# IIT Jammu PLACEMENT BROCHURE 2019-20

IIT Jammu is an Institute of National Importance funded by the Government of India. IIT Jammu was inaugurated on 6th of August, 2016. Currently, IIT Jammu has 2 operational campuses; one at Paloura and another one at Jagti, Nagrota. IIT Jammu is established to create a learning and a high-tech environment. The institute provides cutting edge academic and research infrastructure for the growth of its students and faculty. IIT Jammu not only creates industry-ready students but students who make the industry ready for current and future technological excellence.



भारतीय प्रौद्योगिकी संस्थान जम्मू INDIAN INSTITUTE OF TECHNOLOGY JAMMU





To create tomorrow's world through technological intervention which are humanistic, creative and futuristic.

Mission

Learn, Engage, Invent and Create Impact.

Creativity, Interaction, Collaboration, Mutual Respect, Collective Growth, Sustainability.



विद्याधनं सर्वधन प्रधानम







भारतीय प्रौद्योगिकी संस्थान जम्मू **INDIAN INSTITUTE OF TECHNOLOGY JAMMU** 

# Director's Message

Welcome to the Indian Institute of Technology Jammu.

Swathed by the Shivaliks and lounging across miles of green hills, IIT Jammu is located in the beautiful state of Jammu and Kashmir. The peaceful surroundings make the campus a fertile space for ensuring a well-rounded growth for the students. Students here are immersed in an academic culture of hands-on learning and creative thinking to solve real-world problems. We believe that this quality of the students today, will reflect in them as professionals tomorrow.

The Training and Placement Cell has been actively involved in ensuring that the students learn from and contribute to the industry since the very beginning. Moreover, these are exciting times for us as this is our first session of Placement in IIT Jammu. I invite you to IIT Jammu to join our family.

Manoj Singh Gaur Director

# Academic Programmes Offered

The admission to these programmes is done through highly competitive national level examinations; Joint Entrance Examination - Advanced (JEE-Advanced) Graduate Aptitude Test in Engineering (GATE)

### B.Tech

- Chemical Engineering
- Civil Engineering
- Computer Science and Engineering
- Electrical Engineering
- Material Engineering
- Mechanical Engineering



### **M.Tech**

- Computer Science and Engineering - Data Science
- Computer Science and Engineering -Information Security
- Electrical Engineering
   Communications and
   Signal Processing

### Ph.D

Full-time PhD programs are offered by all the Academic Departments in their respective research specializations along with a strong emphasis on multidisciplinary research.

# About the Training and Placement Cell

# Message from Faculty Co-ordinator

The Training and Placement Cell, since its inception in 2017, has been pushing its limits to bridge the gap between Academia & Industry. T&P Cell is committed to transforming the students into innovative engineers and determined professionals. Students at IIT Jammu are expected to excel in not just technical knowledge but also to experience the other attributes such as leadership, teamwork, giving back to society etc. Various preparatory activities were conducted this year for the graduating students,

- · including refresher lectures on various technical subjects,
- workshops on communications skills, interview skills and group dynamics were organized.
- Several talks by external experts in diverse sectors were also organized for the benefits for the students on different job requirements.
- The Training and Placement Cell aims to conduct one HR conclave and one Industrial Conclave every academic year to provide constant professional exposure and meaningful guidance to the students.

The T&P cell at IIT Jammu attempts to facilitate the best possible match between the aspirations of recruiting organizations and the capabilities of our students. Further, at IIT Jammu we have technical clubs which assist in preparing our young minds to crack national level hackathons and competitions etc. The industry's need of the hour requirements and key characteristics such as problem solving skills coupled with out of the box creative ideation are the core strength of our students. Towards this end, the Cell has already started connecting with the industries through our first 'Industry Conclave' which served as a first step in understanding the technical aptitude & requirements of the industries. The cell also continuously engages our students in various soft skill based grooming sessions to equip them with emotional quotient in addition to intellectual aspects. Going ahead, T&P Cell endeavors to prepare young minds to take on the challenges of the next generation Industries' expectations and solve real-life problems while working with world leaders.

Shiva Sekar Faculty Co-ordinator





# Industry Conclave'19

"Integrating Education with Skills: Perspective of Technological Changes with Global Impact".

### What is an Industrial Conclave?

It is a student-run event, organised in coordination with the T&P Cell, where influential professionals from diverse fields of expertise participate in seminars and discussions to communicate the expectations and trends of the Industries vis-a-vis educational organisations.

A two-day long student-oriented event based on technical and academic collaboration was organised in Feb, 2019 which aimed at understanding the relationship of Education and its real-world applications. The Institute hosted eminent experts from prominent industrial and corporate organisations.

### **Topics discussed:**

- 'Is our Education system giving our youth the skills, knowledge and attitude required to take advantage of the opportunities made possible by globalization and technological change?'
- 'How should the universities and industries respond to the gap between learning, working and living?'



