

Delhi Technological University



Information Brochure

Ph.D. Admissions 2016-17

Govt. of NCT of Delhi

DELHI TECHNOLOGICAL UNIVERSITY

(Formerly Delhi College of Engineering)

Shahbad Daultapur, Bawana Road, Delhi-110042

Delhi Technological University (formerly known as Delhi College of Engineering) is one of the most well-known engineering institutions of India, with over 74 years of glorious tradition behind it. A non-affiliating, teaching and research University, DTU is poised to create an environment of synergetic partnership between academia and industry. It aims to cause a major departure from the conventional system of education and research and aspires to imbibe a culture of scientific research in its technology disciplines and technology temper in its scientific research and education by providing a seamless environment for integration of science and engineering. The University also endeavours to provide the thrill of a corporate R&D environment with a planned focus on industrially relevant projects and technology incubation. DTU has consistently been ranked among the top engineering institutions of the country in reputed surveys. Currently the University offers 15 Full time UG programs, 22 Full time PG programs and one Full time MBA program. More information about these can be accessed at www.dtu.ac.in.

The university admits Full Time/Part-Time scholars for Ph.D in various branches of Engineering, Sciences, Humanities and management. The areas in which candidates may be admitted under various Departments and the respective seat matrix are given below:

Name of Department	Area of Specialization
Applied Physics	Nanotechnology, Especially Carbon nano tube and Graphene, Dusty plasma/THz Radiation Emission, high power microwave devices, Photonics and Photonic Crystals, Waveguide based Devices, Nanophotonics, Strongly coupled dusty plasma, Glass Science and Technology Phosphors, Photoluminescence, Organic & Nano-Material, Time-resolved spectroscopy, Semiconductor Devices-Modeling and simulation, FPGA, waveguide based devices, Fibre and Integrated optics, Luminescent Material, Glasses, Nanophosphors, Material science, Experimental Lithium Ion battery, Multiferroic materials, Experimental Atomic physics, Gas sensors
Management	Managerial themes such as E-Governance, Information Technology Management & Strategy, Marketing Management, Distribution and Retail Management, Organizational Behaviour & Human Resource Management, Corporate governance and Ethics, Public Policy and Governance, Accounting and Finance, Portfolio Management, Mergers and Acquisition and Corporate Restructuring.
Electrical Engineering	Power system Optimization, AI Techniques, Modeling & Analysis of Electrical machines, Power Electronics & Drives Intelligent control of non linear systems, FACTS, SSR, voltage stability, power Quality Improvement, Grid Integration, Micro grid, smart Grid, BPL Analog Signal processing(Linear & Non Linear), Power system & control, system Engineering, Power system Analysis, Intelligent control, Power electronics, renewable energy, HVDC, Power Quality, power system restructuring, AI in Electricity market forecasting, Wind Energy forecasting, Embedded system, Information security, design of power supply

