

# **ADMISSION TO M.S. (by Research) and Ph.D. PROGRAMMES (January 2016 Session)**



**NATIONAL INSTITUTE OF TECHNOLOGY  
TIRUCHIRAPPALLI – 620 015, TAMIL NADU**

# ADMISSION TO Ph.D. PROGRAMMES (January 2016 Session)

*Information Brochure and Application Form*



**NATIONAL INSTITUTE OF TECHNOLOGY  
TIRUCHIRAPPALLI – 620 015, TAMIL NADU**



**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015  
TAMILNADU**

**ADMISSION TO Ph.D. PROGRAMMES 2015 – 2016  
(January 2016 Session)**

**Ph.D. Programme (Full time)**

**A. ELIGIBILITY AND ACADEMIC REQUIREMENTS**

**I. Faculty of Engineering**

Bachelor's and Master's degree / M.S. (by Research) in Engineering / Technology in the appropriate branch of study with a minimum of 60% aggregate marks (CGPA 6.5/10) in UG or PG for admission under OC / OBC category and 55% aggregate marks or equivalent CGPA of 6.0/10 for SC / ST / PH candidates.

**For Metallurgical and Materials Engineering Department**

Candidates with PG degree in Science (Physics / Chemistry / Material Science / Applied Science / Applied Physics / Applied Chemistry) followed by M.Tech. degree / M.S. (by Research) in Material Science and Engineering / equivalent PG degree in related discipline are also eligible to apply.

**For Civil Engineering department**

Candidates with Geomatics, Remote Sensing, Ocean Engineering and Agricultural Engineering in undergraduate or post graduate are also eligible to apply for GIS and Remote sensing specialization.

**II. Faculty of Architecture**

Bachelors degree in Architecture / Planning and Master's degree in Architecture / Design / Planning / Building Engineering and Management / Building Technology or its equivalent with a minimum of 60% aggregate marks (CGPA 6.5/10) in UG or PG for admission under OC / OBC category and 55% aggregate marks or equivalent CGPA of 6.0/10 for SC / ST / PH candidates.

**III. Management Studies**

Master's degree in Business Administration with NET / UGC / CAT / ATMA / XAT / MAT or Master's degree in Industrial Engineering / Industrial Management with a minimum of 60% aggregate marks (CGPA 6.5/10) in UG or PG for admission under OC / OBC category and 55% aggregate marks or equivalent CGPA of 6.0/10 for SC / ST / PH candidates.

Candidates with the above eligibility requirements and JRF or equivalent qualifications may also apply.

**IV. Computer Applications**

Master's degree in Computer Applications or M.Sc. (Computer Science / OR&CA) with a valid GATE / UGC / CSIR / NBHM / NET score with a minimum of 60% aggregate marks (CGPA 6.5/10) in UG or PG for admission under OC / OBC category and 55% aggregate marks or equivalent CGPA of 6.0/10 for SC / ST / PH candidates with a valid GATE / UGC / CSIR / NBHM / NET score.

Master's degree (M.E. / M.Tech.) in Computer Science and Engineering with a minimum of 60% aggregate marks (CGPA 6.5/10) in UG or PG for admission under OC / OBC category and 55% aggregate marks or equivalent CGPA of 6.0/10 for SC / ST / PH candidates.

**V. Faculty of Science & Humanities (Maths / Chemistry / Economics / English)**

Master's degree in the relevant discipline of Science / Humanities / Social Science / Economics with a minimum of 60% aggregate marks (CGPA 6.5/10) with a valid GATE / UGC / CSIR / NBHM / NET score for admission under OC / OBC category and 55% aggregate marks or equivalent CGPA of 6.0/10 for SC / ST / PH candidates with a valid GATE / UGC / CSIR / NBHM / NET score.

## For Physics Department

Master's degree in Physics / Applied Physics / Material Science / Applied Electronics with a minimum of 60% aggregate marks or equivalent CGPA of 6.5/10 with a valid GATE / UGC / CSIR / NET score for admission under OC / OBC category and 55% aggregate marks or equivalent CGPA of 6.0/10 for SC / ST / PH candidates with a valid GATE / UGC / CSIR / NET score.

(or)

M.Tech. in Non Destructive Testing with a minimum of 60% aggregate marks or equivalent CGPA of 6.5/10 for OC / OBC category and 55% aggregate marks or equivalent CGPA of 6.0/10 for SC / ST / PH candidates.

In case of AMIE / AMIIM candidates, minimum of 55% is eligible for admission in all the branches.

## B. ADMISSION CATEGORIES

1. There are three categories of admission under Ph.D. (Full time).

### 1.1 Ph.D. (Full time) - Stipendiary Category

Half Time Research Assistantship (HTRA) is available to full time scholars who are admitted to Ph.D programmes in different departments subject to the availability as stipulated by Ministry of Human Resources Development. The award and renewal of the assistantship / scholarship is as per the guidelines issued by MHRD, from time to time. Those who would receive the assistantship are required to assist the department in academic works to a minimum of 8 hours per week. As per rules in force, candidates interested in getting the assistantship / scholarship, have to give an undertaking on stamped paper to the effect that they will not discontinue the course before completion. The assistantship / scholarship will not be available for sponsored candidates or to scholars getting financial support from any private agency, state and central governments.

The fellowships are available in the following departments. The areas of specialization for Ph.D work in various departments are given in the Annexure-I.

