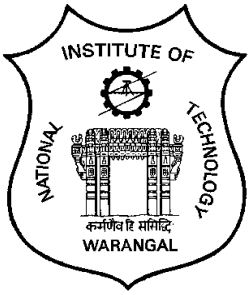
National Institute of Technology Warangal



Ph.D. Admissions

July 2018 Session

Brochure

NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

Admission into Ph.D. Programs for July 2018 session

The Ph.D. Programs, in Full-time (FT) and Part-time (PT) modes, are offered in the following Departments:

1	Civil Engineering	2	Electrical Engineering	3	Mechanical Engineering
4	Electronics and Communications Engineering	5	Metallurgical and Materials Engineering	6	Chemical Engineering
7	Computer Science and Engineering	8	Biotechnology	9	Physics
10	Chemistry	11	Mathematics	12	Humanities and Social Sciences
13	School of Management		--		--

The candidates selected for admission into Ph.D under Full-Time program are eligible to receive institute fellowship as per MHRD rules. (Vide reference No. http: // mhrd.gov.in / sites / Upload files / RevPhd02032015.pdf, dt. 02.03.2015). The above institute fellowships are subject to change from time to time, under instructions of the Ministry of Human Resource Development, Government of India.

Candidates who are in final year of Qualifying Degree can also apply. However, such candidates have to submit their provisional certificate on or before **15.09.2018.**
Category-wise (OBC, SC, ST, PWD) reservations on overall available seats will be followed as per Government of India norms.

The link for Ph.D. rules and regulations 2017-18:

https://www.nitw.ac.in/media/uploads/2017/08/21/phd-rules-2017-18_fomatted.pdf

Tentative Schedule of Ph.D. Admissions for July, 2018 Session:

Announcement of inviting Applications: **April 9th 2018**

Last date to receive applications: **May 7th 2018**

Announcement of candidates called for Written Test/Interview: **June 4th 2018**

Dates of Written Test/Interview: **June 18th – 22nd 2018**

Announcement of Selected Candidates: **June 27th 2018**

Dates for Reporting of selected candidates for Ph.D. admission: **July 9th & 10th 2018**

DEPARTMENT SPECIFIC QUALIFICATIONS & SPECIALIZATIONS:

Department of Civil Engineering	B.Tech. or B.E. or Equivalent degree in any branch of Engineering & Technology . M.Tech. or M.E. in relevant specialization.
Research areas	
Structural Dynamics & Earthquake Engineering	Civil Engineering Materials
Construction Technology & Management	Hydrology & Water Resources Engineering
Environmental Engineering	Transportation Engineering
Remote Sensing & Geographic Information System	Geotechnical Engineering

Department of Electrical Engineering	B.Tech. or B.E. or Equivalent degree in Electrical Engineering or Electrical and Electronics Engineering M.Tech. or M.E. in Electrical Engineering or allied specializations in broad research areas mentioned below.	
Research areas		
FACTS/HVDC Control	Power System Deregulation	Renewable Energy Sources
Power Quality	A I Techniques in Power Systems	Motor Drives
Power System State Estimation	Smart Grid Technologies	Switch Mode Power Conversion
Real Time Control of Power Systems	Power System Stability and Security	Control & Instrumentation
Power System Protection	Wide Area Control of Power Systems	

Department of Mechanical Engineering	B.Tech. or B.E. or Equivalent degree in Mechanical Engineering /Production Engineering. /Industrial Engineering /Mechatronics /Automobile Engineering /Aeronautical Engineering / Marine Engineering . M.Tech. or M.E. in Mechanical Engineering allied areas and specializations of within in the broad research areas mentioned below.	
Research areas		
Materials Technology	NDT	Refrigeration and Air Conditioning
Heat Transfer	Mechatronics	Computational Fluid Dynamics
Fluid Mechanics	Automobile Engineering	Metrology/Precision

		Engineering
Entrepreneurship	Turbo Machines	Composites / Nanomaterials
Robotics	Thermal Engineering	Design / Structural Optimization /Finite Element Analysis
Welding	Additive Manufacturing	Alternative Sources of Energy/Energy Systems
Tribology	I. C. Engines & Alternate Fuels	CAD/CAM/CIM/Geometric Modeling
MEMS/NEMS	Manufacturing Engineering	Industrial Engineering and Management

Department of Electronics and Communication Engineering	B.Tech. or B.E. or Equivalent degree in Electronics and Communication Engineering. M.Tech. or M.E. in Electronics and Communication Engineering or equivalent with Research areas in Communication / VLSI/Instrumentation.
Research area	
Signal Processing	Wide Band Communications
Microwave Engineering	VLSI

Department of Metallurgical and Materials Engineering	B.Tech. or B.E. or Equivalent degree in Metallurgical and Materials Engineering / Mechanical Engineering M.Tech. or M.E. in Metallurgical and Materials Engg. and related fields.
Research areas	
Physical Metallurgy	Surface Engineering
Powder Metallurgy	High Temperature Corrosion and Oxidation
Welding Metallurgy	Fatigue and Fracture Mechanics
Structure Property Correlation	Environmental degradation of Materials
Special steels / High temperature materials	Ceramics, Polymers and Composites
Severe plastic deformation	Biomaterials
Materials for extreme Environments	Nano Materials
Smart Materials	Ultra fine grain Materials
Non-destructive evaluation	