Applied Chemistry	Organic Chemistry, Fiber Technology, Polymer Technology, Synthetic Organic Chemistry, Medicinal Chemistry, Multiphase Reactor Systems, Bio- based polymers, Conducting polymers, Polymer Composites, Gene delivery applications , Biomaterials, Advance Materials
Mechanical Engineering	Turbo Machinery, Fluid Mechanics, Power Plant Engineering, I.C. Engines, Automobile Engineering, Refrigeration and Airconditioning, Computational Fluid Dynamics, Solar Energy, Bio Fuels, Power Plant, Industrial Engineering & Supply Chain Mgmt, Robotics, CAD/CAM, Welding, Production Engineering, System Dynamics, Structural Vibration, Modeling & Simulation, Automation, Advanced Manufacturing Process, Human Factor Engineering, Industrial Management, Quality Engineering.
Electronics & Communication	VLSI Design, Computer Vision, Pattern Recognition, Object Tracking, Image Processing, Human Computer Interaction, Wireless Sensor Network, Microwave Engineering, Antenna Design, Digital Signal Processing, Wireless Communication, RF Devices, Nano-electronics, Network Security, and Cloud Computing.
Humanities	Women, Education and Inclusive Growth
Biotechnology	Molecular Neuroscience, Functional Genomics, Neuro-oncology, Bioremediation, Water Quality Management, Immunostimulation, Radiation Biology, Genome Informatics, Nanobiotechnology, Biosensors, Immunology, Plant Biotechnology
Computer Science and Engineering	Software Testing & Quality, Software Metrics, Machine Learning, Software Reliability, High Performance Computing, Soft Computing, Optimisation Techniques, Parallel Computing, Web Technology, Image Processing, Soft Computing, Evolutionary Computing, Artificial Intelligence, Information Security
Civil Engineering	Structural Engineering, Concrete Technology, Cementitious Materials, Prestressed Concrete, Tall Structures and Rehabilitation of Structures, Geotechnical Engineering, Rock Mechanics, Soil Mechanics, Geo-Environment Engineering, Water Resources Engineering, Hyper Spectral, Microwave Remote Sensing.
Environment Engineering	Water Pollution, Waste Water Treatment, Environment Modeling, Phytoremediation, Water Management, Air Pollution, Geoenvironmental Engg., Solid Waste Management and Noise Pollution.
Applied Mathematics	Information Theory, Graph Theory, Discrete Mathematics, Numerical Analysis, General Relativity and Cosmology, Optimization Technique, Complex Analysis, Cosmology, Mathematical Modelling, Approximation Theory, Stochastic Process.

Seat matrix for full time Ph.D. admission with University Scholarship (2016-17)*						
Name of the department	Code of the deptt.	General	OBC	SC	ST	Total
Applied chemistry & Poly. Tech.	AC	0	02	0	01	03
Applied Physics	AP	01	02	02	01	06
Applied Mathematics	AM	03	0	01	01	05
Biotechnology	BT	0	0	0	01	01
Civil engineering	CE	01	02	02	01	06
Computer Science & IT engineering	CoE	01	01	0	01	03
Electronic & communication engineering	EC	04	02	0	01	07
Electrical engineering	EE	03	04	02	01	10
Environmental engineering	EN	0	0	01	0	01
Mechanical engineering	ME	03	01	01	01	06
Delhi school of management	DSM	0	02	0	0	02
Humanities	Hum	0	0	0	0	0
Total						49+1**

** Differently Aabled Person: One seat shall be reserved for differently abled person based on the relative performance in the examination process of such applicants in different departments provided the seat exist in seat matrix for the respective department. In case the seat in particular category does not exist for the particular department, the next person in merit out of the pool shall be given the chance and so on.

* Seat for part time shall be determined based on suitability of candidates and availability of slot with supervisor

* The seat with scholarship from others agencies like UGC, CSIR, DAE etc. shall be over and above seat matrix with university scholarship.

The applicants for admission to the Ph.D. programme shall be classified under any one of the following categories:

- University Research student/candidate (Full Time with scholarship)
- Sponsored Research student/candidate fully financed by the Govt./Semi-Government Organizations like CSIR, UGC, Research Schemes, Govt./ Private funded Research/Development Organisation, Public Sector Undertaking, Educational Institution or a reputed industry etc.(Full-time).

- (c) Sponsored Research student/candidate nominated by the organization with MOU with the University, foreign students who apply through Ministry of Human Resource Development or under a Cultural Exchange Scholarship Programme by Government of India (Full-time).
- (d) Part-time Research student/candidate (with residency requirement).