Department	Vacancies				
	UR	OBC	SC	ST	Total
Architecture	1	1	1	-	3
Chemical	1	1	-	-	2
Civil Engineering	1	-	1	1	3
Electrical & Electronics Engineering	-	-	1	-	1
Electronics & Communication Engineering	-	-	-	1	1
Humanities	1	-	1	-	2
Management Studies	-	-	-	1	1
Mathematics	3	1	1	-	5
<b>Total</b>	<b>7</b>	<b>3</b>	<b>5</b>	<b>3</b>	<b>18</b>

*In addition to the above, fellowships are available under DeiTy Ph.D. scheme in the **Departments of Electrical & Electronics Engineering (1 No.) and Electronics & Communication Engineering (6 Nos.)**. Candidates belonging to any category, who fulfill the minimum eligibility and academic requirements can apply for Ph.D. in these Departments.*

However, candidates can apply for Ph.D. (full time) in any department provided they have their own fellowship from funding agencies such as DST, CSIR, UGC, NBHM, etc.

### 1.2 Ph.D. (Full time) - Project category

The applicants working under sponsored project at NIT-T should submit their application through Proper Channel, irrespective of the vacancy position. However, the selection procedure shall remain the same.

### 1.3 Ph.D. (Full time) - Non-Stipendiary Category

In the departments of Science and Humanities, non GATE / UGC / CSIR / NBHM / NET candidates will also be considered for admission on non-stipendiary basis.

## 2. Ph.D. Programme (Part time – External / On campus categories)

Part-time Ph.D. programme is offered for working professionals from Govt. R&D Organizations / Public sector / Industries / National Research laboratories and for faculty members from Govt. / Govt. Aided / private Engineering / Science and Arts Colleges / Universities. There shall be two broad categories for the candidates seeking to pursue part time Ph.D. at NIT-T. The categories are:

**2.1 Part-time (External):** Candidates working in industries of repute /organization having R&D facilities, Govt. R&D Departments / National Research Laboratories / Units of Government / Quasi Government/ Public sector are considered under this category. The candidates must be **officially sponsored** by their employing organization. A candidate working in an establishment which is equipped with the **necessary research and library facilities** only shall be considered for admission under this category. A committee appointed by the Director (consisting of Dean-Academic, Dean-R&C and Head of the Department) in addition to members of Departmental Administrative Council (DAC) shall assess the adequacy of these facilities before recognizing the organization for the above purpose.

At the time of admission, the employer must expressly undertake to pay full salary to the candidate and relieve him / her to complete his / her residential requirement. A candidate applying for admission to the external registration programme must provide detailed information about the research facilities available at his / her organization and a certificate from the employer / Supervisor that these would be available to him / her for carrying out research. He / she should also provide the bio-data of the prospective supervisor (External guide) or Research Coordinator who would supervise / co-ordinate the candidate's work at his / her organization.

**2.2 Part-time (On Campus)** Regular / Full-time teachers / employees working in Govt. / Govt. aided / private Engineering / Technical institutions or Science and Arts Colleges / Universities / industry / public sector are considered under this category. At the time of admission, the candidate must submit a **“no objection”** certificate from the parent institute / organization to relieve him / her to complete his / her residential requirement. The candidate should have **at least three years experience** in a regular / permanent position at the time of application. The Departments concerned would decide the candidature of the selected candidates after thorough discussion and analysis in Departmental Administrative Council (DAC).

### 2.3 Selection Procedure

**For both the categories, the mode and norms for selection shall be on par with those in force for full-time Ph.D. candidates.** Following the scrutiny and short-listing of the applications, eligible candidates will be called to attend a written test. The candidates, short listed based on the written test performance need to appear for a technical and personal interview by the Departmental Research Committee comprising HOD, all eligible Supervisors and the Dean's nominee (observer).

### 2.4 Duration of the Programme

The duration of the programme and the time for submission of the thesis are counted from the date of provisional registration. The minimum duration of the Part-time Ph.D. Programme shall be three years for both categories (External and On campus). This implies that a candidate can submit the synopsis (duly satisfying other academic requirements) only after a minimum period of study of 36 months from the date of registration. The maximum period to complete the part-time Ph.D. Programme is 7 years.

## 2.5 Place of research work

The candidates admitted under external category will normally carry out part or all of his / her research work in their respective industry / organization / national laboratories, employing the scholar. For these scholars, there will be two guides, one internal guide from NIT, Trichy and one external guide from his / her place of work.

For the candidates admitted under “on campus” category, the place of work is NIT-T even though he / she may be carrying out a part of research work in his / her College / Institution. For these scholars, NIT-T faculty shall be the internal (principal) guide. External guide, if any shall be from the industry only.

## 2.6 Course work / Residential requirement

The minimum residential requirement for candidates under external category for undertaking course work is eight weeks. Four relevant theory courses at Master’s degree level (as recommended by the DC) shall be taken by the scholar. The candidates may complete the course work during their mandatory stay of at least eight weeks which may be undertaken in maximum of four instances of two weeks each. The research scholars are permitted to undertake the course work under ‘directed study’ mode. The course work shall be completed within one and half years of provisional registration in the programme. Subsequent to the completion of course work, they can continue their research work in their respective industry / institution.

For the candidates under on campus category, the minimum residential requirement is one semester. Four relevant theory courses at Master’s degree level (as recommended by the DC) shall be taken by the scholar. Normally, the course work shall be undertaken during the residential period of one semester itself. The requirements relating to course work will be as per norms of full-time scholars. Subsequently, the scholars shall continue their research work on a part-time basis, through regular interaction with the guide. The scholar (both external and on campus categories) shall spend at least one week per semester in the NIT-T campus until the submission of synopsis.

