INDIAN INSTITUTE OF TECHNOLOGY ROPAR, PUNJAB (INDIA)

ADMISSIONS

GET ADMISSION AT IIT ROPAR THROUGH ANY OF THE SCHOLARSHIPS/SCHEMES GIVEN BELOW:

1 STUDY IN INDIA SCHEME

https://www.studyinindia.gov.in/

2000 scholarships
Each scholarship is valued at USD3500

Fee Waiver-
4 Categories
(G1-100% , G2-50%, G3-25%, G4-0%)

2 INDIAN COUNCIL FOR CULTURAL RELATIONS

https://www.iccr.gov.in/

The Indian Council for Cultural Relations (ICCR) offers more than 3,300 scholarships every year, under 24 different scholarship schemes.

3 ASEAN-INDIA RESEARCH TRAINING FELLOWSHIP (AI-RTF)

https://asean-iit.in/

Fellowship Details
5 Years-The maximum term for each fellowship is of 5 years

INR 31,000/-
Student will receive a monthly stipend - INR 31,000/- for the first two years, INR 35,000/- for the next three years

INR 170,000/-
Study grant up to INR 170,000/- is provided for research expenses such as travel, books, contingency expenses

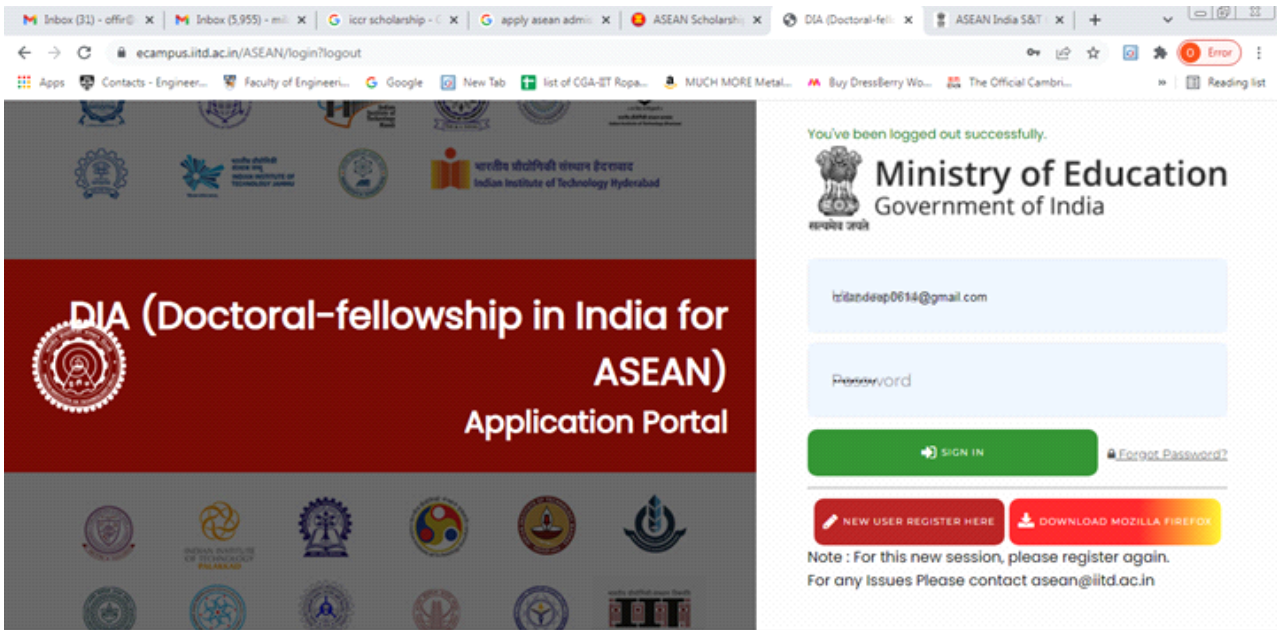
4 SELF FINANCE CATEGORY/DIRECT THROUGH IIT ROPAR PORTAL

https://www.iitrpr.ac.in/international_students/applyiitrpr.html

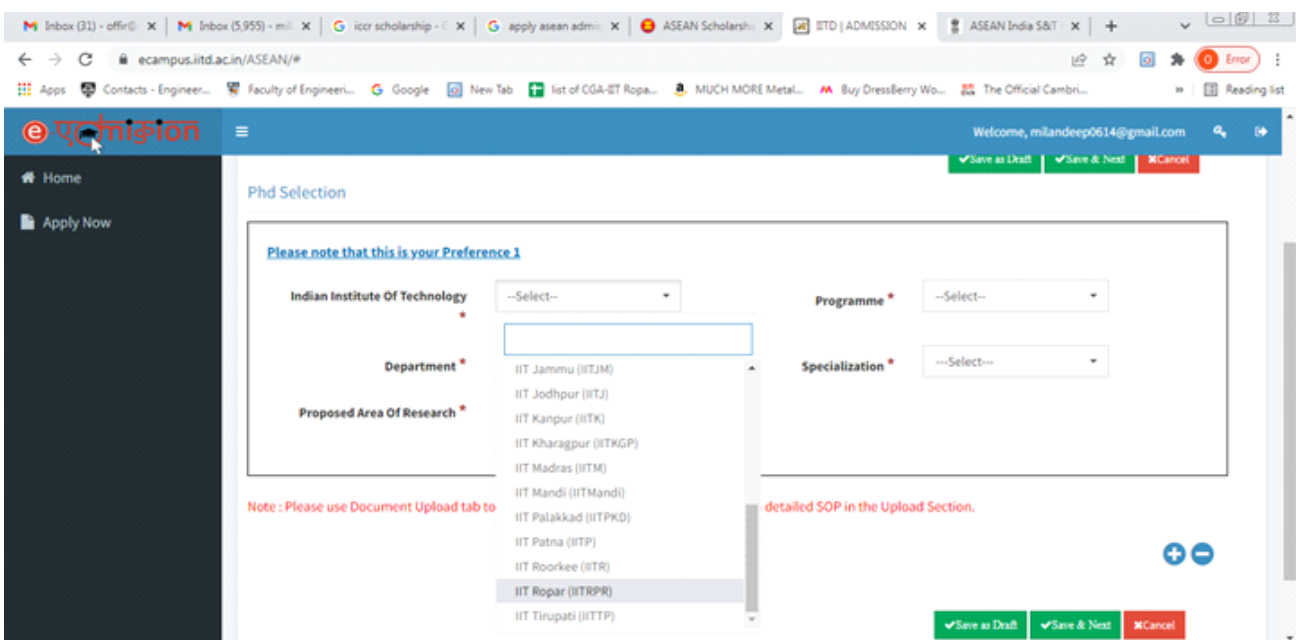
In all the above schemes choose Indian Institute of technology Ropar | * Subject to terms and conditions

ASEAN Scheme: (https://ecampus.iitd.ac.in/ASEAN/login)

Complete your registration/application to get admission at IIT Ropar through ASEAN Scheme by following the steps given below:



1. **Visit the web page (https://ecampus.iitd.ac.in/ASEAN/login)**
2. **Sign in your account if you have account or Click on NEW USER REGISTER HERE to create new account:**
3. **Click on the button Apply now:**
4. **Fill up your personal details and after completion of personal detail click on save draft and next.**
5. **Afterthat under prefernece 1 choose IIT Ropar.**

