

# FOR 1<sup>st</sup> CYCLE OF ACCREDITATION

# INDIRA GANDHI DELHI TECHNICAL UNIVERSITY FOR WOMEN

OPPOSITE JAMES CHURCH, KASHMERE GATE 110006 www.igdtuw.ac.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL BANGALORE

**July 2022** 

#### 1. EXECUTIVE SUMMARY

#### 1.1 INTRODUCTION

Indira Gandhi Delhi Technical University for Women (IGDTUW), is an all women's university located in New Delhi, India on the heritage campus at Kashmere Gate, Delhi. It was founded as the Indira Gandhi Institute of Technology in 1998. In May 2013 it gained autonomy and became the first women's technical university in India established by Govt. of Delhi. The university offers BBA and BTech, MTech, and PhD programs in four branches of engineering i.e. in the field of Computer Science and Engineering, Electronics and Communication Engineering, Mechanical and Automation Engineering and Information Technology. The university also offers 5 years program in Bachelors of Architecture (B.Arch.) and a 2-year post graduate program in M. Plan (Urban Planning).

The University houses all modern research, academic, sports, and safety facilities for its students in its heritage campus in the well connected location in capital city of India. The University Campus has an auditorium, a Library, sporting facilities, academic laboratories, a dispensary, Computer Centre, a bank and a guest house. The university campus offers a common room for students which is equipped with fitness equipments, yoga facility and indoor games. Other facilities include Computer Center, Dispensary, Bank, Guest House, Residential student halls, and many more. IGDTUW has clubs for extra-curricular activities such as Technoliterati-The Literary Society, Antargat- the Creative Society for waste management practices, The Economics Society, Greensphere- The Environmental Society, Tarannum- the Music Society, ZENA- The fashion society, RAHNUMA-Dramatics Society, HYPNOTICS –Dance Society. The students also participate in national competitions like Baja SAE India, Supra SAE India among others gaining practical exposure to their engineering course.

#### Vision

- To make India a Knowledge Society and Knowledge Economy by empowering the women of our country through education in Engineering, Science, Management and Technology.
- To become one of the top technical Universities in the country known for its value based, quality technical education supported with industry relevant research, with focus on environmental and social issues.

#### Mission

- To foster an environment for excellence in professional education and ensure active participation of women in the field of Engineering, Science, Management and Technology, while striking out a work-life balance.
- To start new professional courses for women in sun-rise disciplines and forge alliances with industry to impart industry relevant education.
- To emancipate women through pursuit of knowledge enabling them to gain equal status in society through realization of their rights and responsibilities
- To develop sustainable systems and state-of-the-art infrastructure to enable the Indian women to become the future leaders, managers, researchers and productive team players in the field of science,

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technology and management.

#### 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

#### **Institutional Strength**

- Committed and competent faculty with more than 50% doctorates
- Centres of Excellence in niche technological areas including AI, Mechatronics, Science of happiness and others that provide opportunities for research and develop relevant to modern technologies
- Recognized by the UGC and has achieved number of milestones, to name a few Awards and Accolades: "Outstanding Support for Students" by The Awards Asia 2022, "University Excellence award 2021", "University of the year award" by FICCI, "New code of Education Award" by AICTE, conferred with 64th position in WORLD'S UNIVERSITIES WITH REAL IMPACT (WURI), Ranked in the band of 101-200 by prestigious 'Times Higher Education World Impact Rankings 2021' for Sustainable Development Goal (SDG-4) i.e. Quality Education and for Sustainable Development Goal (SDG-5) i.e. Gender Equality. Awarded the 2nd fastest growing University by India Today group-2021.
- Only Government University in India, selected by QS I-GUAGE as a Diamond Rated University and selected for award of E-LEAD INSTITUTE for E-Learning Excellence for Academic Digitization.
- Strong Collaborative research and Internationalization, availability of dual degree programs, Students and Faculty exchange programs, and remote internships through MOUs with renowned International Universities. To name a few: UniMAP- University of Malaysia, Perlis, James Cook University (JCU), Australia, Nara Institute of Science and Technology (NAIST), JAPAN, National Ping Tung University [NPTU], Taiwan, Maykop State Technological University, Maykop, Russia, United Kingdom Research and Innovation, Centre of Ecology & Hydrology, CEH, UK and many more.
- Innovation/Incubation centre with the name of Anveshion Foundation is the lightening force of IGDTUW that grooms a spirit of self-reliance and entrepreneurship among the students.
- To provide technological support and to assist in start-up innovation goals University has MOUs with IBM India Private Ltd., Enobble IP & Ortis Law Offices, HDFC bank, Edunet Foundation, Mundo Latino.
- Technology transfer and research collaborations with International/National Universities, Research centres, industries, NGOs, Government Departments etc.
- Dedicated training and Placement cell
- Implementation of Choice based Credit System with Internship oriented courseware
- Implementation of Subsidised Fee structure
- Centrally located at the heart of Delhi and well connected with all sources of public transport

#### **Institutional Weakness**

- As IGDTUW is a ASI protected campus, due to non-availability of freedom it becomes hard to achieve required changes.
- Faculty/student exchange programs at the international level are to be strengthened
- Online courses loose social fabric

#### **Institutional Opportunity**

- To develop state of the art, modern campus with latest facilities at Nerala, New Delhi.
- More initiatives towards to Skill India and Start up India
- Enhancement in interaction with industry in curriculum planning and academic activities.
- Advancement in emerging areas of Technology to meet contemporary needs of the university
- Transform University towards excellence and University of eminence
- Enhance the employability of students with better salary package
- Provide more challenging and innovative research opportunities
- Strengthening interaction with Alumni to facilitate better connectivity with the industry
- Offering more transdisciplinary, interdisciplinary and cross disciplinary degree programmes in frontier areas
- Opportunity to maximize the potential of Centres of Excellence.
- Improvement towards Internationalization.
- Scope to identify possible ways to extend the research to IPR as well as Incubations

#### **Institutional Challenge**

- To attract more international students across the departments of the University
- To meet global standards in research and innovations
- Changing technological landscape
- To create pace with the fast moving and dynamic learning needs in terms of regular changes in the curricula

#### 1.3 CRITERIA WISE SUMMARY

#### **Curricular Aspects**

IGTDUW, Delhi has been dedicated towards frequent collection of curricula related feedbacks and appripriately revision of syllabus and introduction of new programs and value added programs. Annual meetings of Academic Council and BoS enable timely implementation of improvement plans and respective monitoring towards strict quality standards in Academics and Administrative processes.

#### **Teaching-learning and Evaluation**

IGDTUW enjoys its high status in the priority list of nation-wide candidates of UG, PG, and research programs in engineering and management discipline. High regional diversity helps the university to cater to the nation wide requirements of professional education.

The university maintains a pool of highly qualified and experienced teachers and a group of professional mentors for its students.

Student feedback shows the high grade of satisfaction in students about curricula and facilities of the university.

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#### Research, Innovations and Extension

University Teaching Staff and Students are involved in high-end research project, innovations, startups, publications, and patents. Every year, the University receives enough amount of research grants and consultancy revenue from Government and non-Government resources for conducting differnt researches and Consultancy projects in the university.

University maintains a pool of collaborations and MoU with different organizations for giving extended research exposure to its staff and students.

#### **Infrastructure and Learning Resources**

The university maintains a rich academic and administrative infrastructure including academic Infra, lecture Capturing Systems, Library, Labs, Research Infra, Sports Infra, Common facilities, Hostels, Auditorium, Seminar halls, administrative infra and lot more. A fair amount of budgets are allocated to infrastructure management and enhancement.

#### **Student Support and Progression**

University keeps a continuous monitoring on Students performance and ensures their overall development in professional and personal manner. Most of the students in IGDTUW achieve high pay-packages, recognitions awards, higher-Education scholarships, and other high repute in different fields of professional and social endeavour.

#### Governance, Leadership and Management

IGDTUW is ISO9001 Certified University that manages high quality governance standards in its policies, processes, guidelines, formats, and records. Timely guidance from leadership, and periodic monitoring reports helo the unviversity in maintaining the governance standards. Automation in different academic, administrative, and financial procedures help enhancing the Governance procedures.

#### **Institutional Values and Best Practices**

IGDUW has been recognized at different platforms for its vision towards making the nation and global socieites towards sustanable development of human kind. It has been continuously contributing towards preservation of environment and best practices towards sustainable development.

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### 2. PROFILE

#### 2.1 BASIC INFORMATION

Name and Address of the University					
Name	INDIRA GANDHI DELHI TECHNICAL UNIVERSITY FOR WOMEN				
Address	Opposite James Church, Kashmere Gate				
City	Delhi				
State	Delhi				
Pin	110006				
Website	www.igdtuw.ac.in				

Contacts for Communication									
Designation	Name	Telephone with STD Code	Mobile	Fax	Email				
Vice Chancellor	Amita Dev	011-23900220	9899202168	-	deanexam@igdtuw .ac.in				
IQAC / CIQA coordinator	Arun Sharma	011-41063123	9899202168	-	arunsharma@igdtu w.ac.in				

Nature of University	
Nature of University	State University

Type of University	
Type of University	Unitary

Establishment Details					
Establishment Date of the University	01-01-2013				
Status Prior to Establishment,If applicable	Constituent College				
Establishment Date	01-05-1998				

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Recognition Details							
Date of Recognition as a University by UGC or Any Other National Agency :							
<b>Under Section</b>	Date	View Document					
2f of UGC	04-02-2014	View Document					
12B of UGC	23-09-2020	<u>View Document</u>					

University with Potential for Excellence					
Is the University Recognised as a University with Potential for Excellence (UPE) by the UGC?	No				

Location,	Location, Area and Activity of Campus								
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.	Program mes Offered	Date of Establishment	Date of Recognition by UGC/MHRD		
Main campus	Opposit e James Church, Kashme re Gate	Urban	10	30789.24	BTech, MTech, PhD, MCA, MBA, BArch, MPlan, Dual BTech and MBA				

#### 2.2 ACADEMIC INFORMATION

#### **Affiliated Institutions to the University**

Type of Colleges	Permanent	Temporary	Total

Furnish the Details of Colleges of University

Type Of Colleges	Numbers
Constituent Colleges	0
Affiliated Colleges	0
Colleges Under 2(f)	0
Colleges Under 2(f) and 12B	0
NAAC Accredited Colleges	0
Colleges with Potential for Excellence(UGC)	0
Autonomous Colleges	0
Colleges with Postgraduate Departments	0
Colleges with Research Departments	0
University Recognized Research Institutes/Centers	0

Is the University Offering any Pr Regulatory Authority (SRA)	: Yes	
SRA program	Document	
AICTE	111612 7951 1 1645099015.pd <u>f</u>	
COA	111612_7951_18_1645098987.p df	

#### **Details Of Teaching & Non-Teaching Staff Of University**

Teaching Faculty												
	Professor			Associate Professor			<b>Assistant Professor</b>					
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned				17				36				77
Recruited	2	1	0	3	7	7	0	14	16	29	0	45
Yet to Recruit				14				22				32
On Contract	0	1	0	1	0	1	0	1	3	2	0	5

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Non-Teaching Staff						
	Male	Female	Others	Total		
Sanctioned				80		
Recruited	12	8	0	20		
Yet to Recruit				60		
On Contract	11	9	0	20		

Technical Staff							
	Male	Female	Others	Total			
Sanctioned				43			
Recruited	15	7	0	22			
Yet to Recruit				21			
On Contract	5	3	0	8			

#### Qualification Details of the Teaching Staff

	Permanent Teachers									
Highest Qualificatio n	Professor		Associate Professor		Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	8	9	0	2	1	0	10	16	0	46
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	1	1	0	4	11	0	17
UG	0	0	0	0	0	0	0	0	0	0

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Temporary Teachers										
Highest Qualificatio n	Professor		Associate Professor		Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	1	0	0	1	0	1	1	0	4
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	2	1	0	3
UG	0	0	0	0	0	0	0	0	0	0

	Part Time Teachers									
Highest Qualificatio n	Professor		Associate Professor		Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	5	8	0	13
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	16	23	0	39
UG	0	0	0	0	0	0	0	0	0	0

#### Distinguished Academicians Appointed As

	Male	Female	Others	Total
Emeritus Professor	0	0	0	0
Adjunct Professor	5	1	0	6
Visiting Professor	0	0	0	0

#### Chairs Instituted by the University

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Sl.No	Name of the Department	Name of the Chair	Name of the Sponsor Organisation/Agency
1	None	none	None

#### Provide the Following Details of Students Enrolled in the University During the Current Academic Year

Programme		From the State Where University is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	0	0	0	0	0
	Female	2231	455	0	0	2686
	Others	0	0	0	0	0
PG	Male	0	0	0	0	0
	Female	293	125	0	0	418
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	0	0	0	0	0
	Female	60	27	0	0	87
	Others	0	0	0	0	0

Does the University offer any Integrated Programmes?	No	
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#### **Details of UGC Human Resource Development Centre, If applicable**

Year of Establishment	Nill
Number of UGC Orientation Programmes	0
Number of UGC Refresher Course	0
Number of University's own Programmes	0
Total Number of Programmes Conducted (last five years)	0

#### 2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

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Department Name	Upload Report
Applied Sciences And Humanities	<u>View Document</u>
Architecture And Planning	View Document
Artificial Intelligence And Data Sciences	View Document
Computer Science And Engineering	<u>View Document</u>
Electronics And Communication Engineering	View Document
Information Technology	View Document
Management	<u>View Document</u>
Mechanical And Automation Engineering	View Document

#### Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	Focus areas: - Implementation of CBCS   GEC   MPES to remove Tight Jacket system & Introduction of Flexible curriculum structure - MPES: Multiple Entry & Exit Option with Flexible Credit System - CBCS: Horizontal Flexibility & Vertical Mobility with Flexibility in Course Choice - GEC: Generic Open Elective Program [MOOCs, Edx, Coursera, NPTEL, Swayam or any other with Credit Transfer Implementation of Optimal Learning Environment by providing Dual Degree Option & Multiple exit Option with freedom to choose electives - Implementation of ABC: Repository of Credits maintained in the University. The UG/PG Students can rejoin after a break of two years - Women in STEM: Holistic approach to Education for the benefit of Students - Value-Based Education: Value-Based Education, Ethics, Business & Communication Skills, Environmental science - Optimal Learning: ODL, Start-up Incubation Centers, Entrepreneurships Industry & Internship Focus - Motivation: Encourage Student participation in Tech-Fests/Clubs & Society Events & Hackathons at National/International level - Short term/ long-term programs, boot camps & summer/ winter internship programmes - Internet reimbursement to the students breaking the barriers of learning only in physical mode - Promoting
2. Academic bank of credits (ABC):	

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	Repository and in the process of the effective implementation of ABC. Respective policies/procedures in-line with guidelines of Ministry of Education have been drafted and are under discussion for development of respective processes and systems.
3. Skill development:	The university has set up various Centres of Excellence (CoE) for promoting technical skills development i.e., Centre of Excellence (CoE) in Artificial Intelligence, Centre of Excellence in Mechatronics, NIDHI TBI, Centre of Excellence for Science of Happiness, Centre of Sustainable Development. These centres are actively working on specialized training programs/workshops etc on various skills for the students.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	- IGDTUW have been selected in Colloquium with IITs India under NLTM-MeiTy Scheme is working extensively under the project of national importance: - Sanskrit Knowledge Accessor, for developing parallel database corpora for Sanskrit and Hindi and for providing technical solution for translating Rich Sanskrit language to Hindi, which can be ultimately used for various applications of knowledge systems GIS mapping of cultural resources of historic Delhi, Shahjahanabad in order to inculcate sensitivity to the future professionals regarding traditional knowledge systems of Indian culture. We are trying to contemporise historicity with the urban development approaches IGDTUW with aim to cater goals set by Sustainable Development Groups (United Nations) has established Centre of Sustainable Development. Various social initiates such as Sab Padhenge Aage Badhenge, Bin Paani Sab Soon, are taken under the centre University promotes teaching in English and Hindi language.
5. Focus on Outcome based education (OBE):	All the programs offered by IGDTUW across Engineering, Architecture and management are designed keeping in mind the regional and global requirements. IGDTUW has implemented outcome- based education with clearly stated Programme Outcomes, and course outcomes. All courses are designed with outcomes centred on cognitive abilities namely Remembering, Understanding, Applying, Analysing, Evaluating and Creating. Apart from the domain-specific skills, learning outcomes at all levels ensure social responsiveness and ethics, as well as

	entrepreneurial skills so that student contribute proactively to economic, environmental and social well-being of the nation. All course syllabus have been designed with due consideration to social needs at large so as to apply the spirit of NEP.
6. Distance education/online education:	Faculties are encouraged to offer MOOC courses at IGDTUW which promotes the blended learning system of learning. It has incorporated with CBCS system. The university has adopted the modern ICT Systems for promotion and support of online education to its students that can be further expanded for formal Distance/Online education under this university.

