

AboutDEPARTMENT OF HYDROLOGY



The period from 1965 to 1974 witnessed the establishment of a number of International postgraduate courses in Hydrology under the UNESCO's International Hydrology Decade. The training and education in Hydrology was one of the main components of this programme. In 1972, with the inception of the International Post-Graduate Course, the Department of Hydrology marked its beginning. The courses offered by the Department are presently sponsored by the Government of India and international agencies like UNESCO, World Meteorological Organisation (WMO) etc. Till date, a total of 1118 participants, including 386 foreign participants from 46 countries have participated in the Post-Graduate Programmes. Since 2003, the Department has widened its horizon by offering admissions to the GATE qualified fresh engineering and science graduates. The Department of Hydrology has been recognized as one of the WMO-Regional Training Centre in 2015









From Director's Desk

Water is part of a larger ecological system. It is one of the most crucial elements in developmental planning. Uneven distribution of rain, influenced by anthropogenic changes, including climatic changes have led to a frequent scenario of simultaneous floods and droughts in different parts of the same geographic region. Without adequate capacity building in the water sector, it is difficult to manage such problems. It is likely that, in the foreseeable future, major problems involving interaction of man with the hydrological environment on the global scale, such as climate change, will increasingly require the attention of experts from many disciplines, including that of scientifically trained hydrologists. Therefore, hydrological education is an important aspect of the national policy of any country for capacity building in the water sector. Realization of this viewpoint led to the establishment of a number of international post-graduate courses in hydrology under the ambit of the UNESCO's International Hydrology Decade launched in 1965.

The Department of Hydrology (DoH) at Indian Institute of Technology Roorkee came into existence in 1972 with the inception of the international Post-graduate course in Hydrology at Roorkee. The course offered by the Department of Hydrology is presently being sponsored by the Government of India and international organizations like World Meteorological Organization (WMO). Recognizing the contributions of the department in the capacity building of national and international professionals in the area of hydrology, WMO has recognized DoH as a Regional Training Centre (RTC) since 2015. Besides running regular academic programs for training engineers/ scientists from Asia, Africa and other developing countries, the department also undertakes research and consultancy projects on different hydrological aspects. This brochure describes facilities available in the department, its academic programs, faculty, eligibility criteria for admission, fellowships available, application procedure and estimates of annual expenditure. The format of the application form is also given in the brochure.

I invite the prospective applicants working in various water-related organizations in India and abroad to participate in education and training programs offered by the department.

Prof. Kamal Kishore PantDirector, IIT Roorkee



ABOUT THE INSTITUTE

Indian Institute of Technology Roorkee has its roots in the Roorkee College established in 1847 as the first engineering college in India, which was rechristened as Thomason College of Civil Engineering in 1854 after its mentor James Thomason. After about 100 years of distinguished services, the college was elevated to University of Roorkee on November 25, 1949 as the first Engineering University of the independent India. On September, 2001, the University was converted into an IIT by the Government of India. It has now 34 academic departments/centres, schools offering various courses like 14 undergraduate courses in engineering, architecture and design, 04 BS-MS dual degree programmes, 02 integrated master's program in engineering and about 61 postgraduate courses in engineering, architecture, sciences, design and business administration besides research programmes at doctoral level.

IIT Roorkee has highly qualified and motivated faculty of about 558 members who are engaged in research and consultancy in addition to teaching. The faculty members offer their expertise through consultancy services to private/public sector agencies as well as to Government agencies. Currently the institute has 5484 undergraduate students, 1827 postgraduates and 3041 research scholars.

A number of academic and research centres are engaged in interdisciplinary research, and many collaborative programmes exist with institutions in India and abroad. Several other central facilities exist such as Central Library which has more than 4,00,000 volumes of books and periodicals, Institute Computer Centre, Education Technology Cell with full-fledged television studio, Continuing Education Centre and Institute Instrumentation Centre with highly sophisticated instruments etc.

IIT Roorkee is fully residential, with well-designed hostels (Bhawans) both for boys and girls, and family accommodation for married students, sprawling sports ground, a swimming pool, a boat club and a host of student's clubs with facilities for different games including tennis, squash, billiards etc. The institute offers activities like NCC, rowing, mountaineering and trekking all of which provide excellent opportunities for self-development. The campus also houses a CBSE affiliated senior secondary school.

1. DEPARTMENT OF HYDROLOGY

The period from 1965 to 1974 witnessed the establishment of a number of International Post Graduate Courses in Hydrology under the UNESCO's International Hydrology Decade. The training and education in Hydrology was one of the main components of this programme. In 1972, with the inception of the International Post-Graduate Course, the Department of Hydrology (DoH) marked its beginning. The courses offered by the Department are presently sponsored by the Government of India and international agencies like UNESCO, World Meteorological Organisation (WMO) etc. Till date, a total of 1118 participants including 386 foreign participants from 45 countries have participated in the Post-Graduate Programmes (ANNEXURE–I).

