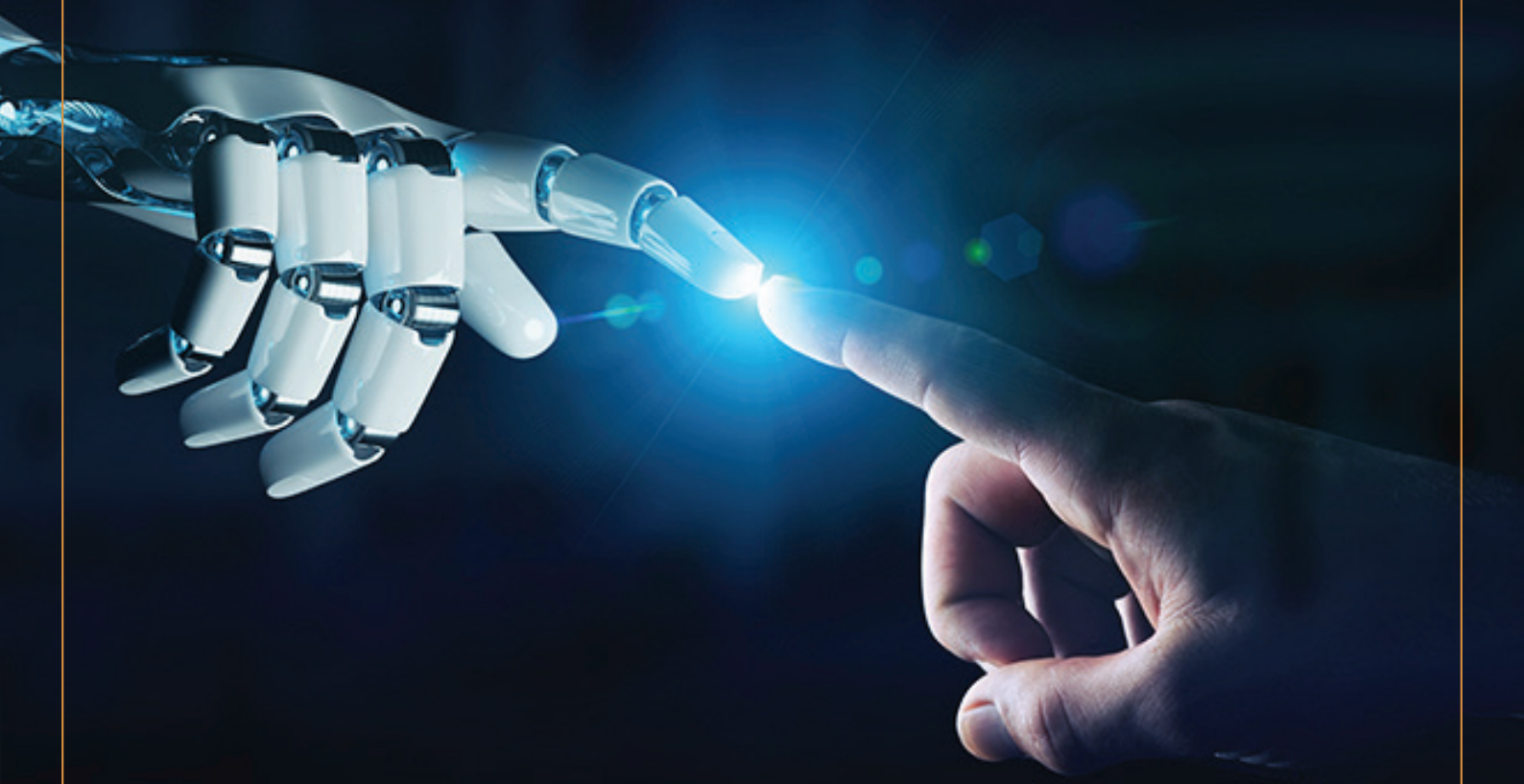
HERE **CURIOSITY** LEADS **INNOVATION**



विद्याधनं सर्वधन प्रधानम्

भारतीय प्रौद्योगिकी
संस्थान जम्मू

INDIAN INSTITUTE OF TECHNOLOGY JAMMU

The ‘why’ that comes out of curiosity drives the force behind the genius

Curiosity is the imaginative process of asking questions, sometimes reasonable, sometimes ridiculous. But, asking questions never ceases to amaze when you get the right answers. IIT Jammu encourages students to stir up the curiosity that fuels their minds with knowledge and practical understanding to lead innovation.