#### **Extended Profile**

#### 1 Program

#### 1.1

#### Number of programs offered year-wise for last five years

2020-21	2019-20	2018-19	2017-18	2016-17
16	13	12	12	12

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

#### 1.2

#### Number of departments offering academic programmes

Response: 8

#### 2 Students

#### 2.1

#### Number of students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
2567	1951	1673	1610	1590

File Description	Document
Institutional data in prescribed format	View Document

#### 2.2

#### Number of outgoing / final year students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
512	487	407	434	423

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

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#### 2.3

#### Number of students appeared in the University examination year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
3122	2464	1994	1708	1665

File Description	Document
Institutional data in prescribed format	View Document

#### 2.4

#### Number of revaluation applications year-wise during the last 5 years

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	8	17	14

#### 3 Teachers

#### 3.1

#### Number of courses in all programs year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
713	626	284	284	284

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

#### 3.2

#### Number of full time teachers year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17	
69	69	69	69	62	

File Description	Docu	nent	
Institutional data in prescribed format	View	Document	

#### 3.3

#### Number of sanctioned posts year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
131	111	103	103	103

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

#### 4 Institution

#### 4.1

Number of eligible applications received for admissions to all the programs year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
23209	21742	20375	19098	18960

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

#### 4.2

Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
663	414	243	258	258

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

#### 4.3

Total number of classrooms and seminar halls

**Response: 33** 

#### 4.4

Total number of computers in the campus for academic purpose

Response: 466

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# 4.5 Total Expenditure excluding salary year-wise during last five years ( INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
1080	1384	1216	1489	1138

#### 4. Quality Indicator Framework(QIF)

#### **Criterion 1 - Curricular Aspects**

#### 1.1 Curriculum Design and Development

1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution.

#### **Response:**

Curricula developed and implemented at IGDTUW have relevance to the regional, national, and global developmental needs, that is reflected in Programme outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the Programmes. IGDTUW offers educational programmes in Undergraduate, Postgraduate and the Doctoral levels. The University has adopted the philosophy of Outcome Based Education (OBE) for all its programmes. The Programme Educational Outcomes (PEOs) and Programme Outcomes (POs) of different programmes of the University are aligned with the Vision and Mission of the University. Curricula are designed with learning objectives and outcomes at programmes and course level under the guidance of multiple stakeholders, academic experts and industry practitioners to ensure that learning outcomes for all courses, at all levels and programmes, stand out to meet the social and economic needs in modern industry. Besides the core and elective courses, numerous interdisciplinary and enrichment courses are introduced in each programme to ensure the all-round development of students. Generic Open Courses (GEC), such as Critical Thinking, Ethics and Values, Problem Solving etc. through various MOOC platforms like NPTEL, SWAYAM lead to the holistic development of the students, whereas the industry-oriented courses make their transition from campus to corporate easy. Various academic departments run different innovative courses like Start-up Management, Family Business, Education Mentoring Program for the School going Girls of various Government Schools to make students confident and mature enough to face the challenges of life.

All the courses of the Program are developed with the inputs from alumni, industry and the faculty members and then recommended by the Board of Studies (BoS). The recommended syllabus is placed before the Academic Council and Board of Management of the University, which further ensures that the curricula is in line with the highest standards and latest developments in the concerned field. All these Committees consist of senior academicians, industry professionals, researchers, and Government officials from reputed organizations. Undergraduate Programs are designed to cater the needs of the industry in their respective domains. Students are given strong hands-on exposure to the latest tools and technologies so that they can get expertise on developing innovative solutions for societal needs. The Postgraduate and research programmes are geared towards promoting innovation and engaged research in various engineering disciplines. A strong focus is given to promote entrepreneurship and start-up culture among all UG, PG and Research students.

#### **Salient Features:**

- Semester System
- Choice Based Credit System (CBCS)
- Modular and Flexible Structure
- Interdisciplinary Programmes

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- Generic Open Elective (GEC) offering options of subjects from MOOC and various other departments along with Anveshan Foundation (Incubation Centre)
- Continuous Evaluation and End Term Evaluation with complete transparency and governance
- Letter Grading (SGPA and CGPA based System)
- Flexibilities of Dual Degree (with exit option)
- Strong focus in Foundation Courses
- Strong Institutional Linkages with Industries
- Open and adaptive processes
- Research Components at all 3-tiers of Education

In addition, skill building courses, workshops, seminars, Conferences are organised from time to time to enhance the employability of students and to help them achieve their career goals.

File Description	Document
Link for Additional information	View Document

#### 1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.

Response: 100

#### 1.1.2.1 How many Programmes were revised out of total number of Programmes offered during the last five years

Response: 15

#### 1.1.2.2 Number of all Programmes offered by the institution during the last five years.

Response: 15

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Institutional data in prescribed format	View Document
Details of Programme syllabus revision in last 5 years	View Document
Link for additional information	<u>View Document</u>

#### 1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years

Response: 55.66

#### 1.1.3.1 Number of courses having focus on employability/entrepreneurship/skill development year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
682	601	82	82	82

File Description	Document
Programme/ Curriculum/ Syllabus of the courses	View Document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document
Institutional data in prescribed format	View Document

#### 1.2 Academic Flexibility

1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.

**Response:** 63.19

1.2.1.1 How many new courses were introduced within the last five years.

Response: 479

1.2.1.2 Number of courses offered by the institution across all programmes during the last five years.

Response: 758

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Institutional data in prescribed format	View Document

1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).

**Response:** 93.75

1.2.2.1 Number of Programmes in which CBCS / Elective course system implemented.

Response: 15

File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document

#### 1.3 Curriculum Enrichment

## 1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics ,Gender, Human Values ,Environment and Sustainability into the Curriculum

#### **Response:**

IGDTUW curriculum integrates various cross-cutting issues relevant to professional ethics, gender, human values, environment and sustainability, across undergraduate and post-graduate programs which contribute to the building of the nation by graduating students having professional skills with human values.

#### **Professional Ethics and Human Values:**

IGDTUW integrates courses that teach professional ethics and human values in its curriculum to inculcate ethics and human values into the young minds of UG and PG students. It helps in enhancing the capability of shaping themselves into outstanding personalities, through a value-based life. In UG programmes university offers mandatory value-added courses that include "Professional Ethics and Human Values", "Human Resource Management", "Business Ethics Corporate Social Responsibility", Women and Sustainable Development, Disaster Management, and Strategic Design Thinking to facilitate the development of a holistic perspective among students towards life, profession and happiness. Such a holistic perspective forms the basis of value-based living in a natural way.

In PhD and PG, programmes university offers courses like "Research Methodology and Publication Ethics" which specifically deal with cross-cutting issues relevant to professional ethics and various ethical theories in the research methodology and publication areas. Department of IT offers a course titled "Ethical Hacking" at PG programmes to teach students various ethical laws that exist in India and abroad. Department of Architecture and Planning runs subjects like Women and Habitat, Water Sensitive Urban Development, etc. which readies students for pressing societal challenges and develop empathy not only towards human values but also towards different components of the ecosystem.

#### **Gender Sensitization:**

IGDTUW is a technical university for women and has girl students of large socioeconomic variations. The university has constituted Women Grievance Cell and Grievance Redressal Cell on campus in order to provide counselling and promote gender equity among students. The "Unnat Bharat Abhiyan (UBA) Cell" of the university has been very proactive in conducting different extensive activities not only on the university premises but also in adopted villages. Major gender issues are focused on and addressed through the activities like "Save girl child campaign" by "essay and poster exhibitions" and "wallpaper presentations" etc.

IGDTUW has played a pivotal role in initiating and leading several innovative programmes in the field of

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women's education and empowerment. One such initiative was the Education Mentoring Programme, which aims at supporting and guiding the girl students of Delhi Government schools in their education. For conducting activities related to women empowerment, safety and security of girl students, and gender equity, the university has been facilitated with "The society of Women Engineers, Certificate of Accreditation".

#### **Environment Sustainability:**

Environmentalism, sanitation, plantation, and energy saving are all built into the campus lifestyle. The university is offering many courses in environmental science including Environmental Science, Climatology, Environmental Studies, Environmental Management, and Disaster Management etc. to help students grasp the ecosystem and biodiversity and analyse the use and extraction of natural resources, as well as the associated environmental depletion and contamination.

File Description	Document
Upload the list and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum	View Document
Any additional information	<u>View Document</u>

## 1.3.2 Number of value-added courses for imparting transferable and life skills offered during last five years.

Response: 67

1.3.2.1 How many new value-added courses are added within the last five years.

Response: 67

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

#### 1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.

Response: 41.2

## 1.3.3.1 Number of students enrolled in value-added courses imparting transferable and life skills offered year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
2680	691	341	243	488

## 1.3.4 Percentage of students undertaking field projects / research projects / internships (Data for the latest completed academic year).

**Response:** 90.03

#### 1.3.4.1 Number of students undertaking field projects or research projects or internships.

Response: 2311

File Description	Document
List of Programmes and number of students undertaking field projects research projects//internships (Data Template)	View Document
Link for additional information	View Document

#### 1.4 Feedback System

## 1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni

**Response:** A. All 4 of the above

File Description	Document
URL for stakeholder feedback report	View Document
Institutional data in prescribed format	<u>View Document</u>
Action taken report of the University on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	View Document

#### 1.4.2 Feedback processes of the institution may be classified as follows:

**Response:** A. Feedback collected, analysed and action taken and feedback available on website

File Description	Document
URL for feedback report	View Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

#### **Criterion 2 - Teaching-learning and Evaluation**

#### 2.1 Student Enrollment and Profile

#### 2.1.1 Demand Ratio (Average of last five years)

Response: 27.85

#### 2.1.1.1 Number of seats available year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
1123	777	650	650	635

File Description	Document
Demand Ratio (Average of Last five years) based on Data Template upload the document	View Document
Any additional information	View Document

## 2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per applicable reservation policy during the last five years (Excluding Supernumerary Seats)

Response: 71.24

## 2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
449	308	167	191	184

File Description	Document
Average percentage of seats filled against seats reserved (Data Template)	View Document
Any additional information	View Document

#### 2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners

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#### **Response:**

Admissions in IGDTUW are based on ranks in Joint Entrance Examination (JEE), national level entrance test conducted by National Testing Agency. Admissions in Postgraduation Programs are based on score in Graduate Aptitude Test in Engineering (GATE) or University Common Admission Test (RAT). Ph.D. registrations in the university are taken through RAT followed by interview.

The early assessment system of the University helps in assessing achievement, satisfaction, and extent of student learning. The purpose is to identify the level of students learning; assess their preparation, needs, and use the data to improve student achievement in curricular, co-curricular, and scholarly work. Based on the assessment result, University organizes different student-oriented special programs to support advanced and slow learners, such as:

- **1.** A proficiency test is conducted for all the students after admission, before the commencement of the course at the beginning of the program to assess the learning levels of the students.
- **2. Support/ Bridge course** are offered with the purpose of bringing the slow learning students at the benchmark level with their peers. Among the most often floated bridge courses include mathematics, Computer programming, Physics, Chemistry, Math, Engineering Mechanics for Engineering students, Statistics, Quantitative Techniques, and Basic Accounting for Management students.
- **3. Remedial Classes for regular university courses** are offered beyond regular teaching hours. Students can clear their doubts and teachers have a separate one-to-one interaction with the slow learner students to get personal attention. Quiz are conducted at regular intervals during the semester to evaluate the learning graph of the students. Assignments are given to them to strengthen their concepts and understanding in a course.

Mid term exams are conducted to assess the learning of the students. The theory is reinforced through practical classes, industrial visits, and expert lectures. The students who are unable to clear an exam are provided with expert guidance so as to overcome the weakness, develop a better understanding of the course and clear the back paper.

Faculty mentors provide regular counselling to students so that they improve their performance and have better academic growth.

#### Special measures are taken to support students to overcome academic difficulties.

- Organizing Extra Classes in every semester
- Organizing bridge course at the beginning of semester
- Giving practice assignments
- Organizing Guided Self Study Courses classes
- Providing extra reading material and practice sheets to improve basic understanding of subject.
- Encouraging student-clubs to cater to different hobbies and interest of the students to have a holistic

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development.

- Ample opportunities of industrial projects for hands-on learning.
- Opportunities to choose from various interdisciplinary elective subjects to cater to their scientific interest.

#### The advanced learners are:

- encouraged to participate in various symposiums like quiz, poster presentation, conferences, inter college competitions etc.
- provided with opportunities to choose from various interdisciplinary elective subjects to cater to their scientific interest
- provided with opportunities to involve themselves in writing research papers through Independent study and research course in which student gets credit for doing research work

File Description	Document
Paste link for additional information	View Document

# 2.2.2 Student - Full time teacher ratio (Data for the latest completed academic year) Response: 37:1 File Description Document Any additional information View Document

#### 2.3 Teaching- Learning Process

## 2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

#### **Response:**

The IGDTUW always believed in using teaching methods beneficial for the student's holistic learning. To impart holistic development, various innovative methods of teaching are utilized so that every student gets benefited. The University uses experimental and practical techniques for a better understanding of the concepts and hands-on learning. The class is divided into small groups of just 25-35 students so that the students' active participation is ensured during the teaching-learning process. During the semester, the students were given different practical assignments, and projects are given to the students to apply their imagination, learning methods, and problem-solving methods to complete the project goals successfully.

#### **Lectures:**

Lectures are through ppt and conventional white board, Online Material, NPTEL, Assignments, Quiz etc. Emphasis is given on practical implementation of the concepts through Lab sessions and Case Studies. Presentations by the students on latest emerging topics are organized on regular basis. These methods help the faculty effectively impart the course content leading to better grasping at the student level. IGDTUW has a system of CBCS i.e choice-based credit system. This system allows the students to take subjects of their choice to move toward their future goals.

#### **Experiential Learning:**

Students are encouraged to take industrial internships or work on a project for hands-on learning based on the student's interest. During the project-based learning, the students develop their ideas and work towards a deeper understanding of a subject matter or product development. During an Industrial internship, the students understand working in an industry better, and they also work on sector-provided projects. Respective departments regularly organize industrial visits to provide a better insight into the current challenges and work areas.

#### **Participative Learning:**

The students are encouraged to participate in various competitions at national and international levels. Miscellaneous quizzes, departmental seminars, project presentations, and research paper writing are the regular features to ensure the students' active participation and their holistic development. During the semester, eminent industrial personalities, and senior academicians from premier institutions and research organizations are invited for the guest lectures/expert lectures. Various hands-on workshops/training programs are conducted for better learning and concept building. Students work on projects in group and learn team working under the supervision of faculty members from the University and the industry mentor/academicians/researchers from outside IGDTUW.

File Description	Document
Link for Additional Information	<u>View Document</u>

## 2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning process.

#### **Response:**

ICT tools play a vital role in today's learning process. It is a boon for both teachers and learners. They make teaching-learning more effective, interactive, exciting, and student-centric. Using ICT tools such as Powerpoint presentations, animations, and videos during the learning process leads to a more efficient and effective dissemination of the knowledge at the teachers' level and a better and deeper understanding of the concepts by the students. The ICT methods also make the deliverying of class lectures more swift and active. ICT ensures active collaborative classroom sessions for all students using various apps such as padlet and brainstormer.