Since 2003, the Department has widened its horizon by offering admissions to the GATE qualified fresh engineering and science graduates. The Department of Hydrology has been recognized as one of the WMO-Regional Training Centre in 2015.

Vision : To be the fountainhead of new ideas and innovations in hydrology

Mission: Capacity building through education and training, and conducting pioneering research to seek scientific and

engineering solutions in the field of hydrology.

Website: https://hy.iitr.ac.in

Faculty

Prof. Sumit Sen	Professor & Head	Watershed Modelling, Experimental Hydrology
Prof. D.S. Arya	Professor	GIS & RS, Surface water modelling, Climate change
Prof. Manoj K. Jain	Professor	Watershed Modelling & Management, GIS & RS
Prof. Brijesh K. Yadav	Professor	Groundwater Hydrology, Bioremediation
Prof. Ankit Agarwal	Assistant Professor	Bigdata & Hydroinformatics
Prof. Bhaskar Jyoti Deka	Assistant Professor	Membrane Technology, Desalination, Environmental Nanotechnology, Water purification
Prof. Ashutosh Sharma	Assistant Professor	Hydroclimatology and Ecohydrology
Prof. Nitin Khandelwal	Assistant Professor	Aqueous Geochemistry & Environmental Nanotechnology

2. PROGRAMMES OFFERED

The Department offers the following academic programmes:

- **P.G. Diploma (Hydrology):** It is a 12-months academic programme, which includes classroom lectures, tutorials and practicals and a seminar.
- . **M.Tech.** (**Hydrology**): It is a 24-months academic programme. It includes classroom lectures, tutorials and practicals and a seminar in the first year.

• **Ph.D. (Hydrology):** The Department also offers Ph.D programme. For more information, please refer to our website www.iitr.ac.in. Currently, 69 scholars are registered for pursuing their research leading to Ph.D. degree

3. LANGUAGE OF INSTRUCTION: ENGLISH

4. INTAKE FOR P.G. DIPLOMA/ M.TECH.

The sanctioned intake for P.G. Diploma and M.Tech. programmes is Fifty-nine (59). Out of this, thirty (30) candidates are selected from different government/semi-government organizations from India and abroad whose candidature will be officially sponsored. Twenty-Nine (29) seats are earmarked for candidates having valid GATE score. Candidates working in National and International Government/Semi Government/PSU organizations/ International agencies are eligible to apply based on this Information Brochure. Selection of GATE qualified candidates will be made through a separate announcement of admission made by PG Admission Office of IIT Roorkee.

5. SPECIALIZATIONS IN P.G. DIPLOMA/ M.TECH.

A candidate can opt for pursuing P.G. Diploma/M.Tech. studies in any of the following specializations offered by the Department:

- Surface Water Hydrology
- · Groundwater Hydrology
- · Watershed Management

The courses offered under these specializations consist of core courses and elective courses. The core courses of different specializations are as follows:

Surface Water Hydrology	Groundwater Hydrology	Watershed Management
Channel and fluvial hydraulics	Groundwater hydrology	Hydrologic elements and analysis
Deterministic and Stochastic hydrology	Geophysical investigations	 Watershed behavior and conservation practices
Surface water modeling and simulation	 Environmental quality 	Remote sensing and GIS applications
 Environmental planning and assessment 	 Groundwater systems analysis 	Watershed modeling and simulation
Hydrological data collection, processing and analysis	 Soil and groundwater contamination modelling 	Irrigation and drainage engineering
Hydrometeorology and Climate Change	Multi-phase Flow through Porous Media	 Planning and Management of Watersheds
 Bigdata and Hydroinformatics 	 Vadose Zone Hydrology 	Experimental Hydrology
 Surface Water Quality Modelling 	 Membranes for Desalination and 	
	Purification	

The students are free to choose elective courses offered by this Department as well as other departments to strengthen their base depending upon their inclination towards other disciplines. Delivering a seminar in the second semester is now an integral Part of PG Diploma/M.Tech. programme.

Working on a dissertation problem is an important aspect of the M.Tech. programme. The students carry out hydrological analysis required for a comprehensive thesis in their fields of specialization.

6. ELIGIBILITY FOR ADMISSION

Candidates with the following academic qualifications are eligible to apply for admission to PG Diploma/M.Tech programme in Hydrology.

