भारतीय प्रौद्योगिकी संस्थान जम्मू
INDIAN INSTITUTE OF TECHNOLOGY JAMMU
विद्याधनं सर्वधन प्रधानम्

DEPARTMENT OF
HSS
HUMANITIES & SOCIAL SCIENCES

BACHELOR OF SCIENCE IN
BEHAVIORAL SCIENCES
&
PREDICTIVE ANALYTICS

Table of Contents

BS PROGRAM

Bachelor of Science (BS) in Behavioral Sciences and Predictive Analytics (BSPA)

The Bachelor of Science in Behavioral Sciences and Predictive Analytics (BSPA) is inherently interdisciplinary, merging two distinct but complementary fields: Behavioral sciences and predictive analytics. The program integrates the study of human Behavior with advanced data analysis techniques, providing students with a holistic understanding of both qualitative and quantitative dimensions of human actions and decisions. This unique combination addresses the need for professionals who can interpret human Behavior using data-driven approaches, making it relevant across various sectors such as healthcare, public policy, marketing, and social sciences.

The program's interdisciplinary nature equips students with the tools to analyze complex social issues using Behavioral insights and predictive models. The dual focus on theoretical understanding and practical application enables students to bridge the gap between humanities and data science, preparing them for a wide range of careers where both critical thinking and technical expertise are essential.

In summary, BSBSPA's curriculum draws from multiple academic disciplines, ensuring that graduates are well-rounded professionals capable of addressing complex societal challenges through innovative, interdisciplinary methods.

Interdisciplinary Integration

The establishment of an undergraduate program in Behavioral Sciences and Predictive Analytics by the Humanities and Social Science department represents a forward-thinking approach to education that aligns with contemporary academic and professional landscapes. This program seamlessly combines the study of human Behavior with advanced analytical techniques, offering a unique interdisciplinary education that is essential in today's data-driven world.

Addressing Complex Social Issues

By integrating Behavioral sciences with predictive analytics, this program equips students with the skills to understand and predict human Behavior in various contexts. This is crucial for addressing complex social issues such as mental health, social inequality, consumer Behavior, and public policy. Graduates will be capable of designing data-informed interventions and policies that can profoundly impact society.

Enhancing Research and Practical Application

The program encourages both theoretical understanding and practical application. Students will engage in rigorous research methodologies and learn to apply predictive models to real-world scenarios. This dual focus prepares graduates to contribute to academic research and to provide actionable insights in practical settings, bridging the gap between theory and practice.

≫ Who We Are

IIT Jammu, established in 2016, has navigated a remarkable journey from Paloura to Jagti, overcoming significant challenges. Our progress can be distilled into a single word: "unwavering." Like a tree that grows stronger with time, our institute has advanced with determination, driven by our faculty's pursuit of innovation and excellence. Located on a sprawling 400-acre permanent campus in Jagti, Nagrota, the institute offers several B.Tech, M.Tech, MS, and PhD programs with addition of new courses in 2025–BTech in Engineering Physics and Bachelors in Behavioral Science and Predictive Analytics.

We've forged substantial international collaborations with esteemed institutions, including National Chung Cheng University, the University of Bergen, and the University of Alabama, among others. Our faculty has consistently attracted prestigious research investments, contributing to our expanding research landscape. Notably, 14 faculty members are supported under the SAP program, and eight under the SIRE program.

Our research endeavors have yielded impressive results. The Biosciences and Bioengineering Department secured Rs. 1.67 crore in grants, paving the way for a Bio-Interface Technology Master's program. We've also seen significant growth in externally funded projects, with 74 projects worth nearly Rs. 20 crore added last year, bringing our total to 194 projects. Furthermore, we've collaborated on 84 consultancies, with a sanctioned amount exceeding Rs. 5 crore.
Our Central Instrumentation Facility (CIF), or Saptarishi, has become a hub for pioneering research, with seven state-of-the-art labs. The Lithography and Fabrication lab is operational, and the Raman Spectroscopy equipment is actively used in the Spectroscopy lab.