**Note: The faculty and staff of NIT-T should submit their application through Proper Channel irrespective of the vacancy position. However, the selection procedure shall remain the same.**

## C. SELECTION PROCEDURE

S. No.	Name of Programme	Category	Mode of Selection
1	Ph.D.	Full time / Part time	Written Test & Interview

The detailed Ph.D Regulations are available at:

<http://www.nitt.edu/home/academics/rules/PhD-regulations.pdf>

## D. HOW TO APPLY?

Candidates applying for Ph.D. programme can apply through the downloaded application form available at [www.nitt.edu](http://www.nitt.edu). The filled up application form along with self-attested photo copies of mark sheets, degree certificates, community certificate, and the necessary enclosures and a non-refundable registration fee of Rs. 300/- (Rs. 100/- for SC / ST / PH) by means of Demand Draft drawn not earlier than **09-11-2015**, in favor of “**The Director, National Institute of Technology, Tiruchirappalli**” payable at Tiruchirappalli’ should reach ‘**The Chairperson(M.S./Ph.D. Admissions), Office of the Dean (Academic), National Institute of Technology, Tiruchirappalli – 620 015, Tamil Nadu**’ on or before **28-12-2015** in a sealed cover superscribing “**Application for Ph.D.**”

### E. NIT-T ENTRANCE TEST and INTERVIEW (Tentative Date)

Programme	Date	Time	Activity
Ph.D.	21-01-2016	10.30 a.m.	Written Test
	22-01-2016	10.30 a.m.	Interview (for shortlisted candidates only)

For further queries, contact:

The Chairperson (M.S. and Ph.D. Admissions)  
Office of the Dean (Academic)  
National Institute of Technology  
Tiruchirappalli- 620015, Tamil Nadu.

Phone: +91 431 2503011, 2503636

**LAST DATE FOR SUBMITTING THE FILLED IN APPLICATION IS 28-12-2015**



**NATIONAL INSTITUTE OF TECHNOLOGY  
TIRUCHIRAPPALLI – 620 015, TAMIL NADU.**

**Ph.D.**

**APPLICATION FOR ADMISSION TO Ph.D. PROGRAMME  
(2015 – 2016)**

Registration Number: \_\_\_\_\_ (for office use only)

Demand Draft Details : D.D. No. \_\_\_\_\_ Date: \_\_\_\_\_

Amount Rs. \_\_\_\_\_ Bank Drawn: \_\_\_\_\_

Application category : 1. Full time (Stipendiary / Non-Stipendiary)  
2. Part-time (On campus / External)

Affix a recent  
Passport Size Photo  
(Self-Attested)

*DEPARTMENT	
AREA OF RESEARCH	

**(USE CAPITAL LETTERS)**

1	Name of the Candidate				
	Father's / Guardian's / Husband's Name				
	Date of Birth (DD-MM-YYYY)		Age:	Years:	
	Sex ( <i>strike out the inappropriate</i> )	Male / Female	Marital Status	Married / Single	
2	#Category ( <input checked="" type="checkbox"/> in the appropriate)	OC <input type="checkbox"/>	OBC <input type="checkbox"/>	SC <input type="checkbox"/>	ST <input type="checkbox"/>
3	#Physically Challenged (PH) (Persons with disability of 40% and above)	YES <input type="checkbox"/>	NO <input type="checkbox"/>		
4	Nationality				

5	<b>Address for Communication</b>	<b>Permanent Address</b>
	Land Line:	Mobile
	E-Mail ID:	

\* Candidates applying for more than one department should submit separate application form with all enclosures for each Department in a single cover. However, a single registration fee is sufficient. The candidates are required to write their full name on the reverse side of the draft.



6. #Qualifying Degree Particulars	UG	PG
Name of the Degree		
Branch / Specialization		
*Percentage of Marks / CGPA		
Class (Honours / Distinction / First / Second)		
Name of the Institution		
Name of the University		
Year of Passing		

\* Write as 'RA' if results awaiting

7	#GATE/NET/NBHM/CSIR/CAT/ UGC (if applicable)	Score & Rank		Year appeared and validity	
		Discipline			
8	Title of P.G. Project				
9	§Details of publication in refereed journals / proceedings of conferences (Please add separate sheet, if needed)				
10	Awards / Prizes / Sports / NCC etc. (Please add separate sheet, if needed)				

### 11. # Details of Professional Experience :

Name & Address of Employer	Position Held	Duration	
		From	To

I do hereby declare that the information furnished in this application are true and correct to the best of my knowledge. If any of the particulars furnished above is found to be incorrect at the time of admission, the admission may be cancelled.

Date:

Signature of the Applicant

# Attach photocopies of certificates. Original certificates should be produced at the time of admission.

§ Attach photocopies of journals/conference papers

**Note:** The part time external Ph.D. applicant should attach the duly filled in Form-1 & Form-2, and Part-Time on campus applicant should attach the duly filled in Form-3. Otherwise, the application will be summarily rejected.



**NATIONAL INSTITUTE OF TECHNOLOGY  
TIRUCHIRAPPALLI – 620 015, TAMIL NADU**

**Ph.D. ENTRANCE EXAMINATION 2015 - 16**

**ADMIT CARD**

Name of the Candidate : \_\_\_\_\_

Signature of the Candidate: \_\_\_\_\_



**FOR OFFICE USE**

Registration Number : 

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Department : \_\_\_\_\_

Examination Date : \_\_\_\_\_ Time: \_\_\_\_\_

**HoD / Admission Co-ordinator**

**Seal**

**Certificate from the Sponsoring Organization**

**(To be submitted in the Official Letter Head by the Ph.D. External Registration Candidates)**

The applicant ..... working as..... in ..... since ..... is herewith recommended and forwarded for admission under External Registration Scheme of the **National Institute of Technology, Tiruchirappalli** for part time Ph.D. Program in the Department of.....

