IGDTUW

3rd ANNUAL REPORT

3वाँ वार्षिक प्रतिवेदन

May 2018 - December 2019

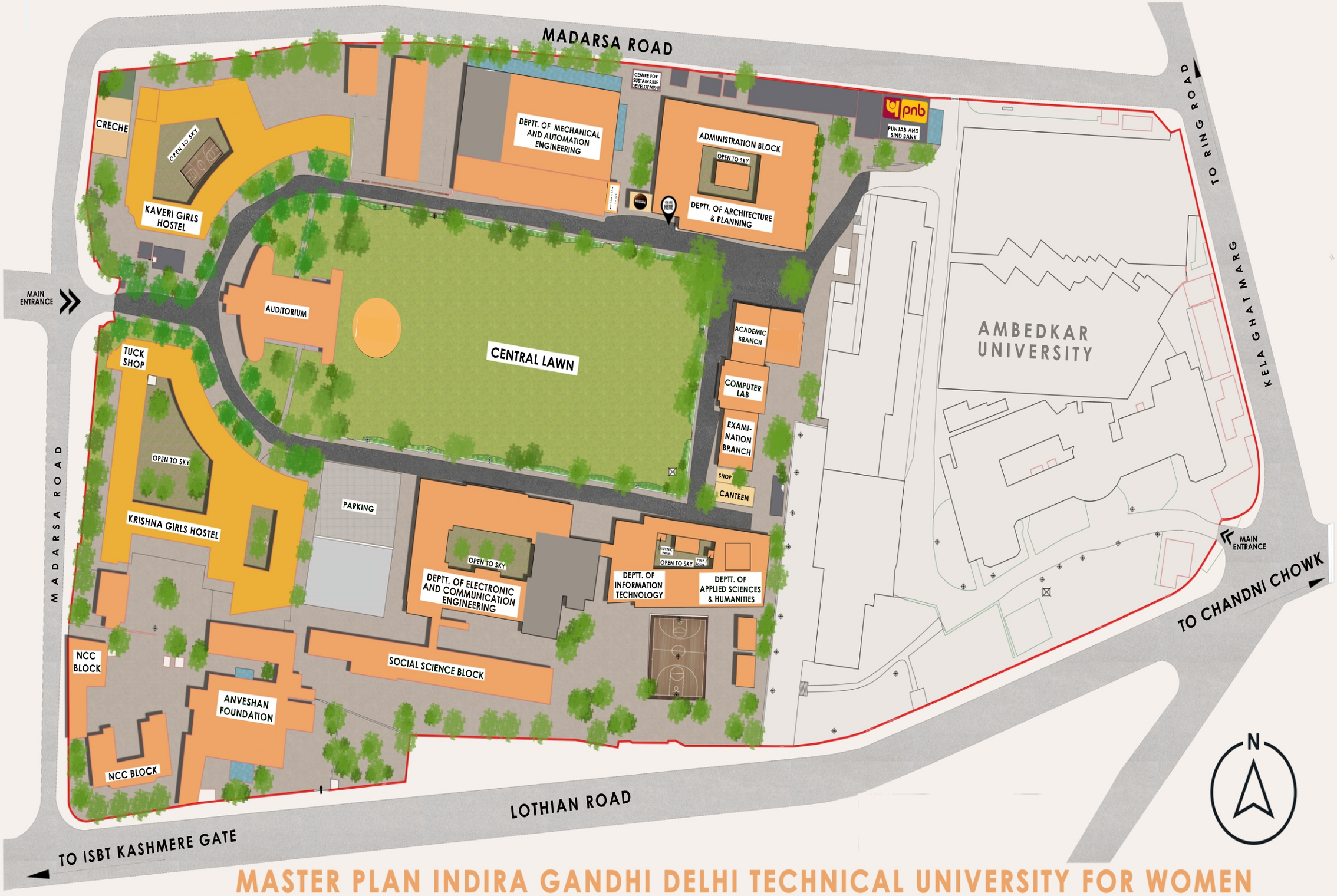
मई 2018–दिसम्बर 2019

Motto: Women Education, Women Enlightenment, Women Empowerment

इन्दिरा गांधी दिल्ली प्रौद्योगिकी महिला विश्वविद्यालय

INDIRA GANDHI DELHI TECHNICAL UNIVERSITY FOR WOMEN

Kashmere Gate, Delhi-110006



MASTER PLAN INDIRA GANDHI DELHI TECHNICAL UNIVERSITY FOR WOMEN

LOCATION MAP

IGDTUW CAMPUS, MADRASA ROAD OPPOSITE ST. JAMES CHURCH KASHMERE GATE DELHI-110006

SCALE : 1:500

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OUR VISIONARY LEADERS

HON'BLE CHANCELLORS

SHRI TEJENDRA KHANNA
July, 2012 to July, 2013

SHRI NAJEEB JUNG
July, 2013 to Dec, 2016

SHRI ANIL BAIJAL
Dec. 2016 to Till Date

VICE CHANCELLORS

Prof. (Dr.) Nupur Prakash
Vice Chancellor, IGDTUW
May 2013 To April 2018

Dr. (Mrs.) Amita Dev
Vice Chancellor, IGDTUW
May 2018 To July 2019 (Offg.)
July 2019 To Till Date

HISTORY

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 the given and related fields.

Since 2013, the University has grown exponentially. It has continued B.Tech. programs in four disciplines namely Computer Science & Engineering, Information Technology, Electronics & Communication Engineering and Robotics & Automation Engineering. M.Tech. Programs in niche areas of Technology like Information Security Management, Mobile Pervasive Computing, VLSI Design and Robotics and Automation Engineering were started for the first time in the institute. The Ph.D Program was started in 2014 in various disciplines. In 2015, the University also started B.Arch. Program. In a short span of few years, the University's students strength has increased exponentially manifold.

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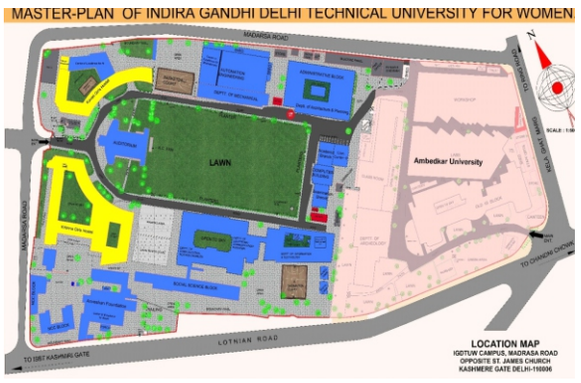
ABOUT UNIVERSITY

Indira Gandhi Delhi Technical University for Women (IGDTUW) was established in May 2013 vide Delhi State Legislature Act 9, 2012. The University fosters an environment for excellence in professional education and ensures active participation of women in the field of Engineering, Science, Management and Architecture, while striking out a work-life balance. The University is committed to make the student's educational experience multifaceted and holistic.

IGDTUW functions efficiently as a Teaching & Learning, Research-Oriented Centre in various branches of Science, Engineering, Technology, Architecture and Management promoting advancement and dissemination of research led knowledge among women from all over the country. The strategic intent of the University is to foster industry relevant research and innovations and empower the women of our country through value based higher education making them Employable, Self-Reliant, Entrepreneurship Development, Responsible Citizen of the country with concern for Environment and Society.

The University is committed about developing Sustainable Systems and State-of-the-Art infrastructure to empower the women to become future Leaders, Managers, Researchers, and Productive Team Players in the field of Science, Engineering, Technology, Architecture and Management.



VISION

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

CORE VALUES

- **Quality Education:** Promoting quality education through modern learning technologies and delivery models while pursuing the UGC quality mandate parameters.
- **Holistic Approach:** The University education process imbibes a holistic education approach commensurate with social, cultural, economic, and environmental realities.
- **Excellence** – Continuously delivering outstanding quality in all areas of Performance by fostering intellectual growth.
- **Innovation** - Having an unending quest for discovering new ideas in all areas of Performance, enriched by diversity in thoughts, actions and leadership.
- **Global Competencies**- Preparing students to achieve core competencies to face global challenges successfully.
- **Equality** - Involving all cross-sections of society by providing equal opportunity to all in pursuit of higher education, job and other activities.
- **Good Governance**- Following good governance principles being accountable, transparent, responsive, effective and efficient, equitable and inclusive, rule of law, participating and consensus-oriented in the process of making and implementing decisions.
- **Sustainability** – Having concern for nature, environment and resource utilization for a long-lasting, safe and better future.
- **Respect**- Respect moves us to understand the unique contributions of every person in the University community and to value diverse perspectives, including compassion, Service, commitment, Integrity, Diversity and Learning for Life.

OBJECTIVES

- To evolve and impart comprehensive professional education with focus on but not restrict to Engineering, Technology, Sciences, Management and such areas as deemed fit.
- To facilitate and promote studies leading to award of degrees, diplomas and certificates.
- To achieve excellence in Engineering, Technology, Sciences, Management and allied areas and matters connected therewith or incidental thereto.
- To establish centres of advanced studies, research and innovation in various relevant areas of Sciences, Engineering, Technology, Management and allied areas.
- To promote development of products, services and entrepreneurship.
- To be industry relevant and to create an impact on the academic community in India and abroad.
- To establish linkages between the University, Industries, Research and Development Organizations and other Universities/Institutes for collaborative (including dual degree) teaching and research programmes in India and abroad.
- To promote global interaction through faculty and student exchange in the areas of Science, Engineering, Technology, Management and other allied areas as deemed fit.
- To set up innovation centres, knowledge Park and Technology incubators to foster Techno-entrepreneurship, innovation and new product development.

- To disseminate knowledge and contribute towards nation building and faculty development by organizing expert lectures, seminars, symposia, workshops, conferences, summer and winter schools, short term training programs and refresher courses from time to time.
- To promote and foster cultural and ethical values with a view to promote and foster professional morality, research integrity, globally acceptable business ethics and morals for professionals.
- To publish periodicals, treatises, studies, books, reports, journals and other literatures on subjects pertinent to academic areas of the university, including electronics resources
- To undertake study, training projects and technology transfer programmes relating to Science, Engineering, Technology and Management.
- To do all such things as are incidental, necessary or conducive to the attainment of all or any of the objectives of the University.

QUALITY POLICY

We at Indira Gandhi Delhi Technical University for Women are committed to achieve the highest standards in Technical Education, Research, Consultancy, Incubation and Innovation in order to produce women leaders in Engineering, Technology, Science, Management, Architecture & other allied areas. We shall achieve this through -

- Assessing the needs of interested parties and strive to exceed their expectations.
- Develop and deliver courses to meet the contemporary needs of the industry.
- Carrying out multidisciplinary research programs and projects that are distinctive and relevant to technological, social, and environmental needs.
- Adoption of constructive mechanisms for building strong academic teams and enhancing links between University, research institutions and the industry. Mentoring and supporting the development of start-ups by providing them advisory and administrative support services.
- Periodic monitoring and assessment of our services and continual improvement of the performance of our facilities, personnel, processes and systems.
- Adhering to the applicable laws and regulations.

QUALITY OBJECTIVES

- To provide Intellectual and ethical environment where skill & spirit can thrive and provide state of art education along with social, cultural and human values.
- To create an environment of collaboration & enhance Industry Institute Interface.
- To foster an ecosystem for incubation, innovation, product development, transfers of technology & entrepreneurship.
- To develop Centre of Excellence in emerging areas of Science, Engineering & Technology, Management, Architecture and other allied areas.
- To develop human values with analytical ability, ethics and integrity.
- Creation of congenial and conducive student-centric work environment.

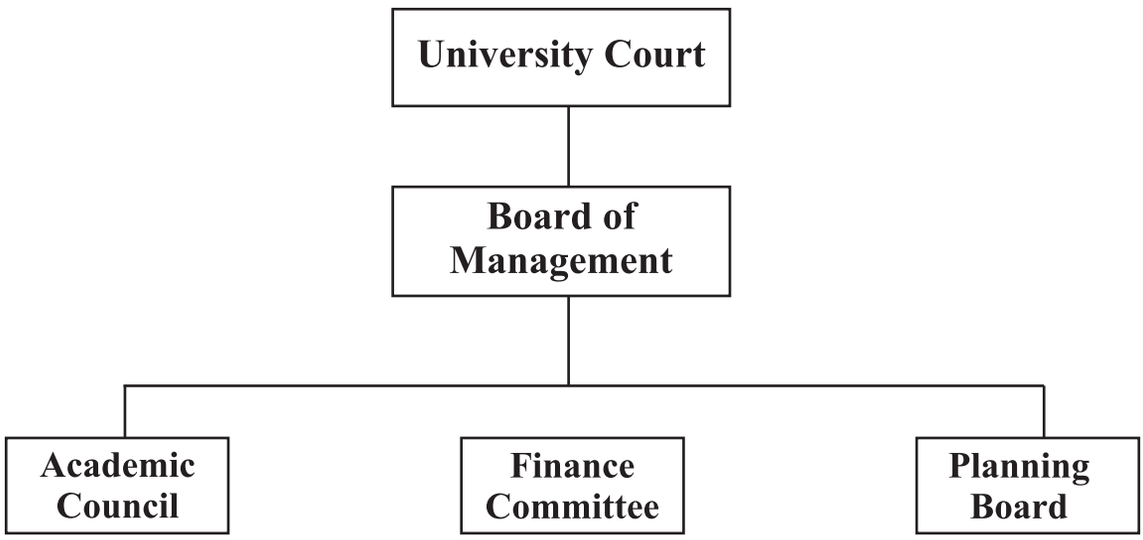
UNIVERSITY GOVERNANCE

As per Sub-Section (4) of Section 3 of the IGDTUW Act

"The University shall be administratively autonomous and shall receive grant-in-aid from Government of Delhi to provide education to the girl students and as such shall receive funds for capital and operational expenditure from Government of Delhi, having its own governance as well as administrative policies and practices as prescribed"

As per the Section 18 of the IGDTUW Act 2012, University Court, Board of Management, Academic Council, Planning Board, Finance Committee are the various Statutory bodies of the University.