Building on this momentum, in 2024, we continued to improve our NIRF ranking in the Engineering Category. Our research and consultancy efforts have yielded remarkable results, with 103 sanctioned research projects between April 2023 and September 2024, totaling over Rs. 50 crore. We're proud to lead a consortia-based mechanism for the Central Project Management Unit for AI, funded by the Ministry of Education with a financial outlay of around Rs. 1000 crore. Our students have also excelled, with 70.8% of the batch of 2024 securing coveted campus offers despite the industry recession era.

Through these achievements, IIT Jammu reaffirms its commitment to innovation, research, and student success. With a growing reputation in innovation, startups, and social impact projects in J&K, IIT Jammu is cementing its place among India's leading engineering institutions.

4

» Department of Humanities and Social Sciences

It gives us great pleasure to introduce the Bachelor of Science in Behavioral Sciences and Predictive Analytics, an innovative undergraduate program crafted by the Department of Humanities and Social Sciences at IIT Jammu.

This program brings together core ideas from psychology, cognitive science, Behavioral economics, and sociology, and integrates them with statistical reasoning, data science, and predictive modelling. Our goal is to help students understand human behavior not just at the level of individual experience, but also as complex, measurable patterns that unfold across social systems and environments.This interdisciplinary program is designed to bridge the understanding of human behavior with data-driven decision-making.
By integrating insights from behavioral sciences, psychology, sociology, and economics with tools from statistics, data analysis, and computational modelling, students will be uniquely equipped to decode complex human patterns and contribute to solutions in domains ranging from mental health and education to policy, design, and technology.

At the Department of Humanities and Social Science, we are committed to fostering analytical thinkers and socially conscious individuals. This program is a reflection of our vision — to prepare students who are not only adept in behavioral theory but also skilled in the application of predictive tools to address real-world challenges.
We invite curious minds to embark on this exciting academic journey and become a part of a future-ready generation of behavioral scientists and analysts.

Warm regards,
Department of Humanities and Social Science

The BS Program in Behavioral Sciences and Predictive Analytics

The 4-year Bachelor of Science in Behavioral Sciences and Predictive Analytics (BSBSPA) program by the Humanities and Social Science department, IIT Jammu represents a forward-thinking approach to education that aligns with contemporary academic and professional landscapes along with NEP2020. This program seamlessly combines the study of human Behavior with advanced analytical techniques, offering a unique interdisciplinary education that is essential in today's data-driven world.

Addressing Complex Social Issues

By integrating behavioral sciences with predictive analytics, this program equips students with the skills to understand and predict human behavior in various contexts. This is crucial for addressing complex social issues such as mental health, social inequality, consumer behavior, and public policy. Graduates will be capable of designing data-informed interventions and policies that can profoundly impact society.

Enhancing Research and Practical Application

The program encourages both theoretical understanding and practical application. Students will engage in rigorous research methodologies and learn to apply predictive models to real-world scenarios. This dual focus prepares graduates to contribute to academic research and to provide actionable insights in practical settings, bridging the gap between theory and practice.

The Interdisciplinary Nature

The BS program is inherently interdisciplinary, merging two distinct but complementary fields: behavioral sciences and predictive analytics. The program integrates the study of human behavior with advanced data analysis techniques, providing students with a holistic understanding of both qualitative and quantitative dimensions of human actions and decisions. This unique combination addresses the need for professionals who can interpret human behavior using data-driven approaches, making it relevant across various sectors such as healthcare, public policy, marketing and social sciences.

The program's interdisciplinary nature equips students with the tools to analyze complex social issues using behavioral insights and predictive models. The dual focus on theoretical understanding and practical application enables students to bridge the gap between humanities and data science, preparing them for a wide range of careers where both critical thinking and technical expertise are essential.

In summary, BSBSPA's curriculum draws from multiple academic disciplines, ensuring that graduates are well-rounded professionals capable of addressing complex societal challenges through innovative and interdisciplinary methods.