Certified that:

1. This organization has adequate facilities for carrying out the research indicated by the applicant and if he/she is selected, these will be made available to him / her during regular working hours till the completion of the programme.
2. The applicant will be deputed / given leave for duration of his / her residence period at NIT, Tiruchirappalli.
3. Facilities will be made available to the Supervisor (External Guide) to supervise the work of the applicant and to attend the 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 within a month of such transfer.
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 -15.**

**Date:**

**Signature of the Sponsoring Authority  
Name and Designation**

**Seal of the organization / Institution**

**Postal address of the Organization / Institution:**

**Certificate of External guide / Research coordinator**  
(To be submitted by the Ph.D. External Registration 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 Guide / Research coordinator and shall extend all possible guidance and following facilities to enable him/her to carry out his/her research programme towards the submission of thesis.

**\*Particulars of Prospective External Guide / Research Coordinator:**

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

**Research Facilities Available: (To be filled here)**

**Date:** \_\_\_\_\_ **Signature of the External Guide / Research Coordinator**  
**Name and Designation**

**Seal of the organization**

\*The external guide should have a Ph.D. degree and a minimum of 2 papers in refereed journals or the research coordinator should have a PG degree and ten years of experience.

**No Objection Certificate from the Employing Organization**  
(To be submitted in the Official Letter Head by Ph.D. Part time - On campus candidates)

The applicant ..... working as .....in.....since ..... is herewith recommended and forwarded for admission under Part time on campus scheme of the **National Institute of Technology, Tiruchirappalli** for Ph.D. programme in the Department of .....

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 guide and he / she has to pay full fees every semester for the use of laboratory, library and other facilities of the Institute.
2. This organization facility will also be made available 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 within a month of such transfer.
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**

**Prescribed Format for OBC Certificate**  
**FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES APPLYING**  
**FOR APPOINTMENT TO POSTS / ADMISSION TO CENTRAL EDUCATIONAL**  
**INSTITUTIONS (CEIs), UNDER THE GOVERNMENT OF INDIA**

This is to certify that Shri / Smt. / Kum. \_\_\_\_\_ Son / Daughter of  
Shri / Smt. \_\_\_\_\_ of Village/Town  
\_\_\_\_\_ District/Division \_\_\_\_\_ in the  
\_\_\_\_\_ State belongs to the  
\_\_\_\_\_ Community which is recognized as a backward class under:

- (i) Resolution No. 12011/68/93-BCC(C) dated 10/09/93 published in the Gazette of India Extraordinary Part I Section I No. 186 dated 13/09/93.
- (ii) Resolution No. 12011/9/94-BCC dated 19/10/94 published in the Gazette of India Extraordinary Part I Section I No. 163 dated 20/10/94.
- (iii) Resolution No. 12011/7/95-BCC dated 24/05/95 published in the Gazette of India Extraordinary Part I Section I No. 88 dated 25/05/95.
- (iv) Resolution No. 12011/96/94-BCC dated 9/03/96.
- (v) Resolution No. 12011/44/96-BCC dated 6/12/96 published in the Gazette of India Extraordinary Part I Section I No. 210 dated 11/12/96.
- (vi) Resolution No. 12011/13/97-BCC dated 03/12/97.
- (vii) Resolution No. 12011/99/94-BCC dated 11/12/97.
- (viii) Resolution No. 12011/68/98-BCC dated 27/10/99.
- (ix) Resolution No. 12011/88/98-BCC dated 6/12/99 published in the Gazette of India Extraordinary Part I Section I No. 270 dated 06/12/99.
- (x) Resolution No. 12011/36/99-BCC dated 04/04/2000 published in the Gazette of India Extraordinary Part I Section I No. 71 dated 04/04/2000.
- (xi) Resolution No. 12011/44/99-BCC dated 21/09/2000 published in the Gazette of India Extraordinary Part I Section I No. 210 dated 21/09/2000.
- (xii) Resolution No. 12015/9/2000-BCC dated 06/09/2001.
- (xiii) Resolution No. 12011/1/2001-BCC dated 19/06/2003.
- (xiv) Resolution No. 12011/4/2002-BCC dated 13/01/2004.
- (xv) Resolution No. 12011/9/2004-BCC dated 16/01/2006 published in the Gazette of India Extraordinary Part I Section I No. 210 dated 16/01/2006.

Shri / Smt. / Kum. \_\_\_\_\_ and / or his family ordinarily reside(s) in the  
\_\_\_\_\_ District / Division of \_\_\_\_\_ State. This is also to certify that he/she does not  
belong to the persons/sections (Creamy Layer) mentioned in Column 3 of the Schedule to the Government of India, Department of  
Personnel & Training O.M. No. 36012/22/93-Estt.(SCT) dated 08/09/93 which is modified vide OM No. 36033/3/2004 Estt.(Res.)  
dated 09/03/2004.

