Admission Notification

(International Applicants)

Indian Institute of Technology Ropar, Punjab, INDIA

Dates of Interview (Tentative)	Last date of Application
30th April, 2022	25th April, 2022
15th May, 2022	10th May, 2022
30th May, 2022	25th May, 2022
15th June, 2022	10th June, 2022
30th June, 2022	25th June, 2022

1. Who can apply ?

***Candidates who applied through |Study in India and ICCR may also apply here for preliminary selections.**
***Candidates interested in Institute Scholarship or fee waivers may also apply here.**
***Candidates interested in self-sponsored category may also apply here.**

2. Link for Submission of Applications:

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

IIT Ropar has initiated Special Offers (Fee Waiver) from this year for International Students. Fee Waiver Category includes:

- 100 % Tuition fee Waiver
- 50% Tuition fee Waiver

3. Eligibility Criteria:

Eligibility Criteria for admission of international candidates to Ph.D, M.Tech, M.Sc Programmes at IIT Ropar

Ph.D Programmes: (*For research areas please refer to page no. 9)

Branch/Subject	Eligibility Criteria
Bio-Medical engineering	PG in Bioscience with minimum 60% score

Civil Engineering	PG in Civil Engineering Subject with minimum 60% score
Computer Science and Engineering	PG in Comupter Science Engineering with minimum 60% score
Electrical Engineering	PG in Electrical with minimum 60% score Or PG in Electronics with minimum 60% score Or PG in Electronics and Communication with minimum 60% score Or PG in Electronics and Electrical with minimum 60% score Or PG in Computer Applications with minimum 60% score Or PG in Comupter Science Engineering with minimum 60% score
Mechanical Engineering	PG in Mechanical with minimum 60% score
Chemistry	PG in Chemistry with minimum 60% score Or PG in Biochemistry with minimum 60% score Or PG in Pharmaceutics with minimum 60% score
Physics	PG in Physics with minimum 60% score
Humanities and Social Sciences	PG in Any Humanities Subject with minimum 60% score
Metallurgical and Material Science Engineering	PG in Nano Science & Technology with minimum 60% score Or PG in Material Science with minimum 60% score Or PG in Mechanical with minimum 60% score Or PG in Chemistry with minimum 60% score
Chemical	Master's degree in Engineering/Technology or a Master's degree by Research in Engineering/Technology. Candidates must have obtained at least 60% marks (or 6.5 Grade Point out of 10)
Mathematics	Master's Degree in Mathematics/Statistics/Theoretical Computer Science or equivalent Master's Degree with First Class (60% marks or 6.5 grades point out of 10),

M.Tech Programmes:

Department	Specialization	Eligibility
Chemical Engineering	Chemical Engineering	Eligibility Requirements: Candidates with B Tech/B.E/M Sc
Civil Engineering	Water Resources and Environment	Eligibility Requirements: Candidates with B Tech/B.E in Civil, Environmental, Water resources, Agricultural Engineering and related areas

Computer Science and Engineering	Computer Science and Engineering	Eligibility Requirements: Candidates with B.Tech /B.E/MCA or M.Sc in the appropriate area in Computer Science and information Technology(CS),Electronics and communication Engineering (EC),and /or Mathematics (MA)
Artificial Intelligence		Eligibility Requirements: Candidates with B.Tech /B.E/MCA in the appropriate area in Computer Science and Information Technology(CS),
Electrical Engineering	Communication and Signal Processing	Eligibility Requirements: Candidates with B. Tech./B.E or M. Sc. in the appropriate area
	Microelectronics and VLSI Design	Eligibility Requirements: Candidates with B.Tech /B.E or M.Sc. in Electronics and Communication Engineering or Computer Science Engineering or equivalent
	Power Engineering	Eligibility Requirements: Candidates with B. Tech./B.E or M. Sc. in the appropriate area

Mechanical Engineering	Manufacturing Engineering (MF) Mechanics and Design (MD) Thermal Engineering (TE)	Candidates with B.Tech./B.E in Mechanical Engineering or relevant area
Biomedical Engineering	Biomedical Engineering	A bachelor's degree in engineering (BE / BTech), with a minimum of 60 percent marks (6.5 grade points on a scale of 10) Or A master's degree in science (MSc / MS), or equivalent, with a minimum of 60 percent marks (6.5 grade points on a scale of 10 Or A bachelor's degree in medicine/surgery (MBBS), pharmaceutical sciences (BPharm), veterinary science (BVSc), or dental surgery (BDS), with a minimum of 60 percent marks (6.5 grade points on a scale of 10)

M.Sc Programmes:

Chemistry	: Bachelor degree with Chemistry as one of the subject and should have passed Mathematics at the Higher Secondary (10+2) level.
Mathematics	Bachelor degree with Mathematics as a subject for at least two years/four semesters
Physics	Bachelor degree with Physics for three years/Six Semesters and Mathematics Statistics for at least two years/four semesters