The use of emerging ICT tools also piques the students' interest in the learning process. It enables them to disseminate their ideas and views to a larger audience effectively. Students enjoy learning by various

methods and adopt the practices that suit them best. ICT caters to a larger and more varied audience simultaneously and makes the best use of the available time. ICT is a powerful tool for educational change and reform. Our university uses various ways of teaching so that students enjoy the learning process by employing hands-on training, project works, and real-life examples.

The university has a synergetic blend of modern and traditional learning processes. Along with Chalk and duster method, teachers use smart classrooms with LCD projectors, Wi-Fi connectivity, and various software such as Matlab, Python, Creo, and PowerPoint presentations to expose the students to innovative knowledge and practical learning. Also, teachers use other methods, such as flipped classrooms and student presentations, to make the learning more dynamic. Our university is "going green," and ICT tools also help achieve this by reducing the use of paper. Our university labs are equipped with the latest software and machines, which helps in the on-field functioning of the machines /instruments. The faculty uses different teaching methods based on the learners' needs and the subject taught. Besides conventional lecturing methods, teachers also use ICT methods such as google meet and Webex classrooms for knowledge dispensation. All the ppts and other resource materials are regularly shared with students. The assignment submission, project submission, and class group projects are all submitted online ( no paper mode). IGDTUW was the first university to conduct the exams online during the Covid -19 Pandemic in May -June 2020. Within a week of the Covid-19 lockdown, the university started the online classes by using google meet and Zoom classes to benefit the students. Internet and Wi-Fi facility is available to all the students and teachers of IGDTUW. The library of IGDTUW provides access to various online journals and online journals freely available in the public domain and to journals subscribed on the advice of faculty and facilitates downloads. University has a strict anti-plagiarism policy and provides access to all the teachers of the Turnitin to check the work of the students before final submission for any plagiarism. Regular communications with the students are made by using mails.

File Description	Document
Provide link for webpage describing the "LMS/ Academic management system"	View Document

2.3.3 Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year )		
Response: 37:1		
2.3.3.1 Number of mentors ????????????????		
Response: 69		
File Description Document		
Circulars pertaining to assigning mentors to mentees	View Document	

#### 2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

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Response: 61.8		
File Description	Document	
Year wise full time teachers and sanctioned posts for 5 years	View Document	
List of the faculty members authenticated by the Head of HEI	View Document	
Any additional information	View Document	

## 2.4.2 Average percentage of full time teachers with Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D'Lit. year-wise during the last five years

**Response:** 51.93

## 2.4.2.1 Number of full time teachers with *Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt.* year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
43	36	35	34	28

File Description	Document
List of number of full time teachers with Ph D/D M/M Ch/D N B Superspeciality/DSc/D Lit and number of full time teachers for 5 years	View Document
Any additional information	View Document

## 2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)

Response: 0.77

#### 2.4.3.1 Total experience of full-time teachers

Response: 53

File Description	Document
List of Teachers including their PAN, designation, dept and experience details	View Document

## 2.4.4 Average percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government/Govt. recognised bodies during the last five years

Response: 54.73

## 2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government/Govt. recognized bodies year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
13	18	2	1	3

File Description	Document
Institutional data in prescribed format	View Document

#### 2.5 Evaluation Process and Reforms

## 2.5.1 Average number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

Response: 56.4

## 2.5.1.1 Number of days from the date of last semester-end/ year- end examination till the declaration of results year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
86	57	58	45	36

File Description	Document
List of Programmes and date of last semester and date of declaration of results	View Document

## 2.5.2 Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

Response: 1.59

2.5.2.1 Number of complaints/grievances about evaluation year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
0	60	73	17	14

## 2.5.3 IT integration and reforms in the examination procedures and processes (continuous internal assessment and end-semester assessment) have brought in considerable improvement in examination management system of the institution

#### **Response:**

IT integration and reforms in the examination procedures and processes (continuous internal assessment and end-semester assessment) have brought in considerable improvement in examination management system of the institution

**Examination procedures:** In IGDTUW, the current academic calendar is announced at the beginning of the semester through the official website of the University. The academic calendar specifies the commencement of classes, internal assessment, continuous assessment including mid-term and end term evaluation.

For each subject, more than 03 different question papers sets are prepared for examinations. Internal IT systems are used for randomization of questions from question bank and preparation of different sets of the papers. Moderation of the question paper by subject experts is completed as per set guidelines.

The examination date sheets are communicated to the students through the official website of the university. The admit cards of the students are generated through IT System integrated with the official website linked to student management system from where the students can download the same through their respective login.

Integration of multiple IT systems, including Student Management System and official website of the university has transformed the examination system and significantly removed the complaints/grievances of students about examination procedure.

The answer sheets after collection are allotted to the respective faculties on the same day and its status is modified on the ERP (Cloud Based University Student Information System - CBUSIM). The progress of the answer sheet evaluation could be checked through ERP and helps in smooth and timely evaluation of the answer sheets.

After evaluation the teacher could download the auto generated report of the class marks. By using ICT based solution of CBUSIM, IGDTUW has reduced a significant amount of time, efforts, and resource consumption in examination, evaluation, and reporting. The system has reduced the vacancies for errors and hereby complaints of students.

File Description	Document
Link for additional information	View Document

#### 2.5.4 Status of automation of Examination division along with approved Examination Manual

**Response:** 100% automation of entire division & implementation of Examination Management System (EMS)

File Description	Document
Current manual of examination automation system and Annual reports of examination including the present status of automation	View Document
Current Manual of examination automation system	<u>View Document</u>
Any additional information	View Document

#### 2.6 Student Performance and Learning Outcomes

2.6.1 The institution has stated learning outcomes (generic and programme specific)/graduate attributes which are integrated into the assessment process and widely publicized through the website and other documents

#### **Response:**

IGDTUW has implemented Outcome Based Education, the effectiveness of which has been recognized at multiple platforms. With ISO 9001 Framework, all departments of the University have stated their respective Vision and Mission that is aligned to University Vision and Mission. NBA guidelines have been followed in adopting the POs for all programs. All departments have also defined Program Specific Outcomes (PSOs) and Course Outcomes (COs), that are integrated into the Curriculum and Assessment Process.

All PO's are duly vetted by the Academic Council of the departments offering the programme in accordance with the framework prescribed by the University.

The detailed 'curriculum map' with measurable degrees of mapping is prepared to ensure that the POs are adequately addressed.

All teaching staff at the University undergo mandatory OBE training and/or compete NPTEL and various other courses and/or certified OBE Teachers Program. University conducts special training every year for updating the faculties with the new processes adopted in the OBE.

Outcomes are assessed and attainment analytics are used to improve the academic quality by analyzing the gap and improving the curriculum accordingly. The Programme Outcomes are effectively communicated to the concerned staff and council members of the University in addition to being communicated to students through online and offline modes.

Programme coursebook having programme Vision, Mission, CO, PO, Programme Description, Programme Structure, PEOs, PSOs & Programme Outcomes, Assessment Plan and Composition of Outcome etc.

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The Courses commence with the faculty explaining the course objectives and expected outcomes to students and distribution of Course Handouts. The planned assessments, both formative and summative, are mapped to the course outcomes with appropriate degree of mapping (Strong/ Moderate/ Weak). Faculty choose the components of their continuous and term end assessments in line with the learning outcomes and the assessment rubrics are prepared to measure student performance effectively. The faculty prepares their session plans by incorporating appropriate pedagogies and learning outcomes suitable to achieve the Course Outcomes.

The LMS/ ERP/Offline Quiz Programs are being widely used for Internal evaluations including MCQs, projects, roles play, presentations, internships, research-based assignments, dissertations, vivas, open book tests, critical thinking seminars, lab work, simulations, service-learning components and other co-curricular activities ensure that the assessment is always linked to COs. The attainment of the COs are assessed through these assessments and respective improvements are identified and implemented through respective Councils.

File Description	Document
Paste link for Additional Information	View Document

## 2.6.2 Attainment of Programme outcomes, Programme specific outcomes and course outcomes are evaluated by the institution

#### **Response:**

IGDTUW has a systematic process for measuring PO, PSO and CO and their analysis to overcome the barriers to learning. Appropriate awareness about the Program Outcomes, Course Outcomes and PSOs has been ensured. The teaching pedagogies are designed in a way to ensure the assessment of the learning levels of the students.

Prerequisites for CO – PO computation

- PO defined at the Programme Level
- Target defined for each PO
- Course Outcomes (COs) specified for each course
- Weightages assigned to degree of mapping
- CO-PO Articulation Matrix
- Each CO mapped to the assessments conducted for the CO
- Student Performance in terms of marks of the assessments to be recorded
- Attainment computed using Specified Formula

An appropriate distribution of importance has been given to different measures of attainment to ensure continuous learning of student through theoretical studies, lab works, field works, reports and Capstone Evaluation Observation, class tests, Viva, Individual Reports, Mid-Term Examinations, and End-term Examinations.

#### **CO Attainment Measurement**

Following 'Attainment Levels' of COs have been defined as per scores in Continuous Assessment (Internal) and End Term Examinations:

- **Direct method** includes the Continuous Assessment with 'Continuous Assessment', 'End-Term' and 'Field' components depending upon course objectives, course outcomes, and pedagogy.
- Continuous Assessment Components such as Assignments, Class Tests, Quiz, Lab-tests and Mid-Term examination for continual assessment are defined and used with the weightage of 40%. Field/project works have been added depending upon the program types. The 40% includes the defined components of Mid-term Exam, Lab-Evaluation, and other components like Assignment/Quiz/Class-test etc.
- End Term Examination with the weightage from 60% are used.
- **Indirect method** of CO attainment is measured through course exit survey conducted at the end of every course.

Following 'Attainment Levels' of COs have been defined as per scores in Continuous Assessment Evaluation and End Term Examinations:

- Attainment by Continuous Assessment Evaluation (weightage 40%)
  - 1 Less than 50% students scoring more than 70% marks.
  - 2 50% to less than 60% students scoring more than 70% marks.
  - 3 Greater than or equal to 60% students scoring more than 70% marks.
- Attainment by End Term Theory Evaluation (weightage 60%)
  - 1 Less than 50% students scoring more than 65% marks.
  - 2 50% to less than 60% students scoring more than 65% marks.
  - 3 Greater than or equal to 60% students scoring more than 65% marks

#### **PO/PSO Attainment**

The PO Attainment measurement includes both the direct and indirect measurement.

- **Direct measurement** is based on CO attainment of courses (80% Weightage).
  - The POs attainment is calculated by multiplying the CO attainment value and the COs contribution factor, where COs contribution factor is 3, 2 and 1 for High, Medium and low contribution respectively.
- o Indirect Measurement of attainment (20% Weightage) is based on
  - Employer Survey (Weightage 10%)
  - Student Exit Survey (Weightage 10%)

#### Calculations:

PO Attainment = Direct Attainment \* 0.8 + Indirect Attainment \* 0.2

#### **GAP** Analysis and Improvement

The gaps in the desired and actually achieved objectives are analyzed for required improvements in student learning for each programme and are captured in the outcome assessment report.

File Description	Document
Paste link for Additional Information	View Document

#### 2.6.3 Pass Percentage of students(Data for the latest completed academic year)

Response: 99.4

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 496

## 2.6.3.2 Total number of final year students who appeared for the examination conducted by the Institution.

Response: 499

File Description	Document	
Upload list of Programmes and number of students passed and appeared in the final year examination	View Document	
Upload any additional information	View Document	
Paste link for the annual report	View Document	

#### 2.7 Student Satisfaction Survey

Upload database of all currently enrolled students

2.7.1 Online student satisfaction survey regarding teaching learning process		
Response: 3.45		
File Description Document		

**View Document** 

### **Criterion 3 - Research, Innovations and Extension**

#### 3.1 Promotion of Research and Facilities

3.1.1 The institution's Research facilities are frequently updated and there is a well defined policy for promotion of research which is uploaded on the institutional website and implemented

#### **Response:**

IGDTUW is devoted to world class education, research, technology, innovation, incubation and extension work in emerging areas of professional education among women, with focus on engineering, technology, applied sciences, architecture and its allied areas with the objective to achieve excellence in these and related fields. The university has created an ecosystem for imparting excellent education, Research and Innovation by Faculty members, students and staff.

University recruits meritorious, dynamic and enterprising faculty through a very stringent selection process that involves careful scrutiny of applications, testing of knowledge and teaching skills through written examination, presentation and interviews. The faculty members are provided with the excellent research infrastructure and environment to pursue their research work.

- 1. Research Incentives and Awards to celebrate exceptional performances: Every year, faculty members/PG/PhD researchers are awarded with a Cash Prize & Award for outstanding contribution to Research.
- 2. **Research Awards for Students**: To boost the culture of Research & Innovation, students at UG/PG Level are bestowed with Cash Prize & Certificates for best paper publication.
- 3. Research Grants: IGDTUW provides Professional Development Grant/Financial assistance to all the faculties/students to participate in conferences at National/International level.
- 4. **Financial assistance** to the MTech and MPlan (Non-GATE) and PhD (Full Time) students. The MTech students having GATE Score are eligible to get scholarship from UGC.
- 5. **Promote Sponsored Research**: IGDTUW has fetched more than 15 projects from DST, MeitY, DeitY, and others.
- 6. **Centre of Excellence**: University has established State-of-the-Art Centre of Excellences (CoE), where faculty members and students are involved in doing research work on various domains.
- 7. CoE in Artificial Intelligence with a whooping grant of Rs. 8.5 Crores from DST.
- 8. CoE in Mechatronics with a funding of Rs. 8.67 Cr, from DKDF, Delhi Govt.
- 9. **International MoUs** with prestigious Universities and Research Institutions including NAIST, Japan, James Cook University, Australia, Universiti Malaysia Perlis, Malaysia and several others to promote the educational and academic collaboration.

#### **Innovation and Entrepreneurial Ecosystem:**

To develop entrepreneurial eco-system and start-up culture in the University, an Incubation Centre, Anveshan Foundation has been established by the University. **NIDHI TBI: Department of Science & Technology, GoI has sanctioned Rs. 6 Crores to accelerate & boost Innovation,** Entrepreneurship, Start-ups and Incubation related activities at the University Campus. Anveshan Foundation support include seed money, incubator space, business support services and clustering and networking opportunities. University has a capable pool of mentors, faculty mentors and other technical experts to help the young entrepreneurs for prototyping and MVP developments. Boot Camps, Seminars, Workshops, Business Case Study

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Competitions, Business Plan competition and Management Development Program are conducted regularly to promote all these activities among various stakeholders.

Till date, total 15 start-ups have been incubated in the Incubation Centre. Due to our rigorous efforts in promoting research, innovation and entrepreneurial system, IGDTUW was awarded with the 'Rank-2' under Women Colleges and Universities and in 'Band A' under Overall Ranking in Atal Ranking of Institutions on Innovation Achievements (ARIIA)-2020 Award by Hon'ble Vice President of India on August 18, 2020.

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	
Any additional information	<u>View Document</u>
URL of Policy document on promotion of research uploaded on website	View Document

### 3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

Response: 10.75

### 3.1.2.1 The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).

2020-21	2019-20	2018-19	2017-18	2016-17
11.65432	6.26440	20.16469	12.58862	3.05849

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Any additional information	View Document

### 3.1.3 Percentage of teachers receiving national / international fellowship / financial support by various agencies for advanced studies / research during the last five years.

### Response: 11.54

### 3.1.3.1 The number of teachers who received national / international fellowship / financial support by various agencies for advanced studies / research year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
1	24	14	0	0

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the award letters of the teachers	View Document

### 3.1.4 Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution during the last five years.

**Response:** 75

### 3.1.4.1 The Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
29	16	15	11	4

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

### 3.1.5 Institution has the following facilities to support research

- 1. Central Instrumentation Centre
- 2. Animal House/Green House
- 3. Museum
- 4. Media laboratory/Studios
- **5. Business Lab**
- 6. Research/Statistical Databases
- 7. Mootcourt
- 8. Theatre
- 9. Art Gallery
- 10. Any other facility to support research

<b>Response:</b> A. 4 or more of the above			
File Description Document			
Upload the list of facilities provided by the university and their year of establishment	View Document		
Paste link of videos and geotagged photographs	View Document		

3.1.6 Percentage of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other recognitions by national and international agencies (Data for the latest completed academic year)

Response: 87.5

3.1.6.1 The Number of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other similar recognitions by national and international agencies.