Highlights of the BS Program

≫ Core Training in Year 1 and Year 2

- Strong Foundation with core courses in Behavioral Sciences, Neurosciences, Social Sciences, Humanities, Economics, Mathematics, Computer Programming, Data Science, Machine Learning, Psychology & Cognitive Sciences.

≫ Advanced Learning in Year 3 and Year 4

- Advanced and specialisation courses in Data Science, Machine Learning, Behavioural Sciences, Business Strategy, Psychology, Economics, Humanities & Social Science, and Policy Making
- Projects
- Semester-long industry experience
- Basket of elective courses across the curriculum of IIT Jammu
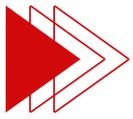
Option of multiple exits during the program as per NEP-2020

01   **EXIT 1: CERTIFICATE IN BEHAVIORAL SCIENCES AND PREDICTIVE ANALYTICS**

After the successful completion of one year of the program

02   **EXIT 2: DIPLOMA IN BEHAVIORAL SCIENCES AND PREDICTIVE ANALYTICS**

After the successful completion of two years of the program

03   **EXIT 3: BACHELOR OF SCIENCE IN BEHAVIORAL SCIENCES AND PREDICTIVE ANALYTICS**

After the successful completion of three years of the program

04   **BACHELOR OF SCIENCE IN BEHAVIORAL SCIENCES AND PREDICTIVE ANALYTICS WITH HONORS IN PSYCHOLOGY/ SOCIOLOGY/ECONOMICS**

After the successful completion of four years of the program

9

Credits Requirement: A minimum of 154 credits, which are distributed across eight semesters, needs to be fulfilled for graduating with honors.

Career Prospects

Graduates of the BSBSPA program are well-equipped for diverse career opportunities that blend human behavioral understanding with advanced data analysis. With expertise in both fields, they are uniquely positioned for roles across multiple industries, where data-driven decision-making and behavioral insights are increasingly crucial.

The combination of behavioral theory and predictive analytics ensures that BSBSPA graduates have a broad skill set, making them versatile and competitive in the job market. Their ability to provide insights into human behavior using data-driven tools makes them valuable across sectors.

≫ Public Health and Healthcare

- **Roles:** Health Data Analyst, Behavioral Scientist, Epidemiologist, Health Policy Analyst
- **Prospects:** Graduates can contribute to designing public health interventions, predicting disease outbreaks, and analyzing health-related behaviors to improve patient outcomes.

≫ Marketing and Consumer Insights

- **Roles:** Market Research Analyst, Consumer Behavior Specialist, Data-Driven Marketing Manager
- **Prospects:** Understanding and predicting consumer behavior helps businesses improve products, personalize marketing strategies, and forecast market trends.

≫ Policy Making and Governance

- **Roles:** Policy Analyst, Behavioral Insights Consultant, Public Policy Advisor
- **Prospects:** Graduates can work in government or think tanks to use behavioral data and predictive models to shape effective public policies on issues like mental health, education, and inequality.

≫ Human Resources and Organizational Behavior

- **Roles:** HR Data Analyst, Organizational Development Consultant, Talent Analytics Specialist
- **Prospects:** Predictive analytics can be used to assess employee engagement, predict turnover, and improve workplace culture and productivity.

≫ Education and EdTech

- **Roles:** Learning Analyst, Educational Psychologist, Instructional Designer
- **Prospects:** Graduates can develop predictive models for student performance, personalize learning experiences, and optimize educational programs using behavioral data.

12

⟫ Technology and User Experience

- **Roles:** UX Researcher, Data Scientist, Product Manager
- **Prospects:** Graduates can apply their skills to improve user experience, design data-driven products, and predict user behavior in app development and web design.

⟫ Finance and Risk Management

- **Roles:** Behavioral Economist, Risk Analyst, Financial Data Scientist
- **Prospects:** Behavioral analytics is increasingly used in finance to understand investor behaviour, reduce risks, and predict market movements.

