INFORMATION BROCHURE

For Admission to Ph.D. Programme: Full-Time & Part-Time

July 2025 Session

NATIONAL INSTITUTE OF TECHNOLOGY
TIRUCHIRAPPALLI – 620 015

www.nitt.edu

1. IMPORTANT INFORMATION

Applications are invited for admission to the Ph.D. Programme in the following categories:

(a) Full-Time:

(i) Half-time Research Assistantship (HTRA)

(ii) Externally Funded

(iii) Non-Stipendiary

(b) Part-Time: In-Service

(i) Internal and

(ii) External

for the session starting July 2025 in all disciplines of Engineering & Architecture, Sciences (Mathematics, Physics, Chemistry), Computer Applications, Management, and Humanities & Social Sciences.

Admission to the applicants in the reserved category will be made as per the notifications of the Government of India.

Applicants must apply through the online portal

https://nittadm.samarth.edu.in only.

Applicants are advised to read this Information Brochure carefully before applying online.

Educational qualifications (basic eligibility criteria) for Ph.D. Admission

1. **LATERAL (REGULAR) APPLICANTS:** Applicants with masters' degrees (including those currently in their final semester and expecting degrees awarded in 2025) (i) in the GEN / GEN-EWS / OBC-NCL category must possess 60% or above aggregate marks (equivalently, CGPA at least 6.5/10), and (ii) in the SC / ST / PwD category must possess 55% aggregate or above aggregate marks (equivalently, CGPA at least 6.0/10.0), in both UG and PG degrees for admission to the Ph.D. program. In addition, a qualified GATE or an equivalent National level test score obtained at some point of time in the past is mandatory for HTRA category of Architecture, Sciences (Mathematics, Physics, Chemistry), Computer Applications, Management, and Humanities & Social Sciences disciplines. However, GATE / equivalent National level test score is not mandatory for the HTRA category of Engineering disciplines alone with an M.Tech. degree (National Level Ph.D. entrance test will be conducted at NIT, Tiruchirappalli, as an alternative to the mandatory GATE score criterion for Academic Year 2025-26 for HTRA candidates in Engineering Disciplines for LATERAL (REGULAR) APPLICANTS alone).

   GATE / equivalent National level test score is not mandatory for non-stipendiary, project and Part-Time (Internal and External) category of all disciplines. However, such candidates have to appear for National Level Ph.D. entrance test to be conducted at NIT, Tiruchirappalli.

2. **DIRECT APPLICANTS:**

(A). Applicants currently in their final semester of their B.E. / B.Tech. or B.Arch. (2021-2025 batch only) degree programme are expected to get their bachelors' degrees awarded in 2025 (i) in the GEN/GEN-EWS/OBC-NCL category must possess 80% or above aggregate marks (equivalently, CGPA at least 8.5/10), and (ii) in the SC / ST / PwD category must possess 75% aggregate or above aggregate marks (equivalently, CGPA at least 8.0/10.0), in UG degrees for admission to the Ph.D. program (all exams cleared in first attempt without any arrears / backlogs). In addition, a valid GATE, or an equivalent National level test, score is mandatory. These applicants are eligible for Full-Time HTRA category in the Engineering and Architecture departments only. Selected candidates will be joining a two-degree M.Tech. / M.Arch. + Ph.D. programme in Engineering / Architecture.

(B). *Part-Time External In-Service (B.E. / B.Tech.):* Candidates holding regular positions as Scientist / Engineer / Manager, who possess a B.E. / B.Tech. degree and have a minimum of 10 years of experience in Industry / R&D organizations. Candidates must be employed in Government / Quasi-Government organizations, Public Sector Units, and National Research Laboratories with well-established R&D facilities. Additionally, at least 7 out of the 10 years of experience must have been acquired after the completion of the B.E. or B.Tech. degree. GATE qualification is not mandatory
(i) in the GEN / GEN-EWS / OBC-NCL category must possess 60% or above aggregate marks (equivalently, CGPA at least 6.5/10), and (ii) in the SC / ST / PwD category must possess 55% aggregate or above aggregate marks (equivalently, CGPA at least 6.0/10.0), in both B.E. / B.Tech degree for admission to the Ph.D.

3. **INTEGRATED APPLICANTS:** This channel is meant for exceptionally outperforming applicants admitted through CCMT and currently completing their 1st year (2024-2026 batch only) master program (M.Tech. / M.Arch.) of the institute (NIT, Tiruchirappalli only) with a minimum CGPA of 8.5 upto 2nd semester (i.e. CGPA ≥8.5 and with no course having grade less than C) along with B.E. / B.Tech. (4 year) / B.Arch. (5 years) degree. At the UG level, if the applicant is

(i) in the GEN / GEN-EWS / OBC-NCL category, he/she must possess 60% or above aggregate marks (equivalently, CGPA at least 6.5/10) and

(ii) in the SC / ST / PwD category, he/she must possess 55% aggregate or above aggregate marks (equivalently, CGPA at least 6.0/10.0) for admission to the Ph.D. program. Selected candidates will be joining a two-degree M.Tech./ M.Arch. + Ph.D. programme in Engineering / Architecture

General instructions for Ph.D. admission

1. Selection of candidates will be based on an initial screening of the applications, a written test and the performance in the interview to be conducted offline for this session of admission for all categories. Only the shortlisted applicants shall be notified on the Institute's website at every stage.
2. Mere fulfilling of eligibility requirements does not ensure shortlisting for the written test and interview/counseling. Institute reserves the right to restrict the number of candidates to be called for the written test / interview. Depending on the number of applications received, the Institute / Department(s) may set the criteria higher than the minimum eligibility requirements for shortlisting applicants for offline/online written test / interview / counseling process.
3. Mere appearing in the written test / interview / ~~counseling~~ process does not guarantee final selection. It is the candidate's sole responsibility to be present in the written test / interview on the scheduled date and time. Institute shall not entertain any request for waiver/change of schedule under any circumstances.
4. Admission shall be offered subject to the availability of seats with institute fellowships, fellowships from other funding sources and sponsored & consultancy projects, faculty members in the respective specializations, and other administrative procedures.
5. The admission shall be purely provisional subject to the confirmation that the prescribed eligibility conditions to be satisfied by the candidates, including verification of original qualifying degree certificates and other related documents.
6. A limited hostel accommodation is available.
7. **Applicants MUST upload the following scanned documents while submitting the Ph.D. Application.**
    - 10^{th} and 12^{th} Marks Sheet.
    - Passport-size photograph.
    - Signature of the applicant.
    - Transfer Certificate / Migration certificate
    - UG mark sheet of the last semester / Consolidated mark-sheet of the qualifying degree. Applicants awaiting the final result must upload all their previous semesters' mark-sheets.
    - PG Mark-sheet of the last semester / Consolidated mark-sheet of the qualifying degree. Applicants awaiting the final result must upload all their previous semesters' mark-sheets.
    - Category Certificate (OBC-NCL/SC/ST), if applicable. An affidavit can be uploaded for having applied in case the certificate is not yet received.
    - Applicants from Economically Weaker Section (GEN-EWS) need to submit EWS certificate issued by the Competent Authority in the prescribed format, if applicable.
    - PwD Certificate, if applicable.

Supporting documents to be uploaded:

Full-time: Proof of Research publications (if any), research proposal (if any), and statement of Purpose (SoP) can be uploaded as a single PDF file.

Part-time: NOC, Sponsorship certificate, Certificate from the External Research Co-Supervisor / Research Coordinator, Proof of Research publications and statement of Purpose (SoP) / research proposal (if any), as a single file.

If a sponsorship Certificate is not available, then attach a Self-declaration letter stating that the sponsorship certificate will be given at the time of Interview / Admission).

8. Apart from the above-listed documents, If the Institute requires any additional information / clarification, the applicant should provide it by e-mail.
9. The Institute shall not be responsible for wrong entries and technical error(s) while making the online application/payment of the fees.
10. Reservation for GEN-EWS / OBC-NCL / SC / ST / PwD Categories: The Institute follows the reservation policies of the MoE, Govt. of India. Certificates for GEN-EWS / OBC-NCL / SC / ST / PwD will be as per Govt. of India Rules. For OBC-NCL category, the format for certificates must be as per DoPT OM No.36036/2/2013-Estt (Res) dated 30.05.2014 and for EWS category, the format for certificates must be as per DoPT OM No.36039/1/2019-Estt (Res) dated 31.01.2019. OBC-NCL / GEN-EWS certificate must be issued on or after **April 1, 2025**.
11. If selected, all the original documents will be verified during physical reporting for admission. If anything is found wrong, the applicant's admission shall stand cancelled. Fellowships / Stipends to the full-time students shall be paid post physical verification of the documents.
12. Applicants are advised to visit regularly the Institute's website (https://www.nitt.edu) for all updates about subsequent amendments in the advertisement and results. The Institute will make no correspondence in any form in this regard with an individual applicant.

While filling in the online application, attention must be paid to the following:

13. Applicants are requested to apply online only. A hard copy of the application needs to be submitted by part-time internal applicants only. More details are in later pages.
14. Applicants must fill/enter their CGPA or percentage of marks as issued by their institute/university (do not enter equivalent CGPA or percentage of marks).
15. Online application submitted by the applicants shall be considered final and binding.
16. Requests for making corrections in the online application shall not be entertained once the final submission is made.
17. Additional instructions to the applicants with Integrated B.Tech.–M.Tech.

    Applicants with Dual Degrees are advised to fill up the 'Academic Qualification' option in the online application format as follows:

    a. **Graduate degree:** Fill up the CGPA / % Marks up to 8th Semester (year of passing: 8th Semester Examination year).

b. **Post Graduate degree:** Fill up the CGPA / % Marks of the 7th to 10th Semester (year of passing: 10th Semester Examination year).

18. An applicant fulfilling minimum eligibility criteria can choose up to 3 departments he/she is eligible.
19. Each application must accompany an application fee of **Rs. 1000**/- per department for GEN/GEN-EWS/OBC-NCL applicants and **Rs. 500**/- per department for SC/ST/PwD applicants. Applications to more than one department shall be considered only upon payment of the requisite fees for each department. **The application fee is non-refundable**.
20. The fee payment (one or more departments) should be made before the last date i.e. **23rd May, 2025 (11:59 PM)**.

2. IMPORTANT DATES

Start of Online Application (Website Open)	**29th April 2025 (10:00 AM)**
Last date for submission of Online Application (Website Closure)	**23rd May 2025 (11:59 PM)**
***Tentative Schedule for Written Test / Interview**	**17th to 19th June 2025**

* The candidate needs to check the NIT, Tiruchirappalli website for the actual date of the Written Test / Interview and any other updates.