Organogram of the Statutory bodies of University



UNIVERSITY COURT

The University Court is the highest Statutory body of the University. The Court shall review, from time to time, the broad policies and programmes of the University and suggest measures for improvement and development of the University. The Court of the University consists of the following Members :

S.No.	Name & Designation	Position
1.	**Sh. Anil Baijal** Hon'ble Lt. Governor, Govt. of NCT, Delhi & Chancellor, IGDTUW	Chairperson
2.	**Dr. (Mrs.) Amita Dev** Vice Chancellor, IGDTUW (Ex-officio)	Member
3.	**Dr. G. Narendra Kumar, IAS** Pr. Secretary, Technical Education, Govt. of NCT of Delhi **(Ex-Officio)**	Member
4.	**Sh. Sandeep Kumar, IAS** Secretary, Higher Education, Govt. of NCT of Delhi **(Ex-Officio)**	Member
5.	**Ms. Padmini Singla, IAS** Secretary, Finance Department, Govt. of NCT of Delhi **(Ex-Officio)**	Member
6.	**Prof. Ram Ramaswamy** Former Vice Chancellor, University of Hyderabad, currently Professor, Department of Chemistry, IIT Delhi	Member
7.	**Prof. Zahid H. Khan** Former Director, FTK Centre of Technology, Jamia Millia Islamia, New Delhi	Member
8.	**Prof. Ashwni Kumar** Dean (International Affairs), IGDTUW	Member
9.	**Prof. Ela Kumar** Dean (Student Welfare), IGDTUW	Member
10.	**Prof. R. K. Singh** Dean (Plg. Dev.) and Registrar, IGDTUW **(Ex-Officio)**	Member
11.	All Deans, IGDTUW **(Ex-Officio)**	Member

BOARD OF MANAGEMENT

The Board of Management is the Principal Executive Authority of the University and as such has all powers necessary to administer the University subject to the provisions of the University Act and Statutes. The Board of Management of the university consists of the following Members : -

S.No.	Name & Designation	Position
1.	**Prof. R. K. Kale** Former Vice-Chancellor, Central University of Gujarat and Professor Emeritus, School of Life Sciences, JNU, New Delhi	Chairperson
2.	**Dr. (Mrs.) Amita Dev** Vice-Chancellor, IGDTUW **(Ex-Officio)**	Member
3.	**Dr. (Mrs.) Saroj Kaushik** Professor, Department of Computer Science and Engineering, IIT Delhi	Member
4.	**Mrs. Tessy Thomas** Project Director and Scientist, Agni Missile Project, DRDO, DRDO HQs, Hyderabad	Member
5.	**Dr. Manoj Kumar Arora** Professor, IIT Roorkee, Director PEC University of Technology, Chandigarh	Member
6.	**Prof. Mini Shaji Thomas** Director, NIT Trichy and Professor Department of Electrical Engineering and Technology, JMI New Delhi	Member
7.	**Ms. Pallavi Arora** Director, Technical Support, CISCO (Technical Services Group), Bangalore	Member
8.	**Mrs. Mukta Mittal** Managing Director Accenture India, Gurgaon	Member
9.	Representative of the University Grants Commission (UGC)	Member

Continue....

S.No.	Name & Designation	Position
10.	Principal Secretary or Secretary, Technical Education, GNCTD **(Ex-Officio)**	Member
11.	Principal Secretary or Secretary, Finance, GNCTD **(Ex-Officio)**	Member
12.	Principal Secretary or Secretary, Higher Education, Govt. of NCT of Delhi **(Ex-Officio)**	Member
13.	Dean (Examination Affairs), IGDTUW **(Ex-Officio)**	Member
14.	Dean (Academic Affairs), IGDTUW **(Ex-Officio)**	Member
15.	**Prof. R. K. Singh** Professor, Department of Information Technology, IGDTUW	Member
16.	**Prof. Ela Kumar** Professor, Department of Computer Science and Engineering, IGDTUW	Member
17.	Registrar, IGDTUW **(Ex-Officio)**	Member Secretary

FINANCE COMMITTEE

The Finance Committee of the University is responsible for providing its recommendations on all financial matters of the University to the Board of Management. The Finance Committee of the University consists of the following Members :

S.No.	Name & Designation	Position
1	**Prof. R. K. Kale** Professor Emeritus, School of Life Sciences, JNU, New Delhi and Former Vice-Chancellor, Central University of Gujarat	Chairperson
2.	**Dr. (Mrs.) Amita Dev** Vice-Chancellor, IGDTUW **(Ex-Officio)**	Member
3.	Comptroller of Accounts, Govt. of NCT of Delhi	Member
4.	Principal Secretary or Secretary, Technical Education, GNCTD **(Ex-Officio**)	Member
5.	Principal Secretary or Secretary, Finance, GNCTD **(Ex-Officio)**	Member
6.	**Prof. Ela Kumar** Dean (Academic Affairs), IGDTUW	Member
7.	**Prof. R.K Singh** Dean (Examination Affairs), IGDTUW	Member
8.	**Dr. N.R Chauhan** HoD (MAE), IGDTUW	Member
9.	**Dr. Jasdeep Kaur** HoD (ECE), IGDTUW	Member
10.	Two members to be nominated by the Board of Management from amongst its members.	Member
11.	Registrar, IGDTUW **(Ex-Officio)**	Member-Secretary

ACADEMIC COUNCIL

The Academic Council is the Principal Academic body of the University and shall, subject to the provisions of the University Act, the Statutes and the Ordinances, have the control and regulations of, and be responsible for, the maintenance of standards of instructions, education, research and examination within the University. The Academic Council of the University consists of the following members :

S.No.	Name & Designation	Position
1.	**Dr. (Mrs.) Amita Dev** Vice-Chancellor, IGDTUW **(Ex-Officio)**	Chairperson
2.	**Dr. Kamlesh Dutta** Associate Professor and Head, Computer Science & Engineering Department, National Institute of Technology, Hamirpur (HP) - 177005	Member
3.	**Prof. R.A. Khan, (Retd.)** Former HoD, Department of Mechanical Engineering, Jamia Millia Islamia, New Delhi	Member
4.	**Prof. Sanjeev Sofat** Director, Cyber Security Cell and Professor, Department of Computer Science & Engineering, PEC University of Technology, Sector 12, Chandigarh	Member
5.	**Prof. Saroj Kaushik** Professor, Department of Computer Science & Engineering, IIT Delhi, Hauz Khas, New Delhi	Member
6.	**Dr. (Mrs) Santosh Satya** Centre for Rural Development and Technology, IIT Delhi (Nominee of the UGC)	Member
7.	**Prof. Usha Natesan** Advisor-I of AICTE, New Delhi & Professor, Civil Engineering, Anna University, Chennai (AICTE Nominee)	Member
8.	A nominee of the FICCI	Member
9.	All Deans of the University **(Ex-Officio)**	Member
10.	All Heads of Departments of the University **(Ex-Officio)**	Member
11.	**Prof. Ashwini Kumar** Professor, Department of ECE, IGDTUW	Member
12.	**Dr. A.K. Mohapatra** Associate Professor, Department of IT, IGDTUW	Member
13.	**Dr. Ranu Gadi** Associate Professor, Department of ASH, IGDTUW	Member
14.	**Mr. Akash Tayal** Assistant Professor, Department of ECE, IGDTUW	Member
15.	Registrar, IGDTUW **(Ex-Officio)**	Member-Secretary

PLANNING BOARD

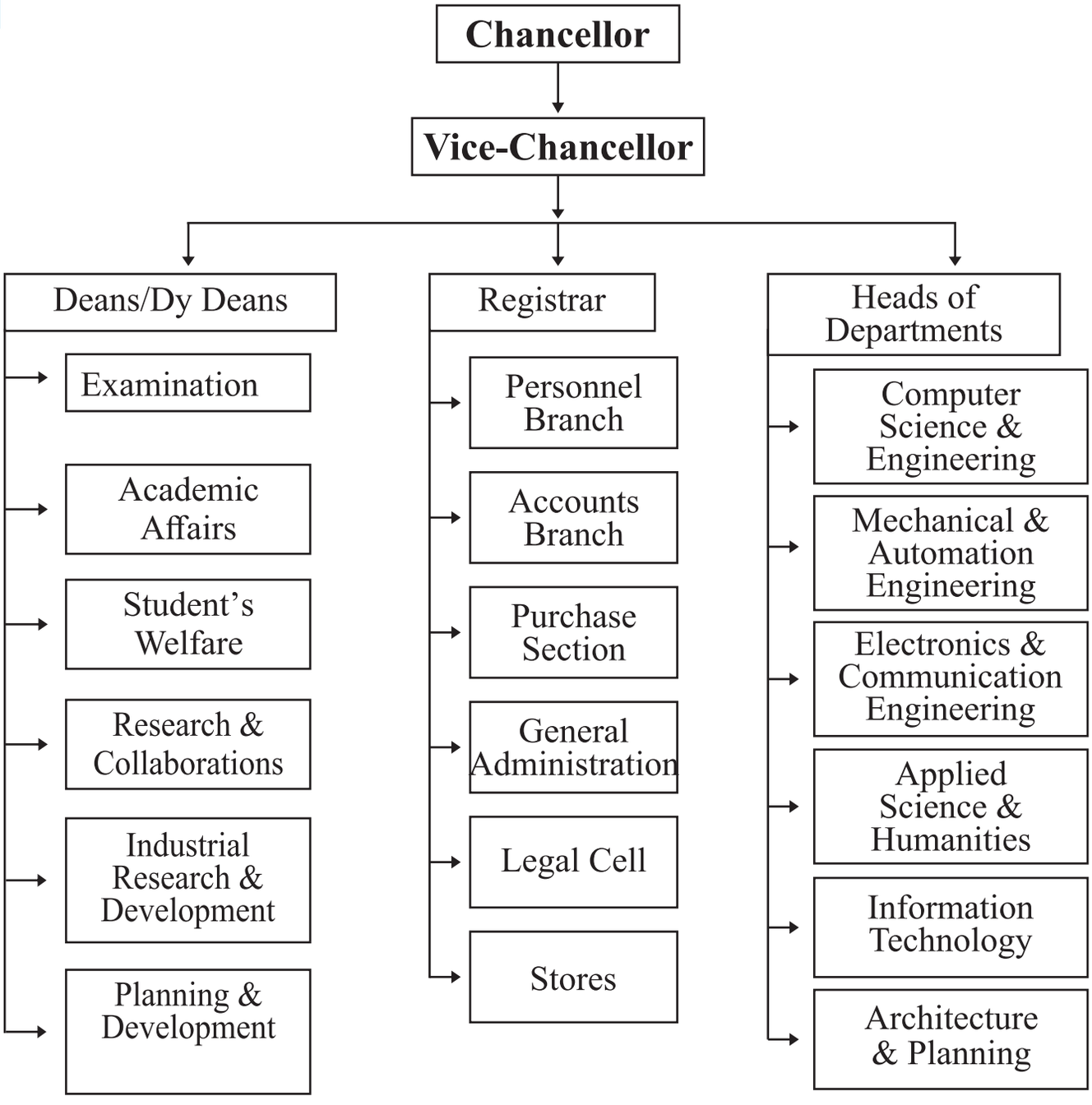
Planning Board is the principal planning body of the University and responsible for monitoring the development of the University. The Planning Board of the University consists of the following members:

S.No.	Name & Designation	Position
1.	**Dr. (Mrs.) Amita Dev** Vice-Chancellor, IGDTUW	Chairperson
2.	Pro Vice Chancellor, IGDTUW	Member
3.	Engineer-in-Chief, North MCD	Member
4.	Commissioner/Director (Planning), DDA	Member
5.	Director , Deptt of Planning, GNCTD	Member
6.	Joint Director (Planning), DTTE, GNCTD	Member
7.	Registrar, IGDTUW	Member-Secretary

ORGANIZATIONAL STRUCTURE

The Lieutenant Governor of National Capital Territory of Delhi shall be the Chancellor of the University. The Vice-Chancellor, the Pro-Vice Chancellor, Deans, Registrar and such other officers as may be declared by the statues to be the officers of the University. The Organogram of the University officials and the distribution of the responsibilities of the various officers of the University is given below:

Organogram of the University



OFFICERS OF THE UNIVERSITY

S.No.	Name & Designation	Position
1.	Vice-Chancellor	Dr. (Mrs.) Amita Dev
2.	Registrar	Prof. R.K. Singh
3.	Dean (Planning & Development)	Prof. R.K. Singh
4.	Dean (Academic Affairs)	Prof. Devendra Tayal
5.	Dean(Examination Affairs)	Prof. S.R.N. Reddy
6.	Dean (Student Welfare)	Prof. Ela Kumar
7.	Dean (International Affairs)	Prof. Ashwani Kumar
8.	Deputy Dean (Research & Collaboration)	Dr. Chhaya Ravikant
9.	Deputy Dean (Industrial Research and Development)	Dr. Ranu Gadi
10.	Head of the Department (CSE)	Prof. Ela Kumar
11.	Head of the Department (ECE)	Dr. Nidhi Goel
12.	Head of the Department (IT)	Dr. Arun Sharma
13.	Head of the Department (MAE)	Dr. Manoj Soni
14.	Head of the Department (DAP)	Ar. Preeti Chauhan
15.	Head of the Department (ASH)	Dr. Shalini Arora
16.	Deputy Finance Officer	Sh. Sunny C. K.
17.	Librarian	Dr. D.S. Sengar
18.	Chief Executive Officer, Anveshan Foundation	Dr. Vijay Kumar Arora

ACADEMIC PROGRAMMES OFFERED

IGDTUW has worked hard to build a strong academic curriculum with a rich diversity of courses and is working towards new academic initiatives. Academic innovations have always been top most in the priorities of the University. With globalisation, the Internet, and the march of technology, life of an engineer is changing rapidly. Today's graduates need to be flexible, to be able to learn quickly and to be able to innovate to produce products and services that can cater to local needs and global standards. We have designed the B. Tech. curriculum from the ground up to produce technology-savvy leaders and designers for the future India.