Dated: \_\_\_\_\_

District Magistrate / Deputy Commissioner / Competent Authority

Seal

**NOTE:**

- (a) The term 'Ordinarily' used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.
- (b) The authorities competent to issue Caste Certificates are indicated below:
  - (i) District Magistrate / Additional Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / Deputy Collector / Ist Class Stipendiary Magistrate / Sub-Divisional magistrate / Taluka Magistrate / Executive Magistrate / Extra Assistant Commissioner (not below the rank of Ist Class Stipendiary Magistrate).
  - (ii) Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
  - (iii) Revenue Officer not below the rank of Tehsildar' and
  - (iv) Sub-Divisional Officer of the area where the candidate and / or his family resides.

**ADDRESS SLIPS**

(Should be filled in by the candidate for communication)

(IN BLOCK LETTERS)

To

Mr. / Ms.....

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PIN.....

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To

Mr. / Ms.....

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To

Mr. / Ms.....

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To

Mr. / Ms.....

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## CHECK LIST

**List of Enclosures** (Put tick mark in the space provided and strike out whichever is not applicable)

1.	Application fee (DD) – Original	
2.	GATE / UGC / NET / CAT / AIMA / CSIR / NBHM Score card (if applicable)	
3.	Photograph (Affixed)	
4.	10 <sup>th</sup> or HSC certificate / Degree / Provisional certificate / Mark sheets	
5.	OBC / SC / ST and PH Certificates (if applicable)	
6.	Form-1/ Form-2 / Form-3 (If applicable)	
7.	Experience Certificate (If applicable)	
8.	Journals / conference papers (if applicable)	
9.	Awards / Prizes / Sports / NCC (if applicable)	

### Important Note\*

- If a candidate is admitted due to an inadvertent error during processing and admission stage, the institute reserves the right to cancel the admission at any time.
- The registration fee is non-refundable.
- The candidate belonging to OBC category should submit the certificate as per the prescribed format attached in the application form.
- Candidates applying for more than one department should submit separate application form with all enclosures for each Department in a single cover. However, a single registration fee is sufficient. The candidates are required to write their full name on the reverse side of the draft.
- Office of the Dean Academic, National Institute of Technology, Tiruchirappalli is not responsible for the non-receipt of applications sent by post or by courier or late receipt of applications due to postal delay or for any reason whatsoever.
- In case of any dispute arising out of the Ph.D. Admission process, the decision of the Director, NIT, Tiruchirappalli shall be final. The jurisdiction for legal disputes, if any, will be limited to Tiruchirappalli City only.



## ANNEXURE – I

### AREAS OF SPECIALIZATION

S.No	Department	Specializations
1	Architecture	Architecture (General/ Any specialization), Building Technology and Construction Management, City Planning/ Town & Country Planning, Fine Arts (Painting), Landscape Architecture, Structures (Civil Engineering), Any emerging area of specialization related to its discipline.
2	Chemical Engineering	Bio-Chemical Engineering/ Biotechnology, Computer Aided Design, Electrochemical Engineering, Nano Technology/ Membranes/ Ionic Liquids/ Advanced Material Synthesis, Particle Technology, Polymer Engineering, Process Control, Process Systems Engineering, Reaction Engineering, Thermodynamics, Transfer Operations ,Waste water Treatment, Separation Process, Any emerging area of specialization related to its discipline.
3	Chemistry	Analytical Chemistry, Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Any emerging area of specialization related to its discipline.
4	Civil Engineering	Construction Engineering, Environmental Engineering, Geotechnical Engineering, Remote Sensing, Structural Engineering, Transportation Engineering, Water resources, Hydraulics & Ocean Engg, Any emerging area of specialization related to its discipline.
5	Computer Applications	Big Data Analytics, Computational Optimization, Computer Networks, Cryptography Data Base Management Systems, Data Compression, Data Mining, Distributed Systems, Graph Theory and Algorithms, Information Retrieval, Information Security, Multimedia Computation, Parallel Computing, Software Engineering, Theory of Computing, Web Technology.
6	Computer Science and Engineering	Algorithms and Graph Theory, Computer Architecture/Computer hardware, Computer Networks and Network Security, Databases and Data mining, Operating Systems and Cloud Computing, Speech and Vision, Theoretical Computer Science, VLSI design, Web Informatics and Web Technology, Wireless Networks, Any emerging/relevant area of specialization related to CSE discipline.
7	Electronics and Communication Engineering	Digital VLSI Embedded Systems, Electronic packaging, Microwave Engineering / Microwave Integrated Circuits, Networking, Optical communication, RFMEMS, Signal and Image processing, VLSI, Any emerging area of specialization related to its discipline.
8	Electrical and Electronics Engineering	Applied Electronics, Computer Science and Engineering, Control and Instrumentation Energy Engineering, High Voltage Engineering, Power Electronics / Power Electronics & Drives / Electrical Drives & Control / Electrical Machines, Power Systems, VLSI Systems, Any emerging area of specialization related to its discipline.
9	Energy and Environment	Energy Engineering, Environmental Engineering, Any emerging area of specialization related to its discipline.
10.	Humanities	<b>English :</b> Computer aided language teaching, English Language Teaching, Linguistics, Any emerging area of specialization related to its disciplines <b>Economics:</b> Economics, Entrepreneurship Development, Financial Economics, Industrial Economics, Any emerging area of specialization related to its discipline.
11.	Instrumentation and Control Engineering	Control (all sub-fields included), Instrumentation (all sub-fields included), Any emerging area of specialization related to Instrumentation and Control Engineering.