Response: 7

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

#### 3.2 Resource Mobilization for Research

3.2.1 Extramural funding for Research (Grants sponsored by the non-government sources such as industry, corporate houses, international bodies for research projects) endowments, Chairs in the University during the last five years (INR in Lakhs).

**Response:** 105.17

3.2.1.1 Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years (INR in Lakhs).

2020-21	2019-20	2018-19	2017-18	2016-17
38.52	23.74	0	0	42.91

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

3.2.2 Grants for research projects sponsored by the government agencies during the last five years (INR in Lakhs).

**Response:** 2236.44

### 3.2.2.1 Total Grants for research projects sponsored by the government agencies year-wise during the last five years (INR in Lakhs).

2020-21	2019-20	2018-19	2017-18	2016-17
1694.384	109.5	38.079	25.66	368.82

File Description	Document
Institutional data in prescribed format	View Document

### 3.2.3 Number of research projects per teacher funded by government and non-government agencies during the last five years

Response: 1.45

### 3.2.3.1 Number of research projects funded by government and non-government agencies during the last five years.

Response: 24

### 3.2.3.2 Number of full time teachers worked in the institution year-wise during the last five years...

Response: 83

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Paste Link for the funding agency website	View Document

### 3.3 Innovation Ecosystem

### 3.3.1 Institution has created an eco system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge.

#### **Response:**

IGDTUW is devoted to world class education, research, technology, innovation, incubation and extension work in emerging areas of professional education among women, with focus on engineering, technology, applied sciences, architecture and its allied areas with the objective to achieve excellence in these and related fields. The university has created an ecosystem for imparting excellent education, Research and Innovation by Faculty members, students and staff.

University recruits meritorious, dynamic and enterprising faculty through a very stringent selection process that involves careful scrutiny of applications, testing of knowledge and teaching skills through written examination, presentation and interviews. The faculty members are provided with the excellent research infrastructure and environment to pursue their research work.

- 1. Research Incentives and Awards to celebrate exceptional performances: Every year, faculty members/PG/PhD researchers are awarded with a Cash Prize & Award for outstanding contribution to Research.
- 2. Research Awards for Students: To boost the culture of Research & Innovation, students at UG/PG Level are bestowed with Cash Prize & Certificates for best paper publication.
- 3. Research Grants: IGDTUW provides Professional Development Grant/Financial assistance to all the faculties/students to participate in conferences at National/International level.
- 4. Financial assistance to the MTech and MPlan (Non-GATE) and PhD (Full Time) students. The MTech students having GATE Score are eligible to get scholarship from UGC.
- 5. Promote Sponsored Research: IGDTUW has fetched more than 15 projects from DST, MeitY, DeitY, and others.
- 6. Centre of Excellence: University has established State-of-the-Art Centre of Excellences (CoE), where faculty members and students are involved in doing research work on various domains.
  - 1. CoE in Artificial Intelligence with a whooping grant of Rs. 8.5 Crores from DST.
  - 2. CoE in Mechatronics with a funding of Rs. 8.67 Cr, from DKDF, Delhi Govt.
  - 3. International MoUs with prestigious Universities and Research Institutions including NAIST, Japan, James Cook University, Australia, Universiti Malaysia Perlis, Malaysia and several others to promote the educational and academic collaboration.

#### **Innovation and Entrepreneurial Ecosystem:**

To develop entrepreneurial eco-system and start-up culture in the University, an Incubation Centre, Anveshan Foundation has been established by the University. NIDHI TBI: Department of Science & Technology, GoI has sanctioned Rs. 6 Crores to accelerate & boost Innovation, Entrepreneurship, Start-ups and Incubation related activities at the University Campus. Anveshan Foundation support include seed money, incubator space, business support services and clustering and networking opportunities. University has a capable pool of mentors, faculty mentors and other technical experts to help the young entrepreneurs for prototyping and MVP developments. Boot Camps, Seminars, Workshops, Business Case Study Competitions, Business Plan competition and Management Development Program are conducted regularly to promote all these activities among various stakeholders.

Till date, total 15 start-ups have been incubated in the Incubation Centre. Due to our rigorous efforts in promoting research, innovation and entrepreneurial system, IGDTUW was awarded with the 'Rank-2' under Women Colleges and Universities and in 'Band A' under Overall Ranking in Atal Ranking of Institutions on Innovation Achievements (ARIIA)-2020 Award by Hon'ble Vice President of India on August 18, 2020.

File Description	Document
Paste link for additional information	View Document

### 3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development during the last five years.

Response: 175

### 3.3.2.1 Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
105	49	12	5	4

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

### 3.3.3 Number of awards / recognitions received for research/innovations by the institution / teachers / research scholars / students during the last five years.

Response: 82

### 3.3.3.1 Total number of awards / recognitions received for research / innovations won by institution / teachers / research scholars / students year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
42	29	8	2	1

File Description	Document
Institutional data in prescribed format	View Document

#### 3.4 Research Publications and Awards

3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following: 1. Inclusion of research ethics in the research methodology course work 2. Presence of Ethics committee 3. Plagiarism check through software 4. Research Advisory Committee

**Response:** A. All of the above

File Description	Document
Code of ethics for Research document, Research Advisory committee and ethics committee constitution and list of members on these committees, software used for Plagiarism check, link to Website	View Document
Any additional information	View Document

3.4.2 The institution provides incentives to teachers who receive state, national and international recognitions/awards 1.Commendation and monetary incentive at a University function 2.Commendation and medal at a University function 3. Certificate of honor 4.Announcement in the **Newsletter / website** 

**Response:** A.. All of the above

File Description	Document
Institutional data in prescribed format	View Document
e- copies of the letters of awards	View Document

### 3.4.3 Number of Patents published / awarded during the last five years.

**Response:** 25

### 3.4.3.1 Total number of Patents published / awarded year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
19	0	2	1	3

File Description	Document
Institutional data in prescribed format	View Document

#### 3.4.4 Number of Ph.D's awarded per teacher during the last five years.

Response: 1.35

3.4.4.1 How many Ph.D's are awarded within last five years.

Response: 27

3.4.4.2 Number of teachers recognized as guides during the last five years

Response: 20		
File Description	Document	
Institutional data in prescribed format	<u>View Document</u>	
URL to the research page on HEI web site	View Document	

### 3.4.5 Number of research papers per teachers in the Journals notified on UGC website during the last five years

Response: 7.01

### 3.4.5.1 Number of research papers in the Journals notified on UGC website during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
196	81	82	51	64

File Description	Document
Institutional data in prescribed format	View Document

### 3.4.6 Number of books and chapters in edited volumes/books published and papers published in national/international conference proceedings per teacher during last five years

**Response:** 1.73

### 3.4.6.1 Total number of books and chapters in edited volumes/books published and papers in national/international conference proceedings year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
25	21	20	23	28

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

#### 3.4.7 E-content is developed by teachers :

- 1. For e-PG-Pathshala
- **2.For CEC (Under Graduate)**

- 3. For SWAYAM
- 4. For other MOOCs platform
- **5. Any other Government Initiatives**
- 6. For Institutional LMS

**Response:** C. Any 3 of the above

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

### 3.4.8 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed

Response: 4.74

3.4.9 Bibliometrics of the publications during the last five years based on Scopus/Web of Science - hindex of the Institution

Response: 19

### 3.5 Consultancy

3.5.1 Institution has a policy on consultancy including revenue sharing between the institution and the individual and encourages its faculty to undertake consultancy.

#### **Response:**

IGDTUW strongly encourages sharing of knowledge base and expertise through consultancy. It promotes the faculty members and students to carry out the scholarly work in an open and free atmosphere and to publish results obtained there from freely. University has well defined Consultancy policy and the IPR policy.

File Description	Document
Upload soft copy of the Consultancy Policy	View Document
Paste URL of the consultancy policy document	View Document

### 3.5.2 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).

Response: 51.72

3.5.2.1 Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).

2020-21	2019-20	2018-19	2017-18	2016-17
19.6495	32.07	0	0	0

File Description	Document
Institutional data in prescribed format	View Document

#### 3.6 Extension Activities

3.6.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years.

### **Response:**

IGDTUW has taken diverse initiatives setting benchmarks not only in the academic domain but also in addressing pressing issues of society. The University has made an impact at the individual, family and community levels. IGDTUW has conceptualized many sustainable models of grassroots innovations for women empowerment that are scalable at the National level.

The university has launched highly successful social outreach initiatives through the Centre for Sustainable Development aimed at working towards the United Nations Sustainable Development Goals. To empower women, the Education Mentoring Programme (EMP), a truly unique Social Ambassadors for Knowledge Dissemination and Handholding Initiative, was launched to abridge the chasmic gap between male and female representation in the STEM workforce. The mandate of EMP was to provide learning support in coursework, extensive resources on preparation for entrance examinations in STEM fields and psychosocial support to marginalised girls and build social responsibility in university students through nonformal education leading to transformations at the personal and institutional level.

University is working for Vigyan Jyoti Project of DST with the mandate to promote and create awareness on STEM Education among the girl students. This Project has fetched an over-whelming response from Government Schools where students of Class 10th came for training during summer breaks and walked out confidently with a self-made working robot.

Under Enactus IGDTUW is Project Dharini in which students working on Earthen Sanitary Napkin Incinerator, an earthen vessel which sustainably burns used sanitary napkins to ashes, which are biodegradable and can be done using any fuel. Burning them in an eco-friendly manner helps effectively decreasing the volume of waste generated by a big fraction. Project Dharini was started with preparation and installation of one pilot incinerator at Raahat Toilet Complex, Sulatanpuri, Delhi.

The social campaign SAMRIDHI stems from the importance of menstrual hygiene. This movement is a crucial aspect to promote human welfare and social reforms, collaborated with Rahnuma, dramatic society of IGDTUW, to spread awareness through their relatable nukkadnataks

The GreenSphere society at IGDTUW is initiated with a vision to protect and conserve the environment by taking the Green route. Some of the initiatives taken by the society are: Sapling Distribution on Orientation

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Day every year to welcome the new students of the Institute, Poster Making Competition, Plantation Drive and Theme Photography Events.

Under Unnat Bharat Abhiyan (UBA) cell adopted five villages in Delhi State namely Sadar Bazaar, Daryaganj, Paharganj, Civil Lines and Seelampur.

Blood Donation: Under Rotary Club University organizes blood donation camp regularly with a great participation from enthusiastic girls.

Several Workshops/Sessions/open discussions are conducted on tabooed issues like body shaming, sex education, menstrual hyegine etc. Many events on themes like women safety (self Defense Workshop), Promotion of Gandhian thoughts, creating awareness about health and hygiene have been conducted.

IGDTUW has been ranked in 101-200 band for SDG 4 and 5 i.e. QUALITY EDUCATION & GENDER EQUALITY under the World Impact Ranking 2021. University is accredited by The Society of Women Engineers for working towards empowering women in STEM.

# 3.6.2 Number of awards received by the Institution, its teachers and students from Government /Government recognised bodies in recognition of the extension activities carried out during the last five years

Response: 61

### 3.6.2.1 Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
21	25	7	1	7

File Description	Document
Institutional data in prescribed format	View Document

### 3.6.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

Response: 258

### 3.6.3.1 Number of extension and outreach programs conducted by the institution those through NSS/NCC, Government and Government recognised bodies during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
116	71	31	29	11

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File Description	Document
Institutional data in prescribed format	View Document

### 3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

**Response:** 106.59

### 3.6.4.1 Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
8819	2338	419	409	304

File Description	Document
Institutional data in prescribed format	View Document

### 3.7 Collaboration

### 3.7.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/internship per year

Response: 16.4

# 3.7.1.1 Total number of Collaborative activities with other institutions / research establishment / industry for research and academic development of faculty and students year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
27	31	16	8	0

File Description	Document	
Institutional data in prescribed format	View Document	

3.7.2 Number of functional MoUs with institutions/ industries in India and abroad for internship, onthe-job training, project work, student / faculty exchange and collaborative research during the last

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five	vears.
1116	y cars.

**Response:** 29

3.7.2.1 Number of functional MoUs with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
15	11	2	1	0

File Description	Document
Institutional data in prescribed format	View Document

### **Criterion 4 - Infrastructure and Learning Resources**

### 4.1 Physical Facilities

### 4.1.1 The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc.

#### **Response:**

The heritage campus of IGDTUW is located at Kashmere Gate in the heart of Delhi. The rich lineage of this campus along with the development of modern facilities provide resources and infrastructure for academic excellence to students. The campus has more than 15,000 Sqm built in area with approximate 35 classrooms for an active student strength of 3500 (approx.). The learning infrastructure includes ICT enabled classrooms, laboratories, workshops, computer centre and library with modern facilities. All classrooms, labs and seminar halls are IT enabled with dedicated set up of projector facilities and unrestricted wi-fi access to connect with high speed internet. The classrooms are equipped with a digital podium, multimedia projector, Smart interactive display boards, Multimedia touch display white board, Green board and Dustless usable chalkboard. All Departments have research-based well equipped Laboratories in related fields with the required software, hardware, simulation kits, and other instruments in place. The university library offers a huge collection of text books, reference books, hobby books, periodicals, journals, magazines, and other resources in print as well as electronic forms. Through the library services the students and faculty have access to all major and leading e-databases and online gateway like e-Shodhsindhu and Shodhganga. The university has an on campus computing facility in the Computing Center housed in centralized air conditioned premises. It is equipped with the newly procured Computer Systems with a high end configuration. The university has promoted the setting up of 'IGDTUW -Anveshan Foundation' with an aim to develop entrepreneurial ecosystem, start-ups and all business incubation related activities. These activities can contribute towards the expansion of the employment sector, social and economic development while imparting real-world, relevant professional experience.

File Description	Document
Paste link for additional information	View Document

### 4.1.2 The institution has adequate facilities for cultural activities, yoga, games and sports (indoor & outdoor); (gymnasium, yoga centre, auditorium, etc.,)

#### **Response:**

IGDTUW provides good sports and recreational facilities to all its students and encourages them to actively participate extra curricula and co-curricular activities. The Synergy Sports Club of university was established with an endeavour to refresh minds of students and inculcate spirit of sportsmanship among them. This aims to provide sports and leisure activities to students and staff members round the year.

The university campus has facilities for both indoor and outdoor sports and cultural activities. The university provides good quality equipment, sports kits, and facilities for indoor sports like table tennis,

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carom, badminton, chess, and Yoga etc. as well as outdoor sports like cricket, basketball, volleyball, football. The major sporting areas of the university include a basketball court, a cricket ground, and two volley-ball courts. The Annual Sports Meet of University is organised every year.

Students from various universities and colleges participate in the Annual Sports Meet for team sports like BasketBall, Volleyball, Badminton and individual sports like racing competitions etc. The university also encourages Yoga activities and Yoga Day is enthusiastically practiced and celebrated every year.

Other than Sports, various cultural and technical societies and clubs are also highly active throughout the year. The annual cultural festival 'Taarangana' provides a platform to students to showcase their talents in various cultural art forms. Plethora of events like Antra, Anhad, Aaghaz, Star Night, Knights of the Fall, Lilac Dreams, Campus Princess, Mr. and Ms. Taarangana, Rangmanch, Pop Art, Synnove, Moodle Doodle, Urban Thump, Pitch perfect etc. are organized which attract more than 20 thousand students in the span of two days. University Auditorium, central lawn, grounds and activity rooms are hotspots for cultural events. Annual Technical Festival 'Innerve' is celebrated at IGDTUW to spread awareness about relevant and upcoming technologies. Various technical competitions like Ideathon, Dogit Cluster, Code Arduino, Circuit Debug, Data Hackathon etc are organised as part of this technical festival. Various workshops, seminars and summer-winter internship programs are also conducted round the year for holistic development of students and faculties. Apart from this the university has a total of 20 cultural societies and 8 technical societies which organize many activities throughout the year.

