# INDIAN INSTITUTE OF TECHNOLOGY ROPAR

2012

**Information Brochure**

**Ph.D. Admissions 2022-23**

**About the Institute:**

The Indian Institute of Technology Ropar started functioning from the academic year 2008­-09 from the campus of IIT Delhi, the mentor institute. The foundation stone laying ceremony was held on 24 February 2009. The Indian Institute of Technology Ropar was initially registered under the Societies' Registration Act 1860 on 29 July 2009. Subsequently, the Institute has been established by Act of Parliament namely, the Institutes of Technology Act (Amendment) Act 2012 (No. 34 of 2012). The Institute has shifted to its permanent campus in 2018 and currently operates from its permanent campus. The permanent campus of IIT Ropar is spread across 501 acres of land located at Birla Seed Farms, Rupnagar in the lap of nature at the banks of river Satluj. The Institute has been awarded the 5 Star GRIHA (Green Rating for Integrated Habitat Assessment) rating, one of the highest national ratings for Green Buildings.

While the master plan is supposed to accommodate 10,000 students, the academic block is already set up for 2,500 students in the first phase. A total of 2,15,739 square meters of area is dedicated for academic and administration blocks along with accommodation for staff and faculty along with sports and hostel facilities for the students

All hostels are well furnished along with common rooms for recreational activities for each hostel. The campus also has airy common dining area. Naturally, there is no compromise with facilities regarding academics and laboratories for undertaking practicals or doing some research. New state-of-the-art equipment are available for the students to use in labs. Apart from these academic facilities, other perks of being at IIT ROPAR include excellent sports facilities (different play fields for each sport such as cricket, football, tennis, badminton, basketball, volleyball,etc.), utility block, student activity center(equipment and rooms for the various club activities and other student interest group activities), gymkhana, air-conditioned libraries with plethora of books, cafeterias, gymnasium, medical center with top notch 24x7 medical facilities.

The Indian Institute of Technology Ropar is ranked 19th in the engineering category in NIRF 2021 (National Institutional Ranking Framework). IIT Ropar is committed to provide state-of-the-art technical education in a variety of fields. The Institute is facilitating transmission of knowledge in keeping with the latest developments in pedagogy. At present, the Institute offers the degree of Bachelor of Technology in Computer Science & Engineering, Electrical Engineering, Mechanical Engineering, Civil Engineering, Chemical Engineering, Metallurgical & Materials Engineering, and Mathematics & Computing. It offers the MSc degree in Physics, Chemistry, and Mathematics. It offers the degree of Master of Technology in Computer Science and Engineering, Electrical Engineering, Mechanical Engineering, Chemical Engineering, Civil Engineering, Artificial Intelligence and Biomedical Engineering. All the departments of the Institute offer a doctoral degree. The Institute has held 10 convocations so far. Presently the Institute has 1333 UG students, 431 PG students and 738 PhD students.

The overall academic system of IIT Ropar is designed to provide science-based engineering education that will produce quality engineers and scientists. IIT Ropar has implemented a new curriculum from 2017. The curriculum provides broad based knowledge and simultaneously builds a temper for lifelong learning and exploration. A set of science and general engineering courses forms part of the syllabus of the first-year undergraduate students. These courses provide a foundation for further discipline specific topics. In addition to overhauling its UG programs, IIT Ropar has introduced new PG streams.

Career Development and Placement Cell, is actively involved in organizing practical training for the undergraduate students and has been playing a catalytic role in finding placements for its final year students. IIT Ropar has undertaken the task of redefining its vision and mission, and of putting a strategic plan to achieve them into action.

IIT Ropar aims to promote research in interdisciplinary areas. The Institute also undertakes a number of research and consultancy projects that are sponsored by various funding agencies, including the Government and Industry. The Institute has taken major research activities in the fields of national importance such as non­conventional energy, sensors, drug delivery, materials synthesis and their modification, image processing, cloud networks, robotics, pattern recognition, renewable energy systems, microelectronics and nano­devices, mathematical biology, fluid dynamics, pure mathematics, quantum optics and quantum matter physics, ion beam physics, renewable energy, nanophotonics and metamaterials, surface patterning, sustainable energy, biomechanics, nano fluids, complex fluids, nano composites, Neuro­cognition, financial mathematics and markets, phonetics, etc. The Institute provides ample funds to the departments and faculty members for the upgradation of laboratories and creation of research facilities. This has enabled our faculty members to take up research projects in frontier and emerging areas of science and technology.

Institute has a counseling cell to monitor the mental well-being of the students. Its mission is to promote well-being, aiding to develop better understanding of the self, to grow both intellectually and emotionally, to be more satisfied and productive and improve the depth and quality of your life. To hike sound mental health, we provide help in dealing with emotional and behavioural problems such as guilt, anxiety, stress, lack of confidence, low self-esteem, depression and internet addiction of any sort, dependency, personal problems in relationships such as code pendency, rejection, separation homesickness etc. Counseling Cell does fostering and inculcating life skills to make better adjustments and enriching healthy relationships.

The campuses of IIT Ropar are well equipped with all required facilities. Classrooms fitted with multimedia, faculty offices and administrative wings are all in place. There are separate hostels for boys and girls. These hostels are equipped with modern mess units. Faculty recruitment, setting up of laboratories and other support facilities are done on continuous basis to keep up with the progress.

IIT Ropar community has undertaken an important exercise of developing the Mission, Vision and Strategic Plan for the coming years. The exercise was carried out in active consultation with Indian Institute of Management Calcutta. A participative bottom up approach was followed in formulating the Mission, Vision and Strategic Plan. The Motto, Mission and Vision statements for IIT Ropar is as follows.

**Motto:** Deploy our intellect on the right path

**Mission**: To foster a transformative learning environment and a culture of excellence enabling creation of knowledge and development of socially responsible, enterprising leaders contributing significantly to national progress and humanity.

**Vision:** To be a trendsetter among the technology universities born in this millennium.

**Faculty:**

The Faculty members of the Institute are selected through a rigorous selection process. The approximate mean age of a faculty member at IIT Ropar is 35 years. The faculty members who have been selected from the best institutes from India and abroad embody the spirit of enthusiasm that comes with youth. The Faculty members lay as much emphasis on the development of their technical know­how as on ethical and moral development; so when the student graduates she/he makes not just a good engineer but also a good human being. IIT Ropar takes the best raw material and the faculty carves them out into engineers and entrepreneurs of tomorrow.

**Facility:**

The institute is actively involved in collaborative programs with international organizations and universities. The institute has the following facilities other than the basic academic facilities. Virtual Classrooms (NKN) Two virtual classrooms have been set up at IIT Ropar. NKN interconnects the institutions engaged in research, higher education and scientific development in the country.

