



# IGDTUW

## 2<sup>nd</sup> ANNUAL REPORT

### 2वाँ वार्षिक प्रतिवेदन

**April 2017 - April 2018**  
अप्रैल 2017—अप्रैल 2018



**Motto: Women Education, Women Enlightenment, Women Empowerment**  
**INDIRA GANDHI DELHI TECHNICAL UNIVERSITY FOR WOMEN**  
**Kashmere Gate, Delhi-110006**



MADARSA ROAD

LOTTHIAN ROAD

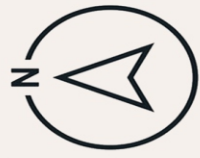
TO ISBT KASHMERE GATE

AMBEDKAR UNIVERSITY

**MASTER PLAN INDIRA GANDHI DELHI TECHNICAL UNIVERSITY FOR WOMEN  
LOCATION MAP**

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

SCALE : 1:500



TO RING ROAD  
KELA GHAT MARG

TO CHANDNI CHOK  
MAIN ENTRANCE

MAIN ENTRANCE

MADARSA ROAD

ADMINISTRATION BLOCK  
OPEN TO SKY  
DEPT. OF ARCHITECTURE & PLANNING

DEPT. OF MECHANICAL AND AUTOMATION ENGINEERING

CENTRAL LAWN

AUDITORIUM

KAVERI GIRLS HOSTEL

TUCK SHOP

PARKING

KRISHNA GIRLS HOSTEL

ACADEMIC BRANCH

COMPUTER LAB

EXAMINATION BRANCH

SHOP

CANTEEN

DEPT. OF INFORMATION TECHNOLOGY

DEPT. OF APPLIED SCIENCES & HUMANITIES

DEPT. OF ELECTRONIC AND COMMUNICATION ENGINEERING  
OPEN TO SKY

SOCIAL SCIENCE BLOCK

ANVESHAN FOUNDATION

NCC BLOCK

NCC BLOCK



CENTRE FOR SUPPLEMENTARY EDUCATION





इन्दिरा गांधी दिल्ली प्रौद्योगिकी महिला विश्वविद्यालय  
Indira Gandhi Delhi Technical University For Women

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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 Till Date (Offg.)

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## ABOUT UNIVERSITY

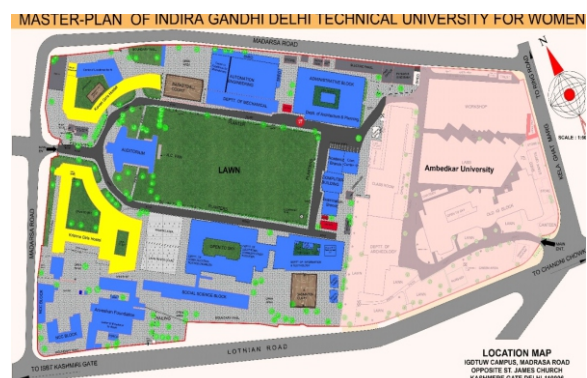


Indira Gandhi Delhi Technical University for Women (IGDTUW) was established in May 2013 vide Delhi State Legislature Act 9, 2012. The University fosters an environment for excellence in professional education and ensures active participation of women in the field of Engineering, Science, Management and 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 & MISSION



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.



- 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 implement outcome-based education, quality mandate and holistic concerns towards implementation of the New Education Policy (NEP).
- 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.

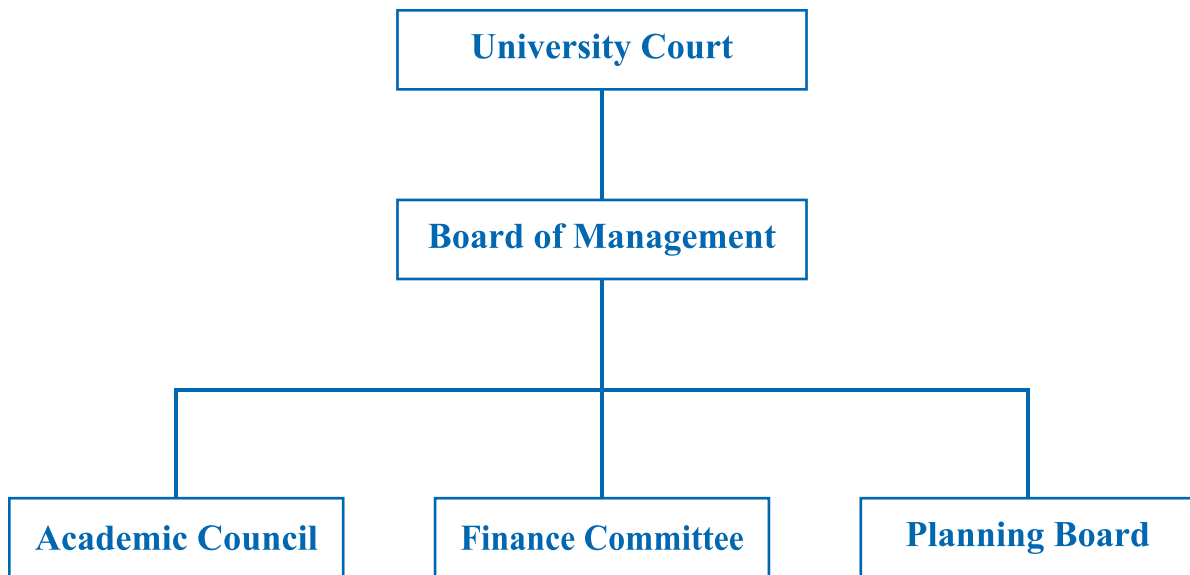
## GOVERNANCE OF THE UNIVERSITY

### AS PER SUB-SECTION (4) OF SECTION 3 OF THE IGDTUW ACT.

*“The University shall be administratively autonomous and shall receive grants in aid from Govt. of NCT of Delhi to provide education to the girl students and as such shall receive funds for capital and operational expenditure from Govt, of NCT of Delhi, having its own governance as well as administrative policies and practices as prescribed”*

In terms of Section 18 of the IGDTUW Act, the Court, the Board of Management, the Academic Council, the Planning Board, the Finance Committee and such other authorities as may be declared by the statutes to be the Authorities of the University, shall be the authorities of the University.

### ORGANOGRAM OF UNIVERSITY AUTHORITIES



## THE UNIVERSITY COURT

The University Court is the highest Authority 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 has been constituted vide Order No. F. 16(5)/Plg/IGDTUW/2017/13-22 dated the 1st March 2017, which consists of the following Members :

S.No.	Name & Designation	Position
1.	<b>Sh. Anil Baijal</b> Hon'ble Lt. Governor, Govt. of NCT, Delhi & Chancellor, IGDTUW	Chairperson
2.	<b>Prof. (Dr.) Nupur Prakash</b> Vice Chancellor, IGDTUW <b>(Ex-Officio)</b>	Member
3.	<b>Dr. Amita Dev</b> Pro-Vice Chancellor, IGDTUW <b>(Ex-Officio)</b>	Member
4.	<b>Sh. S. N. Sahai, IAS</b> Principal Secretary, Finance, Govt, of NCT of Delhi <b>(Ex-Officio)</b>	Member
5.	<b>Ms. Punya Salila Srivastava, IAS</b> Secretary, Technical & Higher Education, Govt, of NCT of Delhi <b>(Ex-Officio)</b>	Member
6.	<b>Prof. Ram Ramaswamy</b> Former Vice Chancellor, University of Hyderabad, currently Professor, School of Physical Sciences, JNU, New Delhi	Member
7.	<b>Prof. Zahid H. Khan</b> Former Director, FTK Centre of Technology, Jamia Millia Islamia, New Delhi	Member
8.	<b>Prof. S. R. N. Reddy</b> Dean, Examination Affairs, IGDTUW	Member
9.	<b>Prof. Devendra Tayal</b> Dean, Academic Affairs, IGDTUW	Member
10.	<b>Prof. R. K. Singh</b> Registrar and Dean, Plg. & Development, IGDTUW <b>(Ex-Officio)</b>	Member Secretary

## THE 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 was initially constituted vide Order No. F.16(1)/Plg.(BOM)/2013/2079-2109 dated 23rd October 2013 read with Order No. F.16(1 )/Plg.(BOM)/2013/4815-4821 dated 28th January 2015. The Board of Management has recently been reconstituted vide Order No. F.16(31)/Plg/IGDTUW/2016/3924-60 dated the 9th December 2016, which consists of the following Members :-

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

Continue....

S.No.	Name & Designation	Position
9.	<b>Sh. P. K. Thakur, IRS, FA</b> Representative of the University Grants Commission (UGC)	Member
10.	<b>Ms. Punya Salila Srivastava, IAS</b> Secretary, Technical & Higher Education, Govt, of NCT of Delhi <b>(Ex-Officio)</b>	Member
11.	<b>Sh. S. N. Sahai, IAS</b> Principal Secretary, Finance, Govt, of NCT of Delhi <b>(Ex-Officio)</b>	Member
12.	<b>Prof. S. R. N. Reddy</b> Dean (Examination Affairs), IGDTUW <b>(Ex-Officio)</b>	Member
13.	<b>Prof. Devendra Tayal</b> Dean (Academic Affairs), IGDTUW <b>(Ex-Officio)</b>	Member
14.	<b>Prof. Ela Kumar</b> Professor, Department of Computer Science and Engineering, IGDTUW	Member
15.	<b>Prof. R. K. Singh</b> Registrar, IGDTUW <b>(Ex-Officio)</b> Dean, Plg. & Development, IGDTUW Professor (IT) IGDTUW	Member Secretary

## THE 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 has been constituted vide Order No. F. 16(01)/PIg/2017/ dated the 9th March 2017, which consists of the following Members :

S.No.	Name & Designation	Position
1	<b>Prof. R. K. Kale</b> Former Vice-Chancellor, Central University of Gujarat and Professor Emeritus, School of Life Sciences, JNU, New Delhi	Chairperson
2.	<b>Prof. (Dr.) Nupur Prakash</b> Vice-Chancellor, IGDTUW( <b>Ex-Officio</b> )	Member
3.	<b>Sh. Prakash Chand</b> Comptroller of Accounts, Govt, of NCT of Delhi	Member
4.	<b>Ms. Punya Salila Srivastava, IAS</b> Secretary, Technical & Higher Education, Govt, of NCT of Delhi ( <b>Ex-Officio</b> )	Member
5.	<b>Sh. S. N. Sahai, IAS</b> Principal Secretary, Finance, Govt, of NCT of Delhi ( <b>Ex-Officio</b> )	Member
6.	<b>Prof. Devendra Tayal</b> Dean (Academic Affairs), IGDTUW	Member
7.	<b>Prof. S. R. N. Reddy</b> Dean (Examination Affairs), IGDTUW	Member
8.	<b>Dr. N. R. Chauhan</b> Head of the Department (MAE), IGDTUW	Member
9.	<b>Dr. Jasdeep Kaur</b> Head of the Department (ECE), IGDTUW	Member
10.	<b>Prof. Saroj Kaushik</b> Professor, CSE, IIT Delhi	Member
11.	<b>Prof. S. R. N. Reddy</b> Professor, CSE, IGDTUW	Member
12.	<b>Prof. R. K Singh</b> Registrar, IGDTUW ( <b>Ex-Officio</b> ) Dean, (Plg. & Development,) IGDTUW	Member-Secretary

## THE 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 has been reconstituted vide Order No. F.16(27)/Plg/IGDTUW/2016/3203-30 dated the 8th September 2016, which consists of the following Members :

S.No.	Name & Designation	Position
1.	<b>Prof. (Dr.) Nupur Prakash</b> Vice-Chancellor, IGDTUW( <b>Ex-Officio</b> )	Chairperson
2.	<b>Prof. Sanjeev Sofat</b> Director, Cyber Security Cell and Professor, Department of Computer Science & Engineering, PEC University of Technology, Sector 12, Chandigarh	Member
3.	<b>Prof. Saroj Kaushik</b> Professor, Dept. of Computer Science & Engineering, IIT Delhi, Hauz Khas, New Delhi - 110016	Member
4.	<b>Prof. R. A. Khan</b> Former HoD, Deptt.of Mechanical Engg., Jamia Millia Islamia New Delhi 110025	Member
5.	<b>Dr. Kamlesh Dutta</b> Associate Professor and Head, Computer Science & Engineering Department, National Institute of Technology, Hamirpur (HP) - 177005	Member
6.	<b>Dr. (Mrs) Santosh Satya</b> Centre for Rural Development and Technology, IIT Delhi (UGC Nominee)	Member
7.	<b>Prof. Usha Natesan</b> Advisor-I AICTE, New Delhi & Professor, Civil Engg., Anna University, Chennai (AICTE Nominee)	Member
8.	<b>Mr. Vipin Kumar Vaid</b> Senior Manager Education Initiatives, NASSCOM	Member
9.	All Deans of the University ( <b>Ex-Officio</b> )	Member
10.	All Heads of Departments of the University ( <b>Ex-Officio</b> )	Member

Continue....