12	Management Studies	Finance, General Management, Human Resources, Information Systems, Marketing Operations, Technology Management, Any emerging area of specialization related to its discipline.
13.	Mathematics	Applied Mathematics, Computational Fluid Dynamics, Graph Theory, Numerical Analysis, Operations Research, Any emerging area specialization related to its discipline.
14.	Mechanical Engineering	Absorption, Acoustics and Noise Control, Alternate Fuels, Automobile Engineering, Biomass Combustion and Gasification, Biofuels, Biomechanics, Biomethanation, CAD/CAM, Combustion, Computational Fluid Dynamics, Cryogenics, Design of Experiments, Design of Pressure Vessel and Piping, Dynamics, Electronic Cooling, Energy Conservation and Management, Energy and Sustainable Development, Environmental Pollution Control, Ergonomics, FEM, Fluid Mechanics, Fluid Power Systems and Control, Heat Pumps, Heat Transfer, IC Engines, Industrial Safety Engineering, Laser Materials Processing, Machine Design, Mechanical Properties of Materials, Mechanisms, Mechatronics, Micro Electro-Mechanical Systems (MEMS), Mixture Design, Modeling & Simulation, Nano-Additives, Nanomaterials and Composites, Occupational Health and Safety, Optimization and Design, Polymer Nanocomposites, Product Safety, Refrigeration and Air Conditioning, Renewable Energy, Reuse and Recycling, Risk Analysis, Robotics, Solar Energy Applications, Stress Analysis of Machine Elements, Total Quality Management, Tribology, Turbomachines, Turbulence, Vehicle Crashworthiness and Occupant Safety, Vibrational Analysis, Waste Management, Welding, Wind, Any emerging area specialization related to Mechanical Engineering.
15.	Metallurgical and Materials Engineering	Bio-materials, Ceramic Materials, Composite Materials, Computational materials science, Corrosion, Electro – chemistry, Failure Analysis, Foundry Technology, Fuel Cells, Iron making and Steel making, 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, Welding, Any emerging area of specialization related to its discipline.
16.	Physics	Fiber Optic Sensors, Laser Spectroscopy, Materials Science, Nano materials, Thin Films, Photonics, Quantum Computation and Information, Theoretical Condensed Matter Physics, Any emerging area specialization related to its discipline.
17.	Production Engineering	Casting/Welding/Manufacturing Technology, Flexible Manufacturing/Computer Integrated manufacturing, Human factor Engineering/ Ergonomics, Machine Tools and Tool Engineering, Machining /Micromachining, Material Handling Systems, Metal forming Technology, Nontraditional material processing/Composite Materials Processing, Quality and Reliability Engineering, Rapid prototyping/Rapid Manufacturing, Robotics/ Mechatronics, Supply Chain Management/Operations Management/Industrial Engineering, Tribology and surface Engineering, Any emerging area of specialization related to its discipline.

# ADMISSION TO M.S. (by Research) PROGRAMMES (January 2016 Session)

*Information Brochure and Application Form*



**NATIONAL INSTITUTE OF TECHNOLOGY  
TIRUCHIRAPPALLI – 620 015, TAMIL NADU**



**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015  
TAMILNADU**

**ADMISSION TO M.S. (by Research) PROGRAMMES 2015-2016 (January 2016 Session)**

**M.S. (by Research) Programme (Full time)**

All branches of Engineering.

**A. ELIGIBILITY FOR ADMISSION TO M.S. (by Research)**

Candidates for admission to M.S. (by Research) degree programme shall be required to have 60 percentage of aggregate marks or 6.5/10 CGPA (for OC / OBC) in the B.E. / B.Tech. degree and a valid GATE SCORE in the appropriate subject. In case of SC / ST / PH candidates the eligibility requirement is 55% aggregate marks or equivalent CGPA of 6.0/10 and a valid GATE SCORE in the appropriate subject.

In case of AMIE / AMIIM candidates, minimum mark of 55% is eligible for admission in all branches.

**B. FINANCIAL ASSISTANCE**

Half Time Research Assistantship (HTRA) is available to those who are admitted to M.S. (by Research) programmes in different departments subject to the availability as stipulated by Ministry of Human Resources Development.

The award and renewal of this assistantship / scholarship is as per the guidelines issued by MHRD from time to time. Those who are receiving the assistantship are required to assist the department in academic works to a minimum of 8 hours per week. As per rules in force, those who are interested in getting the assistantship / scholarship, have to give an undertaking on stamped paper to the effect that they will not discontinue the course before completion. Those who discontinue the M.S. (by Research) programme are required to refund the entire scholarship amount drawn by them. The assistantship / scholarship will not be available to sponsored candidates or any student getting any other financial support from any agency, state and central governments.

The number of fellowships available under this full time category in various departments are,

Department	Vacancies				
	UR	OBC	SC	ST	Total
Chemical Engineering	1	1	-	-	2
Civil Engineering	2	1	-	-	3
Computer Science and Engineering	-	1	-	-	1
Electrical and Electronics Engineering	1	-	-	-	1
Electronics and Communication Engineering	2	-	1	-	3
Energy and Environment	1	-	1	-	2
Mechanical Engineering	1	-	-	1	2
Metallurgical and Materials Engineering	1	1	1	-	3
Production Engineering	-	1	-	1	2
Physics (Non-Destructive Testing)	1	-	1	-	2
<b>Total</b>	<b>10</b>	<b>5</b>	<b>4</b>	<b>2</b>	<b>21</b>

## M.S. (by Research) Programme (Part time)

All branches of Engineering and Centre of Excellence in Corrosion & Surface Engineering.

### C. Norms for Part-Time (Sponsored)

The candidates from organizations with R & D Labs of National repute and public sector undertakings such as DRDO, ISRO, IGCAR, BHEL, BEL, NLC etc., are eligible to apply. Such candidates may have an External guide from their parent organization in addition to the Internal Guide. External guide should have a minimum PG degree with research contribution.

