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UDBHAAAS

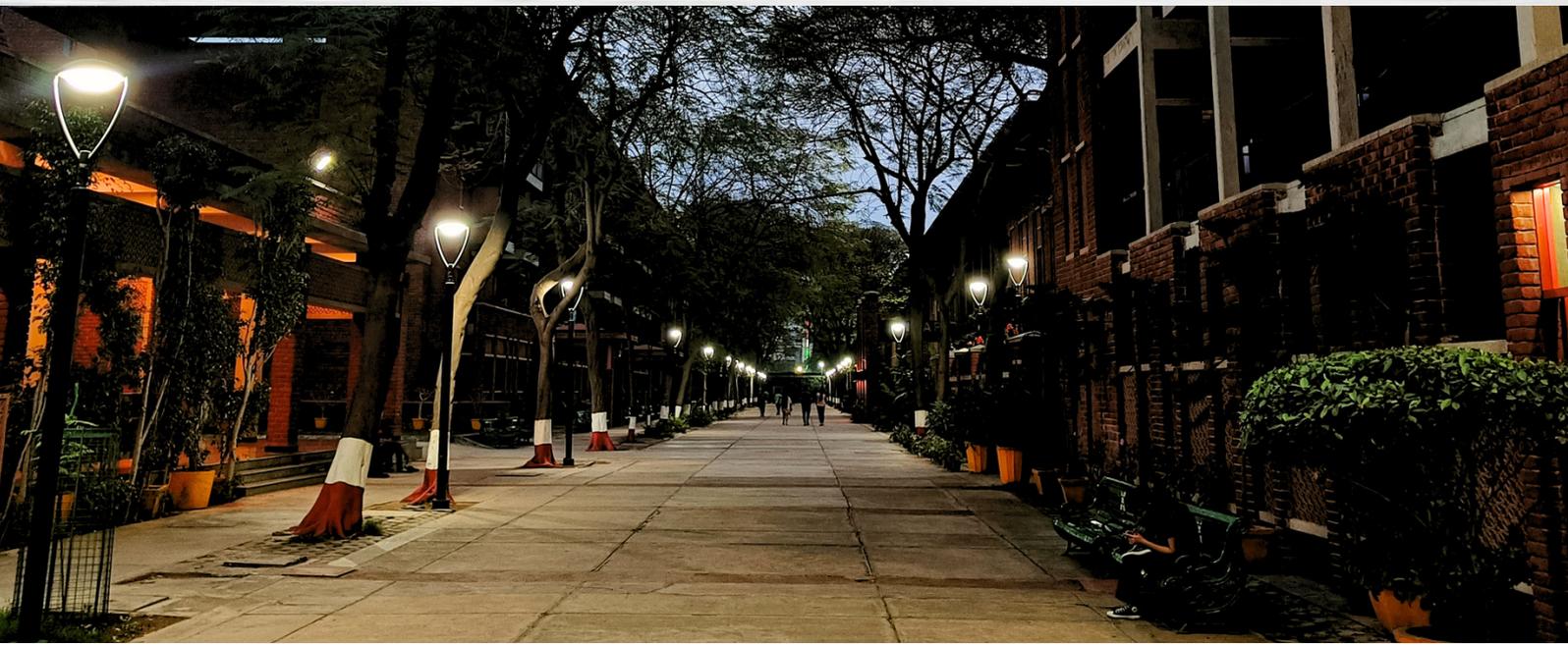
NEWSLETTER

Volume 2 | Issue 1 | May 2023

Department of Electronics and Communication Engineering
Jaypee Institute of Information Technology, NOIDA
(Deemed to be University under Section 3 of UGC Act 1956)

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MESSAGE FROM THE PRO-CHANCELLOR

I would like to congratulate the Department of Electronics and Communication Engineering (ECE) for the publication of the recent issue of the newsletter, Udbhaas. This publication is a testament to our students' and faculty members' tireless efforts, and it highlights the immense talent, creativity, and hard work that characterize the Department of ECE.