(a) Academic Qualifications (any one of the following)

- (i) Bachelor's degree in Civil/ Agricultural Engg. / Hydrology/ Geomatics Engg./ Data Science & Artificial Intelligence/ Environmental Engg. or equivalent in relevant discipline.
- (ii) M.Sc./M.Tech. (Master's) degree in Chemistry/Geology/ Geophysics/ Applied Geology/Applied Geophysics/ Physics/ Meteorology/ Geography/ Atmospheric Physics/Environmental Science with Mathematics in B.Sc. (Bachelor's) course as one of the subjects.
- (iii) M.Sc. (Master's) degree in Statistics with Physics or Mathematics at B.Sc. (Bachelor's) level or its equivalent in relevant discipline.
- (iv) M.Sc. degree in Mathematics with Physics in B.Sc. or its equivalent in relevant discipline.
- (v) AMIE (Civil) with B.Sc. or Engineering Diploma qualifications with at least 3 years research/ teaching /other professional responsible capacities

(b) Conditions for full time sponsored/nominated candidates only:

(i) Candidates seeking admission to the P.G. Diploma/ M.Tech. programme in Hydrology and who possess the required qualification(s) stated above must have at least 60% aggregate marks or 6.00 CGPA on a 10-point scale at qualifying degree level.

For Indian candidates belonging to SC/ST category, the qualifying percentage is 55% aggregate marks or 5.5 CGPA on a 10-point scale. SC/ST category candidates must submit the requisite certificate from a competent authority along with the application.

(ii) Full time sponsored candidates must have a minimum of two years of full-time work experience by the last date of submission of application form in a responsible capacity in a registered Firm/ Company/ Industry/Educational and Research Institution/Govt. or Quasi-Govt./ Autonomous Organizations in the relevant field(s) in which admission is being sought. The Firm/Company/ Industry should either be a public sector undertaking or a public limited undertaking or a private agency whose annual turn-over during the last two years exceeded Rs. 5 Crores. Educational institutions sponsoring the candidates should be recognized by AICTE (Indian candidates only).

Note: The candidates working in Institute/University awarding PG degree itself are not eligible to apply under this category

(iii) Candidates must submit the sponsorship certificate duly signed by the Head of the Institution/Organization on the prescribed proforma (ANNEXURE-II) at the time of admission.

Note:-

- Candidates working in National and International Government/Semi Government/PSU organizations/International agencies are eligible to apply based on this Information Brochure. Remaining candidates can apply through the advertisement released by PG Admission Office in the month of March every year
- · Part-time sponsored candidates can be admitted in accordance with the prevailing ordinances/ regulations of IIT Roorkee.
- A few Indian candidates may also be admitted under QIP schemes. Early Faculty Induction Programme (EFIP) of AICTE and Defence Research & Development Organization (DRDO) Schemes. For further details about admission in these schemes, candidate should contact PG Admission Office, Indian Institute of Technology, Roorkee – 247 667.
- Admissions, studentship and related matters are governed by the IIT Roorkee ordinances/regulations framed/amended/ modified and in vogue from time to time. Accordingly, the admission for session 2025-2026 will be as per the prevailing ordinances/ regulations.

7. SPONSORSHIP/FELLOWSHIPS

[A] Fellowships for International Candidates

International candidates may apply through proper channel for the following fellowships. An advance copy of the fellowship form should be sent to the Department of Hydrology for admission processing.

(i) Government of India (GoI) Fellowships:

- a) Through GATE Examination (http://gate.iitm.ac.in/)
- b) ICCR Scholarship (Government of India) (http://iccr.gov.in)
- c) Indian Technical & Economic Cooperation (ITEC) (https://www.itecgoi.in)
- d) Study in India Portal (https://www.studyinindia.gov.in/)
- e) Indian Govt. Fellowship for ASEAN Students (http://asean.iitd.ac.in/)

The Government of India grants fellowships to foreign nationals under the Indian Technical Economic Cooperation (ITEC), Scheme of Govt. of India.

For ITEC fellowships, applications should be sent through the Indian Embassy/Legation in that country for onward transmission to IIT Roorkee. For details of ITEC fellowships, the candidate should visit the webpages of the respective schemes (www.itecgoi.in.). Applicants have to follow the online application process of the respective schemes.

(ii) WMO Fellowships:

A few fellowships may be offered by World Meteorological Organization (WMO), Geneva. The candidates are advised to check the availability of such fellowships from WMO and then apply to the course directly with IIT Roorkee. Once they have received an unconditional academic admission, the candidates should fill the WMO Fellowship Form available at https://www.wmo.int/.

The candidate should submit the Fellowship Form through the Permanent Representative of his/her country with WMO (https://public.wmo.int/en/about-us/members/permanent-representatives), to WMO Fellowship Division, Education and Training Department, World Meteorological Organization, 7 bis, Avenue de la Paix, Case Potale 2300, CH-1211, Geneva 2, Switzerland

(Tel: 004122-7308292, FAX: 004122-7308041, email:fel@wmo.int).