ADMISSION ELIGIBILITY:

1. An applicant possessing a Masters degree in Engineering/Technology/ Sciences/Management/Humanities in respective discipline or equivalent with a minimum 60% marks in aggregate (of all the years/semesters) or equivalent Cumulative Grade Point Average (CGPA) as determined by the Delhi Technological University shall be eligible to apply for admission to a Ph.D. programme of the University. In exceptional cases applicant with Bachelor's degree in Engineering & Technology having a minimum of 75% marks in aggregate (of all semesters) or Equivalent CGPA and having proven research capability may also be considered eligible. Five percent (5%) relaxation in marks at the level of qualifying degree will be given to SC/ST category students for determining the eligibility conditions to appear in the screening test.
2. An employee of a Government Department/Government Undertaking, a Research/ Development Organisation, a Public Sector Undertaking, an Educational Institution or a reputed private industry in Engineering & Technological manufacturing/ R&D/Services with a minimum relevant working experience of two years may be considered for admission as a sponsored (full-time)/part-time Research scholar. Sponsored applicants will be eligible for admission provided they are treated by their employers as on duty with their normal salary and allowances and are fully relieved for the period of study.
3. Part-time applicants will be eligible under three categories (i) Candidates from organizations which have MoU with Delhi Technological University (ii) Organizations with R&D Labs of national repute (iii) Regular faculty/Teaching cum Research Fellow or Scientists from Educational Institutions, R&D organizations, and Govt. Department/Govt. Undertaking provided that:
 - i. the applicant possesses the minimum entry qualifications for the degree as given in 1;
 - ii. the applicant is having at least two years experience in regular capacity.
 - iii. the applicant proves to the satisfaction of the University that his official duties permit him to devote sufficient time to research:
 - iv. facilities for research are available at the applicant's place of work in the chosen field of research or the applicant can spare sufficient time to pursue research in the Department of the Delhi Technological University on daily basis, residing in the vicinity of the University; and
 - v. he/she will be permitted to reside at the Delhi Technological University for a period of not less than 6 months during his/her registration for the degree. *(This condition of minimum residence will be automatically waived for candidates who are working in National Capital Region (NCR) of Delhi or in organisations/institutions located within a distance of 50 km from the Delhi Technological University).*

If the number of courses prescribed by the DRC is more than 12, then the residency requirement for part time Ph. D students working in Educational Institutes/Organisation outside NCR of Delhi will be 1 Year.

4. Project staff under sponsored projects, sponsored by DST/UGC/ any government agency, Industry or centres established from grant in aid from government or international agencies at Delhi Technological University may be given administrative clearance to seek admission on part time basis subject to recommendations of the concerned Principal Investigator of the said project/centre and approval of the Vice Chancellor. However, he/she must fulfil the eligibility criteria as per 1. No relaxation will be given in screening test.
5. Permanent academic staff of the Delhi Technological University (including the academic staff of erstwhile Delhi College of Engineering) may be given administrative clearance to seek registration on part-time basis after satisfactory completion of the period of probation subject to recommendations of the concerned head of the Department and approval of the Vice Chancellor.

RESERVATION/ RELAXATION

- Reservation of seats for applicants in each of the categories of the Research Scholars shall be in accordance with the policies of Govt. of NCT of Delhi. A total of three percent seats over and above the sanctioned strength will be reserved for physically handicapped applicants in all the Ph.D. programmes of the University put together.
- Physically handicapped applicants may be permitted 5% marks or equivalent CGPA relaxation in eligibility requirement of or equivalent in line with the policies of Govt. of NCT of Delhi. They will not be allowed any other relaxation beyond this limit even if they belong to SC/ST category.
- Five percent (5%) relaxation in marks at the level of qualifying degree will be given to SC/ST category students for determining the eligibility conditions to appear in the screening test.

SELECTION PROCEDURE

- (a) The short-listing of applications for the purpose of screening test & interview will be done by the Ph.D. coordinator nominated by the Vice-Chancellor in consultation with the respective departments. Written test will be of 60 marks having 60 questions from entire spectrum of the department syllabus and 1½ Hr. duration along with interview weightage of 40 marks. Merit list will be prepared on the basis of 100 marks.
- (b) The short listing of candidates for interviews will be done on the basis of following criteria:
 - (i) General/OBC category candidates: Minimum 30% Marks in the written test or five times the available seats in the respective category, whichever is higher.
 - (ii) SC/ST category candidates: Minimum 20% Marks in the written test or five times the available seats in the respective category, whichever is higher.
- (c) Those candidates, who are having a valid CSIR/ BARC/ NET (JRF) or any other Govt. fellowship will be exempted from written test in addition to the DTU/DCE faculty, regular employees of the organisations having MoU with DTU along with Project staff of DTU (as per PhD Ordinance). Foreign students who apply through Ministry of Human Resource Development or foreign students under a Cultural Exchange Scholarship Programme of government of India will also be exempted from