⟫ Consulting and Advisory Roles

- **Roles:** Management Consultant, Behavioral Science Consultant, Data-Driven Strategy Consultant
- **Prospects:** Consulting firms seek experts who can analyze complex datasets, draw behavioral insights, and provide strategic guidance to businesses and governments.

≫ Research and Academia

- **Roles:** Academic Researcher, Data Scientist in Behavioral Research, University Lecturer
- **Prospects:** Graduates may pursue advanced research or teaching careers in behavioral sciences and predictive analytics, contributing to academic knowledge and innovation.

≫ Data-Driven Roles

- As more industries incorporate data analytics into decision-making, the demand for professionals who can interpret data through the lens of human behaviour is increasing. Graduates are sought after for roles like Data Analyst, Behavioral Scientist, Predictive Analyst, and User Experience Researcher in sectors including technology, healthcare, finance, and public policy.

14

Admission Process

⟫ Who can apply

Candidates eligible for JEE Advanced 2025 can apply through online application portal

⟫ How to apply?

Please check the updates from the following websites:
- https://www.iitjammu.ac.in/
- https://www.iitjammu.ac.in/hss/
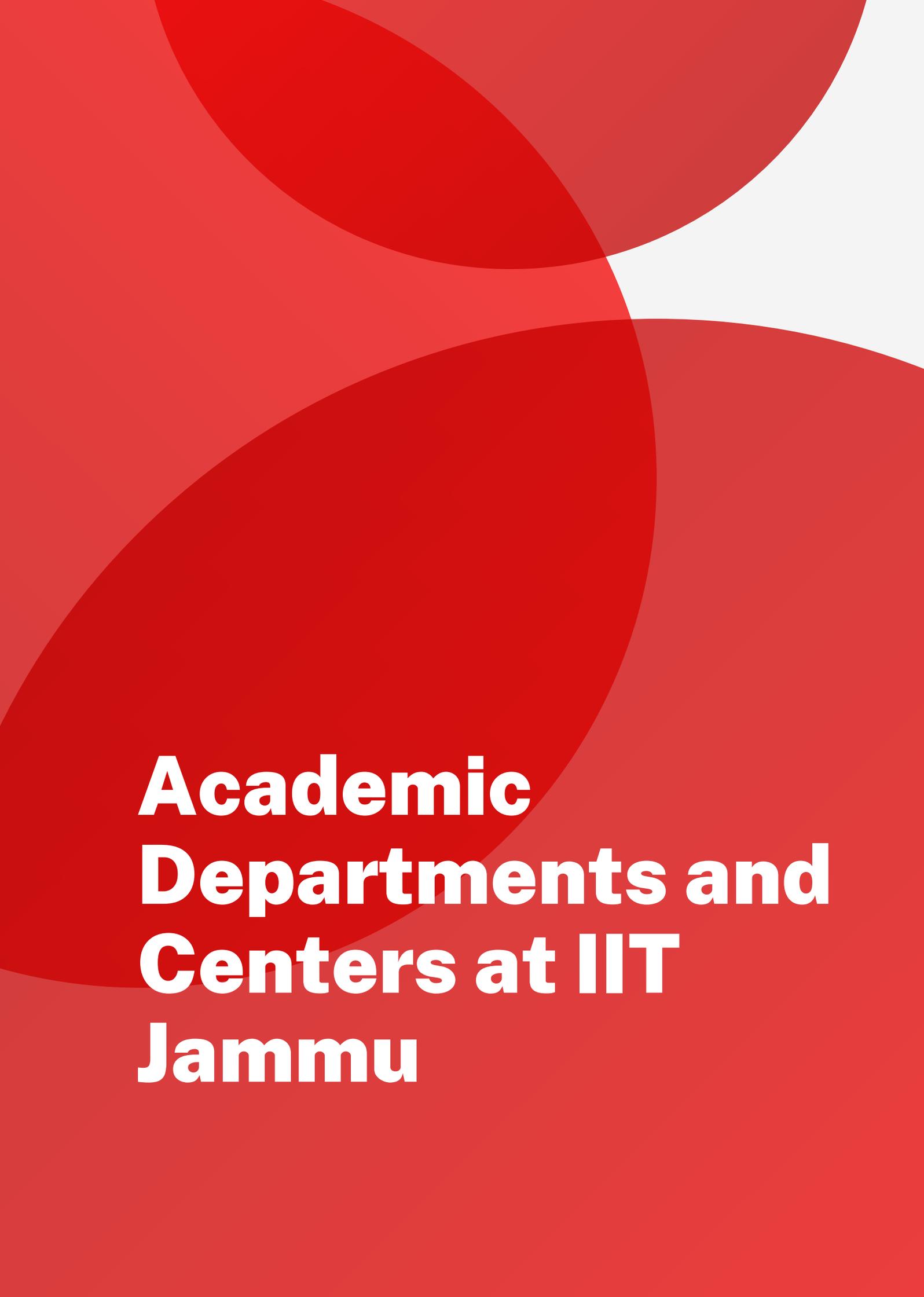
IIT JAMMU