[B] International Candidates with other Sponsorship/ Fellowship

Eligible candidates officially nominated through various government agencies (not covered under the Fellowship section) can also be admitted provided the sponsors give an undertaking that all the expenses including the teaching fees will be borne by the sponsors for which the payment to IIT Roorkee will be remitted in advance. Such applications should come through the Indian Embassy/Legation of that country to Head, Department of Hydrology, IIT Roorkee-247667, Uttarakhand, India. IIT Roorkee will communicate the amount of advance payment to be made to this effect.

[C] GATE Qualified International Candidates

GATE qualified non-sponsored foreign nationals may apply through their Embassy in India or Indian Embassy/Legation in their country.

[D] Indian Sponsored Candidates

Candidates working in Union and State Government Departments, Semi Government/PSU Organizations are eligible to apply under this category. No fellowship or financial assistance of any sort will be provided to them by IIT Roorkee. However, these candidates may be considered for assistantship in accordance with ordinances/regulations of IIT Roorkee.

8. FEE/ESTIMATED ANNUAL EXPENSES

[A] International Candidates

I. Sponsored Students

a. ITEC/MEA sponsored students: As per ITEC/MEA norms

b. Other sponsored students:

From SAARC countries	US\$ 2000 per year	
From other countries	US\$ 4000 per year	

I. Other Students

- a. The tuition fee shall be 200% of the fee prescribed for Indian students.
- b. Fee for students admitted under the category "Study in India" program:

The following structure for fee waiver will be applicable.

Top 25%	Full fee waiver
Next 25%	50% fee waiver
Next 25%	25% fee waiver
Rest 25%	0% fee waiver

- c. As per the order of merit, the fee waiver for students who are neither sponsored nor from "Study in India" program, will be as follows:
 - i. 100% fee waiver for the students who can be considered against the vacant seats of the "Study in India" program with full fee waiver.
 - ii. 50% fee waiver (i.e. fee at par with Indian students) For the students who can be considered against the vacant seats of the "Study in India" program with 50% fee waiver. In addition to the above, for 30 students only from the countries listed here.
 - iii. 25% fee waiver for the students who can be considered against the vacant seats of the "Study in India" program with 25% fee waiver.

[B] One-time fee at the time of admission

At par with Indian students or as per the norms of the sponsoring agency, whichever is higher.

[C] Hostel Fee

 $At par with Indian students \, or \, as \, specified \, by \, the \, sponsoring \, agency, \, which ever \, is \, higher. \,$

[D] Mess related charges

At par with Indian students or as specified by the sponsoring agency, whichever is higher.

[B] Indian Sponsored Candidates

Particular	M.Tech./ M.Arch./ M.U.R.P/ M.Des. 1 st Year		M.Tech./ M.Arch./ M.U.R.P/ M.Des. 2 nd Year	
	Autumn Semester	Spring Semester	Autumn Semester	Spring Semester
I. Semester Fees (To be paid every Semester)				
1. Institute Fees				
Tuition Fees-Sponsored candidates/In-service	25,000	25,000	25,000	25,000
2. Semester charges				
(a) Student Establishment & Maintenance				
(Non-refundable)	7,000	7,000	7,000	7,000
(b) Medical Insurance	1,500	0	1,500	0
(c) Career Development Cell (CDC)	300	300	300	300
(d) Miscellaneous	2,500	2,500	2,500	2,500
Hostel Charges (Per Semester) #				
(a) Accommodation	6,000	6,000	6,000	6,000
(b) Electricity	3,000	3,000	3,000	3,000
II. One-time payments at the Time of Admission	6,000	-	-	-
III. Deposits (Refundable)				
a) Institute Caution Deposit	1,000	-	-	
b) Library Deposit	2,000	-	-	
IV. Mess Charges #				
a) Mess Advance towards Food Charges**	26,100	26,100	26,100	26,100
b) One Time Mess Admission Fee (Non-refundable)	4,000			
c) Mess Security (Refundable)	2,000			
Grand Total for Sponsored candidates In-service				
(Under Dining & Residing Cate.)	86,400	69,900	71,400	69,900
Grand Total for Sponsored candidates/In-service				
(Under Non Dining & Non-Residing Cate.)	45,300	34,800	36,300	34,800

NOTE:

- 1. *This is the minimum charge for Bachelor Hostel. For married accommodation charges will be as per actual.
- $2. \ \ ^* Mess\, Advance\, towards\, food\, charges\, is\, subject\, to\, adjustment\, as\, per\, actual.$
- 3. #These charges will not be applicable on the students to be admitted under NDNR (Non-Dining & Non-Residing) category.
- 4. In case of conversion from Dining & Residing to Non-dining & Non-residing after the fee submission than the accommodation and electricity charge will not be refundable.

