Admission into Ph.D. Programs for July, 2012 session

The Ph.D. Programs are offered in the Departments of

• Civil Engineering
• Electrical Engineering
• Mechanical Engineering
• Electronics and Communications Engineering
• Metallurgical and Materials Engineering
• Chemical Engineering
• Computer Science and Engineering
• Physics
• Chemistry
• Mathematics   **and**
• School of Management

The Ph.D. Programs are offered on: **(a) Full-time basis**

(b) Part-time basis for the **candidates from National Research Laboratories and from Public Sector Units having research facilities and having an MOU with NIT-Warangal ONLY**

Ph.D. PROGRAM ON FULLTIME BASIS IN ENGINEERING DEPARTMENTS:

ELIGIBILITY AND SELECTION

GATE QUALIFICATION

Candidates
   (i)   who have obtained admission to M. Tech. / M.S. programs through GATE score
                              (OR)
   (ii) who have a valid GATE score (qualified in GATE 2011 or 2012)
are eligible for admission to Ph. D. program.

PROGRAM SPECIFIC QUALIFICATIONS:

CIVIL ENGINEERING:

Minimum Qualifications: B.Tech. and M.Tech. / M.E. / M.S. in Civil Engineering or equivalent degree with first class **(at all levels)** with a Cumulative Grade Point Average (CGPA) of at least 6.5 on a 10 point scale grading system, or not less than 60% marks in the aggregate.

For SC/ST candidates Cumulative Grade Point Average (CGPA) of at least 6.0 on a 10 point scale grading system, or not less than 55% marks in aggregate.

Research areas:

- ➢ **Structural Dynamics & Earthquake Engineering**
- ➢ **Civil Engineering Materials**
- ➢ **Hydrology & Water Resources Engineering**
- ➢ **Geotechnical Engineering**
- ➢ **Transportation Engineering**
- ➢ **RS & GIS**
- ➢ **Environmental Engineering**

ELECTRICAL ENGINEERING

*Minimum Qualifications***:** B.Tech. and M.Tech. / M.E. / M.S. in Electrical Engineering or equivalent degree with first class **(at all levels)** with a Cumulative Grade Point Average (CGPA) of at least 6.5 on a 10 point scale grading system, or not less than 60% marks in the aggregate.

For SC/ST candidates Cumulative Grade Point Average (CGPA) of at least 6.0 on a 10 point scale grading system, or not less than 55% marks in aggregate.

Research areas:

Power Systems:

- ➢ **FACTS/HVDC control**
- ➢ **Power Quality**
- ➢ **State estimation**
  Real time control of Power Systems
- ➢ **Power System Protection**
- ➢ **Power System Deregulation**

Power Electronics & Drives:

- ➢ **Switch mode Power Conversion**
- ➢ **Non-conventional Energy sources**
- ➢ **Induction motor drives**
- ➢ **Power Quality**

MECHANICAL ENGINEERING

Minimum Qualifications: B.Tech. and M.Tech. / M.E. / M.S. or equivalent degree with first class **(at all levels)** with a Cumulative Grade Point Average (CGPA) of at least on a 10 point scale grading system, or not less than 60% marks in the aggregate.

For SC/ST candidates Cumulative Grade Point Average (CGPA) of at least 6.0 on a 10 point scale grading system, or not less than 55% marks in aggregate.

Research areas:

- ➢ **Manufacturing Engineering**
- ➢ **Industrial Engineering**
- ➢ **Materials Technology**
- ➢ **Heat Transfer**
- ➢ **Fluid Mechanics**
- ➢ **I. C. Engines & Alternate Fuels**
- ➢ **Emissions Control**
- ➢ **Alternative Sources of Energy**

ELECTRONICS AND COMMUNICATION ENGINEERING

Minimum Qualifications: B.Tech. and M.Tech. / M.E. / M.S. or equivalent degree with first class **(at all levels)** with a Cumulative Grade Point Average (CGPA) of at least 6.5 on a 10 point scale grading system, or not less than 60% marks in the aggregate.

For SC/ST candidates Cumulative Grade Point Average (CGPA) of at least 6.0 on a 10 point scale grading system, or not less than 55% marks in aggregate.

