up the young minds and giving them a broad overview of the future paths which they would like to traverse. They should get a wider perspective on how they can take a much more proactive role in shaping their own future. At the same time, as a part of Ishaan Vikaas, an academic activity will take place to encourage internship for the engineering college students of North-Eastern states in various institutes of national importance.

From this year onwards, IIT Jodhpur has taken part in this Government's mission to give whole-hearted support for the success of this Program. The Institute has organized the Program twice this year, during summer and winter.

During 4-16 July 2016, 40 school children, accompanied by 7 teachers visited IIT Jodhpur. In this context, a schedule has been prepared for the school children under the mentorship, guidance and supervision of the Faculty Members of respective department.



Participants of Ishaan Vikas Program

# Events

## Celebration of National Festivals & Observance of Days of National Importance

### Second International Yoga Day

First International Day of Yoga was celebrated on 21 June 2016 at the GPRA Residential Campus of IIT Jodhpur. Faculty Members, Staff Members and Students took an active part in the event.



Chairman, Health Services, IIT Jodhpur introducing the program



Faculty and Staff Members of IIT Jodhpur doing Yoga



Yoga Instructors demonstrating to the participants



The participants and instructors at Porta Cabin, GPRA Residential Campus, IIT Jodhpur

## 70<sup>th</sup> Independence Day Celebration

The 70<sup>th</sup> Independence Day of the nation was celebrated by the members of IIT Jodhpur Community, on 15 August 2016 in the Temporary Academic Campus. Subsequent upon the flag hoisting and rendering of the National Anthem by the members present, students presented a cultural show with a musical performance by Sangam (the music band of students) and a street play by Nukkad (the drama group of students).



Musical performance by “Sangam” the music band of IIT Jodhpur Students Gymkhana on 15 August 2016



Cultural Program by IIT Jodhpur Students on 15 August 2016



Cultural Program by IIT Jodhpur Students on 15 August 2016



Audience enjoying the cultural programs on 15 August 2016



## Tree Plantation in Permanent Campus of IIT Jodhpur

Tree plantation activity was undertaken at the Permanent Campus of IIT Jodhpur in Karwad on the occasion of 69<sup>th</sup> Independence Day on 15 August 2016. Several neem saplings were planted jointly by the members of the IIT Jodhpur community and the Jodhpur Tree Plantation and Environment Protection Committee (JTPEPC), led by Sri M. S. Singhvi, Senior Advocate, (High Court of Rajasthan, Jodhpur) in the presence of Honourable Justice Sandeep Mehta, (Sitting Judge, High Court of Rajasthan, Jodhpur) and distinguished members of JTPEPC.



Tree plantation at the Permanent Campus of IIT Jodhpur on 15 August 2016



मरु धरा में हरियाली लाने की ओर आई.आई.टी. जोधपुर के शिशु कदम, आज़ादी के ७०वें शुभ पर्व पर आई.आई.टी. जोधपुर के स्थाई परिसर में सघन वृक्षारोपण, १५ अगस्त २०१६

## Freedom Fortnight Celebrations @ IIT Jodhpur

On the occasion of Independence Day, the Government of India declared a 14 day celebration. IIT Jodhpur has taken this initiative positively and organised various events on this occasion. One of the activities organised by the Students Gymkhana during this celebration was “Sketching Competition”. The Institute showed great interest in the competition and actively participated in it. To encourage students think about the positive aspects and the great achievements of the country, “The Incredible India” theme was chosen for the competition. This inculcates feeling of patriotism and proud among the “Future of India”. Some of the sketches contributed by the Students are illustrated as under.



Another event that was organised by the Technical Society of the Students Gymkhana during 14-18 August 2016 was a task to use the Rube Goldberg machine to commemorate the 70<sup>th</sup> Independence Day. The projects were evaluated by Rajlaxmi Chouhan and Mahima Arrawatia, Assistant Professors, Department of Electrical Engineering. The following pictures depict application of Rube Goldberg machine:



## National Sports Day

National Sports Day was celebrated at IIT Jodhpur on 29 August 2016 at the GPRA Residential Campus. Following are some pictures of the celebration.



Students enjoying a game of Kho Kho



Happy National Sports Day!!

## Teacher's Day Celebrations @ IIT Jodhpur

IIT Jodhpur organized a program on Teacher's Day to pay tribute to the contribution of Dr. Sarvepalli Radhakrishnan and to acknowledge the importance of Teachers towards nation building.

Coordinator (Academics) welcomed the Director, Faculty Members, Staff Members, and Students. Professor Prawal Sinha, Professor In-charge (Faculty) introduced the guest speaker Professor Amit Ray, who served as a Professor at the Department of Humanities & Social Sciences at IIT Kanpur from 1978-2008 and presently associated with the School of Humanities and Social Sciences, Shiv Nadar University. Professor Ray addressed the gathering on "Milestones and Signposts in the Journey of an Academic" and shared some valuable experiences from his illustrious career. Thereafter, Certificates of Academic Distinction were presented by the Heads of Departments to the meritorious students. As a mark of respect to a great teacher, Professor Ray was felicitated on this occasion. The program ended with a Vote of Thanks by Coordinator (Students).



Professor Amit Ray addressing the IIT Jodhpur Community



Presenting Certificate of Academic Distinction



Presenting Certificate of Academic Distinction



Felicitating Professor Amit Ray

## Hindi Pakhwada

With an objective of spreading awareness and to expedite official communication process in Hindi language, a fortnight during September of every year is dedicated as Hindi Pakhwada. Hindi Diwas observed on 14 September marks the beginning of this fortnight. The Hindi Diwas and Hindi Pakhwada are organized in all Central Government Offices.

In FY 2016-17 Hindi Pakhwada was organized in IIT Jodhpur from 14-28 September 2016, wherein various competitions like debate, poem recitation, quiz and letter writing were conducted. Staff Members of IIT Jodhpur participated in these competitions enthusiastically. The winners were awarded prizes and certificates of appreciation during the closing ceremony on 28 September 2016.



Debate competition during Hindi Pakhwada



Winner receiving Certificate of Appreciation from

## 68<sup>th</sup> Republic Day Celebration

The 68<sup>th</sup> Republic Day of the nation was celebrated by Members of IIT Jodhpur community, on 26 January 2017, at the *First Building* on the Permanent Campus in Karwad Village. The Director hoisted the National Flag, and the National Anthem was patriotically rendered by all present.

Students presented a cultural show with a musical performance by *Sangam*, the music band of students, and a street play by *Nukkad*, the drama group of students. The *General Secretary* of Student Gymkhana, IIT Jodhpur, proposed a *Vote of Thanks*. A visit was arranged to nearing completion buildings of the Permanent Campus of IIT Jodhpur for the Students, Faculty Members and Staff Members present. The program was followed by lunch.

Earlier in the morning, the National Flag was hoisted at the *Academic Campus* and the *GPRA & BSNL Residential Campuses* also.



Students presenting cultural programs on the occasion of 68th Republic Day

## Institute Events

### Institute Day

The Institute organizes *Institute Day*, every year, as a benign gesture to mark our association so far with the outgoing students of B.Tech. and M.Tech. This year it was organized on 16 April 2016, as a small function followed by dinner. It was a moment of melancholy of feelings for the, as well as for the Faculty and Staff members for the Institute.



Outgoing batch of B.Tech. Students



Outgoing batch of M.Tech. Students



Outgoing Students sharing their experiences



Outgoing Students with Director, Faculty Members and Staff Members of IIT Jodhpur

### 3<sup>rd</sup> Convocation of IIT Jodhpur

The 3<sup>rd</sup> Convocation of IIT Jodhpur was held on 08 December 2016. The Chief Guest for the momentous occasion was Dr. Arvind Panagariya, Vice Chairman, NITI Aayog, Government of India. Though Dr. Panagariya could not be present in person for the occasion due to an important and urgent assignment at the last moment, he sent his video recorded speech, which was played during the event. Total 157 students received their degrees, out of which 136 were B.Tech. students, 15 were M.Tech. students, and 6 were Ph.D. students. With this the total number of students graduating from this young Institute stands at 720. The Convocation ceremony was held at the Auditorium of All India Institute of Medical Sciences, Jodhpur.



Director, IIT Jodhpur, reading the Institute Report



Parents of Sachin Grover receiving President's Gold Medal on his behalf

## Visitors to the Institute

### Indo-US Relations

Mark Azua, Director, Programs, North India Office, Embassy of the United States of America, gave a talk on "India-U.S. Relations: The Way Forward" on Wednesday, 16 November 2016. Mr. Azua talked about the relationship between the countries and its progress after the recent Presidential Elections. Faculty Members, Staff Members, and Students attended the talk.



Mark Azua addressing the audience

### Visit of Union Minister for State for Electronics & IT and Law & Justice

Sh. P. P. Chaudhary, Union Minister for State for Electronics & IT and Law & Justice, visited IIT Jodhpur on 10 December 2016. A meeting was held at IIT Jodhpur on 10 December 2016 from 4:30 pm to discuss the possibility of establishing an Information Technology Investment Region (ITIR) in the greater Jodhpur-Pali region. The meeting was chaired by the Hon'ble Union Minister of State for Electronics & IT and Law & Justice, Sh. P. P. Chaudhary. The meeting was attended

by C. V. R. Murty (Director, IIT Jodhpur), Dr. S. R. Vadera (Director, DRDO Defence Laboratory Jodhpur), Sh. M. L. Bapna (Advisor – Industry-Academia Interface, IIT Jodhpur), three Faculty Members of IIT Jodhpur (Arun K. Singh (EE), S. P. Tiwari (EE), and B. V. Ramana (CSE)), Sh. Dipak Singh (Scientist F, Ministry of Electronics & Information Technology, Government of India), Sh. N. K. Gupta (Scientist B, Ministry of Electronics & Information Technology, Government of India) and Sh. Mukesh Chaudhary (Additional Private Secretary to Minister of State, Government of India).



Professor C. V. R. Murty presenting a memento to Sh. P. P. Chaudhary

## Inter-IIT Sports Meet

### IIT Jodhpur's Participation

Faculty Members and Staff Members of IIT Jodhpur actively participated in the 23<sup>rd</sup> Inter-IIT Staff Sports Meet. The meet was organized during 21-25 December 2016 by IIT Kanpur. The Faculty and Staff Members participated in Cricket, Badminton, Table Tennis, and Athletics. Alongside, Students also participated in the 45<sup>th</sup> Inter-IIT Sports Meet held during 11-18 December 2016 at IIT Kanpur.



IIT Jodhpur Contingent



Women's Table Tennis – IIT Jodhpur vs. IIT Delhi

# Facilities

## Our Campus

### Present Campuses



At present, IIT Jodhpur operates from two sets of temporary campuses, namely:

**Temporary Academic Campus:** It operates independently from the premises of MBM Engineering College in Jodhpur, situated on the Old Residency Road, Ratanada, at a distance of about 4 km from the Jodhpur Railway Station and 3 kms from the Jodhpur Airport.

**Temporary Residential Campuses:** IIT Jodhpur has two residential campuses located at (1) GPRA Residential Campus, New Pali Road Jodhpur, and (2) BSNL Residential Campus, Subhash Nagar, Jodhpur. GPRA Campus is located at New Pali Road, about 17 kms from the academic campus and provides accommodation to nearly 600 B.Tech. boy and all girl students. Also, it provides accommodation to nearly 150 other members of IIT community, including Faculty Members, Staff Members, and their family members. On the other hand, BSNL Campus is located in the heart of the city and provides accommodation to nearly 150 male M.Tech. and Ph.D. students. Limited housing is available on this campus for married students.

#### Temporary Academic Campus

Currently, the academic campus of IIT Jodhpur comprises of three blocks, namely:

- (i) Academic Block 1: It houses several laboratories, the library, a computer center and offices of some Faculty Members.
- (ii) Academic Block 2: It has lecture halls, classrooms, language lab and multimedia lab.
- (iii) Administrative Block: It houses the Office of Director, administrative offices, technical laboratories and offices of some Faculty Members.

In addition, the academic campus consists of some temporary structures used for different purposes such as laboratories and office spaces. IIT Jodhpur has established good academic facilities for teaching and research. The Institute has well equipped Laboratories and a Library.

#### Laboratories and Research Facilities

IIT Jodhpur has established state-of-the-art teaching and research laboratories. These advanced laboratories have machinery and devices of international standard, which are actively used in research. The major laboratories include Heat Transfer, Fluid Mechanics, Electronic Circuit Laboratory, Robotics, Electro Mechanical Energy Conversion Laboratory and Solar Radiation.

## Library

The Library has a collection of about 12,000 volumes of books comprising of textbooks, research and reference books, monographs etc. In addition, the Library provides access to a range of electronic resources from professional and scholarly societies and publishers, such as American Society for Mechanical Engineers, Institute for Electrical & Electronics Engineers, and Association for Computing Machinery, to name a few. Also, it subscribes to popular scientific, research and archival databases, like SciFinder, MathSciNet, JStor, Prowess, and EBSCO Academic Search.

The Library operates in a computerized environment with automated member & circulation services, and digital library services. Memberships, circulation, reference & information service, inter library loans & document lending services, current awareness service, digital library service are some of the important services that are presently offered.

## Temporary Residential Campuses

### GPRA Residential Campus

The major residential area is in a scenic campus located on New Pali Road, Vivek Vihar, Jodhpur, about 20 kms from the railway station. The campus is well guarded and equipped with basic amenities including Wi-Fi, recreational rooms and a computer center. Also, the residential campus provides accommodation for Faculty Members and Staff Members of the Institute. Transport facility is available between the Institute and Residential campus.

### BSNL Residential Campus

The second residential campus is located in BSNL Colony on Pal Link Road in Subhash Nagar. Basic common facilities are available at BSNL colony. Transport facility is available between the Institute and BSNL Campus. All male M.Tech. and Ph.D. and some married students are given accommodation in this residential campus.

## Facilities

Following are some basic facilities made available in the residential areas:

- (a) **ATM & Bank:** The residential area has a branch of SBI (State Bank of India) as well as an ATM of SBI, enabling students to make transactions with ease. There are several other banks namely UCO, HDFC and SBBJ close to the academic area.
- (b) **Canteen:** There are two sets of canteens, one at Residential Campus and the other one in Academic Campus. They provide hygienic food, fresh juices and various other snacks for the students.
- (c) **Gymnasium:** A well-equipped gymnasium is present in the Residential Campuses, and is operational during 5 am to 10 pm. Students can avail these facilities to stay healthy and to maintain their physique.
- (d) **Dining Facility:** There are two sets of Dining Facilities, one in the Residential Campuses and the other one in the Academic Campus. The mess offers good quality food, regularly monitored by the Wardens for hygiene and nutritional values, and provided at affordable cost.
- (e) **Shops:** Shops catering to the various primary needs of students are present near the Academic Campus. A small outlet is functional inside GPRA campus for urgent petty purchases.
- (f) **Transport Services:** The Institute has a bus service running between the Residential and Academic Campuses at regular intervals, exclusively for the Students of the Institute.
- (g) **Entertainment Room:** Every hostel consists of recreation facilities (like TV Rooms, where students can enjoy matches and watch movies) along with indoor games (like table tennis and carroms).

## Medical Services

Both the Residential Campuses have Health Centers for providing routine health services. Due to geographical locations of the two Campuses and the type of the residents, Health Center at GPRA Campus provides services to the patients round the clock, while medical services are available at BSNL Campus for limited hours in the evening, typically from 5 pm to 10 pm. In addition to the availability of medical services at Residential Campuses, medical assistance is available at Academic Campus. This assistance is normally provided from 3 pm to 4.30 pm, when laboratory sessions are in full swing and medical assistance may be required. The Institute has its ambulance services available round-the-clock.