3. Ph.D. ADMISSION CATEGORIES & REQUIREMENTS

This call for admissions to the Ph.D. programme of the Institute is meant for the following categories

3.1 Full-time Research Scholar:

a. Half-time Research Assistantship (HTRA) Scholars #

Applicants selected for admission under HTRA category in the Architecture, Engineering, Management Studies & Science departments with valid GATE scores are also eligible to apply for the Prime Minister's Research Fellowship (PMRF)*(After the receipt of guidelines). More details at https://pmrf.in

b. Externally Funded Research Scholars

i. Fellowships for UGC / CSIR / DST / DAE / NBHM etc.
ii. Sponsored Research and Consultancy Projects with individual departments / faculty.

c. Non-Stipendiary

3.2 Part-time Research Scholar:

a. In-Service Internal Research Scholar (The employees of the Institute i.e., NIT, Tiruchirappalli)
b. In-Service External (Industry / organization with R&D facility) and External (On campus) Research Scholar
c. Part-Time External In-Service (B.E. / B.Tech.) (Industry / organization with R&D facility)

3.3. Admission Process

Selection of applicants for admission in all the categories mentioned in Sections 3.1 & 3.2 will be based on an initial screening followed by their performance in the written test and interview / counselling to be conducted offline for this session of admissions. More details about each category are as follows:

3.4. For the category 3.1.a, Full-Time HTRA

The number of seats under this category in various departments, is as per the following seat distribution matrix stipulated by the Ministry of Education (MoE). Candidates selected under this category will be called as either **LATERAL** (those already possessing masters' degrees), or **DIRECT** (those who have just completed their B.E. / B.Tech. / B.Arch.) or **INTEGRATED** (those who are currently completing their 1st year master program (M.Tech. / M.Arch.) of the institute (NIT-T only)). All LATERAL, DIRECT and INTEGRATED candidates are admitted through the same process-screening, written test and interview, and they compete for admission equally.

Please also refer to Educational qualifications (basic eligibility criteria) for Ph.D. Admission in Pages 3 and 4.

All the 17 departments of the institute admit candidates in this category, and selected candidates are eligible to receive the HTRA. It is mandatory that the recipients assist the department with academic work assigned by the Head of the Department and/or Research guide for at least 8 hours per week as per guidelines issued by the MoE; this is in addition to satisfying other conditions for the award / renewal / enhancement of the fellowship. The award and renewal of the Assistantship is as per the guidelines prescribed by the Ministry of Education from time to time. At present, the fellowship is payable for a maximum duration of 5 years or up to the thesis submission, whichever is earlier. The monthly fellowship / assistantship is Rs. 37,000/- for the first 2 years and it will be enhanced to Rs. 42,000/- for the remaining 3 years' period, subject to the performance evaluation of the Doctoral Committee. Both LATERAL and DIRECT candidates with valid GATE score are eligible for the Prime Minister's Research Fellowship (PMRF)*(After the receipt of guidelines). More details at https://pmrf.in.

TENTATIVE SEAT VACANCY MATRIX – July 2025												
S. No.	**Departments**	**GEN**	**GEN-PwD**	**GEN-EWS**	**GEN-EWS-PwD**	**OBC-NCL**	**OBC-NCL-PwD**	**SC**	**SC-PwD**	**ST**	**ST-PwD**	**Total**
1.	Architecture	3	-	-	1	2	-	1	-	1	-	8
2.	Chemical Engineering	4	-	1	-	1	1	1	-	-	-	8
3.	Chemistry	1	-	1	-	2	-	1	-	1	-	6
4.	Civil Engineering	6	-	1	-	3	-	2	-	1	-	13
5.	Computer Applications	4	-	-	-	3	-	1	-	-	-	8
6.	Computer Science and Engineering	4	-	1	-	2	-	2	-	1	-	10
7.	Electrical and Electronics Engineering	4	-	1	-	3	-	2	-	1	-	11
8.	Electronics and Communication Engineering	5	-	2	-	4	-	1	-	1	-	13
9.	Energy and Environment	1	-	-	-	1	-	1	-	-	-	3

10.	Humanities and Social Sciences	3	-	-	-	1	-	-	-	1	-	5
11.	Instrumentation and Control Engineering	2	-	1	-	2	-	2	-	-	-	7
12.	Management Studies	2	1	1	-	1	-	1	-	1	-	7
13.	Mathematics	3	-	1	-	2	1	1	-	-	-	8
14.	Mechanical Engineering	4	1	2	-	3	-	2	-	1	-	13
15.	Metallurgical and Materials Engineering	3	-	-	-	3	-	-	1	1	-	8
16.	Physics	3	1	1	-	1	-	1	-	-	-	7
17.	Production Engineering	4	-	1	-	3	-	2	-	-	1	11
	Total	**56**	**3**	**14**	**1**	**37**	**2**	**21**	**1**	**10**	**1**	**146**

Reservation: Government of India reservation policy will be followed for GEN-EWS / OBC- NCL / SC / ST and the Persons with Disabilities (PwD) candidates.

The category tags of candidates who are eligible for various Allotted Category are as shown in the table below:

Allotted Category	**Actual Category tag(s) of eligible candidates**
GEN	GEN, GEN-EWS, OBC-NCL, SC, ST, GEN-PwD, GEN-EWS-PwD, OBC-NCL-PwD, SC-PwD, ST-PwD
GEN-EWS	GEN-EWS, GEN-EWS-PwD
OBC-NCL	OBC-NCL, OBC-NCL-PwD
SC	SC, SC-PwD
ST	ST, ST-PwD
GEN-PWD	GEN-PwD, GEN-EWS-PwD, OBC-NCL-PwD, SC-PwD, ST-PwD
GEN-EWS-PwD	GEN-EWS-PwD
OBC-NCL-PwD	OBC-NCL-PwD
SC-PwD	SC-PwD
ST-PwD	ST-PwD

In addition to the 146 Full-time HTRA fellowships, 5 Full-Time fellowships are available under the **Visvesvaraya Ph.D. Scheme for Electronics and IT: Phase-II**:

The five fellowships are available in the following departments:

Department		**Number of fellowships**
Electronics and Communication Engineering	:	2
Computer Science and Engineering	:	1
Instrumentation and Control Engineering	:	1
Computer Applications	:	1

Salient features of the **Visvesvaraya Ph.D. Scheme** (Full-Time Ph.D. Candidates):

i. Full-Time fellowship @ Rs.38,750/- per month in 1st and 2nd years, and Rs.43,750/- per month in 3rd, 4th and 5th years of Ph.D. Candidate.

ii. Reimbursement of Rent (RoR) who are not provided hostel accommodation, 16% of the fellowship amount.

iii. Research Contingency grant @ Rs. 1.20 Lakhs / Year / Ph.D. candidate

iv. One-Time International Conference Support @ Rs. 1.5 Lakhs / Ph.D. candidate

The areas of research stipulated for the scheme are:

i. Electronic System Design & Manufacturing (ESDM)

ii. Information Technology (IT)

iii. IT Enabled Services (ITES)

Candidates admitted under the Visvesvaraya Ph.D. scheme will also be governed by the guidelines issued by the Ministry of Electronics and IT (MEITY), Govt. of India. For more details regarding the Visvesvaraya Ph.D. scheme, interested candidates may explore the webpage: https://phd.digitalindiacorporation.in/

3.5 For the category 3.1.b, Full-Time Externally-funded research scholars

Under this category, admission is offered to those applicants with Masters' degrees:

- Having their own fellowships from funding agencies such as DST, CSIR, UGC, NBHM, etc., relevant to the research fields of the concerned departments. The number of seats is limited and may vary from time to time based on selection and administrative procedures.
- Project Assistants / Associates / JRFs etc., working in sponsored research and consultancy projects under the faculty of NIT-T. The number of seats is limited and may vary from time to time based on availability of projects/grants with the departments/faculty.

3.6 Non-Stipendiary: A very small number (decided from time to time) of seats on completely self-finance basis, for exceptionally good students possessing relevant masters' degrees, may be available in the departments of Mathematics, Physics, Chemistry and Humanities & Social sciences. There is no financial assistance available for these candidates. GATE / equivalent National level test score is preferred though it is not mandatory for these candidates.

3.7 For the category 3.2.a, Part-Time Internal (staff) In-Service research scholars

A limited number of seats are allotted for the employees of the Institute, subject to the approval by the competent authority. Applicants for this category must submit a hard copy of the completed online application through proper channel. However, the selection procedure remains the same, i.e., screening of the application as per the norms mentioned above, followed by performance in the written test and interview.

3.8 For the category 3.2.b, Part-Time External In-Service research scholars

A limited number of seats are available in all the 17 departments for the working professionals, with masters' degrees, from Govt. R&D Organizations / Public sector / Industries / National Research laboratories.

Part-Time External (Industry / organization with R&D facility): A limited number of seats are available in all the 17 departments for professionals with masters' degrees, from Government and quasi-government R&D Organizations / Public sector having R&D facilities / National Research laboratories / Reputed industries / organizations (private sector / MNCs) having well-established R&D facilities. Applicants in this category must be working in establishments equipped with necessary research and library facilities only shall be considered for admission under this category.

A committee appointed by the Director (consisting of Dean (Academic) or his nominee, Dean (R&C) or his nominee and Head of the Department) shall assess the adequacy of these facilities before recognizing the organization for the above purpose. However, the applicants must be officially sponsored by their employing organization. The candidate should have at least 3 years' experience in a regular/permanent position at the time of application. The industries / organization must have at least 5 years of its existence for patronizing candidates to part-time Ph.D. program.

The minimum residential requirement for candidates under Part-time (External-Industry / organization with R&D facility) category for undertaking course work is as follows,

a. The residential requirements is waived,
b. The scholar shall report to the research supervisor / DC at least on three different occasions in every semester for official discussions and
c. The scholar's visits to the department may be scheduled during summer / winter vacations, but only on institute working days.

Applicants to the external registration programme must provide detailed information about the research facilities available at his/her organization and a certificate from the employer that these would be available to him/her for carrying out research (Form-1). He/she should also provide the bio-data of the prospective External Co-Supervisor or Research Coordinator working in regular position who would coordinate the candidate's work at his/her organization with the principal supervisor at NIT, Tiruchirappalli (Form- 2).

Part-Time External (On Campus) category 3.2.b is also available for faculty members and professionals working in India with masters' degrees from Govt./Govt. Aided / Reputed Private Engineering Colleges / Science and Arts Colleges / Universities / Industry / Public Sector. Regular/Full-time teachers / employees working in these institutions will be considered for admission under this category. At the time of admission, the candidate must submit a "no objection" certificate (Form-3) and also a "relieving certificate" from the Parent institute / organization to relieve him/her to complete his/her residential requirement of one semester(minimum) to complete the mandatory course work. The candidate should have at least 3 years' experience in a regular/permanent position at the time of application. The college / organization must have 5 years of its existence for patronizing candidates to part-time Ph.D. program.

For the category 3.2.c, Part-Time External In-Service (B.E. / B.Tech.) (Industry / organization with R&D facility)

A limited number of seats are available in all the 17 departments for professionals with B.E. /B.Tech degree and have a minimum of 10 years of experience in Industry / R&D organizations having well-established R&D facilities. Applicants in this category must

be working in establishments equipped with necessary research facilities only shall be considered for admission under this category. For this category, candidates must be employed in Government / Quasi-Government organizations, Public Sector Units, and National Research Laboratories with well-established R&D facilities. Additionally, at least 7 out of the 10 years of experience must have been acquired after the completion of the B.E. or B.Tech. degree. GATE qualification is not mandatory.