S.No.	Name & Designation	Position
11.	<b>Prof. Ashwini Kumar</b> Professor, Dept. of ECE, IGDTUW	Member
12.	<b>Dr. A.K. Mohapatra</b> Associate Professor, Dept. of IT, IGDTUW	Member
13.	<b>Dr. Ranu Gadi</b> Associate Professor, Dept. of ASH, IGDTUW	Member
14.	<b>Mr. Akash Tayal</b> Assistant Professor, Dept. of ECE, IGDTUW	Member
15.	<b>Prof. R. K. Singh,</b> Registrar, IGDTUW <b>(Ex-Officio)</b>	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 has been constituted vide Order No. F.16(12)/Plg (PB)/2013/3218-37 dated the 13th January 2014, which consists of the following Members :

S.No.	Name & Designation	Position
1.	<b>Prof. (Dr.) Nupur Prakash</b> Vice-Chancellor, IGDTUW <b>(Ex-Officio)</b>	Chairperson
2.	<b>Sh. Anil Prakash</b> Engineer-in-Chief, North MCD <b>(Ex-Officio)</b>	Member
3.	<b>Mr. I. P. Parate</b> Director(Planning), MPR, DDA <b>(Ex-Officio)</b>	Member
4.	<b>Sh. Rakesh Misra</b> Former Engineer-in-Chief, PWD DG, CPWD (Retd.) and IGDTUW Board of Management Member	Member
5.	<b>Prof. Arun Jain</b> Strategic Management, IIM Lucknow	Member
6.	<b>Dr. B. K. Sharma</b> Director (Planning), GNCTD	Member
7.	<b>Sh. Sanjay Prakash</b> Architect and Proprietor, M/S SP Associates, Delhi	Member
8.	<b>Prof. R. K. Singh,</b> Registrar, IGDTUW <b>(Ex-Officio)</b>	Member-Secretary

## MEETINGS OF THE STATUTORY AUTHORITIES OF THE UNIVERSITY

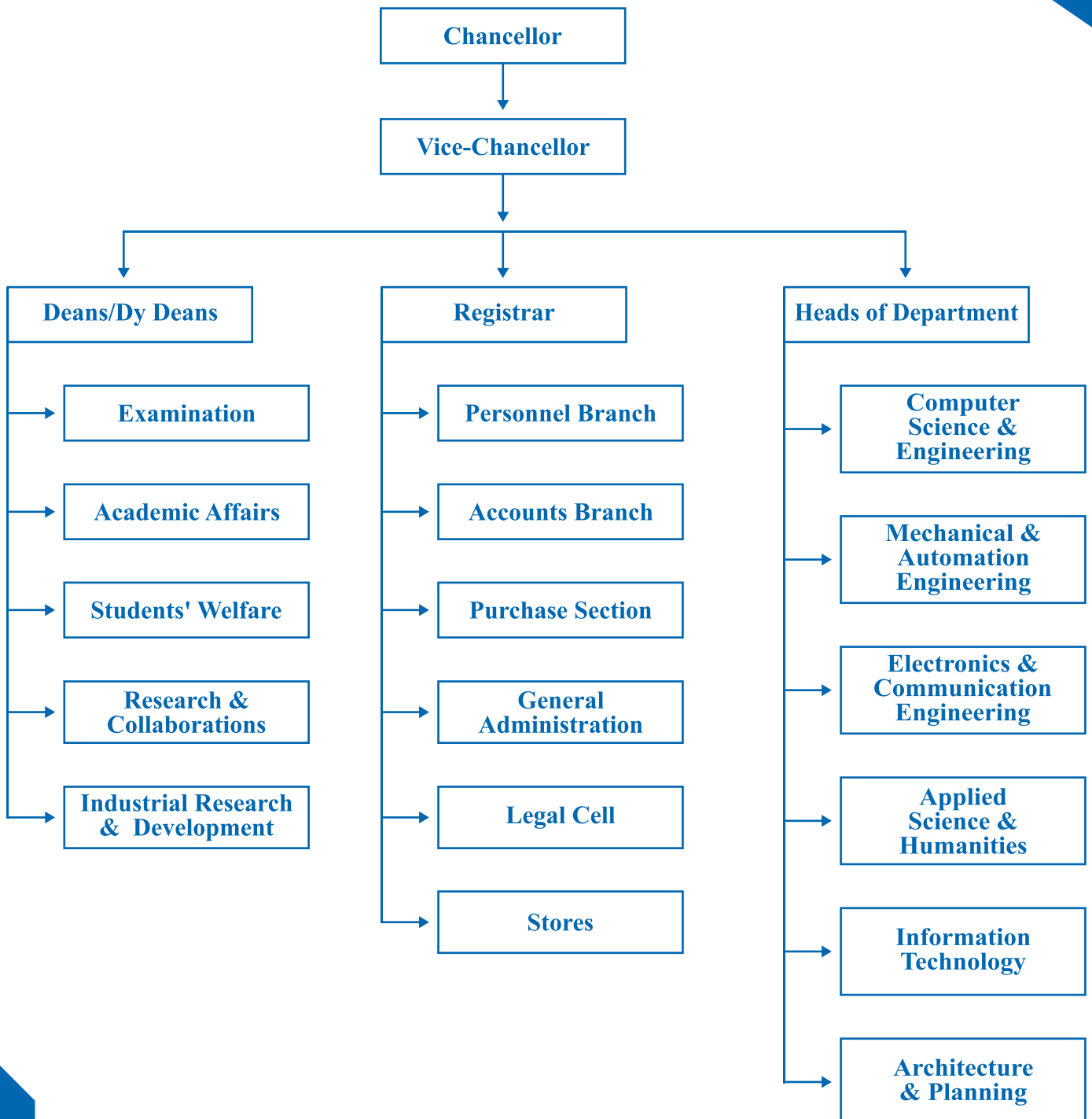
For smooth functioning of the University and for necessary directions, the meetings of the various statutory authorities are held regularly. A snapshot of the various Statutory Authorities' meetings held since May 2013 till date is presented below: -

Summary of the Meetings of the Statutory Committee of the University			
Meeting	Board of Management	Academic Council	Finance Committee
<b>First</b>	20.12.2013	09.07.2013	02.12.2013
<b>Second</b>	15.10.2014	13.12.2013	02.06.2014
<b>Third</b>	12.02.2015	23.05.2014	31.07.2015
<b>Fourth</b>	08.09.2015	23.12.2014	23.08.2016
<b>Fifth</b>	22.03.2016	26.06.2015	08.11.2017
<b>Sixth</b>	20.01.2017	16.02.2016	
<b>Seventh</b>	22.12.2017	28.09.2016	
<b>Eighth</b>		01.09.2017	

## 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, Dean(s), Registrar and such other officers as may be declared by the statutes 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 as follow:

### ORGANOGRAM OF THE UNIVERSITY



## OFFICERS OF THE UNIVERSITY

S.No.	Name & Designation	Position
1.	Vice Chancellor	Prof. (Mrs.) Nupur Prakash
2.	Pro-Vice Chancellor	Dr. (Mrs.) Amita Dev
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.	Deputy Dean (Research & Collaboration)	Dr. Chhaya Ravikant
7.	Deputy Dean (Industrial Research and Development)	Dr. Ranu Gadi
8.	Deputy Dean (Students Welfare)	Dr. Seeja K. R.
9.	Head of the Department (CSE)	Prof. Ela Kumar
10.	Head of the Department (ECE)	Dr. Jasdeep Kaur
11.	Head of the Department (IT)	Dr. Arun Sharma
12.	Head of the Department (MAE)	Dr. Manoj Soni
13.	Head of the Department (Architecture & Planning)	Dr. Preeti Vajpayee
14.	Head of the Department (Applied Sciences & Humanities)	Dr. Shalini Arora
15.	Registrar	Prof. R.K. Singh
16.	Deputy Finance Officer	Sh. Sunny C. K.
17.	Librarian	Dr. D.S. Sengar
<b>Incubation Centre</b>		
18.	Chief Executive Officer	Dr. V. K. Arora

## ACADEMIC STRUCTURE 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:

### 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 Pure and Applied Sciences
- Department of Humanities and Social Sciences (Proposed)

### 3. Faculty of Architecture & Design

- Department of Architecture & Planning
- Department of Design Studies (Proposed)

On the recommendations of the Academic Council made in its 7th Meeting held on 28th September 2016 vide Agenda Item No. 7.10, the following two more faculties have been created:

### 4. Faculty of Management

- Department of Business Studies (Proposed)
- Department of Commerce (Proposed)

### 5. Faculty of Computing

- Department of Computer Applications (Proposed)

## ACADEMIC PROGRAMMES OF THE UNIVERSITY

Currently, Indira Gandhi Delhi Technical University for Woman (IGDTUW) has five (5) Departments and offers following Undergraduate, Postgraduate and Doctorate Programs:

### Undergraduate, Postgraduate and Doctorate Programs

S. No.	Name of the Department	Programmes Offered	Intake	Duration (years)
1.	Computer Science & Engineering (CSE)	B.Tech. (CSE)	154	4
		M.Tech. (Mobile & Pervasive Computing)	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	
		M.Tech. (Robotics & Automation)	31	4
4.	Information Technology (IT)	B.Tech. (IT)	76	2
		M.Tech. (Information Security Management)	31	4
		MCA	60	3
		M.Tech. (ICT) Part time	40	3
5.	Architecture & Planning	B.Arch.	40	5
6	All Departments	Ph.D.	25	3+
<b>Total Intake</b>			<b>673</b>	

## ACADEMIC DEPARTMENTS OF THE UNIVERSITY

### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

#### SALIENT FEATURES

The Department of Computer Science and Engineering was established in 1998. The department offers B.Tech. in Computer Science and Engineering with an intake of 154 students and M. Tech. in Mobile and Pervasive Computing with an intake of 32 students. The department started Ph.D program in 2014. The CSE department has a talent pool of outstanding faculty members, who, besides teaching, have been actively involved in various research and professional activities like, member of editorial boards of leading journals, running industry sponsored projects and transferring the technology developed in the lab to industry. There have been numerous publications by faculty members in International/National Journals/Conferences covering latest areas of research.

