INSTITUTIONAL ASSESSMENT AND ACCREDITATION
(Effective from July 2017)

Accreditation - (Cycle - 1)

PEER TEAM REPORT ON

INSTITUTIONAL ACCREDITATION OF
DELHI TECHNOLOGICAL UNIVERSITY

Delhi
Delhi
110042

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
An Autonomous Institution of the University Grants Commission
P.O. Box No. 1075, Nagarbhavi, Bengaluru - 560 072, INDIA

Section I:GENERAL INFORMATION

1.Name & Address of the institution:	DELHI TECHNOLOGICAL UNIVERSITY Delhi Delhi 110042
2.Year of Establishment	2009
3.Current Academic Activities at the Institution(Numbers):	
Faculties/Schools:	
Departments/Centres:	15
Programmes/Course offered:	56
Permanent Faculty Members:	258
Permanent Support Staff:	107
Students:	11020
4.Three major features in the institutional Context (Asperceived by the Peer Team):	1. Good number of international students 2. Zero discharge University 3. Excellent green coverage and practises
5.Dates of visit of the Peer Team (A detailed visit schedule may be included as Annexure):	From : 16-05-2019 To : 18-05-2019
6.Composition of Peer Team which undertook the on site visit:	

	Name	Designation & Organisation Name
Chairperson	DR. A M RAWANI	Director,NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR
Member Co-ordinator:	DR. GOUTAM SANYAL	Professor,NIT DURGAPUR
Member:	DR. ASHOK KUMAR	FormerProfessor,BANARAS HINDU UNIVERSITY
Member:	DR. LAKSHMI NAMBAKKAT	Professor,MOHANLAL SUKHADIA UNIVERSITY
Member:	DR. KESHAV SHARMA	Dean,UNIVERSITY OF JAMMU
NAAC Co - ordinator:	Prof. Amiya Kumar Rath	

Section II:CRITERION WISE ANALYSIS

Observations (Strengths and/or Weaknesses) on each qualitative metrices of the key Indicator under the respective criterion(This will be a qualitative analysis of descriptive nature aimed at critical analysis presenting strength and weakness of HEI under each criteria)

Criterion1 - Curricular Aspects (Key Indicator and Qualitative Metrices(QlM) in Criterion1)	
1.1	Curriculum Design and Development
1.1.1 QlM	Curricula developed /adopted have relevance to the local/ national / regional/global developmental needs with learning objectives including program outcomes, program specific outcomes and course outcomes of all the program offered by the University
1.2	Academic Flexibility
1.3	Curriculum Enrichment
1.3.1 QlM	Institution integrates cross cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum
1.4	Feedback System

Qualitative analysis of Criterion 1

The University has 258 permanent teaching faculty. In addition to this, the University has produced a certificate indicating serving of following in addition to above permanent faculty :

- 20 faculty on contract
- 15 faculty on special mode of appointment
- 04 Adjunct (Retired faculty of DTU/DCE)
- 53 Guest Faculty
- 253 Teaching Assistant cum Research Fellow (teaching load of 8 hours per week)

The University involves Academic and Industry experts in their Board of Studies (BOS) of all the departments in curricular design and development. University follows the model curricula and other guidelines of regulatory bodies such as UGC and AICTE.

POs and COs are well defined and mechanism have been framed to measure the level of attainment of outcomes of programs and courses.

Semester system with CBCS has been introduced in all theCourses. University offers wide range of inter disciplinary open electives. Credit transfers through MOOCS courses are allowed.

While designing electives, the emphasis is on making curricula more diverse in nature by providing several subject options and is made more flexible by introducing many elective courses in frontline areas.

Yoga and environment related subjects are offered in nearly all programs. An Equal Opportunity Cell has been constituted to provide equal opportunities to students from different backgrounds of society. Women redressal cell has been constituted in line with Vishakaha guidelines. University organizes seminars and workshops such as women safety, Beti Bachao-Beti Padao and against sexual harassment etc.

University has main campus in Bawana and another campus at East Delhi in Vivek Vihar which offers MBA,

BBA and BA (Honours).

The student feedback is regularly obtained at the end of every semester on course content and teachers performance.