3.2 a, b and c, i.e., Part-Time Internal, Part-Time External and Direct Ph.D.-Part-Time External In-Service programmes are completely self-financed. There is no stipend / fellowship for the candidates selected under categories.

4. ADDITIONAL ELIGIBILITY CRITERIA

In addition to the basic eligibility criteria described on page 3, the following are considered by various departments. Applicants may apply to more than one department based on these additional criteria.

S. No.	Department	Programme	Ph. D. Eligibility
1.	Architecture	**UG**	B. Arch. in Architecture / Interior Design; B. Plan.
		PG	Architecture; Housing; Design; Landscape Architecture; Environmental Planning; Industrial Area Planning and Management; Infrastructure Planning; Planning; Architecture Conservation; Theory & Design; Town Planning; Urban and Regional Planning; Urban design; Urban planning; Urban Transport Planning and Management; City Planning; Building Technology; Building Engineering and Management; Energy Efficient and Sustainable Architecture; Sustainable Architecture; Real Estate; Interior Design; Construction Management with a qualified GATE score
2.	Chemical Engineering (with M.E. / M.Tech. / MS (By Research))	**UG**	B.E. / B.Tech. in Engineering / Technology
			M.Sc. degree with specializations including Industrial Chemistry, Advanced Biochemistry, Environmental Management, Instrumentation Technology, Instrumentation and Applied Physics, Environmental Science, Biotechnology, Nano Technology, Material Science, Applied Chemistry, Applied Physics, Industrial Biotechnology, Polymer Science, Applied Electronics.
		PG	M.E. / M.Tech. / MS (By research) / other appropriate relevant degrees in Chemical Engineering; Biochemical Engineering; Biotechnology; Bioprocess Engineering; Petroleum Engineering; Petrochemical; Polymer engineering; Nano Technology; Ceramics Engineering; Chemical Reaction Engineering; Computer aided design; Pharmaceutical Biotechnology; Food Processing Technology; Industrial Safety Engineering; Industrial Pollution Control; Thermal Power Engineering; Material Science and Technology; Wastewater Management; Health and Safety Engineering; Environmental Engineering; Energy and Environmental Engineering; Process Control, Electronics and Instrumentation; Industrial Biotechnology; Instrumentation Engineering; Process Control and Instrumentation; Control and Instrumentation; Applied Instrumentation; Metallurgical Engineering; Process Instrumentation, Artificial intelligence; Computer Applications; Data Sciences or any other appropriate/relevant specialization.

	Chemical Engineering (with M.Sc.)	**PG**	1. M.Sc. degree in Industrial Chemistry; Advanced Biochemistry; Environmental Management; Instrumentation Technology; Instrumentation and Applied Physics; Environmental Science; Biotechnology; Nano Technology; Material Science; Applied Chemistry; Applied Physics; Industrial Biotechnology; Polymer Science; Applied Electronics with a qualified GATE Score / Joint CSIR – UGC NET (Assistant Professor / Admission to Ph.D. only) 2. Applicants having their own fellowships from Joint CSIR – UGC NET JRF / INSPIRE / etc., can apply for Ph.D. in the department relevant to the research grant.
3.	Chemistry	**UG**	-
		PG	1. Master degree in Chemistry / Applied Chemistry / Organic Chemistry / Inorganic Chemistry / Analytical Chemistry / Physical Chemistry with a qualified GATE Score / Joint CSIR – UGC NET (Assistant Professor / Admission to Ph.D. only) 2. Applicants having their own fellowships from Joint CSIR – UGC NET JRF / INSPIRE / etc., can apply for Ph.D. in the department relevant to the research grant.
4.	Civil Engineering	**UG**	Civil and Environmental Engineering; Civil and infrastructure Engineering; Civil and Rural Engineering; Civil and Water Management Engineering; Civil Engineering; Civil Engineering (Construction Technology); Civil Engineering (Environmental Engineering); Civil Engineering and Planning; Civil Engineering Environment and Pollution Control; Civil Engineering with Computer Application; Civil Environmental Engineering Civil Technology
		PG	For Full-time HTRA: specializations (i) to (iv) only For Part-time: specializations (i) to (vii) Post Graduate Degree in Engineering and Technology (i) **Construction Technology and Management:** Building Construction Technology; Civil (Construction Engineering and Management); Civil Engineering (Construction Technology); Construction and Project Management; Construction Engineering; Construction Engineering and Management; Construction Management; Construction Planning and Management; Construction Project Management; Construction Technology; Construction Technology and Management; Logistics & Supply Chain Management; Infrastructure Management; Infrastructure Engineering and Management; Quality Engineering and Management (ii) **Geotechnical Engineering:** Foundation Engineering; Geomechanics and Structures; Geotechnical and Geo-environmental Energy; Geotechnical Earthquake Engineering; Geotechnical Engineering; Geotechnology; Soil and Water Conservation Engineering; Soil Mechanics; Soil Mechanics and Foundation Engineering

			(iii)	**Transportation Engineering and Management:** Highway Engineering; Highway Technology; Town and Country Planning; Traffic and Transporting Engineering; Transport Science and Technology; Transportation Engineering; Transportation Engineering and Management; Transportation System Engineering; Urban Engineering; Transport Planning and Management; Transportation Planning; Urban Planning
			(iv)	**Water Resources Engineering:** Civil Engineering (Water Management); Civil (Water Resource Engineering); Hydraulics and Flood Control; Hydraulics Engineering; Hydrology and Water Resources Engineering; Irrigation and Drainage Engineering; Irrigation Engineering; Irrigation Water Management; Water Engineering and Management; Water Resource Engineering; Water Resource Management; Water Resources and Hydraulic Engineering; Water Resources and Hydroinformatics, Ocean Technology
			(v)	**Environmental Engineering:** Civil (Public Health and Environment) Engineering, Civil and Environmental Technology; Civil Engineering (Environmental and Pollution Control); Civil Engineering (Environmental Engineering); Civil Environmental Engineering; Environment and Water Resource Engineering; Environment Engineering; Environmental Biotechnology; Environmental Engineering; Environmental Engineering and Management; Environmental Management; Environmental Science and Engineering; Environmental Science and Technology; Waste Water Management, Health and Safety Engineering; Water and Environmental Technology; Water Resources and Environmental Engineering
			(vi)	**Remote Sensing:** Geo Informatics; Geo Informatics and Surveying Technology; Geoinformatics and Earth Observation; Remote Sensing; Remote Sensing and GIS; Remote Sensing and Wireless Sensor Networks
			(vii)	**Structural Engineering:** Civil (Structural Engineering); Civil Engineering (Computer Aided Structural Engineering); Computer Aided Design of Structures; Computer Aided Structural Analysis and Design; Computer Aided Structural Engineering; Earthquake Engineering; Industrial Structures; Infrastructure Engineering; Infrastructure Engineering and Technology; Reliability

			Engineering; Seismic Design and Earthquake Engineering; Structural and Construction Engineering; Structural and Foundation Engineering; Structural Design; Structural Dynamics and Earthquake Engineering; Structural Engineering; Structural Engineering and Construction; Structural Engineering and Construction Management
5.	Computer Applications	**UG**	Any UG Degree (or) Equivalent; B.E. / B.Tech. degree (or) Equivalent
		PG	1. PG degrees / Integrated PG Degree in Computer Applications (or) Computer Science (or) Relevant field with qualified GATE Score / UGC NET (Assistant Professor / Admission to Ph.D. only) / NBHM Score 2. Applicants having their own fellowships, UGC NET JRF / INSPIRE / etc., can apply for Ph.D. in the department relevant to the research grant. 3. M.E. / M. Tech / M.S (by Research). in CS (or) CSE (or) IT (or) Relevant field with qualified GATE Score.
6.	Computer Science and Engineering	**UG**	Artificial Intelligence (AI) and Data Science; Artificial Intelligence and Machine Learning; Computer and Communication Engineering; Computer Engineering; Computer Engineering (Software Engineering); Computer Engineering and Application; Computer Networking; Computer Science and Business Systems; Computer Science and Engineering; Computer Science and Engineering (Artificial Intelligence and Machine Learning); Computer Science and Engineering (Artificial Intelligence); Computer Science and Engineering (Cyber Security); Computer Science and Engineering (Data Science); Computer Science and Engineering (Internet of Things and Cyber Security Including Block Chain Technology); Computer Science and Engineering (Internet of Things); Computer Science and Engineering (Networks); Computer Science and Engineering and Business Systems; Computer Science and information Technology; Computer Science and Systems Engineering; Computer Science and Technology; Computer Technology; Computing in Multimedia; Computing in Software; Cyber Physical Systems; Electrical and Computer Engineering; Electrical and Electronics (Power System); Electrical and Electronics Engineering; Electrical and instrumentation Engineering; Electrical and Power Engineering; Electrical Engineering; Electrical Engineering (Electronics and Power); Electrical instrumentation and Control Engineering; Electrical Power Engineering; Electrical, Electronics and Power Engineering; Electronic Engineering; Electronic Instrumentation and Control Engineering; Electronic Science and Engineering; Electronics and Biomedical Engineering; Electronics and Communication (Communication System Engineering); Electronics and Communication Engineering (Advanced Communication Technology); Electronics and Communication Engineering (VLSI Design & Technology); Electronics and Communication Engineering; Electronics and Communication Engineering (Bio-Medical Engineering); Electronics and Communication Engineering (Industry

			Integrated); Electronics and Communication Engineering (Microwaves); Electronics and Communication Technology; Electronics and Computer Engineering; Electronics and Computer Science; Electronics and Control Systems; Electronics and Electrical Engineering; Electronics and Instrumentation Engineering; Electronics and Power Engineering; Electronics and Telecommunication; Electronics and Telecommunication Engineering; Electronics and Tele-Communication Engineering; Electronics and Telecommunication Engineering (Technologynician Electronic Radio); Electronics and Telecommunications Engineering; Electronics and Telematics Engineering; Electronics Communication and Instrumentation Engineering; Electronics Design Technology; Electronics Engineering; Electronics Engineering (VLSI Design and Technology); Electronics Instrument and Control; Electronics Instrumentation and Control Engineering; Electronics Technology; Information and Communication Technology; Information Engineering; Information Science and Engineering; Information Science and Technology; Information Technology; Information Technology and Engineering; Robotics and Artificial Intelligence; Software Engineering
		PG	Artificial Intelligence; Artificial Intelligence and Data Science; Biometrics and Cyber Security; Cloud Computing; Communication and Networking; Computational Engineering and Networking (Data Science); Computer and Communication; Computer and Communication Engineering; Computer and information Science; Computer and Information Technology; Computer Engineering; Computer Engineering Software Engineering); Computer Engineering and Application; Computer Engineering and Networking; Computer Hardware and Networking; Computer Network Engineering; Computer Networking; Computer Networking and Engineering; Computer Networks; Computer Networks and information Security; Computer Networks and internet Security; Computer Science; Computer Science and Technology; Computer Science and Engineering; Computer Science and Engineering (Artificial Intelligence and Machine Learning); Computer Science and Engineering (Cyber Security); Computer Science and Engineering (Networks); Computer Science and Engineering (Operations Research); Computer Science and Information Security; Computer Science and Information System; Computer Science and Information Technology; Computer Science and Systems Engineering; Computer Science Engineering (Big Data Analytics); Computer Systems and Technology; Computer Technology; Computer Technology and Applications; Computer Vision and Image Processing; Cyber Forensics; Cyber Forensics and information Security; Cyber Security; Cyber Security Systems and Networks; Data Sciences Distributed Computing Systems; Distributed Systems; Information and Communication Technology; Information Engineering; Information Science and Technology; Information Security; Information Security Management; Information Systems; Information Technology; Information Technology (Artificial Intelligence and Robotics); Information Technology (Information and Cyber Warfare);