File Description	Document
Paste link for additional information	View Document

#### 4.1.3 Availability of general campus facilities and overall ambience

#### **Response:**

The heritage campus of IGDTUW provides an attractive and highly eco-friendly campus with a perfect ambience for academic activities. The campus has been secured with wall-gating and regular surveillance. The rich lineage of this campus along with the development of modern facilities provide resources and infrastructure for academic excellence to students.

The Learning Resource Centre (LRC) of the university serves as the premier source of academic information for the IGDTUW community through its collections, educational and consulting services. The LRC has a highly selective collection of print, electronic, and audio-visual materials in the areas of science, engineering, technology and management to support the learning and research activities of students and faculty. A number of e- journals are being subscribed through consortia mode subscription. All these journals are available online to the members of the LRC in campus LAN. The Digital Library section has e-materials like CDs, DVDs and digital thesis of final year students and are available through an Open Source Institution Repository Software within the campus premises.

The University has two women hostels in the University campus to provide safe, secure and clean accommodation to approximately 300 students. All rooms are equipped with individual beds, chairs, built-in cupboards and study tables. The guest house within the campus has limited accommodation for the

staying purpose of individuals visiting the campus.

IGDTUW campus is a fully Wi-Fi campus accessible 24x7 from all areas of campus for providing seamless wireless internet connectivity to users through Security Firewall with authentication of every user in campus. The campus is secure under CCTV surveillance at all major entrances/exits of the university. Nationalized Bank is also available in university. The university has an on campus computing facility in its Computer Centre equipped with the newly procured Computer Systems with a high end configuration. Each computer (HP 8000 SFF series) runs Intel Core i5-650 3.2 GHz processor aptly supported with a 4GB RAM and hard disk space of 320 GB. The hardware is configured to operate in a dual boot mode providing support for the two broad classes of operating systems namely Windows 7 Professional Edition and Linux based Ubuntu- 10.04, which is open source operating system with a Long Term Support.

The university provides various services/facilities to the students, faculty and staff which are maintained by the respective service providers as per contract: kiosks, banking/ATM facilities, stationary, departmental store etc. The campus safety is ensured with the CCTV cameras and security staff at all major entry/exits. The university dispensary has also been established to provide primary health care mainly in the form of first aid to the university students and staff. The dispensary is equipped with over the counter medications, bed to rest in, medical equipment, physical screening tools, and first aid supplies. A team of one registered medical practitioner along with one registered nurse is available from 09:00 am to 05:00 pm. The dispensary has all emergency facilities like oxygen, Nebuliser along with arrangements for minor surgical equipment.

File Description	Document
Paste link for additional information	View Document

### **4.1.4** Average percentage of expenditure for infrastructure augmentation excluding salary during the last five years (INR in Lakhs)

Response: 24.05

### 4.1.4.1 Expenditure for infrastructure augmentation, excluding salary during the last five years (INR in lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
94	457	373	393	244

File Description	Document
Upload audited utilization statements	View Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

### 4.2 Library as a Learning Resource

### 4.2.1 Library is automated using Integrated Library Management System (ILMS) and has digitisation facility

### **Response:**

Learning Resource Centre (LRC) is a web based fully automated library that serves as the premier source of academic information for the university community through its rich collection of textbooks, journals and reference materials. The LRC has a focused collection of print, electronic, and audio-visual materials in the areas of science, engineering, technology, technical communication and management to support the learning and research activities of students and faculty.

The total collection of books is approx. 28789 increasing day by day, consisting of 21426 main collections, 5775 book bank books, 1001 DAP library books and 607 donated books. Access to 336 E-Books is also available to the patrons.

Library is equipped with an adequate number of sign boards and guides for smoother and convenient movement of goods, services and the library has open access to its collection for all students, faculty and staff.

OPAC/Web OPAC (Online Public Access Catalogue) is main tool to provide access to the library collection. Library website also provides information about resources, rules and regulations. OPAC is available at the university's intranet. Users may use OPAC to ascertain availability of material needed by them. Users may log on to OPAC to verify their circulation data, to reserve documents, to suggest a new document to be procured for the library.

Name of ILMS software: NewGenLib

Nature of automation (fully or partially) :- Fully Automated

**Version :- Core Engine ver.3.1.1 Discover** 

Year of automation: 2009

File Description	Document
Paste link for additional information	<u>View Document</u>

### 4.2.2 Institution has access to the following: 1. e-journals 2. e-ShodhSindhu 3. Shodhganga Membership 4. e-books 5. Databases 6. Remote access to e-resources

**Response:** A. Any 4 or more of the above

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File Description	Document
Upload any additional information	<u>View Document</u>
Institutional data in prescribed format	View Document

### 4.2.3 Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

Response: 55.46

4.2.3.1 Annual expenditure for the purchase of books and journals including e-journals year-wise during last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
96.8845278	77.5444	45.72586	50.29805	6.84098

File Description	Document
Institutional data in prescribed format	View Document
Audited statements of accounts	View Document
Any additional information	View Document

### 4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the latest completed academic year

Response: 13.51

#### 4.2.4.1 Number of teachers and students using library per day over last one year

Response: 356

_	
File Description	Document
Details of library usage by teachers and students (Library accession register, online accession details to be provided as supporting documents)	View Document
Any additional information	View Document

#### 4.3 IT Infrastructure

4.3.1 Percentage of classrooms and seminar halls with ICT - enabled facilities such as LCD, smart board, Wi-Fi/LAN, audio video recording facilities. (Data for the latest completed academic year)

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Response: 100

#### 4.3.1.1 Number of classrooms and seminar halls with ICT facilities

Response: 33

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Paste link for additional information	View Document

### 4.3.2 Institution has an IT policy, makes appropriate budgetary provision and updates its IT facilities including Wi-Fi facility

#### **Response:**

ICT Policy of IGDTUW is an attempt to harmonize, co-ordinate and integrate all ICT initiatives towards a common set of objectives. It has impacted the way of facilitated learning and knowledge sharing, and generated global information flows, empowered citizens and communities, resulting in a global information society. The mission of this policy is to improve the network security of IGDTUW to the highest attainable levels by ensuring the availability of accessible, universal, affordable, modern and high quality ICT facilities and services within the IGDTUW. The scope of ICT policy lies in terms of hardware, software and users. There is an Information Security Policy at IGDTUW which discusses the notions of critical information, restricted information, public and private information. Apart from this, it also covers physical security and sharing of servers, desktops, network devices, UPS, etc. The information of maintenance or upgradation policy, bandwidth management, network management and uses and limitations of email are also discussed in the ICT policy of IGDTUW.

File Description	Document
Upload any additional information	<u>View Document</u>
Paste link for additional information	View Document

# 4.3.3 Student - Computer ratio (Data for the latest completed academic year) Response: 6:1 File Description Document Upload any additional information View Document

4.3.4 Available bandwidth of internet connection in the Institution	(Leased line)
Response: A. ?1 GBPS	

#### 4.3.5 Institution has the following Facilities for e-content development

- 1. Media centre
- 2. Audio visual centre
- 3. Lecture Capturing System(LCS)
- 4. Mixing equipments and softwares for editing

**Response:** A. All of the above

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Links of photographs	<u>View Document</u>

### 4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years

Response: 48.86

4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year-wise during the last five years (INR in lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
845	921	393	510	375

File Description	Document
Institutional data in prescribed format	View Document

4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

#### **Response:**

The university has established systems and procedures for maintaining all infrastructure for overseeing maintenance work related to buildings, classrooms, laboratories, hostels, utilities etc. Uninterrupted power supply and maintenance of electrical assets, power distribution systems are undertaken as per their maintenance schedules/ guidelines provided by equipment suppliers. The complaint form for registering civil and electrical issues is placed on the website and can be

submitted to the PWD Department.

IT Services Division performs maintenance of IT infrastructure like servers, computers, printers, UPS, LCD projectors by IT Services Division. They ensure timely maintenance of all IT hardware and preventive maintenance of all devices every 03 months. They also confirm the availability of all three service engineers and make sure that complaints will be attended by the team within time.

Every complaint submitted through a complaint form as per format is attended in a maximum of 02 hours duration. Payment of AMC to be made only after satisfactory service. Major problems are rectified/repaired within 04 days of time by the vendor agency and AMC service renewal / tender is put up timely without break in AMC service. Physical verification of all IT hardware is done timely & once in a year. Records of every year verification and list of items to be condemned is put for approval so that unused / out of life items are condemned timely as per rule.

All maintenance systems, respective procedures, and performance measurements are implemented, reviewed, and managed through well documented and ISO90001 certified Quality Manual of the University.

File Description	Document
Paste link for additional information	View Document

### **Criterion 5 - Student Support and Progression**

### 5.1 Student Support

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the institution, Government and non-government agencies (NGOs) during the last five years (other than the students receiving scholarships under the government schemes for reserved categories).

**Response:** 7.47

5.1.1.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2020-21	2019-20	2018-19	2017-18	2016-17
295	164	120	76	88

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Link for additional information	<u>View Document</u>

5.1.2 Average percentage of students benefited by career counseling and guidance for competitive examinations as offered by the Institution during the last five years.

Response: 0.8

5.1.2.1 Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
35	12	19	7	7

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Link for additional information	View Document

5.1.3 Following Capacity development and skills enhancement activities are organised for improving students capability 1. Soft skills 2. Language and communication skills 3. Life skills (Yoga, physical

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### fitness, health and hygiene) 4. Awareness of trends in technology

**Response:** A. All of the above

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Link to Institutional website	View Document
Link for additional information	View Document

- 5.1.4 The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases 1. Implementation of guidelines of statutory/regulatory bodies
- 2. Organisation wide awareness and undertakings on policies with zero tolerance
- 3. Mechanisms for submission of online/offline students' grievances
- 4. Timely redressal of the grievances through appropriate committees

**Response:** A. All of the above

File Description	Document
Link for additional information	View Document

### **5.2 Student Progression**

5.2.1 Average percentage of students qualifying in state/national/international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Response: 57.64

# 5.2.1.1 Number of students qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, *etc.*)) year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
8	3	16	2	3

## 5.2.1.2 Number of students appearing in state/ national/ international level examinations (eg: IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government examinations) year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
13	6	24	4	5

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File Description	Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

#### 5.2.2 Average percentage of placement of outgoing students during the last five years

Response: 53.26

#### 5.2.2.1 Number of outgoing students placed year - wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
302	268	213	242	187

File Description	Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

#### 5.2.3 Percentage of student progression to higher education (previous graduating batch).

**Response:** 14.45

5.2.3.1 Number of outgoing student progressing to higher education.

Response: 74

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Link for additional information	View Document

#### **5.3 Student Participation and Activities**

5.3.1 Number of awards / medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) during the last five years.

Response: 249

5.3.1.1 Number of awards/medals won by students for outstanding performance in sports / cultural

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### activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
131	36	35	22	25

File Description	Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

#### 5.3.2 Presence of Student Council and its activities for institutional development and student welfare.

#### **Response:**

IGDTUW is committed to make the educational experience of students multifaceted and holistic. This commitment is very evident with providing ample cultural events round the year, holding sports meets, students' participation in encouraging and facilitating National and International competitions. IGDTUW offers various student related activities from the office of Dean Student Welfare. DSW office functions through various cultural and technical clubs/societies for developing team spirit in all students, and refreshing them from monotonous academics. Plethora of Societies and clubs operating in the campus are offering many opportunities to the students. Student Welfare office looks after organization of extracurricular activities for the holistic development of students on extracurricular dimensions and nurtures their talent. Each Society and club has core team members and Faculty Coordinators. IGDTUW has almost 20 sports and cultural societies, and 10 technical societies. HUUMANOID is the Human Resource Society of University. ZOSH is the marketing society that aims to educate about different aspects of marketing "ANTARGAT" is creative society that is initiated to collect like-minded individuals who have a different perspective to waste and an eye for creative modelling of the same. SAMANVAY is the Economics and Research Society. MUDRA (?) is the finance & investment society with a focus on Corporate communication with the motto of breaking down concepts like networking, finance and making them more fun and engaging for the students. VARTTA focuses on building general knowledge of current topics that are flashing in newspapers. Synergy Sports Club is a platform for all Sports amateurs and professionals that focuses on promoting participation in sports and inculcating the spirit of sportswoman ship among the students. 'Rahnuma' is the dramatics society that deals with gripping social issues such as emotional health, animal cruelty, sexual health and much more. The Economics Society is a virtual forum to make students more comfortable with topics such as stock market, share market, bonds and debentures. 'BHAV' society aims is to provide a platform that brings within the education curriculum, the social issues and challenges. The Rotary club-IGDTUW student body aims at women's empowerment through social service. Techno-Literate society helps students to hone their literary skills. Unnat Bharat Abhiyan Cell is a platform for transformational change in village development. The GreenSphere society at IGDTUW came into existence with a vision to protect and conserve the environment by taking the Green route.

Apart from extracurricular activities organized by these societies, University organizes many events on

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themes like women safety (self Defense Workshop), Promotion of Gandhian thoughts, creating awareness about health and hygiene, creating of awareness of fundamental duties mentioned in constitution. University also celebrates Yoga day, Independence Day, constitution day, Gandhi Jayanti, Swachhta Abhiyan. IGDTUW organizes a very vibrant cultural fest called "Taarangana". TAARANGANA provides a platform to all students to showcase their talents in various cultural art forms. It includes events like Anhad, Aaghaz, Knights of the Fall, Lilac Dreams, Campus Princess, Mr. and Ms. Taarangana, Rangmanch, Pop Art, Synnove, Moodle Doodle, Urban Thump, Pitch perfect and many more.

File Description	Document
Link for additional information	View Document

### 5.3.3 Average number of sports and cultural events / competitions organised by the institution per year

**Response:** 95

### 5.3.3.1 Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
188	129	57	67	34

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Link for additional information	View Document

### 5.4 Alumni Engagement

### 5.4.1 The Alumni Association / Chapters (registered and functional) contributes significantly to the development of the institution through financial and other support services.

#### **Response:**

An effective, engaged and supportive alumni network is an essential component for the success of any institution. Indira Gandhi Technical University for Women is one of the premium institutions of this country. IGDTUW manages its interaction through well established network of alumni. The primary focus of alumni office is to connect to the alumni and effectively utilize the alumni network for the benefit of students, university and nation at large.

As a connecting link office of alumni affairs is also actively participating and arranging the alumni

associations meets for B.Tech and M.Tech students. The alumni meet is conducted once in a year, where the alumni from different branches of the under graduate and post graduate programs share their views and give suggestions for the betterment of their junior students. Such meetings are mutually beneficial for the University and the alumni. This provides an opportunity for the alumni to meet their friends and act as a bridge for the faculty to share their experience, knowledge and insights. Successful entrepreneurs from the alumnus are invited to talk on their success stories at various occasions of the University.

The university's alumni body is a vast and thriving community of technocrats, senior executives, successful entrepreneurs, and leaders of society. Internships with government bodies and various MNCs are encouraged for more holistic learning. An exhaustive list of Alumni is silently and honestly working at National and MNCs throughout the world, bringing laurels to the University. IGDTUW alumni are working with many prestigious companies like Facebook, Microsoft, Adobe, Cisco, SAP Labs, Oracle, Qualcomm, Mahindra & Mahindra, General Motors, Cognizant, Aricent, Tata Consultancy Services, Yamaha Motors, Hindustan Unilever, IBM India, and many more. About 6% of students from the graduating batch 2016-20 are going for higher studies to Universities in India and overseas universities. The institute's Alumni are at the University of Johns Hopkins University, CMU, University of California, Berkeley, UCLA, New York University, University of Michigan, etc.

In order to strengthen the alumni and to better connect with such a diverged flag bearer of the University, we are updating the activities of alumni by publishing newsletter, Facebook, LinkedIn, WhatsApp groups for encouraging alumni to donate/contribute funds for the development, sponsorships etc.

File Description	Document
Link for additional information	View Document

5.4.2 Alumni contribution during the last five years (INR in Lakhs)		
Response: C. 20 Lakhs - 50 Lakhs		
File Description	Document	
Link for any additional information	View Document	

### Criterion 6 - Governance, Leadership and Management

### 6.1 Institutional Vision and Leadership

6.1.1 The institution has a clearly stated vision and mission which are reflected in its academic and administrative governance.