The curriculum has a broad base of courses in Architecture, Engineering, Management and Humanities. The syllabi are continuously updated and new courses are added from time to time. Academic Council and the Board of Studies have representations from industry in addition to academicians from top academic institutions.

S.No.	Name of the Department	Programmes Offered	Intake	Duration (years)
1	Computer Science & Engineering (CSE)	B.Tech (CSE)	154	4
		M.Tech (MPC)	32	2
2	Electronics & Communication Engineering (ECE)	B.Tech (ECE)	76	4
		M.Tech (VLSI Design)	32	2
3	Mechanical & Automation Engineering (MAE)	B.Tech (MAE)	76	4
		M.Tech (R & A)	32	2
4	Information Technology (IT)	B.Tech (IT)	76	4
		M.Tech IT (IMS)	32	2
		MCA	60	3
		M.Tech (ICT) Part time	40	3
5	Architecture & Planning	B.Arch	40	5
6	Ph.D. Programes offered by CSE, ECE, MAE and IT Departments	Ph.D	37	3+
		Total Intake	687	

ADMISSION PROCESS

The admission process for admission to the various programmes offered by the University starts in April every year. The university is offering B.Tech courses in Computer Science and Engineering, Information Technology, Electronics and Communication Engineering, Mechanical and Automation Engineering. The admission to M.Tech programmes is offered in niche areas of Information Security management, VLSI design and Robotics and Automation Engineering.

- Admission to B.Tech and B.Arch Programme: The admission to various programmes in the University is offered only to the female candidates. The admission to undergraduate courses (B.Tech and B.Arch) is made on the basis of All India JEE Main Rank prepared by CBSE. The counselling for admission to B.Tech and B.Arch program is done through Joint Admission Counseling (JAC), jointly organized for DTU, NSIT, IIITD & IGDTUW.
- 85% of the total seats for UG Programmes are reserved for candidate belonging to Delhi Region (Students passing the qualifying examination from recognized Board / College / Institution located within the NCT of Delhi) and 15% of the total seats for candidates belonging to outside Delhi Region.
- Admission to M.Tech. Programmes: The admission to M.Tech. program is made on the basis of the merit of the valid GATE Score secured by candidates and there after on the basis of the marks secured in the qualifying examination as per the eligibility.
- Admission to MCA Programme: The admission to MCA program of IGDTUW is on the basis of rank secured by the candidates in the Entrance Examination conducted by the IGDTUW on all India bases.
- Admission to Ph.D Programme: The admission to Ph.D programme in various disciplines is based on GATE/ UGC-NET/ RAT Examination and Interview.

YEAR WISE ADMISSION UNDER VARIOUS PROGRAMMES:

Year-wise Admission in Under-Graduate and Post Graduate Programmes				
Deptt.	**Course**	**2018-19**	**2017-18**	**2016-17**
CSE	B. Tech. (CSE)	154	154	138
	M. Tech. CSE (MPC)	05	17	18
ECE	B. Tech. (ECE)	69	75	73
	M. Tech. ECE (VLSI Design)	17	32	29
IT	B. Tech. (IT)	77	76	75
	M. Tech. IT (ISM)	29	31	30
	MCA	59	59	47
	M. Tech (ICT) Part Time	04	15	14
MAE	B. Tech. (MAE)	53	73	67
	M. Tech. (R&A)	08	11	19
Arch. & Plg.	B. Arch.	37	40	32
	Total	**512**	**583**	**542**

Year-wise Admission in Ph.D. Programme			
Programme	**2018-19**	**2017-18**	**2016-17**
Ph.D.	37	25	31

ACADEMIC DEPARTMENTS OF THE UNIVERSITY

The teaching in the University is offered by the Departments. As per the First Ordinance of the Indira Gandhi Delhi Technical University for Women relating to establishment of Faculties and Departments of the University, the following are the faculties and grouping of Departments, including existing Departments that offers Under-Graduate, Post-Graduate and PhD programmes:

S.No.	Name of the Department
1.	**Faculty of Engineering & Technology**
	Department of Computer Science & Engineering
	Department of Electronics & Communication Engineering
	Department of Information Technology
	Department of Mechanical & Automation Engineering
2.	**Faculty of Sciences & Humanities**
	Department of Applied Sciences and Humanities
3.	**Faculty of Architecture & Design**
	Department of Architecture & Planning

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

The Department of Computer Science and Engineering was established in 1998. The department offers B.Tech. in Computer Science and Engineering and M. Tech CSE (MPC) and Ph.D program in all emerging area of Computer Science.

The Department runs with defined vision and mission and objectives. The vision of the department is:

- To develop highly skilled professional workforce by innovation based teaching which can work at global academic and professional standards, thus creating an impact on global forums in area of Computer Science and Engineering.

The mission of department is:

- To provide excellent infrastructure and software tools to students that will accelerate their learning,
- To provide highly academic and research oriented environment in department,
- To organize frequent co-curricular activities like expert lectures/ workshops/symposia/conference to provide student best holistic learning environment,
- To inculcate good human values in students and to make them adopt attitude of serving nation.

The objectives of the department are:

- To promote convergence of knowledge, information, technology and skills.
- To develop Computer Science and Engineering students with global perspective.
- To ensure total personality development of would be engineers.
- To work in collaboration of other institutes / industries.
- To impart specialized knowledge and skills to the students in field of computer and information technology

CSE department has a talented pool of faculty, who are very sincere and committed and work with professional excellence. Besides teaching, faculty is actively involved in research, patent writing, consultancy and organization of workshops, conference, expert lectures etc. Many faculty members are members of editorial board of Journals, and expert committee members of professional committees at National & International levels.

The department has good IT enabled infrastructure. The classrooms are equipped with IT support such as digital podium with multimedia projector, Smart interactive display boards, Multimedia touch display white board, Green board, Dustless usable chalk board. The Department also has Laboratories including Research labs having latest software for data analytics and cognitive and advance machine learning, Mobile design and innovation lab, Embedded system design lab, Machine learning Lab, Intelligent computing lab, Data ware housing and data mining lab, Software engineering lab, Artificial Intelligent lab, latest softwares are present in the labs related to expert system designing, cloud computing etc.

Department has developed a practical teaching and learning environment that provides a comprehensive set of tutorials, projects and experiments to the students.

Lab Infrastructure:

The Department has well equipped labs for practical and research work in the following domains:

- Database and Mobile Database Systems
- Software and Advanced Software Engineering
- Advanced Computer Networking
- Programming Labs on various platforms
- Embedded System and Design
- Computer Graphics and Multimedia
- Network Security and Management
- Mobile Architecture Programming
- Design & Innovation Lab

The Department takes immense interest in conducting professional activities such as organizing workshops, seminars and expert lectures to meet the challenges in the IT Industry.

Technical Activities

The following programs were organized by the department to train teachers and students during the year:-

- A one day Workshop on "Cloud Computing" at IGDTUW conducted on 21st Sept., 2018 by Prof. Ela Kumar in association with APTRON, Delhi.
- "Startup Activities by inviting proposals under INCUBATION Centre, by Dr. S.R.N. Reddy.
- One day workshop was organized on 17th August on topic "Machine Learning with Python and R" By Ms Arunima Jaiswal and Dr Ela Kumar . Large number students of B. Tech (CSE) second year, third year and final year attended the workshop. It was organized. The technical officers from APTRON INDIA Limited, gave demonstration and given lecture in the workshop. The workshop comprised of learning about the below mentioned topics: Angular Basic, SPA Vs MPA, MYYM, MVC, MVM, Setup, Using Directives, Filters, Building Online Shopping Product Page.

Ongoing Sponsored Projects

- Project grant amounting to Rs. 23.4 Lacs is received from Microsoft Mobile University
- Relation, Finland for the development of mobile education kit-3.
- Project grant amounting to approx. Rs.90 Lacs is granted fron MHRD, Govt of India establishment of Design & Innovation Center
- Project grant amounting to Rs.2.25 Lacs is received from Intel, India for Development of IoT Center for Excellence
- Project grant amounting to Rs.4.0 Lacs is received from Intel, India for Development of Intel Real Sense center and lab.

Sponsored Projects Completed

- Project grant amounting to Rs.13 lacs is received from Nokia University Relation, Finland for the development of Web Based Mobile Architectureand Prog.
- Project grant amounting to Rs1.5 Lacs is received from Intel, India for Development of Embedded Systems Course Curriculum.
- Project grant amounting to Rs.22.4 lac is received from ITRA , Govt of India towards a project "Human Sense: Towards context Aware sensing, inference and actuation for application in Energy and Healthcare"
- Project grant amounting to Rs.22.15 Lacs is received from Nokia University Relation, Finland for the development of Web Based Mobile Architectureand Programming (Mek-2).

Patents under the process of filing

- Smart food ProWaC (Processing, Washing, Cooking) for household applications
- CARE Protocol: Context Aware & Resource Efficient Protocol framework for IoT application
- STELA: Smart Teaching, Education, Learning Assessment Framework with a Practical Approach.
- Smart Education Kit: A Platform for Teaching, Learning, Assessment for Selected Electronic Subject

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

The Department of Electronics and Communication Engineering, was established in the year 1998. Since its inception, it has been dedicated to provide dynamic and quality women engineers to the industry and society. In the existing scenario of rapid and sophisticated development in the .field of Electronics and Communications and its allied fields, the Department's intent and focus has always been to produce globally competitive and socially sensitized engineering graduates and to bring out quality research in the emerging areas of Electronics and Communication Engineering. The department is committed to provide quality and contemporary education in the domain of Electronics and Communication Engineering through latest curriculum, state-of-the-art laboratory facilities, collaborative ventures with industries and effective teaching-learning practices. Considering the latest trends in industry and research, the department has recently revised the UG curriculum, which will enhance the employability of students.

The Department has always been on a high growth path and has an experienced and dedicated faculty with a strong commitment to engineering education. The Department has excellent faculty members, who, besides teaching, are also active in conducting research and their list of publications in International/ National conference proceedings/Journals is overwhelming. The Department, through its highly talented faculty members, offers strong research orientation to students in the areas of Communication Systems, Signal Processing, Embedded Systems, RF & Microwave Engineering, Microelectronics and VLSI Design.

The faculty members, who besides teaching, are active in conducting research which is evident from their list of publications in International/ National conference proceedings/Journal. The Department has state-of-the-art laboratory facilities i.e. VLSI Lab, Analog Electronics Lab, DSP Lab, Electrical Science Lab, Control Engineering Lab etc.

Lab Infrastructure

The department has following state-of-the-art laboratory facilities managed by faculty Coordinators and Staff-in-charge:

- VLSI Design
- Digital Signal Processing
- Embedded System Design
- Communication System
- Analog Electronics
- Microwave and Radar Engineering
- Microprocessors & Microcontroller
- Digital Circuit & Systems
- Electrical Science & Control Engineering
- Mobile Communication
- Optical Communication

Software

In addition to Licensed software such as Cadence, Synopsis, Mentor Graphics, students and faculty also work on Xilinx, Modelsim, Orcadsoftwares, FPGA kits, Microwind, and MATLAB to name a few.

Research Projects

- Special Manpower Development Program for Chip to System Design (SMDP-C2SD) with IIT Delhi as Mentor, funded by Ministry of Electronics & Information Technology (2015-2020)
- Knowledge Partners with Navodya Vidyalas for Project Vigyan Jyoti funded by Department of Science & Technology (2019 onwards)