Besides the Health Centers, the Institute has empanelled five hospitals in the city of Jodhpur. Two of these hospitals have specializations in ophthalmology and one in orthopedic, and the remaining two hospitals are the best known general purpose hospitals in the city. For specialized medical attention doctors at our Health Centers refer patients to one of these hospitals. In addition to these five hospitals, the city has a Medical College and three hospitals run by Government of Rajasthan. Also, the city All India Institute of Medical Sciences (AIIMS), which is nearly 12 km GPRA Campus and nearly 5 km from BSNL Campus. Also, the Institute has constituted a Medical Board consisting of Senior Doctors from the Medical College and the AIIMS; advice is taken for enhancement of medical services of the Health Centers and in critical medical cases. IIT Jodhpur has empanelled two hospitals in Jaipur. These two hospitals are accredited by National Accreditation Board for Hospitals & Healthcare, and patients can be referred to these hospitals as per the need of the treatment.

## Permanent Campus

In the forthcoming years, IIT Jodhpur will shift to its sprawling state-of-the-art residential permanent campus on 852 acres of land located ~24 km away from the center of the city of Jodhpur on National Highway 65 towards Nagaur, N-NE from the center of Jodhpur. The permanent campus has 3 parcels of land. The Institute is finalizing plans for adopting one of for harvesting technologies. This new campus has been planned meticulously and envisioned to stand as a symbol of academics – simple, but deep.



Master Plan of IIT Jodhpur's Permanent Campus at Karwar Village on NH 65

The foundation stone for the permanent campus was laid on 16 April 2013 by the Hon. Union Minister for Human Resources Development (Government of India), Dr. M. M. Pallam Raju. The Permanent Campus of the Institute is being constructed. Work to build Phase 1 of the campus began in March 2015. When complete, it will be the first fully-planned technical institute campus in India. More importantly, it will be an international exemplar of sustainability with strategies for ensuring NET ZERO ENERGY, WATER and WASTE. The other salient features of the Permanent Campus are:

- (1) Walking campus, which is pedestrian oriented and bicycle dominant;
- (2) Learning facilitated anywhere, anytime with wireless ICT backbone (including Multi-media enabled learning spaces with flexible, shared public spaces);
- (3) Thermally comfortable smart buildings with GRIHA 4/5 star compliant buildings and GRIHA LD benchmark campus (including dense desert settlement morphology, low height buildings (up to a maximum of 3 storeys) built with low embodied energy materials, and improved local and traditional methods);
- (4) Plantation with native species, soil stabilization, protection from dusty wind to arrest erosion, desertification, and building-up soil moisture over time;
- (5) Rain water harvesting, and water reduction and sewage recycling, together greening the site over time; and
- (6) Segregated wastes and customized recycling



Entrance structure of IIT Jodhpur permanent campus

The campus will have housing for Faculty Members and Staff Members, along with a school (up to Class XII), bank, post office and market. Also, it will have a Primary Health Center with hotline connections to reach the top hospitals of the city, like the All India Institute of Medical Sciences, Jodhpur, and a fully equipped ambulance service. A large parcel of the Permanent Campus (of about 182 acres) is set aside for the development a TECHNOLOGY PARK to strengthen institute-industry interactions.



Faculty Members & Officers housing

The first migrations into the campus are likely to take place during July 2017.

## Computer Center

The Institute has a modern Computer Center, presently running on a gigabit LAN with 1Gbps internet bandwidth. It is the nucleus of all computing activities for Students, Staff Members and Faculty Members. Several terminals running on Windows and GNU/Linux operating systems across the campus provide access to several licensed software, like MatLab, Mathematica, Cadence, Mentor Graphic, Ansys, PSCAD and Solidworks. A 802.11/b/g/n Wi-Fi service is enabled in the academic and residential areas. Also, the Computer Centre hosts a High Performance Computing cluster for scientific research.

### Resources

The Institute has five key resources at the Computer Center, namely, the Linux Operating System, SVN Server, GIT Server, OwnCloud and various licensed application software that are used for academic and research purpose, have made it possible to offer the various resources and facilities.

### Facilities

The Institute extends three facilities, namely, networking, computing, Internet access, and LDAP and Active Directory ID facilities through its Computer Center.



### Services

The Institute offers services like FTP, LDAP, HPC, Web Hosting, Network Connectivity, VPN, EduRoam, and News Group, through its Computer Center.

## Library

Library supports the teaching and research activities of the Institute by facilitating acquisition, organization and dissemination of knowledge resources, and also by providing library & information services to IIT Jodhpur community. Library is located on the ground floor of Academic Block I in the Academic Campus of IIT Jodhpur, in room nos. 1001, 1001 Extension, and 1011. Library functions with the guidance of Library Committee, which has representatives from all Departments, and Student Representatives.



Room No. 1001, AB1 – Stacks



Circulation Section

### Library Collection

The Library has a rich and growing collection of 12,000 volumes of books (approx.), which include textbooks, and books of general and reference nature. A wide range of scholarly journals and databases are also subscribed from various sources for the academic and research purposes of the Institute.

### Services & Facilities

The following services and facilities are being provided by the Library to its registered users.

1. Member & Circulation Services
2. Orientation & User Education
3. Borrowing Facility
4. Reference & Information Service
5. Course Reserves
6. Current Awareness Service
7. Inter Library Loan & Document Supply
8. Digital Library Facility & Services

Digital resources are accessible through the Library website, which is a comprehensive site maintained by Library. They include the Library subscribed resources, online catalogue, lists of useful resources accessible in the open domain like the open access journals, books, repositories, video lectures, open courseware. These resources are continuously updated.

Library also maintains a portal for hosting bibliographic listing of the Faculty Publications. Additionally, a course guide portal has also been developed and maintained by Library, wherein, resources i.e., books available in Library, subscribed journals, resources accessible in open domain are listed and linked, course-wise. This platform is very useful for the students in finding topical and course-wise resources. Library also provides remote access to the subscribed scholarly resources and anti-plagiarism checking.



Room No. 1011, AB1 – Course Reserves & Digital Library Section



Room No. 1001 Extension, AB1 – Reading Room

Appearing below are some vital statistics of Library for FY 2016-17:

S. No.	Description	Statistics
1.	Books added	Total 276
	a. Number of titles added	106
	b. Number of volumes added	276
2.	Number of Scholarly Resources subscribed	Total 32
	a. Fulltext resources	25
	b. Research databases	7
3.	Document Supply & Inter Library Loan service requested fulfilled	Total 399
	a. Document supply of articles & research papers	390
	b. Books arranged on Inter Library Loans	9
4.	Circulation Transactions	Total 25,267
	a. Number of book check-outs	12328
	b. Number of book check-ins	12289
	c. Number of book renewals	574
	d. Number of book recalls	76

### Details of E-Resources

Library has licensed the following electronic resources in this year, for teaching, research and private study of its academic community.

#### A. Fulltext Resources

1. Association of Computing Machinery Digital Library
2. American Chemical Society Journals
3. American Institute of Physics Journals
4. American Physical Society Journals
5. American Society for Civil Engineers
6. American Society for Mechanical Engineers Digital Library
7. ASTM Standards & Engineering Digital Library
8. Annual Reviews
9. EBSCO Academic Search Complete
10. Economic & Political Weekly

11. Emerald Insight
12. Human Molecular Genetics Journal
13. IEL (IEEE) Online Digital Library
14. JStor Archives
15. Nature Journal
16. Oxford University Press Journals
17. Proceedings of the National Academy of Sciences
18. Project MUSE Journals
19. Proquest ABI/INFORM Complete
20. Royal Society of Chemistry Journals
21. Science Online
22. Elsevier Science Journals
23. Society of Industrial & Applied Mathematics Journals
24. Springer Journals
25. World eBook Library *South Asia Archives*

#### **B. Research Databases**

1. CMIE Prowess IQ (Economics Database)
2. IndiaStat (Statistical Database)
3. Institute for Studies in Industrial Development (ISID) (Indexing Database)
4. MathSciNet (Abstracting & Indexing Database)
5. SciFinder (Research Database)
6. Scopus (Citation & Indexing Database)
7. Web of Science (Citation & Indexing Database)

The Library is also a core member of the eShodhSindhu: Consortium for Higher Education Electronic Resources, operated by INFLIBNET Center, Gandhinagar, through which subscriptions to major resources is fulfilled. Also, the Library is a member of DEveloping Libraries NETwork (DELNET), New Delhi through which the Library meets its Inter Library Loan requirements.

Library also subscribes to Antiplagiarism Tool and Remote Access Tool for its users. Orientation sessions and Library Instruction sessions for Students are conducted by the Library Staff from time to time.

Along with providing regular library facilities and services, the Library Staff Members are also engaged in rendering services in preparation of Institute's publications like the Annual Report, Institute Newsletter; and also actively contribute in maintaining the Institute's website and repositories.

## Laboratories

IIT Jodhpur has established good number of teaching and research laboratories and facilities, which aid in elevating the students from minimalist academic concerns to inquisitive world of scientific arena. These teaching and research laboratories help Faculty Members and Students work for better future by supplementing and improving existing technologies and bodies of knowledge, using competence, creativity and imagination. Appearing below is a department-wise list of laboratories established in IIT Jodhpur whose details are given in the following pages.

Sl. No.	Name of the Laboratory
<b>Department of Biology</b>	
1.	Advanced Biosciences and Neuroscience laboratory
2.	Chemical Biology laboratory
3.	Environmental Biotechnology Laboratory
4.	Protein Engineering Laboratory
<b>Department of Chemistry</b>	
1.	Chemistry Laboratory
<b>Department of Computer Science &amp; Engineering</b>	
1.	Multimedia Laboratory
2.	Networking Technologies Laboratory
<b>Department of Electrical Engineering</b>	
1.	Control / DSP / Microprocessor Laboratory
2.	Electronic Circuit Laboratory
3.	Instrumentation & Communication Laboratory
4.	Power Electronics Laboratory
5.	Robotics Laboratory
<b>Department of Humanities &amp; Social Sciences</b>	
1.	Digital Language Laboratory
<b>Department of Mechanical Engineering</b>	
1.	Advance Manufacturing Laboratory
2.	Central Workshop
3.	Dynamics & Vibration Laboratory
4.	Electro Mechanical Energy Conversion Laboratory
5.	Fluid Mechanics & Heat Transfer Laboratory
6.	High Temperature Solar Thermal Laboratory
7.	Materials Testing & Solid Mechanics Laboratory
8.	Renewable Energy Laboratory
9.	Solar Radiation Laboratory
<b>Department of Physics</b>	
1.	Biomolecular Information Processing Laboratory
2.	Magnetic Property Measurement System (MPMS / SQUID) Laboratory
3.	Materials Analysis Laboratory
4.	Physics Laboratory

## Department of Bioscience & Bioengineering

The Department of Bioscience & Bioengineering (formerly Department of Biology) has the following laboratories for teaching and research purposes.

### 1. Advanced Biosciences and Neuroscience laboratory

The Advanced Biosciences and Neuroscience laboratory is a part of the center of excellence in biologically inspired systems science (BISS). This laboratory provides cellular and molecular investigative tools for UG and PG teaching and research in neuroscience. Cell culture studies are utilised along with molecular biology, biochemistry and microscopy approaches to elucidate the molecular mechanisms underlying molecular and cellular interactions underlying inflammation and repair. Inflammation is a key component of many diseases including traumatic brain injury, cancer, multiple sclerosis, stroke, asthma, Parkinson's disease and Alzheimer's disease. Inflammation is characterized by accumulation and proliferation of innate immune cells. This is followed by clearance of dead cells and cellular debris along with enhanced expression of molecular mediators called cytokines and chemokines, which cause migration and proliferation of immune cells and may even lead to cell death. Understanding the mechanisms by which inflammation occurs, and the molecular mediators involved in this process, is necessary for identification of potential therapeutic targets.



### 2. Chemical Biology Laboratory

The Chemical Biology Laboratory deploys cellular and molecular biology approaches to explore the pathogenesis of cancer and other neurodegenerative diseases. Given the interest in neuronal death, it is no wonder that this lab team is interested in E3 ubiquitin ligases essential for quality control events in neuronal survival. Protein ubiquitylation is highly versatile, ordered, the multistep post translation modification enzymatic process that regulates numerous aspects of cell physiology. This lab team has been studying the role of such E3 ligases to find out the role of quality control E3 ubiquitin ligases in maintenance of proteostasis and hence playing a role in cellular survival and death. Such important biochemical findings may contribute to innovative therapeutic approaches for the diseases associated with misfolded proteins.

Organisms at the cellular level possess a well-established protein quality control mechanism which the lab team is trying to understand at present. The role of E3 ubiquitin ligases was reported in such mechanisms so far. Our laboratory is dedicated to a qualitative research in the field of protein quality control mechanisms. We have recently found that a HECT domain containing E3 ubiquitin ligase E6-AP helps in Amyotrophic Lateral Sclerosis diseases suppression through its association with the misfolded protein aggregates formed by SOD1 mutants. Such findings support that an E3 ligase can have a capability to clear the misfolded protein aggregation. However, while appreciating the incredible efficiency of cellular systems, we must recognize the crucial role of chaperones which are supposed to work preferentially compared to E3 ubiquitin ligases in order to refold the misfolded proteins, and hence conserving the energy utilized during the translation of those proteins. Various examples made us think that we could explore the role of both the chaperones and E3 ubiquitin ligases in the clearance of misfolded proteins. Therefore, now we are working not only with E3 ubiquitin ligases but also with the chaperones and even in their functional association to confer an efficient quality control mechanism to the cell.



### 3. Environmental Biotechnology Laboratory

The Environmental Biotechnology Laboratory at IIT Jodhpur, in addition to serving various undergraduate and post-graduate courses, undertakes research in the areas of bioenergy and bioremediation. Researchers in the lab investigate on waste to energy conversion processes with an aim to develop sustainable biotechnological solutions to water pollution and energy. At present, successful bioremediation processes for nitrate and chromium (VI) contaminated wastes have been developed. Also, research is underway for the development of low cost Microbial Carbon Capture cells for power generation and algae cultivation. In addition to this, researchers in the lab have been successful in isolating novel yeasts, the potential biodiesel producing candidates.



### 4. Protein Engineering Laboratory



The Protein Engineering Laboratory at IIT Jodhpur is undertaking cutting edge research in developing biomaterials based on the understanding of structural and functional properties of useful proteins such as collagen. The implications of the research could also extend towards development of effective biomedical devices and implants.

## Department of Chemistry

The Department of Chemistry has the following laboratories for teaching and research purposes.

### 1. Chemistry Laboratory

The core objective of the chemistry laboratory of IIT Jodhpur is to train students in scientific methods that would solve real problems at the frontier of our understanding of the matter. This is a multi-use laboratory and provides a number of resources to assist undergraduate, graduate and Ph.D. students in planning their professional careers after completing their academic program at IIT Jodhpur.

This laboratory maintains a broad spectrum of state-of-the-art instrumentation including basic laboratory set up (for organic, inorganic, organometallic and material synthesis), Nitrogen, Oxygen and LPG gas line, Inert atmosphere boxes, vacuum line work, fume hood pH, conductivity, BOD, COD, meters, Rotary evaporator, Vacuum pumps, centrifuges, High pressure reactor system, Chiller, microbalances, Orbital Shaker, GC, HPLC and Radleys ready reactor. In the academic year 2012-2013, the lab procured equipment such as Polarimeter, Melting point Instrument, Solar Simulator, Digital Titrator, Kugallrohr, Electrochemical work stations, and Battery analysers.

A 500 MHz NMR spectrometer with solid state probe is an essential resource, whose mission is to make a state-of-the-art high field NMR and methods available to researchers, providing a place for them to pursue their projects and develop new methodologies in NMR methods.

The following are some pictures of Chemistry Laboratory.