			Information Technology and Engineering; Information Technology (Multimedia); Intelligent Systems; Internet of Things; IoT and Sensor Systems; Mobile Computing; Mobile Computing Technology; Multimedia and Software Engineering; Multimedia Technology; Network Engineering; Network Security and Management; Networking; Networking and Internet Engineering; Parallel Distributed Systems; Pervasive Computing Technology; Robotics and Artificial Intelligence; Software Engineering; Software Systems; System and Network Security; System Software
7.	Electrical and Electronics Engineering	**UG**	Electrical and Computer Engineering; Electrical and Electronics Engineering (power systems); Electrical and Electronics Engineering; Electrical and Instrumentation Engineering; Electrical and Power Engineering; Electrical Engineering; Electrical Engineering (Electronics and Power); Electrical, Instrumentation and Control Engineering; Electrical Power Engineering; Electrical, Electronics Power Engineering; Electronics and Electrical Engineering
		PG	Power Systems; Power Electronics; Power Electronics & Drives; Electrical Drives & Control; Electrical Machines; Applied Electronics; VLSI Systems; Wireless Sensor Networks; Knowledge Management; Machine Learning; Internet of Things (IoT); Control and Instrumentation; Energy Engineering; High Voltage Engineering; Any emerging area of specialization.
8.	Electronics and Communication Engineering	**UG**	Applied Electronics and Communications; Electronic Engineering; Electronics and Communication (Communication System Engineering); Electronics and Communication Engineering (Advanced Communication Technology); Electronics and Communication Engineering (VLSI Design & Technology); Electronics and Communication Engineering; Electronics and Communication Engineering (Bio-Medical Engineering); Electronics and Communication Engineering (Industry Integrated); Electronics and Communication Engineering (Microwaves); Electronics and Communication Technology; Electronics and Telecommunication; Electronics and Telecommunication Engineering; Electronics and Tele-Communication Engineering; Electronics and Telecommunication Engineering (Technologynician Electronic Radio); Electronics and Telecommunications Engineering; Electronics Communication and Instrumentation Engineering; Electronics Design Technology; Electronics Engineering; Electronics Engineering (VLSI Design and Technology); Electronics Technology; Telecommunication Engineering
		PG	Advanced Communication and information System; Advanced Electronics an Communication Engineering; Applied Electronics and Communication System; Applied Electronics and Communications; Biomedical Instrumentation and Signal Processing; Biomedical Signal Processing and instrumentation; Communication and Information Systems; Communication and Networking; Communication and Signal Process; Communication Control and Networking; Communication Engineering; Communication Engineering and Signal Processing; Communication Networks; Communication Systems; Communication Technology and Management;

			Communications Engineering; Computer and Communication; Computer and Communication Engineering; Digital Communication; Digital Communication Engineering; Digital Communications; Digital Communications and Networking; Digital Electronics; Digital Electronics and Communication; Digital Electronics and Communication Engineering; Digital Electronics and Communication Systems; Digital Electronics Engineering; Digital Image Processing; Digital Instrumentation; Digital Signal Processing, Digital Systems; Digital Systems and Communications Engineering; Digital Systems and Computer Electronics; Digital Techniques and instrumentation ; Electronic Circuits and System Design ; Electronic Engineering; Electronics and Communication (Communication System Engineering); Electronics and Communication (Signal Processing and Communication); Electronics and Communication (Signal Processing and VLSI Technology); Electronics and Communication (VLSI Design); Electronics and Communication (VLSI System Design); Electronics and Communication (Wireless Communication Systems and Networks); Electronics and Communication (Wireless Communication Technology); Electronics and Communication Engineering (Advanced Communication Technology); Electronics and Communication Engineering (VLSI Design & Technology); Electronics and Communication Engineering; Electronics and Communication Engineering (Industry integrated); Electronics and Telecommunication Engineering (Radio and System); Electronics and Telecommunication Engineering (Technologynician Electronic Radio); Electronics and Tele-Communication Engineering, Electronics Telecommunications Engineering; Electronics Communication and Instrumentation Engineering; Electronics Design and Technology; Electronics Design Technology; Electronics Engineering; Electronics Product Design and Technology; Electronics Systems and Communication; Electronics Technology; Electronics Tele Communication; Embedded and Real Time Systems; Embedded Control and Automation; Embedded Control Systems; Embedded System and Computing; Embedded System and VLSI; Embedded System and VLSI Design; Embedded Systems; Embedded Systems Technologies; Information and Communication Technology; Information Technology (Multimedia); Integrated Circuits Technology; Micro Electronics; Micro Electronics and Control Systems; Micro Electronics and VLSI Design; Micro Electronics and VLSI Technology; Micro Electronics Engineering; Microelectronics and VLSI Design; Microwave and Communication Engineering; Microwave and Millimeter Engineering; Microwave and Optical Communication; Microwave and Radar Engineering, Microwave and TV Engineering; Microwave Engineering; Microwaves ; Mobile Communication and Network Technology; Mobile Computing; Mobile Computing Technology; Mobile Technology; Modern Communication Engineering; Multimedia and Software Engineering; Multimedia Technology; Nano Science and Technology; Nano Technology; Optical Engineering; Optics and Optoelectronics; Opto-Electronics and Communication;

			Opto-Electronics and Communication Systems; Optoelectronics and Laser Technology; Opto-Electronics Engineering; Opto-Electronics-Optical Communication; Radar and Communication; Radio Frequency and Microwave Engineering; Signal Processing; Signal Processing and Communications; Signal Processing and Embedded Systems; Smart Sensing Communication and Networking Technologies; Telecommunication Engineering; VLSI; VLSI and Embedded Systems; VLSI and Embedded Systems Design; VLSI and Microelectronics; VLSI Design; VLSI Design and Embedded Systems; VLSI Design and Signal Processing; VLSI Design and Testing; VLSI System Design; VLSI Systems; Wired and Wireless Communication; Wireless and Mobile Communications; Wireless Communication and Computing; Wireless Communication Technology; Wireless Communications; Wireless Networks and Applications; Wireless Technology
9.	Energy and Environment (with M.E. / M.Tech. / MS (By Research))	**UG**	Bachelor's Degree in Engineering / Technology or equivalent degree in the appropriate branch of study
			M.Sc. degree in Industrial Chemistry, Advanced Biochemistry, Environmental Management, Instrumentation Technology, Instrumentation and Applied Physics, Environmental Science, Biotechnology, Nano Technology, Material Science, Applied Chemistry, Applied Physics, Industrial Biotechnology, Polymer Science, Applied Electronics.
		PG	M.E. / M.Tech. / MS (by Research) or equivalent degree in Energy Engineering; Thermal Engineering; Applied Mechanics; Manufacturing Engineering; Mechatronics; Aerospace Engineering; Automobile Engineering; Power Electronics & Drive; Power System Engineering; Control & Instrumentation Engineering; Electrical Drives; Data Analytics; Structural Engineering; Environmental Engineering; Infrastructure Engineering & Management; Construction Engineering & Management; Chemical Engineering; Biotechnology; Plastic Engineering; Nanoscience and Technology; Material Science; Metallurgical Engineering; Environmental Management; Solar Energy; High Voltage Engineering; Power Engineering and Management; Ceramic Technology; Petroleum Refinery & Petrochemicals; Polymer Science & Engineering; Industrial Engineering; Mining Engineering; Fuel Technology; Petroleum Engineering; Bioprocess Engineering; Paper and Pulp Engineering or any appropriate branch of study.
	Energy and Environment (with M.Sc.)	**PG**	1. M.Sc. degree in Industrial Chemistry; Environmental Management; Instrumentation Technology; Instrumentation and Applied Physics; Environmental Science; Biotechnology; Nanotechnology; Material Science; Chemistry; Applied Chemistry; Physics; Applied Physics; Industrial Biotechnology; Polymer Science; Applied Electronics; Energy science Sustainability with a qualified GATE Score / Joint CSIR – UGC NET (Assistant Professor / Admission to Ph.D. only)

			2. Applicants having their own fellowships from Joint CSIR – UGC NET JRF / INSPIRE / etc., can apply for Ph.D. in the department relevant to the research grant.
10.	Humanities and Social Sciences	**UG**	-
		PG	1. Masters' degrees in the relevant discipline of Humanities / Social Science / Economics / Business Administration / Commerce / Statistics with a qualified UGC-NET / CAT / AIMA / XAT / MAT score and Master's degree (M.E. / M.Tech.) in Engineering with a qualified GATE score. 2. Masters' degrees in the relevant discipline of Humanities / English / Linguistics / Literature / English Language Teaching with a qualified UGC-NET score. 3. Applicants having their own fellowships from UGC NET JRF / INSPIRE / RGNF (or) other equivalent research fellowships can apply for Ph.D. in the department relevant to the research grant.
11.	Instrumentation and Control Engineering	**UG**	Aerospace Engineering; Applied Electronics and Communications; Applied Electronics and Instrumentation Engineering; Automation and Robotics; Bioelectronics Engineering; Bioinformatics; Biomedical and Robotic Engineering; Biomedical Engineering; Biomedical Instrumentation; Electrical and Computer Engineering; Electrical and Electronics Engineering; Electrical and Instrumentation Engineering; Electrical Engineering; Electrical instrumentation and Control Engineering; Electronic Engineering; Electronic Instrumentation and Control Engineering; Electronic Science and Engineering; Electronics and Biomedical Engineering; Electronics and Communication (Communication System Engineering); Electronics and Communication Engineering (Advanced Communication Technology); Electronics and Communication Engineering; Electronics and Communication Engineering (Bio-Medical Engineering); Electronics and Communication Engineering (Microwaves); Electronics and Communication Technology; Electronics and Computer Engineering; Electronics and Computer Science; Electronics and Control Systems; Electronics and Electrical Engineering; Electronics and Instrumentation Engineering; Electronics and Telecommunication; Electronics and Telecommunication Engineering; Electronics and Telematics Engineering; Electronics Communication and Instrumentation Engineering; Electronics Design Technology; Electronics Engineering; Electronics Instrument and Control; Electronics Instrumentation and Control Engineering; Electronics System Engineering; Electronics Technology; • Industrial IoT; Information and Communication Technology; Instrumentation and Control Engineering; Instrumentation and Electronics; Instrumentation Engineering; Instrumentation Technology; Instrument Technology; Manufacturing Process and Automation Engineering; Mechanical and Automation Engineering; Mechanical and Mechatronics Engineering (Additive Manufacturing); Medical Electronics Engineering; Medical Lab Technology; Nano Science and Technology; Nano Technology; Power Electronics and Instrumentation Engineering; Robotics and Artificial Intelligence; Robotics and Automation; Telecommunication Engineering; Other Engineering discipline relevant to Instrumentation and Control Engineering