Presently the department has sponsored research projects from Microsoft, NOKIA and Information Technology Research Academy (ITRA), Intel, Ministry of Human Resource and Development (MHRD) in collaboration with IIT, Delhi and IIIT, Delhi. The department also received several equipment grants from ARM, Atmel, Microsoft, Intel, Texas Instruments etc. The Department has revised the curriculum of B.Tech. and M.Tech. programs considering

the latest trends in industry and research. The department aims to bridge the gap between theory and practice in teaching and learning various ICT subject using mobile devices as a pedagogical platform and to develop effective solutions for end-to-end Real World Problems. The department has developed a practical teaching and learning environment that provides comprehensive set of tutorials, projects and experiments, catering to the needs of students and society by making use of modern computing platforms and making it available to the students.

The Department has two main Research Groups namely, Mobile and Pervasive Computing and Data Mining and Intelligent Computing, to conduct research work and projects in collaboration with Industry and Premier Institutes to provide practical knowledge to students. These research groups are working in the broad areas of Mobile computing, Environmental Sensing, Network based Application and Algorithm, Wireless Sensor Networks, Cloud Computing, Middleware, Embedded System and Pervasive Computing, Applied Data Processing, Applications of Database Management Systems and Data Mining, Intelligent Computing, Natural Language Processing.



## 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.**

- A one day Workshop on “Cloud Computing” at IGDTUW conducted on 21st Sept., 2018 by Prof. Ela Kumar in association with APTRON, Delhi.
- FDP on “NITTTR, Chandigarh” from 19th to 23rd Feb., 2018 by Mr. Indra Thannaya.
- “INTERNATIONAL WORKSHOP ON FUZZY LOGIC RESEARCH APPLICATIONS” at IGDTUW, Delhi from 16th to 20th Sept. 2017 by Prof D.K.Tayal.
- Startup Activities by inviting proposals under INCUBATION Centre, by Dr. S.R.N.Reddy.

## ONGOING SPONSORED PROJECTS

- “Mobile Education Kit (Mek-2)” funded by Nokia University Relation, Finland. PI-Dr. SRN Reddy, Rs. 22.15 Lacs for 2014-2017.
- “Human Sense: Towards Context aware Sensing, Inference and actuation for application in Energy and Healthcare” funded by ITRA (MHRD). PI -Dr. Amarjeet Singh (IIITD), Co PI Dr.SRN Reddy, Rs.24.0 Lacs, 27.49 Lacs for IGDTUW for 2014-2017.
- “Design & Innovation” funded by MHRD. PI - Prof. M. Balakrishnan, Prof. PVM Rao (IIT,

## PATENTS FILED IN CSE DEPARTMENT

- Dr. SRN Reddy, Mr. Suresh Chande, Ms. Nidhi Agarwal, Ms. Jasleen Kaur, Mr. Sanjay Kumar, Mr. Rachit Thukral- Provisional Indian patent on “A system for building, customizing software and hardware interfaces of smart phone using Raspberry Pi” via Application No. 2354/DEL/2015.
- Dr. SRN Reddy, Mr. Sanjay Motia, Mr. Pawan, Ms. Garima, Ms. Manisha- Provisional Indian patent on “Soilmulti parameters, remote monitoring & alerting system-Using Intel Galileo Gen-2” via Application No: 156/DEL/2015, CBR No. 1206.

## SPONSORED PROJECTS COMPLETED

- “Web Based Mobile Architecture and Programming (MEK-1)”, funded by Nokia University Relation, Finland PI - Dr. SRN Reddy, Co PI-Prof. M. Balakrishnan (IIT, Delhi) and Dr. Amarjeet Singh (IIITD) of Rs.13 Lacs
- “Development of Embedded Systems Course Curriculum”, funded by Intel, Indi.PI-Dr.SRN Reddy, Co PI- Ms. Kavita Sachdeva, Rs.1.5 Lacs.
- “My Smartphone Design and Development ( Mek-3/NG)”, funded by Micro Soft, Finland, PI - Dr. SRN Reddy and Co-PIMs. Kavita of Rs. 23.4 Lacs.
- “Development of IoT Course”, funded by Intel India, PI - Dr. SRN Reddy of Rs.2.04 Lac.
- “Intel Real Sense”, funded by Intel India, PI- Dr. SRN Reddy of around Rs. 4.00 Lac.

## STUDENTS’ ACHIEVEMENTS

Following awards and prizes have been won by students of Computer Science and Engineering Department, IGDTUW in various events during 2017-18.

**Smart India Hackathon (SIH)-2018 {Team Hurricane- Won Cash Prize of Rs. 50,000/-}**

AICTE under the aegis of the MHRD in collaboration with i4c, MyGov, Persistent Systems and Rambhau Mhalgi Prabodhinhas organized Smart India Hackathon 2018. With 27 Union Ministries & Departments and 17 State Governments joined this grand initiative. The Software edition, which was a 36-hr software product development competition held on Mar 30th & 31th, 2018 across 28 nodal centers in India. During the software edition grand finale, teams of technology students built innovative digital solutions for problems posed by different Central Govt. Ministries/ Departments. Overall, 340 problem statements were taken up by 1282 shortlisted teams consisting of over 10250 students.

Team Hurricane of 8 students from Indira Gandhi Delhi Technical University, CSE 4th year (*Megha Agganval, Aishna Gupta, Shreya Gupta*), IT 3rd year (*Dhriti Agganval and Arushi Arora*), CSE 2nd year (*Apoorva Singh*) got a chance to participate in the Grand Finale of Smart India Hackathon (SIH- 2018) held on 30-31 March 2018 at Oriental University Nodal Centre, Indore, Madhya

Pardesh (MP).

Out of the 14887 ideas received from all across the country, idea of this team to develop an IT solution to create digital crime maps that can be generated real time and get populated after every incident was selected for the 36 hours Non-Stop Hackathon. The product development commenced on 30th March. First round of evaluation involved explaining the prototype to the panel. On the next day, Second round of evaluation which was the implementation round of the product developed. The final evaluation round took place after the 36 hours period. It involved critical testing of the product. Each round comprised of Q/A sessions with the panel of judges from the Ministry. After successful demonstration in all the rounds, the team was selected among the top 15 teams for the Power Judgment. It involved a 3 minutes presentation in front of a panel from Ministries followed by a 3 minutes Q/A session.

Finally, **the Hackathon came to an end and the team was conferred with the 2nd runner-up award at the valedictory ceremony along with a cash prize of Rs. 50,000.** It was a great experience for the team to interact with innovative minds from across the country and show-casing project in front of them.

### SALIENT FEATURES:

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 offers a strong research orientation to students in the areas of Communication Systems, Signal & Image Processing, Embedded systems, Microelectronics and VLSI Design. The faculty members, who besides teaching, are active in conducting research as evident from their list of publications in International/National conference proceedings/journals.

### 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

## SOFTWARES

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

### Projects

- IGDTUW has received grants under the Special Manpower Development Program for Chips to System Design (SMDP-C2SD)-initiated by the Department of Electronics and IT, Govt, of India, as one of the Participating Institution (Category III). It emphasizes on design and fabrication of ASICs/ICs/digital integrated circuits to develop working prototypes of Systems/sub-systems/Systems on chip for societal applications. Tools received under this are Synopsys, Cadence, Mentor Graphics, Xilinx, FPGA boards
- ROBOGYAAN- Dr. Jasdeep Kaur Dhanoa (Principal Investigator) and Dr. Nidhi Goel (Co-Principal Investigator) of Vigyan Jyoti, Pilot project worth of Rs 16,57,900 (recurring project), under Department of Science and Technology (DST). This pilot project has a holistic programme designed for 30 meritorious girl students right from middle/secondary school level till beginning of their professional career in Science & Technology in Delhi-NCR.

The Vigyan Jyoti proposal designed from IGDTUW aims to equip the girl candidates with multifaceted skills. The proposal intends to provide multidisciplinary skills to the girls. During the training session, awareness will be created for the use and presence of electronics in day-to-day life. This will be followed by the introduction to basic electronic components and gradually moving towards the application of these

components to make small projects. These projects will be made by students themselves during the lab sessions. Some of these projects will be Automatic Night Lamp, Music Instrument, Clap Switch or LED Blinker.

For the all-round development of the candidates, the girls candidates will be trained for communication and presentation skills as well. Group discussions will be conducted in between the sessions to hone their confidence, communication and presentation skills. Several practical sessions will also be conducted to teach time/stress management, ways to handle peer pressure, and building positive self-esteem/confidence.

A part from all the above-mentioned activities, expert lecture from eminent personalities from industry, academia and government sector will also be conducted at regular intervals. Sharing their own success stories and struggle will act as a guiding light for the girl candidates and inspire them to achieve greater heights in life/career.

At the end of three weeks, it is expected that students will be inspired to go into scientific and technical fields for their further studies. This training program intends to create interest among girl students towards engineering perspective and at the same time, make them more confident in every sphere of life. The augmented interest in Science and Technology will help in entry and retention of women in engineering programs.

## FACULTY AWARDS AND ACHIEVEMENTS

- Dr. Pankaj Gupta has been conferred with the POSOCO Power System Award-2017 by the Power System Operation Corporation Limited for excellence in his Ph.D research work entitled Protection Issues of Grid connected Distributed Generation by the Power System Operation Corporation Limited, a subsidiary of Power Grid Corporation, India in partnership with Foundation for Innovation and Technology Transfer, IIT Delhi. He also received the cash money of Rs. 60,000
- Dr Nidhi Goel, delivered an expert talk on “Issues In Application Specific Data Confidentiality,” on 3rd April 2018 in Short Term Training Program on Advances In Image Processing And Computer Vision from 2nd April 2018-6th April 2018 at Delhi Technological University, Delhi.
- Dr Nidhi Goel, delivered a Two hour expert lecture on “Multimedia Security” on 13th July 2017 during the Faculty Development Program on “Modelling and Simulation Tools for Electronics and Communication Engineering” from 10-15 July 2017 at Jaypee Institute of Information Technology, Sector-128, Noida.
- Dr Nidhi Goel, invited as Session Chair in IEEE International Conference on Signal Processing and Integrated Networks, 22-23 February 2018 at Amity University, Noida.
- Dr Nidhi Goel, invited as Session Chair in 4th International Conference on Signal Processing and Communication, 21-23 March 2018 at Jaypee Institute of Information Technology, Sector- 128, Noida.
- Dr Jasdeep Kaur, Chaired Session at 2nd International Conference on Telecommunication and Networks (TELNET-2017) held during August 10-11, 2017 at Amity University Noida U.P.
- Dr Jasdeep Kaur, participated as a Panelist and Speaker at the Digital Transformation Summit 2017, supported by Ministry of Electronics & Information Technology, (Govt. Of India) March, 2017 at The Imperial, New Delhi.
- Dr Jasdeep Dhanoa, was keynote speaker at National Seminar on Emerging Technologies and IEEE Annual Magazine Launch on 2nd March, 2017, at IEEE Jamia Hamdard, organized by School of Engineering Sciences & Technology, Jamia Hamdard, Hamdard Nagar, New Delhi-110062.