Nuclear Magnetic Resonance Spectrometer (500 MHz)



Chemistry Laboratory



Powder X-ray Diffractometer



Scanning Electron Microscope and Electron Dispersion Spectrometer



Simulator



Surface Area Analyzer



Gas Chromatograph



Reactor Ready



Atomic Force Microscope



Fluorescence Spectrometer



Glow Box



High Pressure Reactor

## Department of Computer Science & Engineering

The Department of Computer Science & Engineering has the following laboratories for teaching and research purposes.

### 1. Multimedia Laboratory

The Media Laboratory provides facilities to carry out work related to E-learning, image processing, and computer vision. The thrust areas of research in this lab are: Semantic analysis of video/image content, video surveillance, human motion analysis, document image analysis, content based image retrieval etc. E-learning related activities include video recording, audio-video digitization, video editing, etc. In the academic year 2011-2012, a research on Indian sign language recognition using Kinect has been initiated.

#### Equipment:

1. Scanners: Book Drive Mini, UMAX Powerlook.
2. Cameras: Sony 177PD, Sony Camcorder, Cannon 500D VCR: Sony DSR 45AP
3. Tripods: Manfrotto, iMac.

### 2. Networking Technologies Laboratory

Networking Technologies Laboratory has been started functioning in the Academic Year 2011-2012. It aims at enabling undergraduate and graduate students, who pursue their interest in the area of computer networks, to understand the concepts of computer networks and work with contemporary networking equipment in a realistic setting. In addition, the lab aims at providing necessary infrastructure to carry out research activities on advanced topics, such as wireless mesh networks, sensor networks, communication on power lines, from computer networks. The activities that take place in this laboratory are:

1. Prototyping of networking hardware (Example, Ethernet switch, IPV4 router etc.) using NetFPGA.
2. Developing packet processors using “Click router” modular software framework.
3. Establishing infrastructure for the mini-Internet, single-hop wireless networks, multi-hop wireless mesh and sensor networks, power line communication networks, home phone line networks.
4. Studies related to the performance analysis of various protocols over on different network configurations.
5. Development of novel routing algorithms, transport layer mechanisms, and services for next generation networks.
6. Setting up planet-lab infrastructure (which will essentially become part of the global distributed computing platform created over the Internet by connecting over 500+ sites). This allows the students and researchers not only to understand the traffic patterns on the Internet but also to develop new technologies/applications on the Internet for distributed storage, networking mapping, peer-to-peer systems, content distribution service, and cloud computing.

## Department of Electrical Engineering

The Department of Electrical Engineering has the following laboratories for teaching and research purposes.

### 1. Control / DSP / Microprocessor Laboratory

The lab provides software and hardware infrastructure for carrying out experiments in the field of Control Systems, Microprocessor and DSP. Broadly, the lab includes the following experimental setup:

1. Control Systems
  - a. Ball & Beam System from Quanser
  - b. Magnetic Levitation System from Quanser
  - c. Inverted Pendulum System from Quanser
  - d. Software include Scilab / MatLab
2. DSP Lab Equipment
3. Microprocessor Lab



### 3. Electronic Circuit Laboratory

In this laboratory the students make and test their analog and digital circuits by using all kinds of circuit components like diode, transistor, op-amps, and clocks. The lab has following equipment:

1. Arbitrary Function Generator from Agilent
2. Digital Oscilloscope from Agilent
3. Programmable Power Supply from Scientific
4. 6 1/2 BIT DMM from Agilent



### 4. Instrumentation and Communication Laboratory

The mission of Instrumentation and Communication Laboratory is to provide platform for UG and PG students on research and hands-on learning in Measurement and Automation Technology. The state-of-the-art facilities at

this laboratory offer innovative research opportunities in the astronomical space of communication and real time measurement technology. The experienced Lab team nurtures students' talent in research and offers an opportunity for developing sophisticated measurement, test, control systems, data analysis system and next generation communication technologies.



Students also develop theoretical and practical competence in (i) building baseband communication circuits, (ii) the application of NI LabVIEW graphical programming software, (iii) the PXI based NI RF/Wireless measurement stand, (iv) evaluating NI WSNs and LabVIEW software, adjusting a software-defined radio system, measuring the parameters of studied antennas and (v) the operation of analog modulation schemes. NI-Lab contains software and hardware subsystems which enable rapid prototyping and development of embedded systems for various applications. Currently, this lab constitutes the following setups:

1. NI ELVIS based Communication Systems and Theory Teaching Stand
2. Large MIMO Stand for Spectral, Channel Efficiency Studies and New Standard Development
3. Protocols Stand for WLAN, WiMAX, GPS, RFID, Zigbee, GSM, CDMA, WCDMA, Bluetooth
4. FPGA-enabled Software Defined Radio Stand for Custom Communication Scheme Development and Research
5. Basic Analog and Digital Communication Techniques Teaching Stand
6. Wireless Sensor Networks Stand
7. Signal Intelligence and Wireless Spectral Monitoring Stand
8. Wireless Prototype Characterization and Testing Stand
9. FPGA based protocol development for base-band studies and signal processing
10. VNA based Antenna Characterization Stand
11. Fiber Optic Communication Stands
12. Network Based Manufacturing
13. USRP (Universal Software Radio Peripheral) based wireless communication system for physical layer design, record and playback, signal intelligence, algorithm validation and more.
14. Network Communication and Manufacturing Control Stand

After three years of its formation, this lab has contributed immensely to the learning and research activities at IIT Jodhpur. Communications and Networking Lab, Intelligent Instrumentation, System Analysis Techniques and Bio-Sensors courses are being offered through this lab for both graduate and undergraduate students. The lab has provided the right hardware and software tools for many industrial consultancy projects, including the development of DRM/DRM+ IP for digital radio standards, Link budget design for Marine environment, DRFM based Radar echo simulator and Blind Signal Demodulator. Other projects being done in the lab are development of affordable wireless video transmission systems, cognitive radio and Zigbee protocol development.

## 5. Power Electronics Laboratory

The power electronics laboratory is used for undergraduate studies and research in the area of power electronics based power conversion systems, control systems and drives. The laboratory facilitates for faculty and students to

conduct research in the areas power converters and AC/DC micro-grid. The laboratory is equipped with state-of-art test and measurement instruments, converters, power supplies and programming boards. Major equipment available in this lab are:

1. High Precision power Analyzer –YOKOGAWA WT3000.
2. DSO- Tektronix 200MHz (DPO 2024) and 1GHz (DPO 4104B).
3. Function Generator-Tektronix AFG 3021B.
4. Power Supply: 0-30V, 1A; 0-32V, 3A; 0-32, 10A.
5. Three phase inverter drive.
6. Three phase inverter stacks.
7. DC-DC converters.
8. Differential currents Probes.
9. Current clamps.
10. Isolation Transformers.
11. FPGA training kits and programming boards.



## 6. Robotics Laboratory

IIT Jodhpur has an advanced robotics laboratory for PG/UG education and research. The infrastructure includes the following:

1. Vicon Motion Tracking System
2. Mobile Manipulator comprising of Barret WAM ARM mounted on a PowerBot Mobile robot platform
3. Pioneer P3-DX mobile robots - 10 units
4. Turtlebot
5. Wheel Chair
6. Force Plate
7. Infrastructure for Mobile Robotics - Navigation, Path-planning, SLAM
8. Dynamic and Kinematic Control problem, Redundancy Resolution, Inverse Kinematics of Manipulators and Mobile Manipulators, Visual Servoing, and
9. GAIT Analysis and Robot Assisted Rehabilitation



## Department of Humanities & Social Sciences

The Department of Humanities and Social Sciences uses the Language Lab teaching and practice of language.

### 1. Digital Language Laboratory

The Digital Language Laboratory provides resources, facility, and support for foreign language instruction and learning to the entire student community of IIT Jodhpur. The lab is the multilingual computing and assessment center of the Institute. The lab team explores and implements methods through which multimedia technology renders a more authentic experience to learning a foreign language. Here, for language learning purposes one could seek recourse to technologies like the Internet and interactive video, audiovisual techniques, multi-modal iconic approach, and speech recognition. The exercises include listening and comprehension, grammar-based exercises, placement solutions, and mastery tests. The main features of this facility include Smart Class Symposium LL from Robotel and New Dynamic English Learning Program from Dyned International. All the facilities at the Digital Language Laboratory are proficiency-oriented, standard-based, and nurture the students' enthusiasm for gaining global exposure and proficiency in a foreign language.





## Department of Mechanical Engineering

The Department of Mechanical Engineering has the following laboratories for teaching and research purposes.

### 1. Advance Manufacturing Laboratory

In the Advance Manufacturing Laboratory, CAD model of object is prepared using 3D modelling software like ProE, SolidWorks, and Catia. FE analysis is carried out using Analysis software like Ansys, Nastran/Patran and precision manufacturing is carried out using CNC programming/CNC machines and Rapid Prototyping Machine/ 3D Printer. The manufactured components are characterised for mechanical behaviour using UTM, Hardness testers, Impact testers etc. The role of CNC machines in increasing flexibility and precision of the product to be manufactured and, increasing productivity are illustrated. The Advance Manufacturing Laboratory of institute is equipped with following facilities:

1. CAD Section
2. Precision Machining Section
3. Rapid Prototyping Section
4. Mechanical Behaviour Characterisation section



### 2. Central Workshop





Central workshop is the central facility of Institute, consisting of various workshops such as Welding shop, Carpentry shop, Fitting shop, Sheet metal shop, Foundry and Heat treatment shop and Machine shop. Undergraduate Students get hands on experience in above sections by doing the job work and carrying out projects as part of their coursework and also students utilize the facilities for fabrication purpose of their academic projects. It also supports the R&D projects of the institute handled by various Faculty Members and Ph.D. and M.Tech. Thesis work of research scholars by providing them assistance in fabrication of their research set-ups.

The following machines and equipment are available in the Central Workshop:

1. Welding fume extraction down draft table
2. Multi process welding equipment
3. Portable single phase MIG/MAG
4. AC/DC welding equipment
5. MIG/MAG welding equipment
6. Treadle operated shearing Machine
7. Hand operated Folding Machine
8. Kaizen Muffle Furnace
9. Hand operated Jeeny or Burying Machine
10. Motorized Circle cutting Machine
11. Hand operated Circle cutting Machine
12. Hydraulic shearing Machine
13. Portable Heating Plant
14. Portable hardening plant
15. Forging Heating Plant
16. Aluminium Melting Plant
17. Fitting Table
18. Mould Making Facility
19. Portable Tool Grinder





### 3. Dynamics and Vibration Laboratory

Dynamics and Vibration Laboratory is well equipped with various mechanisms such as Motorized Gyroscope Apparatus, Static and Dynamic Balancing Apparatus, Universal Governor Apparatus, Coriolis Component of Acceleration Apparatus, Epicyclic Gear Train Apparatus, Cam Analysis Machine Apparatus, Universal Vibration Apparatus, Stroboscope and Tachometer 10 in helping the students to understand the behavior of the various mechanisms and forces acting on them.

In addition, the laboratory is also equipped with various vibration measuring instruments for computing the vibration characteristics of a machine or structures and equipment for vibrating the machine or structures in order to find its resonance characteristics in various environmental conditions. Following equipment are available for measuring and/or testing vibration characteristics of elements to structures.



### 4. Electro Mechanical (EM) Energy Conversion Laboratory

In order to familiarize students to Electrical Machines properties & characteristics, IIT Jodhpur has established “Electro Mechanical Energy Conversion Laboratory” and has continually been developing the potential of its lab facility. In this lab, state-of-the-art “Electrical Engineering” facilitates the students to empower their potential by familiarizing themselves with the fundamental of electro-mechanical energy conversion process, including several practical & industrial applications of machines in true applicable environment. This lab occupies conventional as well as modern equipment to fulfil the basic and modern technological requirements with continual developing efforts.



### 5. Fluid Mechanics and Heat Transfer Laboratory

At Fluid Mechanics Laboratory students learn about the following:

1. Analyses and evaluation of experimental data
2. Comparison between theoretical models and experimental data
3. How to design a fluid mechanical and heat transfer system e.g. a piping system considering various technical aspects, heat exchanger, thermal energy storage, receiver, wind catcher, volumetric air receiver.

In addition to the above, this laboratory aims at generating innovative ideas in students by promoting the design of experiments and small scale projects. At present in the fluid mechanics laboratory are conducted experiments on losses in pipes (smooth/rough) and fittings (e.g. valves, bends), comparison between different flow meters, particle image velocimetry technique, Hot-wire anemometer, lab-scale sub-sonic wind tunnel for- pressure distribution around a cylinder/air-foil, lift and drag balance, boundary layer development, weather monitoring. Furthermore the lab provides training on standard software, such as, CFAST for fire simulation.



Currently the Heat Transfer Laboratory is equipped with the demonstration of various thermometry techniques, heat exchange system, ventilation system, Natural and forced convection system, heat conduction unit for different materials, lab and industrial-scale solar water heater system, and thermal radiation unit. All these equipment are installed with respective software.

For testing, calibration and research purpose in these laboratories, various equipment such as Laser Doppler Velocimeter with Particle Analyzer, pressure and temperature calibration, blower with variable flow, pressure transducers, differential pressure transducers, turbine test rig, turbo-machine test rig, IC engine test rig etc., have been procured.

Moreover, multi-purpose test set up is being indigenously designed and the components / sub-systems involved are being fabricated locally. This system aims at investigation and evaluation of solar thermal sub-systems such as volumetric air receiver, thermal energy storage, air-water heat exchange systems and their simultaneous operation. Devices such as earth air heat exchange system, wind catcher, and air-cooled heat exchange systems are being fabricated and tested for certain applications.

## 6. High Temperature Solar Thermal Laboratory

Six laboratories are being set-up under the MNRE funded project entitled as “Establishment of Center of Excellence in Solar Thermal Research and Education at IIT Jodhpur”. High Temperature Solar Thermal Laboratory is one of these specialized laboratories. The aim of this laboratory is:

1. Fundamental aspects of fluid flow and heat transfer related problems, like, dust deposition
2. Design and analysis of sub-systems for concentrated solar thermal systems

Some of the sub-systems being designed and analyzed in this laboratory are:

- a. Open Volumetric Air Receiver for process heat applications
- b. Compact heat exchanger
- c. Solar Convective Furnace

This laboratory includes test facility, such as, Solar Air Tower Simulator (SATS) facility, advanced research grade equipment like Laser Doppler Velocimetry. SATS facility includes, open volumetric air receiver, thermal energy storage, air-water heat exchanger and is being extended with solar convective furnace.



## 7. Material Testing and Solid Mechanics Laboratory

The material testing lab of the institute provides facilities to test samples of different types of materials to find out their mechanical properties like modulus of elasticity, tensile and compressive strength, stress strain curve, bending properties, hardness etc. The lab is equipped with following test equipment:

1. Universal testing Machine 5-50 kN
2. Rockwell Tester
3. Brinell Tester
4. Vickers Tester
5. Poldi Hardness Tester
6. Portable hardness tester

## 8. Renewable Energy Laboratory



To resolve most daunting challenge of this world energy needs and also our nation's heavy reliance on fossil fuels, Renewable Energy Laboratory (REL) promotes rigorous and objective empirical research at IIT Jodhpur on issues related to energy and environment. REL focuses on designing, testing, and disseminating renewable and efficient energy system. The mission of REL is to help these technologies to realize their full potential to contribute to environmentally sustainable development in industrial and developing countries. In the renewable energy field, expert faculty and students at this Laboratory are currently striving to create an innovative system to efficiently harness energy from sunlight and wind power. REL has computer interfaced systems and approximately 30 students can work at a time. Students are the greatest resource of REL and IIT Jodhpur has made substantial commitment to

the area of renewable energy and been providing all required resources to execute a viable plan and innovative research at REL. One aspect of the evolution of REL is the development of collaborative partnership with other academic and industrial groups. In the near future, it will be a hub for training and public-private sector collaboration. Recently, the lab has started a consultancy project, with Panasonic R & D India Pvt. Ltd., on the prototyping of microbial fuel cells. In addition, the lab has started work on data collection, interpretation, and analysis of PV power plants less than 5 MW in Rajasthan and Gujarat. The Renewable Energy Laboratory uses the following equipment:

1. Wind power of 2KW Charge controller ~12V, Synchronous generator with permanent magnets ~12V, Lamp board ~12V, Off grid inverter etc.
2. PEM Fuel cell Fuel cell with DC converter, Electronic load, Metal hydride storage cell, Electrolyser, 200W/20V/10A.
3. Advanced Photovoltaics Solar module simulation model 23V/2A, Solar module with solar altitude emulator, Solar charge controller 12/24V, 6A, Solar accumulator 12V, 7Ah, Off grid inverter 230V, 275VA etc.
4. Combined RF/DC Sputtering Unit for Coatings Applications.