**Library:**

The Central Library functions as the primary information resource centre and repository of printed and electronic resources for teaching and research activities at the institute. Apart from textbooks and recommended reading materials prescribed for each course offered at the institute, the library houses a growing collection of research monographs, reports, multi-volume reference works, dictionaries, encyclopaedias, handbooks, and so on. The library facilitates access to electronic journals through its participation in consortia, such as E-Shodh Sindhu. The library also subscribes to several e-journals directly from publishers as well as through reputed subscription agencies. At present, users can consult more than 20,000 books (available on shelves) and thousands of electronic books, journals. Online access is also provided to economic and political databases, scientometric databases such as Scopus, MathSciNet, and Web of Science.

The library operations are automated using LIBSYS 7 (EJB Version) software. The Online Public Access Catalogue (OPAC) which is on the public domain enables users to search documents in possession of the library. The library is using the Radio Frequency Identification Technology (RFID), a state-of-the-art auto-identification technique that helps in self-servicing and enhanced security. A separate e-resources section is provided in the library to browse CDs and DVDs of books, theses, and dissertations. The library has developed an institutional digital repository (IDR) using open source software (DSpace) to archive and provide online access to the intellectual output of the institute. IDR is available publicly. These steps will greatly enhance the library's efficiency in making the resources available to the academic community at large and also enable the institute to participate in various inter-library initiatives at national and international levels. The library has developed a web-based Subject/Research Guide using the Subject plus tool, with this tool users can explore all the library resources available based on their subject areas/areas of interest. This guide includes E-journals, books/E-books, databases, theses & dissertations.

**Hostel Accommodation**

The Institute campus has four boys hostels (Satluj, Beas, Chenab, Mercury) and 4 girl hostel(Raavi, Jupiter , Neptune, Venus) with a total capacity of 2110 available at the main campus. In addition to this, there is one boys hostel and 2 girls hostel at Transit campus.All hostels are well furnished along with common rooms for recreational activities for each hostel. The campus also has an expansive and airy common dining area. All hostels are provided with excellent drinking water facilities. Each hostel has common facilities - indoor, recreation and games. The hostel complex also includes a few shops that cater to the basic needs of the residents. IIT Ropar also provides gymnasium facilities within its campus for its students. Lush green IIT campus add enormous fuel in the daily life of the students. We have lively and enchanting campus life wherein the students are provided with all the amenities for the recreational activities. Here at IIT Ropar, students rejuvenate their hidden talent and relive their hobbies. State of the art classrooms with Audio visual aids and state of the art laboratories with latest research facilities enhance the teaching­ learning process while high-tech library with tremendous books, journals, periodicals etc.help them to connect with the entire world of information and knowledge. We have also introduced drastic changes to the mess menu with detailed options given to students w.r.t. the food items they would like to have in the Mess by fixing the base menu and providing extra items in the menu which they student can opt for at an extra cost. At IIT Ropar, students relish research and extracurricular activities to grow as an aspiring engineer with moral and ethical integrity.

**Health Care**

The Institute Medical Centre is located in a separate building adjoining the hostel complex in Transit campus and in Main Campus. Several doctors, pharmacist, and staff nurse have been appointed to attend to campus residents in case of medical emergency. We have a state-of-the-art ambulance for medical emergencies. In addition, the Institute relies on the friendly support of a few super specialty hospitals in the city of Ropar, Mohali and Chandigarh for providing state-of-the-art medical care to its members.

**Student Activities**

The Institute has a Society for Publication and Communication Skills Development. In addition, there are Music, Dance, Dramatics, Arturo Photography, Fine Arts clubs, Girl up Club, Electoral Club, Epicure-The Cooking Club, Literary, Music clubs and also Science & Technology, Robotic Societies, Monochrome, Computer Integrated Manufacturing, Astronomy, Quiz, Coding clubs, where the students can participate and develop a well– rounded personality. Apart from above all, an Outdoor Adventure and Social Activities Club and Fitness club are also there for the wellness of Students.

**General Facilities**

The Institute has a branch of SBI as well as a Post office to cater to the needs of the faculty members, staff and students.

**Student Life at Institute**

At present, the transit and main campuses have excellent facilities for several sports, including a cricket field, three lawn tennis courts, a football field, a hockey field, a gymnasium, a basketball court, badminton courts, an athletics track, table tennis room and also facilities for several athletic events. The institute encourages its students to participate in inter­-IIT sport events and other competitions. Space for recreational and creative activities is also available.

**Industry And Alumni Relations:**

**Industry relations**

The Industrial & Corporate Relation Cell office works in the direction to strengthen the relations with industry and reputed international research institutes in order to develop strong research and academic collaborations. The institute is well connected to Industry and is a member of Confederation of Indian Industry (CII). Industry­ Institute Conclaves are conducted in the Institute to develop Industrial Associates of the institute. The Conclaves are focused on bringing together industry leaders and academia together on the same platform to discuss and brainstorm topics related to industrial expectations from institutions, curriculum structure and discuss issues and opportunities related to industrial projects & consultancy. Experts from the industries are invited regularly to deliver lectures under Industrial Lecture Series. Centre for Innovation and Business Incubation (CIBI) of the institute is already hosting six start­ups, which is a part of Technology Business Incubator (TBI).

**Alumni relations**

Our Institute has been actively working to sustain the bonding and to ensure greater participation of its Alumni in its academic and extra activities through various initiatives in association with the IIT Ropar Alumni Association (founded in Feb. 2013). Some of the initiatives are as follows:

1. Alumni Student Mentorship Program (ASMP):It’s a platform for tapping in the multitude of experience and knowledge of the Alumni for the benefit of the students and Alumni alike. As distinguished IIT Ropar graduates, Alumni hold a wealth of information and knowledge that current students can benefit from. Their expertise and advice are more valuable to students wanting to sail a similar kind of boat ranging from MBA (India, Abroad), MS, various kinds of jobs, civil services, entrepreneurship, etc.

2. Hangout with Alumni:Conducting regular Alumni-Student interaction sessions including webinars, podcasts, and in-person meets, when feasible, to bridge the gap between them and allow the experiences, learnings, exam preparation strategies, and above all, their valuable college memories, to reach the existing students. In this, we have Alumni speak about various topics based on students’ responses and needs.

3. Alumni Student Relationship Cell:The ASRC has been linked with the placement and internship team of IIT Ropar, for facilitating more and better opportunities to the students through alumni in the form of internships, live projects, and placements. The vast alumni network spread over hundreds of corporate giants brings home the opportunity to call them for hiring at our campus.

4. Recreational Activities: The Alumni office and ASRC plans to regularly engage with the Alumni via recreational activities like inter-year online games and championships, organized in collaboration with various clubs of IIT Ropar. These initiatives are meant to foster healthy and vibrant relationships with these much precious jewels of the institute.

5. Alumni Awards: To recognize, appreciate and encourage our emerging young alumni members for their leadership potential and professional and/or societal impactful contributions and accomplishments, to enhance the awareness of their achievements and contributions, and to strengthen our bonding with emerging alumni members, Emerging Young Alumni Awards are instituted.

The Alumni have shown a lot of enthusiasm in participating in these initiatives and to keep working towards building a brand for our young institute ­ IIT Ropar.