		PG	Advanced Communication and information System; Advanced Electronics; Advanced Electronics and Communication Engineering; Aero Space Engineering; Aero Space Technology; Applied Electronics; Applied Electronics and Communication System; Applied Electronics and Communications; Applied Electronics and Instrumentation Engineering; Applied instrumentation; Automation and Control Power Systems; Automation and Robotics; Bio Electronics; Biomedical Electronics; Biomedical Engineering; Biomedical Instrumentation; Biomedical Instrumentation and Signal Processing; Biomedical Signal Processing and Instrumentation; Biometrics and Cyber Security; Communication and Information Systems; Communication and Networking; Communication and Signal Process; Communication Control and Networking; Communication Engineering; Communication Engineering and Signal Processing; Communication Networks; Communication Systems; Communication Technology and Management; Communications Engineering; Computer Aided Design Manufacture and Automation; Computer and Communication; Computer and Communication Engineering; Control and Instrument; Control and Instrumentation; Control Engineering; Control System Engineering; Control Systems; Cyber Security; Cyber Security Systems and Networks; Design Engineering; Digital Electronics and Communication; Digital Electronics and Communication Engineering; Digital Electronics and Communication Systems; Digital Electronics Engineering; Digital Image Processing; Digital Instrumentation; Digital Signal Processing; Digital Techniques and Instrumentation; Distributed Computing Systems; Electrical and Electronics Engineering; Electrical Drives and Control; Electrical Energy Systems; Electrical Engineering; Electrical Engineering (Instrumentation and Control); Electrical instrumentation and Control Engineering; Electronic Circuits and System Design; Electronic Engineering; Electronic instrumentation and Control Engineering; Electronics and Communication (Communication System Engineering); Electronics and Communication (Signal Processing and Communication); Electronics and Communication (Wireless Communication Systems and Networks); Electronics and Communication (Wireless Communication Technology); Electronics and Communication Engineering (Advanced Communication Technology); Electronics and Communication Engineering; Electronics and Communication Engineering (Industry integrated); Electronics and Electrical Technology; Electronics and Instrumentation Engineering; Electronics and Telecommunications Engineering; Electronics Communication and Instrumentation Engineering; Electronics Design and Technology; Electronics Design Technology; Electronics Engineering; Electronics Product Design and Technology; Electronics Systems and Communication; Electronics Technology; Electronics Tele Communication; Embedded and Real Time Systems; Embedded Control and Automation; Embedded Control Systems; Embedded System and Computing; Embedded Systems; Embedded Systems Technologies; Engineering Analysis and Design; Engineering Design; Image

			Processing; Industrial Automation and RF Engineering; Industrial Automation and Robotics; Industrial Drives and Control; Industrial Electronics; Industrial Instrumentation and Control; Information and Communication Technology; Instrumentation and Control (Applied Instrumentation); Instrumentation and Control Engineering; Instrumentation and Electronics; Instrumentation Engineering; Instrumentation Technology; Integrated Circuits Technology; Internet of Things; IoT and Sensor Systems; Measurement and Control; Mechanical and Automation Engineering; Mechatronics; Medical Electronics; Micro Electronics; Micro Electronics and Control Systems; Micro Electronics and VLSI Technology; Micro Electronics Engineering; Microwave and Communication Engineering; Microwave and Optical Communication; Microwave and Radar Engineering; Microwave Engineering; Mobile Communication and Network Technology; Modern Communication Engineering; Opto-Electronics and Communication; Opto-Electronics and Communication Systems; Opto-Electronics Engineering; Power System Control and Automation; Process Control; Process Control Instrumentation; Process Dynamics and Control; Process instrumentation; Product Design; Product Design and Development; Remote Sensing; Remote Sensing and GIS; Remote Sensing and Wireless Sensor Networks; Robotics and Artificial Intelligence; Robotics and Automation; Robotics and Mechatronics; Sensor Technology; Signal Processing; Signal Processing and Communications; Signal Processing and Embedded Systems; Smart Sensing Communication and Networking Technologies; Systems and Signal Processing; Telecommunication Engineering; Transportation System Engineering; Wired and Wireless Communication; Wireless and Mobile Communications; Wireless Communication and Computing; Wireless Communication Technology; Wireless Communications; Wireless Networks and Applications; Wireless Technology; Other emerging area of specialization related to Instrumentation and Control Engineering
12.	Management Studies	**UG**	-
		PG	1. 2 years full time Master's degree in Business Administration; Management; Humanities; Social Sciences; Commerce, and other relevant discipline; Post Graduate Diploma in Management with a CAT / XAT / MAT / GMAT / UGC-NET score 2. Master's Degree in Engineering / Technology with a qualified GATE / CAT / XAT / MAT / GMAT / UGC-NET (Assistant Professor / Admission to Ph.D. only) 3. Applicants having their own fellowships from UGC NET JRF / INSPIRE / RGNF (or) other equivalent research fellowships can apply for Ph.D. in the department relevant to the research grant.
13.	Mathematics	**UG**	The Bachelor's degree must be of a minimum duration of three years and should include at least six courses in Mathematics and/or Statistics.
		PG	1. M.A. / M.Sc. in Mathematics / Applied Mathematics / Statistics, M. Math. / M. Stat. / M.Tech. in Industrial Mathematics / Scientific Computing with a qualified GATE Score in Mathematics / Statistics, Joint CSIR – UGC NET (Assistant Professor / Admission to Ph.D. only)

			2. Applicants having their own fellowships from Joint CSIR – UGC NET JRF / NBHM / INSPIRE / etc., can apply for Ph.D. in the department relevant to the research grant.
14.	Mechanical Engineering	**UG**	B.E. / B.Tech. in Mechanical Engineering / Mechanical Engineering Design / Production Engineering / Manufacturing Engineering / Manufacturing Engineering and Technology / Manufacturing Science and Engineering / Manufacturing Technology / Automobile Engineering / Aerospace Engineering / Aeronautical Engineering / Energy Engineering
		PG	M.E. / M.Tech. in Mechanical Engineering / Mechanical Engineering Design / Mechanical System Design / Mechanical – Manufacturing Engineering / Design Engineering / Internal Combustion Engineering / Thermal Engineering / Thermal Power Engineering / Heat and Power / Heat Power Engineering / Refrigeration and Air Conditioning / Cryogenic Engineering / Energy Engineering / Energy and Environmental Engineering / Manufacturing Engineering / CAD/CAM / CAD/CAM/CAE / Machine Design / Fracture Mechanics / Turbo Machinery / Applied Mechanics / Fuel and Combustion / Thermal and Fluid Engineering / Aeronautical Engineering / Automobile Engineering / Industrial Safety Engineering
15.	Metallurgical and Materials Engineering	**UG**	Bachelor's degree in Engineering (Metallurgical and Materials Engineering; Metallurgical Engineering; Metallurgy; Additive Manufacturing; Aeronautical Engineering; Aerospace Engineering; Applied Electronics and Communications; Applied Electronics and instrumentation Engineering; Artificial Intelligence (AI) and Data Science; Artificial Intelligence and Machine Learning; Automobile Engineering; Automotive Technology; Biochemical Engineering; Biomedical Engineering; Biotechnology/ Biotechnology and Biochemical Engineering; Cement and Ceramic Technology; Ceramic Engineering and Technology; Ceramics Engineering; Ceramic Technology; Chemical and Biochemical Engineering; Chemical and Electro Chemical Engineering; Chemical Engineering; Chemical Engineering (Plastic and Polymer); Chemical Technology; Electrical and Electronics Engineering; Electronic Engineering/ Electronics and Biomedical Engineering; Electronics Engineering; Energy and Environmental Management; Energy Engineering; Environmental Engineering; Environmental Science and Engineering/ Industrial and Production Engineering; Industrial Biotechnology; Industrial Engineering/ Industrial Engineering and Management; Industrial Production Engineering; Instrumentation and Control Engineering; Instrumentation and Electronics; Instrumentation Engineering; Instrumentation Technology; Manufacturing Engineering; Manufacturing Process and Automation Engineering; Manufacturing Engineering and Technology; Manufacturing Science and Engineering; Manufacturing Technology; Marine Engineering; Marine Technology; Material Science and Technology; Mechanical and Automation Engineering; Mechanical and Mechatronics Engineering (Additive Manufacturing); Mechanical Engineering; Mechanical and Smart Manufacturing; Mechanical Engineering (all disciplines); Mining Engineering; Nano Science and Technology; Nano

			Technology; Naval Architecture and Ship Building Engineering; Nuclear Science and Technology; Optics and Optoelectronics; Petrochemical Engineering; Petrochemical Technology; Plastic Technology; Polymer Engineering; Plastic and Polymer Engineering; Polymer Engineering and Technology; Polymer Science and Chemical Technology; Polymer Science and Technology; Precision Manufacturing; Production and industrial Engineering; Production Engineering; Production and industrial Engineering; Rubber and Plastics Technology; Rubber Technology; Smart and Sustainable Energy; Tool Engineering; or Equivalent Engineering Degree courses / any other Engineering degree relevant to Metallurgical and Materials Engineering
			PG degree in Science (Physics / Chemistry; Material Science; Applied Science; Applied Physics; Applied Chemistry; Materials Science; or Equivalent Masters Degree courses / any other Masters degree in Science relevant to Metallurgical and Materials Engineering
		PG	With M.Tech. Degree / MS (by Research) in Material Science and Engineering; Welding Engineering; Industrial metallurgy; Artificial Intelligence; Advanced Design and Manufacturing; Advanced Electronics; Advanced Manufacturing and Mechanical Systems Design; Advanced Manufacturing Systems; Advanced Manufacturing Technology; Advanced Materials Technology; Advanced Production Systems; Aero Space Technology; Aeronautical Engineering; Applied Electronics; Applied Electronics and Instrumentation Engineering; Applied Mechanics; Armament Engineering (Gun Fitter); Artificial Intelligence and Data Science; Automated Manufacturing Systems; Automobile Engineering; Automobile Technology; Automotive Technology/ Bio Electronics; Biochemical Engineering; Biochemical Engineering and Biotechnology; Biomedical Engineering; Biomedical Instrumentation; Biotechnology; Ceramic Engineering and Technology; Ceramics Engineering; Chemical and Biotechnology; Chemical Engineering; Chemical Reaction Engineering; Chemical Science and Technology; Chemical Technology; Chemical Technology (Rubber/ Plastic); CAD/CAM/CAE; Combat Vehicles (Mechanical Engineering); Computational Analysis in Mechanical Science; Computational Mechanics; Computer Aided Design; Computer Aided Design and Manufacture; Computer Science and Engineering (Artificial Intelligence and Machine Learning); Defence Technology; Design and Production; Industrial and Production; Design and Thermal Engineering; Design Engineering; Design for Manufacturing; Electric Vehicle Technology; Electrical and Electronics Engineering; Electrical and Mechanical Engineering; Electronic Engineering; Electronics and Electrical Technology; Electronics Design and Technology; Energetic Materials and Polymers; Energy Engineering; Energy Science and Technology; Engineering Analysis and Design; Engineering and Management; Engineering Design; Environmental Engineering; Environmental Science and Engineering; Foundry and Forge Technology; Fracture Mechanics; Gas Turbine Technology; Heat Power and Thermal Engineering; Image Processing; Industrial