### 9. Solar Radiation Laboratory

The Ministry of New and Renewable Energy (MNRE) has selected the IIT Jodhpur campus site as one of their solar radiation centers. Solar radiation measurement (Global and Direct), Humidity, Ambient temperature, Rain gauge and wind speed measurement are carried out at this center and the data is transmitted via a satellite link to the MNRE nodal center C-WET in Chennai. The instruments in this laboratory are powered by a couple of solar panels. The data collected from this center enables the solar resource assessment required for the setting up of solar thermal and solar photovoltaic power plants as outlined in the Jawaharlal Nehru National Solar Mission (JNNSM).



## Department of Physics

The Department of Physics has the following laboratories for teaching and research purposes.

### 1. Biomolecular Information Processing laboratory

This laboratory is involved in the understanding of information processing by various kinds of biomolecules and related synthetic molecules. The process involves in using a single molecule first and then a group of molecule on a given interface. The interaction among the molecules in a given external stimuli will help us understanding the communication among them.



### 2. Magnetic Property Measurement System (MPMS/SQUID)

IIT Jodhpur has created an excellent facility in the field of material characterization. Recently an additional dimension has been added to it by procuring magnetic property measurement system (MPMS). MPMS (SQUID) is getting installed in coming few months. This will provide a wide temperature 2 K – 1000 K range for both DC and AC magnetic measurements in conjunction with field dependent magnetic measurements. Such measurements will help to understand magnetic properties and associated spin dynamics in magnetic materials.

### 3. Materials Analysis Laboratory



The research focuses on the development of novel materials for different applications including materials for energy generation and storage. The current work includes the development of solution processable CIGS compound semiconductor materials for solar cell applications and transition metal oxide based materials for lithium ion batteries

and supercapacitor applications. The laboratory is equipped with synthesis of bulk and thin films techniques such as sputtering, sol-gel process assembly etc., and numerous characterization techniques such as X-ray diffraction, Scanning electron microscope, Optical spectroscopic techniques, LCR meter, ferroic measurement system for bulk samples etc.

In addition, the group is also focusing on the development of multifunctional materials for different applications such as solar selective coatings, ferroic materials for high frequency absorbing system, and magnetic particles for different applications. The laboratory is equipped with state-of-the-art facilities to carry out thermal analysis, electrochemical analysis, surface morphology studies, separation techniques for chemicals, electrical conductivity measurement devices, glove box etc.

#### 4. Physics Laboratory

The mission of the Physics laboratory at IIT Jodhpur is to provide students with experiential knowledge in basic physics. This laboratory has state-of-the-art facilities including specific equipment and is currently offering different experiments in Mechanics, Waves, Electricity, Magnetism, and Optics. Now the lab has facilities for experimenting with Speed of Light, Zeeman Effect, and Michelson Interferometer.





## Health Center

IIT Jodhpur provides round the clock health care facilities to Students, Faculty and Staff Members of the Institute, at its residential campuses. The Health Center has five doctors and five supporting staff members. Both the Residential Campuses have Health Centers for providing routine health services. Due to geographical locations of the two Campuses and the type of the residents, Health Center at GPRA Campus provides services to the patients round the clock, while medical services are available at BSNL Campus for limited hours in the evening, typically from 5 pm to 10 pm. In addition to the availability of medical services at Residential Campuses, medical assistance is available at Academic Campus. This assistance is normally provided from 3 pm to 4.30 pm, when laboratory sessions are in full swing and medical assistance may be required. The Institute has its ambulance services available round-the-clock.

Besides the Health Centers, the Institute has empanelled five hospitals in the city of Jodhpur. Two of these hospitals have specializations in ophthalmology and one in orthopedic, and the remaining two hospitals are the best known general purpose hospitals in the city. For specialized medical attention doctors at our Health Centers refer patients to one of these hospitals. In addition to these five hospitals, the city has a Medical College and three hospitals run by Government of Rajasthan. Also, the city All India Institute of Medical Sciences (AIIMS), which is nearly 12 km GPRA Campus and nearly 5 km from BSNL Campus. Also, the Institute has constituted a Medical Board consisting of Senior Doctors from the Medical College and the AIIMS; advice is taken for enhancement of medical services of the Health Centers and in critical medical cases. IIT Jodhpur has empanelled two hospitals in Jaipur. These two hospitals are accredited by National Accreditation Board for Hospitals & Healthcare, and patients can be referred to these hospitals as per the need of the treatment.

The Health Center coordinates and supervises the treatment of students, employees, and their dependents during hospitalization in other hospitals that are empaneled by the Institute, to provide in-patient care. Also, an ambulance is available in the GPRA Residential Campus for attending to any medical emergencies.

On request, the Health Center extends its health care services to Institute visitors during their stay in the residential campus. Under emergency circumstances medical services are also extended to the non-IIT Jodhpur community residents in the residential campus. Details like patient records, medicine procurement/disbursement, assets, equipment of Health Center are all computerized.

## Sports Facilities

Sports and games facilities to students are provided at four places, namely, the hostel premises, academic campus, playground of Vidhyashram International School, and in the new campus area of Jai Narayan Vyas University. Conveyance is taken care of by the Office of Logistics in the Institute. Students also enjoy a gymnasium facility at the residential campus.

## SC/ST Cell

An SC/ST Cell for ensuring the proper utilization and adaptation of reservation policies and guidelines issued by the Government of India, is functional at IIT Jodhpur. The Cell deals with matters related to grievances received from SC/ST and OBC employees and students in the Institute. The Cell acts as a communicator between the Institute and the Ministry of Human Resource Development in matters related to SC/ST and OBC students and employees in the Institute. IIT Jodhpur has adopted the reservation policy while selecting the students for MCM scholarship. In addition, a substantial number of SC students whose total family income is limited to Rs. 6 lakhs per annum, are deriving the benefit of Central Sector Scholarship of Top Class Education available from the Ministry of Social Justice and Empowerment.

## Women Cell

The Women Cell, IIT Jodhpur, functions in accordance with the provisions contained in Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.

The following are some activities organized by the Women Cell during FY 2016-17.



### Celebration of 2017 International Women's Day

The 2017 International Women's Day was pre-celebrated at the Indian Institute of Technology Jodhpur on 7 March 2016 at 4.30 pm. The program was organized by the Women Cell, IIT Jodhpur. The Women Cell, IIT Jodhpur, on the occasion of the International Women's Day, organized a Micro-Book Writing Competition their Students and Employees, ahead of time. During this program, Prizes and Certificates of Appreciation were given away to the winners. The event had an invited talk by Latha Menon, noted ad film and documentary maker based in Chennai.



Kshema Prakash, Convener, Women Cell introducing program to audience



Latha Menon addressing the audience



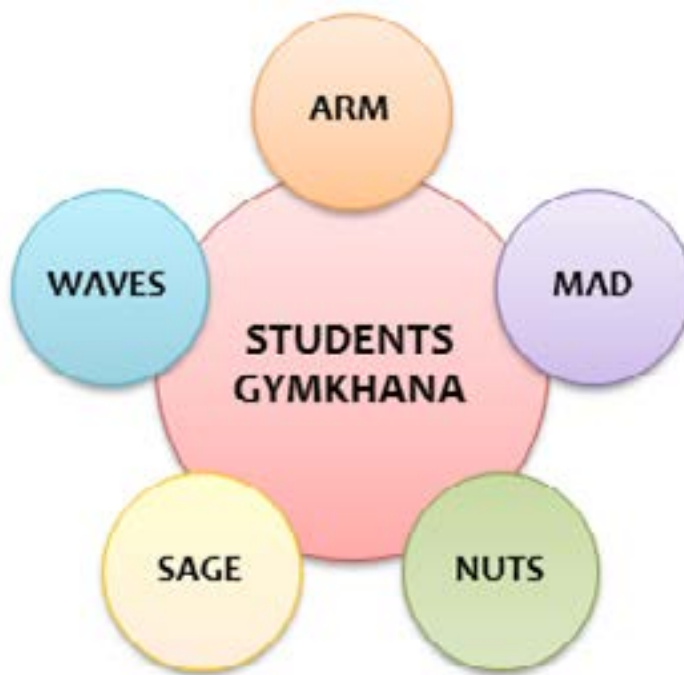
Audience enjoying the program

# Student Activities

## Students Gymkhana

The “Student Gymkhana”, IIT Jodhpur, is divided into five “societies”, and in turn each society is divided into several clubs. These societies fulfil the varied interests of the students and contribute to their holistic development. These six societies are:

1. Academic, Research and Management (ARM) Society,
2. Media, Arts and Design (MAD) Society,
3. Nurturing-Understanding Technology and Science (NUTS) Society,
4. Sports, Adventures, Games and Explorations (SAGE) Society, and
5. Writing, Awareness, Vocals, Entertainment, Social (WAVES) Society.



### Academic, Research and Management (ARM) Society

The Academic, Research and Management (ARM) Society is a platform for all activities and initiatives related to Academics and Research. It encourages academic and research activities in Institute among students. Also, the society works towards effective involvement of students in the decision making. The Mission of the ARM Society is:

- a. To strengthen Student-Faculty interaction and take them beyond only formal association;
- b. To serve as a platform for students to undertake research projects under Faculty Members, and to create an environment of cognizance in the student community pertaining to the real-life problems; and
- c. To organize various technical meets and seminars to expose students to the recent discoveries and technological advancements and the innumerable opportunities that they can pursue.

The functions and responsibilities of the ARM Society are:

- a. To help individual students address their specific academic concerns;
- b. To coordinate with the centralized academic facilities such as Computer Centre, Library and Reading Room;
- c. To support the Senate of the Institute on matters such as revision of academic curriculum; and
- d. To share concerns of the students on academic and research matters.

The society deals with all matters regarding public relations and management of the various activities of all the societies of Students' Gymkhana which take place in the Institute. It helps in enhancing one's personality, management skills, public speaking, writing and coordination with student colleagues, towards overall development of students. The following clubs operate under the society:

**a. Promotions Club**

The Club writes content as well as reports for various Intra and Inter collegiate fests, special events and seminars, which are held throughout the year. Also, it coordinates for the content to be published in local media.

**b. Public Speaking and Personality Development Club**

Public speaking is one very important aspect which shows the personality of an individual. The club organizes sessions to hone public speaking skills, increase confidence levels and makes students proficient in Public Speaking.

**c. Entrepreneurship Club**

The club collaborates with the E-cells of other institutes and conducts various seminars and useful activities related to entrepreneurship.

**d. Resource Management Club**

The main work of this club is to manage resources during various inter and intra-level activities efficiently.

**e. Finance and Case-Studies Club**

Many individuals are faced with investing and financing decisions at some point in their life. Having a firm grasp over financial matters aids them in making those decisions. The club helps students undertake Case Studies which help to see how the complexities of real life situations influence decision making.

**f. Leadership Enhancement and All-round Development (LEAD) Club**

This initiative aims at enhancing the overall personality and soft skills of the students, and prepares them for the professional world. Workshops organized by professionals skilled in personality grooming, resume writing, personal interview, etc. Group discussions, mock interviews and public-speaking sessions are conducted to train students for interviews and help in their personality development. Students get a real-world exposure, while getting expert guidance not only from professionals, but also from senior students.

## Media, Arts, and Design (MAD) Society

Creativity is more than just being different. Anybody can plan being weird; that's easy. What's hard is to be simple. Making the simple, awesomely simple, that's creativity. The society makes people develop their imagination, their talent; teaching them the advancement in technology to enhance their knowledge in their field of interest. The society has its independent activities, workshops and competitions under the following areas of interest:

**a. Animatrons (The Animation Club)**

The Club teaches students to bring the animator out of them, via workshops by professionals and its own team. With the blend of Stop Motion Animation and Software Animation, the Club moves towards paper animation, 2D and 3D graphics animation, pixilation, flash light animation.

**b. Ateliers (The Fine Arts Club)**

To play with colours is the passion of this Club. Training is imparted to students via workshops and competitions in fine or decorative arts. We organize a lot of activities of interest like painting, sketching, glass etching, face and T-shirt Painting, wax carving, and graffiti workshops. This Club gives shape to various festivals of IIT Jodhpur.

**c. Designers (The Designing Club)**

The Club designs logos, posters, newsletters, T-shirts, etc. The Club has given some of the best designers, who can train with software, like Adobe Photoshop, Indesign and Illustrator. The Club members excel in graphic designing which promotes thoughts and imagination. Also, the club has won competitions in Mood Indigo – IIT Bombay.

**d. Frame-X (The Film Making and Video Editing Club)**

The Club makes videos, record and edits them. The Club, constantly and actively, takes part in various Inter-College Fests presenting short films or documentaries which have gained popularity. The Club members use the most sophisticated HandyCams, GoPro cameras dealing with software, like Windows Movie Maker, Sony Vegas and Adobe After Effects.

**e. Porta Talkies (The Movie Screening Club)**

The Club is responsible for screening of movies, matches and on demand talks.

**f. Shutterbugs (The Photography and Photo-Editing Club)**

The Club consistently holds its workshops on Photoshop and provides hands on experience on technically sound semipro DSLR Cameras. The Club holds responsibility of all media coverage of student activities IIT Jodhpur.

**Nurturing-Understanding Technology and Science (NUTS) Society**

With the thought “Imagination is more important than knowledge”, the Science and Technology Society (NUTS) of IIT Jodhpur provides students an opportunity to think beyond the conventional boundaries of science, to realize their dreams and develop the technology for the next generation. The following clubs operate under this society:

**a. Aeromodelling Club**

The Aeromodelling Club is a group for aviation and Aeromodelling enthusiasts in the Institute. The Club provides students an opportunity to make rockets, gliders, planes, hovercrafts and fly them up in the air. The activities of the Club include lectures and workshops on various Aeromodelling and aviation topics and working on small projects.

**b. Automobile Club**

The Club promotes students to design and make their own car. The Club has developed an eco-friendly manual cum electric driven vehicle. The Club is associated with an international body, Society of Automotive Engineers (SAE), and encourages and prepares students to participate in national level competitions such as Effi Cycle and Baja.

**c. Astronomy Club**

The Club organizes regular lectures and discussions to help students develop a better understanding of those astronomy phenomenons in nature. The Club made a record at the Inter IIT-Tech Meet 2014 by detecting 72 objects in the overnight observatory competition “The Messier Marathon”.

**d. Electronics Club**

The Club makes students familiar with electronic circuits, and teaches them skills like working on mini computers (such as beagle bone, Raspberry pie). Also, the club makes students familiar with analog as well as digital electronics through various lectures and competitions organized throughout the year.

**e. Robotics Club**

The Club conducts regular lectures and workshops to provide students a hand on experience on technologies, such as DTMF, image processing, and motion sensing. Today the Club is an active platform for students to display and develop their practical machine-building skills and knowledge.