### D. SELECTION

Sl. No.	Name of the Programme	Category	Mode of Selection
1	M.S.	Stipendiary	GATE score*
2	M.S.	Sponsored	Interview

\* GATE Examination paper should be in their UG discipline

The detailed M.S. (By Research) Regulations are available at:  
<http://www.nitt.edu/home/academics/rules/MS.pdf>

### E. How to apply?

Candidates applying for M.S. (by Research) can apply through the downloaded application available at [www.nitt.edu](http://www.nitt.edu). The filled up application form along with self-attested photo copies of mark sheets, degree certificates, community certificate and the necessary enclosures and a non-refundable registration fee of Rs.300/- (Rs.100/- for SC/ST/PH) by means of Demand Draft drawn not earlier than 09-11-2015 in favor of "The Director, National Institute of Technology, Tiruchirappalli" payable at Tiruchirappalli should reach '**The Chairperson(M.S./Ph.D. Admissions), Office of the Dean (Academic), National Institute of Technology, Tiruchirappalli – 620 015, Tamil Nadu**' on or before 28-12-2015.

Candidates applying for more than one department should submit separate application form for each department **in a sealed cover superscribing "Application for M.S. (by Research)"**. However, a single registration fee is sufficient. The candidates are requested to write their name and GATE registration number on the reverse side of the draft.

### F. NIT-T COUNSELING and INTERVIEW (Tentative Dates)

Programme	Category	Date	Time	Activity
M.S.	Stipendiary	20-01-2016	10.30 a.m.	Counselling
M.S	Sponsored	20-01-2016	10.30 a.m.	Interview

For any queries, contact:

The Chairperson (M.S. and Ph.D. Admissions)  
Office of the Dean (Academic)  
National Institute of Technology  
Tiruchirappalli- 620015, Tamil Nadu.

Phone: +91 431 2503011, 2503636

**LAST DATE FOR SUBMITTING FILLED IN APPLICATION IS 28-12-2015**



**NATIONAL INSTITUTE OF TECHNOLOGY  
TIRUCHIRAPPALLI – 620 015, TAMIL NADU**

**APPLICATION FOR ADMISSION TO M.S. (by Research)  
PROGRAMME (2015 – 2016)**

Registration Number: \_\_\_\_\_

(for office use only)

Demand Draft Details : D.D. No. \_\_\_\_\_ Date: \_\_\_\_\_

Amount Rs. \_\_\_\_\_ Bank Drawn: \_\_\_\_\_

Application category : Full time / Part-time (Sponsored)

¥DEPARTMENT	
AREA OF RESEARCH	

Affix a recent  
Passport Size Photo  
(Self-Attested)

**(USE CAPITAL LETTERS)**

1	Name of the Candidate				
	Father's / Guardian's / Husband's Name				
	Date of Birth (DD-MM-YYYY)		Age:	Years:	
	Sex ( <i>strike out the inappropriate</i> )	Male / Female	Marital Status	Married / Single	
2	#Category ( <input checked="" type="checkbox"/> in the appropriate)	OC <input type="checkbox"/>	OBC <input type="checkbox"/>	SC <input type="checkbox"/>	ST <input type="checkbox"/>
3	#Physically Challenged (PH) (Persons with disability of 40% and above)	YES <input type="checkbox"/>	NO <input type="checkbox"/>		
4	Nationality				

5	<b>Address for Communication</b>		<b>Permanent Address</b>	
	Land Line:		Mobile	
	E-Mail ID:			

¥ Candidates applying for more than one department should submit separate application form with all enclosures for each Department in single cover. However, a single registration fee is sufficient. The candidates are required to write their full name on the reverse side of the draft.

6. #Qualifying Degree Particulars	UG	PG
Name of the Degree		
Branch / Specialization		
*Percentage of Marks / CGPA		
Class (Honours / Distinction / First / Second)		
Name of the Institution		
Name of the University		
Year of Passing		

**7. #Details of marks obtained:**

Year	Semester	Maximum Marks/GPA	Marks / GPA obtained	Remarks
I	I			
	II			
II	III			
	IV			
III	V			
	VI			
IV	VII			
	*VIII			

\* Write as 'RA' if results awaiting

8. #GATE Score (if applicable)	Score & Rank	Year appeared and Validity
	Discipline	

**9. # Details of Professional Experience:**

Name & Address of Employer	Position Held	Duration	
		From	To

I do hereby declare that the information furnished in this application are true and correct to the best of my knowledge. If any of the particulars furnished above is found to be incorrect at the time of admission, the admission may be cancelled.

Date:

**Signature of the Applicant**

# Attach photocopies of certificates. Original certificates should be produced at the time of admission.

**Note:** The M.S. Part time (Sponsored) applicant should attach the duly filled in sponsorship certificate. Otherwise, the application will be summarily rejected.

## **Sponsorship Certificate**

(In official letter head)

The applicant Mr. / Ms. \_\_\_\_\_ is employed as \_\_\_\_\_ in our Institute / organization since \_\_\_\_\_. He / She is sponsored to pursue M.S. in the department of \_\_\_\_\_, National Institute of Technology, Tiruchirappalli – 15. He / She will be relieved from his / her duty during the programme, if selected.