			Electronics; Instrumentation and Electronics; Laser and Electro Optics; Laser Technology; Lean Manufacturing Engineering; Machine Design and Robotics; Manufacturing Engineering; Manufacturing Process and Automation Engineering; Manufacturing Science and Engineering; Manufacturing Technology; Manufacturing Technology and Automation; Materials Engineering; Material Engineering (Nanotechnology); Material Science and Chemical Technology/ Material Science and Technology; Materials Engineering; Mechanical Engineering; Mechanical Engineering (all specializations) / Mechanical and Materials Technology; Mechanical Welding and Sheet Metal Engineering; Mechanical-Manufacturing Engineering; Mechanical-Product Life Cycle Management; Mechatronics; Medical Electronics; Metallurgy; Metallurgical and Materials Engineering; Metallurgy and Material Technology; Micro and Nano Electronics; Micro Electronics and Control Systems; Mining Engineering; Modeling and Simulation; Nano Science and Technology; Nano Technology; New Material Process and Technology; Nuclear Science and Technology; Optics and Optoelectronics; Opto-Electronics Engineering; Paint Technology; Petrochem and Petroleum Refinery Engineering; Petrochemical Technology; Physical Metallurgy; Plastics Engineering; Plastics Processing and Testing; Polymer Engineering; Polymer Nanotechnology; Polymer Science and Technology; Process Control; Process Control instrumentation; Product Design and Manufacturing; Product Design and Development; Production and Industrial Engineering; Production Design and Manufacturing; Production Engineering; Production Engineering and Engineering Design; Production Technology and Management; Process Metallurgy; Renewable Energy; Scientific Computing; Solar Energy; Surface Coating Technology; Thermal and Fluid Engineering; Thermal Engineering; Thermal Power Engineering; Thermal Science Engineering; Thermal Sciences and Energy Systems; Thermal Systems and Design; Tool Design; Tool Engineering; Tribology and Maintenance; Weapons Engineering; Equivalent Master's degree in Engineering / any other Master's degree in Engineering relevant to Metallurgical and Materials Engineering
16.	Physics	**UG**	-
		PG	1. Master degree in Physics / Applied Physics / Materials Science / Applied Electronics with a valid GATE Score / JEST / Joint CSIR – UGC NET (Assistant Professor / Admission to Ph.D. only) 2. M. Tech. in Non-Destructive Testing / Materials Science, with a qualified GATE score. 3. Applicants having their own fellowships from Joint CSIR – UGC NET JRF / INSPIRE / etc., can apply for Ph.D. in the department relevant to the research grant.
17.	Production Engineering	**UG**	Additive Manufacturing; Advanced Mechatronics and industrial Automation; Apparel and Production Management; Artificial Intelligence (AI) and Data Science; Artificial Intelligence and Machine Learning; Automation and Robotics; Automation Engineering; Automotive Technology; Ceramic Engineering and Technology; Digital Techniques For Design and Planning; Facilities and

			Services Planning; Fibres and Textiles Processing Technology; Industrial and Production Engineering; Industrial Engineering and Management; Industrial IoT; Industrial Production Engineering; Logistics & Supply Chain Management; Manufacturing Engineering; Manufacturing Engineering and Technology; Manufacturing Process and Automation Engineering; Manufacturing Science and Engineering; Manufacturing Technology; Material Science and Technology; Mechanical and Automation Engineering; Mechanical and Mechatronics Engineering (Additive Manufacturing); Mechanical and Smart Manufacturing; Mechanical Engineering; Mechanical Engineering (Automobile); Mechanical Engineering (Industry Integrated); Mechanical Engineering (Manufacturing Engineering); Mechanical Engineering (Production); Mechanical Engineering (Welding Technology); Mechanical Engineering Design; Mechatronics Engineering; Nano Science and Technology; Nano Technology; Plastic and Polymer Engineering; Plastic Technology; Plastics Engineering; Polymer Engineering; Polymer Engineering and Technology; Polymer Science and Chemical Technology; Polymer Science and Technology; Polymer Technology; Precision Manufacturing; Printing and Packing Technology; Production and industrial Engineering; Production Engineering; Robotics and Artificial Intelligence; Robotics and Automation; Rubber and Plastics Technology; Surface Coating Technology
		PG	Artificial Intelligence; Advanced Computer Aided Design; Advanced Design and Manufacturing; Advanced Manufacturing and Mechanical Systems Design; Advanced Manufacturing Systems; Advanced Manufacturing Technology; Advanced Materials Technology; Advanced Production Systems; Automated Manufacturing Systems; Automation; Automation and Control Power Systems; Automation and Robotics; CAD/CAM; CAD/CAM Engineering; CAD/CAM Robotics; CAD/CAM/CAE; Ceramic Engineering and Technology; Ceramics Engineering; Computational Analysis in Mechanical Science; Computational Mechanics; Computational Mechanics (Mechanical Engineering); Computer Aided Analysis and Design; Computer Aided Design; Computer Aided Design and Computer Aided Manufacture; Computer Aided Design and Manufacture; Computer Aided Design; Manufacture and Automation; Computer Aided Design; Manufacture and Engineering; Computer Aided Design of Structures; Computer Aided Process Design; Computer Aided Structural Analysis and Design; Computer integrated Manufacturing; Data Engineering; Data Sciences; Defence Technology; Design and Production; Design and Thermal Engineering; Design Engineering; Design for Manufacturing; Design of Mechanical Equipment; Design of Mechanical Systems; Engineering Analysis and Design; Engineering and Management; Engineering Design; Foundry and Forge Technology; Fracture Mechanics; Gas Turbine Technology; Image Processing; Industrial and Production Engineering; Industrial Automation and RF Engineering; Industrial Automation and Robotics; Industrial Engineering; Industrial Engineering and Management;Industrial Intelligent Systems; Industrial Metallurgy; Intelligent Systems; Internet of Things;IoT and Sensor Systems; Laser and Electro Optics; Laser Technology; Lean Manufacturing Engineering; Logistics &

			Supply Chain Management; Machine Design; Machine Design and Robotics; Maintenance Engineering; Manufacturing and Automation; Manufacturing Engineering; Manufacturing Engineering and Automation; Manufacturing Engineering and Management; Manufacturing Engineering and Technology; Manufacturing Process; Manufacturing Process and Automation Engineering; Manufacturing Science and Engineering; Manufacturing Systems and Management; Manufacturing Systems Engineering; Manufacturing Technology; Manufacturing Technology and Automation; Material Engineering; Material Engineering (Nanotechnology); Material Handling; Material Science and Chemical Technology; Material Science and Engineering; Material Science and Technology; Materials Engineering; Measurement and Control; Mechanical (Computer Aided Design, Manufacture and Engineering); Mechanical (Computer Integrated Manufacturing); Mechanical and Automation Engineering; Mechanical and Materials Technology; Mechanical Engineering; Mechanical Engineering (CAD); Mechanical Engineering (CAD/ CAM); Mechanical Engineering (Cyber Physical Systems); Mechanical Engineering (Energy System and Management); Mechanical Engineering (Industry Integrated); Mechanical Engineering (Manufacturing Technology); Mechanical Engineering (Production); Mechanical Engineering Design; Mechanical Engineering Production; Mechanical Engineering-Product Design and Development; Mechanical System Design; Mechanical Welding and Sheet Metal Engineering; Mechanical-Manufacturing Engineering; Mechanical-Product Life Cycle Management; Mechatronics; Metallurgical and Materials Engineering; Metallurgical Engineering; Metallurgy; Metallurgy and Material Technology; Nano Science and Technology; Nano Technology; Network Engineering; Network infrastructure Management; Network Security and Management; Networking; Networking and Internet Engineering; Neural Networks; New Material Process and Technology; Plastic Engineering; Plastics Engineering; Plastics Processing and Testing Plastics Technology; Polymer Engineering; Polymer Nanotechnology; Polymer Science and Engineering; Polymer Science and Technology; Polymer Technology; Process Metallurgy; Product Design; Product Design and Development; Product Design and Manufacturing; Production and Industrial Engineering; Production Design and Manufacturing; Production Engineering; Production Engineering and Engineering Design; Production Engineering System Technology; Production Management; Production Technology; Production Technology and Management; Quality Engineering and Management; Robotics and Artificial Intelligence; Robotics and Automation; Robotics and Mechatronics; Surface Coating Technology; System and Network Security System Management; Tool Design; Tool Engineering; Tribology and Maintenance; Industrial Area Planning and Management

5. SELECTION PROCEDURE

- For all the categories (full- and part-time), the mode and norms for selection shall be uniform. Following the scrutiny and short-listing of the applications, eligible candidates will be called to attend a written test. National Level Ph.D. entrance test will be conducted at NIT, Tiruchirappalli as an alternative to the mandatory GATE score criterion for HTRA candidates in Engineering Disciplines for Academic Year 2025-26 for LATERAL APPLICANTS only.

- Candidates, short-listed based on the performance in written test* need to appear for a technical and personal interview conducted by the Departmental Research Committee comprising of HoD, all eligible research guides/supervisors and the Dean's nominee (observer).
- The tentative schedule of this process is around June 17-19, 2025, but information on shortlisted applicants and the dates of written test and interviews shall be put up on the institute's website in due course of time. No correspondence from the applicants is entertained, unless otherwise the institute officials write an email.

6. MISCELLANEOUS INFORMATION

Apart from the aforementioned information, the following may be useful to the applicants.

6.1. Duration of the Programme

The duration of the programme and the timeline for submission of the thesis are counted from the date of provisional registration. However, it must be noted that the HTRA is available for 5 years only, and for the externally funded students fellowship is available till the project is completed, which is usually 2-3 years; no financial assistance is available thereafter.

The minimum duration of the Ph.D. Programme prescribed is three years for all categories. For full-time students with HTRA / external funding the permitted duration is up to a maximum of 6 years, and for part-time students it is up to a maximum of 7 years. Under extraordinary circumstances, based on the recommendations of the doctoral committees, extension of duration may be considered. Nevertheless, at the end of 8 years from the date of provisional registration, no further extension will be given and the registration to the Ph.D. programme stands cancelled.

