



BIT-SIPAR - 2025



(BIT Summer Internship Program for Advanced Research)

Birla Institute of Technology, Mesra, Ranchi

Birla Institute of Technology, Mesra is an Institute of Eminence in Technology and Sciences, conducting cutting-edge research in the areas of Engineering. We are pleased to announce the launch of **BIT-SIPAR (BIT Summer Internship Program for Advanced Research)** across all departments at BIT Mesra, starting this summer, 2025.

This program aims to provide a unique platform for talented undergraduate, postgraduate, and research scholars from reputed academic institutions. Participants will gain hands-on research experience in science and technology disciplines relevant to BIT Mesra while working alongside renowned faculty, scientists, and engineers on campus.

The summer internship program will offer young academic talents, scholars, and researchers an opportunity to engage in high-impact research in Science, Technology, and Management disciplines aligned with BIT Mesra's academic programs. The objectives of this program are:

Program Objectives

- **Research Exposure** – Interns will engage with BIT Mesra faculty and scientists for collaborative research. To offer a platform for students to contribute to ongoing research projects and industry collaborations.
- **Practical Learning** – Bridging the gap between theory and real-world research applications. To help students gain practical experience in their fields of study.
- **Career Guidance** – Exposure to cutting-edge research for career exploration in academia, industry, and innovation.
- To provide research exposure to undergraduate and postgraduate students.

Applications are invited from academically outstanding and highly motivated graduate and postgraduate students of Indian/Foreign nationality for the Summer Internship Program, which will be conducted in an offline mode at the BIT Mesra Campus during Summer 2025.

Please note that a **limited number of projects** will be available for the internship, and hence, a limited number of students will be selected. The selected participants will work

on a specific project under the guidance of a faculty member. **No financial support will be provided to the selected candidates.**




Application Process

Online Registration

- Visit: [[SIPAR-2025 - Google Forms](#)]
- Fill out the application form with personal & academic details.

Document Submission

Upload the following:

-  Updated Resume
-  Letter of Recommendation (LOR) – From a faculty member
-  Bonafide Certificate

Departments & Specializations

Internships will be available in the following disciplines: Internships will be available across multiple departments at BIT Mesra. Students can apply for internships in the following fields:

Name of Department / Schools	Specialization
Architecture & Planning	Architecture
Bioengineering and Biotechnology	Microbiology, Bioinformatics, Molecular Biology, Bioprocess Technology
Chemical Engineering	Alternative fuels, Modelling with ML, Advanced Materials, Computational design & Engg., Energy devices, Electrochemical applications etc.
Centre of Food Engineering and Technology	Food processing, Food Engg. & Tech., Food process, design & product development
Chemistry	Polymer & Environment, Hydrogen fuel production through organic compounds, Low cost catalyst for Hydrogen evolution reaction, Energy for photovoltaics, Biomedical implants
Civil and Environmental Engineering	Structural engineering, Geotechnical engineering, Transportation engineering, Environmental science and engineering
Computer Science & Engineering	Deep learning, Information Security, Formal Verification, Medical Image processing, Multimedia Forensics
Centre for Quantitative Economics and Data Science	Optimisation in Finance; Health Analytics
Electrical & Electronics Engineering	Machine learning applications for smart grid with IoT hardware implementation, Faults diagnostics in BLDC/PMSM motor in MATLAB environment, EV motor drives, Bio Medical Instrumentation, Renewable Energy Integration and Energy Management

Electronics and Communication Engineering	Embedded System Design, Semiconductor Startup: Chip Design, Digital System Design with VHDL & Verilog, Microelectromechanical Systems, Computer Vision, Unmanned Aerial Vehicle (UAV), Unmanned Hydro vehicle
Management	Marketing Analytics
Mathematics	Operation Research : Decision Sciences, Numerical Analysis, Mathematical Analysis, Soft Computing: Optimization and Applications, Fluid Dynamics, Quantum Information and Computation, Theoretical Computer Science, Mathematical Modeling, Fractional Calculus
Mechanical Engineering	Particulate Flow & Particle Technology, Plastic deformation in metal and alloys, Mass Energy Balance in Biogas Plant, Continuous slab caster, Renewable Energy, Biomedical, Composite Materials, Wind Tunnel Testing, Surface coating & tribology
Pharmaceutical Sciences and Technology	Solid state Pharmaceutics, CADD and Network Pharmacology, Formulation development, Applied Pharmacology and Animal Handling, Pharmacology, Cell culture and 3D microscopy
Physics	Experimental condensed matter physics, Theoretical condensed matter physics, Photonics, cosmology, environmental science, Biophysics, nuclear physics
Production & Industrial Engineering	Laser based Manufacturing, Wire Arc Additive Manufacturing, Metal Matrix Composites, Multicriteria Decision Making
Remote Sensing	Use of geospatial techniques in forestry, atmospheric studies and climate change
Space Engineering and Rocketry	Rocket Propulsion, Aerodynamics & CFD

Program Details

- **Duration: 1st week of June 2025 – 4th week of July 2025**
- **Eligibility:**
 - UG/PG students from recognized universities in India/Abroad
 - Recent UG/PG graduates (within six months of degree completion)
 - Minimum academic requirement: **60% aggregate or CGPA 6.32/10** at all levels
- **Financials:**
 - No financial support will be provided. The internship is free of charge.




Key Dates

Event	Date
Applications Open	March 21, 2025
Application Deadline	April 30, 2025
Selection Announcement	May 10, 2025
Internship Start Date	June 01, 2025
Internship End Date	July 31, 2025

Selection Process


- Applications will be shortlisted based on academic performance & relevant skills.
- Some candidates may be invited for an online interview, depending on the project.
- **Final selection emails will be sent by May 10, 2025.**


Accommodation & Campus Facilities

-  Hostel accommodation available for external students (limited seats).
-  Access to library, labs & computing resources.
-  Mess & food facilities (chargeable basis).

Contact Information

Internship Coordinator, BIT Mesra

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