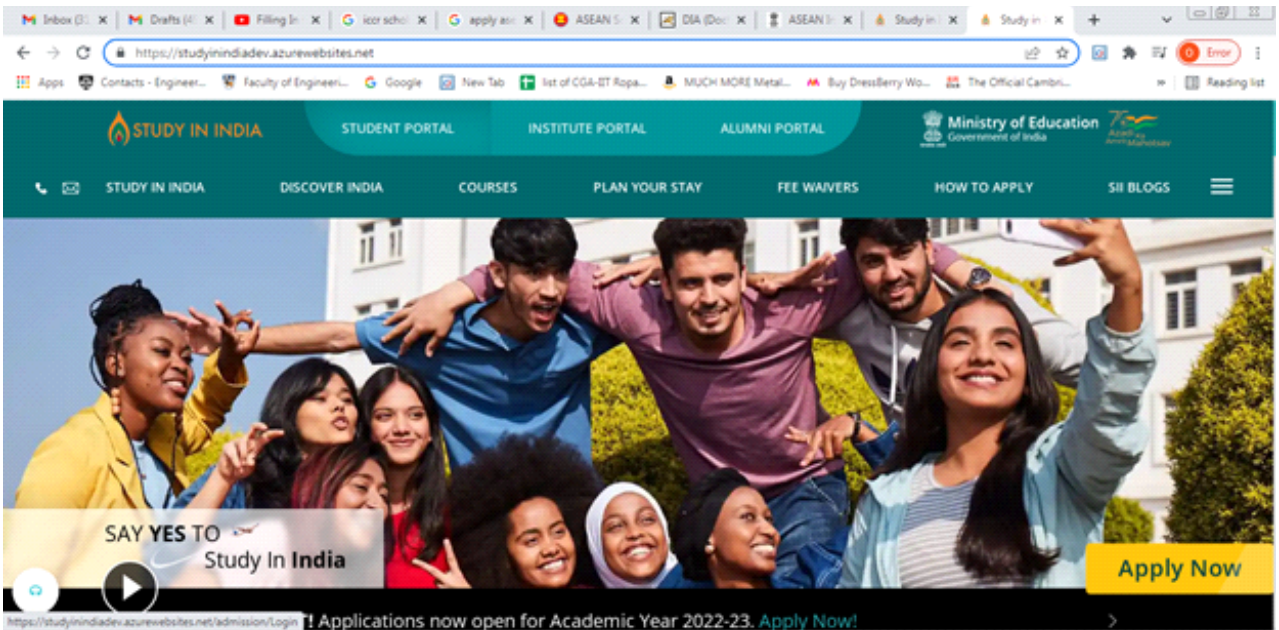


6. **Complete the next fields such as Academic details, Publication and referee, Experience details, document details etc. and submit your application.**