Department of Chemical Engineering	B.Tech. or B.E. or Equivalent degree in Chemical Engineering / Mechanical Engineering / Biotechnology / Petrochemical Engineering / Petroleum Technology / Instrumentation and Control Engineering / EEE / Electrochemical Engineering /Electronics & Instrumentation/ Chemical Technology/ Polymer Technology/ Biochemical Engineering / Energy Engineering / Environmental Engineering and allied disciplines. M.Tech. or M.E. in Chemical Engineering / Mechanical Engineering (Thermal Engineering) / Biotechnology / Petrochemical Engineering / Petroleum Technology / Process Control and Instrumentation / Control Systems / Polymer Technology / Biochemical Engineering / Energy Engineering / Nanotechnology / Environmental Engineering and allied areas.
Research areas	
Biomass Gasification	Fuel Cells
Plate Heat Exchangers	Membrane processes
Bioreactors	Flow batteries
Reactive Distillation	Chemical process scheduling
Microfluidics	Multiphase flows
Interfacial Science	Chemical reactor analysis and design
Wastewater Treatment	Sustainable and energy efficient technologies
Micro Reactors	Process control
Process Intensification	Non linear analysis
Nano Materials	Computational Fluid Dynamics
Fluidized Bed Operations	Biofuels
Catalysis	Corrosion Engineering
Biochemical Engineering	Transport phenomena

Department of Computer Science and Engineering	B.Tech. or B.E. or Equivalent degree in Computer Science and Engineering M.Tech. or M.E. in Computer Science and Engineering or equivalent. **Note**: Some additional fellowships sponsored by M/s.TCS and IDRBT are also available.	
Research areas		
Optimization Techniques	Information Security	Computer networks
Big Data Analytics	Cryptography	Mobile Computing
Database Management Systems	Neural Networks	Service-Oriented Architecture

Parallel Computing	Distributed Systems	Computational Neuroscience
Artificial Intelligence	Computer Vision	Image Processing
Algorithms and Graph Theory	Machine Learning and Soft Computing	Wireless Ad-hoc and Sensor Networks
Cluster and Cloud Computing	Data Mining	Model-Driven Framework-oriented systems
Security and Privacy	Bioinformatics	--
Department of Biotechnology	B.Tech. or B.E. or Equivalent degree in Biotechnology/Industrial Biotechnology/ Chemical Engineering/ Biochemical Engineering / Biomedical Engineering M.Tech./MS in Biotechnology/Industrial Biotechnology/ Bioinformatics /Biomedical Engineering.	
	Integrated M.Tech in Biotechnolog / Industrial Biotechnology / Bioinformatics / Biomedical Engineering.	
	M. Sc. in Biotechnology / Biochemistry / Microbiology / Botany / Zoology / Bioinformatics with M.Tech in Biotechnology.	
Research areas		
Downstream Processing	Metabolic Engineering	
Environmental Biotechnology	Systems Biology	
Stem Cell Technology	Bioinformatics	
Modeling and Simulation of Bioprocesses	Molecular & Biochemical Parasitology	
Signaling Network and Cancer Biology	Biosensors & Bio nanotechnology	
Biofuels and Bioprocess Engineering	Gene Regulation/Transcriptional Gene Regulation	
Cancer System Biology	Cancer Gene Therapy	

Department of Mathematics	B.Sc. and M.Sc. / M.Phil. in Mathematics or equivalent degree.
Research areas	
Fluid Mechanics	Operations Research / Optimization
Bio-Mechanics	Numerical Analysis
Algebraic Coding Theory	Functional Analysis
Linear Algebra	Computational Fluid Dynamics
Department of Physics	M.Sc. /M.Sc. (Tech) in Physics / Photonics / Electronics / Instrumentation / Atmospheric Science / Radio Physics / Materials Science/Nanotechnology or M.Tech. in relevant area.

Research areas	
Fiber Optic Sensing / Photonics/Optical Design	Nanomaterials / Thin films
Electronic Instrumentation / Biomedical Signal Processing/Sensors and Transducers	Nuclear Instrumentation
Tropospheric Radio Propagation	Swift Ion Beam Irradiation
Materials Science / Condensed matter Physics/Quantum Interference	Glass and glass Ceramics for Photonic Applications
Polymer Composites	Organic Electronic Devices
Liquid Crystals/Microfluidics/Emulsions	Solar cells/Fuel cells
Nanophosphors	Biomaterials

Department of Chemistry	B.Sc. and M.Sc. / M.Phil. in Chemistry or equivalent degree.
Research areas	
Coordination Chemistry	Nanocatalysts for Fuel Cells
Electrochemistry	Bio-Organic Chemistry
Catalysis	Nanomaterials
Spectrophotometry	Organic Synthesis
Chromatography	Medicinal Chemistry
Environmental Pollution	Supramolecular Chemistry
Synthetic Organic Chemistry	Carbohydrate Chemistry
Stereo Selective Synthesis	Molecular Modeling
Electrochemical Biosensors	