# Key Workshops & Industrial Exposure

### Workshops

The Institute regularly organises talks and workshops for the students to add an extra edge to the ongoing academic curriculum. Multiple hands-on workshops have been organised on the following topics:

- RC Quadcopters
- Aero-Modelling and glider fabricating
- Creativity, Design and Innovation
- Creative Learning Workshop: Hands-on Engineering
- Advanced Electronic Based Engine Technologies
- The Fascinating World of Compilers
- IoT and Machine learning
- Drones Designing Workshop
- Embedded Systems and Analog circuits
- Reverse Engineering



### Various field visits conducted

- Salal Hydroelectric Power Station, Jammu
- The world's highest railway bridge on river Chenab
- Anji Khad Bridge Site, Jammu
- Chenani-Nashri Tunnel Patnitop and Tunnel T1, T10
- Electric Field Company in Gangyal, Jammu
- Sudhir Power Generator, Ludhiana
- NTPC, Faridabad
- Sonalika Tractors, Hoshiarpur
- Rail Coach Factory (RCF), Kapurthala



# Institute Innovation & Incubation Centre (I3C)

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### Focus of I3C is following:

- Prepare students for Hackathons, idea competitions , mini challenges etc.
- Create a vibrant local innovation ecosystem
- Start-up supporting mechanism
- Establish function ecosystem for scouting ideas and pre-incubation of idea
- · Develop better cognitive ability for technology students

### The centre will also take care of following:

- Generate funding
- Patents and IPRs
- Entrepreneurship
- Central Facilities and Resources



IIT Jammu received a second golden star in IIC certificate

# Showcasing Projects

### Design of Hydro-mechanical split power continuously variable transmission system

A team of students designed a Power-Split Transmission which splits input power into a hydrostatic and mechanical path and recombines it using planetary gear sets. The solution has been offered against BEML's existing 7 gear power-shift transmission.

### Eradication of Child Labour using the systematic approach

Students developed end to end AI-based mobile and Web app named 'Udaan' for Labour Saving Office during Smart India Hackathon'19. The team was able to successfully grab the first position in this event by MHRD with a cash prize of Rs. 1,00,000.

### Aasha - A Pregnancy Risk Prediction App

Students built a miscarriage risk prediction app. This app can be integrated with ANMOL tablets which can help in facilitating anganwadi workers. Their team presented this app during the TCS PAN IIT Hackathon.

### IIT Jammu Mess Crowd Information App

An app for accessing the crowd status in IIT Jammu mess was designed by 2nd-year students on Deep Learning and Cloud Database technologies. This app provides real-time information about the mess, can book a table, order items and is also able to inform about the less busy hours based on its learning.

### **Visible Light Communication system**

The project done by Electrical Engineering students. Visible Light communication (VLC) is a subset of wireless communication which uses visible light to communicate. Communication system was designed separately using LCD and LED as transmitter. For LCD based VLC, Arduino interfaced with LCD was used whereas for LED based VLC, LM340HV-Buck converter LED driver by Texas instruments was used. Simulation was carried out in LT spice using LT3478- LED driver by Analog devices.

### **Face Recognition Automatic Attendance**

Students of the IIT Jammu developed a machine learning based attendance management system that is used to mark attendance automatically and manage the data using a mobile app. The application is built using lonic which produces a hybrid app capable of running both on Android as well as on iOS devices.

# Internship **Report - 2019**

T&P cell has been successful in placing students for Internship assignments in premier academic institutes like IITs, universities abroad, government PSUs and high profile industries.



PLACEMENTS of

**BATCH 2016** 

**Internships Across the Globe: CAPTURY** in Germany

kLens in Germany The University of Padua in Italy Singapore University of Technology and Design in Singapore University of Auckland

### Internships with various companies



**PLACEMENTS of BATCH 2017** 





campus placements

Academic

Government 27%

16%

# Placement **Procedure**

At IIT Jammu, we follow a highly effective and transparent step-by-step process for our Placement Procedure.

The placement cell sends an invitation to companies/organizations along with relevant information.

A Company/Organisation fills a Job Announcement Form (JAF) containing details of the job offer (pay package, posting places etc.) by registering to IIT Jammu's Placement Portal (http://eservices.iitjammu. ac.in/#/placementhome) and submitting the information.

The JAF is made available online to the students, along with any other information furnished by company/ organization.

Interested and eligible (as per the criteria specified by the organizations) students show their willingness to appear for the recruitment process of a company by signing its JAF online. Companies/Organisations are provided with the resumes of interested students and can shortlist the students.

Placement Office allots dates for recruitment procedure by considering factors like student preferences, job profile, etc. Organizations visit the campus on the allotted dates and conduct tests/ interviews according to the recruitment process.

The company/organization is required to furnish the final list of students in a sealed envelope at the end of their assigned interview slot. The organizations are also encouraged to maintain a waitlist of students in case of non-availability of selected students.