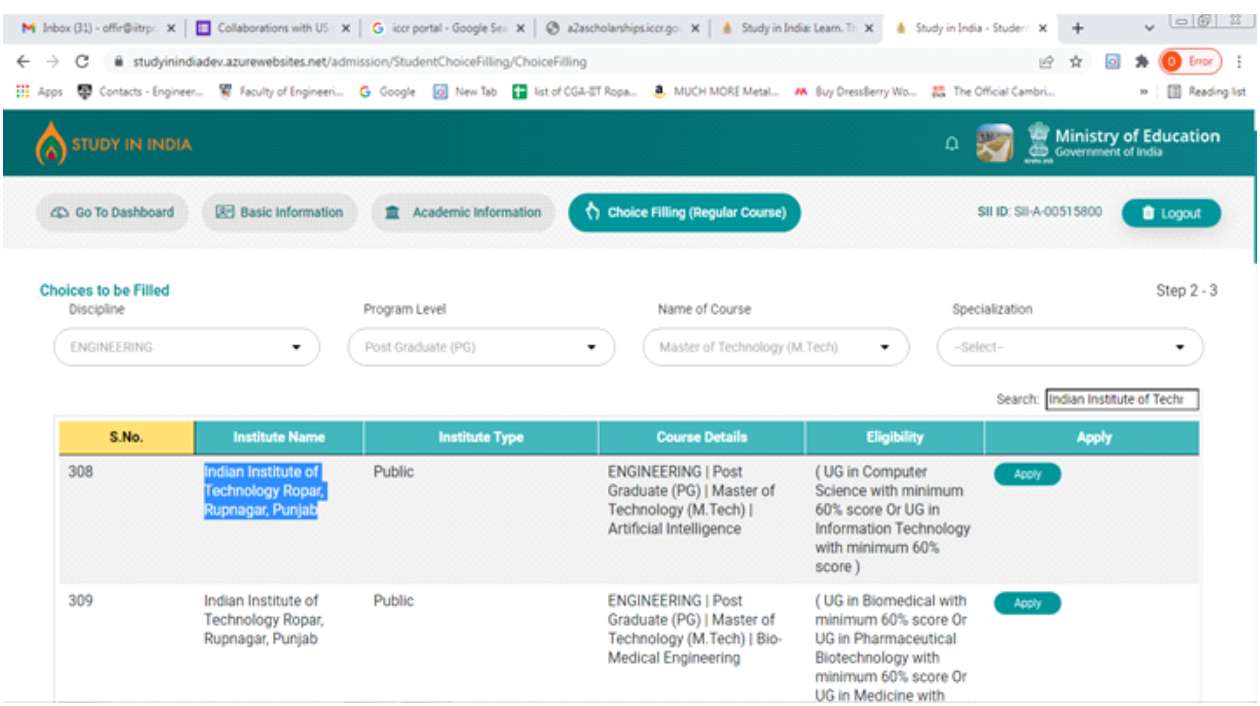
STUDY IN INDIA SCHEME

https://www.studyinindia.gov.in/

Complete your registration/application by following the steps given below for admission at IIT Ropar through Study in India Scheme.



1. **Visit the web page of Study in India (https://www.studyinindia.gov.in/) and click on Student portal.**
2. **Create your user Id and Login to your Account:**
3. **Fill up your all basic Information:**
4. **Fill up your all Academic Information:**
5. **Click on Choice filling and choose your appropriate area.**
6. **Following this, select Indian Institute of Technology Ropar, Rupnagar, Punjab and then Click on Apply button and Submit your Application.**



NUMBER OF SEATS AVAILABLE* FOR PH.D PROGRAMME DEPARTMENT WISE:

ENGINEERING:	NO. OF SEATS AVAILABLE
• Biomedical Engineering	14
• Computer Science and Engineering	19
• Chemical Engineering	14
• Civil Engineering	16
• Electrical Engineering	22
• Mechanical Engineering	25
• Metallurgical and Materials Engineering	7
• Humanities and Social Science	14
SCIENCE:	**NO. OF SEATS AVAILABLE**
• Physics	18
• Chemistry	14
• Mathematics	17

NUMBER OF SEATS AVAILABLE* FOR MASTER'S PROGRAMME DEPARTMENT WISE:

M.TECH PROGRAMMES:	NO. OF SEATS AVAILABLE
• Biomedical Engineering	4
• Computer Science and Engineering	4
• Chemical Engineering	4
• Civil Engineering	4
• Electrical Engineering (Specifications: Power Engineering, Signal Processing and Communications, VLSI)	12
• Mechanical Engineering (Specifications Mechanics and Design, Thermofluids, Manufacturing)	12
• Airtificial Intelligence	4
SCIENCE PROGRAMMES:	**NO. OF SEATS AVAILABLE**
• Mathematics	6
• Chemistry	6
• Physics	6

* Tentatively subject to revision

RESEARCH AREAS FOR Ph.D

(Atleast 1 seat is offered in each of the following areas)