The curricula of some courses are designed and implemented for the specific cause of Women empowerment. New courses like French, Sanskrit, Sociology, Anthropology subjects have been introduced. Curricula of subjects like Physics, Computer Science; Statistics have been revised.

Formal/Informal feedback from external experts/industry are obtained through interactions during seminars, meetings, visits, etc.

Topics on motivation, leadership, values, ethical sciences, communication and self-awareness have been introduced in the curricula of subjects wherever required. The University is running various gender sensitization awareness programmes by holding workshops. The University has still to incorporate (leaving aside some certificate courses) all thematic subjects under CBCS into curricula. The student pass percentage is also very good.

Criterion2 - Teaching-learning and Evaluation (Key Indicator and Qualitative Metrices(QlM) in Criterion2)	
2.1	Student Enrollment and Profile
2.2	Catering to Student Diversity
2.2.1 QlM	The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners
2.3	Teaching- Learning Process
2.3.1 QlM	Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences
2.4	Teacher Profile and Quality
2.5	Evaluation Process and Reforms
2.5.4 QlM	Positive impact of reforms on the examination procedures and processes including IT integration and continuous internal assessment on the examination management system
2.6	Student Performance and Learning Outcomes
2.6.1 QlM	Program outcomes, program specific outcomes and course outcomes for all programs offered by the Institution are stated and displayed on website and communicated to teachers and students
2.6.2 QlM	Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution
2.7	Student Satisfaction Survey

Qualitative analysis of Criterion 2

The students are admitted on merit basis through structured mechanism like JEE for B.Tech, GATE for M.Tech and entrance examination for Ph.Ds. International students are admitted through DASA, ICCR and Study in India schemes. Reservation in different categories of students are followed as per the GOI norms. More than 80 % of the seats are filled in all courses and programs except M.Tech programs.

Fast and slow learners are identified through Continous Evaluation method. The needs of advanced learners are also taken care of in various ways and to ensure sustained growth, each department offers additional project work to fast learners and are given an opportunity to take additional credits. University has made provisions to cater the need of slow learners through remedial classes, mentoring through seniors and providing additional study materials.

Focus on student-centric teaching and learning is in place via Experiential learning, participative learning and problem solving methods that are part of the learning Process. National/ international links are established in many departments for teaching by inviting experts, visiting professors or academicians from abroad through exchange programmes. Orientation programmes for freshers are organised at the beginning of the academic session.

Apart from the lecture method of teaching, Group discussion, Field studies, Debates, Tutorials, Seminars, Co-curricular activities etc. are organized for proper understanding of the subjects. The University has partially implemented ICT enabled teaching-learning. The University prepares the academic calendar and the departments prepare their teaching and evaluation plans accordingly.

The University has an effective centralised examination and evaluation system. Results are announced within one month and answer books are shown to the students. The University's academic ordinances have made a provision of establishing an examination committee for redressal of grievances related to examination and evaluation. The evaluation is done through 30-60% and 40-70% respectively for continuous evaluation and end term examination.

University has integrated its examination processes with ERP system and having solution for examination related data management. Course registration and Student registration, Time Table generation, admit card generation etc. are being carried out through the ERP System.

The curriculum of a program is based on vision, mission, objectives, program educational objectives and course objectives.

The University has defined POs, PSOs and COs for the programs.

Criterion3 - Research, Innovations and Extension (Key Indicator and Qualitative Metrices(QlM) in Criterion3)	
3.1	Promotion of Research and Facilities
3.2	Resource Mobilization for Research
3.3	Innovation Ecosystem
3.3.1 QlM	Institution has created an eco system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge
3.4	Research Publications and Awards
3.5	Consultancy
3.6	Extension Activities
3.6.1 QlM	Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years
3.7	Collaboration

Qualitative analysis of Criterion 3
University has created structured guide lines for promoting research. IRD Cell fully functional to coordinate research and consultancy activities. Seed money is provided to all faculty to encourage a research environment. Three category of research publication awards namely Outstanding (Rs. 5Lakhs), Premier (Rs. 1 Lakh) and Commendable (Rs. 50,000/-) have been constituted. Many faculties have been awarded with premier and commendable Awards for their research achievements. There are clear cut criteria and guidelines defined for each of these awards by the University.