**f. Programming and Web Designing Club**

With regular lectures, competitions and winter coding camp, the Club provides students a chance to learn from people around them and improve their coding skills. Students get a chance to sit with a group of like-minded people and prepare for various national and international level coding competitions.

**g. Science Club**

The Club provides students an opportunity to solve the Rubik's Cube, make their own angry bird station, and play with air gun, Rube Goldberg etc. The activities of this club tests students' imagination skills and help to improve it.

**Sports, Adventures, Games and Explorations (SAGE) Society**

Sports are known for producing the most remarkable athletes, colourful characters, influential leaders and memorable heroes. IIT Jodhpur Sports and Games Society reflects the same spirit of introducing sporting activities to the campus community. This society aims to promote sports and exercise in the true spirit of sportsmanship and motivate students to work with team spirit. The Society strives and endeavours to inculcate and introduce this essential activity as a part of the routine in every student's life. All efforts are made to bring out and encourage the sports person in each one under the guidance of professional coaches and with best sporting facility.

Individuals can be strong on their own, but they are much stronger in a team. Victory achieved alone can be sweet, but there is nothing sweeter than sharing that moment with fellow members. One of the rare times in life one learns to play with his friends and some of his enemies, and yet learns to respect each one of them for the innate respect of the sport. That is the essence of introducing sports in a student's life to instill the qualities of vigour, sacrifice and overall sportsman spirit. The society organizes the Institute team that participates in Inter IIT Sports Meet held annually at any one of the IITs. Inter-IIT Championship title is much coveted in the whole IIT Jodhpur family. It is the place where every sports student is given the opportunity to showcase his/her talent in respective sports and to wear the jersey and run around the grounds representing the glorified history of respective IITs along with the responsibility to continue the legacy. Every Inter-IIT player has this unique urge to win the game for the pride and the honour of the Institute, for the blood, and the tears and the sweat to make a team and to earn the spot. The Institute has representation in the sports, like Aquatics, Athletics, Badminton, Basketball, Cricket, Football, Lawn Tennis, Squash, Table Tennis, Volleyball, and Weightlifting at Inter IIT Sports Meet.

The Institute has many sporting events lined up throughout the year, which act as a platform to showcase your talent and to keep the adrenaline levels racing. Every year the council organizes an Intra-Institute Sports Festival called "KRIDANSH". This sports fest is designed to attract mass participation. It sees the best sporting talents in the Institute pitted against each other to fight for the glory of their respective branches. It has games like tug of wars, Kho-Kho and Kabaddi, along with regulars.

In addition to sports, the society arranges several adventure tours and coordinates the Carrom Club, the Chess Club, the Skating Club, the Yoga Club and the Joggers Club.

**Writing, Awareness, Vocals, Entertainment, and Social (WAVES) Society**

WAVES is the fountainhead of all cultural activities in the institute. It provides students opportunities to pursue their passion for performing arts and in honing their aesthetic sensibilities. Under WAVES, there are five Clubs, which function throughout the year.

**a. Dance Club**

The Dance Club organises activities ranging from Intra Institute to Inter-Collegiate events with a special emphasis on workshops on different dance forms. The team, with name 'dEFEATtHEbEAT', has participated in different college festivals across country, including Chaos (IIMA) and Mood Indigo (IITB) and has also been selected in Indian Hip Hop Dance Championship auditions.

**b. Music Club**

The Music Club is all about passion and the platform you need to showcase them. Spanning from the students' band performances for freshers, to the live stages of college festivals, Music Club brings opportunities for all the interested students. The major highlights include Unplugged Nights and the Musical Extravaganza. Apart from these, music learning sessions are conducted for the beginners.

**c. Quiz Club**

The main aim of the Club is to generate interest in quizzing as a fun activity that everyone can indulge in and at the same time gain some handful amount of knowledge. The Club organizes interesting Quiz contests/sessions throughout the year to expose students to the artistic world of Quizzing and provide a platform to contest at several national and intra-collegiate quizzes.

**d. Drama Club**

The Club, also known as "DRAMEBAAZ", performs a variety of plays which are both didactic and simultaneously entertaining. Nukkad performance is the highlight of the Republic and Independence Day celebrations in the Institute, and is quite applauded by the audience, leaving them awestruck every time. Also, it performs stage plays.

**e. Literature Club**

The Club works on the vision to explore a whole new world of books, belles-letters and the magic of words. The Club is not all about writing, but hosts fun events like Jam, Shout, Hurdles, and Debates. Language is no bar; we have both Hindi and English Literature Clubs.

**g. SPIC MACAY Club**

The Society for the Promotion of Indian Classical Music And Culture Among Youth (SPIC MACAY) is a society that helps protect and popularize our rich Indian heritage. SPIC MACAY IIT Jodhpur Chapter was formalized in the year 2012.

## Student Fests & Events

The Student Gymkhana of the Institute organizes events with dual purpose. On the one side, these events help engage students in creative work during their leisure hours and thereby build skills and interests in them. And, on the other side, these events help students to self-organise themselves and provide platforms for others to excel.

The events organized by the Student Gymkhana can be seen in two streams, namely:

1. Inter-Institute Festivals and Tournaments; and
2. Intra-Institute Festivals and Championships.

The students were successful in nurturing a culture filled with energy and initiative. They have organized events which served as a medium of communication and bonding amongst themselves. Major festivals like Ganesh Chaturthi, Diwali, Sankranti, Eid and Holi were celebrated with great enthusiasm. Sports activities were also regularly conducted to encourage sportsmanship, which were supported by the Faculty Members. The following are some of the major student activities that had taken place in the campus in the year 2016-17.

### Inter-Institute Festivals

#### Varchas

Varchas is the inter-collegiate sports festival of IIT Jodhpur. The festival celebrates the spirit of sportsmanship and serves as a platform to showcase countless hours of perspiration put in by college teams to achieve excellence in sports. Varchas was first organized in the year 2011, with a vision of promoting sports among the colleges of India, and providing the athletes in India, a platform to showcase their talent. Competitions are held in the fields of football, cricket, table tennis, lawn tennis, badminton, squash, volleyball, basketball and athletics in national level stadiums of Jodhpur. Varchas promotes healthy competition and is a great opportunity for the teams to prove their mettle in their respective sports.

Moreover, belonging to the educated core of the country, the students of IIT Jodhpur try to fulfil their social obligation through “SOCH -The Social Aspect of Varchas”. SOCH is a platform where the students take up pertinent social issues and try to find possible solutions through discussions and debates; spread awareness and conduct drives to involve people spanning across varied backgrounds. An attempt is made to create a profound social impact for the amelioration of the society.

In 2016, this sports festival was organized from 29 September to 2 October. The Chief Guest at Varchas 2016 was Krishna Poonia, who is a Padma Shri and Arjuna Awardee for her performance in Discus Throw. Varchas 2016 witnessed a footfall of over 1000 participants and various competitions were conducted in events like athletics, volleyball, cricket, football, table tennis, basketball, aquatics, chess and badminton.



Chief Guest at the Opening Ceremony of Varchas 2016



IITJ Student, the torch bearer of Varchas 2016



Women's Volley Ball Match during Varchas 2016



Winners being awarded





“Awaz”: A SOCH event chaired by Professor H. C. Verma, Professor, IIT Kanpur

A “Night Run”, which is a part of Varchas 2016, was organized on 1 October 2016 at 9 pm. The benefit of this run was accorded for the welfare of blind students. An overwhelming response was received from the people and athletes from across the state of Rajasthan. The fest concluded on 2 October 2016.

## IGNUS

IGNUS, the techno-cultural fest of IIT Jodhpur was celebrated from 23-26 February 2017. The flagship events that were organised during this fest were Robosoccer, Nriyansh, Clash of Bands, Robowar, and Antarang. Workshops on useful and interesting topics like Internet of Things (IoT), Sixth Sense Robotics, Android App Development were also organized. Famous singer Mika Singh performed during the pronite.



Technical & Cultural Events during IGNUS 2017

## Intra-Institute Festivals

IIT Jodhpur Student Gymkhana hosts Intra-Institute Festivals for its own student community. They are:

### a. Spandan

Spandan is the Intra-Institute cultural fest of IIT Jodhpur, usually the first fest of the session. It draws an enthusiastic crowd, eager to portray their talents in the cultural arena. Versatility in the various categories is extensive, with competitions organized in fields, like drama, dance, singing, literature, photography events, informals and fashion show. Three days of Spandan awakens the whole campus leaving the students to prepare all night. Spandan is one of the first public occasions to take place in the year, and hence it brings together students from all years to interact with each other. Participation with zeal and showcasing the hidden creativity tamed inside an individual, are the motives of the fest.

**b. Nimble**

Nimble, the Intra-College technical fest provides a platform to the techno buds of the Institute to show their hidden talent. Nimble comprises of four action packed days, filled with a great variety of tech and science events ranging from intense mind boggling events (such as robotics, electronics and programming) to fun filled events (like angry bird, quizzes, and crypto)). Apart from the events, talks are organized by eminent personalities in the field of Science and Technology, to motivate students to work harder, as there is no end to discoveries and inventions.

**c. Kalakriti**

Kalakriti is a mixed bag of fun-filled competitions, interesting workshops and back-to-back movie screenings. “Because everything you can imagine is real!”: this line wakes up the dormant talent amongst students and the output is sudden burst of colors. With a multitude of events ranging from Fine Arts and Clay Modelling, to Photography and Video Editing, ‘Kalakriti’ witnesses huge participation from designers and non-designers alike. Events like ‘Scribble Day’ brings together the entire final year batch of students, whom all the other students bid adieu and leave a farewell message or graffiti on a common piece of cloth given to them. A great way to bring smile on everyone’s face, ‘Kalakriti’ succeeds in spreading joy, unity and togetherness in the small tight-knit community of ours.

**d. Kridansh**

Kridansh is organized to give sports enthusiasts a chance to pursue their passion in sports. Matches are organized both outdoor and indoor, such as Gully Cricket, Street Football and Single Court Basketball, Chess, Carroms, Badminton, Table Tennis, and Swimming. Full-fledged dedication from participants and organizers makes Kridansh one of the liveliest events of the year.

## Counselling Service

The prime objective of the team is to organize the Orientation Program. This is especially tailored to bring the freshers up to speed with life in Institute, while maintaining a homely feel, and gently enabling the transition into this Institute. The Counseling Service has been an integral part of the Institute since its inception. Every year, it strives hard to ensure that every student gets to know IITJ at its most intricate levels, and absorb all that the Institute has to offer. Further, the Counseling Service Team takes care of special language needs that some students might face during this time. It spares no effort in this, and work towards making this transition memorable throughout their lives.

The Counseling Service Team consists of a Faculty Advisor with 30 students (called Student Guides) bestowed to work for welfare of students. A Student Guide is the backbone of the team, with every guide taking 8-10 freshers under his/her vision and guidance. The Student Guide works towards helping the student adjust well in the hostel and in his academic life. The Student Guide keeps in continuous touch with the student and his/her family. The team ensures that not only the student, but his/her parents too get the opportunity to interact with the Student Guide, to maintain a healthy relationship. As part of this Counseling, it is the duty of the team to promote development of the student in all three aspects, namely:

1. Academics
2. Extra-Curricular
3. Personal

For this purpose, voluntary, confidential and free counselling service is offered for a wide range of issues that include:

1. *Academic support:* Providing information about the different academic programs of the Institute, imparting efficient time management skills and study skills;
2. *Personal:* Overcoming homesickness, adjusting to the new environment and related difficulties;
3. *Counselling advocacy:* Psycho-education and referral services to students;
4. Interaction with the Institute and the existing body of students; and
5. Encouraging students to discover their extra-curricular interests/hobbies.

Counselling service also focuses on the concerns and difficulties of the students by providing personal guidance to deal with problems arising during their college life at the Institute. The following activities are undertaken by the Counseling Services team:

1. Maintaining the Institute as a ragging free campus;
2. Organizing “Orientation Program” every year, for the sophomore batch so as to make them acquainted with the culture of IIT Jodhpur;
3. Organizing workshops related to:
  - a. Career counselling,
  - b. Stress management,
  - c. Time management,
  - d. Health care and hygiene,
  - e. Vocational training,
  - f. Relationship problems,
  - g. Coping with homesickness and
  - h. Addiction and others;
4. Conducting motivational talks by eminent speakers;
5. Addressing the academic problems of the students by conducting:
  - a. English language sessions for students from vernacular background, and
  - b. Basic Information Technology (IT) skill building sessions etc.;
6. Organizing interaction building events amongst students of different batches, and with faculty members etc.; and
7. Individually attending to problems of students with poor academic performance.

Launched in 2014, the IIT Jodhpur Counseling Service is continuing the Campus Mentoring System. In this system, a group of students are associated with one Faculty Member and one Staff Member, who in turn act as the Mentors of the students.

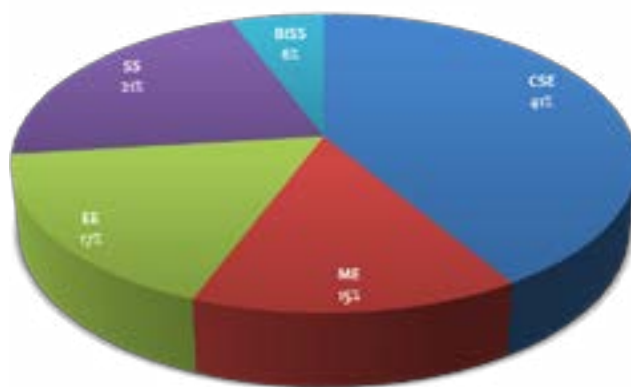
## Student Placement Cell

The Office of Student Placements (OSP) is run and managed by the students in sync with the official authorities, thereby taking care of the placement and internship procedures. The students coordinate the job of contacting various companies, their interaction with the students, arranging pre-placement talks, tests, and interviews.

In 2016-17, companies in core engineering, information and communication technology, and banking sector, government and public sector organizations have visited IIT Jodhpur for placements.

Total 69 of our students i.e., 67 B.Tech. Students and 2 M.Tech. Students, have been placed with different companies in the year 2016-17.

Branch-wise Placement of Undergraduate Students In 2016-17



Their details of companies and placements are as below.

### B.Tech. Placements for the year 2016 - 2017

S. No.	Company	Number of Students Selected per Branch					Total Number of Students Placed
		CSE	ME	EE	SS	BISS	
1.	Indian Space Research Organisation (ISRO)		1	1			2
2.	Barclays				1		1
3.	Morgan Stanley	2		1			3
4.	Arcesium	1					1
5.	Amazon	6			1		7
6.	Nucleus Software	1					1
7.	Tata Motors		4				4
8.	Tata Consultancy Services	2	1	4	1		8
9.	National Engineering Services		2				2
10.	Mahindra & Mahindra		2				2
11.	Crisil				1		1
12.	Go Jek	2			3		5
13.	Oxigen Services	1					1
14.	L&T ECC		2				2
15.	Yoodle	1					1
16.	Accenture				2		2
17.	Directi	1					1

**B.Tech. Placements for the year 2016 - 2017**

S. No.	Company	Number of Students Selected per Branch					Total Number of Students Placed
18.	Voylla	1		1	1		3
19.	Cognizant Solutions	1		2	3		6
20.	Apttus			2		3	5
21.	Infosys	5					5
22.	Microsoft	3		1			4
Total		27	12	12	13	3	67

**M.Tech. Placements for the year 2016 - 2017**

S. No.	Company	Number of Students Selected per Branch		Total Number of Students Placed
		ME	EE	
1.	Hyundai	1		1
2.	Tata Consultancy Services		1	1
Total		1	1	2

## Alumni Relations

The Office of Alumni Relations of the Institute works for the alumni of the Institute, no matter where the alumni live. The Office is a canvas of collective experiences and shared memories. We urge the Alumni to share with us your stories of both struggle and success. As brand ambassadors of the Institute and torch bearers of change, this special bond between the Alumni and the Institute should be the catalyst for valuable exchange between the Institute and the big-wide world.