Research areas:

- ➢ **Signal Processing**
- ➢ **Microwave Antennas**
- ➢ **Wide Band Communications**
- ➢ **VLSI**

METALLURGICAL AND MATERIALS ENGINEERING

*Minimum Qualifications***:** B.Tech. and M.Tech. / M.E. / M.S. or equivalent degree with first class **(at all levels)** with a Cumulative Grade Point Average (CGPA) of at least 6.5 on a 10 point scale grading system, or not less than 60% marks in the aggregate.

For SC/ST candidates Cumulative Grade Point Average (CGPA) of at least 6.0 on a 10 point scale grading system, or not less than 55% marks in aggregate.

- ➤ **Physical Metallurgy**
- ➤ **Heat Treatment**
- ➤ **Characterization and Testing of Materials**
- ➤ **Rapid Solidification of Metals and Alloys**
- ➤ **Sulphide Metallurgy**
- ➤ **Utilization of Metallurgical Wastes**
- ➤ **Lime-Scavenged Reduction**
- ➤ **Power Production and**
- ➤ **Characterization**
- ➤ **Thermal & Thermo-Chemical Treatment of Steels**
- ➤ **Surface Engineering High Temperature Corrosion and Oxidation**
- ➤ **Welding, Environment degradation of Materials**
- ➤ **Utilization of Metallurgical waste solutions**
- ➤ **Utilization**
- ➤ **Discharge machining of Ceramic Materials**
- ➤ **Biomaterials**
- ➤ **Composite Materials**
- ➤ **Nano Materials**

CHEMICAL ENGINEERING

Minimum Qualifications: B.Tech. and M.Tech. / M.E. / M.S. or equivalent degree with first class **(at all levels)** with a Cumulative Grade Point Average (CGPA) of at least 6.5 on a 10 point scale grading system, or not less than 60% marks in the aggregate.

For SC/ST candidates Cumulative Grade Point Average (CGPA) of at least 6.0 on a 10 point scale grading system, or not less than 55% marks in aggregate.

Research areas:

- ➤ **Modeling, Simulation and optimization**
- ➤ **Fluidized Bed Reactors**
- ➤ **Biomass Gasification**
- ➤ **Plate Heat Exchangers**
- ➤ **Transfer Operations**
- ➤ **Bioprocess Engineering**
- ➤ **Fluidization**
- ➤ **Fermentation**
- ➤ **Fluidized Bed Drying**
- ➤ **Bioprocess Engineering**
- ➤ **Biological Waste Water Treatment**
- ➤ **Bioreactors**
- ➤ **Heat Transfer**
- ➤ **CFD**

COMPUTER SCIENCE AND ENGINEERING

NOTE: **Few additional fellowships sponsored by M/s. TCS with a fellowship of Rs. 23,000/- per month are also available.**

*Minimum Qualifications***:** B.Tech. & M.Tech. / M.E. / M.S. or equivalent degree with first class **(at all levels)** with a Cumulative Grade Point Average (CGPA) of at least in 10 point scale grading system, or not less than 60% marks in the aggregate.

For SC/ST candidates Cumulative Grade Point Average (CGPA) of at least 6.0 on a 10 point scale grading system, or not less than 55% marks in aggregate.

Research areas:

> ➢ **Data Bases**
> ➢ **Business Intelligence**
> ➢ **Information Security**
> ➢ **Neural Networks and**
> ➢ **Soft Computing**

Ph.D. PROGRAM ON FULLTIME BASIS IN SCIENCE DEPARTMENTS:

ELIGIBILITY AND SELECTION

Candidates with valid GATE / NET scores only, are eligible for admission to Ph. D program.

MATHEMATICS

*Minimum Qualifications***:** B.Sc. and M.Sc. / M.Phil. or equivalent degree **(at all levels)** with first class with a Cumulative Grade Point Average (CGPA) of at least 6.5 on a 10 point scale grading system, or not less than 60% marks in the aggregate.

For SC/ST candidates Cumulative Grade Point Average (CGPA) of at least 6.0 on a 10 point scale grading system, or not less than 55% marks in aggregate.