#### **Response:**

Governance of the University is managed through effective leadership towards achieving its Vision and Mission.

#### **VISION**

To make India a Knowledge Society and Knowledge Economy by empowering the women of our country through education in Engineering, Science, Management and Technology.

To become one of the top technical Universities in the country known for its value based, quality technical education supported with industry relevant research, with focus on environmental and social issues.

#### **MISSION**

- To foster an environment for excellence in professional education and ensure active participation
  of women in the field of Engineering, Science, Management and Technology, while striking out a
  work-life balance.
- To start new professional courses for women in sun-rise disciplines and forge alliances with industry to impart industry relevant education.
- To emancipate women through pursuit of knowledge enabling them to gain equal status in society through realization of their rights and responsibilities
- To develop sustainable systems and state-of-the-art infrastructure to enable the Indian women to become the future leaders, managers, researchers and productive team players in the field of science, technology and management.

University manages all its academic and admin activities through various statutory bodies given as under:

- University Court
- Board of Management
- Finance Committee
- Academic Council
- Planning Board

Roles and responsibilities of all these bodies are mentioned in the Act of the University.

Court reviews from time to time the broad policies and programmes of the University and suggest measures for improvement and development of the University.

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Board of Management (BoM) is the principle executive authority of the University and as such have all the powers necessary to administer the university subject to the provisions of the University Act and the Statute. It has the power to make Ordinances and Statutes, to consider and pass resolutions on the annual report and the annual accounts of the University and the reports of its auditors on such accounts along with other responsibilities. BoM includes representation from renowned academia, industry, research organisations and Government organizations.

Academic Council of the University deals with all the matters related to the academic affairs of the University. Academic Council is responsible for the maintenance of standards of instruction, education, research and examination within the University. It approves the teaching scheme and syllabi of different programs and courses, panel experts, academic calendar and other academic affairs of the University as mentioned in the Act of the University.

Finance Committee examines and scrutinize the annual budget and make recommendations on financial matters to the BoM. It also considers for new expenditure and to make recommendations to the BoM along with other matters pertaining to the finances.

Regular inputs from various internal and external subject experts through meetings are in place for continuous improvement in the system.

File Description	Document
Link for additional information	View Document

### 6.1.2 The effective leadership is reflected in various institutional practices such as decentralization and participative management.

#### **Response:**

University believes in decentralization and participative management which is visible in all its academic and administrative activities. Multi-layered transparent governance system is ensured through written policies, systems and procedures and well-framed committees. Accountability is ensured through consultation, evaluation and follow ups for the better functioning of the University.

Regular meetings of the statutory bodies of the university, namely the Board of Management, Finance Committee, Academic Council, Planning Board and BoS are conducted for collectively participation in planning and execution of all academic and administrative activities and new initiatives at the University level.

Vice Chancellor conducts monthly meetings with Deans and Head of the various academic and administrative Departments/Division for planning of various activities/initiatives of the university. Roadmap to implement these initiatives are discussed along with the timeline. The progress of these activities is reviewed in subsequent meetings.

The Dean Academic Affairs observes the UGC guidelines on autonomy, and organises the meetings for formal planning and approval of all academic and developmental activities. The dean also monitors the

execution of the guidelines for preserving the basic academic structures of the institution.

The Office of Dean, Industrial Research & Development and Research & Consultancy supports the research efforts of all students and Faculty Members, provides mentoring, facilitates and fosters industrial collaboration and identifies and disseminates research opportunities and collaborations.

Examination Division led by Dean Examination is responsible for various examinations like Internal Mid Semester Examinations, End Semester Examinations, Entrance Examinations for Ph.D and MCA, Practical Examinations and Recruitment tests of Teaching and Non-Teaching Staff.

The Dean for Student Affairs facilitates the students' welfare and support programmes, co-curricular, extra-curricular and cultural activities.

Heads of various academic departments are responsible for managing day to day academic and administrative responsibilities pertaining to their respective departments. They conduct regular meetings with Faculty, Staff and students for planning and execution of activities including load allocation, budget planning, attendance management, feedback etc. Teachers, Students, Alumni, Industry and other stakeholders participate in decision making in curriculum designing and other activities. Faculty members participate in preparing the schedule of academic activities for the year such as academic calendar, midterm exams, Mentoring of the students, Sports, Cultural activities and alumni interaction. Placement and Internship activities are handled by the Training and Placement Officer.

Various Committees involving Faculty members, staff and students are formed for the smooth conduct of University level activities which includes Taarangana (Annual Cultural Fest), Innerve (Annual Technical Fest), Orientation Program, Alumni Meet, Conferences and others.

On administrative side, various divisions like Finance, Purchase, Personnel, General Administration and others are managed by their respective Heads/Incharges.

File Description	Document
Link for Additional Information	View Document

### **6.2 Strategy Development and Deployment**

#### 6.2.1 The institutional Strategic plan is effectively deployed.

#### **Response:**

The strategic plan 2019-24 aims to provide a roadmap in form of resolutions, aims and actions in line with the vision, mission and values of the Indira Gandhi delhi Technical University for Women. This is a strategic document provides a clear path and direction to each and every stakeholder of the university. It focuses on important pillars of the university such as building Academic reputation, Research Innovation and Skill Development, entrepreneurship, Faculty, Staff, Infrastructure.

The strategic plan intends to guide the university leaders in their decision making and also pursue them to

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strategize the allocation of resources for the fulfilments of stated objectives. Every objective is a commitment that will inspire, influence, ignite and intrigue to work hard and take every action as expected and specified.

- 1. Build Academic Reputation
  - 1. Objective 1: Quality Education
  - 2. Objective 2: to improve Teaching-Learning-Processes
- 2. Build an Eco system for Research
  - 1. Objective 1: To promote Quality Research
  - 2. Objective 2: Sponsored Research projects.
- 3. Foster culture of Innovation and Entrepreneurship
  - 1. Objective 1: To work towards a comprehensive engagement by innovative projects.
  - 2. Objective 2: To incept a Technology Park.
  - 3. Objective 3: To provide positive environment for consultancy and sponsored projects.
- 4. Faculty and Staff
  - 1. Objective 1: To attract and retain best minds to enrich research and innovation Education,
  - 2. Objective 2: To improve professional development of faculty and staff
- 5. Infrastructure
  - 1. Objective 1: To provide a state-of-the-art environment for Teaching-Learning-Research and Innovation.
  - 2. Objective 2: To enhance the library resources and ICT enabled services

File Description	Document
Any additional information	View Document
Strategic Plan and deployment documents on the website	View Document
Link for Additional Information	View Document

### 6.2.2 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules and procedures, etc.

#### **Response:**

The IGDTUW University has qualified and competent administrators to provide effective leadership and management at various levels.

- Vice Chancellor
- Pro-Vice-Chancellor
- Registrar
- Dean Academic Affairs, Dean Examination Affairs, Dean Industrial and Research development, Dean Students Welfare, Dean International Affairs
- Head of the Departments
- Director NIRF, NAAC and Accreditation

- Other Officers as may be declared by the Statutes of the University.
- The functions of various Committees/Boards/Authorities are defined in the University Act and Quality Manual of the University.

Operation	Different operational Entities
Planning & Review	Planning Board Finance Committee IQAC
Admission	Academic Council
	Admission Committees
Fee	Academic Council
	Admission Committees
Course Curriculum Development	Academic Council
	Board of Studies
Examinations	Board of Studies
	Examination Committee (Conduct & Evaluation)
	Unfair Means Committee
	Result Moderation Committee
Research	University Research Board
	Department Research Committee (DRC)
Sponsored Research Consultancy	Dean (IRD)
Purchase	Departmental Purchase Committee
	Central Purchase Committee
	Technical Evaluation Committee
Library	Library Advisory Committee
Placement	T & P Cell
	Placement coordinators
Finance	Finance Committee
	Board of Management
Estate	Building & Works Committee
Discipline	Chief Proctor
	Anti-Ragging Monitoring Committee
Hostel	Chief Warden
	Asst. Warden
	Hostel Allotment Committee
Sports & Extracurricular Activities	Dean Student Welfare
	Sports Committee
	Cultural Committee
	Technical Council
	Literary Council
Grievance redressal	University Court
	Women complaint cell
The external members from renowned academia inc	Justing and research argenizations often ant as next of

The external members from renowned academia, industry and research organizations often opt as part of various Councils and Committees for bringing transparency and fairness in the system.

Service Rules, Recruitment Rules, and Policies are very well defined and approved by the competent authority. The operation and maintenance of the policies are carried out by the Establishment Branch. The University has a well-structured system for the professional development of the faculty and staff. Achievements of faculty and staff are recognized with financial and non-financial incentives. Faculty and Staff related grievances are handled by the University to keep their morale high so that they can perform

View Document

File Description	Document	
efficiently.		
officiently		

### 6.2.3 Institution Implements e-governance covering following areas of operation

1. Administration

Link for Additional Information

- 2. Finance and Accounts
- 3. Student Admission and Support
- 4. Examination

**Response:** A. All of the above

File Description	Document	
Details of implementation of e-governance in areas of operation, Administration etc (Data Template)	View Document	
Link for additional information	View Document	

### **6.3 Faculty Empowerment Strategies**

### 6.3.1 The institution has a performance appraisal system, promotional avenues and effective welfare measures for teaching and non-teaching staff.

#### **Response:**

IGDTUW has a performance-based appraisal system for the assessment of teaching and non-teaching staff. The Appraisal report is based on Annual performance of the employee by their academic, research developments and extra-curricular activities.

The purpose of this Annual Performance Assessment Report System (APAR) is to develop and maintain acceptable levels of performance. Performance Appraisal is an evaluation process based on established criteria and performance standards. The Performance Based Appraisal Reports (PBAs) provide good feedback to the faculty members and help them in understanding the need of students. All the faculty members fill prescribed Performa for self- appraisal. Performance Appraisal System (PAS) encourages faculty members to make excellent performance in teaching-learning and research.

The above set performance appraisal report is to be filled by the faculty members in the given prescribed performance which includes all the above set related points and sub-points. During the period of evaluation, the immediate supervisor evaluates the employee's performance level based on the criteria defined in the "Performance Appraisal Plan". The views of the employee filled in the prescribed Performance

are reviewed by Head of Department (HoD) and vice chancellor of the university. The chairman of the governing body further reviews the overall report of PBS, and final performance functioning status is confidentially recorded in the office.

APAR system of IGDTUW is divided into six parts. In the first part of APAR faculty Personal Data is required. The second part is the devoted to Self-Appraisal, i.e a brief description of duties like teaching loads (Lectures, Tutorials, Practical's and seminars), courses taught at various levels (undergraduate as well as postgraduate). The third part is a very important part for an academic report of faculty because in this section faculty have to give details about research publication, participation conference/seminars/workshops. This part also includes information about summer program, refresher or orientation courses attended or conducted by faculty as well as PhD Guidance and Sponsored Research Guidance. Details of industrial interaction/professional consultancy/patent obtained/Membership of professional/academic Societies etc. are also covered.

In the fourth part, faculty has to give information about the contribution to the Corporate Life of the Institution like curriculum development, details of courses development/revised. Laboratory Development and experimental set up (the details of Preparation of Laboratory manual design of new experimental setup and new facility added during the period), Cultural/extracurricular activity, Sports/Community and Extension services/N.S.S, Administrative Assignment for any other information's which are missing.

The fifth part has to fill-up by reporting officer, and the Numerical grading is to be awarded by reporting and reviewing authority which should be on a scale of 1-10, where 1 refers to the lowest grade and 10 to the highest. In the sixth and final section reviewing officer has to give Remarks based on the annual record of the faculty.

File Description	Document
Link for Additional Information	View Document

### 6.3.2 Average percentage of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the last five years.

Response: 20.14

### 6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
8	10	8	19	22

File Description	Document	
Details of teachers provided with financial support to attend conferences, workshops etc. during the last five years (Data Template)	View Document	
Link for Additional Information	View Document	

6.3.3 Average number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the last five years.

**Response:** 10.8

6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
23	15	10	5	1

File Description	Document	
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)		
Link for Additional Information	View Document	

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course ).

Response: 34.82

6.3.4.1 Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
47	23	22	17	10

File Description	Document
Details of teachers attending professional development Programmes during the last five years (Data Template)	View Document
Link for Additional Information	View Document

### **6.4 Financial Management and Resource Mobilization**

### 6.4.1 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

### **Response:**

Indira Gandhi Delhi Technical University for Women (IGDTUW) was established by the Govt. NCT of Delhi in May, 2013 vide Delhi Act 09 of 2012, as a non-affiliating University to facilitate and promote studies, research, technology, innovation, incubation and extension work in emerging areas of professional education among women, with focus on engineering, technology, applied sciences, architecture and its allied areas with the objective to achieve excellence in these and related fields.

### **Annual Accounts:**

- 1. The annual accounts and balance sheet of the University shall be prepared under the direction of the Vice-Chancellor and approved by Board of management and shall, at least once every year and at intervals of not more than fifteen months, be audited by the Controller and Auditor general of India or such person or persons as he may authorize in this behalf.
- 2. A copy of the annual accounts together with the audit report shall be submitted to the Chancellor along with observations, if any, of the Board of management.
- 3. Any observation made by the Chancellor on the annual accounts shall be brought to the notice of the Board of Management.
- 4. A copy of the annual accounts together with the audit report as submitted to the Chancellor, shall also be submitted to the government, which shall, as soon as may be, cause the same to be laid before the Legislative Assembly of Delhi.

The Audit of Annual Accounts of the University is being carried out by the three tier system:

The internal Audit of Annual Accounts is being carried out by the Chartered Accounted appointed by the BOM, IGDTUW.

The Audit of Local Fund Accounts (LFA) is carried out by the Directorate of Audit, Govt. of NCT of Delhi for the funds received from Finance Department of NCT Delhi in the form of Grant in Aid through Directorate of Training & Technical Education, NCT of Delhi being administrative department of the University.

Accounts of IGDTUW are auditable under Section 14 of Duties, Power and Condition of Service (DPS) Act (CAG of India) covering the following records:

Advances Sanctioned

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- Outsource and Sanitation Services
- Outsource of Manpower
- Purchase of Consumable and Non consumable items
- Maintenance of Funds Accounts
- Investment Policy
- Misc.expenditure –Civil and Electrical

Internal Audit is carried out by Examiner-local funds accounts-Govt. of Delhi as regular funds received in form of Grant-in-Aids, Audit of CAG and Directorate of Audit, Govt. of NCT of Delhi have already been carried out up to the financial year 2021. CAG Audit specifically covers the sphere of policy decisions of the organization like creation and utilization of capital assets, utilization of revenue, recruitment etc. whereas internal audit by NCT, Delhi addresses like salaries, utilization of Grant and income tax etc.

Audit observations raised by AG/Delhi Govt. have been suitably replied for settlement emphasizing action taken as per rules and regulations/instructions issued by Govt. of India/Delhi Govt. General Financial Rules/CPWD works manual/Instruction issued time to time by the Finance Deptt. Govt. of Delhi. However, procedural observations of the audit have been noted for compliance in future. Outstanding audit paras are likely to be settled shortly.

File Description	Document
Link for Additional Information	View Document

### 6.4.2 Funds / Grants received from government bodies during the last five years for development and maintenance of infrastructure (not covered under Criteria III and V) (INR in Lakhs).

Response: 348

### 6.4.2.1 Total Funds / Grants received from government bodies for development and maintenance of infrastructure (not covered under Criteria III and V) year wise during the last five years (INR in Lakhs).