Department of Humanities & Social Sciences	Post Graduate Degree in English with NET Qualification and having studied BA/B.Sc./B.Com.
Research areas	
British Literature	English Language Teaching

School of Management	Any graduate having Full Time M.B.A degree
Research areas	
Marketing	Human Resources
Finance	Economics

FEE STRUCTURE FOR FULL-TIME / PART-TIME

JULY 2018 SESSION ONLY

INSTITUTE FEE:

Sl. No.	Details	Amount (Rs.)
1.	**At the time of admission (One time payment)**	
	a) Admission Fee	1000.00
	b) ID Card	100.00
	c) Alumni Association Fee	2000.00
	d) Security deposit/Lab./Library(Refundable)	4000.00
	e) Institute Development Contribution	10000.00
	f) Co-operative Stores	750.00
2.	Tuition Fee (Per Semester)	7500.00
3.	Computer and E-mail (Per Semester)	500.00
4.	**Other Fee (Per Semester):**	
	(a) Medical Fee	350.00
	(b) Students Club	150.00
	(c) Games Fee	200.00
	(d) Magazine Fee	50.00
	(e) Students Library Fund	600.00
	(f) Students Aid Fund	50.00
	(g) Students Welfare Fund	50.00
	(h) Film Club Charges	50.00
	(i) Technical Association Fee	50.00
	(j) Inter University Tournament	50.00
	Total:	**27450.00**

HOSTEL FEE:

Sl. No.	Item	Fee in (Rs.)
1.	Hostel Seat Rent (Per Year)	5000 (Boys) & 4000 (Girls)
2.	Electricity & Water Charges (per year)	4,500.00
3.	Hostel Caution Deposit (at the time of admission)	10,000.00
4.	Hostel Maintenance Charges (per year)	5,500.00
5.	Mess Advance (per semester)	12,000.00
6.	Online fee in favor of Chief Warden, NIT Hostels	**37,000/- (Boys)&36,000/- (Girls)**

Note*:*

1. The selected candidates are required to submit the fee online.
2. The Original certificates will be returned only after completion of the course. The candidate is advised to keep sufficient number of Photocopies of the original certificates.
3. Accommodation to girls is subject to availability.

INSTRUCTION TO APPLY:

Ph.D. PROGRAM ON FULL-TIME BASIS:

(i) Application form is to be submitted online which is available at http://admissions.nitw.ac.in. All the necessary documents are to be uploaded online. The proof of payment of registration fee (Rs.1000/- for UR/ OBC and Rs.500/- for SC/ST candidates) must accompany the application form. The link to pay registration fee through SBI i-collect is www.onlinesbi.com/prelogin/institutiontypedisplay.htm. Other payments like mobile payments (IMPS), NEFT, RTGS and Direct transfer will not be accepted. If paid by any chance, it will not be refunded.

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

(iii) Check list of documents to be uploaded a long with the application.

- Copy of SSC in support of Date of Birth
- Copy of Intermediate/(10+2) Certificate
- Copies of Provisional certificate / Degree Certificates and Marks Memos of the qualifying Examinations
- Attested copy of the caste certificate (in case of SC/ST candidates)
- For OBC candidates, OBC certificate issued after 1st April 2018 as per the format given in the Annexure-II only is acceptable.
- No Objection Certificate from the employer, if employed.
- Relieving certificate from the employer
- Photograph on application form
- Copy of the Grade/Rank Card of GATE or NET or CAT or GMAT (as applicable)
- Fee payment receipt with transaction Number
- Any other documents (List of publications (if any).

Ph.D. PROGRAM ON PART-TIME BASIS:

(i) Application form is to be submitted online which is available at http://admissions.nitw.ac.in. All the necessary documents are to be uploaded online. The proof of payment of registration fee (Rs.1000/- for UR/ OBC and Rs.500/- for SC/ST candidates) must accompany the application form. The link to pay registration fee through SBI i-collect is www.onlinesbi.com/prelogin/institutiontypedisplay.htm. Other payments like mobile payments (IMPS), NEFT, RTGS and Direct transfer will not be accepted. If paid by any chance, it will not be refunded.

(ii) Check list of documents to be uploaded along with the application.

- Copy of SSC in support of Date of Birth
- Copy of Intermediate/(10+2) Certificate
- Copies of Provisional certificate / Degree Certificates and Marks Memos of the qualifying Examinations
- Attested copy of the caste certificate (in case of SC/ST candidates)
- For OBC candidates, OBC certificate issued after 1st April 2018 as per the format given in the application form.
- No Objection Certificate from the employer, if employed.
- Photograph on application form
- Fee payment receipt with transaction Number.
- Bio-data and written consent of Guide in the organization where the candidate is working.
- Any other documents (List of publications (if any)

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