Welcome to the homeland of warmth

Jammu, the place with the fusion of prodigious mountains towering over a picturesque river, is recognized for its beauty and hospitality. The pleasant weather that infuses the pink of health in the body and the amiable nature of people who give the message of warmth makes Jammu a place to be in and become. Identifying the harmonious environment of Jammu, the IIT fraternity chose it as an address for curious minds to thrive invincibly. The peace in the atmosphere of Jammu keeps IITians aligned with the ideas emerging in their ambitious minds and leads them to the greatest level of creation, innovation.

Taking the IIT legacy forward

Since their inception, IITs have proved their potential to grow with their quality of education, technological developments and innovational accomplishments. In taking this legacy forward, IIT Jammu is inspired by young India and its urge to build a collective society where technological discoveries can be made with a humanistic and futuristic approach. IIT Jammu was inaugurated on 6th August 2016 and, within a year, shifted to its main campus in Jagti, surrounded by beautiful forest land and a peaceful ambience. IIT Jammu is an “Institute of National Importance” which is sincerely committed to nurturing the young talents coming from various parts of India by training them to put knowledge into practice. The Institute aims to inculcate the sentiment of responsibility and commitment in the students and empower them to be innovators who create a positive impact on the nation.

Learn, Engage, Invent and Create impact.

IIT Jammu is inspired by young India and its urge to build a collective society.

From passionate learners to transformative leaders

IIT Jammu is a young Institute of bold thinkers. It diverts the dynamic energy of the nation's youth towards detailed observations, progressive imaginations and need-gap identification. We are dedicated to foster a generation which goes beyond the concept of theoretical knowledge. We aim to blend the approach of interactive and hands-on learning into its pedagogic principles. Keeping this objective at the core, we regularly organize foundation programmes and synergistic workshops for our students, staff and faculty. We are making a conscious effort to sustain a multi-disciplinary approach to academia. Our long-term goals are to create an environmentally sustainable campus, to increase the number of offered programmes, establish impactful research facilities and a strong presence in translational research and development of the nation. We have successfully set up two From passionate learners to transformative leaders operational campuses with fully equipped academic and recreational facilities. Our objective is also to set up a state-of-the-art research facility for the Institute and the researchers from all over India, making IIT Jammu the biggest research facility in J& K. At IIT Jammu, the journey is as exciting as the milestones pursued and achieved.

M.S. Gaur
Director, IIT Jammu

Vision

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

Mission

IIT Jammu not only creates industry-ready students but students who make the industry ready for current and future technological excellence.

Core Values

Creativity
Interdisciplinarity
Dynamism
Collective Growth
Mutual Respect
Sustainability

Seamless learning infrastructure

20 minutes away from Jammu airport and railway station, IIT Jammu's Jagti campus is well-connected and abundantly green with a beautiful landscape. Close to Trikuta Hills, the campus fluently captures the raw beauty of nature. The current hostels and lodging facilities are built to comfortably accommodate 650 students. The next phase of construction of the main campus is underway and will accommodate about 1200 students. Our campus is powered by large-capacity solar energy to promote the idea of a sustainable environment. Our support continues through our highly resourceful library, a variety of sports and recreational facilities, and high-tech classrooms and laboratories. We nurture the talent of students and faculty members at IIT Jammu by giving them complete freedom to practice their theoretical knowledge at the well-established and upgraded infrastructure of the institute. IIT Jammu ensures that students understand the real-world application of their theoretical knowledge by providing them facilities that enable experimentation and innovation. The numerous laboratories, workshops and student-managed tinkering labs aim at providing a fertile space for the development of a well-rounded Engineer.