6.2 Place of research work

The candidates admitted under full-time category shall work at NIT, Tiruchirappalli till the submission of thesis. Their work is supervised by the guide (and co-guide, if any) allotted at the time of admission.

Those admitted under part-time external (External-Industry/organization with R&D facility) category from industry/organization/national laboratories, will normally carry out part or all of his/ her research work in their place of employment. For these students, there will be two Research Supervisors, one principal research supervisor from NIT, Tiruchirappalli and one External co-supervisor/coordinator from his/her place of work.

For those candidates admitted under part-time external (On-Campus) category from academic institutions, industries, and public sectors the place of work shall be NIT, Tiruchirappalli even though he/she may be carrying out a part of research work in his/her institution of employment. For these students, their work is supervised only by the guide (and co- guide, if any) allotted at the time of admission.

Candidates admitted under part-time External (Industry/organization with R&D facility) category shall visit and physically report to the research supervisor/Doctoral Committee at least on three different occasions during every semester for official discussions, until the submission of the thesis.

7. COURSE WORK

The course work requirement will be considered to be fulfilled upon the student's successful completion of the courses at NIT, Tiruchirappalli only. However, for the convenience of Part-Time External (Industry/organization with R&D facility) students (from Government and quasi-government R&D Organizations / Public sector having R & D facilities / National Research laboratories / Reputed industries/organizations (private sector/MNCs) having well-established R&D facilities) alone the course work requirement can be considered to be fulfilled either by undertaking to study the courses at NIT, Tiruchirappalli or by taking online courses (PG Level) offered under reputed agencies such as NPTEL which are approved by the Doctoral Committee. For the online courses after certification from the agency, an evaluation will be carried out by the research supervisor / Doctoral Committee at NIT, Tiruchirappalli.

HOW TO APPLY?

Applicants must apply through online portal https://nittadm.samarth.edu.in only.

While filling-in the online application, attention must be paid to the following:

1. Applicants are requested to apply online only. Hard copy of the application is needed through proper channel from the part-time internal applicants only.
2. Applicants must fill/enter their CGPA or percentage of marks as issued by their institute / university (do not enter equivalent CGPA or percentage of marks).
3. Online application once submitted by the applicants shall be considered final and binding. Requests for making corrections in the online application shall not be entertained once the final submission is made.
4. Additional instructions to the applicants with Integrated B. Tech.–M.Tech.
    a. Dual Degree applicants are advised to fill up the 'Academic Qualification' option in the online application format as follows:
    b. Graduate degree: Fill up the CGPA / % Marks up to 8th Semester (year of passing: 8th Semester Examination year).
    c. Post Graduate degree: Fill up the CGPA / % Marks of the 7th to 10th Semester (year of passing: 10th Semester Examination year).
5. An applicant fulfilling minimum eligibility criteria (cf. page 3) can choose up to 3 departments he/she is eligible.
6. Each application must accompany an application fee is Rs. 1000/- per department for GEN/GEN-EWS/OBC-NCL applicants and Rs. 500/- per department for SC/ST/PwD applicants. Applications to more than one department shall be considered only upon payment of the requisite fees for each department. Application fee is non-refundable.
7. The fee payment (one or more departments) should be made on or before the last date 23rd May 2025 (11:59 PM)

Applicants / Candidates are advised to visit the Institute's website:

https://www.nitt.edu and https://nittadm.samarth.edu.in

regularly for all updates about subsequent amendments in the advertisement, shortlists, important dates for written test, interviews, and results. No correspondence in any form in this regard will be made by the Institute with an individual applicant/candidate.

IMPORTANT DATES

Start of Online Application (Website Open)	**28th April 2025 (10:00 AM)**
Last date for submission of Online Application (Website Closure)	**23rd May 2025 (11:59 PM)**
Tentative Schedule for Written Test / Interview	**17th to 19th June 2025**

For further queries, contact:

The Chairman (Ph.D. Admission Committee),

Academic Office,

National Institute of Technology,

Tiruchirappalli – 620 015, Tamil Nadu.

Phone: +91-431-2503911 / +91 9486001158

(Contact hours: 3:00 pm to 5:00 pm during working days)

Email: phdadmission@nitt.edu

ANNEXURE – I
RESEARCH AREAS

Sl. No.	Department	Research Areas
1.	**Architecture**	General architecture, Energy Efficient/ Sustainable Architecture, Housing, Urban Heritage and Conservation, Building Conservation and Adaptive Re-use, Urban Design, Cost-effective Construction Techniques, Construction Management, Building structural systems, Landscape Architecture, Landscape Planning/ Design, Urban Landscape, Environment and Behavior Studies, Environmental Psychology, Urban Micro climate, Cultural Landscape, Environmental Planning and Urban Planning.
2.	**Chemical Engineering**	Process Control and Instrumentation, Nanotechnology, Environmental Engineering & Management, Photo catalysis, Polymer, Membrane Technology, Membrane Separation, Computational Fluid Dynamics, Chemical Reaction Engineering, Catalysis, Renewable Energy, Bio-Chemical Engineering, Biotechnology, Ceramic Technology, Paint Technology, Pharmaceutical Technology, Process Modeling and Simulation, Electrochemical engineering, Food Technology, Advanced materials, Fuels and energy, Transfer operations, Separation and purification, Chemical technology, Process Intensification, Process development, Biochemical processes, petroleum /petrochemical technology, Water treatment & reclamation and any emerging area of specialization related to Chemical Engineering discipline.
3.	**Chemistry**	Organic Chemistry, Inorganic Chemistry, Physical chemistry and Analytical Chemistry
4.	**Civil Engineering**	Full time with HTRA: specialization includes Construction Technology and Management / Geotechnical Engineering / Hydraulics and Water Resources Engineering / Transportation Engineering / any equivalent discipline Part time category: specialization includes Construction Technology and Management / Environmental Engineering / Geotechnical Engineering / GIS and Remote Sensing / Hydraulics and Water Resources Engineering / Structural Engineering / Transportation Engineering / Ocean Engineering / any equivalent discipline.
5.	**Computer Applications**	Big Data Analytics, Bioinformatics, Cloud Computing, Computational Optimization, Computer Networks, Computer Vision, Cryptography, Data Base Management Systems, Data Compression, Data Mining, Distributed Systems, DNA Computing, Graph Theory and Algorithms, Image Processing, Information Extraction, Information Retrieval, Information Security, Membrane Computing, Micro-services, Multimedia Computation, Parallel Computing, Software Engineering, Serverless computing, Text Analytics, Theory of Computing, Soft Computing, Wireless Sensor Networks (WSNs), IoT, Web Mining, NLP, Web Technology, Block chain technology, Meta learning and any emerging area of specialization related to Computer Science discipline, Machine Learning and Deep Learning in Agriculture.
6.	**Computer Science and Engineering**	Algorithms and Graph Theory, Computer Architecture/Computer hardware, Computer Networks and Network Security, Databases and Data mining, Operating Systems, Cloud Computing, Speech and Vision, Theoretical Computer Science, VLSI design, Web Informatics and Web Technology, Wireless Networks, Cryptography, Security, Image Processing & Image Security, Machine Learning, Deep Learning, Natural language processing, Software Engineering, Social Network Analysis and Recommendation Systems, Embedded and Real-time Systems, High Performance Computing, Data Analytics, Data Science, Human Computer Interaction, Cellular Automata, Artificial Life, Mobile Security, Software-defined Network, Game Theory, IoT, Data Compression,

		Information Retrieval, Knowledge Graphs and Ontology, Computational Linguistics and any emerging area of specialization related to CSE discipline.
7.	**Energy and Environment**	Algal technology, Wastewater treatment, solar hybrid systems, Carbon capture technologies, Energy system analysis, Coal and Biomass Conversion, value added products from biomass, Thermal storage, Energy storage, Energy conservation and management, Thermo-chemical conversion of biomass, DC microgrid, Loadmanagement, smart energy systems, Materials for energy storage and Renewalenergy applications. Battery thermal management, Human waste management, 3D printing applications in energy, Hydrogen generation, Storage and Utilization, Electric Vehicle Technologies, IOT in Energy Systems, Smart grid Power & Energy Economics, AI/ML in Energy Systems, FuelCells, Nanofluids and Convective HeatTransfer, Power electronics/ Power systems/ Control systems/ Smart grid / Electrical Vehicle technology.
8.	**Electronics and Communication Engineering**	Signal and Image Processing, Wireless communication, Wireless networks, Microwave engineering, Microwave integrated circuits, Antennas, Optical communication, Photonics, Computer Vision and Deep Learning, Artificial Intelligence, Machine Learning, VLSI Systems, VLSI Technology, Embedded Systems, Internet of Things and any emerging areas of specialization related to ECE.
9.	**Electrical and Electronics Engineering**	Power Systems, Power Electronics / Power Electronics & Drives / Electrical Drives & Control / Electrical Machines, Applied Electronics, VLSI Systems, Wireless Sensor networks, Knowledge Management, Machine Learning, IoT, Control and Instrumentation, Energy Engineering, High Voltage Engineering and any emerging area of specialization.
10.	**Humanities and Social Sciences**	**English:** English Language Teaching, Second Language Acquisition, Biolinguistics, Indian Writing in English, Somaesthetics, Life Writing Culture Studies, Digital Humanities, American Literature, Health Humanities, Visual Culture, Comic Studies, English Language Education, Anglo-American Modernism, Autobiography Studies, Queer Studies and Modernity in India, with a special focus on Odisha, Transgender Studies, Postcritical Literary Studies, author Studies, Literary Theory and the Philosophy of Literature, Neuroscience of Language and Cognition, SDGs and Language Education and Aviation English. **Economics:** International Economics, Micro & Macro Economics, Environmental Economics & Sustainability Development, Monetary & Finance, Econometrics, Data Science, AI & ML Techniques, Agriculture & Industrial Economics, Growth Model, Economics Policy, Entrepreneurship Development, Information Economics, and Economics of Human Resources
11.	**Instrumentation and Control Engineering**	Research in the following domain: Instrumentation, Flexible electronics and wearable sensors, RF and microwave sensors, Precision Measurement, Automotive instrumentation systems, Design and development of new sensors, actuators and control, Design and development of robots and sensor platforms, Soft sensors development, Biomedical Instrumentation and Engineering, Modeling and Control of Dynamical Systems, Process Control, Process Systems Engineering, Implementation and Control of smart structures, Embedded System Design, Artificial intelligence for measurement and control applications, Robotics in automation, Cyber Physical Systems / Cyber Security, IoT / IIoT framework, Industrial Automation, soft-mechatronics, Energy harvesting, Condition monitoring, Biomedical Signal Processing Applications, Brain computer Interface, Wireless Sensor Network for measurement and control applications.
12.	**Management Studies**	Human Resource Management, Organisational Behaviour, Marketing, Finance, Production and Operation Management, Data Sciences, Information Systems and Technology, General Management.