The Office of Alumni Relations is managed by the Alumni Relations Committee, consisting of two Faculty Members and four Students.

All students completing any specific degree program at IIT Jodhpur become Life Members with the Office of Alumni Relations and no fee is associated with the membership.

### IIT Jodhpur alumni secure ranks in GATE 2017

The following B.Tech. Students of Class of 2012 have secured ranks in GATE 2017 exam.

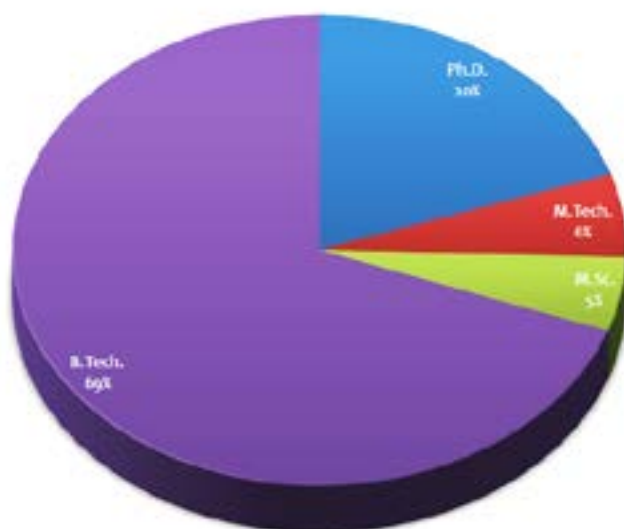
1.	Himanshu Takwani	B.Tech. (Electrical Engineering)	AIR 7 (EE)
2.	Chetan Gupta	B.Tech. (Mechanical Engineering)	AIR 22 (ME)
3.	Sunil Saran	B.Tech. (Electrical Engineering)	AIR 24 (EE)

## Registered Students in IIT Jodhpur

IIT Jodhpur has, as on 31 March 2017, a total of 760 students registered in various programs offered by the Institute. The table and chart below depict the program-wise break-up of the registered students in the Institute.

Program	Year of Registration	Number
Ph.D.	2016	18
	2015	38
	2014	33
	2013	27
	2012	17
	2011	15
	2010	1
<b>Total</b>		<b>149</b>
M.Tech.	2016	20
	2015	24
<b>Total</b>		<b>44</b>
M.Sc.	2016	25
	2015	14
<b>Total</b>		<b>39</b>
B.Tech.	2016	121
	2015	112
	2014	129
	2013	166
<b>Total</b>		<b>528</b>
<b>Grand Total</b>		<b>760</b>

Program-wise Break-up of Registered Students in IIT Jodhpur  
(as on 31 March 2017)



Following are lists of students registered in various programs offered by the Institute, detailed according to the Centers and Branches of the various programs.

## Ph.D. Students

Sl. No.	Roll No.	Name	Center /Department
1.	PG201081502	Dharmendra Singh Rajpurohit	Energy
2.	PG201181001	Deepesh Patidar	Energy
3.	PG201181003	Pura Ram	Energy
4.	PG201181004	Vikas Pratap Singh	Energy
5.	PG201181005	Vikash Chandra Janu	Energy
6.	PG201181501	Lokesh Saini	Energy
7.	PG201181502	Surendra Singh Barala	Energy
8.	PG201182005	Puneet Kumar Jain	ICT
9.	PG201182006	Ram Niwash Mahia	ICT
10.	PG201182007	Ravi Raj Choudhary	ICT
11.	PG201182009	Sapana Ranwa	ICT
12.	PG201182010	Saurabh Maheshwari	ICT
13.	PG201182501	Amit Bhati	ICT
14.	PG201183001	Rohan Sharma	SS
15.	PG201183501	Parmod Kumar	SS
16.	PG201183502	Preeti Yadav	SS
17.	PG201281001	Ajay Jain	Energy
18.	PG201281002	Dharmesh Kumar	Energy
19.	PG201281003	Poonam Sharma	Energy
20.	PG201281004	Shejale Kiran Prakash	Energy
21.	PG201282002	Deepak Bharti	ICT
22.	PG201282003	Giriraj Vyas	ICT
23.	PG201282007	Rakesh Kanji	ICT
24.	PG201282009	Suresh Dahiya	ICT
25.	PG201282010	Vaibhav Saini	ICT
26.	PG201282012	Vibha Sahlot	ICT
27.	PG201282501	Shilpa Pandey	ICT
28.	PG201283001	Anoopa Joshi	SS
29.	PG201283003	Manvendra Sharma	SS
30.	PG201283005	Parvinder Singh	SS
31.	PG201283006	Pradumn Kumar Pandey	SS
32.	PG201283007	Rakesh Kumar	SS
33.	PG201283008	Ranveer Singh	SS
34.	PG201381001	Aditya Raw Gautam	Energy
35.	PG201381002	Goutam Kumar Gupta	Energy
36.	PG201381003	Om Prakash Mahela	Energy
37.	PG201381005	Rohitash Kumar	Energy
38.	PG201382005	Vipin Joshi	ICT
39.	PG201382002	Anurag Sahu	SS
40.	PG201383002	Dipti Trivedi	SS
41.	PG201383005	Raj Kumar Satankar	SS
42.	PG201383006	Shraddha Choudhary	SS
43.	PG201383501	Deepak Kumar	SS
44.	PG201383502	Dileep Kumar	SS
45.	PG201383503	Manish Raghav	SS
46.	PG201383504	Satendra Pal Singh	SS
47.	PG201383506	Vishal Sharma	SS
48.	PG201384002	Ankisha Vijay	BISS



Sl. No.	Roll No.	Name	Center /Department
49.	PG201384003	Anuj Kumar Bharti	BISS
50.	PG201384004	Arun Kumar Upadhyay	BISS
51.	PG201384005	Ayeman Amanullah	BISS
52.	PG201384006	Bhubanesh Rathore	BISS
53.	PG201384007	Kriti Dubey	BISS
54.	PG201384008	Megha Singh	BISS
55.	PG201384009	Nidhi Sharma	BISS
56.	PG201384010	Rahul Badhwar	BISS
57.	PG201384011	Rakhi N. K.	BISS
58.	PG201384012	Ridhi Aggarwal	BISS
59.	PG201384013	Shalini Singh	BISS
60.	PG201384014	Vibhuti Joshi	BISS
61.	P14EE001	Ajay Kumar Mahato	EE
62.	P14ME001	Gurveer Singh	ME
63.	P14ME003	Rakesh Joshi	ME
64.	P14ME004	Ram Niwas Verma	ME
65.	P14ME005	Sandeep Gupta	ME
66.	P14CS001	Hiteshi Jain	CSE
67.	P14CS002	Ravi Sharma	CSE
68.	P14PH001	Rajesh Kumar	PH
69.	P14PH002	Sanjoy Chatterjee	PH
70.	P14MT001	Supriyo Dutta	MT
71.	P14BL002	Sachin Vyas	BL
72.	P14BS001	Alankar Agarwal	BISS
73.	P14BS002	Bibin G Anand	BISS
74.	P14BS004	Manju Kumari	BISS
75.	P14BS005	Shivanjali Saxena	BISS
76.	P14BS006	Vandana	BISS
77.	P14BS007	Ribhav Mishra	BISS
78.	P14HS003	Saina Maidullah	HSS
79.	P14SS001	Brajesh Kumar Shukla	SS
80.	P14EN001	Priya Malpani	Energy
81.	P14BL003	Amitap Khandelwal	BL
82.	P14CHM001	Erum Gul Naz	CHM
83.	P14CHM002	Abhinav Srivastava	CHM
84.	P14ME007	Amrita Kaurwar	ME
85.	P14ME008	Phadatare Hanmant Pandurang	ME
86.	P14PH003	Javid Ahmad Naikoo	PH
87.	P14PH004	Vijendra Singh Bhati	PH
88.	P14VSS001	Adarsh Nigam	EE
89.	P14VSS002	Amrik Singh	EE
90.	P14VSS003	Ishan Varun	EE
91.	P14VSS004	Rahul Kumar	EE
92.	P14VSS005	Nupur Rathore	EE
93.	P14VSS006	Parveen	EE
94.	P15ME001	Devendra Singh	ME
95.	P15ME002	Lochan Sharma	ME
96.	P15ME003	Pravesh Kumar	ME
97.	P15ME004	Sumit Mahajan	ME
98.	P15CY001	Devika Laisharam	CHM
99.	P15CY002	Hargeet Kaur	CHM
100.	P15CY003	Jyoti Faujdar	CHM

Sl. No.	Roll No.	Name	Center /Department
101.	P15CY004	Anchal Gahlaut	CHM
102.	P15CY005	Bhawna Chaubey	CHM
103.	P15CY006	Arpita Srivastava	CHM
104.	P15CY007	Sumitra Godara	CHM
105.	P15CS001	Arka Ujjal Dey	CSE
106.	P15BL001	Ishan Agrawal	BL
107.	P15PH001	Chandni Kumari	PH
108.	P15PH002	Jyoti Saini	PH
109.	P15PH003	Khushboo Dixit	PH
110.	P15MA001	Divya Gupta	MT
111.	P15MA001	Rohit Kumar	MT
112.	P15EE001	Abhishek Sahu	EE
113.	P15EE002	Arpita Jaitawat	EE
114.	P15EE003	Poonam Sahu	EE
115.	P15EE004	Shivam Chaturvedi	EE
116.	P15VSS001	Divya Srivastava	VSS
117.	P15VSS002	Divya Sharma	VSS
118.	P15VSS003	Tushar Shankar Shinde	VSS
119.	P15VSS005	Mahmood Shaik	VSS
120.	P15VSS006	Gajendra Singh Chawda	VSS
121.	P15HS201	Abhra Paul	HSS
122.	P15HS202	Varun	HSS
123.	P15EE201	Rajesh Shukla	EE
124.	P15EE202	Yogesh Kumar	EE
125.	P15EE203	Rahul Kumar	EE
126.	P15VSS201	Aditya Raj	VSS
127.	P15VSS202	Neeraj Goel	VSS
128.	P15VSS203	Abhishek Kumar	VSS
129.	P15ME201	Aniket Dilip Monde	ME
130.	P15ME202	Vibhuti Bhushan Pandey	ME
131.	P15ME203	Ankit Agarwal	ME
132.	P16CY001	Gaurav Bahuguna	CY
133.	P16CY002	Urgunde Ajay Bhimashankar	CY
134.	P16CS002	Pratibha Choudhary	CSE
135.	P16CS003	Shreya Goyal	CSE
136.	P16EE001	Amit Kumar Gangwar	EE
137.	P16EE002	Gaurav Jajoo	EE
138.	P16HS002	Prakash Prajapat	HSS
139.	P16MA001	Prashant Kumar	MA
140.	P16ME001	Amit Shrivastava	ME
141.	P16ME002	Sachin Kalia	ME
142.	P16ME003	Satish	ME
143.	P16ME004	Vishwa Deepak Kumar	ME
144.	P16ME005	Waris Nawaz Khan	ME
145.	P16PH001	Rajneesh Chaurasiya	PH
146.	P16PH002	Ram Milan Sahani	PH
147.	P16VSS001	Deepak	VSS
148.	P16VSS002	Naveen Kumar Mangal	VSS
149.	P16VSS003	Vivek Raghuwanshi	VSS

## Post Graduate Students

### M.Tech. Students, Batch 2015

Sl. No.	Roll No	Name	Department
1.	M15ME002	Ashok Verma	ME
2.	M15ME003	Deepak Raina	ME
3.	M15ME004	Himanshu Gaur	ME
4.	M15ME006	Narayan Kumar	ME
5.	M15ME007	Naveen	ME
6.	M15ME008	Neha Arora	ME
7.	M15ME009	Sankalp Singh	ME
8.	M15ME010	Shiv Ram Suthar	ME
9.	M15ME011	Shravan Singh Rao	ME
10.	M15ME012	Shubhendu Prashant Singh	ME
11.	M15ME013	Tushar Lohora	ME
12.	M15ME014	Vivek Tripathi	ME
13.	M15EE004	Chandrashekhar Bhardwaj	EE
14.	M15EE005	Dinesh Jangid	EE
15.	M15EE007	Itisha Chauhan	EE
16.	M15EE008	Lobzang Namgail	EE
17.	M15EE009	Mohit Kachhwaha	EE
18.	M15EE010	Prakriti Arya	EE
19.	M15EE011	Priyanka Siddha	EE
20.	M15EE013	Saurabh Rawal	EE
21.	M15EE014	Vineet Kumar	EE
22.	M15EE016	Anil Kumar	EE
23.	M15EE017	Jitendra Kumar	EE
24.	M15EE018	Joshi Sonal Sunil	EE

### M.Tech. Students, Batch 2016

Sl. No.	Roll No	Name	Department
1.	M16EE001	Aniket Chaturvedi	EE
2.	M16EE002	Arimardan Singh Chauhan	EE
3.	M16EE003	Jitendra Rathore	EE
4.	M16EE006	Shivam Verma	EE
5.	M16EE008	Vipul Kumar	EE
6.	M16EE010	Atal Tewari	EE
7.	M16EE011	Shyam Sundar Maurya	EE
8.	M16ME001	Kovid Goyal	ME
9.	M16ME002	Jitendra Kumar	ME
10.	M16ME003	Pratik V Paliwal	ME
11.	M16ME004	Vikas Kumar Upadhyay	ME
12.	M16ME005	Mohammad Ashhar Tufail	ME
13.	M16ME006	Sunil	ME
14.	M16ME007	Oaj Chawla	ME
15.	M16ME008	Leeladhar Sharma	ME
16.	M16ME009	Dileep Kumar	ME
17.	M16ME010	Upendra Yadav	ME
18.	M16ME011	Manish Kumar Jaiswal	ME
19.	M16ME012	Sumer Chand Saini	ME
20.	M16ME013	Rohit Verma	ME

**M.Sc. Students, Batch 2015**

Sl. No.	Roll No	Name	Department
1.	M15CY003	Pooja	CY
2.	M15CY004	Pranay Rajbangshi	CY
3.	M15CY006	Suman Dhara	CY
4.	M15CY008	Vikas Kumar	CY
5.	M15CY009	Vinay Uniyal	CY
6.	M15PH001	Ashish Kumar	PH
7.	M15PH002	Bernard Lalroliana	PH
8.	M15PH005	Nidhin Sathyan	PH
9.	M15PH007	Rashmi Mehla	PH
10.	M15PH008	Sanjeeda Bharati Das	PH
11.	M15PH011	Vikrant Chaudhary	PH
12.	M15MA001	Aarti Balana	MA
13.	M15MA004	Bhagya Shree Meena	MA
14.	M15MA007	Dharmendra Kumar Gurjar	MA

**M.Sc. Students, Batch 2016**

Sl. No.	Roll No	Name	Department
1.	M16CY001	Aarti	CY
2.	M16CY002	Ajeetesh Kumar	CY
3.	M16CY003	Akshay Kumar R	CY
4.	M16CY004	Chesta	CY
5.	M16CY005	Mohit Solanki	CY
6.	M16CY006	Neelam Pal	CY
7.	M16CY007	Neha Kumari	CY
8.	M16CY008	Sakshi Bhagat	CY
9.	M16CY009	Vinod Singh Adhikary	CY
10.	M16CY010	Vipin Kamboj	CY
11.	M16CY011	Rachna Sharma	CY
12.	M16PH002	Radha Raman	PH
13.	M16PH003	Ruchi Sharma	PH
14.	M16PH004	Sagar Satish Jha	PH
15.	M16PH005	Shalu Yadav	PH
16.	M16PH006	Shilpi Bose	PH
17.	M16MA001	Amit Punia	MA
18.	M16MA002	Ankush	MA
19.	M16MA003	Chandni Arora	MA
20.	M16MA004	Kanchan	MA
21.	M16MA005	Kshitij Kumar Pandey	MA
22.	M16MA006	Neeraj	MA
23.	M16MA007	Shresth Kumar	MA
24.	M16MA008	Sushmita Chandel	MA
25.	M16MA009	Vidya Sagar	MA