2020-21	2019-20	2018-19	2017-18	2016-17
35.00	75.00	38.00	200.00	0

File Description	Document
Details of Funds / Grants received from government bodies during the last five years (Data Template)	View Document
Link for Additional Information	View Document

# 6.4.3 Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years (not covered in Criterion III and V) (INR in Lakhs)

Response: 12.62

6.4.3.1 Total Grants received from non-government bodies, individuals, Philanthropers year wise during the last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
12.62	0	0	0	0

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	View Document

### 6.4.4 Institution conducts internal and external financial audits regularly

### **Response:**

There is three tier system for conducting audit of Annual Accounts of the University. The internal audit of the Annual Accounts is being conducted by the Chartered Accountant appointed by the University. The audit of Local Fund Accounts (LFA) is done by the Directorate of Audit, Government of NCT of Delhi for the funds received from the Finance Department of the Finance Department of Govt. of NCT of Delhi in the form of Grant in Aid (GiA) through Directorate of Training and Technical Education, Government of NCT of Delhi, being the Administrative Department of the University. Internal Audit covers salaries, utilization of Grant and Income Tax etc.

The CAG of India conduct the statutory audit of the University as per the provision of the University act 2012. CAG Audit covers mainly the policy decisions of the University like creation and utilization of capital assets, utilization of revenues, recruitments etc.

Accounts of IGDTUW are auditable under Section 14 of Duties, Power and condition of services (DPS) Act (CAG of India) as per which following records are auditable:

- i) Advances Sanctioned
- ii) Outsource and Sanitation Services
- iii) Outsource of Manpower
- iv) Purchase of Consumables and Non-Consumables
- v) Maintenance of Funds Accounts
- vi) Investment policy
- vii) Misc. Expenditure Civil and Electrical

Audit observations raised are suitably replied for settlement and actions are taken as per rules and regulations/instructions raised by Government General Finance Rules/CPWD Work Manual/ Instructions issued by the Finance Department, Government of Delhi.

File Description	Document
Link for Additional Information	View Document

### 6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes by constantly reviewing the teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals.

### **Response:**

The Internal Quality Assurance Cell (IQAC) has been established in the University that works towards improving and maintaining the quality assurance and quality enhancement of education for meeting the set goals in line with the Vision and Mission of the University. The objective of IQAC is to identify and suggesting new ways of using teaching aids, developing suitable infrastructure, and offering suggestions for the betterment of the University. IQAC is an effective and efficient internal coordinating and monitoring mechanism. The IQAC meets twice in a year in order to plan, direct, implement and evaluate the teaching, research and publication activities in the University.

IQAC consists of Director, all HoDs and Coordinators from each department. The meetings of IQAC are conducted regularly and recommendations are presented to the Statutory bodies of the University. After getting the approval, concerned departments are informed for further implementation.

IQAC has also worked for implementation of Quality manual and SOP for obtaining ISO 9001:2015 certification for the University. Training programs for training internal auditors for all the academic and administrative processes have been conducted by IQAC. The reports of these audits are shared with the Departments/Divisions and actions are taken by the Departments for any non conformity. Regularl audits

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are conducted by the internal and external auditors.

The IQAC conducts an Induction programme for fresher's (that is, for students admitted to the first year of UG, PG and PhD programs) in the beginning of the odd semester, in order to introduce them to all the teachers of different departments, to give details about the courses offered, infrastructure facilities available, responsibilities of the students, code of conduct and disciplinary actions, different cells/clubs/societies in the university to monitor the student's academic progression, medical facility, banking facility, Students welfare and placements. The newly admitted students in the campus get authentic information about the infrastructure, departmental facilities, teaching and non-teaching staff, as a consequence of which these facilities are easily accessed by the students.

IQAC also conducts various Workshops, Seminars, Invited Talks on quality education/outcome-based education/IPR etc. for the faculty members and the students on regular basis.

External academic and administrative audit (AAA) of the University is conducted every year through IQAC in order to increase and maintain the quality of education. The Auditors collect the academic plan and work done in each department, college office and other supporting units in the college, including publication, extension activity, collaborations, innovative and best practices, assignments, ICT based activity, student's competitions, seminars and workshops for better performance. The expert committee submits its evaluation report to the IQAC. The same is placed before the HOD's, in a meeting called for discussion of the same, for suggestions and approval. IQAC, in turn strives to implement the suggestions made in the AAA Report.

File Description	Document
Link for Additional Information	View Document

6.5.2 Institution has adopted the following for Quality assurance 1. Academic Administrative Audit (AAA) and follow up action taken 2. Conferences, Seminars, Workshops on quality conducted 3. Collaborative quality initiatives with other institution(s) 4. Orientation programme on quality issues for teachers and students 5. Participation in NIRF 6. Any other quality audit recognized by state, national or international agencies (ISO Certification, NBA).

**Response:** A. Any 5 or more of the above

File Description	Document
Upload details of Quality assurance initiatives of the institution (Data Template)	View Document
Link for Additional Information	<u>View Document</u>
Paste web link of Annual reports of University	<u>View Document</u>

6.5.3 Incremental improvements made for the preceding five years with regard to quality (in case of first cycle), Post accreditation quality initiatives (second and subsequent cycles).

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### **Response:**

In last five years, a number of initiatives have taken by the University to improve the academic, research, consultancy and overall administration. University started ISO Certification process in 2018 and since then the same has been continuously maintained without any non-confirmity. Continuous improvement in its Quality management System has been observed and reported.

Feedbacks of different stakeolders and decreasing trend of students complaints are direct evidences of quality improvement in academic and administrative processes of the University.

File I	Description	Document
Link	for Additional Information	View Document

### **Criterion 7 - Institutional Values and Best Practices**

### 7.1 Institutional Values and Social Responsibilities

# 7.1.1 Measures initiated by the Institution for the promotion of gender equity during the last five years.

### **Response:**

IGDTUW works to promote gender sensitivity in the university and conducts diverse programs to educate, sensitize both male and female faculty members and students to create a harmonious atmosphere on the campus. It works for the welfare of the students and faculty towards preparing them to be competent professionals to take up greater challenges in the academic sphere. We practice to bring a positive change in the attitude and support equity among genders within the university and in our outreach Women's empowerment and gender equality are one of the primary concerns at IGDTUW.

File Description	Document
Specific facilities provided for women in terms of: a.Safety and security b. Counselling c. Common Rooms d. Day care center for young children e. Any other relevant information	View Document

# 7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

- 1. Solar energy
- 2. Biogas plant
- 3. Wheeling to the Grid
- 4. Sensor-based energy conservation
- 5. Use of LED bulbs/ power efficient equipment

**Response:** A. 4 or All of the above

File Description	Document
Geotagged Photographs	View Document
Any other relevant information	View Document

# 7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- Solid waste management
- Liquid waste management
- Biomedical waste management
- E-waste management

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- Waste recycling system
- Hazardous chemicals and radioactive waste management

### **Response:**

IGDTUW has a number of on-going projects with measurable impact not only on the technological enhancements but also the environment and the society through various societal initiatives such as Swachh Bharat Abhiyan and Unnat Bharat Abhiyan etc.

### **SOLID WASTE MANAGEMENT:**

- Solid waste management is used to safely dispose of campus garbage by separating it into organic, recyclable, and inert waste and processing it.Delhi's municipal corporation gathers and sorts rubbish as required.
- Hostel separates biodegradable and non-biodegradable garbage and recycles the former into manure for horticulture. Leaves, greenery, and canteen garbage are composted. Same used as garden/lawn fertiliser.
- Vermi-composting trenches have been built to generate high-quality organic manure from hostel kitchen trash.
- Many NGOs like ICPE, TERI, CSE, and WWF are invited to conduct awareness lectures in the institution. Enviro-mesh, Cycling Rally, Green Fair, T-shirt painting, and Documentary Screening are organised regularly to keep students motivated.
- Dustbins (biodegradable/nonbiodegradable bins) are strategically located. The university has outlawed single-use plastic and is working to become plastic-free. The approved contracting agency hires sanitation personnel to collect, clean, sort, and compile rubbish in each department's green and blue bins.
- Under, ANTARGAT- A creative Society of IGDTUW aims reducing condemnation waste in the University by promoting repair and remodelling of furniture etc.
- The Green sphere society of IGDTUW has successfully installed a Paper Recycling Unit which is being run by the students quite effectively and efficiently. The unit makes quality paper out 46 of waste, which is used for making Greeting Cards, Invitations, Fest charts etc.

**LIQUID WASTE MANAGEMENT:** The university takes sufficient measures to treat the wastewater generated within the premises and it ensures that the treated water is reused within the campus. Estate office has established suitable and sustainable sewage treatment plants with the design features to completely treat the wastewater generated in the university. The university has set up a sophisticated liquid waste management system on its campus to compost liquid and semisolid cooking waste from the hostels for horticultural purposes. As a water-saving measure, the university irrigates using treated grey water.

### **E-WASTE MANAGEMENT:**

- The university takes sufficient measures to dispose the e-waste generated inside the campus properly and takes initiatives to reduce the generation of e-waste in the campus.
- All obsolete electrical and electronic waste is disposed as e-waste to suitable vendors for proper destruction without damaging the environment.
- It is also ensured that the generated E-waste are not disposed along with the other solid waste generated in the campus.
- Shaheed Sukhdev College of Business Studies, University of Delhi and Rotaract Club, Indira

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Gandhi Delhi Technical University for Women. This memorandum of understanding made on this date 17th June 2020, between Rotaract Club

#### **BIO MEDICAL WASTE MANAGEMENT:**

Under Enactus IGDTUW is Project Dharini in which students working on Earthen Sanitary Napkin Incinerator, an earthen vessel which sustainably burns used sanitary napkins to ashes, which are biodegradable and can be done using any fuel. Burning them in an eco-friendly manner helps effectively decreasing the volume of waste generated by a big fraction.

#### 7.1.4 Water conservation facilities available in the Institution:

- 1. Rain water harvesting
- 2. Borewell /Open well recharge
- 3. Construction of tanks and bunds
- 4. Waste water recycling
- 5. Maintenance of water bodies and distribution system in the campus

**Response:** A. Any 4 or all of the above

### 7.1.5 Green campus initiatives include:

- 1. Restricted entry of automobiles
- 2. Use of Bicycles/ Battery powered vehicles
- 3. Pedestrian Friendly pathways
- 4.Ban on use of Plastic
- 5. landscaping with trees and plants

**Response:** A. Any 4 or All of the above

File Description	Document
Various policy documents / decisions circulated for implementation	View Document
Geotagged photos / videos of the facilities	View Document
Any other relevant documents	View Document

# 7.1.6 Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:

- 1. Green audit
- 2. Energy audit
- 3. Environment audit
- 4. Clean and green campus recognitions / awards
- 5. Beyond the campus environmental promotion activities

<b>Response:</b> A. Any 4 or all of the above		
File Description	Document	
Reports on environment and energy audits submitted by the auditing agency	View Document	
Certification by the auditing agency	View Document	
Certificates of the awards received	View Document	
Any other relevant information	<u>View Document</u>	

### 7.1.7 The Institution has disabled-friendly, barrier free environment

- 1. Built environment with ramps/lifts for easy access to classrooms.
- 2. Divyangjan friendly washrooms
- 3. Signage including tactile path, lights, display boards and signposts
- 4. Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment
- 5. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading material, screen reading

**Response:** A. Any 4 or all of the above

File Description	Document
Policy documents and information brochures on the support to be provided	View Document
Geotagged photographs / videos of the facilities	View Document
Details of the Software procured for providing the assistance	View Document
Any other relevant information	View Document

# 7.1.8 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).

### **Response:**

IGDTUW works for providing an inclusive environment for students, faculty and staff maintaining a fair tolerance and balance towards cultural, regional, linguistic, communal, socio-economic and such other diversities. Some of the initiatives are as follows:

1. Providing Scholarships and Award to promote Socio-Economic diversities (Details of all scholarship Schemes https://www.igdtuw.ac.in/Academics.php?id=6 eg: Shraman Foundation, a company incorporated under the law of Texas, the United States of America is offering the

- Scholarship as a Financial Support to the students of Economical Weaker Sections (EWS) enrolled in IGDTUW. More Information: https://drive.google.com/drive/folders/1OHSuHXgHbc6gPgfIQiszAwWuznpo54no
- 2. **Festivals celebrated at IGDTUW round the year** like *Dandia Night, Janmashtami, Diwali Fest, Christmas, Valentine Day, Freshers Day etc.* Glimpse of Events: https://www.igdtuw.ac.in/pdfs/glimpses%20of%20hostel%20life%202018-19.pdf
- 3. IGDTUW Educational Mentoring Program (EMP):
- 4. **Unnat Bharat Abhyan Project:** Unnat Bharat Abhiyaan (Under Ministry of HRD)-Adopted 4 villages in North Delhi region to conduct activities for their socio-economic development. Institute has conducted lectures in these villages for increasing their environmental and ethical awareness. https://igdtuw.ac.in/quickLinks.php?id=1
- 5. **Enactus Society** works on issues like Menstrual Hygiene, Livelihood issues-Project Khidmat ,sustainable fashion: Socio-Economic diversities. Detail of Enactus Events: https://www.igdtuw.ac.in/newsletters/Enactus%20Brochure.pdf.
- 6. **SPICMacay Society for Indian :Cultural diversity :** Tarannum, Indian Music Society: Tarannum, the music society of IGDTUW came into existence with a vision to facilitate musical talent in the University in September 2016 with a 7 member student core team. The society has three different music ensembles, namely the Band, Indian Choir and Western Choir who work hand in hand: Cultural diversity
- 7. Centro for Sustainable Development undertakes socio, economic and environmental initiatives round the year https://igdtuw.ac.in/studentlife.php?id=588
- 8. Multiple Women's Centric Courses are conducted: Urban Planning. (M.Plan), Post Graduate Course
- 9. Webinars on Socio-economic, Regional and Gender diversities are organized
- 10.MoU with 'Rekhi Foundation for Happiness' has been signed to establish a centre of excellence for the 'Science of Happiness'. Under this, IGDTUW Anveshan Foundation, an incubation centre of the university has conducted a 30 hours course on 'Science and Practice of for the students, scholars and incubatees of the university relevant for SDG-3.
- 11. Summer Schools and Remedial Classes for socially and economically underprivileged section of society
- 12.IGDTUW Anveshan Foundation is a business incubator, as section 8 company promoted by Indira Gandhi Delhi Technical University for Women (IGDTUW) Delhi and recognized by Department of Science & Technology (DST), GoI as Technical Business Incubator. Working towards the advent of a new age of entrepreneurial pursuits of youth that focus of autonomous generation of employment opportunities and global competition by nurturing budding innovators to tap into their uncharted reserves of prowess and potential, Anveshan Foundation facilitates Next Generation Entrepreneurship, expediently blending creativity, innovation and engineering, product design, and leveraging emerging technologies to evolve out-of-the-box applications. https://www.anveshanfoundation.org/index.php#

# 7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).

### **Response:**

IGDTUW equips students with the knowledge, skill, and values that are necessary for sustaining one's

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balance between a livelihood and life by providing an effective, supportive, safe, accessible, and affordable learning environment. These elements are inculcated in the value system of the college community. The students are inspired by participating in various programs on culture, traditions, values, duties, and responsibilities by inviting prominent people. The university conducted awareness programs on the ban on plastics, cleanliness, Swachh Bharat, etc. involving students. The university establishes policies that reflect core values. Code of conduct is prepared for students and staff and everyone should obey the conduct rules. The university curriculum is framed with mandatory courses like Professional ethics and human values, Constitution of India, Essence of Indian Traditional Knowledge, as a small step to inculcate constitutional obligations among the students. Major Initiative during last five years:

- ? Vigilance Awareness Week: 'Integrity A way of Life 'To spread awareness regarding sanitation, living standards of life, and knowing one's personality.
- ? Unnat Bharat Aabhyaan-Adoption of villages and Slum Development and up- gradation process at Meerut, UP
- ? Blood donation camps
- ? Guest lectures and workshops are arranged by eminent personalities to deliver lectures on ethics, values, duties, and responsibilities and on saving the environment. Ethical Values, rights, duties, and responsibilities of citizens are some of the topics that are enlisted in Elocution, debates, and class presentation.