Research areas:

> ➢ **Fluid Mechanics**
> ➢ **Bio-Mechanics**
> ➢ **Numerical Analysis**
> ➢ **Operations Research**
> ➢ **Coding Theory**

PHYSICS

*Minimum Qualifications***:** B.Sc. and M.Sc. / M.Phil. or equivalent degree with first class **(at all levels)** with a Cumulative Grade Point Average (CGPA) of at least 6.5 on a 10 point scale grading system, or not less than 60% marks in the aggregate.

For SC/ST candidates Cumulative Grade Point Average (CGPA) of at least 6.0 on a 10 point scale grading system, or not less than 55% marks in aggregate.

Research areas:

- ➢ **Instrumentation and Signal Processing**
- ➢ **Solid State Physics**
- ➢ **Fiber Optic sensing and Photonics**
- ➢ **Electronic Instrumentation**

CHEMISTRY

*Minimum Qualifications***:** B.Sc. and M.Sc. / M.Phil. or equivalent degree with first class **(at all levels)** with a Cumulative Grade Point Average (CGPA) of at least 6.5 on a 10 point scale grading system, or not less than 60% marks in the aggregate.

For SC/ST candidates Cumulative Grade Point Average (CGPA) of at least 6.0 on a 10 point scale grading system, or not less than 55% marks in aggregate.

Research areas:

- ➢ **Organic Synthesis**
- ➢ **Micellar Catelysis**
- ➢ **Corrosion inhibition**
- ➢ **Environmental Pollution Monitoring & Control**
- ➢ **Co-ordination Chemistry**
- ➢ **Mollecular Modelling**
- ➢ **Nano Chemistry**

Ph.D. PROGRAM ON FULLTIME BASIS
IN SCHOOL OF MANAGEMENT:

ELIGIBILITY AND SELECTION

Candidates possessing M.B.A. and
   (i)   **B. Tech. / M.Tech. in any branch of Engineering with a valid GATE Score**

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OR

</div>

   (ii)   **M.Tech. (admission through GATE score) in any branch of Engineering**
are eligible for admission to Ph.D. program in School of Management.

Minimum Qualifications:

For Full Time:

B.Tech. / M.Tech. with MBA (Two years Full-Time) from reputed Institute / University with first class **(at all levels)** with a Cumulative Grade Point sAverage (CGPA) of at least 6.5 on a 10 point scale grading system, or not less than 60% marks in the aggregate.

For SC/ST candidates Cumulative Grade Point Average (CGPA) of at least 6.0 on a 10 point scale grading system, or not less than 55% marks in aggregate.

Research areas:

- ➢ **Marketing**
- ➢ **Human Resources**
- ➢ **Finance**
- ➢ **Economics**

IMPORTANT NOTE

CANDIDATES WITH GATE SCORE GREATER THAN OR EQUAL TO THE CUT-OFF MARK SPECIFIED IN THE GATE SCORE CARD FOR RESPECTIVE CATEGORIES VIZ; OC, OBC AND SC/ST ONLY ARE ELIGIBLE FOR INSTITUTE FELLOWSHIP

THE NAMES OF THE SHORTLISTED CANDIDATES CALLED FOR AND THE DATES OF INTERVIEW AND / OR WRITTEN TEST WILL BE AVAILABLE ON OUR WEB SITE: *WWW.NITW.AC.IN* AFTER 20.06.2012.

The candidates selected for admission into Ph.D. under Full-time program are eligible to receive institute fellowship as follows. The tenure of a research fellowship is three years only.

(a) Candidates joining with Master's degree in, Engineering / Technology or a degree recognized as equivalent thereto,

       Rs.18, 000/- per month, for the first two years
       Rs.20, 000/- per month, in the third year.

(b) Candidates joining with a Bachelor's degree in Engineering / Technology or Master's degree in Science or a degree recognized as equivalent to any of them.

       Rs. 16,000/- per month, for the first two years
       Rs. 18,000/- per month in the third year

(c) Candidates joining under TCS fellowship

       Rs. 23,000/- per month

The above institute fellowships are subjected to changes from time to time, under instructions of the Ministry of Human Resource Development, Government of India.