Academic Departments and Centers at IIT Jammu

≫ Departments

- Biosciences and Bioengineering
- Chemical Engineering
- Chemistry
- Civil Engineering
- Computer Science and Engineering
- Electrical Engineering
- Humanities and Social Sciences
- Materials Engineering
- Mathematics
- Mechanical Engineering
- Physics

≫ Centers

- Central Computing and Communications Infrastructure
- Central Workshop
- Center for Essential Skills
- Central Instrumentation Facility
- Center for Strategic and Sustainable Infrastructure
- I3C

The Department of Humanities and Social Sciences

>> Faculty

Dr. Amitash Ojha
HoD, Assistant Professor

Dr. Ankit Kathuria
Associate Professor

Prof. Bijoy H Boruah
Advisor

Dr. Garima Singh
Assistant Professor

Dr. Hardeep Singh
Assistant Professor

Dr. Joby Varghese
Assistant Professor

Dr. Kishore Kumar Jagini
Assistant Professor

Prof. Meenakshi Rajeev
Professor

Dr Quleen Kaur Bijral
Assistant Professor

Dr. Sanchita Srivastava
Assistant Professor

Dr. Shafkat Shafi Dar
Assistant Professor

Dr. Sukanya Mondal
Assistant Professor

Dipannita Ghosh
English Language Instructor

Nivedita Verma
English Language Instructor
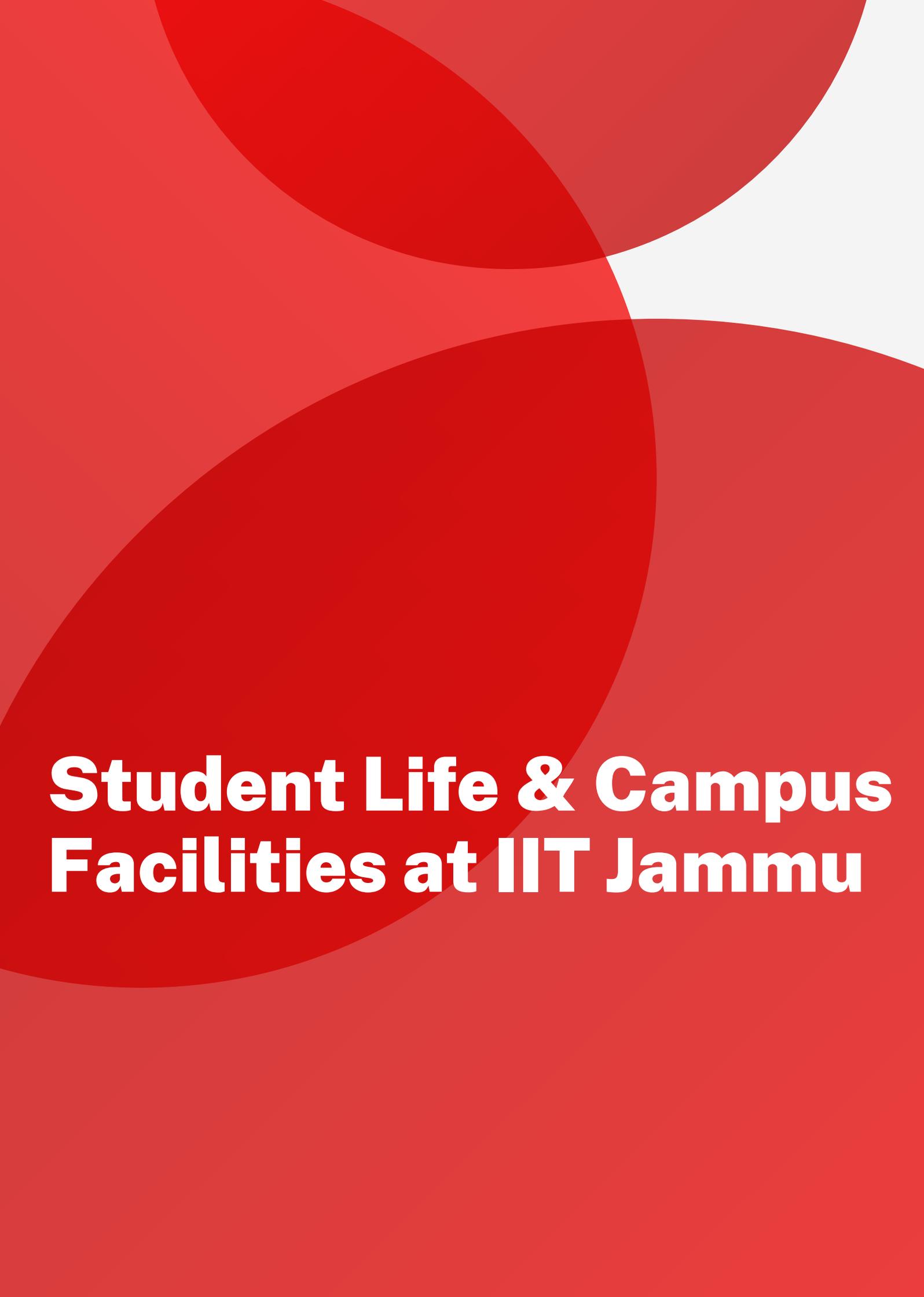
Student Life & Campus Facilities at IIT Jammu

Academic Clubs

