



IIT Bhilai offers MTech and PhD Admission under Study In India Scheme

ABOUT IIT BHILAI

IIT Bhilai was established in the year 2016 as an Institute of National Importance by the Ministry of Education, Government of India with an objective to create an education system with multi-facet outcomes including research, entrepreneurship, technical leadership, and above all, responsible humanship. The institute aspires to prepare young individuals to become professional leaders of tomorrow by equipping them with technical knowledge and competence to take the future challenges.

IIT Bhilai is situated in the central part of India in the state of Chhattisgarh which is known for abundance in the natural beauty. The institute is well connected with all parts of the nation through air, rail, and road networks.

IIT Bhilai is currently offering Master of Technology (MTech), Doctor of Philosophy (PhD) through Study In India Scheme in Computer Science and Engineering, Data Science and Artificial intelligence, Electrical Engineering, Mechanical Engineering, Electric Vehicle Technology, and Mechatronics. PhD is also offered in Physics, Chemistry, Liberal Arts, and Mathematics for international students through Study In India programme.

Study In India programme is a flagship project introduced by the Ministry of Education (MoE), Government of India. The Study in India programme seeks to endorse India as a prime education hub for international students by inviting them to pursue their higher education in the country s([Click here](#) to know more about Study In India programme).

CAMPUS LIFE

IIT Bhilai provides well-furnished hostel accommodation along with dining facility to all students. Students can indulge in several activities such as photography, painting, dance, music, application of science and technology, etc., and explore them further. In this regard, there are several hobby clubs, cultural clubs, sports clubs, and drama clubs on campus. The institute houses a Health Centre which is active round the clock. The doctors and staff in the health centre are committed to the health and well-being of the campus community.

KEY RESEARCH AREAS

Chemistry: Inorganic and Organometallic chemistry, Polymer chemistry, Halide Perovskite and Photo(electro) chemistry, Biomaterials, Inorganic & metal-organic chemistry, Theoretical and Computational chemistry, Catalysis and Organic synthesis, Molecular Modeling, and Bioinformatics.

Computer Science & Engineering Systems: Architecture, Parallel computing, Embedded computing, VLSI, Wireless networks, Edge computing, Compilers, Distributed systems, Hardware, Software, Cryptography, Blockchains, Algorithms and Formal Methods.

Data Science and Artificial Intelligence: AI & ML, Data analytics, Computer vision, Social & Complex network analysis.

Electrical Engineering: Application of power electronics to power system, Renewable energy, Bio-sensors, Digital Control, Computer/Wireless networks, Intelligent transportation, Embedded systems & ML applications in IoT & Healthcare, Solar cells, PV module, Nanoelectronics IC (analog and digital), VLSI, CMOS Image sensors, Photo-sensors, ASIC, System-on-a-chip, and Product level electronic system.

Liberal Arts: World Literature, Comparative literature, Modernism, South Asian writing, Urban planning and history in the Global South, Cultural contact in colonial India, Empire and modernity in the long nineteenth century, Cultural studies, Macroeconomics, Financial economics, Economics of innovation, Development economic, and Public economics.

Mathematics: Functional analysis, Operator theory, Probability theory, Statistics, Commutative algebra, and Number theory.

Mechanical Engineering: Microfluidics, Heat transfer, Advanced PVD coatings for cutting tools, Fracture mechanics, Mechanics of Materials, Severe Plastic deformation, Alternative fuels, Friction stir welding, Computational Fluid dynamics, and Sheet Metal forming.

Physics: Thin-Film Fundamentals, Time-Resolved Optical spectroscopy, Raman spectroscopy of hybrid 2D materials and computation of their band structure, Active matter studies, Microswimmers/Micromotors, Non-equilibrium colloidal systems, Heavy Ion phenomenology, High Energy physics, Astro-particle physics, Neutrino physics, Astrophysics, and Cosmology.

Electric Vehicle Technology: Battery chemistry, Hybrid and Electric vehicle, EV Charging technologies, Battery Management system and, EV Thermal Management system.

Mechatronics: MEMS, 3D printing, Micro-fabrication techniques, Dynamic Material modeling, Industry 4.0, Maglev micro robotics, Consensus control of UAV, Neuromechanics and Assistive robotics, Cognitive automation and Machine Intelligence, Cooperative and, adaptive mechatronics system.

Duration

- MTech program in IIT Bhilai has a nominal duration of 21 months.
- PhD with nominal program duration of 3 years for students admitted after PG and 3.5 years for students admitted after UG.