Research Publications

- Maninder Kaur, Jasdeep Kaur, "IDDQ Testing of Low Voltage CMOS Operational Transconductance Amplifier", International Journal of Electrical and Computer Engineering (IJECE), ISSN: 2088-8708[Indexed in Scopus], Vol 8, No 3, June 2018.
- Archana Sahu, Saood Ahmed, Jasdeep Kaur, P.S.Negi, V.N. Ojha, "Minimizing Effective Source Reflection Coefficient Using Resistive Power Splitter upto 50 GHz", accepted in MAPAN-Journal of Metrology Society of India, Springer Journal no.12647. ISSN: 0970-3950 (print version), ISSN: 0974-9853 (electronic version)
- Sheetal, Ashwni Kumar, Ritu Kandari, Surbhi Bharti, "Performance Analysis of 4:1Multiplexer with DTMOS Technique" 4th International Conference on Internet of Things: Smart Innovation and Usages (IoT-SIU) 2019
- Pandey P., Seeja K.R. (2019). "Subject-Independent Emotion Detection from EEG Signals Using Deep Neural Network." In: Bhattacharyya S., Hassanien A., Gupta D., Khanna A., Pan I.(eds) International Conference on Innovative Computing and Communications. Lecture Notes in Networks and Systems, Vol 56. Springer, Singapore.
- Jain, S., Seeja, K. R., & Jindal, R. (2019). "Identification of New Parameters for Ontology Based Semantic Similarity Measures." EAI Endorsed Transactions on Scalable Information Systems, Volume 6.
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- Bisht M., Seeja K.R. (2018) "Air Pollution Prediction Using Extreme Learning Machine: A Case Study on Delhi (India)." In: Somani A., Srivastava S., Mundra A., Rawat S. (eds) Proceedings of First International Conference on Smart System, Innovations and Computing. Smart Innovation, Systems and Technologies, Vol 79. Springer, Singapore
- Pandey P., Seeja K.R. (2018) "Forensic Writer Identification with Projection Profile Representation of Graphemes." In: Somani A., Srivastava S., Mundra A., Rawat S. (eds) Proceedings of First International Conference on Smart System, Innovations and Computing. Smart Innovation, Systems and Technologies, Vol 79. Springer, Singapore.
- Seeja K.R., Rana J., Priya S., Ahuja L. (2018) "A Novel Edge Based Image Steganography Technique." In: Abraham A., Cherukuri A., Madureira A., Muda A. (eds) Proceedings of the Eighth International Conference on Soft Computing and Pattern Recognition (SoCPaR 2016). So CPaR 2016. Advances in Intelligent Systems and Computing, vol 614. Springer, Cham.
- Priya Singh and Vandana Niranjan, "Low Power and Wide Band BiCMOS Flipped Voltage Follower", Journal of Electrical & Electronic Engineering, Vol.9, No.1, p.p. 71-75, Oct 2018 (accepted & under print) Published by Intellectuals Society for Socio-Techno Welfare
- Nimeesha, Shikha Soni, Vandana Niranjan, Ashwni Kumar, "Power Efficient high speed Adaptive Biased Operational Amplifier", ICTACT Journal on Microelectronics, Vol.4, No.2, pp.553-559, July 2018 An International Publication of ICT Academy, Joint collaboration of Govt. of India & Tamil Nadu
- Khyati and Vandana Niranjan, " High Gain and Low Power Rail-to-Rail Amplifier", International Journal of Advance Research in Science and Engineering, Vol.7, Special Issue No.3(RISEM), pp. 6-15, April 2018, AR Research Publication.
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- Anjali and Vandana Niranjan, "Low Power Biopotential Amplifier", International Journal of Advance Research in Science and Engineering, Vol.7, Special Issue No.2(ICRTESM), pp. 50-63, January 2018. AR Research Publication.
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- R. Yadav, K. Singh, and A. Kumar, “Green power allocation for cognitive radio networks with spectrum sensing,” Wiley-IEEJ Transactions on Electrical and Electronic Engineering, vol. 14, no.3, pp. 403-410, 2019.
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- Surbhi Bharti, Ashwni Kumar, Ritu Kandari, Sheetal Singh , “An Enhanced zero-bias column buffer - direct-injection circuit technology using 180nm Cmos Technology” 2019,4th International Conference on Internet of Things: Smart Innovation and Usages (IoT-SIU)
- Parnika Kansal, Ashwni Kumar and M. Gangadharappa, “Spectrum Sensing Technologies for next generation wireless technologies: A Review” ICSPVCE-2019, DTU, 2019
- Jasdeep Kaur, Roohie Kaushik, Sakshi Srivastava, Akshita Singh, “BGR Design using 2-stage OP AMP”, IEEE International Conference on Signal Processing, VLSI and Communication Engineering (ICSPVCE-2019), Delhi Technological University, New Delhi, 2019.
- Simran Nischal, Jasdeep Kaur, “Study of a Self Biased High Swing Cascode Current Mirror Based Folded Cascode Operational Amplifier”, 4th -IEEE International conference on Information Systems and Computer Neworks (ISCON-2019) for-2019 at GLA University, Mathura- UP.
- Gulnar Perveen, M. Rizwan, and N. Goel, " Short term PV power forecasting based on sky conditions using Intelligent Modelling Techniques", International Journal of Engineering, Science and Technology, Vol. 11, No. 4, 2019, pp. 49-57
- Gulnar Perveen, M. Rizwan, and N. Goel, "An ANFIS-based model for solar energy forecasting and its smart grid application", Engineering Reports, Wiley Online Library, 2019.
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- Tayal Akash, Utku Kose, Arun Solanki, Anand Nayyar, and José Antonio Marmolejo Saucedo."Efficiency analysis for stochastic dynamic facility layout problem using meta- heuristic, data envelopment analysis and machine learning." Computational Intelligence (2019).
- Tayal, Akash, and Surya Prakash Singh. "Analysis of simulated annealing cooling schemas for design of optimal flexible layout under uncertain dynamic product demand." International Journal of Operational Research 34, No. 1 (2019): 85-103.

- Kanchan Sharma, Surender K Grewal, "ABER Analysis of Hybrid PPM–MSK Based SIMO–FSO in Presence of Atmospheric Turbulence", 6th International Conference on Microelectronics, Circuits and Systems at Amity University, Kolkata New Town, Kolkata-700135, West Bengal, India on 6th and 7th July, 2019
- Priyanka Olaniya, Richa Yadav, "Design of Low-Voltage and Low-Power FGMOS Based Third Generation Current Conveyor in 90nm regime and Application" 5th International Conference on Convergence in Technology, Pune, 29th – 31st March 2019
- Ankita Singh, Richa Yadav, "Comparision Between Ideal And Switched Capacitor Based Fractional Order Current Integrator", Asian Journal of Convergence in Technology (AJCT), March 2019
- Suman Yadav, Manjeet Kumar, Richa Yadav, and Ashwni Kumar, "A Novel approach for Optimal Design of Digital FIR Filter Using Grasshopper Optimization Algorithm," Intl. Joumal of Wavelets, Multiresolution and Information Processing (IJWMIP), 2 Jul, 2019.(Under Review)

Societies

- **IGDTUW IEEE Student Branch-** It is established in 2004 under the Delhi Section, Region 10 (Asia-Pacific). Various events including IMPULSE (annual IEEE technical festival) are conducted. Students also take part in IEEE WIE (Women In Engineering) which aims to promote women engineers. We also have SIGs (Student Interest Groups) in various technical domains. Dr. Jasdeep Kaur Dhanoa act as a Faculty Advisor for the society.
- **Enactus-**It aims to improve the quality of life of people in need using the power of entrepreneurial action. Objective is to take up one entrepreneurial venture at a time and use it to create self-sufficiency in the under privileged strata of society. Dr. Nidhi Goel (Faculty Advisor)
- **Robolution**- Team Robolution is the robotics team of IGDTUW. Members are mentored and encouraged to take part in various inter-college and national robotic event including Asia Pacific Robot Contest ABU-ROBOCON, to name a few. Dr. Nidhi Goel(Faculty Advisor)
- **Lean In**- It aims to offer support and inspiration to women to help them pursue their ambitions. Dr. Richa Yadav (Faculty Advisor)

DEPARTMENT OF MECHANICAL AND AUTOMATION ENGINEERING

The Department of Mechanical & Automation Engineering was established in 1998. The Department offers B.Tech in Mechanical & Automation Engineering, M.Tech in Robotics Automation & Ph.D in different specializations of Mechanical & Automation Engineering.

The Department has highly qualified and experienced Faculty and Staff members. The faculty is actively involved in various research and professional activities along with dedicated teaching. All Faculty members have been contributing to research and development in form of patents and publications in reputed peer reviewed journals.

A number of MNCs have been collaborating with the Department and have contributed to Research & Development. Every year meritorious students secure admission to the programs offered by the Department. The Ph.D scholars have been applying for government grant for research and have also received favorable response with grants sanctioned.

The students and faculty members have been actively participating in National and International Conferences and have research contributions in areas such as Design Engineering, Robotics, CAD/ CAM/ CIM, Mechatronics, Automation, Computational Engineering, Advance Manufacturing Systems, Automotive and IC Engines.

The Department has a very active student Chapter under the aegis of Society of Automotive Engineers (SAE) and American Society of Mechanical Engineers (ASME). Students of MAE department have been participating in many car design competitions such as Baja, Supra, Effi- cycle and Shell Eco Marathon and have been bringing laurels to the University. Industrial visits, workshops and expert lectures are regularly organized and receive active students Participation.

Lab Infrastructure

Department provides Laboratory infrastructure for the smooth conduct of practical session for the following courses:-

- CAM Lab
- CAD Lab
- Robotics Lab
- Mechatronics Lab
- Engineering Measurement and Metrology Lab
- Manufacturing Technology Lab
- Central Workshop
- Engineering Graphics Lab
- Fluid Mechanics Lab
- Metal Cutting Tool Design Lab
- Automobile Engineering Lab
- Theory of Machines Lab
- Engineering Mechanics Lab
- Quality Control and Quality Assurance Lab
- Refrigeration and Air-conditioning Lab
- Thermal Engineering Lab
- Project Workshop

Workshops and Short Term Program (STPs)

- A one week short term training program for Faculty development in ICT mode titled 'Modeling and simulation using MATLAB in collaboration with NITTTR, Chandigarh was organized from 20th May, 2019.
- A one week short term training program for Faculty development in ICT mode titled 'Advances in Manufacturing' in collaboration with NITTTR, Chandigarh was organized from 14th January, 2019.
- A Seminar in collaboration with M/s APTRON Noida was organized on 26th March 2019 on topic "Role of IoT in Manufacturing".
- ASME collegiate club of IGDTUW in collaboration with Competences Factory and Aious Formula Student, the official Formula Student team of IGDTUW organized a two day workshop on Engine Electronics, Electricals and ECU control strategies on 6th and 7th April, 2019.
- A workshop on Solid Works (Mechanical Modeling and design software) was conducted in Department in collaboration with M/s Ducat Technologies, for B.Tech students, on 22nd August 2019.
- A 2-days workshop on Humanoid Robots was organized for students of B.Tech and M.Tech on 6th & 7th September 2019, in collaboration with M/s Finland Labs.

Aious Formula Student Society Activity

The Aious Formula Student-2018 is a team of highly dedicated and motivated students pursuing Mechanical and Automation Engineering from Indira Gandhi Delhi Technical University for Women (IGDTUW) . The Aious Formula Student from IGDTUW participates in two major competitions in the country every year namely SUPRA SAEINDIA and Formula Bharat (an international competition). Formula Bharat is one of the most coveted engineerings design competition, which is solely for Formula Style Vehicles.

The Aious Formula Student-2018 team from IGDTUW successfully participated in Formula Bharat 2018, which was organized at Kari Motor Speedway in Coimbatore, India. In which the students conceptualized, designed and fabricated a formula style student vehicle so as to put their learning into the application. In the competition, the team was committed to work sincerely and excel together. The objective of the team was to make simple, low weighted car that fulfilled all the rules mentioned in the competition rule-book.

The major responsibilities in the competition were taken up by Ms. Ayushi Aggarwal (Team Captain)- third-year student under the able mentorship of Mr. Vivek Chawla (Faculty Advisor). In order to compete for the design and fabrication of vehicle, the team members were delegated responsibilities to look after activities of following departments – Engine and Transmission, Brakes, Vehicle Dynamics, Chassis, and Steering.

In Formula Bharat 2018 the Aious Formula Student team participated in three prominent static events:

- **Cost competition event**

  A cost report which including the costs of all the parts of the car from rack and pinion to wheel assembly, engine etc was submitted and presented in the competition. The main objective of cost competition event is to present the detailed expenditure incurred in the overall fabrication of the vehicle and to explain how the vehicle is cost-efficient. The Aious Formula Student-2018 secured 34th position in cost competition event.

- **Design competition event**

  The competition being chiefly an engineering design competition, the team was required to submit a design report and explain all design considerations, parameters, and analysis. The Aious Formula Student-2018 secured the 20th rank in design competition event out of 66 participating international teams. The design of the vehicle was highly appreciated by the panel of judges. The judging panel of the design competition event was invited industry professionals from all a cross the globe.

- **Business Logic Case**

  The team presented a report which comprised of the innovative ideas based on the practicality grounds to persuade investors to invest in their prototype for its real-time mass production. The team secured the 33rd rank in this event. The vehicle cleared the technical scrutinizing but due to a shortage of time, the team could not participated in the dynamic event.

  The Aious Formula Student-2018 was among the top 20 teams who could clear the Technical Scrutinizing. The design received many positive remarks from eminent personalities like Pat Clarke (Australian Motor Sport) and Claude Rouelle (Optimum G) and the stark improvement from previous year's vehicle design was commended by them. The business logic case also received many positive remarks and the marketing strategy and presentation skills were highly appreciated.

Research Publications

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- Hussain, M. Z., Khan, U., Jangid, R., & Khan, S. (2018,). “Hardness and wear analysis of Cu/Al2O3 composite for application in EDM electrode.” In IOP Conference Series: Materials Science and Engineering (Vol. 310, No. 1, p. 012044). IOP Publishing.

- Aasiya Parveen, Nathi Ram Chauhan and MohdSuhaib, “Study Of Si3N4 Reinforcement On The Morphological And Tribo-Mechanical Behaviour of Aluminium Matrix Composites, Materials Research Express, Volume 6, Number 4, 2019.

- Priyanka Singh, Nathi Ram Chauhan and Rajesha S., “Influence of Cobalt, Iron and Copper on Microstructure and Mechanical Properties of Alumina/SiC Nano-Ceramic Composite”, Materials Research Express, Volume 6, Number 6, 2019

- Neha Deepak Saxena and Nathi Ram Chauhan, (2019.) “Nanomaterial in Lubricants-A Real Approach”, Advances in Interdisciplinary Engineering, Lecture Notes in Mechanical Engineering, Springer Nature, Singapore Pte Ltd https://doi.org/10.1007/978-981-13-6577-5_82,.
- Tanvi Sharma and Nathi Ram Chauhan, “A Critical Review on Calibration of Robots”, Advances in Interdisciplinary Engineering, Lecture Notes in Mechanical Engineering, doi.org/10.1007/978-981-13-6577-5_65,Springer Nature Singapore Pte Ltd. page 1-9, 2019.
- Preeti Rani and Nathi Ram Chauhan, (2019) “Coal Mine Rescue Robot Simulation Using V-Rep andPython”, Advances in Interdisciplinary Engineering, Lecture Notes in Mechanical Engineering, Springer Nature Singapore Pte Ltd. doi.org/10.1007/978-981-13-6577-5_71,
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- Manish Saraswat and Nathi Ram Chauhan, “Environmental Impact of Butanol and Algae Oil addition in Gasoline at different Compression Ratio”. Journal of Scientific & Industrial Research, Vol. 78, 2019.
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- T.Chaudhary, A.N.Siddiquee, A.K.Chanda, effect of process parameters on dimensional deviation of totanium alloy minaiture gear manufactured by wire EDM machining, Eighth International Conference on Advances in Civil, Structural and Mechanical Engineering CSM, 2019.
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- Rashmi Sahni, Yusuf Parvez, N R Chauhan (2018).Fabrication and Repeatability Analysis of 3 Link Robotic Arm Used for Color Inspection. International Journal of Research and Analytical Reviews 5 (3), 55-64
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DEPARTMENT OF INFORMATION TECHNOLOGY

The Department of Information Technology, founded in January 2010 is the fastest growing department. The department has shown incomparable innovation, research aptitude, intellectual talent, technical skills, and problem solving skills through active participation of faculty, research scholars and students. Since its inception, the department started a four year B.Tech. (IT) programme in 2010 and a three year post graduate programme in Computer Applications (MCA) in 2011 to nurture talent in the field of Information Technology through IT solution development. With information technology at the peak, there also comes a need of securing the IT environment, hence the department launched a Post-graduate program in Information Security Management (M.Tech. ISM) in 2013 to provide knowledge base and work force with requisite expertise to cater to the needs of industry and information technology in enhancing the security dimension of IT and cyber world.