**Recreational/Extra Curricular activities**

In order to take care of various students activities, we have a Student Affairs Section with the following functional units:

1. Board of Hostel Affairs (BOHA)

2. Board of Cultural Activities (BOCA)

3. Board of Science & Technology (BOST)

4. Board of Sports Activities (BOSA)

5. Board of Literary Activities (BOLA)

6. Board of Academic Affairs (BOAA)

7. Outdoor Adventure and Social Activities Club

Under the aegis of BOCA Movie Club, IIT Ropar hosts movies every week for the entertainment of the campus community. BOCA also celebrates the annual poetic festival Rashmi at IIT Ropar with the aim to let the budding poets and connoisseurs of poetry come on stage and showcase their talent. BOCA also conducted the SPIC MACAY events under its aegis. Many other cultural activities are organized/participated by the students within the campus and in other Institutions situated all over India.

**BOARD OF SCIENCE AND TECHNOLOGY**

Science and Technology Clubs are set up to kindle and nurture the love for technology, each club with its own specialization and guest lectures by prominent personalities in the world of technology and science.

A student spends his/her time constructively by engaging in the activities of these clubs. The students can thus represent IIT Ropar at various national and international competitions and events, bringing laurels to the institute and allowing students to showcase their creativity without bounds, through any of these clubs. Over the semester, fortnightly meetings of the clubs are held, apart from the time invested by members in their club projects. The institute has also started Innovation Club under the ages of BOST wherein the students are encouraged to participate and evolve innovative ideas for implementation.

**Zeitgeist 2021 (Techno-Cultural Fest)**

In the present scenario of this pandemic of Covid’19, IIT Ropar preferred to organize the eleventh edition of ZEITGEIST along with the fifth edition of ADVITIYA of its Annual Techno-Cultural Festival, from 23rd to 25th April 2021, with its inauguration on 22nd April. The complete festival was hosted in Online mode.Total footfall was around 10000 with 4000 registration of students from all over India. Total viewership of this online event was around 2700. Various technical, cultural and entertainment events were organized with a prize pool of Rs. 4.20 Lakhs. Many workshops and lectures were delivered by renowned personalities. Alumni talkswere also organized.

**Board of Sports Activities (BOSA)**

We have a Board of Sports Activities (BOSA) which encourages the students to participate in local / Inter- / Intra-college / Hostel Sports Activities to boost their performance in inter IIT Sports meet under the guidance of professional coaches.

All sports facilities including gymnasium are being upgraded to enhance the quality of facilities at the Institute. There are international level modern sports fields / grounds with floodlights facilities. Since 2016, BOSA, IIT Ropar is organizing an Annual Sports Festival “AAROHAN” in which students of various Colleges, Institutes and Universities participate in more than 13 sports events.

**Location and Accessibility**

The Institute is located at Ropar, the headquarters of Rupnagar district, Punjab. This institute, with its establishment, joins a string of premier educational institutions in Punjab. The town of Ropar, the district headquarters, is 42 kms from Chandigarh, the capital of Punjab. Rupnagar is well connected by both road (National highway NH­21 / NH205) and railways (the Delhi­-Ambala-­Una railway line passes through Rupnagar).

**By Air:**

The nearest international Airport is in Chandigarh, about 50kms from Rupnagar. Any visitor wishing to come to Rupnagar/Ropar could take a flight from his/her respective place to Chandigarh, if available, or a flight from Delhi to Chandigarh and then take a taxi from the airport to reach the campus of Indian Institute of Technology Ropar (IIT Ropar) which is approximately one-and-a-half-hour journey.

**By Train:**

There are regular trains running between Delhi and Rupnagar. The Delhi-­Ambala­-Una railway line passes through Rupnagar. The duration of the journey is around six hours from Delhi.

**JULY 2022 ADMISSIONS (ACADEMIC YEAR 2022-23)**

Applications are called from the candidates for July 2022 admissions (Academic Year 2022-23) for admission to PhD program.

Last Date of Receipt of Online Applications: 20th April 2022

Guidelines

1. Please visit the link : <https://www.iitrpr.ac.in/phd-admissions>
2. Submit the application ONLINE. After filling the form, take a print of your application and keep the same for your record. Print copy of the application is not required to be submitted.
3. Application Fee:

* Women candidates & SC/ST/PwD category candidates : Rs. 100/-
* All other candidates : Rs. 200/-

1. The fee is to be paid by SB Collect (Online Payment System). Applications without online payment details will not be considered. Fees payment method is as follows:
2. Go to [onlinesbi.com](http://onlinesbi.com/)
3. Select SB Collect
4. Tick the terms and conditions and continue
5. Select state--Punjab
6. Select educational institute--IIT Ropar
7. Select the option for payment category
8. Select the option- Application Fees for PhD admission
9. Pay the requisite fee.
10. Application fee is NON-REFUNDABLE.
11. The dates of the written test/interview will be informed to the shortlisted candidates through email.
12. The candidates who wish to apply to multiple departments or research programmes are required to register for each application and pay the application fee separately subject to fulfilling the eligibility criteria for applying to the concerned department/research programme as mentioned in the admission brochure & website. Candidates can apply in multiple departments subject to fulfilling the minimum eligibility requirement of respective departments.
13. The OBC (Non-Creamy Layer) certificate and Income & Assets certificate [for EWS category] issued after 31.03.2021 (for financial year 2021-2022) in the prescribed format must be uploaded in the ONLINE application and submitted at the time of interview/admission
14. Please check the admission website regularly for important announcements and department website for shortlisting updates and results
15. The candidates called for written test/interview should bring with them a printed copy of the application submitted online along with original and photo copies of relevant certificates/documents.
16. Incomplete applications will be rejected.
17. Applicants must submit legible copy of the documents.

Selection Procedure:

Eligible candidates possessing the minimum educational qualifications (as given in section 5) & eligible degree (as given in section 6) and satisfying additional and stiffer criteria set by the departments from time to time, will be called for an “test and interview” or “interview” by the Selection Committees of the respective departments.

Admission Procedure

Admission is offered on the basis of an interview held usually a month before the commencement of the semester for which admission is sought. The interview may be supplemented by a written test, if necessary.

Merely satisfying the general eligibility criterion as well as criterion set for each admission category is no guarantee for being called for test/interview. Depending on the number of applications received and considering the constraints of time and other resources for conducting Written Test and Interview, the Academic Units may put additional academic performance based shortlisting criterion.

Reservation of Seats:

Reservations are applicable to EWS/OBC-NCL/SC/ST/Persons with Disability (PwD) candidates as per Govt. of India rules but the final selection is based on the performance of the candidate in “test and interview” or “interview” conducted by the respective Departmental Selection Committee.

Completing the Qualifying Degree and production of Provisional Certificate: Candidates joining Ph.D programme are required to submit their original marks/grade sheets along with provisional certificates at the time of admission.

Original Documents to be submitted for verification at the time of interview/admission:

(a) Printed copy of the application form obtained after online registration.

(b) Mark sheets/Grade cards of all semesters & Course completion certificate / Provisional certificate / Degree certificate beginning from first degree towards proof of qualification.