IIT Jammu fosters holistic student development through a range of vibrant academic clubs that go beyond the traditional curriculum. These interdisciplinary clubs — such as the Coding Club, Robotics Club, FinTech/Popular Talk Club, Mesh, SAE-Baja Club, RE4M (Research for Mind), and E-Cell — offer students valuable exposure to various scientific and technical fields. By engaging in hands-on projects, workshops led by industry experts, and student-led competitions and events, members sharpen their practical skills and gain the confidence to address real-world challenges. Supported by dedicated faculty and well- equipped resources, these clubs provide a dynamic platform for collaboration, innovation, and leadership, significantly enriching both academic and professional journeys.

Cultural Clubs

IIT Jammu nurtures a vibrant cultural ecosystem through a variety of clubs that offer a refreshing counterbalance to its strong focus on science and technology. These clubs spanning dance, music, drama, art, literature, photography, and filmmaking, serve as platforms for creative expression and personal development. Valued on par with academic endeavors, they encourage students to explore their passions, build confidence, and grow as individuals. Clubs such as the Photography and Filmmaking Club, Dance Club, Music Club, Literary Club, Fine Arts Club, and Drama Club regularly host events, competitions, and performances that inspire students to push their boundaries. Enriching workshops and speaker sessions further complement these activities, fostering a dynamic and expressive campus culture.

