Institute of Infrastructure Technology Research And Management (IITRAM)

Ph. D. 2020-2021 (Autumn Semester) Admission Policy and Procedure

Applications are invited for (1) Regular and (2) Part-Time Ph.D. Programme from eligible candidates in disciplines of (i) Civil Engineering, (ii) Electrical Engineering, (iii) Mechanical Engineering (iv) Computer Science & Engineering (v) Humanities and Social Sciences (English, Sociology, Economics) (vi) Basic Sciences (Chemistry, Mathematics and Physics) for the academic year 2020-2021 (Autumn Semester). Regular Ph.D. Programme is offered under the category of (i) Sponsored Candidate (ii) Self-Financed Candidate and (iii) Fellowship Awardee (FA).

Descriptions of these admission categories are as below:

A. Regular Ph.D. Programme

(i). Sponsored Candidate [College/Polytechnic Teacher/Government Organization/Public Sector Unit,Only]

Candidates need to be sponsored by their employers for doing research work in the Institute. They are expected to be released for fulltime course work and research at the Institute for a minimum period of three years. This category also includes the candidates who are released from Government or educational institutions on study leave for a period not less than three years for doing research work at IITRAM. They will not receive any financial support from IITRAM. Sponsorship letter should be submitted at the time of written test and/or interview.

(ii). Self-Financed Candidate

Any candidate fulfilling the eligibility criteria for Ph.D. admissions can apply as Self-Financed candidate
These candidates have to complete their programme within the prescribed time without any financial support from IITRAM.

(iii). Fellowship Awardee (FA)

Candidates under this category are financially supported under various Govt. / Semi Govt.schemes (QIP, CSIR, UGC, DAE, DST, DBT, NBHM, etc.) and some other organizations (as per the norms of those organization).

- Minimum one semester course work at IITRAM is mandatory in first year of admission.

B. Part-Time Ph.D. Programme

College teachers working in reputed academic institutions within commutable distance from IITRAM are eligible to apply for this programme.

- The competence of these candidates will be assessed along with the regular candidates.

- Place for research will be treated as IITRAM even though candidates may be carrying out part of the work at their Institute.

- NO OBJECTION CERTIFICATE (NOC) / Sponsorship certificate from the employer must be submitted, giving an undertaking that the candidate would be relieved from the normal duties to fulfill the coursework requirements (and comprehensive examination, if applicable), along with the application in the prescribed format.

- The candidates selected under this category shall not be entitled for any financial support from IITRAM.

- The Candidates are required to fulfill the coursework requirement (and comprehensive examination, if applicable) of the Ph.D. Programme which is likely to be for a minimum of one semester.

- After fulfilling the residential requirement of course work, these candidates will be allowed to register for Ph.D. with a Supervisor from the Institute. Appointment of external co-supervisor is optional based on recommendations of the supervisor and review committee.

Prospective students satisfying the eligibility criteria are advised to acquaint themselves before applying with the research areas of the faculty members of Institute for suitable match of interest.

1. **Minimum Eligibility Criteria, for Regular and Part-Time Ph.D. Programme.**
   Candidate shall possess the following in appropriate subject areas:

- **Engineering/Technology:**
  Master's Degree in Engineering/Technology or equivalent degree, with First Class* or 60% marks (55% marks for SC/ST) and Bachelor's degree in Engineering/Technology with First class* or 60% marks (55% marks for SC/ST).

- **Basic Sciences:**
  Master's degree in Science or Engineering or equivalent degree, with First class* or 60% marks (55% marks for SC/ST) and, Bachelor's degree in Science or Engineering with First class* or 60% marks (55% marks for SC/ST)

- **Humanities, Social Sciences and Management:**
  Master's degree in Arts/Commerce or equivalent degree with 55% marks (50% for SC/ST), Bachelor's degree in Arts/Commerce with First class* or 60% marks (55% marks for SC/ST)

    *Note: *First Class as required in eligibility criteria is meeting ANY ONE of the following :*
    For general category candidates:
    1. *a minimum of 60% marks in the final academic year of the programme.*
    2. *a minimum of 60% marks in aggregate or as specified by the university (any one of them).*
    3. *a First Class as specified by the university.*
    4. *A minimum Cumulative Grade Point Average (CGPA) or Cumulative Performance Index (CPI) of 6.0 on the scale of 10; with corresponding proportional requirements when the scales are other than on 10,(for example, 4.8 on a scale of 08.)*

For candidates satisfying minimum eligibility criteria, following additional credentials (as applicable) are desirable:

(a) Valid GATE/CEED score.
(b) Junior Research Fellowship (JRF) of CSIR/UGC/NBHM/DBT or DST INSPIRE Fellowship or UGCNET Lecturership (LS).
(c) Minimum 2 years of professional experience (acquired after obtaining the qualifying post graduate degree and completed before the starting of the semester in which admission is sought).

Note:
Candidates Satisfying (a) and (b) of the desirable shall be exempted from written test conducted by IITRAM as a part of the Ph.D. admission process.