CHEMISTRY

- Biomaterials, Drug Delivery
- Theoretical and computational chemistry
- Sensors
- Supramolecular Synthesis
- Synthetic organic chemistry
- Synthetic Inorganic Chemistry and Organometallics Chemistry
- Radical Chemistry
- Light Mediated Reactions
- Asymmetric Catalysis
- Nanomaterials, Batteries and Fuel cells
- Statistical mechanics (Theory and computation)
- Peptide chemical biology and medicinal chemistry
- Catalysis and Materials Synthesis
- Magnetic Resonance: Theory and Experiments
- Inorganic, organometallic chemistry
- Organic electronic materials/Diradicals
- Polymer chemistry, (Self-healing polymer, Polymer membrane for solid state battery)
- Organic Synthesis
- Electronic Structure Calculations, Reaction Dynamics, and Cloud computing
- Nuclear Magnetic Resonance: Theory and Experiments
- Theoretical and computational physical and biophysical chemistry
- Electrochemistry, fuel cells, batteries, and energy storage
- Carbon Capture and Utilization
- Biomimetic chemistry

COMPUTER SCIENCE AND ENGINEERING

- Game Theory, Machine Learning
- Software Engineering
- Anomaly Detection, Multimedia Processing
- Data Science
- Artificial Intelligence, Reinforcement Learning
- Computer Architecture and Hardware Security
- Conductive adhesives, water treatment, Polymers
- Distributed computing and edge computing.
- Wireless Body Area Networks, VANETs, WSN
- Internet of things,Blockchain, Software Defined Networking
- Applied Deep Learnin
- gImage Processing & Computer Vision

PHYSICS

- Solar cells
- Gravity and Cosmology
- Quantum field theory
- Quantum Information and Technology
- Laser Material Processing
- Nano-and Quantum-photonics
- Lasers, Optical Computing, Structured Light, Topological Photonics
- Laser Spectroscopy
- BioPhysics
- String Theory, Conformal Field Theory and Holography (AdS/CFT)
- Self assembly in colloidal media
- Ion-matter interactions
- Nanostructuring for light applications

MECHANICAL ENGINEERING

- Surface Engineering, Additive Manufacturing
- Manufacturing Technology
- Non-conventional Machining
- Fluid mechanics, heat transfer
- Minimally Invasive Thermal Therapies, Bioheat Transfer
- Laser Material Processing
- Hydrogen Energy and Technologies, Multiscale Mechanics
- Micromanufacturing
- Reconfigurable robotics
- Solar Energy Storage, Building Cooling Techniques
- Gas turbine combustion, flow dynamics, flame dynamics, thermoacoustics, atomization
- Sustainability, Product Development, Design research
- Biomechanics, Computational Mechanics
- Multifunctional and bio inspired composite materials
- Harmonic Mappings in the plane
- Peptide chemical biology and therapeutics.
- Variational principle, Micro and nano air vehicle, drone technology, composite structures.
- Internal combustion Engines, Air pollution, Low temperature combustion engines, Automotive Engineering

ELECTRICAL ENGINEERING

- Power Electronics and Drives
- Spintronics, Neuromorphic computing
- Dielectrics and High Voltage Engineering
- VLSI analog IC design
- UAV, Wireless Communications
- Image processing, Embedded systems, AI
- Intelligent Transportation Systems
- Sustainability, Product Development
- Internet of Things
- Semiconductor Devices, Device Reliability, Ferroelectric Memory Devices
- Electric Vehicles
- Renewable energy integration
- Smart Grids and Power Systems
- Gas and biological sensors
- Wireless power transmission

MATHEMATICS

- Mathematical Modeling
- Fluid Dynamics, Scientific Computing
- Homogenization and Optimal Control of Partial Differential Equations
- Number Theory and Automorphic forms
- Numerical Modeling on Water Wave Phenomena
- Algorithmic Graph Theory
- Functional Analysis and Operator Theory
- Knot Theory
- Data Science

CHEMICAL ENGINEERING

- Soft Matter Engineering and Microfluidics
- Process and Energy Systems Engineering
- Rheology, Complex fluids
- Soft Matter Engineering and Microfluidics
- Conductive adhesives, water treatment, Polymers
- Catalysis and Sustainable Energy Production Processes.
- Colloids & Interfacial Engineering
- Computational Catalysis
- Molecular modeling
- Materials and process design for energy storage system