The candidates will be selected through an institute entrance test and/or an interview.

The candidates selected for admission for Ph.D. under Fulltime basis are required to stay at the campus only.

FEE STRUCTURE FOR FULL-TIME / PART-TIME (TENTATIVE)

Sl. No.	Details	Amount (Rs.)
1.	At the time of admission (One time payment)	
	(a) Admission Fee	400.00
	(b) ID Card	100.00
	(c) Alumni Association Fee	1,000.00
	(d) Security Deposit / Lab./Library (Refundable)	4,000.00
	(e) Institute Development Contribution	6,000.00
	(f) Cooperative Stores	250.00
	Total:	**11,750.00**
2.	Annual Fee	
	(a) Tuition Fee (per semester)	5000.00
	(b) Computer and Email (per annum)	1,000.00
	(c) Other Fee* (See the details below) (per annum)	3,000.00
	Total	**9,000.00**

Details of Other Fee

	Amount (Rs.)
(a) Medical Fee	700.00
(b) Students Club	300.00
(c) Games Fee	200.00
(d) Magazine Fee	100.00
(e) Students Library Fund	1,200.00
(f) Students Aid Fund	100.00
(g) Students Welfare Fund	100.00
(h) Inter University Tournament	100.00
(i) Film Club Charges	100.00
(j) Technical Association Fee	100.00
Total	**3,000.00**

Total amount to be paid at the time of admission in to the first semester (1+2) — 20,750.00

If any full time candidate wishes to get converted into part-time basis, subject to eligibility, has to deposit entire Fellowship amount received by them. This deposit can be returned to the candidate after they are awarded Ph.D.

Ph.D. PROGRAM ON FULL-TIME BASIS

(i) The proforma of the application is given below. Detailed form is to be downloaded from the website. Applications are not kept for sale at the institute.

(ii) The filled-in applications along with necessary documents and a crossed **Demand Draft** for Rs. 600/- (Rs. 300/- in the case of SC/ST candidates) towards Registration fee, **drawn in favour of The Director, National Institute of Technology, Warangal, payable at SBH, NIT Warangal branch (Code No. 2149) or SBI, Battala Bazar (Code No. 07456) should reach Deputy Registrar, Academic Section, National Institute of Technology, Warangal 506 021 on or before 08.06.2012.**

(iii) Super scribe on the envelope **"APPLICATION FOR ADMISSION TO PH.D. IN THE DEPARTMENT OF _____"**

(iv) The candidate is required to write on the reverse side of the Demand Draft his/her name and the program to which the application is being submitted.

(v) It is advised to send the application by Registered Post with acknowledgement due.

(vi) The candidates who are employed and wish to do Ph.D. under full time must enclose NO OBJECTION certificate from the employer.

(vii) Check whether the following documents are attached to the application form

DD with details [as described in (iii) above] written on its reverse side
- (a) Attested copy of SSC in support of Date of Birth
- (b) Attested copy of Intermediate Certificate
- (c) Attested copies of Degree Certificates and Marks Memos of the qualifying Examinations
- (d) List of publications (if any)
- (e) Attested copy of the caste certificate (in case of SC/ST candidates)
- (f) No Objection Certificate from the employer
- (g) Photo being pasted on the application form
- (h) Attested copy of the Grade/Rank Card of GATE or NET or CAT or GMAT

NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

Application for Admission into Ph.D. (Full-time) Program
(July, 2012 Session)

Affix a Passport size
Photo

Fee paid Rs. _____   DD No. _____   dt. _____

Department into which admission is sought: _____

Application to program on: **FULLTIME BASIS**

Note: (i) Last date for receiving application form: **08.06.2012**

(ii) Attested copies of certificates in support of information furnished should be
attached.

1. **Name** (in Block Letters): _____

2. **Date of Birth** (as per SSC certificate in dd/mm/yy format): _____

3. **Address for Communication**: _____

_____

_____PIN CODE: _____

Email: _____ Mobile No. _____

4. (a) **Does the candidate belong to SC or ST or OBC?**

   If YES, state SC or ST or OBC.