## STUDENTS ACHIEVEMENTS

The latest achievements (few) by ECE students are as follows:

- Deeksha Dixit student of ECE-2018 was among the 48 students selected from across the globe for the boot camp, 19 students were from MIT and Asia School of Business (ASB) Malaysia and the rest from IITs and several technical institutions from India. Massachusetts Institute of Technology, through MIT-India program, joined hands with Indian Institute of Technology Delhi and TechTop Trust to conduct "MIT-IIT Make in India", a 28-day boot camp on social innovation and entrepreneurship from 19 June to 15 July 2017.
- 5 students (Deeksha Dixit, Aditi Jagbharia, Aayushi Garg, Avisha Singh, Pooja Goel) from ECE-2018 participated in Semifinals of DST & Texas Instruments Inc. India Innovation Design Contest 2016 in April 2017 for their project Cyclock.
- 4 students (Deeksha Dixit, Aditi Jagbharia, Aayushi Garg, Avisha Singh) from ECE participated in E-Yantra, National Robotics Competition 2017, organized by IIT Bombay and sponsored by MHRD under the national mission on education through ICT program
- Two students (Deeksha Dixit, Aayushi Garg) presented a proposal on waste management and waste collection optimization in regional round of New Zealand-India Sustainability Challenge at The energy and Resource Institute (TERI), Delhi, India. One of the students was the finalist in Rapid Prototype Camp, Intel Higher Education Challenge 2017, Bangalore

## RESEARCH PUBLICATIONS

- Arashdeep Kaur, M.K. Dutta, K.M. Soni, and Nidhi Taneja, "Embedding Digital Watermark in One-Dimensional Signals Using Wavelet & Schur Decomposition", International Journal of Electronic Security and Digital Forensic, Inderscience Publishers, 2017, Vol. 9, No. 4, pp. 362-380 [Indexed in Scopus]
- Arashdeep Kaur, M.K. Dutta, K.M. Soni, and Nidhi Taneja, "Localized & Self Adaptive Audio Watermarking Algorithm in Wavelet Domain", Journal of Information Security & Applications, Elsevier Publishers, 2017, Vol. 33, No. 1, pp. 1-15 [Indexed in Scopus]
- Gupta, Pankaj, R. S. Bhatia, D. K. Jain and Ruchika, "Active islanding detection technique for distributed generation", INAE letters, Springer (In press)
- Gupta, Pankaj, R. S. Bhatia, and D. K. Jain. "Active ROCOF relay for islanding detection", IEEE Transactions on Power Delivery, vol. 32, issue 1, 2017, pp: 420-429.
- Vandana Niranjana, Ashwani Kumar, Shail Bala Jain, "Improving Bandwidth of Flipped Voltage Follower Using Gate-Body Driven Technique", Journal of Engineering Science and Technology (JESTEC), Vol. 12, No. 1, pp. 83-102, Jan 2017
- 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) or IGDTUW for 2014-2017.

## CONFERENCES

- Bhawna Aggarwal, Yogita Arora and Jasdeep Kaur Dhanoa, "Bandgap Current Reference using Widlar Current Source", 5th International Conference on Computing for Sustainable Global Development, 14th - 16th March, 2018, IEEE Conference ID: 42835
- Nidhi Goel and Simarpreet Chawla, "FPGA Implementation of an 8-bit AES Architecture: A Rolled and Masked Approach", 4th International Conference on Signal Processing and Communication, 21 -23 March 2018
- Monika Mathur and Nidhi Goel, "Enhancement of images using white balancing and rayleigh stretching", 5th International Conference on Signal Processing and Integrated Networks, 22-23 February 2018
- Gulnaar Perveen, M. Rizwan and Nidhi Goel, "Correlations for forecasting Global Solar Radiation using Meteorological Parameters", IEEE Sponsored 41st National System Conference at Dayalbagh Educational Institute, Dayalbagh, Agra, 1-3 Dec 2017
- Aeshaani Pahuja, Ruchi Aggarwal and Jasdeep Kaur, "Design of an Ultra-Low Power Diode load Gilbert Cell mixer with Current Bleeding Technique", 5th International Conference on Computing for Sustainable Global Development, 14th- 16th March, 2018, IEEE Conference ID:42835
- Richa Yadav, Kumari Bhawna, Neetika, Kiran Yadav, "An Innovative Approach to Detect Recyclable Plastics", International Conference on Computing for Sustainable Global Development INDIACom-2018 from 14th-16th March, 2018 at Bharati Vidyapeeth Institute of Computer Applications and Management (BVICAM), New Delhi
- Richa Yadav, Kumari Bhawna, Neetika, Kiran Yadav, "An Efficient Waste Segregation System using Arduino and Bluetooth Technology", International Conference on Computing for Sustainable Global Development INDIACom-2018 from 14th-16th March, 2018 at Bharati Vidyapeeth Institute of Computer Applications and Management (BVICAM), New Delhi
- Richa Yadav organized a Special Session on "5G Networks: Concepts, Technologies & Applications", as TPC Member during INDIACom-2018, 5th International Conference on Computing for Sustainable Global Development organized by BVICAM, New Delhi.
- Pankaj Gupta, R S Bhatia, D K Jain, "Islanding detection of active distribution system with parallel inverters" In: Signal Processing, Informatics, Communication and Energy Systems (SPICES), 2017 IEEE International Conference on, pp. 1-5.
- Savita Joshi, Garima Gupta, Jasdeep Kaur, V.K.Gupta "Performance improvement using scaling in DWT-SVD Image Watermarking", at 6th International Conference on Engineering Technology, Science and management Innovation (ICETSMI-2017) at IETE, Lodhi Road, Delhi on 11th June 2017. (IJETSR, Ref. No. IETED757, ISSN 2394-3386, Vol.4, Issue 6, June 2017)
- Archana Sahu, Saood Ahmed, Jasdeep Kaur, P.S.Negi, V.N. Ojha, "Reflection Coefficient Measurement of Microwave Source using Resistive Power Splitter from 1MHz to 50 GHz", 5th National Conference on Advances in Metrology (AdMet-2017), The North Cap University, Gurugram, Haryana.

- Swati Singh, Jasdeep Kaur, “Low Power Design of Johnson Counter using MTCMOS”, at International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE) volume 6, Issue 7 presented on July 2017. IETE, Lodhi Road, Delhi on 11th June 2017. (IJAREEIE, Ref. No. IETED757, June 2017, ISSN 2394-3386)
- Sakshi Semwal, Jasdeep Kaur Dhanoa, Dinesh Kumar, “Single Bit Low Power Full Adder Cell using Substrate Bias Effect”, at International Journal of Engineering Research and Applications (IJERA), journal, vol.7, Issue7, July 2017. (ISSN: 2284-9622).

## 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 (Faculty Advisor)
- 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 events 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 ENGG

### SALIENT FEATURES

The Department of Mechanical and Automation Engineering was established in 1998. The Department offers B.Tech. in Mechanical and Automation Engineering with an intake of 60 students and M.Tech. in Robotics and Automation with an intake of 30 students. The department also offers Ph.D. in different specializations of Mechanical and Automation.

The Department is built upon its outstanding faculty members who, besides teaching, have been actively involved in various research and professional activities. There have been numerous publications by faculty members in international/National journals/ conferences covering latest areas of research. The Mechanical and Automation Engineering department of IGDTUW has collaborated with many reputed Indian Industries in the last five years.

Every year meritorious students secure admission to the programs offered by the department. Students conduct projects with research orientation and have been publishing their work in reputed National/International conferences/journals in the latest research areas such as Design Engineering, Robotics, CAD/CAM/CIM, Mechatronics, Automation, Computational Engineering, Advance Manufacturing Systems, Automotive and IC Engines. Students of the department have a very active student chapter under the aegis of Society of Automotive Engineers (SAE) and American Society of Mechanical Engineers (ASME). Many Car design and Effi-cycle competitions, Industrial Visits, Workshops, and Expert Lectures are organized by SAE and ASME student council in which students actively participate and have won various prizes.

### 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

## STUDENT'S ACHIEVEMENTS

### **Team Ativirya, Efficycle 2017- Event Report**

The Efficycle is a national level competition and it is organized by the Society of Automotive Engineers and Maruti Suzuki annually with an objective to design and fabricate an energy efficient trike which can run by human power as well as by electric drive.

The SAE - NIS Efficycle competition was held in Jalandhar, Punjab from 1st November 2017 to 5th November 2017. The team Ativirya from IGDTUW constituting a group of 10 girls from B.Tech, Mechanical and Automation Engineering, IGDTUW started working out for the Efficycle 2017, competition six months prior to the actual date of the competition.

The design and fabrication of an Efficycle trike include designing, material selection procurement, fabrication, and testing of the trike.

In the aforesaid competition, nearly 70 teams participated from across the nation. Every team had a new design and team Ativirya had an opportunity to have a great experience to learn from the design of other teams as well.

The team Ativirya enthusiastically participated in various rounds of the Efficycle-2017 competition namely technical round, report presentation round and the marketing presentation rounds and face every challenge with collective strength and team-work. The team Ativirya was highly appreciated and recognized by the judges and organizers for its dedicated efforts during the competition. The team Ativirya were in top 20 teams out of the participating 70 teams and also won a prize from the panel of esteemed judges in the event.

## STUDENT'S ACTIVITIES

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. 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 engineering 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 conceptualize, design and fabricate 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 over 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 participate 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.

## FACULTY ACHIEVEMENTS

## RESEARCH PUBLICATIONS

- Kriti Bhattacharjee, Dr. Manoj Soni; "Eye Controlled Robotic Motion Using Video Tracking in Real Time", International Journal of Innovative Research in Science, Engineering and Technology, ISSN Print: 2347-6710, ISSN (Online) 2319-8753, Volume 6, Issue 7, July 2017, pg- 14828-14837.
- Gauri Chopra, Dr. Manoj Soni; "Automated ECG medical diagnosis using Artificial Bee Colony and Levenberg - Marquardt Algorithm", International Journal of Innovative Research in Science, Engineering and Technology, ISSN Print: 2347-6710, ISSN (Online): 2319-8753, Volume 6, Issue 6, June 2017, pg: 11207-11215.
- Performance investigation of micropocketed textured pad thrust bearing, Industrial Lubrication and Tribology (Accepted)
- Efficient design of a super mileage low cost vehicle frame using natural bamboo, Materials Today: Proceedings, 2017
- Investigation of lubricated Die/Billet Interface in Hydrostatic extrusion process using upper bound theorem, Proceedings Engineering, 2017
- On micromachining with a focus on miniature gears by non-conventional processes: A status report, Archive of mechanical engineering
- Automated Real-time Gesture Recognition Using Hand-motion Trajectory, International Journal of Engineering and Technology, 2017
- Hussain, M. Z., Khan, U., Jangid, R., & Khan, S. (2018, February). 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.
- Kumar, Pradeep, Abid Haleem, Furqan Qamar, and Urfi Khan. "Modelling Inland Waterborne Transport for Supply Chain Policy Planning: An Indian Perspective." Global Journal of Flexible Systems Management 18, no. 4 (2017): 353-366.
- Hussain, Md Zakir, Urfi Khan, A. K. Chanda, and Rituraj Jangid. "Fabrication and Hardness Analysis of-MWCNTs Reinforced Aluminium Nanocomposite." Procedia Engineering (2017): 1611-1618.
- Khan, Urfi, Noor Zairian Khan, and Jasdeep Gulati. "Ultrasonic Welding of Bi-Metals: Optimizing Process Parameters for Maximum Tensile-Shear Strength and Plasticity of Welds." Procedia Engineering 173 (2017): 1447-1454.

## PATENTS GRANTED

- "A PNEUMATIC DAMPER CONTROLLED AK PROTEHESIS" Patent No.: 287178, Application, No.: 8886/DEL/2009, Patent filed on 29/04/2009
- A shoe with heel and toe strike sensors, Patent number - 280904, Application Number - 2745/ DEL/ 2007; filed on: 28-12-2007. Patentee: Dr. Manoj Soni, Prof. S. Maji, Prof. Sneha Anand. Patent granted on 01/03/2017 by Government of India, Patent Office.