The Institute is equipped with a Central Research Facility with high-end equipment for major research and industrial collaborations.

Central Computing & Communication Infrastructure (C3I)

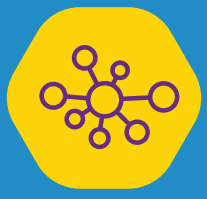
IIT Jammu's 24-hour access C3I facility is set-up for the smooth functioning of overall design, planning and day-to-day Network and Services Infrastructure. The C3I has successfully established Integrated E-Governance Solution (ERP) and Learning Management Solution (LMS) which ensures that the Institute operates with higher effciency and increased coordination.

Strong pillars for meaningful impact

Curriculum template in the academic system of IIT Jammu has been structured to be multi-disciplinary to cater to the rapidly changing scientific and technological needs of the global community. Our programmes are designed to encourage students to relate academic theory to real-world practice and to collaborate with like-minded community in and out of the lecture hall. The 4-year undergraduate Bachelors' Programme has been designed to expose students to the fundamental concepts of all branches of Engineering, Basic Sciences, and Humanities. A substantial portion of the total credits is devoted to experimental education through laboratory experiments and hands-on projects permeating across disciplines. Courses related to Engineering and Basic Sciences are accompanied by the corresponding lab training and purpose-driven projects which will be taken up by the students. Students are encouraged to get a minor degree in any area of Engineering/Applied Sciences/Humanities to fulfil their inter-disciplinary interests. The curriculum also aims to give a choice to go deeper into an area of specialization by earning an "honours" degree.