(c) Copy of GATE score card or UGC - JRF/NET/CSIR-JRF/ DAE-JEST or other fellowship award letter.

(d) SC/ST/OBC-NCL community certificate for the candidates belonging to SC/ST/OBC-NCL category issued by the respective State Government. [OBC-NCL candidates should produce the latest valid OBC Non-creamy layer community certificate in the prescribed format obtained after 01/04/2020].

The candidates claiming for EWS (Economically Weaker sections) reservation should

submit valid Income & Assets certificate in the prescribed format obtained after 01/04/2020.

(e) Authorised Doctor’s Certificate with disability descriptions in the case of Person with Disability (PwD) candidates.

(g) For External/Part-time/Staff candidates, NOC from the present employer should be submitted.

Categories of Admission

The candidates will be admitted to the PhD programme of the Institute under any of the following categories:

1. Regular full-time scholars: The regular full time scholars can be of the following categories.

#### Institute research scholars

Students under this category are entitled for Institute Research Assistantship / Fellowship as per MOE, GOI norms.

#### Govt. / Semi Govt. Fellowship Awardees (CSIR, UGC, DAE, DST, DBT, NBHM, etc.)

These candidates are financially supported under various Govt. / Semi Govt. schemes. The admission procedure and other requirements are same as applicable to research scholars/institute fellowship.

#### Research Fellows under Projects/Schemes

The admission procedure and other requirements for research Fellows (JRFs/SRFs) in various projects/schemes in the institute who wish to enroll for the PhD programme are the same as applicable to Institute Research Scholars. They will be paid assistantship/fellowships as per the norms of the project and sanctioned amount.

1. Direct PhD programme

Student under this category gets an opportunity to earn a doctorate in Engineering / Sciences / Humanities just after the Bachelor’s degree.

Minimum Eligibility Requirements: For Students of Centrally Funded Technical Institutes (CFTIs)

Research Area will be same as Regular Ph.D Program Studying in final year of B.Tech/BE.

No GATE or other equivalent national exam qualification required

CGPA of at least 8.0 out of 10.0

For Students of Non-CFTIs

Research Area will be same as Regular Ph.D Program

Studying in final year B.Tech/BE

GATE or other equivalent national exam qualification required at the time of joining

CGPA of at least 8.0 out of 10.0.

### External Registration Programme (ERP)

A research scholar under the External Registration Programme will carry out major part or all of his/her research work in the industry/research laboratories employing the scholar.

Research scholars under the External Registration Programme (ERP) should be sponsored by and employed in industries/research laboratories having R & D facilities and recognised by DST or IIT Ropar.

Minimum Eligibility Requirements

In addition to possessing the academic qualifications mentioned in the respective departments under regular Ph.D program, an applicant should fulfil the following requirements also:

GATE or equivalent qualification

GATE or Equivalent Qualification is not required for admission.

Professional Experience

Candidate should have completed full time employment of atleast 2 years of service as on the last date of application.

Organization/Institution

Organization/Institution must have at least 5 years of its existence for sponsoring candidates to ERP programme. Only persons engaged in R & D work in Technical / Scientific Institutions/ Industries or R & D Establishments are eligible. The organization should have adequate facilities for carrying out research. All CFTIs/GFTIs will be considered irrespective of their years of existence.

Sponsorship/NOC

Unconditional sponsorship or NOC by the employer is essential and a must at the time of joining. IIT Ropar will not have any financial liability for the candidate throughout the tenure of PhD.

### Part time PhD programme

A research scholar under the Part time PhD Programme will carry out major part or all of his/her research work at IIT Ropar under the supervision of supervisor(s) at IIT Ropar. The feasibility of doing this with sufficient intensity will be an important consideration in admitting the scholar in this category.

The candidate should be employed in a reputed University/Institution/Organisation.

Leave is not required for attending the courses.

Minimum eligibility requirements

In addition to possessing the academic qualifications mentioned in the respective departments / centers under regular PhD program, an applicant should fulfil the following requirements also.

GATE or equivalent qualification

Minimum qualification for these candidates is the same as for full-time candidates except that the requirement of qualifying in a national examination (e.g., GATE or equivalent) is waived off

Professional Experience

The candidate should have a minimum experience of 2 (two) years (full time) after B.Tech./M.Tech/M.Sc./M.A. or equivalent as on the date of registration.

Sponsorship/NOC

Part-time candidates are required to submit a “No Objection Certificate” on a proper letterhead from the appropriate authority in the organization clearly stating the following:

1. The candidate is permitted to pursue studies on a part-time basis.

2. That his/her official duties permit him/her to devote sufficient time for research.

3. Facilities for research in the candidate’s field of research in the area in which admission is sought   are available at the candidate’s place of work.

4. He/she will be fully relieved from duty and permitted to reside at the Institute for the period required residency.

NOC in case of change or organization

If the candidate after joining PhD program changes the organization, he should get NoC from the new organization as well.

### PhD programme for staff of IIT Ropar

Members of non-teaching staff (working in regular capacity, including technical and non-technical) may be permitted to join the Ph.D. program under this category.

Minimum eligibility requirements

For admission to the program a member of staff must fulfill the prescribed norms and at the qualifying examination he/she must have obtained at least the percentage of marks/grade/CGPA at par with the regular PhD programme.

GATE or equivalent qualification

Minimum qualification for these candidates is the same as for full-time candidates except that the requirement of qualifying in a national examination (e.g., GATE or equivalent) is waived off.

NOC  
Prior permission/No Objection Certificate (NOC) has to be obtained from competent authority before applying for admission to the program. NOC has to be submitted at the time of submission of application. Institute work should not suffer due to joining the PhD programme by the candidate.

Selection Procedure

Short-listed eligible staff will be called for written exam or interview or both

Final selection is based on the performance of the staff in the written exam or interview or both.

Fellowship

Members of staff permitted and enrolled for the PhD degree shall not be entitled to institute fellowship.

Duration

The minimum period to be spent in the research work registered under the Part-Time Ph.D. for Staff degree shall be 4 years. The maximum period admissible for completion of the course work, research work and submission of the thesis, shall, however, remain to be the same as in the case of regular candidates.

Regulations pertaining to all kinds of PhD programmes will be common, unless stated otherwise.

### 5. Eligibility of PhD programme for ProjectStaff

Eligibility requirement of IIT Ropar project staff applying for Ph.D. will be treated similar to that of external registration program (ERP) candidates.

Eligibility Criteria

* For the candidates having Master Degree in Engineering/Science/Humanities:

1. Minimum 6.5 CGPA OR 60% in PG programme
2. Must have at least 06 months of experience in the project work at IIT Ropar
3. Letter of recommendation from PI of the project under which he/she is working.
4. Publications, if any will carry high weightage

* For the candidates having Bachelor’s Degree in Engineering

1. Minimum 8.0 CGPA / 75 % in UG programme OR Minimum 7 CGPA / 65 % with valid GATE score.
2. Must have at least 06 months of experience in the project work at IIT Ropar
3. Letter of recommendation from PI of the project under which he/she is working.
4. Publications, if any will carry high weightage.