9. APPLICATION SUBMISSION

Eligible candidates are advised to apply as per procedure detailed below:

9.1 International Candidates

International Candidates working in Government / Semi Government / International Agencies are eligible to apply. International Candidates may apply through proper channel through following fellowships:

(i) Government of India (GoI) Fellowships:

The Government of India grants fellowships to foreign nationals under the following schemes:

- a) Through GATE Examination (http://gate.iitm.ac.in)
- b) ICCR Scholarship (Government of India) (http://iccr.gov.in)
- c) Indian Technical & Economic Cooperation (ITEC) (https://www.itecgoi.in)
- d) Study in India Portal (https://www.studyinindia.gov.in/)
- e) Indian Govt. Fellowship for ASEAN Students (http://asean.iitd.ac.in/)

For ITEC fellowships, applications should be sent through the Indian Embassy/Legation in that country for onward transmission to IIT Roorkee. For details of Gol fellowships, the candidate should visit the webpages of the respective schemes. For online application, the candidate may visit at: www.itecgoi.in.

The application portal opens anytime during May / June every year.

(ii) WMO Fellowships:

A few fellowships may be offered by World Meteorological Organization (WMO), Geneva. The candidates are advised to check the availability of such fellowships from WMO and then apply to the course directly with IIT Roorkee using the copy of the application form given in Annexure-II of this brochure.

Completed applications should be forwarded to Head, Department of Hydrology, IIT Roorkee-247667, Uttarakhand, India [hydrology.iitr@gmail.com]. Once they have received an unconditional academic admission, the candidates should fill the WMO Fellowship Form available at https://www.wmo.int/.

The candidate should submit the Fellowship Form through the Permanent Representative of his/her country with WMO (https://public.wmo.int/en/about-us/members/permanent-representatives), to WMO Fellowship Division, Education and Training Department, World Meteorological Organization, 7 bis, Avenue de la Paix, Case Potale 2300, CH-1211, Geneva 2, Switzerland (Tel: 004122-7308292, FAX: 004122-7308041, email:fel@wmo.int).

9.2 International Candidates with other Sponsorship/ Fellowship

Eligible candidates officially nominated through various government agencies (not covered under the Fellowship section) can also be admitted provided the sponsors give an undertaking that all the expenses including the teaching fees will be borne by the sponsors for which the payment to IIT Roorkee will be remitted in advance. Such applications should come through the Indian Embassy/Legation of that country to Head, Department of Hydrology, IIT Roorkee-247667, Uttarakhand, India. IIT Roorkee will communicate the amount of advance payment to be made to this effect.

9.3 GATE Qualified International Candidates

GATE qualified non-sponsored foreign nationals may apply through their Embassy in India or Indian Embassy/ Legation in their country.

9.4 GATE Qualified Indian Candidates

The GATE qualified candidates should apply as advertised by the PG Admission Office, IIT Roorkee Candidates should apply only after declaration of the GATE results of the current year.

9.5 Indian Sponsored Candidates (Only from Government Departments)

The Indian Sponsored Candidates from Govt. Departments should apply through their employer. The candidate should apply online on the institute's M.Tech admission portal through https://iitr.ac.in/Academics/Admission%20To%20Postgraduate%20Programmes.html The filled-in online application may be downloaded and a print copy of the same should be submitted to obtain NOC from the employer. The NOC obtained from the employer along with a copy of the completed application should be posted to the Head, Department of Hydrology, IIT Roorkee-247667, Uttarakhand, India and should reach the department on or before June 16, 2025.

The following enclosures should be attached with the application form:

- (i) Two recent passport size photographs with name written at the back of the photographs.
- (ii) A Certificate of Health indicating applicant's general fitness to be issued by a physician of the Federal/Govt./ Official Health Services.
- (iii) Copies of academic transcripts giving the proof of aggregate percentage of marks/CGPA obtained. Attach attested copies in English language (translated version, if the original language is different). For M.Sc. degree holders, a certificate/mark sheet must be attached indicating the subjects offered in the B.Sc. course.
- (iv) SC/ST/OBC Certificate (to know more about authorities who may issue SC/ST/OBC Certificate as recognized by IIT Roorkee, visit our website) (applicable to Indian candidates only).

10. INSTRUCTIONS

- (i) Due to limited family accommodation, candidates are advised not to bring their families at the beginning of the course. Family accommodation may be provided as and when available as per rules.
- (ii) Selected candidates should bring with them 2 photographs, **original academic transcripts**, **authenticated English version of transcripts**, hydrological report/data, maps, charts etc. to work on seminar/ M.Tech. thesis.
- (iii) Each international student is required to register at the District Headquarter (Haridwar) within 15 days of his/her arrival in India.