Academic Departments

Chemical Engineering



Chemistry

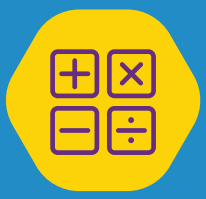
Civil Engineering

Computer Science and Engineering

Electrical Engineering

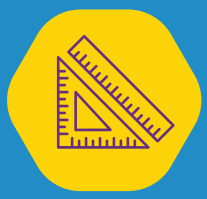
Humanities and Social Sciences

Physics

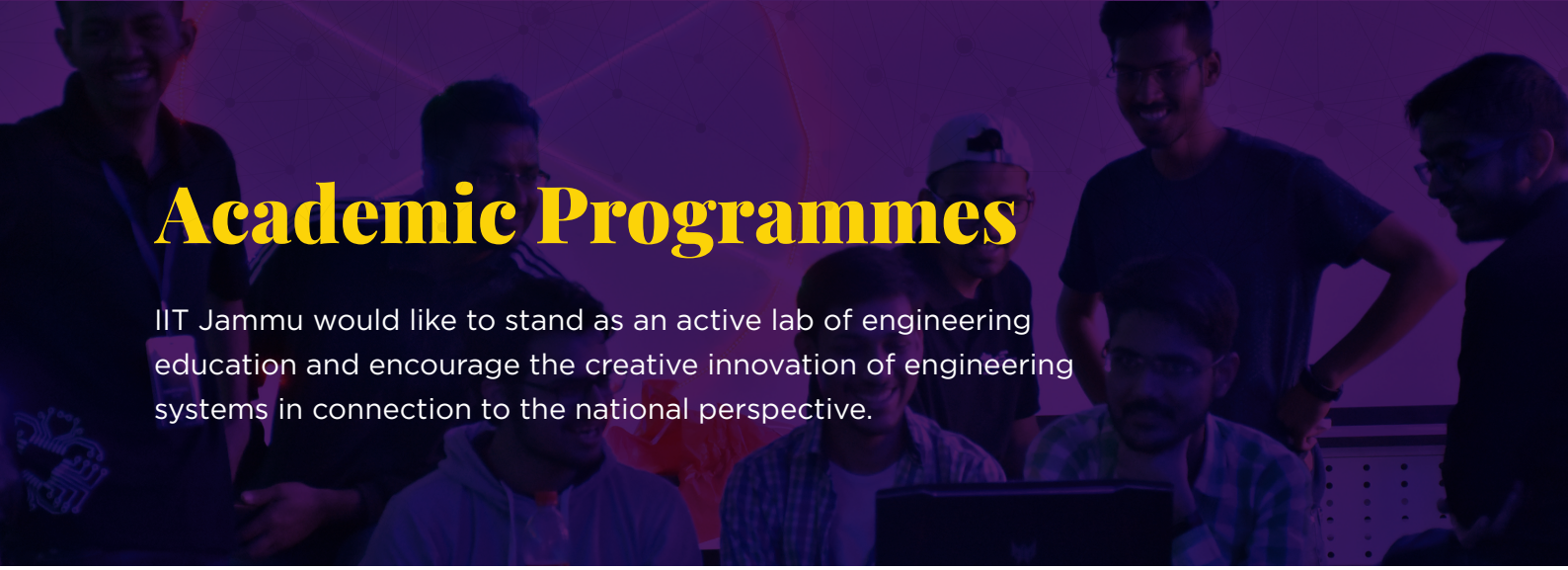


Mathematics

Mechanical Engineering



Materials Sciences and Engineering



Academic Programmes

IIT Jammu would like to stand as an active lab of engineering education and encourage the creative innovation of engineering systems in connection to the national perspective.

UG Programmes

- B.Tech. in Chemical Engineering
- B.Tech. in Civil Engineering
- B.Tech. in Mechanical Engineering
- B.Tech. in Materials Engineering
- B.Tech. in Computer Science and Engineering
- B.Tech. in Electrical Engineering

PG Programmes

- M.Tech. in Computer Science and Engineering - Data Science
- M.Tech. in Computer Science and Engineering - Information Security
- M.Tech. in Electrical Engineering - Communications and Signal Processing
- M.Tech. in Tunnel Engineering
- M.Tech. in Thermal Engineering

Full-Time Ph.D. Programmes

Full-time Ph.D. programmes are offered by all the academic departments in their respective research specializations along with a strong emphasis on multidisciplinarity research.

Extensive support for far-reaching growth

Faculties at IIT play a major role in shaping the professional character of every student for a bright career in engineering and related fields. We have strong faculty across all departments who share their expertise with the students and motivate them to pursue their aspirations. IIT Jammu recognizes the determination of faculty members and appreciates the efforts they invest in the future of students and for the betterment of the Institute. For the consecutive growth of faculties, IIT Jammu has provisioned fellowships and financial assistance to expand their horizons of knowledge and contribute to the vital areas of research.

Strength of faculty members

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

Major verticals of research

- 5G New Radio, Massive MIMO, mm-Wave Communication
- Biomedical Research
- Catalysis, Asymmetric Synthesis, Organometallics
- Cyber-Physical System and its security.
- Image Video Processing
- Literature and Cultures of South Asia, Comparative World Literature
- Machine Learning and Artificial Intelligence
- Plasmas, Renewable and Sustainable energy
- Transportation infrastructure in the mountains: Seismic Analysis
- Tribology, Manufacturing, Thermal and Fluid Sciences

Provisions for the faculty members

With the core objective of motivating faculty members towards quality research and development, IIT Jammu provides multiple avenues that help faculty members contribute towards personal and institutional growth.

Faculty Research Fellowships

Partial Financial Assistance for Summer Attachment Programme (SAP)

Project Based Learning (PBL) Workshop at Olin College, USA

MoUs & Collaborations

IIT Jammu has signed MoUs with 19 organisations within and outside India.
Some of the key collaborations are:

Institutional

- Dhirubhai Ambani Institute of Information and Communication Technology, India
- Khajeh Nasir Toosi University, Tehran
- Malaviya National Institute of Technology, India

Industrial

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

Research & Development

- Council of Scientific and Industrial Research (CSIR), New Delhi
- Semi-Conductor Laboratory, Department of Space, Govt. of India
- National Highways authority of India (NHAI)

From being raw to ready

Students at IIT Jammu are prepared to excel in leadership, teamwork and problem-solving along with gaining technical knowledge. Refresher lectures on technical subjects, preparatory programmes to enhance communication skills, interview skills, group dynamics, dialogue sessions with external experts in diverse sectors and other large numbers of activities are conducted for the inductive training of graduating students. A specialized internship programme is arranged for PAN-India students with Arista Networks to learn about networking and high-data computing. Overall, the key focus of the placement office is to prepare students for their desired placements and internships.