IGDTUW undertakes different initiatives by organizing various activities to sensitize students and employees to the constitutional obligation: Values, Rights, Duties, and responsibilities of the citizens. IGDTUW organized a Slogan Writing Competition on Citizen Duties on 10th September. The event witnessed participation of many students from various departments of the University. The participants shared their thoughts on Citizen Duties and showcased their interest in the form of slogans. The event witnessed participation of many students from various departments of the University. The participants shared their thoughts on Constitution and showcased their interest in the form of slogans. Every year Republic day is Celebrated on 26th Jan by organizing activities highlighting the importance of Indian Constitution. Similarly, constitution day also is also celebrated on 26th Nov every year. Independence Day is also celebrated every year to highlight struggle of freedom and importance of Indian freedom fighters. On the occasion of Gandhi Jayanti Competition "Gandhi Young Innovative Idea-2020" was organized by Anveshan Foundation on 2 nd Oct. 2020 and IGDTUW hostel organized a "quiz and poster making competition on Gandhian Thoughts" on 18 July 2021.

# 7.1.10 The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.

- 1. The Code of Conduct is displayed on the website
- 2. There is a committee to monitor adherence to the Code of Conduct
- 3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff
- 4. Annual awareness programmes on Code of Conduct are organized

<b>Response:</b> A. All of the above		
File Description	Document	
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	View Document	
Code of ethics policy document	<u>View Document</u>	

# 7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

### **Response:**

IGDTUW recognizes the contributions of great Indian personalities and ensures that students and staff draw inspiration from their achievements. IGDTUW organizes programmes to pay homage to freedom fighters, national leaders, and great Indian

personalities on a regular basis. Besides celebrating the Independence Day and Day at a centralized location and organizing cultural programmes on this occasion; special extension lectures are organized on peace and social harmony, celebrating

Gandhi Jayanti. There is also a tradition of taking up community action programmes and Swacchta Abhiyans along with other government initiatives from time to time. As India is entering into its 75th year of independence, it is a proud year for all of us as citizens. India is celebrating "Azadi ka Amrit Mahotsav". In this regard, IGDTUW organized various activities to create awareness among students about the freedom struggle, value of independence, constitution and many other related issues. Besides IGDTUW has a vibrant campus and celebrates various national and international events with great pomp and joy.

Following are glimpse of some events conducted annually:

- ? Various festivals are celebrated in all the campuses of the University such as Lohri, Pongal, Eid, Holi, Diwali
- ? International Youth Day (IYD): Every year students organize and participate in IYD, an awareness day designated by the United Nations. The purpose of the day is to draw attention to a given set of cultural and legal issues surrounding youth. Students organize and participate in activities based on the UN IYD.
- ? Students organize and participate in competitions, cultural events and Institutional fests through various Institutional Clubs/University Clubs. University Celebrates important days such as Independence Day, Republic day with patriotic fervour to make the dream of a new tomorrow come true. Theme based activities and events are organised to celebrate World Tourism Day, World Physiotherapy Day, International Yoga day, International Youth Day, Engineers Day, World Autism Awareness Day, Hindi Diwas. International Women's Day is celebrated to highlight the achievements of women. The day also marks a call to action for accelerating gender parity.

- ? Teachers Day is celebrated to mark the birth anniversary of Dr Sarvepalli Radhakrishnan.
- ? To mark assassination of Gandhiji on Martyrs day 30 January a two-minute silence in memory of Indian martyrs is observed throughout the University at 11 AM.
- ? The waves of industrialization and urbanization have visibly proven injurious to the ecological balance in terms of the mounting paucity of water and oxygen. To apprise students, faculty and staff of ways and means of sustaining ecological balance Environment Day, Earth Day, World Water Day, National Science Day, Forensic Science Day, Ozone Day are celebrated every year.

File Description	Document
Geotagged photographs of some of the events	View Document
Any other relevant information	<u>View Document</u>
Annual report of the celebrations and commemorative events for the last five years	View Document

### 7.2 Best Practices

7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

### **Response:**

**Best practice 1** 

ECO-SYSTEM FOR CREATION AND TRANSFER OF KNOWLEDGE AND INNOVATIONS INCLUDING INCUBATION CENTRE AND OTHER INITIATIVES

Motto: "Fostering innovation and providing opportunities towards advancing women's research ecosystem"

IGDTUW has created an ecosystem for Research and Innovation by

- 1. Recruiting and developing best human resource
- 2. Taking initiative for creation and dissemination of knowledge
- 3. Establishing state of the art infrastructure.
- 1. Recruiting and developing desirable human resource,

At the entry level, IGDTUW recruits meritorious, dynamic and enterprising young faculty through an elaborate selection process that involves careful scrutiny of applications, testing of knowledge and teaching skills through seminars and selection interviews. The annual performance appraisal system encourages

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faculty to enhance their teaching, research and administrative skills, as well as social services to the desired level of promotion. Faculty members are encouraged to undergo professional development programmes and organize and participate in Conferences, Seminars and Workshops. Leave is granted and financial support is provided to participate in India and abroad. Teaching and non-teaching staff are encouraged to enhance their qualifications and pursue part-time PhD programs. The university has a well-defined and published research promotion policy. Faculty members are encouraged and financially supported to guide research. A good number of students have registered for Ph D programs and the numbers are increasing every year.

### 2. Taking initiative for creation and dissemination of knowledge

- Young faculty across the university are encouraged to do research in multi-disciplinary and inter disciplinary areas.
- Financial Assistance to non-GATE M. Tech and M.Plan Students who are not in receipt of any other kind of Scholarship/Stipend etc. from any other sources.
- Incentive to UG/PG Students for Publication of Research Papers in SSCl/SCl/SCIE/Scopus/ESCI Indexed Journals.
- Financial support to the Faculty Members and Students for presenting Research Papers in National and International Conferences.
- Annual Research awards for faculty member for best paper in various categories.

#### Collaborations

In the last three years, IGDTUW has witnessed a greater focus on building research facilities augmented by funding from Department of Science and Technology, Delhi Knowledge & Development Fund and various other national and international funding agencies. Many new labs have been added in various departments during this period. Resources have been generated by the faculty through sponsored research projects from DST, MHRD, MCIT, MEIT etc. which have added value to their research and technology. The University has been actively involved in collaborative programmes with National and International Organizations/Universities to remain at the forefront in scientific and technological development and to share the knowledge for mutual benefits.

### 3. Establishing state of the art infrastructure.

Research infrastructure has been created, both through extramural sources that include, MHRD, UGC, DST, AICTE and DBT, and many new labs have been added in various departments during this period. Resources have been generated by the faculty through sponsored research projects from DST, MHRD, MCIT, MEIT etc. which have added value to their research and technology. Various centres of excellences have been created such as:

- Centre of Excellence in Mechatronics- IGDTUW received a massive funding of Rs. 8 Crores from Delhi Knowledge Development Fund [DKDF], Government. of Delhi.
- Centre of Excellence in Artificial Intelligence with funding of Rs. 7.5 Crores from Department of Science & Technology (DST), Government of India for setting up a culture of Research and Innovation.

Government of NCT of Delhi has funded INR Two crores Fifteen Lakhs to support **Anveshan Foundation for Innovation**, Entrepreneurship, Start-ups and Incubation related activities at the University Campus. In

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the last financial year i.e. 2020-21, sanction of INR Four Crore Fifty Lakhs has been received from the Department of Science and Technology, Government of India to accelerate the activities of Anveshan Foundation. Now Anveshan is NIDHI-TBI i.e. 'Technical Business Incubator' under a scheme of DST 'National Initiative for Development and Harnessing Innovations'

Some other initiatives include:

- 1. Entrepreneurship courses.
- 2. Visits to industries.
- 3. Organization of Techno fest to foster creativity and innovation.
- 4. Project work for all students.
- 5. Annual exhibits of models and innovative ideas of students on convocation day and foundation day.
- 6. Skill training to augment potential for start-ups through Anveshan Foundation.

Details of latest research work of IGDTUW: https://research.igdtuw.ac.in/

### **Evidence of Success**

IGDTUW has seen an exponential growth in the placement opportunities bagged by IGDTUW girls during the tough pandemic times and the current placement statistics stand true to this testament. We hope this trend continues in the coming academic year 2021-22 and companies continue to reiterate the ever-increasing confidence the industry places upon IGDTUW, the huge number (93) pre-placement offers bagged by students in these pandemic times and new recruiters constantly coming to the campus to hire shows the promise and reputation that the students have built for the University. Atlassian offered package of 51.5 CTC, came for the first time and hired 9 students, the highest number from any university in India in this season. Microsoft IDC has offered 20 Full time and 40 summer internships-2021 offers.

• Details of Placement record of IGDTUW:https://www.igdtuw.ac.in/placements.php

#### **Best Practice 2**

### **EDUCATION MENTORING PROGRAMME (EMP)**

Motto: "Social Ambassadors for Knowledge Dissemination Programme & Hand holding Initiatives"

With the aim of supporting and guiding girls studying in Delhi government schools to take up flourishing careers in the STEM fields and also to foster a deeper understanding in IGDTUW students about how they can become the protagonists of positive change in society, the university has initiated the Education Mentoring Program (EMP).IGDTUW has partnered with the Government of Delhi to reach the school girls of Delhi with the aim of touching their lives in a positive way. The project's "Education Mentoring Programme" involves mentoring of girls studying in Delhi government schools by the B.Tech, M.Tech, B.Arch., B.BA, MBA, and PhD students of IGDTUW to raise their awareness of Science, Technology,

Engineering, and Mathematics (STEM) education. Each IGDTUW mentor guides five girls studying in the 9–12 grade and help clear their doubts about careers in STEM, share strategies for clearing entrance exams, support in accessing learning resources, and motivate them as they transition out of their schools to pursue further education and careers. As many as 250 students of IGDTUW became mentors for more than 1,000 girls studying Science in Classes 11 and 12 in Delhi government schools. Further, the students also counselled students in grades 9 to 12 on the deep significance of harnessing their potential through a focus on education.

### **Implementation strategy:**

The entire work of the project was monitored and executed through the PMU of IGDTUW. Given the outreach of the project, it was implemented in phase-wise in a structured manner. IGDTUW has a Project Management Unit (PMU) comprised of the core team, which was supported by identified and motivated Mentor Leaders (students of IGDTUW). In the pilot phase, almost 200 mentors (students of IGDTUW) worked under the PMU to guide almost 1000 girls in schools. Once the pilot phase is over, based on the learning, the project will be scaled up.

Initially, for the pilot phase, it is planned to initiate the process with 200 mentors (IGDTUW students) with a target of mentoring almost 1000 mentees (school students-girls). Measures was taken to upscale the project multifold and mentor almost 10,000–12, 000 mentees (school children) in the next 1 or 2 years. This will not only benefit schoolchildren but will also contribute to the development of an educated and gender-balanced future.

**More Details:** https://www.youtube.com/watch?v=Hq-umw7K4L4&t=3s

EMP Launch Video: EMP Launch Video Link

EMP Documentary Video: EMP Video Link

### 7.3 Institutional Distinctiveness

7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

### **Response:**

# STEM EDUCATION: THE SUCCESS STORY OF INDIRA GANDHI DELHI TECHNICAL UNIVERSITY FOR WOMEN

Indira Gandhi Delhi Technical University for Women (IGDTUW) is the first technical university in South Asia exclusively for women. The objective of the university is to foster industry-relevant research and innovation, with a motive to empower the women of our country through value-based higher education, making them employable, self-reliant, and responsible citizens with a concern for the environment and society. The university has won various accolades for its exceptional contribution to the field of technical education. Recently, it was granted the "university of the year" award (1-10 years) by the Federation of Indian Chambers of Commerce & Industry (FICCI) and secured 2nd rank (out of more than 650

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universities) in the category of higher education institutions, exclusively for women, in the award ceremony of Atal Ranking of Institutions on Innovation Achievements (ARIIA) Rankings 2020.

Details of university's ranking:

### IGDTUW's Efforts Towards Advancing Women's Education

The university understands that the true aim of education is to nurture capable youth who are not only able to resolve their personal challenges, but also contribute towards making their communities, their nation, and human society a better place. To achieve this, the energies of the youth must be channelized to experience and engage with the reality around them, to deepen the bonds of mutual connections with people in their ecosystem. Through various initiatives, the university makes continuous and sincere efforts to strengthen the link and provide last-mile connectivity between school education and higher education. The university is constantly striving to mentor and motivate girl students for a better transition from school education to higher education to address the issue of drop-out rates in higher education. In the rich history of the university has initiated and led multiple programmes for the benefit and empowerment of women. Apart from providing science, technology, engineering, and mathematics (STEM) education to students during their graduation, the university is continuously involved in mentoring and motivating them towards pursuing STEM education during their school time itself. This has been done through collaboration with various student societies like the Institute of Electrical and Electronics Engineers (IEEE), IEEE Women in Engineering (IEEE WIE), Lean In, and Enactus.

The university's intention to foster technological innovation for the benefit of humanity was recognized by the Department of Science & Technology and they were granted a pilot project titled "Vigyan Jyoti" that aimed to promote STEM education among women candidates and improve the retention ratio of women in STEM-related fields. The course curriculum allowed a thorough understanding of basic knowledge and a gradual transition from theoretical to practical know-how. The stepwise work plan helped students to easily switch from physics to the electronics world. Eventually, they were able to make robots by the end of the three-week training programme.

- 1. Involvement in Innovation and Research :IGDTUW has formed two centres for excellence :
  - Centre of Excellence in Mechatronics with funding of Rs. 8 Crores from Delhi Knowledge Development Fund [DKDF], Government of Delhi.
  - Centre of Excellence in Artificial Intelligence with funding of Rs. 7.5 Crores from Department of Science & Technology (DST), Government of India.

File Description	Document
Appropriate web in the Institutional website	View Document

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### 5. CONCLUSION

### **Additional Information:**

Being situated in a heritage campus at Kashmere Gate in Delhi, the respective regularities do not allow much constructions/alterations in the campus structure, but IGDTUW has managed to keep the campus equipped with all required amenities for a brilliant academic and research institution. IGDTUW offers high-end ICT facilities in its teaching and learning procedures along with many modern research labs in association of different Government and Non-Government organizations to provide world class exposure to its students and the results are much visible in the high percentage of placement of its students with high value packages offered from world's leading corporate employers.

## **Concluding Remarks:**

IGDTUW has been ranked in 101-200 band for SDG 4 and 5 i.e. QUALITY EDUCATION & GENDER EQUALITY under the World Impact Ranking 2021. It has been conferred with "UNIVERSITY OF THE YEAR AWARD" in India by The Federation of Indian Chambers of Commerce & Industry (FICCI) for Quality Education.

IGDTUW secured 2nd rank in Women Colleges and Universities Category at ARIIA 2020. IGDTUW has received Shrimati Sushma Swaraj "STREE SHAKTI SAMMAN" due to its vision and commitment in year 2020. It has been awarded Diamond Rating by QS I Guage. IGDTUW has ranked 21 in the Entrepreneurial Spirit of WURI Ranking and 77 in the over all WURI: Innovative Universities for 2020.

With a long list of awards and recognitions to its credits, IGDTUW is focused and committed towards making positive impacts to the society through education and research.

NAAC assessment would help the university in assessing its strengths and opportunities as a third party independent review and the same would support the organization in further achiving its vision towards making a better professional society in the nation by empowering women with professional education of high standards.

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### **6.ANNEXURE**

#### 1.Metrics Level Deviations

Metric ID | Sub Questions and Answers before and after DVV Verification

2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)

### 2.4.3.1. Total experience of full-time teachers

Answer before DVV Verification: 9.07 Answer after DVV Verification: 53

Remark: DVV has made the changes as per shared experience of teachers.

Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

2.5.2.1. Number of complaints/grievances about evaluation year wise during the last five years

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	8	17	14

### Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
0	60	73	17	14

Remark: DVV has made the changes as per HEI clarification.

- Funds / Grants received from government bodies during the last five years for development and maintenance of infrastructure (not covered under Criteria III and V) (INR in Lakhs).
  - 6.4.2.1. Total Funds / Grants received from government bodies for development and maintenance of infrastructure (not covered under Criteria III and V) year wise during the last five years (INR in Lakhs).

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
35	75	38	200	0

#### Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
35.00	75.00	38.00	200.00	0

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Remark: DVV has converted the value into lakhs.

### 2.Extended Profile Deviations