## ACADEMIC PROGRAMMES BACHELOR OF TECHNOLOGY ORDINANCE & REGULATIONS

For Batches 2015 onwards



DELHI TECHNOLOGICAL UNIVERSITY

(Established by Govt. of NCT of Delhi vide Act 6 of 2009) Shahbad Daulatpur, Bawana Raod, Delhi-110042 www.dtu.ac.in

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# **SECTION-A**

## About

**Delhi Technological University** 

Initially Established with the name "Delhi Polytechnic" in the year 1941 at Kashmere Gate Campus

In the year 1965 renamed as Delhi College of Engineering Reconstituted Delhi Technological University in the year 2009

Vide Govt. of NCT of Delhi Act 6 of 2009

-A non-affiliating Technological University

"Committed to Foster Engineering Excellence And Scientism together"

#### Delhi Technological University (Formerly Delhi College of Engineering) (Established by the Government of NCT of Delhi vide Delhi Act 6 of 2009)

"Delhi Technological University is a non-affiliating teaching-cum-research University engaged in fostering excellence in education, research and innovations in engineering and technology, applied sciences and management"

The University is inspired by talent and driven by innovations and is firmly committed to provide industry relevant, socially responsible manpower to meet the challenges of 21st Century. The culture of research and innovations is vibrant in the DTU campus which inspires students from UG levels onwards to engage in cutting edge technology development and discover the value and worth of the knowledge acquired by them during their studies. With this illustrious history spanning over 74 years the university is marching on the pathways of excellence and is one of the highly sought-after university for the inspired students community and faculty.

#### Vision

"DTU to be a leading World Class Technology University playing its role as a key node in National and Global Knowledge Network thus empowering its stakeholders with the Wings of Knowledge and Power of Innovations."

In meeting its stated vision, the nature of DTU shall be:

- i. Completely Autonomous.
- ii. A pioneering world class Science and Technology (S&T) University
- iii. A University creating synergy between education and research and synergy between science and engineering
- iv. A change agent to align India's S&T education to global standards.
- v. Industrially relevant and Mission oriented R&D.
- vi. Impacting the community with innovative solutions to pressing problems.

The DTU Act provides the necessary autonomy to excel in education and research and accelerate the pace of innovations and new product development in areas of engineering and technology, applied sciences and management.

#### **Mission**

#### The mission of the DTU is as follows:

- i. Be a world class center for education, research and innovations in S&T arena, focus on cutting edge technologies for education delivery and foster an environment of seamlessness between science and technology.
- ii.. Promote the engineering spirit of product development through effective integration of design engineering and rapid prototyping.
- iii. Emerge as a center for attracting the best minds both nationally and internationally, from academia and industry.
- iv. Meet the need for engineers and scientists at all levels of tertiary education, UG, PG, and Doctoral levels.
- v. Produce well-rounded, socially responsible, up to date, scientifically tempered, design oriented engineers and scientists capable of meeting the challenges of the new knowledge age.
- vi. To engage into creation of new knowledge and technologies through focus on research, technology incubation and innovative product development.
- vii. To provide knowledge infrastructure in line with the best practices in engineering, technology and management education to meet the challenge of knowledge revolution.
- viii. Be able to address the impact of globalization on S&T education.
- ix. Operate DTU as a world class knowledge Enterprise to foster student and teacher led knowledge enterprises.

"...DTU as a Technological University will be a significant milestone to create and academic and research environment to foster scientism and engineering excellence together. The upgradation of Delhi College of Engineering (DCE) to a Tech University is seen as a major initiative of Government of Delhi to make Delhi as the Knowledge Capital of India."

#### **The Inspiration**

The inspiration for reconstituting Delhi College of Engineering into a Technological University in the NCT of Delhi has been derived from the fact that in the new Knowledge Age creation and dissemination of knowledge, capabilities of utilizing knowledge to case quantum jump in quality, performance and service to industry and society and thus, creating a better tomorrow has to be the hallmark of science, engineering and technology education in India. Such an effort when encapsulated with the agile layers of scientific values, unclenching faith in research integrity and professional morality ensures growth, prosperity and happiness around the World. Such an academic environment, in fact, need to be created in the temples of higher learning, especially in the University and Institutions imparting professional education. This necessitates the requisite academic and administrative autonomy. The autonomy here becomes the freedom to excel and the associated accountability ensures a much greater commitment and compliance to high academic standards. In the context of Technological University and Engineering Institutions, we need also to cause seamless integration of science and engineering so that we succeed in creating the power of science and the might of technology together in our institutional campuses.

Learning from the international experience it goes without saying that we need to establish future Universities in India where science and technology both could flourish together, adding strength to each other's existence and contributing to the growth of interdisciplinary engineering in an environment of scientism.