11. INTERPRETATION OF IIT REGULATIONS

- (i) Dispute if any, arising out of or relating to any matters whatsoever concerning the admission and/or academic programme of P.G. Diploma/M.Tech in Hydrology, shall be subject to the exclusive jurisdiction of courts at Roorkee/ Uttarakhand State.
- (ii) In case of any dispute or difference of opinion in interpretation of IIT regulations or any other matter not covered in this brochure, the decision of the Chairman, Senate shall be final and binding.
- (iii) Not with standing anything contained in the regulations, the Chairman of the Senate may, in emergent situation, take such action on behalf of the Senate, as he deems appropriate and report it to the next meeting of the Senate for its approval.

12. OTHER ACADEMIC ACTIVITIES AND INFORMATION

The Department of Hydrology organises National/International Symposia/Conferences and tailor-made short-term courses. In the last five years, the Department has conducted more than 55 short-term programmes including international programmes. The Department also provides consulting services in the area of hydrology and water resources and has executed more than 60 such projects. Most of these were especially designed to cater to the needs of stakeholder organizations.

Department has following state-of-the-art laboratories:

Labs	
Hydrometeorological Observatory	Watershed Hydrology Lab
Computer Lab	Hydro Climx Lab
Environmental Hydrology Lab	Advanced Membrane Research Lab
Hydrological Information Systems Lab	Ecohydrology
Groundwater and Geophysical Lab	Research Scholar Lab
Aqueous Geochemistry and Nanomaterial (AquaNano) Lab	HILLTOP*

^{*}Himalayan Instrumentation Laboratory and Long-Term Hydrological Pathways

13. ABOUT ROORKEE CITY

Roorkee, a quiet city of moderate size in the district of Haridwar (Uttarakhand), is located on the banks of the Upper Ganga Canal, which originates at Haridwar. The city is located at Latitude 29° 52' N and Longitude 77° 53' E above 268 m mean sea level. It is about 30 km south of the Shivalik range of the mighty Himalayas, about 170 km to the north of Delhi and is situated on Amritsar-Howrah main railway line. Roorkee is linked by rail to many important mega cities such as Delhi, Kolkata, Chennai and Mumbai. Roorkee is also well connected by road, being located on the Delhi-Haridwar National Highway (NH 58), and on the Roorkee – Panchkula National Highway (NH 73).

The temperature ranges from 3° C to 20° C in winters (October to March) and from 25° C to 40° C in summers (April to September). The average annual rainfall is 1100 mm and bulk of it occurs from mid-June to September.

Apart from the Institute, which is situated in a 150-hectare campus, Roorkee town is an important centre of engineering activities. It has Central Building Research Institute, National Institute of Hydrology, Irrigation Research Institute, Irrigation Design Organization, Headquarters of Bengal Engineering Group & Centre along with an important army base.

14. NEAREST BUS STATION/ RAILWAY STATION/ AIRPORTS

The Institute is located only 200 m away from Roorkee Bus Station and 2.5 km from Roorkee Railway Station. The nearest international airport is Indira Gandhi International Airport, New Delhi (approx. 200 km) and domestic airport is Jolly Grant Airport, Dehradun (approx. 60 km).

CAMPUS LIFE

Life at an IIT is always great, but at IIT Roorkee, it's a special blend of modern life and traditional values. What really pumps through the veins of its lifestyle is enthusiasm. It is the enthusiasm that brings every single student to venture new grounds and talents, and the campus does not fall short in providing a platform anywhere. Be it high-tech hostels, sports, arts, coding or even cultural, technical, entrepreneurship events, an exciting level of

exposure is received by every student. This driving zeal to be so much more than just having an academic feather in the hat is what saturates the air.

For more details on student hostels, clubs, sports, Group and other facilities visit at https://iitr.ac.in/Campus%20Life/index.html

EVENTS AT IIT ROORKEE

Thomso and cognizance is the youth festival of Indian Institute of Technology Roorkee recognized as one of the greatest and the grandest youth festivals of India, encompasses in itself lavish history, splendid culture and a profoundly rich heritage of IIT Roorkee. In addition, IIT Roorkee actively celebrate Yoga day, National Social summit and various forms of student-oriented program. IIT Roorkee has active Himalayan Exploration club-the student's organization of IIT Roorkee pioneering in trekking, mountaineering and adventure sports. For more details https://www.iitr.ac.in/hec/

INTERNATIONAL RELATIONS OFFICE

From the inception of this institute in 1847, its international character is quite strong. The Institute is committed to international cooperation and has been actively involved in partnering with countries to develop initiatives in the fields of engineering, applied sciences, social science, and management education. To facilitate, assist and help inbound International students and outbound national students in all their academic pursuits, the International Relations Office plays an important role.

