



INDIAN INSTITUTE OF TECHNOLOGY ROORKEE, ROORKEE-247 667

ADMISSIONS TO POSTGRADUATE AND Ph.D. PROGRAMMES SESSION 2014-15

M.Tech. / M.Arch. / M.U.R.P. Degree Programmes

Admissions for the academic session 2014-15 to the following Postgraduate(PG) Programmes leading to M.Tech./M. Arch./ MURP will be made on the basis of either Normalized GATE Marks only or Normalized GATE Marks and Interview/Written Test. For Sponsored candidates the admission will be made on the basis of Interview/Written Test and relevant experience. The details regarding various Departments/Centres, academic programmes, number of seats, and minimum educational qualifications are given in seriatim below. (Example: Department - Programme / Seats / Minimum Educational Qualification).

Department of Architecture and Planning

- (i) **Architecture** / 18 / B.Arch. or its equivalent
- (ii) **Urban & Rural Planning** / 18 / B.Arch. or its equivalent or Bachelor's degree in Civil Engg./B.Planning

Alternate Hydro Energy Centre

- (i) **Alternate Hydro Energy Systems** / 25 / Bachelor's degree in Civil/ Elect./ Mech./ Industrial/ Chemical/Electronics/Computer/Agricultural/Environmental Engg. or equivalent.
- (ii) **Environmental Management of Rivers and Lakes** / 15 / Bachelor's degree in Civil/ Electrical/ Mechanical/Industrial/Chemical/Agriculture/Environmental Engg./Biotechnology/Arch./Town Planning, or equivalent or Master's in Science in any subject with Mathematics at graduation level.

Department of Chemical Engineering

- (i) **Computer Aided Process Plant Design**/28/Bachelor's degree in Chemical/Biochemical/Pulp & Paper/Chemical Technology/ Petrochemical/Polymer Technology/ Petroleum Refining or equivalent.
- (ii) **Industrial Pollution Abatement** / 28 / Bachelor's degree in Chemical/Pulp & Paper/Civil/ Biochemical/ Petroleum/ Environmental Engg./ Chemical Technology/ Polymer Technology or equivalent.

Department of Civil Engineering

- (i) **Environmental Engineering**/18/Bachelor's degree in Civil Engg./Chemical Engg./ Environmental Engg., or equivalent.
- (ii) **Geomatics Engineering**/ 24 / Bachelor's degree in Civil Engg./Electronics Engg./Electrical Engg./Computer Science/Information Technology/Marine Engg./Mining Engg./Environmental Engg./Architecture/Communication Engg./Architecture or equivalent.
- (iii) **Geotechnical Engineering** / 24 / Bachelor's degree in Civil Engg. /Mining Engg., or equivalent.
- (iv) **Hydraulic Engineering** / 18 / Bachelor's degree in Civil Engg./Agricultural Engg. or equivalent.
- (v) **Structural Engineering** / 36 / Bachelor's degree in Civil Engg. or its equivalent.
- (vi) **Transportation Engineering** / 24 / Bachelor's degree in Civil Engg. or its equivalent.

Department of Earthquake Engineering

- (i) **Soil Dynamics** / 18 / Bachelor's degree in Civil/Structural Engg. or equivalent.
- (ii) **Structural Dynamics** / 31 / Bachelor's degree in Civil /Structural, or equivalent.
- (iii) **Seismic Vulnerability and Risk Assessment**/ 15 /Bachelor's degree in Civil /Structural, or equivalent.

Department of Electrical Engineering

- (i) **Electric Drives & Power Electronics** / 23 / Bachelor's degree in Electrical Engg. or its equivalent.
- (ii) **Instrumentation and Signal Processing** / 23 / Bachelor's degree in Electrical/Electronics & Comm./Instrumentation Engg., or equivalent.

- (iii) **Power System Engg.** / 23 / Bachelor's degree in Electrical Engg. or its equivalent.
- (iv) **Systems and Control** / 23 / Bachelor's degree in Electrical/Electronics & Comm./Instrumentation Engg., or equivalent.

Department of Electronics and Communication Engg.

- (i) **Communication Systems** / 18 /Bachelor's degree in Electronics & Comm. Engg. or its equivalent.
- (ii) **R. F. & Microwave Engg.** / 15 /Bachelor's degree in Electronics & Comm. Engg. or its equivalent.
- (iii) **Microelectronics and VLSI** / 15 /Bachelor's degree in Electronics & Comm. Engg. or its equivalent.

Department of Computer Science and Engg.

Computer Science & Engg. / 54 /B.E./B.Tech degree in Computer Science and Engineering/ Information Technology.