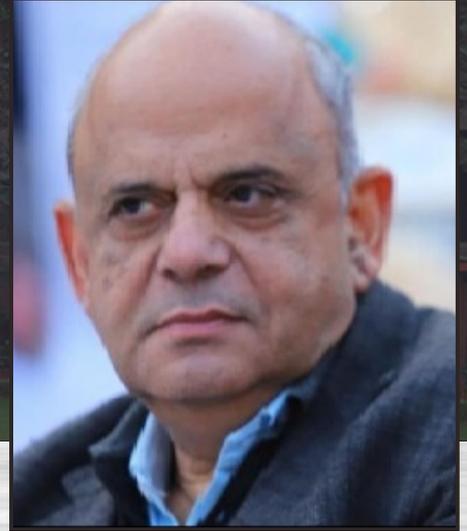
Our undergraduate, postgraduate, and Ph.D. programs continue to be solid and top-notch, and students' participation in various inter- and intra-college activities is truly commendable. Such accomplishments demonstrate the faculty members' and students' unwavering dedication to excellence and help to strengthen the department's reputation. I would like to express my deep gratitude for the hard work and commitment of the faculty members, which have made the Department of ECE a beacon of academic and research excellence.

Once again, congratulations on this fantastic accomplishment, and I look forward to seeing even more achievements from the Department of ECE in the years to come.

**With best wishes,
Prof. S. C. Saxena
Pro-Chancellor**

Jaypee Institute of Information Technology

MESSAGE FROM THE VICE-CHANCELLOR



I am delighted to extend my heartfelt congratulations to you all on the publication of the latest issue of the newsletter of the Department of Electronics and Communication Engineering (ECE). It has been truly inspiring to see the department's growth and success over the years, from its strong undergraduate, graduate, and doctoral programs to the numerous inter- and intra-college activities in which our students have excelled.

I am extremely proud of the faculty members' and students' dedication and commitment to achieving excellence and establishing the department as one of the best in the country. In this issue of Udbhaas, the editorial team has done an outstanding job of presenting the department's achievements and positive perceptions.

As we move forward to achieve the vision of Jaypee Institute of Information Technology (JIIT), I have no doubt that our students will continue to excel and make a name for themselves and the institute. I urge all our students to explore and take part in the numerous co-curricular activities that JIIT offers, as they are crucial for holistic growth and development.

I am looking forward to seeing the passion and dedication of our students in upcoming events and activities. With hard work, commitment, and determination, I am confident that the future of the Department of ECE and JIIT is bright.

May you all continue to strive for excellence and achieve great success in all your endeavors!

With best compliments,

Prof. B. R. Mehta
Vice-Chancellor
Jaypee Institute of Information Technology

MESSAGE FROM THE HEAD OF DEPARTMENT



On behalf of the Department of Electronics and Communication Engineering (ECE), I would like to extend a warm welcome to you. Since its inception in 2001, our department has been on a path of growth and excellence, offering robust undergraduate, postgraduate, and Ph.D. programs in the core electronics and communication engineering curriculum and research.

Our students have consistently exhibited tremendous enthusiasm and zeal in various inter- and intra-college activities, such as seminars, workshops, conferences, placement programs, and technical and cultural events. These activities have significantly contributed to their overall development and enhanced the reputation of our institute.

In today's fast-paced world, it is essential to articulate our thoughts and rediscover the relevance of our fields of interest. The departmental newsletter, Udbhaas, is a testimony to the department's achievements and will inspire the students to aim higher and accomplish more. These achievements are a result of the tireless efforts of our faculty members and students, who have put in enormous hard work to reach new heights. It gives me great pleasure to congratulate the faculty members and students of the Department of ECE who have made contributions to the current edition of Udbhaas.

With best regards,
Prof. Shweta Srivastava
Head of Department
Electronics and Communication Engineering

Message from the Editorial Team



Dear Readers,

We are pleased to present the latest edition of Udbhaas, the newsletter of the Department of Electronics and Communication Engineering (ECE). The editorial team has worked tirelessly to compile this edition of the newsletter, which highlights the talent, creativity, and success stories of the department's students and faculty members. The newsletter is intended to inspire and motivate students to achieve their goals and dreams.