For further information, we request you to visit https://ir.iitr.ac.in/

PARTICIPATION IN INTERNATIONAL POST GRADUATE HYDROLOGY PROGRAMME DURING 1972–2024

(B) COUNTRYWISE PARTICIPATION

S. No.	Country	Trainees
1.	Afghanistan	18
2.	Bangladesh	32
3.	Bhutan	4
4.	China	4
5.	D.P.R. Yemen	4
6.	D.R. Congo	4
7.	Egypt	3
8.	Eritrea	1
9.	Ethiopia	23
10.	Fiji	1
11.	Ghana	3
12	Guyana	1
13.	India	732
14.	Indonesia	32
15.	Iran	14
16.	Iraq	10
17.	Jordan	1
18.	Kazakhstan	3
19.	Malaysia	2
20.	Mauritius	1
21	Malawi	1
22.	Mongolia	7
23.	Morocco	1
24.	Myanmar	14

S. No.	Country	Trainees
25.	Nepal	61
26.	Nigeria	6
27.	Pakistan	1
28.	Palestine	1
29.	Panama	1
30.	Paraguay	1
31.	P.D.R. Laos	9
32.	Philippines	16
33.	Rwanda	1
34.	Sierra Leon	2
35.	Somalia	1
36.	Sri Lanka	14
37.	Sudan	26
38.	Syria	6
39.	Tanzania	25
40.	Thailand	4
41.	Uganda	2
42.	Uzbekistan	1
43.	Vietnam	18
44.	Germany	04
45.	USA	01
46.	Poland	01
	TOTAL	1118

(B) INDIAN PARTICIPATION

S. No.	Indian State / Organization	Trainees
1.	Assam	54
2.	Andhra Pradesh	17
3.	Arunachal Pradesh	6
4.	Bihar	23
5.	CSWCRTI	2
6.	Central Water Commission	27
7.	Central Ground Water Board	12
8.	CWPRS	11
9.	Damodar Valley Corporation	7
10.	GATE Qualified	265
11.	Goa	4
12.	Gujarat	20
13.	Haryana	6
14.	Himachal Pradesh	4
15.	Jammu & Kashmir	11
16.	Karnataka	24
17.	Kerala	8
18.	Madhya Pradesh	26
19.	Maharashtra	20

S. No.	Indian State / Organization	Trainees
20.	Manipur	1
21.	Meghalaya	1
22.	Ministry of Agriculture	1
23.	Mizoram	4
24.	Municipal Corporation of Delhi /CWC New Delhi	2
25.	N.I.H., Roorkee	10
26.	NWDA	3
27.	Orissa	81
28.	Punjab	2
29.	QIP	1
30.	Rajasthan	2
31.	Tamil Nadu	2
32.	THDC	3
33.	Tripura	2
34.	Uttar Pradesh	28
35.	Uttarakhand	4
36.	West Bengal	38
	TOTAL	732

APPLICATION FORM

INTERNATIONAL POST GRADUATE DIPLOMA AND MASTER'S COURSE IN HYDROLOGY

Department of Hydrology, Indian Institute of Technology Roorkee, Roorkee https://hy.iitr.ac.in

54th Course: July, 2025 to July, 2026 (P.G. Diploma); July, 2025 to July, 2027 (M.Tech.)

An advance copy of the completed application along with academic transcripts (in English) be directly sent to the <u>Professor & Head, Department of Hydrology, Indian Institute of Technology Roorkee, Roorkee - 247 667, India</u> (email IDs: <u>hydrology@iitr.ac.in</u>) on or before June 16, 2025.

1.	Full Name:in block letters (underline surname)					
2.	Father's Name:					
3.	Mother's Name:		• • • • • • • • • • • • • • • • • • • •		Photograph	
4.	Gender (Male/Female): .		•••••			
5.	=	y may be indicated with period)				
6.	Date and Place of birth: .					
7.	Parentage (your country	of origin):	•••••			
8.	Passport details (for fore Passport number:	ign candidates only) Place of Issue: Date o	of Issue:	Date Validity:		
9.	Present address (corresp	ondence address):				
	House No. /Flat No:		Street:			
	City/Town:		Pin code:			
	State:		Country:			
	Mobile No:		Email:			
10.	Permanent/Emergency address:					
	House No. /Flat No:		Street:			
	City/Town:		Pin code:			
	State:		Country:			
	Mobile No:					