IIT Ropar Project staff will be directly shortlisted. However, they will have to clear written test/interview for admission.

The fellowship will be paid from the projects. However, they can be paid fellowship from the institute provided they have cleared the NET/GATE, as applicable. Further, candidates can also continue the PhD programme without fellowship.

There is no limit for number of project staff to be admitted under a supervisor for Ph.D programme.

The PI of the project should give an undertaking that the project staff, enrolled in the Ph.D. programme, shall be paid fellowship from the project grant till the completion of the project.

The project staff having left with more than one year of tenure is eligible to take admission in the Ph.D. programme under this category.

In case if the Project staff get selected in the Ph.D. programme by fulfilling all the eligibility criteria as may be laid for regular Ph.D. he shall draw his fellowship from the project only till the completion of the project and then can be eligible to move institute fellowship.

Minimum Residential Requirement

Regular PhD students have to stay within campus during their entire period of studentship.

However, special permission, on a case to case basis, may be granted by the competent authority for staying outside the campus.

### For External Registration Programme candidates

Candidate is required to spend a minimum of one semester at IIT Ropar right after admission (during course-work). Otherwise, the registration is liable to be cancelled.

### For Part Time candidates

For part-time candidates from outside, there is a minimum residency requirement of 4 months. DC may specify a higher or lower residency requirement based on the courses recommended as well as the background. The minimum residency period can be completed in parts in the entire tenure of PhD. However, the minimum period of residency for each period should not be less than 3 weeks.

The minimum period to be spent in the research work by a student working under part time PhD programme shall be 4 years.

International Scholars – Admission To Ph.D

Foreign Nationals are those with foreign passport including those who are Person of Indian Origin (PIO) / Overseas Citizen of India (OCI) card holders.

Foreign nationals can only register as full-time scholars. Foreign nationals with eligible degree from Indian Universities will be treated on par with Indian nationals for admission purposes with prescribed fee for foreign national. Foreign nationals with foreign degrees must meet the minimum educational requirements as specified on the website/admission brochure.