Udbhaas contains important details that highlight the faculty members' vision and commitment to preparing students to thrive in a fast-paced world. This newsletter is proof of their unwavering commitment and hard work.

We poured our hearts into this edition of Udbhaas, and we are excited to share it with you. Our goal was to create a newsletter that would be informative, engaging, and valuable to our readers. We hope that our efforts are well received, and we look forward to hearing from you.

Thank you for spending time reading this issue of Udbhaas. We hope you find it both informative and entertaining.

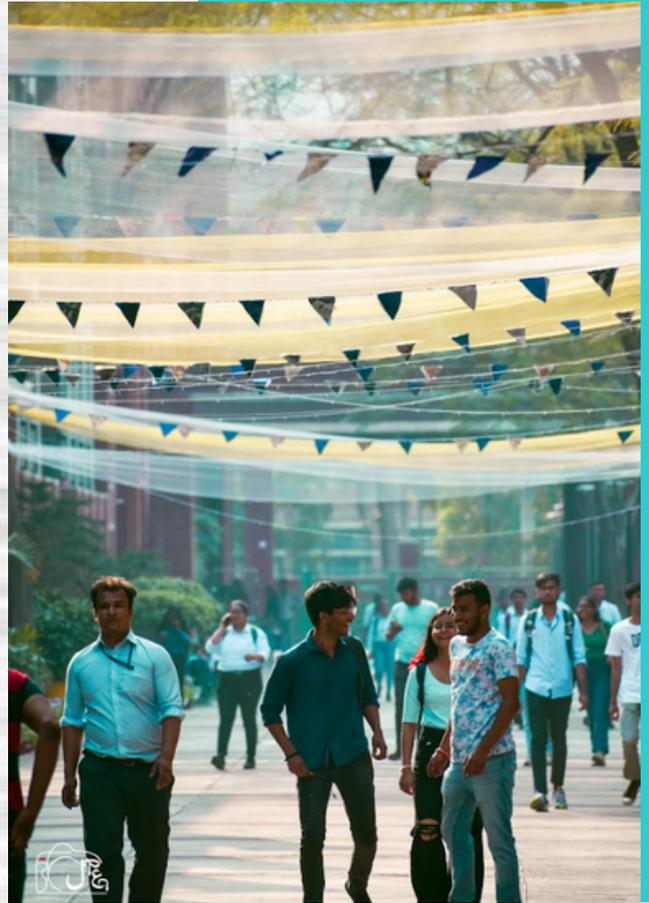
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तेजस्वि नावधीतमस्तु । मा विद्विषावहै ।
ॐ शान्तिः शान्तिः शान्तिः ।

- कृष्णयजुर्वेद

Sincerely,
Editorial Team

VISION

To become a centre of excellence in the field of Information Technology and related emerging areas of education, training and research comparable to the best in the world for producing professionals who shall be leaders in innovation, entrepreneurship, creativity and management.



MISSION

MISSION 1: To develop as a benchmark university in emerging technologies.

MISSION 2: To provide a state-of-the-art teaching-learning process and R&D environment.