2. **Course Credit Requirements:**

Sr No	Candidate having	Range of Credit requirement	Remarks
1	M.Tech., M.Arch./MURP, MCA or M.Tech./M.Phil (Integrated/ IDD) or Equivalent Degree.	Minimum 4 theory courses with at least 10 credits from theory courses. In addition to above, 2 credits from seminar. A total of minimum 12 credits are required.	Courses From the existing M.Tech and/or pre-Ph.D. courses offered by own Dept./other Depts.
2	M.Sc./M.A./M.B.A. or equivalent admitted to Science/ HSS/ Management department	Minimum 5 theory courses with at least 14 credits from theory courses. In addition to above 2 credits from seminar. A total of minimum 16 credits are required.	Courses From the existing PG level and/or pre-Ph.D. courses offered by own Dept./ other Depts.

Note: All research scholars in Engineering & HSS have to take minimum 2 core theory subjects.

3. **Admission Procedure:**

Step I: Fill up the Application Form Online
The application form is available on the Institute website - **www.iitram.ac.in**.
Fill it up properly and submit the duly filled application form online from 25th June. 2020 to 31st July 2020 Incomplete applications will be rejected.
(***Note: There is no application fees.***)

Step II: Selection:
Admission is offered on the basis of performance in written test followed by an interview (via online mode). The syllabus for the written test is available on the Institute's website. The cut off marks for shortlisting based on written test will be 40% for GENERAL category candidates and 38% for ST/SC candidates. The Departmental Research Committee will shortlist the candidates for written test for Ph.D. admissions. Merely satisfying the eligibility criteria does not guarantee being called for test/interview (via online mode). The candidates shortlisted for the Interview (via online mode) can be asked to give a brief presentation on any topic of their research interest. Test will be conducted online.

Step III: Verification of Documents & Confirmation of Admission (Online):

The candidates will have to send self-attested and scanned documents via online as per the dates mentioned in the schedule below. The candidates shall present two sets of self-attested photocopies of all the relevant documentary evidences along with two passport size photographs (.jpeg/jpg ,2MB). The candidates will have to confirm their admission upon paying the fees as per the schedule.

4. **Important Dates:**

Particulars	Important Dates
Opening of Application Portal and submission of online application	25th June 2020 to 31st July 2020
Last date for submission of scanned Application form with all necessary enclosures	4th August 2020 (By 17:00 Hrs.)
Announcement of short-listed candidates for written test and interview	10th August 2020 (By 17:00 Hrs.)
Conduct of Written test & verification of documents followed by Interview(via online mode)	Dates will be announced later
Display of result	
Payment of Fees	
Commencement of Term	

Disclaimer: Dates may change subject to the prevailing COVID-19 situation.

5. **Fees Structure:**

The candidates who have been offered admission shall have to pay the fees as shown below:

Semester Fees:	
☐ Tuition Fees for Sponsored candidates / Self-Financed candidates	Rs.35,000/-
☐ Tuition Fees for Fellowship Awardee candidates	Rs.20,000/-
☐ Tuition Fees for Sponsored SC/ST/SEBC candidates or Self- Financed candidates of SC/ST/SEBC	Rs.30,000/-
☐ Hostel Fees	Rs.6000/-
☐ Mess Fees # (For Breakfast, Lunch, Dinner and Snacks) (Rs. 143/- per day as of now)	Rs.19,734/-
☐ Stationery Fees	Rs.1000/-
Yearly Fees:	
☐ Insurance Charges (approx.)	Rs. 2000/-
One Time Fees:	
☐ Institute Caution of Money (Refundable)*	Rs.1500/-
☐ Hostel Caution Money (Refundable)**	Rs.5000/-
☐ Mess Caution Money (Refundable)***	Rs.4000/-

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 # Adjusted at end of Semester
*Refundable at end of Programme
**Refundable at end of Hostel Stay
*** Refundable at end of Hostel stay

Students not staying in the Hostel and not availing the mess facility are exempted from the payment of Hostel and mess related fees. The above Fees have to be paid through NEFT/RTGS (Other details shall be provided with admission confirmation mail). The fee is subject to revision from time to time.
No request for the fees refund shall be entertained.

6. **Hostel and Mess Facilities:**

The Hostel and Mess related fees are applicable to those candidates only who have been offered admission to IITRAM and are keen to avail the Hostel and Mess Facilities. Such candidates should apply for the admission to Hostel and mess at time of physical verification of documents at IITRAM Campus. All the Hostel and Mess rules will be applicable to the candidates availing these facilities.

7 . **Condition Precedent:**

The above policy and procedure is subject to modification. If a dispute arises regarding any of the above provisions, the decision of the Competent Authority of the Institute shall be final and binding to all and subject to Ahmedabad jurisdiction only.