   (b) **Is the candidate Physically Challenged?…………………**   **YES / NO**

5. Academic Record: (Give in the reverse chronological order)

Examination	Subjects	Univ./Board	Year	Class	% of Marks / CGPA
Intermediate					
SSC					

6. **GATE / NET Qualification**: _____

7. **Industrial/Research / Teaching Experience**: (Give in the reverse chronological order. Use a separate sheet, if required)

_____

_____

8. **Research Publications**: (Attach a list of publications)

9. **Fields of Research Interests**: _____

_____

_____

 Field of Proposed Research: _____

Declaration

I, _____ do hereby declare to abide by the rules and   regulations of the institute and do affirm that the particulars furnished in this application are correct and complete.

Place: _____

 Date: _____   **Signature of the Candidate**

FOR FULL-TIME CANDIDATES THOSE WHO ARE WORKING

SPONSORING CERTIFICATE FROM THE PARENT ORGANIZATION FOR Ph.D. CANDIDATES, TO BE SUBMITTED ALONG WITH THE APPLICATION

C E R T I F I C A T E

This is to certify that _____ is sponsoring Mr./Ms _____ to pursue Ph.D. programme in _____ at the National Institute of Technology, Warangal. In case if he/she is selected for admission, he/she will be relieved from this institute for the entire duration of the program. If the candidate does not abide by the rules, the institute reserves the right to cancel the Ph.D. registration of the candidate at any time.

Name and Signature of the
Executive Head of the Institution

Official seal:

Ph.D. PROGRAM ON PART-TIME BASIS IS OPEN TO

(a) Persons working in National Research Laboratories / Govt. R&D, who have put-in two years of experience.
(b) Persons working in PSUs having an MOU with NIT, Warangal.
(c) Permanent faculty members of NIT,Warangal.
(d) Candidates must have put in atleast two years experience in the organizations from which they are applying.

Essential Requirements: **Same as Full time except the requirements of having valid GATE score**

The candidates selected for admission for Ph.D. under Part time basis are not eligible to receive institute fellowship.

The candidates will be selected through an institute entrance test and / or an interview.

Minimum and Maximum Periods of the Program:

Qualifications at the time of admission into Ph.D. Program	Minimum & Maximum Periods in Years	
	Minimum	**Maximum**
M.E./M.Tech./M.Phil./M.S./M.Sc(Tech.) of 3 years/MBA	3	6
B.E. /B.Tech./M.Sc. /M.Sc.(Tech) of 2 years	4	8

Residential and Other Requirements:

(a) For the candidates from National Research Laboratories / Government R&D organizations / Public Sector Units, the minimum residential requirement is one semester, which is to be completed at a stretch preferably immediately after joining. During this time the candidate completes the course work requirement.
(b) However, in case of candidates with very good research experience (not less than 10 years or more) in National Research Laboratories / Government R&D organizations / Public Sector Units, with the special permission of the Doctoral Scrutiny Committee and Approval of the Senate, the residential requirement may be waived completely. Nevertheless, it is mandatory for such candidates also to complete the course work for the prescribed number of credits on self-study mode, following all steps like assignments, examinations etc., as prescribed for a regular course at NIT, Warangal.
(c) For the candidates of Ph.D. under part time, one guide from National Institute of Technology, Warangal and one guide from the parent organization are mandatory. Hence, the candidates applying for Ph.D. under part time must identify a suitable guide in his/her organization, take his/her written consent (in the proforma given) and must indicate the same in the application.
(d) The guide at the parent organization must posses Ph.D. qualification or sufficient research experience in the concerned area. In any case, the bio data of the research guide at the parent organization must accompany the written consent given by him.
(e) The candidates applying for Ph.D. under part time must ensure that adequate facilities for doing research are available at his organization.

NOTE:

(i) The proforma of the application is given below. Detailed form to be downloaded from the website. Applications are not kept for sale at the institute.