13.	**Mathematics**	Fluid Dynamics, Probability and Queueing Theory, Numerical Analysis, Differential Equations, Functional Analysis, ANN/PINNs for Differential Equations, Graph Theory, Matrix Theory, Neural Networks, Mathematical Modelling, Complex Analysis, Fuzzy Mathematical Modelling.
14.	**Mechanical Engineering**	Additive Manufacturing, Alternate Fuels, Automobile Engineering, Biomechanics, Combustion, Computational Fluid Dynamics, Cryogenics, Design of Pressure Vessel and Piping, Energy storage systems, Fatigue and fracture, FE Simulation, Fluid Mechanics, Fluid Power Systems and Control, Heat Transfer, IC Engines, Refrigeration and Air Conditioning, Renewable Energy, Solar Energy Applications, Thermal management, Industrial Safety Engineering, Machine Design, Manufacturing, MEMS, Nanomaterials and Composites, Stress Analysis, Peridynamics, Vibrational Analysis, Welding, Wind turbine, 3D Printing, Cleaner Energy Systems, Life Cycle Analysis, Hybrid Electric vehicles, and any emerging area related to Mechanical Engineering.
15.	**Metallurgical and Materials Engineering**	Biomaterials, Ceramic Materials, Composite Materials, Computational Materials Science, Corrosion, Electrochemistry, Failure Analysis, Foundry Technology, Fuel Cells, Iron Making and Steelmaking, Joining Of Materials, Material Characterization, Materials Processing, Mechanical Behaviors Of Materials, Metal Casting, Metal Forming, Mineral Processing, Nano-Materials, Non-destructive Testing, Non-Ferrous Extraction, Non-Metallic Materials, Physical Metallurgy, Polymers, Powder Metallurgy, Process Metallurgy / Extractive Metallurgy, Process Modeling, Simulation, Structure-Property Correlations, Surface Engineering, Quality Management and Economic Aspects of Metal Production Processes, Alloy Development, Additive Manufacturing, Sustainable Materials, Recycling of Materials, Functional Materials, Energy Storage Materials, and any Emerging Areas of Specialization
16.	**Physics**	Materials Science, Nanomaterials, Magnetic Materials, Thin Films, Photonics, Flexible Energy Harvesters, Quantum Computation and Information, Theoretical Condensed Matter Physics, Astronomy and Astrophysics, Theoretical High Energy Physics, Micro-robotics, Electronic-nose, Artificial Neural Network, Battery materials, Non-Destructive Testing and any emerging area of specialization in PhysicsTesting and any emerging area of specialization in Physics.
17.	**Production Engineering**	Production Engineering / Manufacturing Engineering / Industrial Engineering / Mechanical Engineering and any emerging area of specialization related to Production Engineering.

Form - 1

(To be submitted in the Official Letter Head by the Ph.D. External (Industry/organization with R&D facility) Registration Candidates)

The application from Mr./ Ms._____working as_____in_____ since_____is herewith recommended and forwarded for admission under External Registration Scheme for part time Ph.D. Program in the Department of_____, National Institute of Technology, Tiruchirappalli

Certified that:

1. Our organization has adequate facilities for carrying out the research as indicated by the applicant and if he/she is selected, these will be made available to him/her till the completion of the programme.
2. The applicant will be deputed/given leave for duration of his/her residence period at NIT, Tiruchirappalli (if required).
3. Facilities will be made available to the Supervisor (External Research Co-Supervisor) to supervise the work of the applicant and to attend the DC meetings at NIT, Tiruchirappalli, when necessary.
4. Till the completion of his/her research programme, the applicant will not ordinarily be transferred to another unit or place which may impede his/her work under the scheme. If such a transfer is necessary, NIT, Tiruchirappalli will be informed atleast before one month of such transfer order.
5. No part of the work carried out in fulfillment of the Research programme will be utilized commercially or for applying for a Patent without the approval of National Institute of Technology, Tiruchirappalli

Date: **Signature of the Sponsoring Authority**

Name and Designation

Seal of the organization / Institution

Postal address of the Organization / Institution:

Form - 2

Certificate from the External Research Co-Supervisor/ Research coordinator

(To be submitted by the Ph.D. External (Industry / organization with R&D facility) Candidates)

This is to state that in the event of Mr./ Ms._____of this organization being selected for part time Ph.D. programme in the Department of under the External Registration Scheme of NIT, Tiruchirappalli, I agree to be his/her External Research Co- Supervisor / Research coordinator and shall extend all possible guidance and access to the following facilities to enable him/her to carry out his/her research programme towards the submission of thesis.

*Particulars of Prospective External Research Co-Supervisor/Research Coordinator:

1.	Name of proposed External Research Co-Supervisor / Research coordinator (In Block letters)	:	
2.	Designation	:	
3.	Academic qualifications of External Research Supervisor /Research coordinator	:	
4.	Experience (No. of Years)	:	
5.	No. of Publications with details	:	
6.	Membership in Professional Societies	:	

Research Facilities (relevant to area of research only) Available (To be listed here)

Date:	Signature of the External Research Co-Supervisor / Research Coordinator Name and Designation

Seal of the organization

*The external Research Co-Supervisor should have a Ph.D. degree and a minimum of 2 papers in refereed journals. The research coordinator should have a PG degree with atleast ten years of experience with regular position in the organization.

Form - 3

(To be submitted in the Official Letter Head by Ph.D. Part time – External (On campus) candidates)

The applicant_____working as_____in_____ since is herewith recommended and forwarded for admission under Part time - External - On campus scheme for Ph.D. programme in the Department of National Institute of Technology, Tiruchirappalli.

1. We note that facilities of the NIT, Tiruchirappalli will be made available to him/ her for carrying out the research work under the supervision of a Research Supervisor and he/ she has to pay full fees every semester for the use of laboratory, library and other facilities of the Institute.
2. The research facilities available in our organization will also be accessible to him/ her in the case of selection.
3. The applicant will be deputed/given leave for duration of his/her residence period at NIT, Tiruchirappalli.
4. Till the completion of his/her research programme, the applicant will not ordinarily be transferred to another unit or place which may impede his/her work under the scheme. If such a transfer is necessary, NIT, Tiruchirappalli will be informed atleast before one month of such transfer order.
5. No part of the work carried out in fulfillment of the Research programme will be utilized commercially or for applying for a Patent without the approval of National Institute of Technology, Tiruchirappalli.

Date:

Signature of the Sponsoring Authority

Name and Designation

Seal of the organization / Institution

Postal address of the Organization/ Institution

ANNEXURE - II

DECLARATION FOR THE LATE SUBMISSION OF RELEVANT DOCUMENTS

Name of the Candidate	
Date of Birth	
Course	Ph.D./MS (by Research)
Ph.D. Admission Category	FT-HTRA / FT-Externally Funded and Project / FT-Non Stipendiary / PT-External (Industry) / PT-On Campus
MS (by Research) Admission Category	FT-Project / PT-Project / PT-Staff
Application Number	
GATE Score (if applicable)	
Qualifying Degree Passing Status	Appeared / Passed
Qualifying Degree	
Qualifying Degree Discipline	
Mobile Number	
E-mail	

Allotment Details

Allotted Department	
Allotted Community Category	

The following certificates are not currently available with me due to late declaration of result / non-issuance of certificate. I undertake that I will submit the following certificate(s) on or before 15th September 2025, failing which I shall forgo my admission at NIT, Tiruchirappalli. Further, I am aware that I would get the HTRA/Fellowship only after the submission/verification of the following certificates:

1. Original Provisional / Degree certificate
2. Original Transfer Certificate/Migration Certificate
3. Original Grade / Mark Sheets
4. Valid GATE / National level qualifying examination scorecard
5. Any other*

Date **Signature of the Candidate**

Note: This late submission form is not applicable for the CATEGORY CERTIFICATE.

GEN EWS / OBC-NCL / SC / ST candidates should produce the required original category certificate

MEDICAL CERTIFICATE OF FITNESS

I have examined Shri / Kumari / Smt. _____Son / Daughter of Shri_____aged_____Years, Residing at_____
_____
District_____ State _____ Pincode _____and certify that, he / she is free from deafness, defective vision (including colour vision) or any other infirmity, mental or physical, likely to interferewith the efficiency of his / her work and found him / her possessing good health.

This certificate is being given to him / her for the purpose of _____
_____

Signature of Candidate

(To be signed in presence of the Medical Officer)

Signature of Medical Officer: _____

Name of Medical Officer: Dr._____

Registration No_____

Date: **Seal**

Note: Medical certificate granted by a qualified medical practitioner holding at least M.B.B.S. Degree and registered with Medical Council of India, shall only be valid. The date of issue of the medical certificate should be within **one year** from the date of application.

Frequently Asked Questions (FAQs)

For Ph.D. Admissions at NIT, Tiruchirappalli (July 2025)

1. **Query:** What is the acceptable issue date for OBC-NCL/GEN-EWS certificates
   Answer: The OBC-NCL / GEN-EWS certificate must be issued on or after April 1, 2025.
   An affidavit can be uploaded if the certificate has not yet been received.

2. **Query:** Is there any format for late submission of relevant documents
   Answer: The late submission form is available in the brochure and can be submitted in case of non-availability of documents needed for Ph.D. admission. For any further information, refer to the Ph.D. admission brochure. Note: This late submission form is not applicable for CATEGORY CERTIFICATE. GEN-EWS/OBC-NCL/SC/ST candidates should produce the required original category certificate

3. **Query:** Can I submit the Transfer / Migration certificate later?
   Answer: TC and migration from recently passed out college/institute can be uploaded. If not available, please fill out the late submission form.

4. **Query:** Is GATE / NET / Any other national-level test score being mandatory for admission?
   Answer: GATE / equivalent National level test score is not mandatory for the HTRA category of Engineering disciplines. National Level Ph.D. entrance test will be conducted at NIT, Tiruchirappalli, as an alternative to the mandatory GATE score criterion for Academic Year 2025-26.

   A qualified GATE or an equivalent National level test score obtained at some point of time in the past is mandatory for the HTRA category of Architecture, Sciences (Mathematics, Physics, Chemistry), Computer Applications, Management, and Humanities & Social Sciences disciplines.

5. **Query:** What are the dates for written test and interview?
   Answer: The dates are yet to be finalized. Refer NIT, Tiruchirappalli website for the updates

6. **Query:** What are to be uploaded under Supporting documents for Full-Time?
   Answer: Proof of Research publications (if any), research proposal (if any), and statement of Purpose (SoP) can be uploaded as a single PDF file. For further details, please refer to the Information brochure.

7. **Query:** How to get the ABC ID?
   Answer: Applicants can create ABC ID using the following link. https://www.abc.gov.in/

8. **Query:** Is the written test mandatory for Ph.D. admission at NIT, Tiruchirappalli
   Answer: A written test conducted by NIT, Tiruchirappalli is compulsory for all applicants seeking Ph.D. admission for the July 2025 session.