**RESEARCH AREAS AND ELIGIBILITY CRITERION FOR Ph.D. ADMISSION**

**Engineering:**

|  |  |  |
| --- | --- | --- |
| **Department** | **Research Areas** | **Eligibility** |
| Biomedical Engineering | **Research areas of Biomedical Engineering:**  **Stream A- Engineering and Physics**   1. Physics 2. Imaging 3. Biophotonics 4. Biomechanics 5. Digital health 6. Medical simulation     **Stream B- Life Science**   1. Molecular biology of cancer 2. Tumor biology or Type-2 diabetes 3. Biomaterials/Tissue Engineering   **Research Title under Project funding:**   1. Model Development for clinician to predict the bone and soft tissue strength and quality for type 2 Diabetic patients. 2. High Speed impact Dynamic and Deformation Analysis using image Correlation Technique 3. Digital Health | 1. A master's degree in engineering (ME / MTech) or medicine (MD) or pharmaceutical sciences (MPharm) or veterinary science (MVSc) or dental surgery (MDS), with a minimum of 60 percent marks (6.5 grade points on a scale of 10).  Or   2. A master's degree in sciences (MSc / MS) or equivalent, with a minimum of 60 percent marks (6.5 grade points on a scale of 10). A valid GATE score or qualified in UGC/CSIR/NET/INSPIRE fellowship, or equivalent.   Or   3. A bachelor's degree in engineering (BE /BTech) or pharmacy (BPharm), with a minimum of 65 percent marks (7.0 grade points on a scale of 10) and a valid GATE score. A bachelor's degree from an IIT with a minimum of 8 grade points on a scale of 10 points without GATE.   Or   4. A MBBS, BVSc, or BDS, with a minimum of 65 percent marks (7.0 grade points on a scale of 10).  Relaxation for SC/ST candidates as per GOI rules.   Click here to download application form |
| Chemical Engineering | **Research areas of Chemical Engineering:**  1. Catalysis and Reaction Engineering  2. Polymers, Nanomaterials and Water Treatment  3. Interfacial Engineering and Multiphase Flows  4. Soft Matter Engineering and Complex Fluids, Biorheology & Biomedical.  5. Mechanics of Granular Materials and Living Matter  6. Computational Design of Materials, Molecular Dynamics, Process Systems Engineering, Energy and Environment  **Research Title under Project funding:**   1. Enhancement of soil quality by efficient designing of vermicompost using agricultural-waste and recommend suitable crop using machine learning models      1. Surfactant and microplastic removal from the waste water using nanobubble technology. 2. Application of IoT enabled sono-electrocoagulation process to enhance the removal of microplastics from wastewater. 3. Development of cost-effective smart manufacturing assisted prosthetic mechanical heart valve from ultra-high molecular weight polyolefins | Masters degree in Chemical Engineering **or** in any Allied Branch of Chemical Engineering with CGPA 6.5 (or 60%). For SC and ST candidates, CGPA criteria at Bachelors degree is relaxed to 6.0 (or 55%).  **OR**   Master of Science with any specialization with CGPA 8.0 and above. A valid GATE/UGC/CSIR-NET/DST-INSPIRE (PhD) or any other national fellowship in the relevant area tenable for the year of registration. For SC and ST candidates, CGPA criteria at Masters level is relaxed to 7.5 (or 70%).  **PhD Direct:** As per institute guidelines.  **Note for all modes of admission**: There can be additional eligibility requirements for externally funded PhD projects (DST, SERB, ICMR, etc.) such as a GATE qualification. List of allied areas that may be considered for screening (not to be appended with the advertisement): Engineering/Technology degree in: Chemical, Polymer, Biopolymer, Food, Process Control, Petroleum, Petrochemical, Biochemical, Bioprocess, Biotechnology, Nanotechnology, Industrial chemistry, Materials and Metallurgy, Environmental, Textile, Paper and Pulp, Green technology, Energy, Material Science.  For specific institutes such as IISER, IIT Mandi, IISc, etc.: Engineering Sciences, Physical Sciences, Chemical Sciences |
| Civil Engineering | Research areas of Civil Engineering:   |  |  | | --- | --- | | A | **Structural Engineering** | | A.1 | Seismic Evaluation and Retrofitting of Buildings | | A.2 | Use of Waste in Structures | | A.3 | Evaluation and up-gradation of Existing Structures | | A.4 | Carbon Sequestration In Civil Engineering Applications | | B | **Hydraulics and Water Resources Engineering** | | B.1 | Surface Water Hydrology and Climate Change | | B.2 | Groundwater Hydrology | | C | **Geotechnical Engineering** | | C.1 | Dynamic properties of geomaterials | | D | **Transportation Engineering** | | D.1 | Machine learning applications in transportation planning | | D.2 | Sustainable transportation planning | | E | **Geomatics** | | F | **Environmental Engineering** | | F.1 | Development of plant based air purifying system | | F.2 | Source apportionment and Health risk assessment of Air pollutants | | F.3 | Transboundary air pollution | | F.4 | Utilization of waste | |  | Energy efficiency of building  **Research Title under Project funding:**  1. Cyber Physical Systems (IoTs) in Water Quality Assessment.  2. Geospatial Technology Applications in  Water Quality Assessment.  3.  Biotechnology Applications in Contaminant Remediation. | | Bachelor’s degree in Civil Engineering followed by a Master’s degree in an appropriate area with consistently good academic background.  Click here to download application form |
| Computer Science and Engineering | **Research areas of Computer Science and Engineering:**     |  | | --- | | 1. Game Theory and Machine Learning | | 1. Embedded Systems, Agriculture applications | | 1. Theoretical Computer Science | | 1. Reinforcement Learning and Multiagent Systems | | 1. AI for social good, Social Computing | | 1. Computer Architecture and Hardware Security | | 1. Computer Vision, Deep learning, Image Forensics,   audio/video/text processing, Medical Image Analysis | | 1. IoT, Wireless Networks, Blockchain, SDN, VANETs,   Wireless Body Area Networks, 5G |   **Research Title under Project funding:**  1. Understanding Depression: A machine learning approach using Multi-Site, Multi-Modal Image Analysis.  2. AI and Cyber-Physical System Design for Agriculture Automation | M.Tech./M.E/M.S. (or an equivalent  qualification) in computer science and  engineering (or related areas) with 60% marks  (or 6.5 grade point out of 10) (55% marks for  SC/ST).  **OR**  **Candidates with B. Tech/B.E/MCA\*/MSc\* with 60% marks (or 6.5 grade point out of 10) (55% marks for SC/ST) degree in computer science and engineering or**  **related area with a valid GATE score.**  **OR**  **Candidates with B. Tech/B.E/MCA\*/MSc\* with 60% marks (or 6.5 grade point out of 10) (55% marks for SC/ST) degree in computer science and engineering or**  **related area without valid GATE score but having external funding like NET JRF, DST Inspire, etc. Such candidates will not be eligible for institute fellowships.**  **\*The candidates with MSc/MCA will be treated equivalent to B.Tech.**    Note 1: Candidate with a Bachelor's degree in  Computer Science and engineering or related  field from any IIT with minimum 8.00  CGPA/CPI out of 10.0 are exempted from  requirement of GATE qualification.  Note 2: Candidates who are currently studying in  final year of their B.Tech/BE program should  apply under Direct PhD program (as per Direct  PhD norms). |
| Electrical Engineering | Research Areas:  Research Areas (Three separate lists will be given in the areas given below):  1. **Microelectronics and VLSI Design**  Analog, digital, mixed-signal, RF and broadband integrated circuit design Electronic packaging Semiconductor devices and reliability Spintronic devices  2. **Signal Processing and Communications**  Signal, Image and Video Processing  Wireless Communication and Networks; Internet of Things; Artificial Intelligence in Communication; UAV communication systems and networks; Vehicular Communication,  Intelligent Transportation Systems, Radar Systems, mmWave Communication and sensing systems  Antennas for Smart RF and millimeter-wave systems,  Wireless Power Transmission  3. **Power Engineering**  Renewable Energy integration  High Voltage Engineering; Nano-dielectrics  Smart and Micro-grids;  Power System Dynamics and Control Power Electronics,  Electric Machines and Drives Electric Vehicle Technologies  Power System Optimization  **Research Title under Project funding:**  1. A Noise-Power-Area Optimized Instrumentation Amplifier for Sensing Applications  **2.** Low power programmable multiple uncorrelated output PRBS generator integrated circuit.  Broad research area: Analog and/or digital integrated circuit design.  3. Reliability Enhancement for Vehicle-2-Pedestrian (V2P) Communication Scenario using Peer  Conscious Opportunistic Network Coded Cooperation  4. Investigations on power cables, KEI Inductries | M.Tech/M.E./M.S. in Electrical / Power system Power electronics / Electric drives/ Electric vehicle technologies / Electronics/ Communications/ Computer Science/ Instrumentation / Control Engineering or equivalent or Microelectronics/Solid-state Technology/MEMS/Nano Science/Nano Technology/Material Science/Engineering Physics or equivalent, relevant to the area of research with minimum 60% of marks (OR 6.5 grade point out of 10) (55% marks OR 6.0 grade point for SC/ST).  OR  Candidates having B.Tech/B.E/M.Sc. qualification in Electrical / Electronics / Communications / Computer Science / Instrumentation / Control Engineering or equivalent  or  Microelectronics/Solid-state Technology / MEMS / Nano Science / Nano Technology / Material Science / Engineering Physics or equivalent, and having a CGPA/CPI score of 8.00 (out of 10.0) and above with valid GATE score can apply for admission to PhD programme.  OR  A candidate with a Bachelor's degree from any IIT and having a CGPA/CPI score of 8.00 (out of 10.0) and above can apply for admission to PhD programmes. Such candidates are exempted from the requirement of GATE qualification. |
| Mechanical Engineering | Research Areas:   |  |  | | --- | --- | | 1 | **Mechanics & Design (MD)** | | i). | Experimental and computational mechanics of materials, biomedical engineering | | ii). | Reconfigurable Robots Design and Control, Rehabilitation Robotics | | iii). | Vibration, acoustics and Biomechanics | | iv). | multifunctional composites | | v). | Computational fracture Mechanics | | vi). | Mechanics of composite , Functionally graded material, drone dynamics | | vii). | Computational mechanics, FEM, Deep learning application into Mechanical engineering |   viii). Computaional Biomechanics, Computational Mechanics   |  |  | | --- | --- | | 2 | **Manufacturing Engineering (MF)**   1. Incremental forming at micro/ macro scale, Additive manufacturing of Metals, Metal-Ceramic based FGMs   3. Micro-manufacturing (modeling and experimentation)  4. 1). Product design  2). Sustainable design and manufacturing  5. Laser material processing | |  | |  |  | | --- | --- | | 3 | **Thermal & Fluids Engineering (TF)** | | i). | Microscale fluid and thermal transport, water phase change, thermal management of microprocessors, micro/nano fabrication | | ii). | Heat transfer, solar energy, water desalination | | iii). | flow dynamics. atomization, rocket propulsion, gas turbine engines | | iv). | Flow in Porous Media, Fluid dynamics of colloidal suspensions | | v). | Applied Thermal Engineering | | vi). | Internal combustion engines | |   **Research Title under Project funding:**   1. Additive Manufacturing & Machine Learning based Development of Indigenous Hydrogen Fuel Cell Stack 2. Unconventional Architecture Design and Development of Modular Library for Non-Repetitive Robotic Applications 3. Dynamic Analysis of Projectile Impact on Target 4. Development of a localized gradient damage based extended-FE model for fatigue analysis of aircraft components 5. Functionally graded materials: Thermoelastic analysis along with design framework using hybrid elements and deep learning (MD specialization)   6. Machine learning based model for optimization of PCM metal foam composite energy storage system (TF specialization)  7. Wave generation due to wind flow over water bodies | 1) Master's degree in Mechanical Engineering/Technology or related discipline or a Master's degree by Research in Mechanical Engineering/Technology or related discipline. Candidates must have obtained at least 60% marks or 6.5 CGPA out of 10 in their Master's. For admission under project fellowship (DST) GATE qualification is required.  OR  2) Master's degree in Sciences with a valid score in GATE/UGC/ CSIR/NET/NBHM or equivalent qualification. Candidates must have obtained at least 65% marks or 7 CGPA out of 10 in their Master's.  OR  3) Exceptional candidates having B.Tech/B.E degree with at least 65% marks or 7 CGPA out of 10 and valid GATE score can apply for PhD programmes. The candidates who are in the final year (seventh semester) of their B.Tech/BE program should apply under Direct PhD program (as per Direct PhD norms).  OR  A candidate with a Bachelor's degree from any IIT and having a CGPA score of 8.00 out of 10 and above are exempted from requirement of GATE to apply.  The relaxation in eligibility and reservation for SC/ST/OBC/PwD will be as per the rules of Govt. of India.    Click here to download application form |
| Metallurgical and Materials Engineering  (MME) | **Research areas of Metallurgical and Materials Engineering:**   1. Chemical Synthesis 2. Device design and testing 3. Fracture mechanics and creep deformation with desirable knowledge of Abaqus and crack tip simulations 4. High Temperature Alloys 5. Modeling of steel making processes 6. Nano Technology and Nano Metallurgy 7. Optical materials: Simulation, Synthesis and Characterization 8. Polymers and Ceramics   **Research Title under Project funding:**  1. Designing improved bond coat materials through co-doping of reactive elements  2. Simultaneous Separation and Sensing of Hydrogen and Carbon Monoxide/Carbon Dioxide using Polymer-Derived Ceramics Membranes for Hydrogen Purification | Master's degree in relevant Engineering/Technology or a Master's degree by Research in relevant Engineering/Technology. Candidates must have obtained at least 60% marks (or 6.5 Grade Point out of 10) in their Master's.  **or**  Candidates with a Bachelor's degree BE/B.Tech. (or MSc) in a relevant discipline with a minimum of 65% marks (or 7.0 Grade Point out of 10) and a valid GATE/UGC/CSIR/NET score. |