A few departments have created good infrastructure through Internal and National projects as well support from DTU. Approximately Rs 1557 Lakhs have been procured through Government research projects.

 The University has created an incubation Centre and 19 start ups have incubated on campus. University has created an ecosystem which nurtures ideas and helps staff and students, especially innovators and entrepreneurs to develop their ideas into a systematic body of knowledge leading to technology transfer. The University has a central Instrumentation centre with sophisticated research equipment such as XRD with in-situ high temperature facility, AFM etc.

 22 patents have been filed and 3 have been awarded. The Industry-Academia Innovative Cell, and the Centre for Entrepreneurship Development promotes entrepreneurship.

Total of 1055 research papers have been published in peer reviewed journals and many have high impact factors and have published 1578 papers in Conference proceedings over the past five years. About 135 candidates have been awarded PhDs over last 5 years.

University has generated Rs. 968 Lakhs through consultancy and Rs. 308 Lakhs through Corporate training for past five years.

University has a center for Out Reach and Extension Activities. Some of the notable extension activities are Unnat Bharat Abhiyaaan, Project Unnati, Project Unnayan, Project Avataran, Project Rangmanch etc.

Some of the activities conducted through the NSS Unit of DTU are EWS CAMP, BLOOD DONATION CAMP, ROAD SAFETY etc. The University has active collaboration with several Institutes including Samsung India, Delhi Metro Rail Corporation, ICICI Bank etc.

Criterion4 - Infrastructure and Learning Resources (Key Indicator and Qualitative Metrices(QlM) in Criterion4)	
4.1	Physical Facilities
4.1.1 QlM	The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc
4.1.2 QlM	The institution has adequate facilities for sports, games (indoor, outdoor),gymnasium, yoga centre etc., and cultural activities
4.2	Library as a Learning Resource
4.2.1 QlM	Library is automated using Integrated Library Management System (ILMS)
4.2.2 QlM	Collection of rare books, manuscripts, special reports or any other knowledge resource for library enrichment
4.3	IT Infrastructure
4.3.1 QlM	Institution frequently updates its IT facilities including Wi-Fi
4.4	Maintenance of Campus Infrastructure
4.4.2 QlM	There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

Qualitative analysis of Criterion 4
Delhi Technological University is spread over 163.87 acres with adequate number of classrooms, laboratories, library, workshops, health center, sport facilities, auditoriums, seminar halls, computer centre etc. The infrastructure is adequate for the current existing academic programs. DTU has residential accommodation for nearly 1500 boys and 500 girls. There is a separate arrangement for accommodation of international students with a capacity of 136 outside the campus. The University has a well equipped studio for audio-video recording and runs various programs.

The University has good sports infrastructure consisting of 400m track, ground for football, hockey and cricket and also tennis and badminton courts (indoor stadium). There are also bathing cubicles with toilets separately for boys and girls. There is a well equipped gymnasium for use of students and faculty.

DTU has a central library housed in an air-conditioned building with three floors. It has adequate reading room facility. In addition to 9800 titles and a total of 2,24,633 books, it also has rare books and rare manuscripts. It has 41,87,487 ebooks and handbooks. It also subscribes to 22,303 online journals. The Library is fully automated through KOHA software and has access through OPAC. The library has a plagiarism checking tool TURNITIN.

DTU has a well-equipped computer center with its own building with 300 computers. The campus is WiFi enabled having a band width of 200 MBpS of Airtel and 10 GBpS of NKN facility. The DTU website, alumni portal, departmental portal, library portal, faculty portal, hostel portal, student portal, DTU times portal etc. is also maintained by the Computer Centre and also provides email services for faculty and administrative officers.

DTU has a dedicated maintenance centre named as Maintenance Cell, headed by an Executive Engineer.