# **Faculty Profile**



Adjunct faculty members are from University of Bordeaux, Iowa State University, IIT Bombay, Southampton University, University of Auckland, University of London, Harbin Institute of Technology Shenzhen



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VISITING

### **Major Areas for Research**

- 5G New Radio, Massive MIMO, mm-Wave Communication
- Smart Grid, Smart City, Smart Agriculture
- Cyber-Physical System and its security
- Renewable and Sustainable Energy
- Fuel Cell, Battery Hybrid Architecture, Solar Cell, Catalysis
- Transportation Infrastructure in the Mountains: Seismic Analysis
  Machine Learning and Artificial
- Intelligence
- Literature and Cultures of South Asia, comparative world literature

# **MoUs & Collaborations**

### **Academic Collaborations**

- Khajeh Nasir Toosi University, Tehran
- Malek-Ashtar University of Technology, Tehran
- Shiraz University of Technology, Shiraz, Iran
- Malaviya National Institute of Technology, Jaipur
- Dhirubhai Ambani Institute of Information and Communication Technology
- Indian Institute of Technology Delhi
- Indian Institute of Technology Bombay
- Shri Mata Vaishno Devi University, Jammu
- National Institute of Technology Srinagar

#### **Research and Development**

- Council of Scientific and Industrial Research (CSIR), New Delhi
- Semi-Conductor Laboratory, Department of Space, GOI
- Foundation for Innovation and Technology Transfer, New Delhi

### **Industrial Collaborations**

- Public Works Department (PWD), Jammu
- ENTUPLE Technologies Private Limited
- Udhampur-Srinagar-Baramulla-Rail-Link Project (USBRL) Northern Railways
- Electronics Sector Skills Council of India (ESSCI)
- NI Systems (India) Pvt. Ltd.

# Success Stories of Students

- Selected in Google Summer of Code, 2019
- Two teams grabbed 1st position and a cash prize of Rs 1 Lakh in Smart India Hackathon'19
- 1st position in Coding Hackathon at Inter IIT Tech Meet, 2018
- Top 20 in AI challenge by Microsoft in 2018
- First position in Tech2Farm event of Mechanica 2018







- Successfully cleared TCS PAN IIT Hackathon at IIT Delhi
- Selected in Model United Nations as an Indian Delegate for attending the AYI MUN International conference in Malaysia
- First Runner-Up in hackathon organized by IIT Bhilai in 2018
- First position in "Fabrication of Trolley out of Scrap" at IIT Mandi's Exodia 2019

- 2nd Runner Up in Start-Up India Yatra J&K 2018 challenge
- All India rank of 82 in ACM ICPC, 2018
- Selected as Indian Youth Delegates to China and South Korea
- Top 40 in Greenpreneur 2018
- "People's Choice Award" for team spirit in the ATVC event









# Life @ IIT Jammu





















# Testimonials by Students

#### Deepanshu Yadav, Electrical Department

The institute provides the students with various platforms for learning in every domain; whether it is Technical, Research or Extracurricular activities. One such opportunity as a placement coordinator offered to me by the institute groomed me as an individual over the three years. It has also helped me in becoming a team player and alongside contributing to the institute with my skill sets.

### Shreyanshu Kumar, Electrical Department

Being from the pioneer batch of IIT Jammu, we have received countless opportunities to participate in institute building activities in both academic and extra-curricular domains. The kind of infrastructural advancement that IIT Jammu has witnessed in its initial years is impeccable. The institute has been successful in setting up all the necessary laboratories to supplement course lectures and to foster research.

#### Taijaswaini Agarwal, Mechanical Department

The amount of exposure and the sense of ownership that I have developed at IIT Jammu is unparalleled. Constant guidance and support from faculty in training us to hold managerial positions, and professionally liaison with companies has been immense. We have gained expertise in various fields by doing multiple projects and internships, which have made us ready for facing challenges.

### Sapan Khubchandani, Mechanical Department

At IIT Jammu, we have constantly received support and guidance from faculty members. They always provide us with the assistance that any student requires for their overall development. I will always be grateful to them for providing me a platform for practical learning and future challenges.

### Mayank Singh, CSE Department

IIT Jammu has achieved excellence in imparting highquality education with a prime focus on holistic learning and inculcating competitive abilities in students. My sincere thanks to all the Faculty members and mentors for their support.. They have played a very crucial role in shaping me and making me ready to take up all the challenges in the near future.

### Shivam Kumar, CSE Department

I had countless opportunities to develop analytical & leadership skills and proactive thinking through various programs and events. At IIT Jammu, we have different clubs like Coding Club, Robotics Club, Dramatics Clubs etc. which have provided me the platform to explore my abilities and skills.

# **Future Initiatives T&P Cell**

With its first Industry Conclave, T&P Cell has taken its first step to understand the technical aptitude and requirement of the industries. In the near future, with the HR conclave, we will enable our students, to appreciate the need for strong interpersonal skills which are required by every human resource management in industries. Taking this route, T&P Cell facilitates the possible match between the aspirations of recruiting organizations and capabilities of our students.

### **T&P** Team

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### T&P Team - Students

### **Computer Science Engineering:**

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