To exemplify research and development, the department started the doctoral program in 2014 and currently 10 research scholars are pursuing the research work in the department. The department has launched an M.Tech. (Information Communication Technology) part-time programme for working professionals from the academic year 2016-17. The department believes in continuous learning and therefore, hosts various Workshops, Faculty Development Program, Conference, Seminars and expert talk sessions on regular basis. The department encourages the students to participate in the various conferences, workshops and other competitions to hone their technical expertise. Technical events like Espectro, Advaya have been successfully conducted by the department under the aegis of ACM Society since 2011.

The Department has a very strong industry institute linkage. It has signed several MoUs with leading IT industries and Research Organization including CISCO & NASSCOM Foundation for running thingQbator Program, IBM (India) Pvt. Ltd. for technological up-gradation of the students and faculty members in the emerging IT fields and Cyber Peace Foundation for promoting Research & Development activities in the field of Cyber security and forensics.

Department is very active in organizing several technical events for the overall holistic development of the students. Recently, it organized an International Conference on Artificial Intelligence and Machine Learning (AIST 2019), which was attended by several acclaimed researchers and academicians from across the globe including Japan, Hungary, Czech Republic, Myanmar and others.

NASSCOM Foundation has established an state of the art IoT Lab to run CISCO's thingQbator program with an equipment grant of approximately 65 Lacs More than 100 students have already been trained under this program on various latest technologies including IoT, cloud, Machine Learning and others by NASSCOM Foundation and its implementation partners.

Lab Infrastructure

The Department has a state-of-the-art, centrally air conditioned Computer Centre with newly procured high-end configuration computing systems. In addition, there are Software Design Lab, Distributed Computing Lab and Information Security Lab to address the growing computing needs of the students at the Department. The labs are equipped with around 180 latest configuration computer systems i.e. Intel® Core TM i5 and i7 processors to meet the computing needs of the students. The department houses a library of its own to provide focused and concentrated access to the learning material in the field of Information Technology to its students, faculty members and staff. Department has recently established a Software Development Cell to cater the software development requirement of various departments and divisions of the University. Many useful applications including Recruitment Portal, Examination Portal, University website and others have been developed by the students and the faculty members of the Department.

Ongoing Projects

Department of IT awarded with a project grant of 65.30 lacs from DeitY under ISEA project

Phase- II and the following labs have been established under the project grant:-

- Cyber Forensics Lab: The lab is equipped with FRED Server and Net Force Suite -a forensic suite developed by C-DAC.
- IoT Lab : The lab has been equipped with real time test bed "SenseNuts: IoT Platform for Excellence" for experimenting sensor for IoT applications

The Objective of the ISEA Project includes capacity building in the area of information security to address the human resource requirement of the country, training of government personnel and creation of mass information security awareness targeted towards academic users, general users and government users.

The department has already provided the security cyber security awareness education to 300 students in last academic year.

Chief Investigator: Prof. R.K Singh, Co. Chief Investigator: Dr. A.K Mohapatra

Research Publications

- Pooja Dehraj, Arun Sharma, P S Grover, "Incorporating Autonomicity and Trustworthiness Aspects for Assessing Software Quality," International Journal of Engineering & Technology, Vol 7, Iss. 1.1, 2018, pp: 421-425 (SCOPUS), 2018.
- Neha Bansal, R K Singh, Arun Sharma, "An Insight into State-of-the-Art Techniques for Big Data Classification", International Journal of Information System Modeling and Design (IGI Global), Vol. 8, Iss. 3 (SCOPUS) 2018
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DEPARTMENT OF APPLIED SCIENCES & HUMANITIES

A strong high-rise building can be built only on a strong foundation, which signifies the importance of the Department of Applied Sciences and Humanities (ASH). The vision of the department is to become a centre of academic excellence for professional and higher education in Applied Sciences, Management, and Humanities along with a renowned research centre with cutting edge technologies and state-of- the-art infrastructure.

The Department provides and imparts quality education in the area of Physics, Chemistry, Mathematics, Soft Skills & Communication and Management to the future technocrats of all streams. Strong engineering background supported with sound knowledge in basic and applied sciences equips graduates with many skills that would contribute to their success in academics, research and industry.

The Department of Applied Sciences and Humanities has highly qualified faculty known for their academic excellence and enthusiastic R&D in thrust areas leading to a large number of research publications in reputed international and national journals. The Department has undertaken several sponsored projects funded by CSIR, DST and UGC etc. There are currently thirteen registered research scholars involved in active research for Ph.D. under different faculty members of the department. Five Research Scholars have successfully completed their Ph.D. degrees under the guidance of faculty supervisors in Chemistry and Physics. The department has well equipped laboratories with the latest equipments to support teaching and research activities for undergraduate, post graduate and doctoral programs.

Lab Infrastructure

- Applied Physics Lab I
- Applied Physics Lab II (Optics Lab)
- Applied Chemistry Lab
- Environmental Studies Lab
- Nano materials and Thin Films Lab
- Environmental Analysis and Research Lab
- Digital Image and Speech Processing Lab

Technical Activities

- A Talk on "Challenges in Inter-Disciplinary Research Projects" was delivered by Dr.Ravinder Pal, Scientist G, SSPL, DRDO on 26th October 2018 in the Department. of ASH.

  This talk was aimed at encouraging young researchers to adopt interdisciplinary approach and take up emerging research problems. The speaker included following topics in his brief talk.

  - Examples of interdisciplinary approach leading to innovations
  - Holistic research methodology for the inter disciplinary projects
  - Design of Experiments
  - Analytical tools and methodology

FDPs Organised

Department of Applied Sciences and Humanities & Research Wing in collaboration with NITTTR organised a Short Term Programme "Innovation and Research Areas in Science and Technology (ICT 6)" during 27th May, 2019 - 31st May, 2019 at NITTTR Chandigarh.

On-going Sponsored Projects

- "Estimates of Indoor Air pollutants emitted from fuels used in residential sector of Northern India", funded by CSIR, New Delhi, Funding received: Rs.l8 Lakhs. Principal Investigator: Dr Ranu Gadi.

- "Investigation on Optical Properties of Si-ZnO Nano composites" funded by UGC, New Delhi, Funding received: Rs.8.5 Lakhs.
  Principal Investigator: Dr Chhaya Ravikant.

- "Study of surface plasmons in nanocomposite thin films"
  Co-Principal Investigator DST Nanomission, funded by DST Rs. 12.80 Lakhs. Principal Investigator: Dr Chhaya Ravikant.

- "Multi-aperture Imaging", funded by DST, New Delhi, Funding received:- Rs. 05 lakhs.
  Principal Investigator: Dr Dinesh Ganotra.

- "Panoramic Imaging", funded by UGC New Delhi, Funding received: Rs. 05 Lakhs. Principal Investigator: Dr. Dinesh Ganotra.

Patents Granted

The following Indian patents have been granted, by Patents Authority of India, in collaboration with National Research Development Corporation of India:

- "A method of depositing thin films of metals and non metals" Patentee: Prof. M. P. Srivastava, Savita Roy and Chhaya Ravikant, Patent No. 232763, Dt: 21/03/2009.

- "A method of depositing thin films of non metals" Patentee: Prof. M.P. Srivastava, Savita Roy and Chhaya Ravikant, Patent No. 2181 10, Dt: 31/03/2008.

International Research Collaboration

Atmospheric Pollution and Human Health in an Indian Megacity

Megacity Delhi Atmospheric Emission Quantification, Assessment and Impacts (Delhi Flux) IGDTUW is an official Collaborator in the project.

This project is under Indo-UK partnership to facilitate cooperation between the UK and Indian Earth System Science and Environmental Research Communities. Project is a part of Ministry of Earth Sciences (MOES) and Natural Environment Research Council of the UK (NERC) Implementation agreement on Atmospheric Pollution and Human Health in an Indian Megacity (APHH). An MoU has signed between IGDTUW and United Kingdom Research and Innovation, Centre for Ecology & Hydrology (CEH), UK for campaign-based measurements of pollutant fluxes (Delhi Flux) and longer-term measurements of PM1 concentrations in Delhi (SUNRISE).

Faculty Achievements

Dr.Ranu Gadi has visited CEH and University of Birmingham, UK from July 15-20, 2019 to discuss research outcomes of the collaborative research project-Atmospheric Pollution and Human Health in an Indian Megacity, Delhi.

Student Achievements

- Ms. Shivani, PhD scholar, has visited University of Birmingham as visiting research student under India Institute Fellowship Scheme during May-July 2019.
- IGDTUW OSA Student chapter is a student-led team of enthusiastic students sharing the common interest to explore Optics and Photonics. This student chapter was founded in the year 2018 under the flagship of its umbrella organization "OSA" and represents the student body of OSA at IGDTUW. The Optical Society of America (OSA) is a USA based scientific community which was established in 1916 to promote and enhance the knowledge in pure and applied fields of Optics; to foster and nurture the common interests of investigators, designers and researchers working on optical problems and to encourage cooperation among them. Since its inception; The OSA has been the world's leading organization in Optics and Photonics, helping the researchers, scientists and educators to archive, disseminate and advance the science of light and to foster and promote their technical and professional development by addressing the ongoing need for shared knowledge and innovation.

  The IGDTUW OSA student chapter also has similar interests. This society is intended to encourage and nurture the educational, scientific and technical interests of students of our university, who wish to explore the area of optics and photonics.

  The objectives of this chapter are to promote awareness of optical science and optical engineering among the students, to facilitate communication and interaction between students and Optical Society of America with a focus on information sharing, networking with research professionals, and to raise awareness about various travel, research and professional networking grants available for student.

Presently, this society is officiated by a core team of passionate students Shivani Singh, Prashi Doval, Siddhi Mishra, Muskan Gupta, Yukta, Deepshikha Prakash, Unnati, Pravesh and its founding members. IGDTUW OSA student chapter gives students the opportunity to spend their extracurricular time to explore the area of optics and learn the science of light by doing some interesting and creative activities.

Apart from conducting routine activities such as quiz, workshops and hands on demonstration events, this chapter has also taken initiatives to involve students in research right from the beginning of their undergraduate studies to inculcate innovation and research among them. This society is a perfect platform to explore oneself globally; members of the society come across various opportunities to attend the international conferences, which are funded by OSA authorities.

- We received 350USD as chapter Start-up grant from "OSA" for managing and fostering the chapter activities.

Journal/Conference Publications

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- Shivani, Ranu Gadi, Mohit Sharma, S.K. Sharma, T.K. Mandal, "Short Term Degradation of Air Quality during Major Firework Events in Delhi, India," Meteorology and Atmospheric Physics (Springer), 131(4):753-764, DOI : 10.1007/s00703-018-0602-9, 2019.
- Vijay Bahadur Yadav, Ranu Gadi, Sippy Kalra, "Clay based nanocomposites for removal of heavy metals from water: A Review," J. of Environmental Management (Elsevier), 232 803–817, 2019.
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- Shivani Sukhralia, Mansi Verma, Shruthi Gopirajan, P S Dhanaraj, Rup Lal, Neeti Mehla and C.R Kant "From dengueto Zika : the widespread of mosquito-bornearbo viruses" European Journal of Clinical Microbiology & Infectious Diseases DOI: 10.1007/s10096-018-3375-7, Sept. 2018 Impact Factor: 2.722.
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- "An overview of optical flow based approaches for motion segmentation," Shivangi Anthwal and Dinesh Ganotra, The Imaging Science Journal, Volume 67, Issue 5, 2019. Pages 284-294.
- Lalita Aggarwal, Dinesh Ganotra, "Suppression of parasitic lasing and inter pulse self-pulsing in a Pulsed Erbium-Ytterbium Co-Doped Fiber Amplifier," 2019.
- "Single Image Reflection Removal with Deep Residual Block Network on Benchmark Rose dataset", Rashmi Chaurasiya, Dinesh Ganotra. International Conference on Signal Processing, VLSI and Communication Engineering , March 2019.
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- Bhavani P. Nenavathu, Aarti Sharma, Raj Kumar Dutta, "Se doped ZnO nanoparticles with improved catalytic activity in degradation of cholesterol", J Water Environ Nanotechnol, 4, 289-300, 2018, (Journal)

DEPARTMENT OF ARCHITECTURE AND PLANNING

The Department of Architecture & Planning (DAP) opened its wings in the year 2015 with a Bachelor's Degree program in Architecture (B. Arch.) having an intake of 40 young creative minds each year. The course is approved by Council of Architecture. The students have to qualify JEE mains (Paper 2) and apply through JAC for admission

The Department has a remarkable Infrastructure with well-lit Classrooms, Design Studios, well-equipped Labs in Climatology, Surveying and Leveling, and a Computer Center with latest software tools. The teaching pedagogy involves indoor and outdoor teaching, academic tours and industrial visits, hands-on working and learning experience in the departmental workshops for carpentry and metal, model making and also a construction yard. The Library is well equipped with latest books and journals and has access to e-learning resources. There is also a material museum which houses various industrial materials for a visual learning experience. The entire campus is Wi-Fi- enabled.