Criterion5 - Student Support and Progression (Key Indicator and Qualitative Metrices(QlM) in Criterion5)	
5.1	Student Support
5.1.5 QlM	The institution has an active international students cell to cater to the requirements of foreign students
5.2	Student Progression
5.3	Student Participation and Activities
5.3.2 QlM	Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution
5.4	Alumni Engagement
5.4.1 QlM	The Alumni Association/Chapters (registered and functional) contributes significantly to the development of the institution through financial and non financial means during the last five years

Qualitative analysis of Criterion 5
There are currently 205 international students from various countries. There is an Office of International Affairs (OIA) for carrying out activities involving international students as well as for international collaboration. There is a student union as well as departmental societies. The Student Welfare section of the University functions through main three councils namely Cultural, Technical and Sports Council. The Academic Council has student representation. They actively participate in various academic and cultural programs at the State and National levels. They have various cultural societies like Pratibimb, Kalakriti, Madhurima etc. and various technical councils like DTU student branch of IEEE, student branch of Society of Software Engineers, Society of Robotics, Society of Automobile Engineers etc. DTU organizes an annual cultural festival "ENGIFEST" with participation of a large number of students from all over India. The University has registered Alumni Association with chapters in US, Singapore, Bangalore. The Alumni have provided good financial support to the University. The Alumni has an annual meeting at the University campus.

Criterion6 - Governance, Leadership and Management (Key Indicator and Qualitative Metrices(QlM) in Criterion6)	
6.1	Institutional Vision and Leadership
6.1.1 QlM	The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the University
6.1.2 QlM	The institution practices decentralization and participative management
6.2	Strategy Development and Deployment
6.2.1 QlM	Perspective/Strategic plan and Deployment documents are available in the institution
6.2.2 QlM	Organizational structure of the University including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism
6.2.4 QlM	Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their resolutions
6.3	Faculty Empowerment Strategies
6.3.1 QlM	The institution has effective welfare measures for teaching and non-teaching staff
6.3.5 QlM	Institution has Performance Appraisal System for teaching and non-teaching staff
6.4	Financial Management and Resource Mobilization
6.4.1 QlM	Institution conducts internal and external financial audits regularly
6.4.3 QlM	Institutional strategies for mobilisation of funds and the optimal utilisation of resources
6.5	Internal Quality Assurance System
6.5.1 QlM	Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes
6.5.2 QlM	The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms
6.5.5 QlM	Incremental improvements made during the preceding five years *(in case of first cycle)* Post accreditation quality initiatives *(second and subsequent cycles)*

Qualitative analysis of Criterion 6

The Board of Management (BOM) is the apex body for decision making. The Vice Chancellor is the academic head and is assisted by Pro Vice Chancellor, Registrar, Deputy Registrar and other officials. However, presently, one post of Pro-Vice Chancellors and that of the Registrar are vacant. In addition to 107 permanent supporting staff, 506 staff are working on full time basis through outsourcing Govt agency i.e. Broadcast Engineering Consultant India Ltd.

Administration has taken steps to translate vision and mission into action. Decentralized and participative management is visible and attempts are made to maintain quality in all spheres. Standard Operating Procedures (SOPs) are well documented. The University has prepared a strategic plan for 2030 and Road Map to realize the goals are defined. There are different academic, research and administrative committees. There are a few women in key Administrative posts. University has a performance appraisal for teaching and non-teaching staff. Based on the assessment, teachers are graded according to API score for further promotion. The

main source of revenue is fees from students and grant-in-aid from the Government. There is a provision for 7% hike in fee every year. To ensure the accountability of financial transactions, the University expenditure and vouchers are subject to Delhi and CAG audit. In the CAG audit for 2016-17, there are several paras mentioned in the audit report like loss of interest income, non-recovery of license fee from post office and bank etc.

The IQAC was established on 31st December, 2015 with four external members including industrialist, alumni and student representative and have conducted procedural audit of the University system. IQAC has come out with the SOP.