8. List of Potential Supervisor 2020-2021 for Autumn Semester

Sr. No	Department	Name	Research Areas
1	Civil Engineering	Dr.Kannan Iyer	Geotechnical / Geoenvironmental Engineering, Sustainable Materials
2	Civil Engineering	Dr. Himanshu Sharma	Hydrology, Hydraulic Engineering
3	Civil Engineering	Dr.Manoj Langhi	Water Resources Engineering
4	Civil Engineering	Dr.Veerabhadrappa M. Rotte	Physical Modelling in Geotechnical Engineering, Reinforced Earth, Ground Improvement Techniques
5	Civil Engineering	Dr.Jaidevi Jeyaraman	urban heat island, air pollution
6	Civil Engineering	Dr.Mahesh Mungule	Structural engineering, sustainable construction materials, Ultra high strength concrete
7	Civil Engineering	Dr.Mamta Sharma	Static and Dynamic Stability Analysis of Concrete Compression Members and Walls
8	Civil Engineering	Dr.Yogesh Shah	Pavement Engineering
9	Civil Engineering	Dr.Trudeep N Dave	Geotechnical Engineering (Ground Improvement, Geosynthetics applications, Pavement Geotechnics), Sustainable Materials

10	Civil Engineering	Dr.Jiten Shah	Transportation Engineering: Traffic flow modelling, Non-motorised transportation
11	Electrical Engineering	Dr Dipankar Deb	Control Systems (Artificial Pancreas, Aircraft Flight Control, Aero Robotics); Renewable Energy (Wind, Solar, Fuel Cells, Biomass); Machine Learning
12	Electrical Engineering	Dr.Manish Sharma	Machine learning, Signal Processing, Communication, Biomedical, AI and Big data, IoT
13	Electrical Engineering	Dr.Abhishek Rawat	Navigation Systems, Communication Systems, Antenna Design, Cognitive Robotics
14	Electrical Engineering	Dr.Krupa Shah	Electrical Machines
15	Electrical Engineering	Dr.Axaykumar Mehta	Control and Communication in Power Systems, Microgrid/Smartgrid, Ariel Robotics, Wireless Networked Control System, Multi-Agent Systems
16	Electrical Engineering	Dr.Dharmendra Sadhwani	Wireless Communication, Performance Analysis of Communication Systems
17	Electrical Engineering	Dr.Raghavendra Bhalerao	Applications of ML for Image Processing and Computer Vision
18	Electrical Engineering	Dr.Priyesh Chauhan	Applications of power electronics in microgrids, renewable generation & integration, battery storage integration, and remote area power systems
19	Electrical Engineering	Dr.Kshitij Bhargava	Design and Analysis of High Efficeincy Environment Friendly Perovskite Solar Cells, Modelling of Zinc Oxide based Thin Film Photosensitive Transistors

20	Mechanical Engineering	Dr.Bhingole Pramod P.	Material science and engineering, composite materials
21	Mechanical Engineering	Dr.Navneet Khanna	Sustainable Manufacturing, Additive and Subtractive processes for difficult-to-machine Materials
22	Mechanical Engineering	Dr.Ajit Kumar Parwani	Thermal engineering, Renewable technologies
23	Mechanical Engineering	Dr.Mithilesh K. Dikshit	Conventional and non-conventional Machining, Additive Manufacturing, Nanocomposites
24	Mechanical Engineering	Dr.PL. Ramkumar	Polymers and Composites, CAD/CAM, Material Processing and Characterization
25	Mechanical Engineering	Dr.Kumar Abhishek	polymer composite, conventional machining and non conventional machining, welding
26	Mechanical Engineering	Dr.Sumit Tripathi	Experimental Fluid Dynamics, Rheology of Complex Fluids, Interface Science and Engineering
27	Computer Science & Engineering	Dr Manish Chaturvedi	Communication networks, Scalable protocol design, Internet of Things, Design of Intelligent Transportation Systems
28	Computer Science & Engineering	Dr.Ramnarayan Yadav	Design and Analysis of Distributed algorithms in Computer Networks, Edge Computing, Dynamic spectrum access, Internet of Things
29	Chemistry	Dr.Mahuya Bandyopadhyay	Materials Chemistry & Heterogeneous Catalysis

30	Chemistry	Dr.Sourav Das	Coordination Chemistry, Molecular Magnetism
31	Economics	Dr.Pravin Jadhav	Infrastructure Management, International Business, Macroeconomics
32	English Literature	Dr.Meera Vasani	Diaspora, Eco-criticism, Feminism, Indigeneous Literature
33	Mathematics	Dr.Sudhakar Chaudhary	Finite Element Methods , Partial differential equations
34	Mathematics	Dr.Prakash A. Dabhi	Banach algebras and Harmonic Analysis on weighted (semi)groups
35	Mathematics	Dr.Manoj Choudhuri	Dynamics on Lie groups and homogeneous spaces of Lie groups and its connections to number theory
36	Mathematics	Dr.Mohit Kumar	Fuzzy set theory and it's applications in reliability analysis, optimization, statistics and multi-criteria decision-making
37	Physics	Dr.Dheeraj Kumar Singh	Spectroscopy and DFT Calculations on Advance Materials, Functional Nanomaterials, Renewable Energy (DSSC and Pervoskyte Solar Cell)
38	Physics	Dr.Brajesh Tiwari	Magnetic Materials
39	Sociology	Dr.Shukkoor. T	Sociology of Health and Illness Sociology of Development, Urban Sociology, Sociology of Profession