4. Areas for Ph.D admissions in various departments

Department	Area/topic in which international Ph.D admission is available
Chemistry	1. Biomaterials, Drug Delivery 2. Theoretical and computational chemistry 3. Sensors 4. Supramolecular Synthesis 5. Synthetic organic chemistry, 6. Synthetic Inorganic Chemistry and Organometallics Chemistry 7. Radical Chemistry, 8. Light Mediated Reactions, 9. Asymmetric Catalysis 10. Nanomaterials, Batteries and Fuel cells 11. Statistical mechanics (Theory and computation) 12. Peptide chemical biology and medicinal chemistry 13. Catalysis and Materials Synthesis 14. Magnetic Resonance: Theory and Experiments 15. Inorganic, organometallic chemistry 16. Organic electronic materials/Diradicals 17. Polymer chemistry, (Self-healing polymer, Polymer membrane for solid state battery) 18. Organic Synthesis 19. Electronic Structure Calculations, Reaction Dynamics, and Cloud computing 20. Nuclear Magnetic Resonance: Theory and Experiments 21. Theoretical and computational physical and biophysical chemistry 22. Electrochemistry, fuel cells, batteries, and energy storage 23. Carbon Capture and Utilization 24. Biomimetic chemistry
Computer Science Engineering	1. Game Theory, Machine Learning 2. Software Engineering 3. Anomaly Detection, Multimedia Processing 4. Data Science 5. Artificial Intelligence, Reinforcement Learning 6. Computer Architecture and Hardware Security 7. Conductive adhesives, water treatment, Polymers 8. Distributed computing and edge computing. 9. Wireless Body Area Networks, VANETs, WSN 10. Internet of things, Blockchain, Software Defined Networking 11. Applied Deep Learning 12. Image Processing & Computer Vision

*Research Areas for Ph.D programme.

Physics	1. Solar cells 2. Gravity and Cosmology 3. Quantum field theory 4. Quantum Information and Technology 5. Laser Material Processing 6. Nano-and Quantum-photonics 7. Lasers, Optical Computing, Structured Light, Topological Photonics 8. Laser Spectroscopy 9. BioPhysics 10. String Theory, Conformal Field Theory and Holography (AdS/CFT) 11. Self assembly in colloidal media 12. Ion-matter interactions 13. Nanostructuring for light applications
Mechanical Engineering	1. Surface Engineering, Additive Manufacturing 2. Manufacturing Technology 3. Non-conventional Machining 4. Fluid mechanics, heat transfer 5. Minimally Invasive Thermal Therapies, Bioheat Transfer 6. Laser Material Processing 7. Hydrogen Energy and Technologies, Multiscale Mechanics 8. Micromanufacturing 9. Reconfigurable robotics

	10. Solar Energy Storage, Building Cooling Techniques 11. Gas turbine combustion, flow dynamics, flame dynamics, thermoacoustics, atomization 12. Sustainability, Product Development, Design research 13. Biomechanics, Computational Mechanics 14. multifunctional and bio inspired composite materials' 15. Harmonic Mappings in the plane 16. Peptide chemical biology and therapeutics. 17. Variational principle, Micro and nano air vehicle, drone technology, composite structures. 18. Internal combustion Engines, Air pollution, Low temperature combustion engines, Automotive Engineering

Electrical Engineering	1. Power Electronics and Drives 2. Spintronics, Neuromorphic computing 3. Dielectrics and High Voltage Engineering 4. VLSI analog IC design 5. UAV, Wireless Communications 6. Image processing, Embedded systems, AI 7. Intelligent Transportation Systems 8. Sustainability, Product Development 9. Internet of Things 10. Semiconductor Devices, Device Reliability, Ferroelectric Memory Devices 11. Electric Vehicles 12. Renewable energy integration 13. Smart Grids and Power Systems 14. Gas and biological sensors 15. Wireless power transmission
Mathematics	1. Mathematical Modeling 2. Fluid Dynamics, Scientific Computing 3. Homogenization and Optimal Control of Partial Differential Equations 4. Number Theory and Automorphic forms
	5. Numerical Modeling on Water Wave Phenomena 6. Algorithmic Graph Theory 7. Functional Analysis and Operator Theory 8. Knot Theory 9. Data Science
Chemical Engineering	1. Soft Matter Engineering and Microfluidics 2. Process and Energy Systems Engineering 3. Rheology, Complex fluids 4. Soft Matter Engineering and Microfluidics 5. Conductive adhesives, water treatment, Polymers 6. Catalysis and Sustainable Energy Production Processes. 7. "Colloids & Interfacial Engineering 8. Computational Catalysis 9. Molecular modeling 10. Materials and process design for energy storage system

HSS	1. Consumer Behavior (Decision Making, Co-creation, Love, Spirituality & Wellbeing) 2. Linguistics, Phonology 3. Emotion Regulation 4. Cognitions & Emotions 5. Macroeconomics 6. International Finance 7. Growth and Development 8. Banking 9. Corporate Finance 10. Climate Economics 11. Health Economics
Civil Engineering Department	1. Groundwater, Hydrogeology, Water Resources, Climate Change 2. Earthquake, Structures 3. Remote Sensing 4. Environmental Engineering 5. Use of Waste in Structures
	6. Landslides 7. Ground Improvement Techniques
Metallurgical and Materials Engineeing	1. Device Design and Characterization 2. Functional Materials: Energy, Optical, Magnetic, Bio 3. Physical and Mathematical modeling of steelmaking process 4. Biomaterials and Tissue Engineering 5. Plasmonics and metamaterials 6. Fracture mechanics 7. Creep deformation and creep crack growth 8. DFT and Machine learning of material properties
Biomedical Engineering	1. Biophotonics, Raman spectroscopy 2. Molecular Disease Biology 3. Cancer diagnostics and therapeutics 4. Biomechanics area 5. Immunology and cancer 6. Minimally Invasive Thermal Therapies, Heat Transfer 7. Biomaterials, Tissue Engineering, Organ on chip

Apply for an admission at IIT Ropar through the link given below:
http://www.iitrpr.ac.in/international_students/

For any queries, please feel free to contact us at
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