What we really need to do is to create institutions and academic environment which attracts the very best talent towards science & engineering education and research both in the student community as well as in the faculty. For this we need to create the synergy between science and engineering to ensure that the very best talent is drawn towards university campuses which gravitate with the excitement of science and the thrill and joy of engineering. The DTU is firmly committed to foster this vital synergy between science and engineering.

The National Capital for many decades has been the hub for quality education and research in its premier institutions and universities such as the IIT Delhi, AIIMS, Delhi University Colleges including Delhi Technological University. Delhi for a long time has been also known for promotion of manufacturing and production activities in both medium and small scale sectors. It has witnessed during the last two decades a significant growth of IT and ITES industries in and around Delhi. This has caused a major shift in the emphasis on shifting the hard core engineering activity to soft sectors of the knowledge economy. We could have caused a much greater resurgence of the core engineering sector if along with human resource development; we could have undertaken technology incubation and product innovation in our institutions of higher learning.

DTU as a teaching-cum-research University offers a unique opportunity to create an environment of synergetic partnership between academic and industry. DTU thus, aims to cause a major departure from the conventional system of education and research. It aspires to imbibe a culture of scientific research in its technology disciplines and technology temper it its scientific research and education. The university also aspires to provide the thrill of a corporate R&D environment with a planned focus on industrially relevant projects and technology incubation.

The human resource output of DTU shall impact the growth of future engineering and technology. It will revolutionize the basis of design, systems of manufacturing and give rise to development of new materials, next generation communication technologies, information highways and cyber networks, growth of clean energy and environment technologies and capabilities to manage technology, business and enterprises in the connected economy. In fact, the output of DTU is target to impact significantly the resurgence of the 3rd Industrial Revolution which is on the anvil given the convergence of IT and the fast developing opportunities for harnessing energy in plenty through renewable energy resources.

The research outputs of this university are of high value to India's socio-economic development and for the progress in industrially relevant science and technology. Strong linkages have been forged between teaching and research, university and industry, and university and research laboratories. Collaborative projects with industry and research institute are also a major focus area of the University.

The DTU is engaged in fostering a culture of excellence supported by qualified faculty and high quality student intake, including international students admitted through the NRI / PIO / Foreign Nationals Quota. It has the necessary freedom and supportive layers of autonomy to nurture excellence in teaching and research. DTU is envisioned to be a pioneering institute having high productivity of quality scientific and technological human resource and brain ware. We wish to benefit Industry in India from the quality of our graduate out turn and cost effective technology incubation and innovative product development. The DTU has focused its academic and research strategy on creating the Panchamrit of Academia, Industries, R&D organization, Government and Society, thus enhancing its each as well as its share of contribution to national economy and playing its role as a partner in progress of the society.

#### **Our Glorious Past**

"74 years of Tradition of excellence in Engineering & Technology Education, Research and Innovations" Delhi College of Engineering, (initially established with the name – Delhi Polytechnic) came into existence in the year 1941 to cater the needs of Indian industries for trained technical manpower with practical experience and sound theoretical knowledge. The institution started its functioning at the historic Kashmere Gate campus as a follow up of the Wood and Abott Committee of 1938. It comprised of a multi disciplinary and multi level institution offering wide ranging programmes in engineering, technology, art and sculpture, architecture, pharmacy and commerce. The national diploma awarded by the institution was recognized as equivalent to degree level for the purpose of employment. In 1952, the College was affiliated with University of Delhi and started formal Degree level Programmes. The department of Architecture later became the School of Planning and Architecture, now a Deemed University and institution of National importance. The department of Arts and Sculpture became College of Arts and the departments of Chemical Technology and Textile Technology were shifted out en-block to mark beginning of the IIT Delhi at its new campus at Hauz Khas. The Department of Commerce was later abolished and the Faculty of Management Studies of the University of Delhi was established by Prof. A. Das Gupta, of DCE. Delhi College of Engineering is thus the mother institution of a number of national projects including IITD, SPA, College of Arts and even the famous FMS.

Till 1962, the college was under the direct control of Ministry of Education, Government of India. In 1963, the administration of the college was handed over to Delhi Administration. Delhi College of Engineering was under the administrative control of Department of Training & Technical Education, Govt. of NCT of Delhi. For academic purpose, the college was affiliated to University of Delhi since 1952. From July 2009, the DCE has become Delhi Technological University vide Govt. of NCT of Delhi Act 6 of 2009.

The erstwhile DCE has functioned from its historic Kashmere Gate Campus for almost 55 years and has shifted in 1996 to its lush green sprawling campus of 164 Acres at Bawana Road, adjoining Sector-17, Rohini, Delhi-42. Its shifting to new campus has added the dimension of research and caused innovations in plenty, which has received high national and international acclaim. As a Delhi Technological University it has the desired autonomy to excel and shape itself as a world class Technological University.

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