Criterion7 - Institutional Values and Best Practices (Key Indicator and Qualitative Metrices(QlM) in Criterion7)		
7.1	Institutional Values and Social Responsibilities	
7.1.2 QlM	Institution shows gender sensitivity in providing facilities such as a) Safety and Security b) Counselling c) Common Room	
7.1.5 QlM	Waste Management steps including: • Solid waste management • Liquid waste management • E-waste management	
7.1.6 QlM	Rain water harvesting structures and utilization in the campus	
7.1.7 QlM	Green Practices • Students, staff using a) Bicycles b) Public Transport c) Pedestrian friendly roads • Plastic-free campus • Paperless office • Green landscaping with trees and plants	
7.1.18 QlM	Institution organizes national festivals and birth / death anniversaries of the great Indian personalities	
7.1.19 QlM	The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions	
7.2	Best Practices	
7.2.1 QlM	Describe at least two institutional best practices (as per NAAC Format)	
7.3	Institutional Distinctiveness	
7.3.1 QlM	Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust	

Qualitative analysis of Criterion 7

DTU has an Anti-Sexual Harassment Policy, has established a Women Cell and an Equal Opportunity Cell. DTU also follows reservation policy for admission for Single Girl Child in every program in UG courses. The University ensures safety and security by installing good number of CCTVs in different locations. DTU is zero discharge campus and has installed a Biogas plant for treating kitchen waste, has its own STP with a large capacity, provision for rain harvesting through an underground tank with a capacity of 1000 kilolitres.

The University has a large number of trees and a green campus with well planned wide roads throughout the campus. It has started several green initiatives such as roof top solar energy harvesting with an output 472 KW which meets about 17% of the institutional requirement, installation of Solar water heaters and street lamps etc. DTU disposes off E-waste with the support of MSTC. The University has conducted green audit of the campus.

The University organizes national festivals such as Lohri, Pongal, Eid, Holi, Diwali, and birth/death

anniversaries of great Indian personalities.

One of the best practices is establishment of a zero discharge campus through establishment of STP, biogas plant, rain harvesting etc.

The second best practise is generating solar energy and transmitting it to main grid.

One of the distinctive features of the University is the systematic and exhaustive documentation and total recycling of liquid and solid wastes.

Section III:OVERALL ANALYSIS based on Institutional strengths.Weaknesses,Opportunities & Challenges(**SWOC**)(**up to 500 words**)
Strength

Strength:

1.   Implementation of CBCS in all programs with wide choice of electives

2.   Academia-Industry, National and International collaboration through projects with good publications

3.   Good number of international students and student support with good placement record.

4.   Good Health care facility, extensive green coverage, recycling of waste water for utilization in horticulture and establishment of biogas plant

Weakness:

1.   Demand ratio for M.Tech programs is quite low and student intake is less than 50% of the sanctioned strength during the last 3 three years.

2.   Limited IPRs

3.   There are no Braille books

4.   Less number of permanent faculty

5.   No academic audit done

Opportunity:

1.   Having a multi-disciplinary stream of teaching, the University has an opportunity to launch inter-disciplinary research projects

2.   Opportunity to start PG courses in sciences and life science

3.   To generate more funding from Government agency/industry/alumni

4.   Have scope to attract more International students

Challenges:

1.   With a general drop in the demand in Engineering programs, to make these programs viable

2.   Attracting and retaining good faculty

Section IV:Recommendations for Quality Enhancement of the Institution
(Please limit to **ten major ones** and use telegraphic language) (It is not necessary to indicate all the ten bullets)

- Internal and external academic audit must be carried out for all Departments

- The student must be provided with opportunity to go for internship for one full semester

- To recruit permanent personnel for teaching and non-teaching posts

- To increase hostel accommodation for students, specifically for research scholars

- Initiate establishment of Centres of Excellence

- To offer a course on Indian culture/Language for International students

- Introduction of certificate courses utilizing studio facilities available in the University

I have gone through the observations of the Peer Team as mentioned in this report

Signature of the Head of the Institution

Seal of the Institution

Sl.No	Name		Signature with date
1	DR. A M RAWANI	Chairperson	
2	DR. GOUTAM SANYAL	Member Co-ordinator	
3	DR. ASHOK KUMAR	Member	
4	DR. LAKSHMI NAMBAKKAT	Member	
5	DR. KESHAV SHARMA	Member	
6	Prof. Amiya Kumar Rath	NAAC Co - ordinator	

Place

Date

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