



# ADMISSION OPEN

## M.TECH BY RESEARCH (RENEWABLE ENERGY SYSTEMS)

### DELHI TECHNOLOGICAL UNIVERSITY

Established by Govt. of Delhi vide Act 6 of 2009  
(Formerly Delhi College of Engineering)  
Bawana Road, Delhi-110042

*In Association with*

### NATIONAL INSTITUTE OF SOLAR ENERGY

(An Autonomous Institution of the Ministry of New and Renewable Energy (MNRE), Govt. of India)  
Gurugram-Faridabad Highway, Gwal Pahari, Gurugram - 122003

**PARTICIPATING  
DEPARTMENT (S)**

Department of  
Electrical Engineering

Department of  
Applied Physics

Department of  
Mechanical Engineering

**AICTE Approved program with total 80 credits**

**20% courses can be taken in online mode through MOOC/NPTEL etc.**

**2/3<sup>rd</sup> part of scheme is focused on research and 1/3<sup>rd</sup> part course work**

**Opportunity to work on real life problems at NISE**

**Direct admission in Ph.D. after completion of first year based on performance**

**Highly qualified faculty with global research exposure**

**State of the art laboratories in solar energy based technologies at DTU and NISE**

**Hands on learning with access to live consultancy and field projects at NISE campus**

**Excellent placement support through academic and Industry linkages**

**NISE and DTU will share infrastructure and expertise**

### Focus Research Areas

Solar Energy Technologies

AC/DC Microgrid

Solar Resource Assessment and Forecasting

Energy Storage

PV Recycling

Solar Thermal Systems

Green Hydrogen

Material Informatics for Solar Energy

Advanced Solar Cell Technologies

**important Date (s)**

Registration Begins : 16.05.2025

Registration Closes : 25.06.2025



## DELHI TECHNOLOGICAL UNIVERSITY



Delhi Technological University (DTU) established in 1941, has an illustrious history of providing quality education and promoting research and entrepreneurship for over eight decades. With 83 years of its long-established tradition of excellence in engineering and technology education, research and innovations, Delhi Technological University (formerly Delhi College of Engineering) caters the needs of Indian industries for trained technical manpower with practical experience and sound theoretical knowledge. The university currently offers 15 undergraduate, 30 postgraduate and Ph.D. programs. DTU has performed excellently in the incubation and entrepreneurial fronts. With the efforts of our IIF centre, over 50 companies have been incubated at DTU this year. With 14000 students on campus, the University is proud of its world class alumni, top placement in reputed companies, growing publications and citations.

## NATIONAL INSTITUTE OF SOLAR ENERGY



National Institute of Solar Energy (NISE) is the apex National R&D institution in the field of Solar Energy. The Government of India has transformed 25 years old Solar Energy Centre (SEC) of MNRE in October 2013 into an autonomous institution to assist the Ministry in implementing the National Solar Mission and to coordinate research & development, technology demonstration, capacity building and other related works. The institute is involved in conceptualization, technology demonstration, standardization, interactive research, training and testing of solar technologies and systems. NISE aims to be an effective interface between the Government and Institutions, industry & user organizations for development, promotion and widespread utilization of solar energy in the country and abroad.

## DEPARTMENT OF ELECTRICAL ENGINEERING

The Department of Electrical Engineering has grown significantly since its inception in 1941. The goal of the Department is to provide quality education at undergraduate and postgraduate levels and undertakes cutting edge research in various areas of Electrical Engineering. The Department also aims to develop active collaboration with multiple industries in the power sector, energy transportation and industrial automation sector.

The Department is offering B.Tech, M.Tech, M.Tech by Research and Ph.D programs and has 17 laboratories and 13 Research Areas

The Department strives for excellence in teaching and research to achieve eminence in all niche areas of Electrical Engineering. The placement trend has shown that the students of the Department have been successful in getting lucrative jobs based on their

interests in different fields. Top recruiters are Fujikara, Qualcomm, McKinsey, Texas Instruments, Thorogood, Deloitte, Vedanta group, Wipro, Tata Power, Reliance, Atria, PWC, ZS Associates, Technip, Bechtel, L&T, United Health Group etc.

The Department has earned itself an excellent reputation in the national and global academic network. The Centre of Excellence for Electric Vehicle and Related Technologies (CoE for EVRT) and industry sponsored EV & ITS lab are the recent development of the Department.

The Department also organises conferences, workshops, seminars and professional development program on regular basis for students and working professionals from Industries and academics.

## DEPARTMENT OF APPLIED PHYSICS

Department of Applied Physics at Delhi Technological University is providing cutting edge research, innovation and education in the emerging areas of science and technology. Department offers the following undergraduate (UG) and postgraduate (PG) programs: B.Tech. (Engineering Physics) program, M.Sc. (Physics) program, Five years Integrated B.Sc. & M.Sc. (Physics), M.Tech. (Materials Science & Technology), M. Tech. by Research, and Ph.D. Program. The department has well-equipped state of the art laboratories for UG, PG and Ph.D. students. With highly qualified faculty recognized internationally, the department engages in impactful research, patents, and collaborations across various interdisciplinary domains. Further, besides conventional modes of teaching such as lectures, videos, power points and reading materials, Students

are encouraged to earn some credits through self-paced custom e-learning in the areas of interest through MOOCs, SWAYAM and NPTEL digital platforms. Research Areas: Nanotechnology: Carbon Nanotube / Carbon Nano fibre and Graphene. Plasma Physics/Dusty plasma/ THz Radiation Emission/High power microwave devices, Photonics and Photonic Crystals. Glass Science and Technology Phosphors, Photoluminescence, Organic & Nano-Material, Time-resolved spectroscopy, Micro electronic Devices. Application Oriented Modelling and Simulation, Waveguide based devices. Fibre and Integrated optics, Luminescent Material, Material science, Experimental Lithium Ion battery, Multiferroic materials, Atomic & molecular physics, Gas sensors, Atmosphere Sciences, Memory Devices. Solar energy materials and Solar cells.

## DEPARTMENT OF MECHANICAL ENGINEERING

The Department of Mechanical Engineering and Production & Industrial Engineering has seen Considerable growth since its inception in 1941 with the intake rising from 30 to 260 (149 for Mechanical, 37 for production & Industrial Engineering, and 74 for Automobile Engineering). The department of Mechanical engineering also offers Post Graduate courses with specialization in Thermal Engineering and Production Engineering with total intake of 42 Students. PhD Programs in all fields of Mechanical Engineering are also offered.

The Department possesses modern laboratories equipped with latest experimental set-ups and research facilities for instrumentation, experimental stress analysis, strength of

materials, fluid mechanics, tic, engines, automotive engineering, robotics, heat transfer, solar energy, flexible manufacturing system, computational fluid dynamics supported by Software like view-flex, CAD-CAM and i.e. engine design. Cad lab has Software's like NX-LAD, NXCAM, AUTOCAD Inventor, Katia, Techomatix ,Abu's, ladino, NX-Narran, Hyper mesh, hyper works, MDADAMS, Dynaform etc. Fluent software is available in the CFD Centre.

The Department has been awarded a research project titled "Development of Ice slurry production Technology" under research promotion scheme by AICTE.A project on "Development of solar Photovoltaic Powered Vehicle" has been approved by Ministry of New & Renewable Energy, Govt. of India.