Social Clubs

IIT Jammu hosts several socially driven clubs—such as Kritash: Let's Create Hope, WYoM, Ek Bharat Shreshtha Bharat (EBSB), and the Nature and Adventure Club (NAC)—that inspire students to look beyond academics and engage meaningfully with the world around them. These clubs encourage active citizenship, compassion, and a commitment to social impact. Kritash enables students to contribute to nearby villages through educational and social initiatives. EBSB offers unique opportunities for cultural exchange and travel, allowing students to experience the rich diversity of India. NAC caters to nature lovers, combining adventure with ecological awareness and exploration. WYoM nurtures a deeper connection to spirituality and inner well-being, supporting students in their journey of holistic development.

Anhad

Anhad: The Realm of Limitlessness is IIT Jammu's flagship annual techno-cultural fest and the largest of its kind in Jammu & Kashmir. Attracting students from across the region, Anhad offers a vibrant blend of experiences—ranging from cutting-edge technical competitions like Intmaestro to high-energy cultural celebrations such as DJ nights and prom evenings. Spanning five dynamic days, the fest provides a perfect platform for students to connect, showcase their talents, and create unforgettable memories in an atmosphere of creativity, collaboration, and celebration.

The Sports Fest (Pravaah)

The annual inter-branch sports competition is a spirited tradition at IIT Jammu, offering freshers a great way to bond with seniors. As the campus turns into a competitive arena, students give their all through cheers, challenges, and fierce gameplay to win glory for their departments. From cricket and basketball to chess and pool, a variety of games contribute to each branch's score. Beyond the thrill of competition, the weeklong event fosters discipline, teamwork, resilience, and sportsmanship, teaching students to embrace both victory and defeat with grace.

Hostels and Mess Halls

Hostel life at IIT Jammu is a vital part of the student experience, offering more than just accommodation. It fosters independence, self-reliance, and lifelong friendships. The Jagti Campus hosts four main hostels, along with one satellite hostel, all equipped with automatic washing machines and 24/7 Wi-Fi. Rooms are available in both single and double occupancy, furnished with essential amenities including shelves and study space.

IIT Jammu has four spacious and well-ventilated mess halls located in the Egret, Dedhar, Fulgar, and Canary hostels. They serve breakfast, lunch, dinner, and snacks daily. The Mess Committee curates a diverse menu featuring dishes from across India, while the Mess Council oversees daily operations. Regular inspections ensure food quality and smooth functioning.

Medical Facilities

IIT Jammu's medical center, located in the Faculty Quarters, offers 24x7 care with OPD, a 10-bed facility, BLS ambulance, and pharmacy. Specialist visits are regularly arranged. For advanced care, patients are referred to nearby hospitals. Student health is supported through medical insurance and accident coverage.

Counselling Services

IIT Jammu offers confidential, comprehensive counselling services to support students' emotional and academic well-being. With two professional counsellors and empathetic student coordinators, the team provides personalized guidance, peer support, and regular expert-led seminars—helping students manage stress, build resilience, and reach their full potential personally and professionally.

Career Development Services

The Career and Development Services (CDS) at IIT Jammu bridges academia and industry by guiding students in career planning, internships, research, and job opportunities across sectors like tech, core engineering, finance, and consulting. It also supports higher studies and civil services prep, offering expert-led training in communication, interviews, and professional skills.

✛ Contact Us

We are here to support you as you explore the journey of joining IIT Jammu and the Department of Humanities and Social Science. Whether you are a prospective student, a parent, or an academic collaborator, we welcome your questions and are happy to guide you through the process. Feel free to reach out to us — our team is here to help.

For any query related to UG admission, please write to us at

Email
hss@iitjammu.ac.in

Phone
18001807101
0191-2570633

Website
www.iitjammu.ac.in/hss

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

विद्याधनं सर्वधन प्रधानम्

Phone - 18001807101

Email - hss@iitjammu.ac.in

Website - www.iitjammu.ac.in/hss

Indian Institute of Technology Jammu

Jagti, NH-44, PO Nagrota,

Jammu – 181 221, J&K, India