11.	Official Address:					
	Building No:			Street:		
	CitY/Town:			Pin code:		
	State:			Country:		
	Mobile No:			Email:		
12.	Dates and place of prev	vious stay in India (for Int	ernational	Applicants only):		
	•••••		•••••			•••••
13.	Occupation:			•••••		
14.	Expected duration of st	ay:				•••••
15.	Places to be visited:	•••••		•••••		
16.	Name of Indian Mission	n where visa will be appli	ied (for Int	ernational Applicant	ts only)	
	Name of Country:			Name of City:		
	Phone No.:			E-mail :		
17.	Source of funding:			•••••		
18.	Whether accompanied	by spouse/ dependent. I	If so give p	articulars:		
	Name:					
	Passport number:			Place of Issue:		
	Date of Issue:			Date Validity:		
19.	Qualifying Degree :					
20.	Maths at Graduation Le	evel (Yes/No) :				
21.	Qualifications (starting	from the highest degree	:): (Attach	photocopies of mark	k sheets & certificates)	
	College/Institute	Degree or	Year of	Division with %	Main Subject(s)	1
	Name & address	Examination passed	Passing	of marks secured		
						_
						-
		+				+
						4

	Name of Department/ Organization	Position held	Period		Details of work done	
			From	То		
23.	Preference of specialization d (Surface water/Groundwater,					
24.	Knowledge of English language (read/write/speak): (Certificate for level of proficiency attained be submitted)					
25.	Appeared in GRE or equivalen	t examination (if yes, gi	ve details):			•••••
Place						
Place: Date:				Signature of Applicant		
		SPONSORED/	NO OBJECTION (CERTIFICATE		
The u	undersigned is pleased to permi	t Mr/Ms	who is	working in thi	s organization for the last	vears
				_	s organization for the lastof for pu	-
(from) and is pres	ently holding the	rank/position	of for pu	-
(from. PG Dip	to) and is pres	ently holding the ee with specializa	rank/position ation Full time/f	of for pu	-
(from. PG Dip 1	ploam/ M.Tech. at the Departmen	t of Hydrology, IIT Roorke	ently holding the ee with specializa	rank/position ation Full time/f	of for pure a second of the following areas:	-
(from. PG Dip 1 His/he The Ir candid	oloam/ M.Tech. at the Departmen er conduct and character has been nstitution/Organization would re	and is presonant of Hydrology, IIT Roorker 2 n good. lieve her/him immediatent at the Institute as re	ently holding the e with specializa	rank/position ation Full time/I 3	of for pure a second of the following areas:	ursuing the
(from. PG Dip 1 His/he The Ir candid	ploam/ M.Tech. at the Departmen er conduct and character has beer nstitution/Organization would re date will be permitted to be pres	and is presonant of Hydrology, IIT Roorker 2 n good. lieve her/him immediatent at the Institute as re	ently holding the e with specializa	rank/position ation Full time/I 3	of	rsuing the mitted the rs and wil

Designation:

Date:



Apply Online: https://hy.iitr.ac.in Completed application in prescribed format should reach Roorkee before June 16, 2025. CORRESPONDENCE - Professor & Head Department of Hydrology,IITR Roorkee - 247 667, India

Phone: +91-1332-285236 / 284754

E-mail: hydrology@iitr.ac.in,

hydrology.iitr@gmail.com,

head@hy.iitr.ac.in

Website: http://hy.iitr.ac.in



Director: Prof. Kamal Kishore Pant Head of the Department: Prof. Sumit Sen

FACULTY

Prof. D.S.Arya	Professor	Hydroinformatics
Prof. Manoj K.Jain	Professor	Watershed Modelling & Management
Prof. Brijesh K. Yadav	Professor	Groundwater Hydrology
Prof. Sumit Sen	Professor	Watershed Modelling
Prof. Ankit Agarwal	Assistant Professor	Bigdata & Hydroinformatics
Prof. Bhaskar Jyoti Deka	Assistant Professor	Desalination & Membrane Science
Prof. Ashutosh Sharma	Assistant Professor	Hydroclimatology and Echydrology
Prof. Nitin Khandelwal	Assistant Professor	Aqueous Geochemistry & Environmental
		Nanotechnology

Experts from other Departments/Centres are also associated to deliver lectures in their areas of specialization as per requirements.

ADMINISTRATIVE PERSONNEL

Prof. U.P. Singh	Deputy Director
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Prof. D.S.Arya	Dean (Administration)
Prof. Rahul Dev Garg	Dean (Resources & Alumini Affairs)
Prof. Naveen Kumar Navani	Dean (Academic)
Prof. Akshay Dvivedi	Dean (Sponsored Research and Industrial Consultancy)
Prof. A.K. Sharma	Dean (Faculty Affairs)
Prof. Barjeev Tyagi	Dean (Student's Welfare)
Prof. V.C. Srivastava	Dean (International Relations)

Registrar

Mr. Prashant Garg