Department of Hydrology

Hydrology / 15 / Bachelor's degree in Civil/Mechanical/Agricultural Engg./Hydrology or its equivalent; M.Sc./M.Tech. in Chemistry/Geology/Geophysics/Applied Geology/ Applied Geophysics/Physics/ Meteorology/ Geography/Atmospheric Physics/Env. Science with mathematics in B.Sc. as one of the subjects or M.Sc. (Master's) degree in Statistics with physics or mathematics at B.Sc., or M.Sc. degree in Mathematics with Physics in B.Sc. or its equivalent.

Department of Mechanical and Industrial Engg.

- (i) **CAD, CAM & Robotics**/15/Bachelor's degree in Mechanical/Industrial/Production Engg. or equivalent.
- (ii) **Machine Design Engineering** / 18 / Bachelor's degree in Mechanical/Industrial/Production Engg. or equivalent.
- (iii) **Production & Industrial Systems Engineering** / 18 / Bachelor's degree in Mechanical / Industrial/Production Engg. or equivalent.
- (iv) **Thermal Engineering** / 18 / Bachelor's degree in Mechanical/Industrial/Production Engg. or equivalent.
- (v) **Welding Engineering** / 18 / Bachelor's degree in Mechanical / Industrial/Production Engg. or equivalent.

Department of Metallurgical and Materials Engg.

- (i) **Industrial Metallurgy** / 18 / B.Tech in Metallurgy/Materials /Mechanical/Production Engg.
- (ii) **Materials Engineering**/ 18 / B.Tech in Metallurgy/Materials /Mechanical /Production /Ceramic Engineering; or B.Sc. in Physics/Chemistry with Mathematics course included in the M.Sc. Programme

Department of Paper Technology, Saharanpur Campus

Pulp & Paper / 18 /Bachelor's degree in Pulp & Paper Engg./Chemical Engg./Mechanical Engg./Polymer Engg./ Cellulose Technology/Biotechnology or equivalent.

Note: The two years post B.Sc. diploma awarded by the IPT/DPT plus a minimum of two years relevant experience in Industry/Research Organization will be considered equivalent to a B.Tech./ B.E. degree.

Packaging Technology / 20 /M.Sc. in Chemistry (PCM at B.Sc. level) / Polymer Science (PCM at B.Sc. level) or B.Tech. in Pulp & Paper Technology/Biotechnology/Chemical Engg./Chemical Technology/Polymer Engg./Process Engg./Mechanical Engg./Production Engg./Packaging Technology/Printing Technology/Textile Technology/PG Diploma in Packaging/Biochemical Engg.

Industry sponsored candidate with aforesaid academic qualifications along with two years experience in Paper/Polymer/Packaging Technology.

Additional Requirement: GATE qualified except for industry sponsored candidate.

Department of Water Resources Development & Management

- (i) **Irrigation Water Management**/3/Bachelor's degree in Civil Engg. or its equivalent/Agricultural Engg. or M.Sc. Agriculture in Agronomy, Soil Science, Agrometeorology with mathematics as one of the papers at the level of B.Sc./B.Sc. Agriculture.
- (ii) **Water Resources Development**/12/ Bachelor's degree in Civil / Electrical/ Mechanical/ Electronics & Telecommunication Engg. or equivalent.

Department of Chemistry

M. Tech. (Advanced Methods of Chemical Analysis) / 15 / B.Tech. (Chemical Engg.)/M.Sc. (Chemistry)/M.Sc. (Environmental Science)with Mathematics atleast 10+2 level.

Department of Physics

M.Tech. (Solid State Electronic Materials) / 18 / B.Tech. Engg. Physics/M.Sc. (Physics)/Bachelor's degree in Electrical/Electronics/Metallurgical Engg. or its equivalent.

Centre for Nanotechnology

M.Tech. (Nanotechnology) / 15 / B.Tech. (Met. & Mat. Engg./Mech. Engg./ E&C/ Electronics/ Chemical Engg./ Pulp & Paper/Biotechnology) or its equivalent; M.Sc. (Physics/ Chemistry/ Biotechnology) or its equivalent with Mathematics at 10+2 or higher level.

Centre for Disaster Mitigation and Management

M.Tech. (Disaster Mitigation and Management) / 15 /B.Tech. (Civil, Structural, Mechanical, Industrial, Chemical, and Engineering/Computer Science or equivalent, B.Arch & B. Planning, or M.Tech. in Geological Technology and Geophysical Technology or equivalent, or M.B.A. or M.C.A. or M.Sc. in Physics/Geophysics/Geology/Mathematics/Environmental Sciences (with Maths in B.Sc.) computer Science or equivalent.

Centre for Transportation Systems

M.Tech. (Infrastructure Systems) / 15 /B.Tech. (Civil/Mechanical & Industrial/Electrical/Chemical Engineering/Electronics & Communication Engg./Computer Science and Information Technology/B.Arch/B.Planning or equivalent.

NOTE : The Minimum Duration for all Programmes will be 4 Semesters for Full Time and 6 Semesters for Part Time candidates.