## DEPARTMENT OF INFORMATION TECHNOLOGY

### SALIENT FEATURES

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 their 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. Department has conducted an International Conference on Demystifying Global Transformation in Technology and Management in 2016.

### LAB INFRASTRUCTURE

The Department boasts of 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™ 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. Already 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 awareness education to 300 students in last academic year.

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

## TECHNICAL ACTIVITIES

- Workshop on “Big Data tools” conducted on 7th April, 2018.
- Workshop on “Digital Forensics and Cyber Crime Investigation” conducted on 17 - 18 March, 2018 under ISEA Project.
- Seminar on "Cyber Crime and Cyber Law" conducted on 19-20 March, 2018 under ISEA Project.
- Workshop on “Ethical hacking” conducted during 6th June, 2017 to 17th June, 2017 under ISEA Project.
- Workshop on “SenseNuts: IoT Stack and Platform” conducted during 17th June, 2017 to 20th June, 2017 under ISEA Project
- Workshop On “Big Data With Hands On Sessions On Hadoop, R, Matlab & Spark” organized by IGD TUW sponsored by ISEA, IEEE (Student Branch), ACM (Student Chapter) and HDFC Bank from 18th July, 2017 to 22nd July, 2017.
- Department of IT provided Technical Support and Training to Delhi Police
- Department of IT has conducted two weeks training program on “Cyber Security, Cyber Crime & Investigation”, 31st July 2017 -11th August 2017.

## STUDENT'S ACHIEVEMENTS

- IGDTUW has uploaded the consolidated marksheet of students of B.Tech, M.Tech and MCA who have graduated in 2017 through National Academic Depository(NAD)
- **Smart India Hackathon (SIH)-2017 (Team TeclinoTwister - Secured First Prize of cash Rs. 1,00,000)**

All India Council for Technical Education (AICTE), Inter Institutional Inclusive Innovation Center (i4C), and Persistent Systems organized Smart India Hackathon 2017, a unique initiative to identify new and disruptive digital technology innovations for solving the challenges faced by our country. Approximately 29 Union Ministries & Departments joined this grand initiative. SIH 2017 was a 36-hr product development competition held on April 1 & 2, 2017 across 26 nodal centers in India. During the software edition grand finale, teams of technology students built innovative digital solutions for problems posed by different Central Govt. Ministries/ Departments. Overall, 598 problem statements were taken up by 1266 shortlisted teams consisting of over 42,000 students. Team TeclinoTwister of 06 (Six) students from Indira Gandhi Delhi Technical University for Women, Delhi, CSE 3rd year (Megha Aggarwal, Aishna Gupta, Shreya Gupta, Isha Gupta, Sakshi Jain), IT 2nd year (Dhriti Aggarwal) was one of the two teams shortlisted to participate in the Grand Finale of Smart India Hackathon held on 1-2 April 2017 at Sagar Institute of Research & Technology, Bhopal, Madhya Pradesh (MP). Out of the thousand ideas received from all across the country, idea of this team of solving the issue of proxy/para teachers engaged in teaching at different levels thereby affecting the quality of teaching and learning amongst students by using a digitized teacher tracking system to locate schools with shortage of teacher w.r.t the norms given in RTE Act, 2009 was selected for the 36 hours Non-Stop

Hackathon. The product development was commenced on 1st April 2017. First round of evaluation involved explaining the prototype to the panel. On the next day, second round of evaluation which was the implementation round of the product developed. The final evaluation round took place after the 36 hours period. It involved critical testing of the product. Each round comprised of Q/A sessions with the panel of judges from the Ministry. After successful demonstration in all the rounds, the team was selected among the Top 10 teams for the Power Judgement. It involved a 3 minutes presentation in front of a panel from Ministries followed by a 3 minutes Q/A session.

Finally, the Hackathon came to an end and the team were conferred with the 1st prize at the valedictory ceremony along with a cash prize of Rs. 1,00,000. It was a great experience for the team to interact with innovative minds from across the country and showcasing project in front of them.

- **Participation of Students in Hackathon**  
All India Council for Technical Education (AICTE) under the aegis of the Ministry of Human Resource Development (MHRD) in collaboration with i4c, MyGov, Persistent Systems and Rambhau Mhalgi Prabodhinhas organized Smart India Hackathon 2018. With 27 Union Ministries & Departments and 17 State Governments joined this grand initiative. The Software edition, which was a 36-hr software product development competition, held on March 30 & 31, 2018 across 28 nodal centers in India. During the software edition grand finale, teams of technology students built innovative digital solutions for problems posed by different Central Govt. Ministries/ Departments. Overall, 340 problem statements were taken up by 1282 shortlisted teams consisting of over 10250 students.

Total 07 teams participated from Department of IT, IGDTUW in various cities across India and presented their project work on various themes as per the details given below:

Location	List of Students	Team Name	Any Awards won
Smart India Hackathon 2018, Indore	IT 3rd year (Dhriti Aggarwal and Arushi Arora), CSE 4th year (Megha Aggarwal, Aishna Gupta, Shreya Gupta), CSE 2nd year (Apoorva Sigh)	Hurricane	2nd runner-up award with a cash prize of Rs. 50000.
SIH 2018, Mumbai	Kopal Gupta - Team Leader (IT 3rd Year), Aditi Mittal (IT 3rd Year), Mansi Mittal (IT 3rd Year), Vipasha Dhiman (IT 3rd year), Shubhi Agarwal (CSE 3rd Year), Aakanksha Reddy (CSE 3rd Year)	LinkedList	3rd award and cash prize of INR 50,000
Smart India Hackathon (SIH) 2018, Mumbai	Vasundhara Ghose (M.Tech Final Year), Himani Sharma (M.Tech Final Year), Reeti Sarup (B.Tech-IT, Pre-Final Year), Shifa Samreen (B.Tech- IT, Pre-Final Year), Preeti Saharan (B.Tech-IT, Pre-Final Year), Ananya Aggarwal (B.Tech-IT, Pre-Final Year)	FinTechies	Secured the 4th position With cash prize of 10,000 and a trophy And WeSchool- Smart India Hackathon Protsahan Award
SIH 2018, JSSATE, Noida centre	Utkarsha Goswami B.Tech(IT), Ayushi Bansal, Kanika Taneja, Nikshubha Kumar, Shriya Malhotra and Taniya Kilam B.Tech (CSE)	Hackstorm	KPIT Inspiration Award with a cash prize of Rs. 10,000 only
SIH Kolkata	Simran Kaur, Namrata Gupta, Megha Bagri, Preriti Prajapati, Nishtha Malhotra, Manubha Garg	Teletubbies	Innovation Award by Deloitte
SIH 2018, Kolkata	Anchal Hora, Jaspreet Kaur Nayyar, Lavannya Goyal, Megha Agrawal, Pallavi Maurya, Rashi Agarwal (MCA 1st year)	Code Zillions	Nil
SIH 2018, Indore	Pallavi Singh, Megha Bajaj, Kritika Jindal, Kritika Sharma, Mohini Jadon, Ashi Singh	Techvengers	Nil

After various rounds of judging and amidst a number of teams present at SIH 2018, the zeal and effort of our students paid off and they were appreciated for their project work. Five (5) of our teams managed to get accolades and awards based upon their performance. It was a great learning experience for all the teams.



## **SPECIALISED TRAINING CONDUCTED IN THE AREA OF CYBER SECURITY AND CYBER CRIME INVESTIGATION**

### **Two Weeks Training Program on “CYBER SECURITY, CYBER CRIME & INVESTIGATION” (31st July 2017 -11th August 2017)**

Department of IT organized a two weeks training program on Cyber Security, Cyber Crime & Investigation from 31st July to 11th August, 2017 for Delhi Police. This training Programme is one of the collaborative efforts between IGDTUW and Delhi Police to address various issues related to Cyber Crime Investigation and Social Media. The detailed plan of the course has been designed by consulting the security domain experts of Law enforcement agencies and the Cyber Faculty members of PTC. The objective of the training Programme was to equip the Delhi Police with necessary capacity and enhance the capabilities to deal with Cyber Security and Cyber Crime investigation.

The broad topics on Cyber Security, Forensics, IT act and Social Media Analytics were covered followed by hands on experimentation, quizzes and certification. The lectures were delivered by the experts from CDAC, Faculty members of IT Dept, faculty member of PTC and practicing cyber experts from Supreme Court of India.

The successful police inspectors were distributed the completion certificate by Vice Chancellor, IGDTUW, Special Police Commissioner (Law & Order), Special Commissioner (Training).

### **WORKSHOP ON “DIGITAL FORENSICS AND CYBER CRIME INVESTIGATION” (17th March 2018 to 18th March 2018)**

Department of IT, under Information Security Education Awareness (ISEA) project organized a two days workshop on Cyber Security and Cyber Crime Investigation from 17- 18 March, 2018 for M.Tech. (ISM) students. The objective of the workshop was to provide hands on experience on various issues pertaining to Cyber crime and forensic investigation of digital evidence through use of Forensic Server and various software tools like cyber check suite, True Image, Hasher, F-RAN, F-DAC, CAINE, Autopsy etc. The various case studies pertaining to cyber crime were discussed and analyzed using various tools pertaining to digital forensics.

Mr. Abhay Pal Chauhan, Sr. Technical Officer, CDAC Noida conducted the expert lectures. At the end of workshop, a test was conducted and Rank holders were awarded prizes. All the participants were awarded the participation certificates. Overall, the feedback of the students was excellent and they requested to conduct similar type of Workshops and training programs in future.

## SEMINAR ON “CYBER CRIME AND CYBER LAW ” (19th March 2018 to 20th March 2018)

Department of IT, under Information Security Education Awareness (ISEA) project organized a two days Seminar on Cyber Crime and Cyber Law from 19- 20 March, 2018 for MCA students. The objective of the seminar was to enrich students on recent Cyber Crime, Cyber Terrorism and various Cyber Laws,

Security procedures rule 2011, Intermediary guidelines 2011 related to IT act 2006 and IT Amendment Act 2008. The Seminar also threw light on various certifications such as CISSP, ISO Certification 27001 along with various sections under which Cyber Crimes and Cyber Bullying are covered.

### 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
- Manoj Kumrat, Arun Sharma, An integrated framework for software vulnerability detection, analysis and mitigation: an autonomic system, Sadhana(Springer).Vol. 42, Issue 9, Sept., 2017 pp: 1481 -1493. <https://doi.org/10.1007/s12046-017-0696-7> (SCIE), 2017.
- Ritu Garg, R.K. Singh, Detecting Model Clones using Design Metrics, 1st International Conference on new frontiers in engineering, Science and Technology, New Delhi, January 2018.
- Anushree Agrawal, R.K. Singh, Empirical Validation of Object Oriented Metrics and Machine Learning Algorithm for Software Change Proneness Prediction, International Conference “Towards Extensible and Adaptable Methods in Computing (TEAMC 2018), Springer NSIT, New Delhi”
- Kardam, Kajol, Akshita Kejriwal, Kirti Sharma and Rishabh Kaushal "Ranking scholarly work based on author reputation." Advances in Computing, Communications and Informatics (ICACCI), 2016 International Conference on. IEEE.
- Bhawna Narwal, Dr. A.K. Mohapatra, “Energy Efficient Vertical Handover in Heterogeneous Wireless Networks”, IJCTA, 9(19) 2016, pp. 9221-9225, © International Science Press (Scopus Indexed).