the written test. For all such candidates who are exempted from appearing in written test, the merit list will be prepared on the basis interview marks only.

- (d) The interview shall be conducted by a committee comprising of Vice-Chancellor, Chairman, Pro Vice-Chancellor, Dean Academic (PG) and Ph. D coordinator as common members along with the members of respective DRCs.
- (e) Any change in category of candidates will not be entertained; hence they will be selected in the category in which they have applied.
- (f) Ph.D. Admissions in respect of Nominations of foreign students from Indian council for cultural Relations (ICCR) will be done as per University Rules.

Fees

The selected candidates will be required to pay the admission fee as per the details given below:

S.No.	Categories	Fees payable at the time of admission
1.	The academic staff of DTU/DCE Staff (R.19.1)	10,000/-
2.	Project staff pursuing Ph.D as in R.19.11	10,000/-
3.	Self financial students/Candidates from DST, CSIR NPL and other Govt. organization/Govt. Institutions /Public sector undertaking	20,250/-
4.	Self financed Students/ Candidates from private organization/R&D Laboratories under MoU with DTU	25,375/-
5	Self financed regular faculty members of the private Educational Institution.	25,375/-
6.	Other fulltime/ Part time Candidate	30,500/-

The admission fee must be paid in the form a DD issued in favour of **“Registrar, DTU Ph.D. new admission”** payable at Delhi.

IMPORTANT DATES

Opening of online application on DTU admission website www.dtuadmissions.nic.in	16.05.2016, Monday
Last Date for online application	15.06.2016, Wednesday 12:00 Midnight
Display of list of shortlisted candidates for written test on DTU admission website www.dtuadmissions.nic.in	21.06.2016 Tuesday
Date of Written test	26.06.2016, Sunday
Declaration of result on DTU admission website www.dtuadmissions.nic.in	26.06.2016, Sunday Evening
Dates for Interview	27.06.2016 & 28.06.2016, Mon. & Tue.
Declaration of final result on DTU admission website www.dtuadmissions.nic.in	29.06.2016, Wednesday
Date of admission	13.07.2016, Wednesday
Display of vacant seats for spot round on DTU admissions website	15.07.2016, (Friday) at 5:00 pm
Spot round of admissions at DTU (Selected candidates are required to report along with original documents and bank draft for fee deposit)	22.07.2016, (Wednesday) at 10:00 am

The candidates are requested to contact faculty members/Head of the concerned academic departments before selecting their area of research work for Ph.D. degree and see updates regarding admission on the DTU Website: www.dtuadmissions.nic.in

Candidates have to bring a valid photo-identity card for the purpose of written test along with the printed application form. There is no need to send any part of application form to DTU by post.

Note 1: The list of the shortlisted candidates for screening test, interview and finally selected for admissions to Ph.D. program will be displayed on the DTU website: www.dtuadmissions.nic.in on 15.06.2016, 26.06.2016 and 29.06.2016 respectively. **No separate call letter will be dispatched.** The candidates are advised to make their own arrangements for travelling and lodging accordingly. The candidates must come prepared for admission (in case they are selected) as per the above mentioned schedule.

Note 2: Incomplete Applications are likely to be rejected.

Note 3: In case of part-time applicant, he/she must have at least two years experience in regular capacity on or before 06.06.2016

Dean Academic (PG) / AR (PG)
Delhi Technological University
Shahbad Daultpur, Bawana Road, Delhi-110042
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