The teaching environment in the Department is known for discovering extraordinary ideas and extraordinary people. The courses are designed to promote capacity building and knowledge sharing. The curriculum of the Department is comprehensive and integrated across relevant subjects. To promote inter-disciplinary learning, students are given the option to opt for various electives across the engineering branches also, like Artificial Intelligence.

The department is known for its ground breaking research and generating unexpected outcomes. The faculty is constantly available in the campus for iterative academic growth and overall development of students. Students are encouraged to discover new ways of thinking and problem solving. Students are also encouraged to participate in extra-curricular activities and societies pertaining to cultural and alternate skill development programs. Time management exercises and team leadership qualities are also promoted. The department believes that their contributions in the field of Architecture & planning can generate real and productive changes in the world.

Lab Infrastructure

The following facilities of the Department are being setup:

- Climatology Lab
- Material Museum,
- Resource Room

The following facilities have already been setup:

- CAD lab
- Survey lab
- Carpentry and Metal cutting workshop
- Foundry and Clay modeling workshop

Student Activities

- Visit to National Gallery of Modern Art, New Delhi.
- Visit to Rashtrapati Bhavan, New Delhi.
- Workshop on Timber Joinery: Carpentry.

- Six day Educational Tour to Ahmedabad, Bhuj and Kutch, Gujarat for 2nd year B. Arch Students, IGDTUW.
- Students of 1st and 3rd year from B. Arch, IGDTUW, successfully complete settlement study of Sari Village, Rudraprayag, Uttarakhand.

DAP Student Participation in NASA (National Association of Students of Architecture)

- Students from DAP, IGDTUW participated in National Association for Students of Architecture (NASA) competitions. IGDTUW qualified for annual NASA Event as it was placed within top 100 institutions across nation. In 2018-19 zonal NASA, IGDTUW was placed in top six institutes amongst 55 competing institutes.
- A Final year B.Arch. student won first prize in Urban Design Workshop and fourth year student won first prize in Cinematography. Students of Second year B.Arch. Program won Fashion trophy
- Students of fourth year won second prize (special mention) in highly prestigious Zonal design competition.

UNIVERSITY INFRASTRUCTURE

Learning Resource Centre

Learning Resource Centre (LRC) serves as the premier source of academic information for the university community through its rich collection of textbooks, journals and reference material. The LRC has a focused collection of print, electronic, and audio-visual material in the areas of science, engineering, technology, technical communication and management to support the learning and research activities of students and faculty. A Book Bank facility is offered to all the students who are enrolled in any of the programs offered at the university campus. All the journals are available online to the members of the LRC in campus LAN. The Digital Library section has e-material like CDs, DVDs and digital thesis of final year students and is available through Open Source Institution Repository Software within the campus premises. Online Public Access Catalogue (OPAC) is available at university's intranet. User 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.

University IT Services

IT Services under Planning & Development Division, provides NKN and Internet services to the various Departments of the University and Krishna & Kaveri Hostels 24x7. Around 500 computers installed in the campus are connected with a local area network which is being managed and maintained by IT Services Division.

IGDTUW Campus is recently upgraded its IT Infrastructure through high-end intelligent CISCO switches, and possesses round the clock 1 Gbps NKN leased line and a 50 Mbps MTNL leased line in a different OFC for the LAN wired & Wi-Fi connectivity for the academic, administrative and hostel blocks of the campus, with internet facilities on all the nodes through 10 Gbps LAN optical fiber connectivity. Around 550 Computers, 85 Printers etc are connected with Local area network which is being managed and maintained by Planning and Development Division.

IGDTUW campus is a fully Wi-Fi campus, all areas of campus are covered with Outdoor and Indoor wireless access points which are working 24x7 for providing seamless wireless internet connectivity to users through Security Firewall with authentication of every user in campus.

Hostel Facilities

The University has two women hostels - Krishna Hostel and Kaveri Hostel, to accommodate approximately 390 students. These two hostels are located in the University campus. These hostels provide a safe, secure and clean environment for the students to grow, learn and mature in the society away from their own homes. The hostel authorities always facilitate creation of an environment for the students to study, do well in their academics and future career.

Hostel accommodation is allotted to full-time bonafide students of IGDTUW satisfying the eligibility criteria for hostel admission subject to availability. The allotment of accommodation in the hostel is made on the basis of IGDTUW Hostel Rules and Regulations as mentioned in the hostel brochure.

Developmental activities in the Krishna and Kaveri Hostels

Both the Hostels of the University has been renovated with state of art facilities to the residents. All rooms are on twin/triple sharing basis and are equipped with individual beds, chairs, built-in cupboards and study tables. In addition to this, IGDTUW Hostels provide purified drinking water, housekeeping services, wi-fi facility, newspaper/magazines, TV, Washing machines, facilities of hot water for residents, paid laundry services etc. The residents use the campus play ground for games like Basket Ball, Badminton and skating. An indoor table-tennis court and badminton court also exist in the hostel premises for the residents. The hostel has its own gymnasium for residents and a Cooperative General Store with items for day to day needs of the hostel residents.

CAMPUS PLACEMENTS

Departments of Information Technology, Computer Science & Engineering and Electronics & Communication Engineering

The Placement records of the University are indicative of the prodigious talent exhibited by the students of the University in technical and non- technical spheres. Every year, the figures are on rise and are setting a new benchmark for measuring the competence and industry relevance of the brightest minds of the University. We are extremely proud of having partnered with some of the leading names such as LinkedIn, Macquarie Group, and Directi, for the first time in 2018-19.During the recruitment drive, students participated on campus and off campus and over 379 offers with prestigious positions in various leading firms. The highest CTC of around 40 Lakh was offered by Microsoft IDC to 6 students as full time employment offers.

The placement protocol has been wisely planned and laid down to make the recruitment process hassle-free and productive for the organizations. The stringent placement policy at IGDTUW ensures fine offer acceptance and joining ratio at the firms. Also, hiring from an all women's university improves the gender ratio and enriches the organization with unique skills and prowess.

IGDTUW 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 to promote holistic learning.

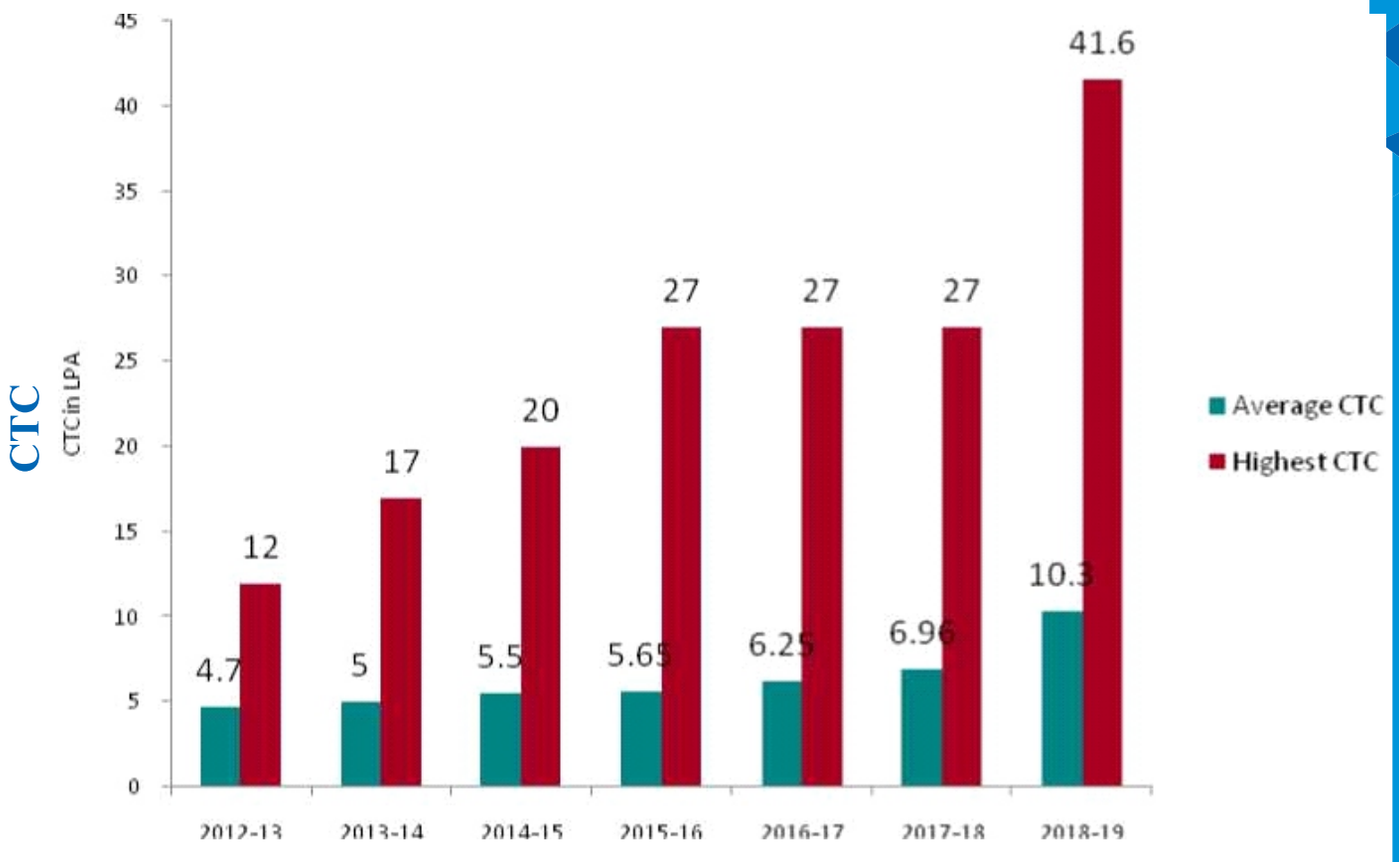
The Training and Placement cell beams with pride announcing that the Placement Season 2018-19, witnessed about 379 offers, comprising of 253 full-time offers and 126 summer internships. Some of the internship offers in the recent past are highlighted in the table below.

Department of Mechanical & Automation Engineering

Placements of the students of Mechanical and Automation Engineering Department in the University are immensely encouraging. Every year, the placement and internship offers are increasing The Department of Mechanical and Automation Engineering of the University is well associated with reputed companies like Exxon Mobil, Maruti Suzuki, Honda, Bajaj Automobile, MG Motor, TechnipFMC, Baxter, Tata Motors, Saint Gobain, Nestle, Eaton, HUL, Ather Energy, Siemens, Honeywell, Cameron, McDermott, Fluor Daniel. ISGEC, NBC Bearing and many more.in 2018-2019, there were was more then 49 FT Offers.

Internships with government bodies and various MNCs are encouraged for more holistic learning and hands-on practical exposure. Reputed companies like Honeywell, Siemens. Saint Gobain. Eaton etc. have selected our students for Internships and have appreciated their enthusiasm and learning approach.

Year-wise Average CTC and Highest CTC Comparison



Bar-Chart for Year-wise Average CTC and Highest CTC Comparison

PLACEMENTS AT A GLANCE

Sr. No	Comapany Name	FT/ Internship	Eligible Branches	CTC Offered (in Lakhs)	Stipend per month to intern (Rs)	No. of FT	No. of Internship
1.	Accenture	FT	B.Tech (All Branches),	6.5/4.5		28	
2.	Adobe	Internship	B.Tech(All Branches), M.Tech(All Branches), MCA		50,000		3
3.	Altran	FT	B.Tech (CSE, ECE,IT), MCA, Mtech (ISM, MPC)	4.5 (M.Tech), 3.5(MCA)		2	
4.	Amazon AWS	FT	B.Tech (CSE, ECE,IT)	19.0		2	
5.	Amazon SDE	FT+ Internship	B.Tech (CSE, ECE,IT)	30.25	70,000	1	1
6.	American Express	FT+ Internship	B.Tech, M. Tech (All Branches), MCA	13.27	70,000	5	5
7.	ARM	Internship	B.Tech (CSE, ECE,IT)		45,000		5
8.	Ather Energy	FT	B.Tech (All Branches)	7.0		4	
9.	Baxter	FT	B.Tech (All Branches)	10.0		12	
10.	Cisco	FT+ Internship	B.Tech, M. Tech (All Branches), MCA	29.0	60,000	14	14
11.	Cisco	FT+ Internship	B.Tech (All Branches), M.Tech (All Branches), MCA	24.5	50,000	1	4
12.	Comviva	FT	B.Tech (CSE,ECE,IT)	6.63		3	
13.	Craterzone	FT+ Internship	B.Tech (CSE,ECE,IT)	3.6	50,000	1	1
14.	Cvent	FT	B.Tech(All Branches), M.Tech(All Branches), MCA	15.1		1	
15.	Cyber Group	Internship	B.Tech(All Branches), M.Tech(All Branches), MCA		20,000		3

Sr. No	Comapany Name	FT/ Internship	Eligible Branches	CTC Offered (in Lakhs)	Stipend per month to intern (Rs)	No. of FT	No. of Internship
16.	Dell	FT	B.Tech (All Branches), M.Tech (All Branches), MCA	8.0		32	
17.	Deutche Bank	FT+ Internship	B.Tech (All Branches), M.Tech (All Branches), MCA	14.3	50,000	4	6
18.	EagleView	FT	B.Tech (CSE,ECE,IT)	11.0		1	
19.	Eaton	Internship	B.Tech (All Branches), M.Tech (All Branches), MCA		10,000		2
20.	Elucidata	FT	B.Tech (CSE,ECE,IT)	7.0		1	
21.	Ericson	FT	B.Tech (CSE,ECE,IT)	5.75		14	
22.	Expedia	FT+ Internship	B.Tech (All Branches), M.Tech (All Branches), MCA	12.83	35,000	7	5
23.	Flipkart	FT+ Internship	B.Tech(All Branches)	23.84	50,000	5	4
24.	Fractal Analysis	FT+ Internship	B.Tech (CSE,ECE,IT)	10.5	20,000 (M.Tech), 10,000 (MCA)	3	4
25.	Goibibo	FT	B.Tech), M. Tech (All Branches), MCA	18.0		6	
26.	Goldman Sachs	FT+ Internship	B.Tech(M. Tech (All Branches), MCA	23.0	75,000	12	13
27.	Google	FT+ Internship	B.Tech (All Branches), M.Tech(All Branches), MCA	30.0	93,000	2	2
28.	Grofers	FT	B.Tech (CSE,ECE,IT)	16.0		3	
29.	Harman	FT	B.Tech (CSE,ECE,IT)	9.0		1	
30.	IBM	FT	B.Tech (CSE,ECE,IT)	7.5/7.85		11	