## DEPARTMENT OF APPLIED SCIENCES & HUMANITIES

### SALIENT FEATURES

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. 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 their careers 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

- Expert Lecture in association with EDP Cell IGDTUW by Mr. Deepak Sar, IT Professional, Oracle, on “Campus to Corporate World” in April 2017 in the Seminar Hall, Administrative Block.
- Expert lecture by Mr. E.V. Gireesh, A Dynamic Trainer and Counsellor with passion for excellence and Creativity, on Human Values and Ethics in Education with a special focus on ‘Enhancing Mind Power’ on 25th August 2017 in the University Auditorium
- Lecture By Prof. Veena Sahajwalla, University of New South Wales, Sydney (Australia) and Jubilee Chair Professor of the Indian Academy of Sciences, on "Reviving Waste in Green Manufacturing: Creating new solutions through Innovations and Partnerships" on Tuesday, 29th August, 2017 in the Seminar Hall, Administrative Block.
- Lecture By Prof. Ellen Carpenter, American Embassy Science Fellow and Program Director, Division of Undergraduate Education, National Science Foundation, USA on "Roles, responsibilities and practices of women in STEM in India and the United States" on November 15th, 2017 in the University Seminar Hall, Administrative Block.
- Subject Expert Committee (SEC) meeting on Engineering & Technology under Women Scientist Scheme of DST on July 28-29, 2017 in Conference Hall, Administrative Block.

## ON-GOING SPONSORED PROJECTS

- Principal Investigator: Dr. Ranu Gadi “Spatio-Temporal Variability of Aerosols over National Capital Region (NCR), India”, funded by DST, New Delhi, Duration: January 2015-December 2017, Funding received: 52 lakhs.
- Principal Investigator: Dr. Nenavathu Bhavani Prasad Naik “Studies on enhancement of super capacitor performance: effect of morphology and surface defects of reduced graphene oxide-metal oxide nano composites” funded by UGC, Duration of the project- two years, funding received: 10 lakhs.

## SPONSORED PROJECTS COMPLETED

- “Estimates of Indoor Air pollutants emitted from fuels used in residential sector of Northern India”, funded by CSIR, New Delhi, Funding received: Rs.18 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: 05 lakhs. Principal Investigator: Dr Dinesh Ganotra.
- “Panoramic Imaging”, funded by UGC New Delhi, Funding received: 05 Lakhs. Principal Investigator: Dr. Dinesh Ganotra.

## PATENTS GRANTED

Two Indian patents have been granted, by Patents Authority of India, in collaboration with National Research Development Corporation of India, INDIA

- “A method of depositing thin films of metals and non metals” Patentee: Prof. M.P. Srivastava, Savita Roy and Chhaya Ravi Kant, Patent
- “A method of depositing thin films of non metals” Patentee: Prof. M.P. Srivastava, Savita Roy and Chhaya Ravi Kant, Patent

### SALIENT FEATURES

Humans are natural entities and the forces of nature affect their physical and mental health. Since the evolution of human race, a conscious and continuous effort has been made by them, to create neighbourhood in a manner that brings mental happiness. Architecture is art and science of designing space and serving the multifarious activities of human beings and meeting their specific needs in meaningful built environment. Architecture uses philosophic wholesomeness of humanities, logical rationalism of science, the passionate imagination about art and inexhaustible resources of technology. It calls for originality, creativity, conceptualization, perception, aesthetics, values and holistic judgment of people, places, objects and events. With the evolution of well formed approaches of architecture creations, gradually it has emerged as a profession and formal education started in this area. When more complex urbanization came into existence, because of its broadened scope and baffling complexity, architecture has generated specializations like structure design, urban design, city planning, landscape architecture, interior architecture, construction management etc. Each of these compliment and support each other. Creativity is the essence of architecture, and harmony is the essential aim of architects. The architecture that has been recognized as great should be harmonious with nature and its immediate environment.

In Indian context, with growing population and depleting resources, education in architecture is gaining more importance. The need to produce professionals who have taken formal education in architecture and who can contribute in nation building is much felt. As it is becoming a profession, the monetary aspects are now included in the works of architects, and their services are commercialized. Because of the fact that architecture is now developing as a profession the knowledge of professional ethics, rules and regulations of professional practice, responsibilities and rights of professionals performing practice in this area is becoming mandatory. In the light of many additional dimensions added to the field of architecture, the formal education in architecture is much sought course now a days. Today, architecture is being recognized as an intellectual discipline, both as an art and as profession. Architects make vast contributions in shaping of our environment, society and in the design. In INDIA we have further complexities of different social, cultural, geographical, economical and technical nuances, which are unique and typical of every region in our country. With this aim the Department of Architecture and Planning is established to impart good quality education in the area of Architecture and Planning.

## 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 ACHIEVEMENTS

- Second year B.Arch. students Jhanak Mathur, Shramana Ghosh, M. Anushree Nair and Shreyata Khurana had won the First Prize in the "ACT OF GREEN DESIGN" competition organised by Amity School of Architecture and Planning in the month of April 2017. The theme of the design competition was "ACT TO DESIGN"- Reusing Plastic Waste, in order to raise awareness regarding reuse of waste plastics. The team used waste plastic bottles and straws in order to create a special kind of window panel using "jaalis" as the main concept. It was taken up as an economic and social cause in villages of hot and humid climate where such window panels are effective. The concept finds an application on all types of buildings due to its ease of construction. It was a good description of the Product Design along with the detailed model.
- The Nexus Incubation Hub at American Centre, Delhi, had organised a national level business innovation competition for female undergraduates of India in March 2018, to qualify for their Aspiring Women Entrepreneurs (AWE) Program organised in collaboration with the University of Texas at Austin, USA. The students were asked to share their present startup initiative and future vision of the business proposal.
- Dipti Chourasia, second year student of Architecture at IGDTUW (also a Director of our Startup Company Prarabdha Info. Solutions Pvt. Ltd. based out at IGDTUW-Anveshan Foundation) has been selected as one of the top 16 candidates from over 400 applications received from students all over India. She will be engaged in training for three months starting this April. The mentorship will be happening in three phases- first phase will be online, second will be held at Nexus Incubation Hub at American Centre, Delhi and third will be a two weeks US State Department sponsored training at the University of Texas at Austin, where selected Indian students would undergo innovation readiness training along with students of the USA and Sweden. The organizers will further be in touch with and aid in business development of the start-up's innovation. Four more students from third year Architecture (Pragya, Ishita, Megha and Jyoti) who are working as interns will be part of the start-up venture.

## STUDENT'S ACTIVITIES

- Visit to National Gallery of Modern Art, New Delhi.
- Visit to Rashtrapati Bhavan, New Delhi.
- Workshop on Timber Joinery: Carpentry.
- One day workshop on "Earth Construction with Hunnarshala Foundation" in Bhuj, Gujarat on 22nd Feb 2018 of 2nd year B. Arch students, IGDTUW.
- Six day Educational Tour to Ahmedabad, Bhuj and Kutch, Gujarat of 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.
- One day Pottery Workshop with Delhi Blue Pottery Trust in Triveni Kala Academi, Delhi for 1st year B. Arch, IGDTUW, students in October 2017. Students of B.Arch., IGDTUW, participated in "THE THIRD WAVE, ZONASA 2017" October 2017.

## FACULTY ACHIEVEMENTS

### Dr. Preeti Vajpeyi

#### 1. Expert Lecture

- Invited Speaker in Delhi IIT, on 'Human Values in Engineering', April, 2017
- Invited Speaker in Lai Bahadur Shastri National Academy of Administration, Mussorie for Phase I IAS Officers Training, on Sustainable Social Infrastructure March 2017
- Invited Speaker in School of Social Design, Ambedkar University on Building as Learning Aid
- Invited Speaker in Delhi IIT, on 'Grassroot level innovations in Education', November, 2017
- Keynote speaker National Conference on Quality Inclusive Education Schooling, for

the Plenary Session organized by School Inclusive Education Development Initiative in Delhi

- Invited Speaker in Lai Bahadur Shastri National Academy of Administration, Mussorie for Phase I IAS Officers Training, on Innovations in Education, March 2018

#### 2. Undertakings

- Conducted Academic Audit of Vastu Kala Academy, Delhi, November 2017
- Conducted Capacity Building Training Program for Administrators for Child Friendly Aanganwadis, on invitation of UNICEF, February, 2018

### Ar. Preeti Chauhan

#### 1. Expert

##### lecture/Assignments/Undertaking:

- Invited as Special Invitee for HPI Hospital Planning and Infrastructure Conference from 6th to 8th October 2017.

- Acetech 2017 - Walk the talk with your Mentor as invited special Mentor from 14th-15th December 2017.



## Ar. Vishal Rai

### 1. Expert

#### Lecture/Assignments/Undertaking

- Invited as an external expert by GGSIPU for academic audit of an affiliated institute of GGSIPU, on 15/12/17.
- Invited as an external examiner by USAP, GGSIPU, Dwarka, New Delhi, for the course of Construction Technologies and Advance Science (AP 323) on 21/12/17.

### 2. Exhibition Organized

- Exhibition Curator to the first exhibition organized by students of First and Third Year of Department of Architecture & Planning on Settlement Study of Sari Village, Rudrapur, Uttarakhand. Exhibition was organized on 27th and 28th February 2018.

## Ar. Sneha Maji

### 1. Expert Lectures/Workshop

- Organised One-day workshop on Earth Architecture with Hunnarshala Foundation for 2nd Year B.Arch. students 2018.
- Invited as a Panellist for Discussion on "The use of Technology for Digital Governance" UX Now 2016 Conference in IIT Delhi, Nov 2018.

### 2. Paper Presented

- Presented a Short Paper Exploring Note taking behaviour of College students and possible use of Mobile for m-Learning based solutions INTERACT 2017 Conference held in IIT Bombay from 25th to 29th Sep 2017. Published by Springer International Publishing 16th IFIP TC 13 International Conference Mumbai, India, September 25-29,

## Ar. Venus Kashyap

### 1. Workshop Organised

- Organised One-day workshop on Earth Architecture with Hunnarshala Foundation for 2nd Year B.Arch. students 2018.
- Organised "Brick Roof Construction" workshop with expert Ar. Suresh Vaidya Rajan for B.Arch. students at Deptt. of Architecture & Planning, IGDTUW, October 2017.
- Organised Dramatics workshop with Ar. Akriti Singh, for university students at Deptt. of Architecture & Planning, IGDTUW, September 2017.

### 2. Academic Exchange

- Selected as DAAD (Deutscher Akademischer Austausch dienst) German Academic Exchange Service Young Ambassador for year 2017-18.

### 3. Conferences Attended

- Participated and presented at Integrated Urban Development and Co- Production for Indian cities conference and workshop, organised by Technical University Berlin and School of Planning and Architecture, New Delhi, July 2017.

### 4. Expert Lecture

- Invited as speaker to "No Future Without Education" Lab/seminar, September 2017.
- Invited as special Invitee to Smart Cities and Informed Urbanisation workshop, organised by UNSW Sydney, Sydney, in collaboration with NITI Aayog, Govt, of India, April 2017.