**Sciences:**

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| **Department** | **Research Areas** | **Eligibility** |
| Chemistry | **Research areas of Chemistry:**   1. Computational and Theoretical Chemistry 2. Sensors; Environmental Chemistry; Supramolecular Synthesis 3. Synthetic organic chemistry 4. Synthetic Organic Chemistry and Radical Chemistry 5. Masterials Electrochemistry, battery 6. Theoretical and Computational Biophysical Chemistry 7. Borono peptide and chemical biology 8. Heterogeneous Catalysis and Materials Synthesis 9. NMR Theory and Experiments 10. Biomaterials 11. Inorganic, organometallic chemistry 12. Synthesis of unnatural organics and diradicaloids 13. Inorganic, organometallic chemistry, Polymer 14. Synthetic organic chemistry   **Research Title under Project funding:**   1. **Antisense oligonucleotide-loaded, 3D printed, double-layered, and multifunctional wound healing matrix to target angiogenesis in chronic diabetic wounds** | Masters or equivalent degree in Chemistry/Biochemistry/ Materials Science and Technology/Pharmaceutical Sciences/Biotechnology/Physics or relevant areas with First Class (6.5 grades point out of 10) or 60% marks (55% marks for SC/ST).  Candidates meeting this requirement must also fulfill one of the following additional requirements with valid  a) GATE Qualification  b) UGC/CSIR-NET or Equivalent qualification.  c) DST-INSPIRE or other national fellowship  Candidates with M. Tech or  equivalent with First Class (6.5 grades point out of 10) or 60% marks are exempted from requirement of GATE qualification    Click here to download application form |
| Mathematics | **Research areas of Mathematics:**   |  |  | | --- | --- | | 1 | Functional Analysis | | 2 | Mathematical Modelling | | 3 | Numerical Computing | | 4 | Graph Theory | | 5 | Algebra | | 6 | Theoretical PDE | | 7 | Number Theory | | 8 | Knot Theory & Low Dimensional Topology | | 9 | Fluid Dynamics | | 10 | Data Science & Statistics | | 11 | Water Wave Theory | | 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 ),  55% marks or 6.0 grades point out of 10 for SC/ST.  Candidates  meeting this requirement must also fulfill one of the following additional requirements with valid:  a) GATE Qualification  b) UGC-NET-JRF/CSIR-NET-JRF qualified or NBHM or equivalent qualification.  OR  Candidates with M. Tech or equivalent with First Class (6.5 grades point out of 10) or 60% marks are exempted from requirement of GATE qualification.  Click here to download application form |
| Physics | **Research areas of Physics:**   1. Condensed Matter Physics (Theory and Experiment) 2. Nuclear Physics (Experiment) 3. Light-Matter interaction (Experiment) 4. Optics and Laser (Experiment) 5. Quantum and Nanophotonics (Experiment) 6. Quantum Optics (Theory)   **Research Title under Project funding:**   1. Theory of Ultracold Quantum Gases | Master's or equivalent degree in Physics or relevant subject / B. Tech. in Engineering Physics with First Class (6.5 grades point out of 10) or 60% marks (55% marks for SC/ST) or MTech in relevant areas  Candidates meeting above requirement must also fulfill one of the following qualification with valid certificate:  a) GATE  b) UGC/CSIR-NET(JRF) or equivalent qualification  c) DST-INSPIRE Fellowship  Click here to download application form |

**Humanities and Social Sciences:**

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| Research Areas | Eligibility |
| **Research areas in Humanities and Social Sciences:**   |  |  | | --- | --- | |  |  | | 1. English Literature (Historiographic Fiction/ Memory Studies\*; Psychoanalysis and Culture)  2. Economics (Macroeconomics and Financial Market)  3. Linguistics (Psycholinguistics/Neurolinguistics)  4. Management\*\* (Consumer Behaviour: Decision Making, Co-creation, Love, Spirituality &Wellbeing)  5. Psychology\* (Applied Psychology: Emotion Regulation)  \*Only JRF-qualified or candidates with any other fellowship from funding agencies like UGC, ICSSR, ICMR etc.should apply  \*\* Regular/Part-time/ERP candidates can apply |  | |  |  | |  |  | |  |  | |  |  | | Master's or equivalent degree in relevant discipline (English/Economics/Linguistics/Management/Psychology)with 55% marks or 6.0 grade point out of 10 (relaxation for SC/ST candidates as per GOI rules)  OR  Bachelor’s or equivalent degree in Engineering from any of the IITs/NITs or any other ‘Institute of National Importance’ with minimum of 55% marks or 6 grade points out of 10 (relaxation for SC/ST candidates as per GOI rules)  Candidates meeting one of these requirements must also fulfil one of the following additional requirements:   1. UGC/CSIR- NET or GATE or equivalent qualification 2. DST-INSPIRE Fellowship   \*Only JRF-qualified or candidates with any other sponsored fellowship from funding agencies like UGC, ICSSR, ICMR etc.should apply  OR  Candidates with Bachelor’s in Engineering/Technology from any of the IITs and having CGPA/CPI Score of 8 (out of 10) are exempted from GATE requirement.  Click here to download application form |

DETAILS OF SEMESTER FEES FOR THE ACADEMIC YEAR 2022-23.