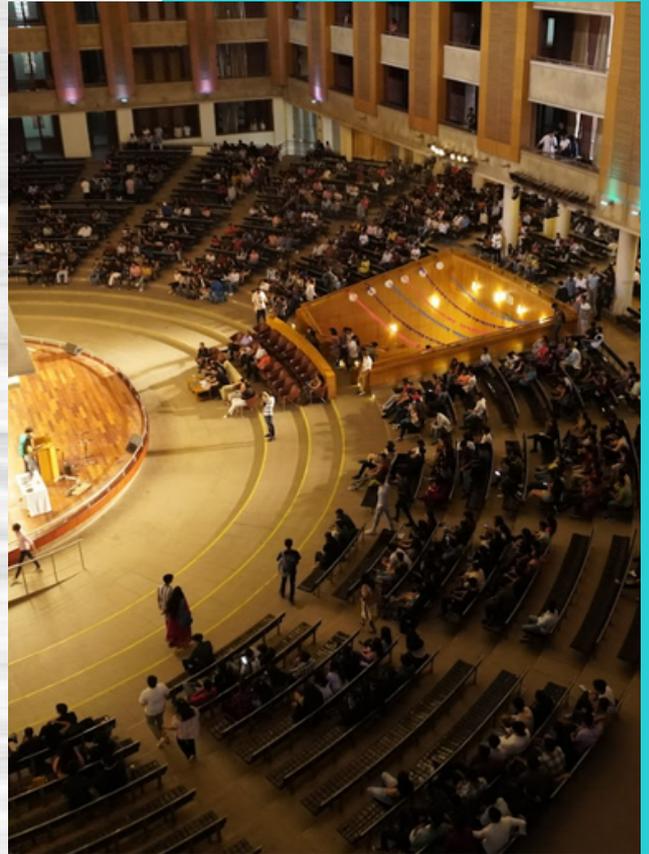
MISSION 3: To harness human capital for a sustainable competitive edge and social relevance.



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

VISION

To be a centre of excellence in education, training and research in Electronics and Communication Engineering to cultivate technically competent professionals for Industry, Academia and Society.



MISSION

MISSION 1: To impart education through contemporary, futuristic and flexible curricula with innovative teaching and learning methods and hands on training with well-equipped labs.

MISSION 2: To carry out cutting edge research in different areas of Electronics and Communication Engineering.

MISSION 3: To inculcate technical and entrepreneurial skills in professionals to provide socially relevant and sustainable solutions.

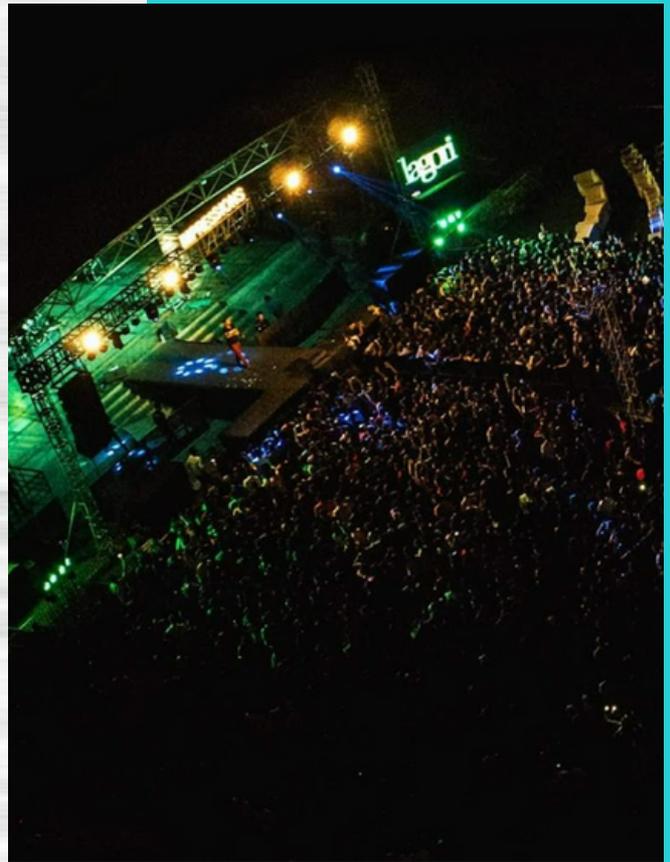
Programme Educational Objectives (PEOs)

PROGRAMME NAME: B. TECH. IN ELECTRONICS AND COMMUNICATION ENGINEERING

PEO1: To provide a strong foundation in Electronics and Communication Engineering to pursue professional career, entrepreneurship and higher studies.

PEO2: To evolve the capability to analyse, design and develop feasible solutions to real-world problems.

PEO3: To inculcate professional ethics, managerial and communication skills to develop ingenious solutions for the benefit of society and the environment.