(ii) The filled-in applications along with necessary documents and a crossed **Demand Draft** for Rs. 600/- (Rs. 300/- in the case of SC/ST candidates) towards Registration fee, **drawn in favour of The Director, National Institute of Technology, Warangal, payable at SBH, NIT Warangal branch (Code No. 2149) should reach Deputy Registrar, Academic Section National Institute of Technology, Warangal 506 004** on or before **08.06.2012.**

(iii) Super scribe on the envelope **"APPLICATION FOR ADMISSION TO PH.D."**

(iv) The candidate is required to write on the reverse side of the Demand Draft his/her name and the program to which the application is being submitted.

(v) It is advised to send the application by Registered Post with acknowledgement due.

(vi) The candidates who are employed and wish to do Ph.D. under part time must enclose NO OBJECTION CERTIFICATE from the employer.

(vii) Check whether the following documents are attached to the application form

(a) DD with details [as described in (iii) above] written on its reverse side,
   (b) Attested copy of SSC in support of Date of Birth
   (c) Attested copy of Intermediate Certificate
   (d) Attested copies of Degree Certificates and Marks Memos of the qualifying examinations
   (e) List of publications (if any)
   (f) Attested copy of the caste certificate (in case of SC/ST candidates)
   (g) No Objection Certificate from the employer
   (h) Photo being pasted on the application form
   (i) Accompanied with the bio data, a written consent of a guide in the organization where the candidate is working. Use the proforma given.

(viii) The proforma of the application is given below. Detailed form is to be downloaded from the website. Applications are not kept for sale at the institute.

NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

Application for Admission into Ph.D. (Part-time) Program
(July, 2012 Session)

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Affix a Passport size Photo
</div>

Fee paid Rs. _____   DD No. _____   dt. _____

Department into which admission is sought: _____

Application to program on: **PART TIME BASIS**

Note: (i) Last date for receiving application form: **08.06.2012**
    (ii) Attested copies of certificates in support of information furnished should be attached.

1. **Name** (in Block Letters): _____

2. **Date of Birth** (as per SSC certificate in dd/mm/yy format): _____

3. **Address for Communication**: _____

_____

_____

_____PIN CODE: _____

Email: _____ Mobile No. _____

4. **(a) Does the candidate belong to SC or ST or OBC?**

   If YES, state SC or ST or OBC.

   (b) **Is the candidate Physically Challenged?…………………**   **YES / NO**

5. Academic Record: (Give in the reverse chronological order)

Examination	Subjects	Univ./Board	Year	Class	% of Marks / CGPA
Intermediate					
SSC					

6. **Industrial/Research / Teaching Experience**: (Give in the reverse chronological order. Use a separate sheet, if required)

_____

_____

7. Research Publications: (Attach a list of publications)

8. Fields of Research Interests: _____

_____

_____

 Field of Proposed Research: _____

9. Name and Designation of the guide:_____

Declaration

I, _____ do hereby declare to abide by the rules and   regulations of the institute and do affirm that the particulars furnished in this application are correct and complete.

Place: _____

Date: _____   **Signature of the Candidate**

FOR PART-TIME CANDIDATES

SPONSORING CERTIFICATE FROM THE PARENT ORGANIZATION FOR Ph.D. CANDIDATES, TO BE SUBMITTED ALONG WITH THE APPLICATION

C E R T I F I C A T E

This is to certify that _____ is sponsoring Mr. / Ms. _____ to pursue Ph.D. programme in the Department of _____ at the National Institute of Technology, Warangal. In case if he / she is selected for admission, he / she will be relieved from this institute for a period of one semester from the date of joining so as to enable him / her to complete the stipulated course work prescribed by the Doctoral Scrutiny Committee, on full time basis at NIT Warangal. If the candidate does not abide by the rules, the institute reserves the right to cancel the Ph.D. registration of the candidate at any time.

Name and Signature of the
Executive Head of the Institution

Official seal:

DECLARATION

To

The Director,

National Institute of Technology,

WARANGAL 506 004

Dear Sir,

I, Dr. _____ hereby express my willingness to act as a supervisor to Mr. /   Ms. _____ _____ , who is interested in doing Ph.D. at the National Institute of Technology, Warangal, under part-time program. I am herewith enclosing my bio-data.   I also state that adequate facilities are available with us, for doing Ph.D. work at our organization.

Signature: _____

Name: _____

Date: _____

Seal:

Encl: Bio data