Name and address of the Sponsoring authority:

**Seal**

**Signature of the Head of the  
Sponsoring Institution /Organization**



**Prescribed Format for OBC Certificate**  
**FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES APPLYING**  
**FOR APPOINTMENT TO POSTS / ADMISSION TO CENTRAL EDUCATIONAL**  
**INSTITUTIONS (CEIs), UNDER THE GOVERNMENT OF INDIA**

This is to certify that Shri / Smt. / Kum. \_\_\_\_\_ Son / Daughter of  
Shri / Smt. \_\_\_\_\_ of Village/Town  
\_\_\_\_\_ District/Division \_\_\_\_\_ in the  
\_\_\_\_\_ State belongs to the  
\_\_\_\_\_ Community which is recognized as a backward class under:

- (i) Resolution No. 12011/68/93-BCC(C) dated 10/09/93 published in the Gazette of India Extraordinary Part I Section I No. 186 dated 13/09/93.
- (xi) Resolution No. 12011/9/94-BCC dated 19/10/94 published in the Gazette of India Extraordinary Part I Section I No. 163 dated 20/10/94.
- (xii) Resolution No. 12011/7/95-BCC dated 24/05/95 published in the Gazette of India Extraordinary Part I Section I No. 88 dated 25/05/95.
- (xiii) Resolution No. 12011/96/94-BCC dated 9/03/96.
- (xiv) Resolution No. 12011/44/96-BCC dated 6/12/96 published in the Gazette of India Extraordinary Part I Section I No. 210 dated 11/12/96.
- (xv) Resolution No. 12011/13/97-BCC dated 03/12/97.
- (xvi) Resolution No. 12011/99/94-BCC dated 11/12/97.
- (xvii) Resolution No. 12011/68/98-BCC dated 27/10/99.
- (xviii) Resolution No. 12011/88/98-BCC dated 6/12/99 published in the Gazette of India Extraordinary Part I Section I No. 270 dated 06/12/99.
- (xix) Resolution No. 12011/36/99-BCC dated 04/04/2000 published in the Gazette of India Extraordinary Part I Section I No. 71 dated 04/04/2000.
- (xi) Resolution No. 12011/44/99-BCC dated 21/09/2000 published in the Gazette of India Extraordinary Part I Section I No. 210 dated 21/09/2000.
- (xvi) Resolution No. 12015/9/2000-BCC dated 06/09/2001.
- (xvii) Resolution No. 12011/1/2001-BCC dated 19/06/2003.
- (xviii) Resolution No. 12011/4/2002-BCC dated 13/01/2004.
- (xix) Resolution No. 12011/9/2004-BCC dated 16/01/2006 published in the Gazette of India Extraordinary Part I Section I No. 210 dated 16/01/2006.

Shri / Smt. / Kum. \_\_\_\_\_ and / or his family ordinarily reside(s) in the  
\_\_\_\_\_ District / Division of \_\_\_\_\_ State. This is also to certify that he/she does not  
belong to the persons/sections (Creamy Layer) mentioned in Column 3 of the Schedule to the Government of India, Department of  
Personnel & Training O.M. No. 36012/22/93-Estt.(SCT) dated 08/09/93 which is modified vide OM No. 36033/3/2004 Estt.(Res.)  
dated 09/03/2004.

Dated: \_\_\_\_\_

District Magistrate / Deputy Commissioner / Competent Authority

Seal

**NOTE:**

- (c) The term 'Ordinarily' used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.
- (d) The authorities competent to issue Caste Certificates are indicated below:
  - (v) District Magistrate / Additional Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / Deputy Collector / 1st Class Stipendiary Magistrate / Sub-Divisional magistrate / Taluka Magistrate / Executive Magistrate / Extra Assistant Commissioner (not below the rank of 1st Class Stipendiary Magistrate).
  - (vi) Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
  - (vii) Revenue Officer not below the rank of Tehsildar' and
  - (viii) Sub-Divisional Officer of the area where the candidate and / or his family resides.

**ADDRESS SLIPS**

(Should be filled in by the candidate for communication)

**(IN BLOCK LETTERS)**

To

Mr. / Ms.....

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PIN.....

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To

Mr. / Ms.....

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To

Mr. / Ms.....

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To

Mr. / Ms.....

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## CHECK LIST

### List of Enclosures:

(Put tick mark in the space provided and strike out whichever is not applicable)

1.	Application fee (DD) – Original	
2.	GATE Score card (if applicable)	
3.	Photograph (Affixed)	
4.	10 <sup>th</sup> or HSC certificate Degree / Provisional certificate / Mark sheets	
5.	OBC / SC / ST and PH Certificates (if applicable)	
6.	Sponsorship certificate (If applicable)	
7.	Experience Certificate (If applicable)	
8.	Journals / conference papers (if applicable)	
9.	Awards / Prizes / Sports / NCC (if applicable)	

### \*Important Note\*

- If a candidate is admitted due to an inadvertent error during processing and admission stage, the institute reserves the right to cancel the admission at any time.
- The registration fee is non-refundable.
- The candidate belonging to OBC category should submit the certificate as per the prescribed format attached in the application form.
- Candidates applying for more than one department should submit separate application form with all enclosures for each Department in a single cover. However, a single registration fee is sufficient. The candidates are required to write their full name on the reverse side of the draft.
- Office of the Dean Academic, National Institute of Technology, Tiruchirappalli is not responsible for the non-receipt of applications sent by post or by courier or late receipt of applications due to postal delay or for any reason whatsoever.
- In case of any dispute arising out of the M.S. (by Research) Admission process, the decision of Director, NIT, Tiruchirappalli shall be final. The jurisdiction for legal disputes, if any, will be limited to Tiruchirappalli City only.