## Undergraduate Students

### B. Tech. Students, Batch 2013

Sl. No.	Roll No	Name	Department
1.	UG201310001	Aakash Asija	CSE
2.	UG201310002	Aayush Sharda	CSE
3.	UG201310003	Abhay Kumar Singh	CSE
4.	UG201310004	Aman	CSE
5.	UG201310005	Amit Jain	CSE
6.	UG201310006	Anjali Malav	CSE
7.	UG201310007	Archit Agrawal	CSE
8.	UG201310008	Arnav Chopra	CSE
9.	UG201310009	Arnav Jindal	CSE
10.	UG201310010	Avan Jayendra Rathod	CSE
11.	UG201310011	Bharti	CSE
12.	UG201310012	Bharti Arya	CSE
13.	UG201310013	Dishant Goyal	CSE
14.	UG201310015	Kartik Singh	CSE
15.	UG201310016	Komanduri Sai Raghava	CSE
16.	UG201310017	Kushagra Surana	CSE
17.	UG201310019	Makarand Milind Gomashe	CSE
18.	UG201310020	Muttineni Navya	CSE
19.	UG201310021	Nikhil Jeevansingh Taji	CSE
20.	UG201310022	Nithin V.	CSE
21.	UG201310023	Piyush Yadav	CSE
22.	UG201310024	Priyank Arya	CSE
23.	UG201310025	Rajkumar Meena	CSE
24.	UG201310026	Ramkesh Meena	CSE
25.	UG201310027	Ravi Prakash Gupta	CSE
26.	UG201310028	Ravindra Kumar Saini	CSE
27.	UG201310029	Riteek Srivastav	CSE
28.	UG201310030	Shiv Bhagwan	CSE
29.	UG201310031	Shiv Kumar Sen	CSE
30.	UG201310032	Shiv Mohan	CSE
31.	UG201310033	Shubham Saxena	CSE
32.	UG201310035	Sourav Khoso	CSE
33.	UG201310036	Suresh Gehlot	CSE
34.	UG201310037	Tapan Bhatnagar	CSE
35.	UG201310038	Upendra Singh Chauhan	CSE
36.	UG201310039	Vaghela Rajan Arvindkumar	CSE
37.	UG201310040	Vaibhav Paliwal	CSE
38.	UG201310041	Vivek Lata	CSE

Sl. No.	Roll No	Name	Department
39.	UG201310042	Kaushtubh Kumar	CSE
40.	UG201310043	Kshitij Sandeep Minocha	CSE
41.	UG201311001	Abhishek Agrawal	EE
42.	UG201311002	Abhishek Jaju	EE
43.	UG201311003	Abhishek Kumar Yadav	EE
44.	UG201311004	Amit Kumar	EE
45.	UG201311005	Anirudh Singh Shaktawat	EE
46.	UG201311006	Ankit Garg	EE
47.	UG201311007	Anshul Agarwal	EE
48.	UG201311008	Anshul Yadav	EE
49.	UG201311009	Ashok Kumar	EE
50.	UG201311010	Ashutosh Gupta	EE
51.	UG201311011	Ashutosh Vaishnav	EE
52.	UG201311012	Bhabhuta Ram	EE
53.	UG201311013	Dinesh Kumar Danwa	EE
54.	UG201311014	Dipender Singh Ridmalot	EE
55.	UG201311015	Ekant Kumar	EE
56.	UG201311016	Gurpinder Singh	EE
57.	UG201311017	Hede Tejan Rohit	EE
58.	UG201311018	Hemant Meena	EE
59.	UG201311019	Kanika Mahajan	EE
60.	UG201311020	Khushbu Saxena	EE
61.	UG201311022	Mohit Gupta	EE
62.	UG201311023	Niranjan Sanodia	EE
63.	UG201311024	Paduru Kandarpa Sai	EE
64.	UG201311025	Prakhar Gupta	EE
65.	UG201311026	Rahul Jain	EE
66.	UG201311027	Rajendra Kumar Yadav	EE
67.	UG201311028	Ramdev Bhichar	EE
68.	UG201311029	Rishikesh Meena	EE
69.	UG201311030	Shraddha Garg	EE
70.	UG201311031	Siddhant Jain	EE
71.	UG201311032	Sisodiya Vrushali	EE
72.	UG201311033	Sneha Gupta	EE
73.	UG201311034	Sumit Pegwal	EE
74.	UG201311035	Sushant Gautam	EE
75.	UG201311036	Syed Afshan Ali	EE
76.	UG201311037	Talloju Jawahar	EE
77.	UG201311038	Tiloka Ram	EE

Sl. No.	Roll No	Name	Department
78.	UG201311039	V. Ashwin	EE
79.	UG201311040	Vaibhav Sharma	EE
80.	UG201312001	Aditya Saxena	ME
81.	UG201312002	Akhil Mehta	ME
82.	UG201312003	Amit Kumar	ME
83.	UG201312004	Ankit Raipuria	ME
84.	UG201312005	Arpit Kumar Gahlot	ME
85.	UG201312006	Ayush Raina	ME
86.	UG201312007	Balveer Danga	ME
87.	UG201312008	Bhaskarjyoti Barman	ME
88.	UG201312009	Dheeraj Kumar Sisodiya	ME
89.	UG201312010	Dron Airon	ME
90.	UG201312011	Hardik Jain	ME
91.	UG201312012	Harsh Vardhan Shrivastava	ME
92.	UG201312013	Himanshu Agrawal	ME
93.	UG201312014	Himanshu Kumar Singh	ME
94.	UG201312015	Himanshu Sharma	ME
95.	UG201312016	K. Lakshmi Phalguni	ME
96.	UG201312017	Kanuganti Vamshi	ME
97.	UG201312018	Lakshaya Bhatt	ME
98.	UG201312019	Lakshman Kumar	ME
99.	UG201312020	Lokesh Swami	ME
100.	UG201312021	Manish Rajendra Jadhav	ME
101.	UG201312022	Mayank Gupta	ME
102.	UG201312023	Mohammed Firoz	ME
103.	UG201312024	Mohit Agarwal	ME
104.	UG201312025	Patel Harsh Bhupendrabhai	ME
105.	UG201312026	Pradyuman Meena	ME
106.	UG201312027	Prakhar Srivastava	ME
107.	UG201312028	Pushpendra Dhurwe	ME
108.	UG201312029	Pushpendra Mishra	ME
109.	UG201312030	Rohan Kumar	ME
110.	UG201312031	Rohit Singh	ME
111.	UG201312032	Sachin	ME
112.	UG201312033	Shubham Shaurya	ME
113.	UG201312034	Subham Teji	ME
114.	UG201312035	Vaghela Nirav Jitendrakumar	ME
115.	UG201312036	Vaibhav Jain	ME
116.	UG201312037	Vikas Kumar	ME

Sl. No.	Roll No	Name	Department
117.	UG201312038	Vikrant Arora	ME
118.	UG201312039	Viraat Srivastava	ME
119.	UG201313002	Aman Ajmera	SS
120.	UG201313003	Anirudh Vyas	SS
121.	UG201313004	Arvind Saini	SS
122.	UG201313005	Ayush Bhaskar	SS
123.	UG201313006	Darapaneni Chandana	SS
124.	UG201313007	Deepika Jalli	SS
125.	UG201313008	Deepshi Garg	SS
126.	UG201313010	Gaikwad Sangram Dasharath	SS
127.	UG201313011	Gourav Singh	SS
128.	UG201313013	Jayant Carpenter	SS
129.	UG201313014	Jayant V. Khapre	SS
130.	UG201313015	Joshi Achyut Sanjay	SS
131.	UG201313016	Lingala Prasantha Kumar	SS
132.	UG201313017	Mandeep	SS
133.	UG201313018	Naresh Kumar Prajapati	SS
134.	UG201313019	P Manisha	SS
135.	UG201313020	Pankaj Panwar	SS
136.	UG201313021	Pankaj Yadav	SS
137.	UG201313023	Perla Sukesh	SS
138.	UG201313024	Pinkesh Kumar	SS
139.	UG201313025	Prabhash Jain	SS
140.	UG201313026	Prakhar Mathur	SS
141.	UG201313027	Pramod Kumar	SS
142.	UG201313028	Prashant Kumar	SS
143.	UG201313029	Pulavarthy Anirudh	SS
144.	UG201313030	Rohil Surana	SS
145.	UG201313031	Rohit Kumar	SS
146.	UG201313033	Saroj Prasad Chhatoi	SS
147.	UG201313034	Sheela Meena	SS
148.	UG201313035	Shipra Jain	SS
149.	UG201313036	Shubham Singh	SS
150.	UG201313037	Tarun Devireddy	SS
151.	UG201313038	Vishal Kumar	SS
152.	UG201314001	Abhishek Thombre	BISS
153.	UG201314002	Aditya Choudhary	BISS
154.	UG201314003	Ajay Kumar Kumawat	BISS
155.	UG201314004	Arnav Mishra	BISS



Sl. No.	Roll No	Name	Department
156.	UG201314005	Chandresh Kumar	BISS
157.	UG201314006	Dhanajit Brahma	BISS
158.	UG201314007	Himanshu Sikaria	BISS
159.	UG201314008	Jalaj Sharma	BISS
160.	UG201314011	Kuldeep Meena	BISS
161.	UG201314012	Nisha Kumari	BISS
162.	UG201314013	Pranjal Singh	BISS
163.	UG201314014	Rakesh Yadav	BISS
164.	UG201314015	Sharath Challapalli	BISS
165.	UG201314017	Shrey Maheshwari	BISS
166.	UG201314018	Ujjwal Anand	BISS

#### B. Tech. Students, Batch 2014

Sl. No.	Roll No	Name	Department
1.	B14CS001	Abhimanyu Singh Gaur	CSE
2.	B14CS002	Abhinav Rai	CSE
3.	B14CS003	Ajeet Goyal	CSE
4.	B14CS004	Ajeet Ujjwal	CSE
5.	B14CS005	Ankita Muzalda	CSE
6.	B14CS006	Annuay. J	CSE
7.	B14CS007	Anurag Sanyal	CSE
8.	B14CS008	Archil Kumar Srivastava	CSE
9.	B14CS009	Ashish Sahu	CSE
10.	B14CS010	Ayush Agrawal	CSE
11.	B14CS011	B Sree Siddharth	CSE
12.	B14CS012	Bharat Singh	CSE
13.	B14CS013	Chaudhari Akshay Gajanan	CSE
14.	B14CS014	Daval Pargal	CSE
15.	B14CS015	Dhruv Sharma	CSE
16.	B14CS016	Edula Hari Hara Reddy	CSE
17.	B14CS017	Ganesh Bhimrao Patil	CSE
18.	B14CS018	Garimella Sravan	CSE
19.	B14CS019	Gaurav Kamal	CSE
20.	B14CS020	Gutapu Raj Kumar	CSE
21.	B14CS021	Hitesh Hingorani	CSE
22.	B14CS022	Kommuru Vinay Kumar	CSE
23.	B14CS023	Mahendra Meena	CSE
24.	B14CS024	Manish Goyal	CSE
25.	B14CS025	Pranav Arora	CSE
26.	B14CS026	Pushpinder	CSE

Sl. No.	Roll No	Name	Department
27.	B14CS027	Rinku Kumar Meena	CSE
28.	B14CS028	Rishabh Shukla	CSE
29.	B14CS029	Robin Gaur	CSE
30.	B14CS030	Rohit Paliwal	CSE
31.	B14CS031	Sahil Dhiman	CSE
32.	B14CS032	Sandeep Charan	CSE
33.	B14CS033	Rohan Govind Saraf	CSE
34.	B14CS034	Saurav Suman	CSE
35.	B14CS035	Shubham Jain	CSE
36.	B14CS036	Snehal Azad	CSE
37.	B14CS037	Sunil Choudhary	CSE
38.	B14CS039	Varun Kumar	CSE
39.	B14CS040	Vijay Kumar Paliwal	CSE
40.	B14CS041	Angad Singh Sabherwal	CSE
41.	B14CS042	Mahak Jain	CSE
42.	B14CS043	Mohit Mehta	CSE
43.	B14EE001	Abhishek Mandwale	EE
44.	B14EE002	Abhishek Meena	EE
45.	B14EE003	Akshat Shrivastava	EE
46.	B14EE004	Anand Kumar	EE
47.	B14EE005	Ankush Garg	EE
48.	B14EE006	Anusha Gupta	EE
49.	B14EE007	Archit Sharma	EE
50.	B14EE009	Dara Shanmukha Sai Sanjay Gupta	EE
51.	B14EE010	Deepanshu Bhojak	EE
52.	B14EE011	Guntuku Deepak	EE
53.	B14EE012	Himanshu Verma	EE
54.	B14EE013	Jaiswal Ronak Nilesh	EE
55.	B14EE014	Jay Bhavin Sheth	EE
56.	B14EE015	Kanika Jakhar	EE
57.	B14EE016	Kaviti Sarath Kalyan	EE
58.	B14EE017	Kumari Saumya	EE
59.	B14EE021	Naveen Kumar Chittoriya	EE
60.	B14EE022	Parmar Sunny Mukeshkumar	EE
61.	B14EE023	Piyush Sharma	EE
62.	B14EE024	Rahul Negi	EE
63.	B14EE025	Ramesh Kumar	EE
64.	B14EE026	Ravindra Parihar	EE
65.	B14EE027	Rishabh Bhardwaj	EE

Sl. No.	Roll No	Name	Department
66.	B14EE028	Ritu Singh	EE
67.	B14EE029	Sachin Mandowara	EE
68.	B14EE030	Shah Neelkumar Sureshkumar	EE
69.	B14EE031	Shivani Meena	EE
70.	B14EE032	Shounak Kulkarni	EE
71.	B14EE033	Sudhir Pratap Yadav	EE
72.	B14EE034	Thara Giriraj Prasad	EE
73.	B14EE035	Tripti Meena	EE
74.	B14EE036	Vamsi Prudhvi Chintaguntala	EE
75.	B14EE037	Vanam Bhanu Sai Simha	EE
76.	B14EE038	Vidit Jain	EE
77.	B14EE039	Vivek	EE
78.	B14EE040	Yasharth Sahu	EE
79.	B14ME001	Abhishek Sharma	ME
80.	B14ME003	Akhil Bindal	ME
81.	B14ME004	Akshay Vinay Bapat	ME
82.	B14ME005	Aman	ME
83.	B14ME006	Anandhu Suresh	ME
84.	B14ME007	Bandi Sai Mukesh	ME
85.	B14ME008	Boghara Pruthvi Rameshbhai	ME
86.	B14ME010	Jerry Mathew Oommen	ME
87.	B14ME011	Kartik Venkata Ramachandrani	ME
88.	B14ME012	Katakam Harsha Sai Manohar	ME
89.	B14ME013	Kuldeep Meena	ME
90.	B14ME014	Madhvendra Tiwari	ME
91.	B14ME015	Manoj Malviya	ME
92.	B14ME016	Mohammad Sharey	ME
93.	B14ME017	Mohit Vijay	ME
94.	B14ME019	Parella Ravi Teja	ME
95.	B14ME021	Pawan Kumar	ME
96.	B14ME022	Pothula Krishna Teja	ME
97.	B14ME023	Rachit	ME
98.	B14ME024	Rahul Chanania	ME
99.	B14ME025	Rajendra Manda	ME
100.	B14ME026	Rishabh Badodia	ME
101.	B14ME027	Santhoju Shiva	ME
102.	B14ME028	Santhosh M	ME
103.	B14ME030	Shinde Shubham Bhaskar	ME
104.	B14ME031	Shivam Jaiswal	ME