ADMISSION CRITERIA

Admission will be made on the basis of either Normalized GATE Marks only or Normalized GATE Marks and Interview/Written Test. For Sponsored candidates the admission will be on the basis of Interview/Written Test and relevant experience and preference will be given to those who have also valid GATE. There will be cut off on Normalized GATE marks for calling the candidates for Interview/Written Test and/or for preparing merit list for different programmes for different categories of candidates. The Normalized GATE marks will be calculated as follows:

$$\frac{\text{Normalized GATE Marks in the Paper}}{\text{Maximum Marks Awarded in that Paper in that year}} = \frac{\text{Marks Out of 100 of the candidate}}{\text{Maximum Marks Awarded in that Paper in that year}} \times 100$$

B.Tech. degree holders from IITs with minimum CGPA of 8.00 on 10 point scale will also be eligible for admission with MHRD assistantship without GATE and will be given admission directly.

IMPORTANT NOTE

A candidate may apply maximum for four Departments and 14 different programmes but **ONLY ONE** Application Form is to be filled-up. However, fee of Rs. 100/- per additional Department shall be payable by the candidate. Admission will be made strictly on the basis of order of preferences for eligible programmes/GATE disciplines.

Note: Preferences (max. 14) once given shall not be changed for any reason after submission of application form.

APPLICATION FEE

For General/OBC Category : **Rs. 400/-** + *Rs. 100/-
For SC/ST/PD Category : **Rs. 200/-** + *Rs. 100/-
***Rs. 100/- per additional department (if applied)**

ELIGIBILITY CRITERIA

A minimum aggregate score of 60% or 6.00 CGPA on 10 point scale for General/OBC candidates and 55% or 5.50 CGPA on 10 point scale for SC/ST/PD candidates at the qualifying degree is essential for all the above PG programmes.

Ph.D. PROGRAMMES

Applications are also invited for admission to Ph.D. programmes for the Autumn Semester of the Session 2014-15. Application fee: Rs. 200/- per department for General/OBC category and Rs. 100/- for SC/ST/PD category candidates per department. **Separate application be sent for separate departments/centres and for each department/centre separate fees will be required with each completed application form.** Ph.D Programmes are available in all departments/centres including Institute Instrumentation Centre, Centre for Transportation Systems, Centre for Disaster Mitigation & Management and Centre for Nanotechnology.

ELIGIBILITY CRITERIA: A minimum aggregate score of 65% or 6.50 CGPA on 10 point scale for General/OBC candidates and 55% or 5.50 CGPA on 10 point scale for SC/ST/PD candidates at the qualifying degree is essential for Ph.D. programmes.

GENERAL INFORMATION FOR PG AND Ph.D. PROGRAMMES

RESERVATION OF SEATS

Certain number of seats are reserved for candidates belonging to SC/ST/OBC categories and Person with Different Abilities (PD) as per the Govt. of India rules. For details refer to the Information Brochure.

APPLICATION PROCESS

For admission to PG and Ph.D. programmes 2014 candidates need to register and fill the application ONLINE only by accessing <http://pgadm.iitr.ernet.in>. The application process will be assumed to be completed when following documents are sent to the Chairman, PG Admissions office, Indian Institute of Technology Roorkee, Roorkee-247 667, Uttarakhand on or before April 25, 2014. (1) Print out of filled on-line application (2) Bank challan copy (3) Other necessary documents as per the Information Brochure (if any).

Note: Please affix your photo at appropriate place and sign the application form.

FINAL YEAR CANDIDATES

Candidates appearing for the final year of their qualifying examination are also eligible to apply.

HOW TO APPLY

For Admission to PG/Ph.D. programmes the candidates need to register and fill the application **ONLINE only from March 31, 2014** by accessing <http://pgadm.iitr.ernet.in> on or before **April 21, 2014** and after finalizing, download the online filled application and bank challan simultaneously. Then the fee must be deposited in the State Bank of India through bank challan on next working day and or before the last date i.e. **April 22, 2014**. The Bank challan will be printed in triplicate. Bank will retain a copy and will return two copies to you. In those two copies, retain the candidate's copy with you and attach the IITR's copy with the application form.

Note: The Fee will not be accepted through any other mode.

IMPORTANT DATES

Opening of Online Application Process	March 31, 2014
Last date for applying ONLINE (Website Closure)	April 21, 2014
Last date for depositing the requisite fee	April 22, 2014
Last date for receipt of Completed Application Form	April 25, 2014

ADDRESS FOR CORRESPONDENCE

Chairman, PG Admission, PG Admission Office,
Indian Institute of Technology Roorkee, ROORKEE - 247 667 (Uttarakhand)
Tel: (01332) - 285875, 284010, Fax: (01332) - 285874
e-mail: pgadm@iitr.ernet.in, website: <http://www.iitr.ernet.in> OR
<http://pgadm.iitr.ernet.in>