## Ar. Kshitij Kumar Sinha

1. Start-Up Initiated: Selected as an Incubatee to the IGDTUW- Anveshan Foundation and working on a Start-Up Business Idea for larger benefit of the Society
2. Conference Attended & Papers Presented:
  - Presented Paper on “Learning Architecture Beyond Classroom: Realizing the Potential of Fully Residential” in a National Conference on Architecture & Beyond (NCAB)-2017 organized by Vidya Pratisthan’s School of Architecture, Baramati, Maharashtra.
3. Expert/Guest/Invited Lectures:
  - Delivered a lecture on “Net Zero Building- An answer to India’s Energy Concern” ; Date- 04th March 2017 in a AICTE sponsored STP on Recent Trends in Building Services for Architecture & Construction Engineering organized by MITS, Gwalior
  - Delivered a lecture on “Design Management- An Efficient Tool for Construction Projects”; Dated 21st March 2017” in a AICTE sponsored STP on Infrastructure Development organized by MITS, Gwalior.
  - Delivered a lecture on “Focusing on Operative & Cooperative Skill for Comprehensive Development- Revisiting the Architectural Pedagogy”; 20th March 2017 in a AICTE sponsored STP on Infrastructure Development organized by MITS, Gwalior
4. Society’s Formed/ Exhibition Organized:
  - Conducted a five-day workshop on “Disaster Shelter” for architecture students at 60th annual NASA convention 2018 organised by DC School of Architecture, Vagamon, Kerala from 29 Jan-3 Feb 2018.
  - As a Faculty Advisor guided students to form a society called B.H.A.V- (Behold an Architect’s View)- The Role Play Society of IGDTUW as a Faculty Advisor of B.H.A.V Society Organized an Intra-University Quiz Competition in collaboration with National Commission for Women (NCW), India to create awareness about the legal rights of women among students on 23.11.2017 @ Exhibition Curator to the first exhibition organized by students of First and Third Year of Department of Architecture & Planning on Settlement Study of Sari Village, Rudryaprayag, Uttarakhand. Exhibition was organized on 27th and 28th February 2018.
  - Organised One-day workshop on Earth Architecture with Hunnarshala Foundation for 2nd Year B.Arch. students 2018.

## RESEARCH PUBLICATIONS

- “Learning Architecture Beyond Classroom: Realizing the Potential of Fully Residential Course”; pp 06-10; Volume 05, Jan-March 2017; International Journal of Research in Civil Engineering, Architecture & Design; ISSN Online 2347-2855; ISSN Print 2347-8284
- “Making Architecture Relevant for India: The need to create Social Leaders”; March 2017; International Journal of Engineering, Research & Technology; ISSN- 0974-3154

## 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 materials. The LRC has a focused collection of print, electronic, and audio-visual materials in the areas of science, engineering, technology, technical communication and management to support the learning and research activities of students and faculty. 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-materials like CDs, DVDs and digital thesis of final year students and is available through Open Source Institution Repository Software within the campus premises. OPAC (Online Public Access

Catalogue) 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.

1. Total 1307 new books were procured for the IGDTUW Library during 2017-18.
2. E-resources Subscription during 2017-18:-
  - IEEE Digital Library
  - ACM Digital Library
  - ASME Journals
  - JSTOR India Collection
  - American Mathematical Society (AMS) Journals

## HOSTEL FACILITIES

The University has two women hostels - Krishna Hostel and Kaveri Hostel, to accommodate approximately 300 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 their future career.

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.

Hostel accommodation is limited and will be 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.

Students desirous of seeking hostel admission shall apply immediately after the completion of their admission process for IGDTUW. Students are required to produce the university admission fee receipt at the time of submission of application for the hostel admission.

## DEVELOPMENTAL ACTIVITIES IN THE KRISHNA AND KAVERI HOSTELS

### **The following developmental work in the IGDTUW Hostels is under progress:**

- The renovation work at Krishna Hostel started in January, 2018 and the work at second floor would complete by May 2018.
- During the renovation the Ground floor of the Krishna hostel would be made disabled friendly.
- Development of Gardens (including one Herbal Garden) in front of the both the hostels.
- Process of installation of Lift has been initiated and permission from the ASI is to be sought.

### **The following student activities were organised in both the hostels during 2017-18:**

- Celebrations of Festivals/National festivals: Festivals like Holi, Diwali,

Valentine's Day, Christmas day, Lohri and Basant Panchami and National Festivals Independence day and Republic day were celebrated

- Swachhata Pakwada: The Swachhata Pakwada was organized from 03/09/2017 and 08/09/2017.
- Invocation Ceremony. The Invocation ceremony of Goddess Saraswati in Kaveri Hostel was done by the Vice-Chancellor on 22nd January 2018.
- Hostel Week: The Hostel week was celebrated during last week of March 2018 where the students organized Quiz, Painting competition, dance and sports events.
- Fresher's Party and Farewell Day: The fresher party was held in November 2017 and farewell day is scheduled to be held on April 28th, 2018.

## 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.

## STATUS OF REPAIR/MAINTENANCE OF VARIOUS ACADEMIC BLOCKS OF THE UNIVERSITY

During the Year 2017-18, various Academic Blocks of the University were repaired/renovated to provide the significant enhancement/facelift of various Academic Blocks/ Buildings to provide the conducive environment for Academics and Research in the University. Status of the various work undertaken/completed during 2017-18 is as under:

Sl.No	Name of the Work	Estimate Cost (in Rs.)	Status of Work
1.	Renovation of ECE Block	2,48,14,746	90% Completed
2.	Renovation of Ground Floor of Administrative Block for Deptt. of Architecture and Planning	71,22,387	Completed
3.	Renovation of Robotics Lab	33,67,830	Completed
4.	Facelift of University Entrance	16,08,200	Completed
5.	Exterior Painting of Various Blocks of the University	81,82,000	90% Completed
6.	Granite Platform around Trees	5,37,400	Completed
7.	Repair of RCC Chajja	11,93,800	Completed
8.	Incubation Centre	35,30,437	Completed
9.	Renovation of Krishna Hostel	4,91,98,600	In Progress

## CAMPUS PLACEMENTS

The Training and Placement Cell facilitates the campus recruitment program at IGDTUW. The placement team is consistently striving to enhance the quality and quantity of the placements in the university. The University T&P Cell facilitates nearly 100% placements with multiple job offers to the students of IGDTUW year after year. During the recruitment drive around 62 companies visit the campus every year.

### PLACEMENT AT A GLANCE

Sr. No	Company Name	FT/ Internship	Eligible Branches	CTC Offered	Total No. of Offers Made			
					CTC P.A.	Intern CTC	FT	Intern ship
1.	Accenture	FT	B.Tech (All Branches), M. Tech (All Branches), MCA	3,50,000.	350000		51	
2.	Adobe	FT	B.Tech CS/IT/ECE, M.Tech I.SM/MPC/VLSI	12,50,052	1250052		2	
3.	Amazon	FT+ Internship	B.Tech CS/IT/ECE MCA M.Tech (All Branches)	27,00,000	2700000	480000	4	7
4.	ARM	Internship	M.Tech (All Branches)	28,000		336000		13
5.	Azcom	FT+ Internship	B.Tech CS/IT/ECE	6,50,000	650000	336000	7	
6.	Blackstone	FT+ Internship	B.Tech CS/IT, MCA	5,00,000	500000	240000		5
7.	Cisco	FT+ Internship	B.Tech CS/IT/ECE, M.Tech ISM/MPC	14,72,067/ 13,13,600	1472067	528000	4	5
8.	Coding Blocks	FT	B.Tech CS/IT/ECE, M.Tech ISM/MPC, MCA	6,00,000	1472067	600000	1	
9.	Compro	FT	B.Tech CS/IT/ECE, MCA	5,30,000	530000			
10.	Coviam	Internship	M.Tech ISM/MPC, MCA	28,000		336000		

Sr. No	Company Name	FT/ Internship	Eligible Branches	CTC Offered	Total No. of Offers Made			
					CTC P.A.	Intern CTC	FT	Intern ship
11.	Dell	FT	B.Tech CS/IT	8,00,000	800000		11	
12.	Deutsche Bank	FT	B.Tech CS/IT/ECE	12,00,000	1200000		2	
13.	Expedia	FT+ Internship	B.Tech CS/IT	10,00,000	1000000	360000	3	5
14.	FICO	Internship	M.Tech ISM/MPC, MCA	26,000		312000		5
15.	GE Digital	FT+ Internship	B.Tech (All Branches), M.Tech (All Branches), MCA	9,46,536	946536	240000	6	3
16.	GE Edison	FT+ Internship	B.Tech MAE/ECE M.Tech VLSI	8,51,536	851536		3	
17.	Hero MotoCorp	FT	B.Tech MAE	5,50,000	550000		1	
18.	Honda	FT	B.Tech MAE	5,05,000	505000		4	
19.	Hughes	FT	B.Tech CS/IT, MCA	5,00,000	500000		1	
20.	HUL	FT	B.Tech MAE	7,00,000	700000		4	
21.	InfoEdge	FT	B.Tech CS/IT/ECE	9,50,000	950000		3	
22.	Intuit	FT+ Internship	B.Tech CS/IT	25,16,750	2516750	540000	4	3
23.	ION Trading	FT	B.Tech CS/IT, MCA	12,00,000 /8,00,000	1200000		7	
24.	LIBSYS	FT	B.Tech CS/IT, MCA	6,00,000	600000		1	
25.	LinkedIn	FT	B.Tech CS/IT	32,43,000	3243000			
26.	Macquarie	FT	B.Tech CS/IT	6,60,000	660000		4	
27.	Maruti Suzuki	FT	B.Tech MAE	6,40,000	640000		3	
28.	Microsoft IDC	FT+ Internship	B.Tech (All Branches), M.Tech (All Branches), MCA	22,38,750	2238750	540000	5	3
29.	Mobiquel	Internship	M.Tech (All Branches), MCA	10,000		1,20,000		2
30.	Morgan Stanley	Internship	M.Tech (All Branches), MCA	40,000	4,80,000			2

Sr. No	Company Name	FT/ Internship	Eligible Branches	CTC Offered	Total No. of Offers Made			
					CTC P.A.	Intern CTC	FT	Intern ship
31.	Nagarro	FT	B.Tech CS/IT/ECE, M.Tech ISM/MPC, MCA	3,50,000	350000			
32.	Nestle	FT	B.Tech MAE	6,30,000	630000		1	
33.	Netapp	Internship	M.Tech ISM/MPC, MCA	35,000	630000	4,20,000	0	2
34.	Opera Solutions	FT	B.Tech CS/IT	6,00,000	600000		0	
35.	Oracle	FT	B.Tech CS/IT/ECE, M.Tech ISM/MPC /VLSI	9,00,000	990000		14	
36.	Orange Business Services	FT	B.Tech CS/IT, M.Tech ISM/MPC	8,50,000	850000		3	
37.	SAP Labs	FT+ Internship	B.Tech CS/IT/ECE, MCA	10,00,000	1000000	300000	2	3
38.	Smartprix	FT+ Internship	B.Tech CS/IT/ECE, M.Tech ISM/MPC, MCA	10,00,000	1000000			
39.	TCS	FT	B.Tech (All Branches), M.Tech (All Branches), MCA	3,36,000 /3,53,000	353000		52	
40.	Thought-works	FT	B.Tech CS/IT/ECE, M.Tech ISM/MPC, MCA	7,60,000	760000		n J	
41.	Zillious	FT	B.Tech CS/IT, MCA	7,00,000	700000		1	
42.	ZS	FT	B.Tech (All Branches)	6,50,000	650000		0	
43.	TATA Power	FT	B.Tech ECE	4,17,000	417000		3	
44.	Siemens	FT	B.Tech ECE/MAE	5,00,000	500000		2	
45.	General Motors	FT	B.Tech CS/ECE/ MAE	5,50,000	550000		5	
46.	Mahindra and Mahindra	FT	B.Tech CS/ECE/ MAE	6,00,000	600000		1	
47.	TATA Motors	FT	B.Tech ECE/MAE	6,00,000	600000		15	



