



भारतीय प्रौद्योगिकी संस्थान रोपड़

INDIAN INSTITUTE OF TECHNOLOGY ROPAR

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Applications are invited in the prescribed format from full time regular/permanent faculty members of AICTE approved Degree level Engineering Institutions for admission under QIP to advance admission to Ph D programme for 2019-2020 leading to final admission in 2020-2021 academic session.

For the detailed information and online application visit: <http://qip.iitd.ac.in/qipadm2017/>. The last Date for application is 15 October 2018.

The following are the minimum eligibility criteria and area of research for IIT Ropar.

PhD in Engineering

Code	Department	Research Areas	Eligibility
	Civil Engineering	<ul style="list-style-type: none">Thin-walled metal and composite structuresComputational structural analysis and designEngineering cement compositesPerformance-Based Design of structuresEarthquake resistant design of structuresSeismic evaluation and retrofitting of	Master's degree in Engg/Tech or equivalent in the appropriate discipline with minimum 60% of marks OR 6.5 grade point out of 10 for general and OBC candidates and 55% marks OR 6.0 grade point out of 10 for SC/ST candidates.

ROCE01		<p>structures</p> <ul style="list-style-type: none"> • Design of resilient infrastructure systems • Non-linear analysis of structures • Reliability and risk assessment of new and existing infrastructure systems • Groundwater hydrology • Ground water pollution and emerging contaminants • Eco-friendly technologies for contaminant removal • Geochemical processes occurring at mineral-water interface • Indoor and outdoor air pollutants characterization and their health impacts • Sustainable transportation planning • surface water hydrology and climate change • Geotechnical earthquake engineering and ground improvement techniques • Soil dynamics and rock mechanics 	
	Computer Science and Engineering	<ul style="list-style-type: none"> • Theoretical computer Science • Distributed systems and cloud computing • Wireless sensor networks and IoT • Computer architecture and Embedded Systems • Machine learning and AI 	<p>Master's degree in Engg/Tech or equivalent in the appropriate discipline with minimum 60% of marks OR 6.5 grade point out of 10 for general and OBC candidates and 55% marks OR 6.0 grade point out of 10 for SC/ST candidates.</p>

<p>ROCS01</p>		<ul style="list-style-type: none"> • Ubiquitous Computing • Multimedia, Computer vision and Image processing • Security and Analytics • Cryptography and Network Security • Wireless ad-hoc Networks • Social Networks and Crowd Computing • Human Centred Computing • Fog/Edge computing • Software engineering (applied, automated, empirical, and for contemporary and emerging computing platforms) • Data Engineering and Management 	
<p>ROEE01</p>	<p>Electrical Engineering</p>	<ul style="list-style-type: none"> • Microelectronics and VLSI Design; • Image and Video Processing; • Communication and Networks, Antennas for Smart RF and millimeter wave systems, Wireless Power Transmission; • Signal, Image and Video Processing Techniques for Non-destructive Testing and Non-invasive Imaging Applications; • Renewable Energy; • High Voltage Engineering; Nano-dielectrics • Smart and Micro-grids; 	<p>Master's degree in Engg/Tech or equivalent in the appropriate discipline with minimum 60% of marks OR 6.5 grade point out of 10 for general and OBC candidates and 55% marks OR 6.0 grade point out of 10 for SC/ST candidates.</p>

		<ul style="list-style-type: none"> • Power System Dynamics and Control; • Power Electronics and Drives • Electric Vehicle Technologies 	
ROCH01	Chemical Engineering	<ul style="list-style-type: none"> • Complex Fluid Dynamics • Catalysis • Chemical Reaction Engineering • Biophysics, • Renewable Energy, • Particulate Processing, • Nanoscience, • Process Engineering, • Molecular dynamics simulation 	Master's degree in Engg/Tech or equivalent in the appropriate discipline with minimum 60% of marks OR 6.5 grade point out of 10 for general and OBC candidates and 55% marks OR 6.0 grade point out of 10 for SC/ST candidates.
ROME01	Mechanical Engineering	<ul style="list-style-type: none"> • Design and Analysis (DA) • Production and Manufacturing (PM) • 3. Thermo-Fluids (TF) 	Master's degree in Engg/Tech or equivalent in the appropriate discipline with minimum 60% of marks OR 6.5 grade point out of 10 for general and OBC candidates and 55% marks OR 6.0 grade point out of 10 for SC/ST candidates.