Sl. No.	Roll No	Name	Department
105.	B14ME032	Shivam Srivastava	ME
106.	B14ME034	Shubham Kaushal	ME
107.	B14ME035	Sutariya Monark	ME
108.	B14ME036	Suyog Bodhankar	ME
109.	B14ME037	Udit Singh Parihar	ME
110.	B14ME038	Uma Shankar Sharma	ME
111.	B14ME039	Vanditi Mathur	ME
112.	B14ME040	Vedant Bhuyar	ME
113.	B14SS003	B Sai Chaitanya	SS
114.	B14SS006	Devanshu Bhavin Kathrecha	SS
115.	B14SS007	K. Tejas Reddy	SS
116.	B14SS008	Katragadda Karthik	SS
117.	B14SS009	Mansi Mittal	SS
118.	B14SS011	Pranali Pawar	SS
119.	B14SS013	Raj Prajapat	SS
120.	B14SS017	Shreyansh Chhajer	SS
121.	B14SS018	Tejas Gattani	SS
122.	B14SS019	Vaibhav Baban Ganer	SS
123.	B14BS005	Dinesh Kumar Maurya	BISS
124.	B14BS006	Divya Naval	BISS
125.	B14BS009	Kumar Venkateshwar	BISS
126.	B14BS011	Mahesh	BISS
127.	B14BS014	Sahil Bhatia	BISS
128.	B14BS015	Shubham Talbar	BISS
129.	B14BS016	Vishal Verma	BISS

**B. Tech. Students, Batch 2015**

Sl. No.	Roll No	Name	Department
1.	B15CS001	Abhishek Sah	CSE
2.	B15CS002	Aditya Agrawal	CSE
3.	B15CS003	Akash Gupta	CSE
4.	B15CS004	Akshay Agrawal	CSE
5.	B15CS005	Amitansh Gangwar	CSE
6.	B15CS006	Amol Thakur	CSE
7.	B15CS007	Anant Kumar Singh	CSE
8.	B15CS008	Ankit Kumar	CSE
9.	B15CS009	Anmol Chhabra	CSE
10.	B15CS010	Aryaman Singh	CSE
11.	B15CS011	Ashish Mittal	CSE
12.	B15CS012	Ashish Yadav	CSE
13.	B15CS013	Bagannagari Vinay Kumar Reddy	CSE

Sl. No.	Roll No	Name	Department
14.	B15CS014	Bhamare Nikhil Daryavsing	CSE
15.	B15CS015	Bhuma Ayyappa Sumanth	CSE
16.	B15CS016	Deewan Singh	CSE
17.	B15CS017	Divyansh Aggarwal	CSE
18.	B15CS018	Harsh Akshit	CSE
19.	B15CS019	Harshit Singh	CSE
20.	B15CS020	Indra Kumar Malav	CSE
21.	B15CS021	Joukani Vinit Pradeep	CSE
22.	B15CS022	Kansagara Bhargav Dineshbhai	CSE
23.	B15CS023	Kishan Sharma	CSE
24.	B15CS024	Kongi Arunsrivardhan	CSE
25.	B15CS025	Marali Jagadeesh	CSE
26.	B15CS027	Praveen Kumar T	CSE
27.	B15CS028	Rajat Babel	CSE
28.	B15CS029	Rajat Mangla	CSE
29.	B15CS030	Rajesh Meena	CSE
30.	B15CS031	Rashi Sahu	CSE
31.	B15CS032	Rashmi Sahu	CSE
32.	B15CS033	Rishabh Arun Kanabar	CSE
33.	B15CS034	Shubham Kumar	CSE
34.	B15CS035	Shukla Anugrah Harish Kumar	CSE
35.	B15CS036	Singamsetty Sandeep	CSE
36.	B15CS037	Sushil Kumar	CSE
37.	B15CS038	Swapnil Ganesh Athawale	CSE
38.	B15CS039	Vinayak Singla	CSE
39.	B15CS040	Vishesh Mistry	CSE
40.	B15EE003	Akshat Agrawal	EE
41.	B15EE004	Amitesh Kumar Jigyasu	EE
42.	B15EE005	Anurag	EE
43.	B15EE006	Ashish Gambhir	EE
44.	B15EE007	B. Visveswaraiah	EE
45.	B15EE008	Bhanwar Singh Choudhary	EE
46.	B15EE009	Braj Raj Nagar	EE
47.	B15EE010	Chirayu Parashar	EE
48.	B15EE011	Dheeraj Dhariwal	EE
49.	B15EE012	Divyanshu Agarwal	EE
50.	B15EE013	Gadde Harshavardhan	EE
51.	B15EE014	Gyandeep Singh	EE
52.	B15EE015	Inderpreet Singh Chhabra	EE

Sl. No.	Roll No	Name	Department
53.	B15EE016	Jeet Shah	EE
54.	B15EE017	Karanveer Singh Thakur	EE
55.	B15EE018	Krunal Sanjay Chirmade	EE
56.	B15EE019	Kuldeep Verma	EE
57.	B15EE020	Lalit Kumar Bamanawat	EE
58.	B15EE021	Milind Singhal	EE
59.	B15EE022	Nikhil Negi	EE
60.	B15EE023	Nilesh Kumar Tiwari	EE
61.	B15EE024	Pradeep Choudhary	EE
62.	B15EE025	Pranab Kumar	EE
63.	B15EE026	Rahul Meena	EE
64.	B15EE028	Ramnarayan Choudhary	EE
65.	B15EE029	Riya Chaudhary	EE
66.	B15EE030	Sameer Jalutharia	EE
67.	B15EE031	Sarthak Desai	EE
68.	B15EE032	Saurabh Jangir	EE
69.	B15EE034	Shitendra Kumar Tyagi	EE
70.	B15EE035	Shreyas Malakarjun Patil	EE
71.	B15EE036	Shubham Bhargava	EE
72.	B15EE037	Somender Singh	EE
73.	B15EE038	Sonu Kumar	EE
74.	B15EE039	Vadde Keerthi Aishwarya	EE
75.	B15EE040	Vaibhav Sharma	EE
76.	B15ME001	Aarush Gupta	ME
77.	B15ME002	Abhinay Kumar	ME
78.	B15ME003	Abhishek Meena	ME
79.	B15ME004	Aditya Raj Malviya	ME
80.	B15ME006	Alukapally Gnanadeep	ME
81.	B15ME007	Aniket Janrao	ME
82.	B15ME008	Ankit Jangir	ME
83.	B15ME009	Ankit Mangal	ME
84.	B15ME010	Ashutosh Pathak	ME
85.	B15ME012	Ayush Upadhyay	ME
86.	B15ME013	Chandrapratap Singh Raghuvanshi	ME
87.	B15ME014	Dhagash Desai	ME
88.	B15ME015	Divyanshu Goyal	ME
89.	B15ME016	Gandi Rajesh	ME
90.	B15ME017	Gaurav Meena	ME
91.	B15ME018	Gourav Jeengar	ME
92.	B15ME019	Karthik Mohan	ME

Sl. No.	Roll No	Name	Department
93.	B15ME021	Keshetty Sai Surya	ME
94.	B15ME023	Krishna Goyal	ME
95.	B15ME024	Meka Lalit Sai Chandra Reddy	ME
96.	B15ME025	Mukul Bansal	ME
97.	B15ME026	Nakka Sanket Gangadhar	ME
98.	B15ME027	Neelansh Kamboj	ME
99.	B15ME028	Nitish Kumar	ME
100.	B15ME030	Perisetla Srinivasa Deepak	ME
101.	B15ME031	Quadri Syed Mujtaba Syed Maqsood	ME
102.	B15ME032	Ramesh Kumar	ME
103.	B15ME033	Ritwik Kulkarni	ME
104.	B15ME034	Saurabh Yadav	ME
105.	B15ME035	Sharan Saarsar	ME
106.	B15ME036	Somesh Sharma	ME
107.	B15ME037	Sunil Kumar Sakhnia	ME
108.	B15ME038	Vartha Divyesh Yashvant	ME
109.	B15ME039	Vineet Singh Chauhan	ME
110.	B15ME040	Vivek Kumar Singh	ME
111.	B15BS001	Ankur Kamboj	ME
112.	B15ME005	Akash Gupta	ME

#### B. Tech. Students, Batch 2016

Sl. No.	Roll No	Name	Department
1.	B16CS001	Abhinav Suthar	CSE
2.	B16CS002	Ajat Prabha	CSE
3.	B16CS003	Akshay Malav	CSE
4.	B16CS004	Ashutosh Kumar Jatav	CSE
5.	B16CS005	Ashutosh Yadav	CSE
6.	B16CS006	Chetan Prakash Meena	CSE
7.	B16CS007	Chittraksh Sadayat	CSE
8.	B16CS008	Himanshu Dhankhar	CSE
9.	B16CS009	Katta Rajasekhar	CSE
10.	B16CS010	Kavish Gambhir	CSE
11.	B16CS011	Kuldeep Singh Jangir	CSE
12.	B16CS012	Lakshya Garg	CSE
13.	B16CS013	Lovish Singla	CSE
14.	B16CS014	Machabathuni Vijay Siddharth	CSE
15.	B16CS015	Manvendra Singh Kushwah	CSE
16.	B16CS016	Mehta Meet	CSE
17.	B16CS017	Nagalgaonkar Vinay Ramkishan	CSE
18.	B16CS018	Nagelli Balamallesh	CSE

Sl. No.	Roll No	Name	Department
19.	B16CS019	Naramala Mourya Mithra	CSE
20.	B16CS020	Nikhil Srivastava	CSE
21.	B16CS021	Nikunj Kumar Labana	CSE
22.	B16CS022	Nirne Shivam Chandrakant	CSE
23.	B16CS023	Parate Aniket Kishor	CSE
24.	B16CS024	Paridhi Gehlot	CSE
25.	B16CS025	Patel Shreya Hasmukh	CSE
26.	B16CS026	Qazi Sajid Azam	CSE
27.	B16CS027	Rahul Jindal	CSE
28.	B16CS028	Sai Kishore Kesaram	CSE
29.	B16CS029	Sairipally Sai Surya	CSE
30.	B16CS030	Saksham Gupta	CSE
31.	B16CS031	Sanchit Taliyan	CSE
32.	B16CS032	Sarvesh Kumar	CSE
33.	B16CS033	Satya Bhavsar	CSE
34.	B16CS034	Shah Anurag	CSE
35.	B16CS035	Shashank Mohabia	CSE
36.	B16CS036	Sohail Khan	CSE
37.	B16CS037	Uneet Meena	CSE
38.	B16CS038	Vishakh S	CSE
39.	B16CS039	Vivek Dwivedi	CSE
40.	B16CS040	Zaid Khan	CSE
41.	B16CS041	Chinmay Garg	CSE
42.	B16CS042	Saksham Sanjay Banga	CSE
43.	B16EE001	Abhinav Joshi	EE
44.	B16EE002	Adeesh Jain	EE
45.	B16EE003	Adit Raj Gautam	EE
46.	B16EE004	Akhil Goel	EE
47.	B16EE005	Akhil Kumar Singh	EE
48.	B16EE006	Anchal Singh	EE
49.	B16EE007	Ashutosh Pandey	EE
50.	B16EE008	Ayush Mukund Gupta	EE
51.	B16EE010	Dharmesh Gupta	EE
52.	B16EE011	Hemendra Kumar Singh	EE
53.	B16EE012	Hitesh Kumar	EE
54.	B16EE013	Jitendra Jain	EE
55.	B16EE014	Jitendra Meena	EE
56.	B16EE015	Kanak Jain	EE
57.	B16EE016	Kapil	EE



Sl. No.	Roll No	Name	Department
58.	B16EE017	Karan Kumar	EE
59.	B16EE018	Kasar Rajat Sanjay	EE
60.	B16EE019	Kritika Chandan	EE
61.	B16EE021	Kshitij Kumar	EE
62.	B16EE022	Manu Sheoran	EE
63.	B16EE023	Mukesh Kumar Das	EE
64.	B16EE024	Nomraj Meena	EE
65.	B16EE025	Patil Rushabh Hemant	EE
66.	B16EE026	Pravendra S Khinchi	EE
67.	B16EE027	Prayrika Sharma	EE
68.	B16EE028	Rakshith Ramakanth Malapalli	EE
69.	B16EE029	Rohit Kewat	EE
70.	B16EE031	Shreshth Saini	EE
71.	B16EE032	Shruti Sachan	EE
72.	B16EE033	Shubham Lodwal	EE
73.	B16EE034	Shuchi Jain	EE
74.	B16EE035	Sourabh Kumar Meena	EE
75.	B16EE036	Srijan Agarwal	EE
76.	B16EE037	Srishti Chauhan	EE
77.	B16EE038	Sumanth U	EE
78.	B16EE039	Ujjwala Anantheswaran	EE
79.	B16EE040	Yash Kumar Chouhan	EE
80.	B16EE041	Abhay Kumar	EE
81.	B16EE042	Abhinav Rishikesh	EE
82.	B16EE043	Divij Gupta	EE
83.	B16ME001	Aaditya Raj	ME
84.	B16ME002	Abhishek Bhaskar	ME
85.	B16ME003	Anuj	ME
86.	B16ME004	Badal Kumar	ME
87.	B16ME005	Bhaskar Vijay	ME
88.	B16ME007	Deependra Singh Bhati	ME
89.	B16ME009	Gautam Jain	ME
90.	B16ME010	Gulab Chand Meena	ME
91.	B16ME011	Harshul Sharma	ME
92.	B16ME012	Hemant Kumar	ME
93.	B16ME013	Jitendra Kumar Meena	ME
94.	B16ME014	Joshi Parth Jayeshbhai	ME
95.	B16ME015	Mukesh Sharma	ME
96.	B16ME016	Nale Raturaj Shivaji	ME

Sl. No.	Roll No	Name	Department
97.	B16ME017	Nitesh Rai	ME
98.	B16ME018	Parvesh	ME
99.	B16ME019	Poojan Gajjar	ME
100.	B16ME020	Pradeep Panchal	ME
101.	B16ME021	Praduman Gupta	ME
102.	B16ME022	Pranav Maheshwari	ME
103.	B16ME023	Preshit Ameta	ME
104.	B16ME024	Pushpendra Choudhary	ME
105.	B16ME025	Raghavendra Meena	ME
106.	B16ME026	Raj Dewangan	ME
107.	B16ME027	Raveen	ME
108.	B16ME028	Sachin Beejawat	ME
109.	B16ME029	Sachin Bundela	ME
110.	B16ME030	Sakshi Jeengar	ME
111.	B16ME031	Shambhu Singh	ME
112.	B16ME032	Shiv Kumar Mudgal	ME
113.	B16ME033	Shreenath Nathany	ME
114.	B16ME034	Shubham Doharey	ME
115.	B16ME035	Subham Kant Das	ME
116.	B16ME036	Sudhir Kumar Kushwaha	ME
117.	B16ME037	Suresh	ME
118.	B16ME038	Upendra Sengar	ME
119.	B16ME039	Vinod Kumar Saini	ME
120.	B16ME040	Vishal Jain	ME
121.	B16ME041	Peela Subash Chandra Bose	ME

# Financial Position

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The Ministry of Human Resource Development (MHRD) has released a sum of Rs. 25000.10 Lakhs as Grant-in-Aid under Normal Plan Head and Rs. 1938.07 Lakh as opening balance as on 01-04-2016. The internal income of the Institute was Rs. 1021.08 Lakh. The total Plan expenditure during the year was Rs. 25502.91 Lakh (Recurring Rs. 3500.68 Lakh and Non-Recurring Rs. 22002.23 Lakh).

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## Indian Institute of Technology Jodhpur

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