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| 1. | SEMESTER FEES  (To be paid every semester) | (INR) |
| 1.1 | INSTITUTE FEES |  |
| i) Tuition Fee |  | 2500 |
| ii) Examination Fee |  | 300 |
| iii) Registration/Enrolment Fee |  | 250 |
| iv) Gymkhana Fee |  | 500 |
| v) Medical Fee |  | 50 |
| vi) Laboratory & other facilities |  | 1500 |
| vii) Library |  | 500 |
| viii) Hostel & Mess Establishment, Amenities charges |  | 1000 |
| ix) Transfer charges (Campus Bus Services) |  | 0 |
| 1.2 | HOSTEL FEES + |  |
| i) Hostel Seat Rent |  | 1000 |
| ii) Fan, Electricity and water charges |  | 1000 |
| iii) Amenities Charges |  | 1000 |
| TOTAL (Semester Fees to be paid) |  | 9600 |
| 2. | ONE TIME PAYMENTS (Non -refundable) To be paid at the time of admission |  |
| i)Admission Fees |  | 150 |
| ii) Thesis Fees |  | 950 |
| iii) Grade card |  | 0 |
| iv) Provisional certificate |  | 100 |
| v) Student welfare fund |  | 200 |
| vi) Modernization fees |  | 500 |
| vii) Identity card |  | 100 |
| viii) Benevolent fund |  | 100 |
| ix) Alumni fees |  | 1000 |
| x)Training & Placement |  | 0 |
| Total (one time payment at the time of admission) |  | 3100 |
| 3 | Deposits (Refundable) |  |
| i) Institute security deposit |  | 1000 |
| ii) Library security deposit |  | 1000 |
| 4 | OTHER PAYMENTS Insurance Scheme (To be paid every year in 1st semester) | 500 |
| GRAND TOTAL |  | 15200 |

*The fees is subject to revision as per Institute Rules.*

*Mess charges will be notified separately.*

REGISTRATION FOR THE Ph.D. DEGREE

The selected candidates who have submitted the institute fee will be provided the Entry No. and institute email ID after the verification of all their testimonials.

SPECIMEN OF Sponsorship from the Head of the Organization in Letter Head (for external candidates)

We sponsor the candidate Mr./Ms.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ who is an full time employee of our Organization.

We understand that this sponsorship is covered by the following conditions:

1. The candidate will be continuing in the present place of work till he / she completes the research work.
2. Necessary facilities will be provided for the proposed research work of the candidate.
3. Necessary leave will be given to the candidate to enable him / her to fulfill the residence requirements at the Institute. The residence requirement consists of one semester of continuous residence in the first year immediately after admission during course work
4. The Research Supervisor(s) from the Institute will be given access to the facilities necessary for the research work of the candidate in our organization.
5. The Joint Research Supervisor/Coordinator will be identified by the candidate at the time of registration in the External Registration PhD programme.
6. The Joint Research Supervisor/Coordinatorfrom the organization will ensure that half yearly reports are submitted through the Research Supervisor at the Institute to the Deans. Failure to comply with will result in cancellation of registration.
7. The organization confirm that the Joint Research Supervisor has completed PhD in govt. recognized Institution/University. The organization can nominate Coordinator for the candidate in case Joint Research Supervisor is not available in the organization.
8. The organization will ensure that the candidate devotes sufficient time to his/her research work so that the submission of thesis will be done within the time frame stipulated by the Institute.
9. The organization will ensure that the candidate will be relieved of his/her duties for attending the course-work for a period of one or two semesters of continuous residence at the Institute, which will be taken up immediately after joining.
10. The organization will ensure that during course-work, the candidate will not be engaged with the duties of the organization.
11. In the event of any intellectual property generated by the student during his/her proposed research, the Organization agrees to, the sharing of IP rights as determined by a Committee constituted by IIT Ropar for this purpose.
12. The thesis is a public document, and shall include all the work carried out by the student for the Ph.D. degree. The organization shall agree that sensitive/confidential information will not be included in the problem formulation or, subsequently, during the course of research.
13. All material in the thesis can be submitted for publication in peer-reviewed journals/ conference, the organization waives the right to deny permission for publication, for reasons of confidentiality or for any other reason, for any material contained in the thesis.
14. Publications: In the case of publications arising from the thesis, only those who have directly contributed to the research work can be listed as authors. In case of any difference of opinion, the decision of the internal committee of IIT Ropar shall be final.

NAME:

DESIGNATION:

ADDRESS:

Signature of the Head of the Organization with the official seal.

Place :

Date :

Contact us:

Email : [dracademics@iitrpr.ac.in](mailto:dracademics@iitrpr.ac.in), [jsresearch@iitrpr.ac.in](mailto:jsresearch@iitrpr.ac.in)

Phone No.: 01881-231167, 01881-231169 (from 9 am to 5 pm)

Website: [www.iitrpr.ac.in](http://www.iitrpr.ac.in)

Contact details of Department Offices

|  |  |  |
| --- | --- | --- |
| Name of the Department | Email ID | Contact Number |
| Department of Biomedical Engineering | [bme@iitrpr.ac.in](mailto:bme@iitrpr.ac.in) | 01881-232502 |
| Department of Chemical Engineering | [offchemengg@iitrpr.ac.in](mailto:offchemengg@iitrpr.ac.in) | 01881-242105 |
| Department of Chemistry | [offchem@iitrpr.ac.in](mailto:offchem@iitrpr.ac.in) | 01881-232052 |
| Department of Civil Engineering | [offce@iitrpr.ac.in](mailto:offce@iitrpr.ac.in) | 01881-242314 |
| Department of Computer Science and Engineering | [offcse@iitrpr.ac.in](mailto:offcse@iitrpr.ac.in) | 01881-232152 |
| Department of Electrical Engineering | [eeoffice@iitrpr.ac.in](mailto:eeoffice@iitrpr.ac.in) | 01881-232202 |
| Department of Humanities & Social Sciences | [offhss@iitrpr.ac.in](mailto:offhss@iitrpr.ac.in) | 01881-242214 |
| Department of Mathematics | [mathoffice@iitrpr.ac.in](mailto:mathoffice@iitrpr.ac.in) | 01881-242287 |
| Department of Mechanical Engineering | [meoffice@iitrpr.ac.in](mailto:meoffice@iitrpr.ac.in) | 01881-232352 |
| Department of Metallurgical and Materials Engineering | [offdmme@iitrpr.ac.in](mailto:offdmme@iitrpr.ac.in) | 01881-232402 |
| Department of Physics | [physics@iitrpr.ac.in](mailto:physics@iitrpr.ac.in) | 01881-242147 |