Sr. No	Company Name	FT/ Internship	Eligible Branches	CTC Offered	Total No. of Offers Made				
					CTC P.A.	Intern CTC	FT	Intern ship	
48.	EATON	FT	B.Tech CS/ECE/ MAE	8,00,000	800000	96000	12	4	
49.	Directi	FT	B.Tech CS/1T	25,00,000-27,50,000	2750000				
50.	Anand Automotive	FT	B.Tech MAE	4,50,000	450000		4		
51.	Saint-Gobain	FT+ Internship	B.Tech MAE	6,30,000	630000	180000	1	3	
52.	TATA Communication	FT	B.Tech CSE/IT/ECE	10,00,000	1000000		5		
53.	Zopper	FT	B.Tech CS/IT/ECE M.Tech ISM/MPC	8,00,000	800000		2		
54.	Exxon Mobil	FT	B.Tech MAE	9,30,000	930000		2		
55.	Suez Water Technology & Solutions	FT+ Internship	B.Tech MAE	4,50,000		240000		1	
56.	Fluor Daniel	FT	B.Tech MAE	5,84,000	584000		11		
57.	NUT Technologies	FT	B.Tech CS/1T	7,00,000	700000		1		
58.	HSBC	FT	B.Tech (All Branches)	12,00,000	1200000		1		
59.	HSBC	FT	B.Tech (All Branches)	7,00,000	700000		4		
60.	Indigo	FT	B.Tech MAE	3,50,000	350000				
61.	India Mart	FT	B.Tech CS, M.Tech MPC	7,20,000	720000				
<b>TOTAL</b>							<b>278</b>	<b>64</b>	

## CURIE GRANT FROM DEPTT. OF SCIENCE & TECHNOLOGY GOVT. OF INDIA

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). Following are the Department wise approved list for equipment items.

### **Department of Applied Science & Humanities:**

- FT-IR
- Table Top 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:**

- Various Softwares

## ANVESHAN FOUNDATION INCUBATION CENTRE

An incubation Centre has been established at IGDTUW by the Govt, of NCT of Delhi for promoting the innovations, entrepreneurship, start-ups, product designs and Intellectual Property by the students, faculty, staff and alumni etc. in collaboration with Industry and Government sector to create employment for social and economical development of the country. Apart than IGDTUW, five other Institutes of Delhi, including DTU, NSIT, IIITD, AUD and SSCBS have also been selected for the same.

The Incubation Centre was inaugurated by Hon'ble Dy. CM on 12th May, 2016. An initial

seed amount of Rs. 1.5 Crore has also been received by the University from the Govt, of NCT of Delhi. A company pursuant to sub-section (2) of section 7 of the Companies Act, 2013 and rule 8 of the Companies (Incorporation) Rules, 2014 with name "IGDTUW-Anveshan Foundation" has been incorporated for the smooth conduct of activities under Incubation Centre. This company will invite the proposals and business ideas from the students, faculty, staff and alumni for funding as well as other technical and infrastructure support.

Sr. No	Company's Name	Promoter's/ Director's Name	Faculty Mentor	Funding by IGDTUW-Anveshan Foundation (Against Equity) till date. (i.e. 10.04.18) in Rupees
1.	Prarabdha Info Solutions Private Limited CIN: U74990DL2017PTC325184 PAN: AAJCP4904G Dol: 23rd October 2017	1. Kshitij Kumar Sinha, Faculty, IGDTUW, 2. Ms. Dipti Chourasia, Student of IGDTUW	Mr. Kshitij Kumar Sinha, Asst. Prof. Architect Department, IGDTUW	2,50,000/-
2.	ETI Labs Private Limited CIN: U74999DL2017PTC324072 PAN: AAECE7982Q Dol: 25th September 2017	1. Dr. Settipalli Ramanarayana Reddy, Faculty, IGDTUW 2. Ms. Manasi Mishra, Student of IGDTUW 3. RachitThakur	Dr. SRN Reddy, Professor, CSE Department	2,50,000/-
3.	Skvwalkers Techeducation Private Limited CIN: U80900DL2017PTC323636 PAN: AAZCS2192P Dol: 13th September 2017	1. Ms. Jyoti, Alumni of IGDTUW 2. Madhu Dinkar	Dr. Jasdeep Kaur Dhanoa, HoD, ECE Department	2,50,000/-
4.	Inforest Technologies Private Limited CIN: U74999DL2017PTC322926 PAN: AAECI6114J Dol: 13th August 2017	1. Ms. Vaibhavi Sharma, Student of IGDTUW 2. Mr. Vibhu Sharma	Not Given Yet	50,000/-

## DETAILS OF PARTICIPANTS OF ANVESHAN FOUNDATION ACTIVITIES

Sr. No	Applicant's Name	Project Name	Contact Details	Reporting Time (Afternoon)	Timings (Afternoon)
1.	Dinesh Ganotra	T-Safe	9818129793 dinesh-ganotra@hotmail.com	01:00	01:40-02:00
2.	Sunanda Buddhi	Smart Pill Dispenser	7702457262 sunandabuddhi@gmail.com	01:40	02:00-02:20
3.	Drishya Pathak	Rate your Hospital	9971476579 drishyapathak@gmail.com	02:00	02:20-02:40
4.	Anusuya Khan	Urban Agriculture	8454801112 anusiiva.khan@gmail.com	02:20	02:40-03:00
5.	Ruchika	Doo Prints	7011806099 Ruchika2feb@gmail.com	02:40	03:00-03:20
6.	Mansi Malhotra	Neysa Designs	9971166255 mansimalhotra04@gmail.com	03:00	03:20-03:40
7.	Samiksha Srivastava	OFIS	8750041648 samiksha.srivastava@gmail.com	03:20	03:40-04:00
8.	Jyoti Maurya	Avasa the band	8447276136 jyotiegm@gmail.com	03:40	04:00-04:20
9.	Shikha Gill	Not in India Presently	9560596658 shikhaparttapgill@gmail.com	04:00	04:20-04:40

## 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, Mobile and Pervasive Computing, VLSI design and Robotics and Automation Engineering.

The University started Ph.D. programme from academic year 2014-15. The B. Arch programme was started in 2015-16 with the approval of Council of Architecture. M.Tech in Information Communication Technology for the working women was started from the academic year 2016-17. From the academic year 2017-18, the University is offering M.Tech programme with specialization in Green Technology.

- **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, IITD & 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. (Full Time) program is made on all India basis on the basis of the merit of the valid GATE Score secured by candidates and thereafter 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 basis. 85% of the total seats are reserved for candidate belonging to Delhi Region (Students passing the qualifying examination from NCT of Delhi) and 15% of the total seats for candidates belonging to outside Delhi Region. It is proposed to conduct Common Entrance Test for Admission to MCA Programme for the Academic Year 2017-18.
- **Admission to Ph.D. Programme:** The admission to Ph.D programme in various disciplines is based on GATE/UGC-NET/RAT Examination and /or Interview. The status of year wise admission for the various programmes is as under:

## PROGRAM INTAKE

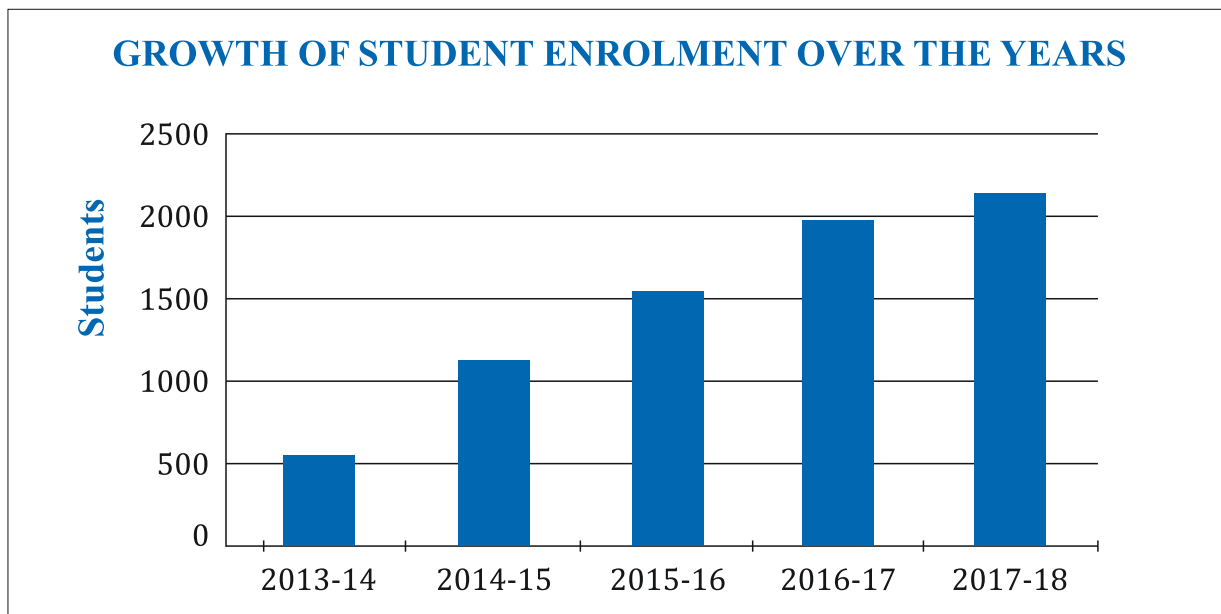
The status of year wise admission for the various programs is a under:

Year-wise Intake in Under-Graduate Programs						
Program	Branch	2013-14	2014-15	2015-16	2016-17	2017-18
B.Tech.	Information Technology	74	74	74	77	76
	Computer Science and Engineering	74	74	74	138	154
	Electronics and Communication Engineering	74	74	74	76	76
	Mechanical and Automation Engineering	74	74	74	76	76
B. Architecture	-			40	40	40
<b>Total UG</b>		<b>222</b>	<b>222</b>	<b>336</b>	<b>407</b>	<b>420</b>

Year-wise Intake in Post-Graduate Programs						
Program	Branch	2013-14	2014-15	2015-16	2016-17	2017-18
M.Tech.	ISM	30	30	32	31	31
	MPC	30	30	32	32	32
	VLSI	30	30	32	32	32
	RA	30	30	32	31	31
	Green Technology	-	-	-	-	20
M.Tech. PT		40	40	40	40	40
MCA		60	60	60	60	60
<b>Total PG</b>		<b>220</b>	<b>220</b>	<b>228</b>	<b>226</b>	<b>246</b>

Growth of Students Enrolment over the years					
	2013-14	2014-15	2015-16	2016-17	2017-18
UG	296	592	928	1335	1461
PG	220	500	548	546	566
Ph.D	0	25	56	87	112
<b>Total</b>	<b>516</b>	<b>1117</b>	<b>1532</b>	<b>1968</b>	<b>2139</b>

Year-wise Intake in Ph.D. Program					
Programme	2013-14	2014-15	2015-16	2016-17	2017-18
Ph.D.	-	25	31	31	25



Years

## WAY FORWARD

### 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. The IGDTUW plans to start following new programs in the next 10 years in case a new campus is constructed and land of 70 acres is allotted. The total student strength of 10,000 can be achieved by 2027 if a fully residential campus is built in a phased manner.

#### University Faculties in New Campus

- Faculty of Engineering and Technology
- Faculty of Architecture and Design
- Faculty of 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\*



**Indira Gandhi Delhi Technical University For Women**  
(Established by Govt. of Delhi vide Act 9 of 2012)

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