Internship Programmes

Students from various engineering departments get prolific internship opportunities to refine their skills. They get a chance to gain valuable work experience and explore a strong career path at the renowned organsations in India and abroad.

amazon
OYO
ARISTA
HealthifyMe
OPTUM
DESAY SV automotive
LTI Let's Solve
the captury
eagleview
Chegg
K|Lens
toppr
JBM Group
Friscone
RAAMGROUP
RELSAFE
Forbes Marshall
K12
DRDO
Cognizant
Godrej
apollo TYRES
SIEMENS

Career Development Centre

Training and Placement Cell (T&P) popularly known as career development centre (CDC) at IIT Jammu is committed to transforming the students into innovative engineers and determined professionals. In this regard, CDC cell aims to bridge the gap between the Institute and industry with continuous endeavours and has been successful in placing students for Internship assignments at premier academic Institutes like IITs, universities abroad, government PSUs and high profile industries.

Future Initiatives

The Cell aims to conduct multiple Industrial and HR Conclaves along with frequent interactions with seasoned professionals from the top drawer companies across industries. Further, the Cell consistently carries out workshops on management and soft-skill development, industrial visits and career guidance programmes to equip students with the imperative competencies.

Institute Innovation & Incubation Centre (I3C/I2EDC)

IIT Jammu's Innovation and Incubation Centre is established under MHRD's Innovation Cell (MIC) to systematically foster the culture of innovation and with the motto to stir up the entrepreneurial spirit in the students. I3C encourages and inspires students to experiment with ideas, prepares students for challenges, provides guidance and seed funding. I3C also emphasizes on:

- **Creating Local Innovation Ecosystem**
- **Developing Startup Supporting Mechanism**
- **Establishing a functional ecosystem for scouting ideas and pre-incubation of idea and developing the cognitive ability for technology students.**

Increase in collective potential by collaborative efforts

Outreach programmes are an interactive approach to comprehensive learning. IIT Jammu, with its outreach programmes for faculty and students, extends the expertise and support to the communities inside and outside the institution. The philosophy of 'uncover the cores, rather than covering anything' is the basis for innovation at IIT. Being an active epicentre of engineering we also focus on arranging development programmes for faculties and students to impart engineering and technical solutions to the problems faced by society. Variegated activities and workshops are periodically organized to expand the rainbow of knowledge, to attain diverse skills and produce promising outcomes through unified efforts.

The faculty and students of the Institute have organised and conducted numerous outreach workshops associated with the important pillars of society:

- Hospitals and Medical Colleges
- Indian Army
- J&K Department of Higher Education
- Police Training Academies
- Village and Municipal Administrations in Jammu

Students Development Programmes

- Diploma courses for skill development
- Short-term courses in Entrepreneurship
- Summer Internships at IIT Jammu
- Summer Workshop Programmes created using experiential-learning modules such as reverse engineering
- CURICULUM MOTIVATED BY National Education Policy 2020
- Virtual Lecture Studios with professional equipment to seamlessly integrate online and offline learning

Programmes that amplify faculty roles

- Bi-annual seminar-based Faculty Development Programmes on diverse subjects
- Hands-on STEM-based capacity building training for school teachers organised by IIT Jammu faculty

Life at IIT Jammu

IIT Jammu invites students and faculties from all over India to witness the spirited life at the Institute. The Institute provides a bountiful scope of extracurricular activities for the holistic development of students and encourages them to make the most of their experience on-campus by helping them build essential values and perform while learning at every stage. From workshops, sports and social activities to cultural fests, tech meets, robotics and fun-filled activities — life at IIT Jammu gives every student an opportunity to explore themselves and contribute to the growth of self and others.