HSS

- Consumer Behavior (Decision Making, Co-creation, Love, Spirituality & Wellbeing)
- Linguistics, Phonology
- Emotion Regulation
- Cognitions & Emotions
- Macroeconomics
- International Finance
- Growth and Development
- Banking
- Corporate Finance
- Climate Economics
- Health Economics

CIVIL ENGINEERING DEPARTMENT

- Groundwater, Hydrogeology, Water Resources, Climate Change
- Earthquake, Structures
- Remote Sensing
- Environmental Engineering
- Use of Waste in Structures
- Landslides
- Ground Improvement Techniques

METALLURGICAL AND MATERIALS ENGINEERING

- Device Design and Characterization
- Functional Materials: Energy, Optical, Magnetic, Bio
- Physical and Mathematical modeling of steelmaking process
- Biomaterials and Tissue Engineering
- Plasmonics and metamaterials
- Fracture mechanics
- Creep deformation and creep crack growth
- DFT and Machine learning of material properties

BIOMEDICAL ENGINEERING

- Biophotonics, Raman spectroscopy
- Molecular Disease Biology
- Cancer diagnostics and therapeutics
- Biomechanics area
- Immunology and cancer
- Minimally Invasive Thermal Therapies, Heat Transfer
- Biomaterials, Tissue Engineering, Organ on chip

ABOUT IIT ROPAR

Greetings from the Indian Institute of Technology- Ropar!!

- In the last 70 years, Indian Institutes of Technology have become synonymous with quality technical education in India and the world.
- Indian Institute of Technology Ropar (IIT Ropar) is an Institute of national importance and one of the youngest of IITs, which is established by the Ministry of Education (MoE), Government of India, to expand the reach and enhance the quality of technical education.
- Major multinational companies of the world have CEO's from the Indian Institute of technologies such as Amazon, Microsoft, Twitter etc.
- The Indian Institute of Technology (IIT) Ropar has been ranked 2nd in India in the Young University Ranking 2022.
  Therefore, it is one of the best options to study in India.

Ranked 351-400 in Times Higher Education Rankings 2021

No. 1 in average citation per publication among young IITs

No. 1 in Average Publication per faculty among young IITs.

Ranked among all Indian Engineering Institutes as per National Institutional Ranking Framework (NIRF) 2021

in The Young University Ranking 2021

in The Asia University Ranking 2021

Times Higher Education Emerging Economies 2021

Times Higher Education Asia University Rankings 2021

State-of-the-art Campus

5 Star GRIHA Rating

IMPORTANT CONTACTS

Office of International Relations
Indian Institute of Technology Ropar,
Rupnagar, Punjab-140001

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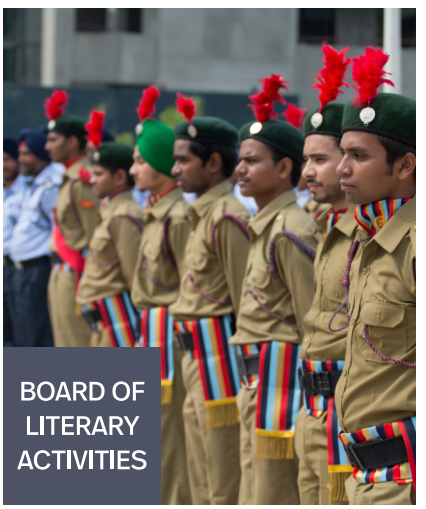
Contact No. (Office) 01881-231157, 01881-231146
Whatsap Number: 9417034192

BOARD OF CULTURAL ACTIVITIES



BOARD OF LITERARY ACTIVITIES

CAMPUS LIFE

BOARD OF SPORTS ACTIVITIES

BOARD OF HOSTEL AFFAIRS