Sr. No	Comapany Name	FT/ Internship	Eligible Branches	CTC Offered (in Lakhs)	Stipend per month to intern (Rs)	No. of FT	No. of Internship
31.	InfoEdge	FT	B.Tech(All Branches)	12.5		5	
32.	Intuit	FT+ Internship	B.Tech (All Branches), M. Tech(All Branches)	25.16	60,000	4	3
33.	Ion	FT	B.Tech(All Branches)	12.0		1	
34.	Jaro	FT	B.Tech (CSE,ECE,IT)	12.0		1	
35.	Kronos	FT	B.Tech(All Branches), M.Tech(All Branches), MCA	15.35		5	
36.	Libsys	FT	B.Tech (CSE,ECE,IT)	5.0		1	
37.	LinkedIn	Internship	B.Tech CSE/IT/ECE		40,000		3
38.	Macquarie	FT	B.Tech (CSE,ECE,IT)	11.0		4	
39.	McKinley and Rice	FT	B.Tech (CSE,ECE,IT)	5.0-8.0		4	
40.	Media.Net	Internship	B.Tech, M. Tech (All Branches), MCA		1,00,000		1
41.	MG Motors	FT	B.Tech (CSE,ECE,IT)	6.0		6	
42.	Microsoft IDC	FT+ Internship	B.Tech(All Branches)	43.3	80,000	8	12 + 3
43.	Mobikwik	FT	B.Tech (CSE,ECE,IT)	8.5		4	
44.	Mobiquel	Internship	B.Tech (CSE,ECE,IT)		10,000		2
45.	Morgan Stanley	Internship	B.Tech, M. Tech (All Branches), MCA		87,000		1 (6 months) + 2 (2 months)
46.	MyKaarma	FT	B.Tech (CSE,ECE,IT)	29.0		1	
47.	Myntra	Internship	B.Tech (CSE,ECE,IT)		10,000		8
48.	Nagarro	FT	B.Tech (CSE,ECE,IT)	4.0		1	
49.	NetApp	Internship	B.Tech, M. Tech (All Branches), MCA		35,000		5

Sr. No	Comapany Name	FT/ Internship	Eligible Branches	CTC Offered (in Lakhs)	Stipend per month to intern (Rs)	No. of FT	No. of Internship
50.	Newgen	FT	B.Tech (CSE,ECE,IT)	4.25		5	
51.	NIIT	FT	B.Tech (CSE,ECE,IT)	3.5		4	
52.	Optum	FT	B.Tech (CSE,ECE,IT)	7.15		18	
53.	Oracle	FT	B.Tech(All Branches)	9.0		14	
54.	Orange	FT	B.Tech (CSE,ECE,IT)	8.5		3	
55.	Philips	FT	B.Tech(All Branches)	7.5		10	
56.	PwC	FT	B.Tech (CSE,ECE,IT)	5.86		6	
57.	Salesforce	FT+ Internship	B.Tech(All Branches), M.Tech(All Branches), MCA	31.8	75,000	3	3
58.	Samsung	FT	B.Tech (CSE,ECE,IT)	12.0		2	
59.	Sandisk	FT+ Internship	B.Tech(All Branches), M.Tech(All Branches), MCA	18.0	35,000	7	8
60.	Sap Labs	FT+ Internship	B.Tech(All Branches), M.Tech(All Branches), MCA	20.6	35,000	7	8
61.	Sapient	FT	B.Tech (CSE,ECE,IT)	5.0		3	
62.	Sheroes	FT+ Internship	B.Tech (CSE,ECE,IT)	9.0	35,000	3	2
63.	Synopsis	FT	B.Tech (CSE,ECE,IT)	13.0		2	
64.	Tata Motors	FT	B.Tech(All Branches)	7.0		13	
65.	TCS Digital	FT	B.Tech (CSE,ECE,IT)	7.3		4	
66.	TCS Ninja	FT	B.Tech (CSE,ECE,IT)	3.5		10	
67.	ThoughtFocus	Internship	B.Tech(All Branches), M.Tech(All Branches), MCA		1000/day		5

Sr. No	Comapany Name	FT/ Internship	Eligible Branches	CTC Offered (in Lakhs)	Stipend per month to intern (Rs)	No. of FT	No. of Internship
68.	Thought Works	FT	B.Tech(All Branches)	8.0		3	
69.	ToTheNew	FT+ Internship	B.Tech (CSE,ECE,IT)	4.5	20,000	1	1
70.	Uber	FT+ Internship	B.Tech, M. Tech (All Branches), MCA	34.68	1,60,000	2	1
71.	VISA (Off-Campus)		B.Tech(All Branches)	15.39		1	
72.	Walmart	FT+ Internship	B.Tech(All Branches), M. Tech(All Branches)	18.5	50,000	16	11
73.	Wheelseye	FT+ Internship	B.Tech, M. Tech (All Branches), MCA	13.0	25,000	1	1
74.	Yamaha	FT+ Internship	B.Tech (CSE,ECE,IT)	6.0	10,000	1	1
75.	Bajaj Auto Ltd	FT	B.Tech MAE	9.0		3	
76.	Fluor	FT	B.Tech MAE	6.82		8	
77.	Honeywell	FT	B.Tech MAE	5.5		1	
78.	HUL	FT	B.Tech MAE	7.0		3	
79.	ISGEC	FT	B.Tech MAE	4.47		3	
80.	NBC Bearings	FT	B.Tech MAE	5.8		1	
81.	Siemens	FT	B.Tech MAE	5.0		5	
82.	Saint Gobain	Internship	B.Tech MAE		35,000		1
83.	Technip FMC	FT	B.Tech MAE + M.Tech	6.8			4

SPONSORED PROJECT CURIE GRANT BY DEPTT. OF SCIENCE & TECHNOLOGY

Ministry of Science and Technology devised a unique programme "Consolidation of University Research for Innovation and Excellence in Women Universities (CURIE)" in 2009 to provide state-of- the-art infrastructural support to Women Universities in order to strengthen as well as improve academic and research activities. So far, 6 such universities have been given grants-in-aid.

IGDTUW has been sanctioned a total grant of Rs.363 lakhs under the CURIE scheme of DST. The project grant includes Rs.250 lakhs for equipment items (non-recurring). The following equipments will be acquired department wise,

Department of Applied Science & Humanities:

- Fourier Transform Infrared Spectroscopy (FT-IR)
- Table Top Scanning Electron Microscope (SEM)

Department of Architecture & Planning:

- HPD-Helidion
- Thermal Imaging Camera
- 3D Printer for Advanced Modelling
- Digital Plant Canopy Imager

Department of Mechanical & Automation Engineering:

- Robotics Training Cell
- Pneumatic-Electro Pneumatic Training Kit,
- Pin-on-disc Tribo Tester
- Diesel Smoke Meter
- 4 Stroke Multi Fuel Engine
- Exhaust Gas Analyser

Department of Electronics & Communication Engineering:

- Sensors
- Image & Signal Processing Package

Department of Computer Science & Engineering & Department of Information Technology:

- Procurement of various Softwares

IGDTUW ANVESHAN FOUNDATION

Indira Gandhi Delhi Technical University for Women has promoted and incorporated a separate Section- 8 Company under the Company's Act 2013 to propagate entrepreneurial culture and ecosystem among women. IGDTUW-Anveshan Foundation is funded by Directorate of Training and Technical Education (DTTE), Government of NCT of Delhi and also recognized by Department of Science and Technology (DST), Government of India as Technical Business Incubator (TBI). All kind of facilitation in four phases of complete incubation and venture development cycle i.e. i) Pre-incubation, ii) Incubation, iii) Acceleration and iv) Post-incubation are provided by IGDTUW-Anveshan Foundation.

IGDTUW-Anveshan Foundation was incorporated on 13th October 2016. Dr. V K Arora has been working as the Chief Executive Officer of the company since its inception. Board of directors constitutes six directors who are senior faculty members from different branches of engineering and honourable Vice Chancellor of Indira Gandhi Delhi Technical University for Women; so that first mentoring to the start-ups aspirants can come from all the technical streams.

In Pre-incubation, activities related to Motivation, Ideation, Innovation, MVP, PoC, PoV, Feasibility, Prior Art, Intellectual Property Right, Pitching Deck, Business Plan and Presentation skills are provided to the participants by the IGDTUW Anveshan Foundation. There are total thirty student members in the E-Cell. Many activities and events have been organized by the E-Cell which include Workshops, Boot-camps, Hackathons, Industrial visits, Inter college-university competitions, Management Development Programs etc. CISCO has established complete IoT and robotics Lab 'thingQbator' for Innovation through its CSR funds in the year 2018. Total twenty seven projects in two cohorts have been completed under this initiative and more than 150 teams have registered for the third cohort.

Total nine private limited companies are working as start-up Incubatees with IGDTUW Anveshan Foundation. All of these incubatees are women enterprises. These companies are

- ETI Labs Private Limited; Director Ms. Manasi Mishra,
- CIEP Private Limited; Director Ms. Anusuya ` Khan,
- SteamEdu Learning Private Limited; Director Ms. Rashmi Tyagi,
- Provotex Resources Private Limited; Director Ms. Kanchan Kashyap,
- Nature Fabtech Private Limited; Director Ms. Sakshi Singhal,
- Skywalkers Techeducation Private Limited; Director Ms. Shivani Bakshi,
- Ease Studies Private Limited; Director Ms. Chesta Agarwal,
- Prarabdha Info Solutions Private Limited; Director Ms. Dipti Chourasia and
- Inforest Technologies Private Limited; Director Ms. Vaibhavi Sharma.

Details of all these incubatees along with their products are available on the website of IGDTUW Anveshan Foundation Incubation Center provides facilities for Company Incorporation, fully furnished air-conditioned office space, complete ICT and free consultancies in technical, business and strategic front to all of its incubatees. Seed Money of Rs. 35 lakhs has been sanctioned and allocated to these incubatees for their business development.

IGDTUW Anveshan Foundation has a pool of consultants and mentors associated with it to augment the businesses of its incubatees which is an essential part of Acceleration Phase. Support in marketing, regular product development, supply chain, franchise models and bargaining with Investors are provided by IGDTUW Anveshan Foundation. Incubation Center has also signed many MoUs with reputed organizations to accelerate and diversify businesses of its Incubatees through various channels including exchange programs overseas. After the incubation period, at the phase of post¬incubation hand holding support continues from Anveshan Foundation in consultancy, laboratories & innovation support and portfolio management. The details of participants for second batch of Incubatees is given below:

Participants Details of Activities Conducted by Anveshan Foundation

Sr. No	Applicant's Name	Project Name
1	Dinesh Ganotra	T-Safe
2	Sunanda Buddhi	Smart Pill Dispenser
3	Drishya Pathak	Rate your Hospital
4	Anusuya Khan	Urban Agriculture
5	Ruchika	Doo Prints
6	Mansi Malhotra	Neysa Designs
7	Samiksha Srivastava	OFIS
8	Jyoti Maurya	Avasa the band
9	Shikha Gill	Not in India Presently

NATIONAL AND INTERNATIONAL COLLABORATION WITH ACADEMIA AND INDUSTRY

In the last couple of years IGDTUW has witnessed a greater focus on building research facilities augmented by funding from various national and international funding agencies. Many new labs have been added in various departments during this year. Resources have been generated by the faculty through sponsored research projects 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.

IGDTUW is currently partnering with various universities to promote various forms of academic Collaborations with Institutions and Industries for improvement in performance of the students, knowledge updation of faculty, bridging the gap between Academia & Industry, better placements and higher studies opportunities for students. Some of our prestigious Collaborations are as follows:-

- IGDTUW has been selected by Department of Science and Technology, for building Centre of Excellence in Artificial Intelligence.
- United Kingdom Research and Innovation, Centre of Ecology & Hydrology, CEH, UK
- NASSCOM & CISCO for setting-up of thingQbator Innovation lab
- M/s. Flour Daniel for setting-up of Turning Lab under CSR Activities
- National Ping Tung University [NPTU], Taiwan for Research Collaboration, student and Faculty Exchange etc.
- Maykop State Technological University, Maykop Russia for Collaborative Research, exchange of Faculty, Students, Researchers and jointly organizing Symposia, Seminars and Conferences.
- Cyber Peace Foundation for setting up of Centre of Excellence in Cyber Security.
- Tie up with renowned BMW under CSR Activities
- EATON Foundation for internship placement and scholarships to the students etc.
- MoU with NEXUS Incubation Hub, American Centre for Incubation and Skill Development.
- MoU with Deutsche Gesellschaft fuir Internationale Zusammenabert (GIZ)

Collaboration with Delhi Govt. Departments

- Delhi Subordinate State Selection Board (DSSSB)
- Dept. of Vigilance
- Dept. of South Municipal Corporation of Delhi (SMCD)

AWARDS AND APPRECIATIONS

University Felicitation

- Recipient of ISO 9001:2015 Certification in the year 2019
- Optical Society of America (OSA) USA allocated 350 USD as Chapter Management and Start-up grant to IGDTUW OSA Student Chapter. An amount of $1500 USD under 2019 "Special Program Grant" was also awarded to the chapter for organizing National Conference on Smart Materials and Technologies tentatively scheduled during January 2020.
- IGDTUW was honored by AICTE with the Notable Mention Award – Delhi on the oc casion of Internship Day, held on 25th August 2018 for the efforts to help 60+ students find internship from April to July 2018.
- IGDTUW received Mrs. Rahatun Nesa Ali Memorial ISTE National Award for Best Women Engineering College of India, 2018 in the field of Technical Education.
- IGDTUW was conferred with an award from Indian Society for Technical Education for the Best Women Engineering College of India, 2018 to motivate the Women Engineers for the development of the nation through Women Empowerment

Faculty Accomplishments

- International recognition to Dr. Jasdeep Kaur Dhanoa, on being selected for "International Visitor Leadership Program (IVLP)" held in United States in the year 2019 to represent India.
- National felicitation to Dr. Seeja K. R. on receiving the 11th Innovative Education Leadership award for "Best Professor of Computer Science & Engineering at Mumbai.
- Provisional patent has been filled on "System and Method to determine Horticulture Diseases", by Prof. Ela Kumar, HOD CSE Dept. in 2018.