Foundation Programme

IIT Jammu's foundation programme is a plethora of events based on the concept of 3Cs—Creativity, Culture and Communication. Combination of the 3Cs contributes to the complete growth of a student's character. Especially when creativity is fused with academia, it can make engineering playfully interesting when applied in the real world. When the perspective of creativity and purpose of engineering meet, it solves actual problems in the best way possible. Foundation Programme also inspires learning, initiates a comfortable life of the new batch of students at the Institute and enhances the analytical skills and creative potential of the young students.

Student-Driven & Cultural Clubs

- Kritash - Social welfare club
- Coding Club
- Robotics Club
- SAE-Baja – Automotive Club
- Astronomy Club
- HAM Radio Club
- Fine Arts Club
- Dance club and Drama club
- Film-making and Photography Club
- Literary club
- Music Club
- Inter IIT Sports Club
- Intra IIT Sports Club
- Regular Sports Club

Life at IIT Jammu ensures omnidirectional development of IITians and makes each one of them unstoppable in their efforts to pursue their ambitions.

Cultural Clubs

Robotics Club

Tech Fest

Sports Fest

Cultural Fest

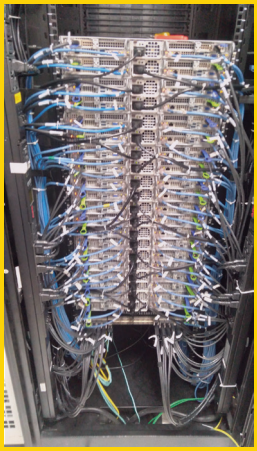
Coding Club

SAE Club

What's unique at IIT Jammu?

Virtual Lecture Studios

The classrooms at IIT Jammu have been enabled with sustained bandwidth, professional studio lighting and Tablets working as whiteboards which has made online teaching a breeze. The students now have access to recorded classroom lectures and study material anytime and anywhere.



AGASTYA

The high-Performance Computing facility Agastya has been commissioned at IIT Jammu. This is the 20th largest facility in the country in terms of computing capabilities. Envisioning and establishing the facility came with a long set of challenges but despite everything, it now stands tall and proud at our campus.

Central Instrumentation Facility

The Central Instrumentation Facility at IIT Jammu can easily be called a unicorn of technological excellence. The brand new NMRI spectrometer, SCXRD, HRMS, XPS AND UV-VIS-NIR spectrophotometer are now operational at the campus to undertake research of a global level. The facility is in the final stage of commissioning a powder x-ray diffractometer (PXRD) and Fourier Transform infrared Spectroscopy (FTIR)

Laurels of IIT Jammu

The fruition of IIT Jammu continues in the accomplishments of the students and the appreciation by the family of IITians. Every member of IIT family is doing their best to make the Institute a 'gurukul' where students can find their purpose in the company of experienced mentors, fellow enthusiasts and industry experts.

1st position

in the coding hackathon
at Inter IIT Tech Meet 2018

Selection in the Google Summer Code 2019

1st position

in Tech2farm event of Mechanica 2018
for creating a weed-removal prototype

1st runner up

in online hackathon organized
by IIT Bhilai in 2018

Participated in the AI Challenge by Microsoft

in 2018 and made it to the top 20
teams all over India

3rd position

in Startup Yatra J&K 2018 Challenge
for their startup solution to the problem
of middlemen in the agricultural sector

"People's Choice Award for Displaying Team Spirit"

in the Bajaj ATVC event in 2019

Won Rs. 1 Lac cash prize

at Smart India Hackathon; winners will
be representing IIT Jammu in Singapore
India Hackathon 2019

1st position

in IIT Mandi's Exodia 2019
A team of 2nd year students fabricated a trolley out of scrap which could sustain a 45+kg weight and had a working brake system

Life at IIT Jammu

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