Student's Triumph-International Recognitions

- Shubhangi Misra was the only Indian women Hackathon participant who was invited to Facebook annual conference, F8 to participate in their Hackathon. She got two prizes, i.e. Global prize award of $10,000 and another regional award for the region of Senegal of $3,000
- Manmeet Kaur won the WeTech® Goldman Sachs Global Mentorship Program Award. She was one of the 45 students across nations, selected for Goldman Sachs Services Private Limited ("GSSPL" or "Goldman Sachs") and the Institute of International Education ("IIE")'s WeTech® Initiative of the Mentorship Award.
- Dhirti, Shreya Chabra and Riya have been offered an opportunity to attend Google I/O 2019 to be held at USA.
- Pooja was selected to attend 7th HEIDELBERG LAUREATE FORUM event in Germany which is organized by ACM and attended by Nobel Laureates and Turing Award winners along with world's top Computer Scientists and researchers.
- Harshita Kalsi bagged the Richard E.Merwin Student Scholarship for Spring 2019.

National Victories

- Swach Bharat Abhiyaan : Ms. Reshu Goel along with her team members, Kritika Bhardwaj, Stuti Jain, Harshita Singh, Ishita Thakur and Hansika Gupta represented IGDTUW and bagged the first position along with an award for Best Intern at the State Level by Ministry of Human Resource Development, Department of Higher Education, Government of India for Swachh Bharat Summer Internship (SBSI) Programme 2018 winning the cash prize of Rs. 50,000/- (Rupees Fifty Thousand Only) apart from the internship certificates.

Participation in Smart India Hackathons

- The duo team of Kopal Gupta and Itishree, B.Tech 4th Year won the First Prize under Goldman Sachs category.
- The team comprising of Richa Sharma, Priya Joshi and Nishita Malhotra won 2nd Prize in SIH-2019.
- Vidhi Jain of BTech IT 3rd Year won the Inspiration Award in the same Hackathon.
- The team FinTechies won 4th position with cash prize of Rs. 10,000 and Protsahan Award in SIH-2018 at Mumbai.
- The team Hurricane won 2nd runner-up award and cash prize of Rs. 50,000 in SIH-2018 at Indore.
- The team LinkedList won 3rd award and cash price of Rs. 50,000 in SIH- 2018, Mumbai.
- The team Crazy Techies won Innovation Award in SIH-2018, Kurnool.
- The team Hackstorm won KPIT Inspiration Award and cash prize of Rs. 10,000 in SIH-2018 at Noida.
- The team Teletubbies won Innovation Award by Deloitte in SIH-2018, Kolkata.

TEDxIGDTUW

- TEDxIGDTUW was independently organized by IGDTUW under the license procured from TED at India International Centre, Delhi on 23rd January 2019 with the theme of SUI GENERIS - Latin for being unique.

Prestigious Scholarships

- Manmeet Kaur, Priyanka Daryani of B.Tech IT 2nd Year was one of 55 people across nation invited for an all-expenses paid networking event to Microsoft, Hyderabad.
- Shilpi Singh IT 4th Year, was awarded 'Women in Technology' award by Accenture, Developed software (File Reader) and website (an online Portal for Best Practices) as a part of summer internship at Ministry of Railways.
- Aditi Agarwal IT 4th year selected as Summer Intern at Delhi Traffic Police for two major projects: 1. Social Media Analysis and 2. Document Management of Tracking System and Traffic Analysis of top five Metropolitan cities which was appreciated by the Vice Chancellor of IGDTUW and Special Commissioner of Delhi Police.
- Ms. Deepti Chaurasia, student of Department of Planning & Architecture, IGDTUW represented India under Aspirin India Women program in the University of Texas at Austin.
- 43 meritorious students from different departments have received the Merit cum Means Scholarship from Hon'ble Chief Minister of Delhi Shri Arvind Kejriwal & Hon'ble Dy. CM Shri Manish Sisodia.

SOCIAL RESPONSIBILITY

IGDTUW University takes its social responsibilities very seriously. Our faculty is shaping their knowledge and skills to become a repository of creative genius and our students an infinite reservoir of talent and innovation. We take pride in stepping into an enviable position of excellence and feel confident that within next few years the pool of diverse and inquisitive students, the devoted faculty, staff and the alumni would work collectively towards building this educational institution as a 'World Class University'. An abiding faith in the progressive values nurtured by the University and self belief would provide the right impetus to work collectively towards this goal.

Unnat Bharat Abhiyan is one of the most prestigious flagship program of Ministry of Human Resources (MHRD) which aims to link higher education institutions with set of at least five villages, so that they can contribute to economic and social betterment of these village communities using their knowledge base. IGDTUW has adopted five villages in Delhi under Unnat Bharat Abhiyan from different regions, namely Darya Ganj, Sadar Bazar, Seelampur, Pahar Ganj and Civil Lines. Also Unnat Bharat Abhiyan (UBA) Cell creation is in process for smooth conduct of various activities in association with various agencies likes Gram Panchyat, Block Office and NGOs.

In the past the students and the faculty have actively formulated various societies and clubs to address various societal concerns. Some of the societies are Zena (Fashion society), Hypnotics (Dance Society), Rehnuma (Dramatics Society), Antargat (Waste to useful product creative society) and many more where students have been representing IGDTUW in various national and international Platforms. They have been consistently winning awards and laurels in various competitions held across the country in the guidance of their faculty mentor and have been making IGDTUW proud throughout the year.

One of the students club is "Greensphere" which is an Environmental Society formed by the students of IGDTUW. The club aims at spreading awareness about environmental concerns. The following activities have been taken up by the members of the club:

- Vermi composting: Proper pits have been formed for Vermi composting, wherein kitchen waste from hostel mess is used to generate good quality organic manure.
- Recycling: Carton boxes have been placed around the campus to collect paper and plastic (segregated), generally strewn around the campus, for recycling.
- Many NGOs like ICPE, TERI, CSE, and WWF are invited to conduct seminars in the University to increase awareness among the students and to help students in devising ways to implement the various methods of environment preservation with minimum amount of investment and resources. Also, Green activities like Environ mesh (green junkyard), Cycle Rally, Green Fair, T-shirt painting, and Documentary Screening etc. are organized on regular basis to keep the students motivated and add a fun element.
- Green-sphere members perform plays at various orphanages in Delhi on the hazards faced by the environment so as to spread awareness regarding the environmental degradation.

GLIMPSE OF CULTURAL AND TECHNICAL EVENTS AT IGDTUW

Our University is committed to make the students educational experience multifaceted and holistic. This commitment is very evident through ample cultural events organized round the year, holding sports meets, and encouraging and facilitating student participation in national and international level competitions.

Taarangana 2019

Taarangana, the Annual Cultural Fest of Indira Gandhi Delhi Technical University was celebrated with full vigour and enthusiasm. The sixth edition of the cultural fest with its exciting theme of Back to the 90's created an atmosphere of cheer and happiness in the entire campus. Carrying the legacy from the last 5 editions, Taarangana' 2019 landed with a big bang and transformed the entire campus from a technical university to an artistic playground.

Taarangana19 was a huge success with a number of interesting events and attractions lined up for all participants. The events included both formal and informal extravaganzas. The formal events included Urban Thump (group dance competition), Aaghaz (street play), Antraa (Solo singing) and a head turning fashion parade, Lilac Dreams. A number of trivia events and the latest and most exciting addition, the Lip Sync Battle added fun and excitement to the ambience. The first day came to an adventurous halt with the famous comedian and YouTube sensation, Zakir Khan who left the crowd in laughter splits followed by the rocking beats of Parashara which forced entire audience to shake their legs along with the beat of drums.

The vivacious tunes of Arjun Kanungo, an Indian Singer, Composer, actor, with DJ Kevu and Ravator; made the audience groove to their tunes on the final day and proved that music is the definitely a very powerful force in our lives. With a footfall of around 12000, the fest proved to be an incredible affair, with lots of memories to take home.

Spic Macay

The IGDTUW SPIC MACAY Chapter is an extension of the philosophy of the SPICMACAY's intention to enrich the quality of formal education by increasing awareness about different aspects of Indian heritage and inspire young minds to imbibe the values embedded in it.The society founded in 1977 by Dr Kiran Seth, Professor-Emeritus at IIT-Delhi seeks to conserve and promote an awareness of the rich and heterogeneous cultural tapestry of our beautiful motherland among the youth of our country through focus on classical arts, and to facilitate an awareness of the deeper and subtler values of Indian culture.

In continuation of the same spirit, the SPIC MACAY chapter of IGDTUW organized an Odissi Dance Recital by Vidushi Kavita Dwibedi on 23rd September, 2019 at the University . The event turned out to be a great success as all in the audience were captivated with the enthralling performance of Kavita ji and her team. With her mohak mudras she explained the Navarasa namely Shringara (love/beauty), Hasya(laughter), Karuna (sorrow), Raudra (anger), Veera (heroism/courage), Bhayanaka (terror/fear), Bibhatsya (disgust), Adbutha (surprise/wonder), and Shantha (peace or tranquility) with mesmerizing grace and beauty.

IGNITE – Annual Sport Meet

IGNITE, the first Annual Sports Meet of IGDTUW was organized successfully by SYNERGY sports club at Jawahar Lal Nehru Stadium on 29th and 30th March, 2019.

It is noteworthy that referees affiliated to Sports Association of India were invited to conduct and evaluate the various sport events. Students from various universities and colleges like Kamla Nehru College, Lady Irwin College, Shiv Nadar University, Lady Hardinge Medical College, Jamia Hamdard, GGSIPU, Amity University, IITD , NSUT participated in the annual sports meet. About 55 students from various universities won medals in team events like Basket Ball, Volley Ball, Badminton and 23 students won prizes in individual sports like 100m race, etc.

The first of its kind event in the history of IGDTUW, IGNITE proved to be a pioneering force in the domain of all-women organized Sports Meets in Delhi. The meet undoubtedly reiterated the belief of IGDTUW fraternity that there is an unexplored niche when it comes to celebrations of sports and sportspersons, and of female involvement in sports. The event was graced by many achievers from the field of sports, as well as by teams from colleges across India. The first edition was organized with the aim of making sports a celebration of women empowerment and achievement and making it a success, thereby setting a precedent for many more editions to follow.

CONVOCATION-2019
AWARDS AND MEDALS TO THE STUDENT'S

The convocation ceremony is a turning point in the lives of all students. The medallists deserve a special mention as they bring pride and glory to the University. IGDTUW is pleased to inform that the total number of degrees being awarded in the 2019 Convocation is 407 including all Undergraduate, Post Graduate and Doctoral programmes of the university.

Details of Awards and Medals

S.No	Enrolment No	Course	Batch	Name	CPI
Chancellor Gold Medal Recipient					
1.	07701012015	B.Tech (CSE)	2015-19	Arushi Arora	90.31
2.	00502072017	M.Tech (VLSI)	2017-19	Simran Nischal	88.31
Vice-Chancellor Gold Medal Recipient					
1.	07701012015	B.Tech (CSE)	2015-19	Arushi Arora	90.31
2.	01201042015	B.Tech(MAE)	2015-19	Ishita	89.46
3.	01501022015	B.Tech(MAE)	2015-19	Sheetal Jain	88.21
4.	01201032015	B.Tech (IT)	2015-19	Reeti Sarup	88.83
5.	04104092016	MCA	2016-19	Niharika	82.43
6.	03102052017	M.Tech (ISM)	2017-19	Vasundhra Gupta	87.90
7.	00502072017	M.Tech (VLSI)	2017-19	Simran Nischal	88.31
8.	00202062017	M.Tech (MPC)	2017-19	Himani Garg	87.21
9.	00402082017	M.Tech (R&A)	2017-19	Himani Pangasa	83.09
10.	00103152016	M.Tech (ICT) (PT)	2016-19	Priyanka Yadav	87.02
Exemplary Performance Silver Plaque Recipients					
1.	07701012015	B.TECH(CSE)	2015-2019	Arushi Arora	90.31
2.	0781012015	B.TECH(CSE)	2015-2019	Shubhi Agarwal	90.03

EXPANSION PLANS OF IGDTUW FOR NEW CAMPUS (NEXT TEN YEARS)

Currently, IGDTUW is operating from Kashmere Gate campus spread across 16 acres with a total student strength of 2200. The campus is shared with AUD. IGDTUW plans to introduce new programs in the 10 years from its new campus to be constructed over 70 Acres of allotted land in Narela, Delhi. A total student strength of 10,000 can be achieved by 2027 from a fully residential campus to be built in a phased manner.

Universities Faculties in New Campus

- Faculty of Engineering and Technology
- Faculty of Architecture and Design
- Faculty of Applied Sciences and Humanities
- Faculty of Business Studies*
- Faculty of Computing*
- Faculty of Media Studies*
- Faculty of Fashion Technology*
- Faculty of Naturopathy and Yoga Studies*
- Faculty of Agricultural Sc. And Food Technology*
- Faculty of Nano Sciences and Bio Technology*
- Faculty of Catering Technology*

*new Faculty proposed

Total No. of Students: 20,000

Indira Gandhi Delhi Technical University For Women

(Established by Govt. of Delhi vide Act 9 of 2012)
ISO 9001:2015 Certified University

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