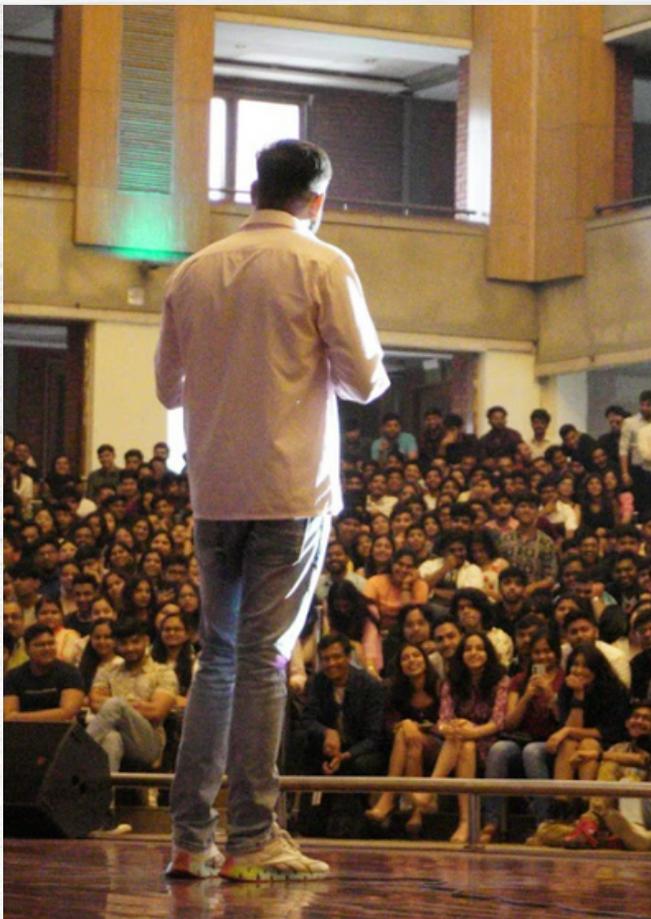


PROGRAMME NAME: M. TECH. IN ELECTRONICS AND COMMUNICATION ENGINEERING

PEO1: To provide profound knowledge of modern design tools to solve real-life problems in the field of Electronics and Communication Engineering.

PEO2: To inculcate research skills with ethical attributes for academia and industry.

PEO3: To develop entrepreneurial skills as per industry requirements for providing sustainable solutions to the society.



Research Achievements

Funded Projects

S. NO	Project Title	Project Investigator	Funding Agency	Approved Fund	Status
1	Development of Tunable Self-Powered Quantum Dot Based Photodetectors Using Low-Cost Solution Processed Method	Dr. Hemant Kumar	Science and Engineering Research Board (SERB)	30.36 Lakhs	Completed
2	Transmit Cluster Antenna Selection Schemes to Reduce Feedback Bits for Next Generation Wireless Communication Systems	Dr. Ankit Garg	Science and Engineering Research Board (SERB)	17.36 Lakhs	Ongoing
3	Development of Low Cost Spectrum Tunable Spectrum Selective Photodetectors	Dr. Yogesh Kumar	Science and Engineering Research Board (SERB)	29.26 Lakhs	Ongoing
4	Acoustically detecting and localizing the unmanned aerial vehicle using vector sensor	Dr. Kapil Dev Tyagi and Dr. Abhishek Kashyap	Science and Engineering Research Board (SERB)	29.79 Lakhs	Ongoing
5	Development of UV Activated ZnO Quantum Dots Based Hydrogen Gas Sensor	Dr. Yogesh Kumar	Institute Research and Development Project Scheme (IRDPS), JIIT Noida	4.2 Lakhs	Ongoing
6	Modeling, Design and Simulation of sub-10 nm GaN-SOI-FinFET for Label Free Bio-sensing and High-performance Analog/RF Applications	Dr. Ajay Kumar	Institute Research and Development Project Scheme (IRDPS), JIIT Noida	70,000	Ongoing
7	Reliable classification of cyclic alternating pattern (CAP) for sleep disorders	Dr. Megha Agarwal	DRID, JIIT	80,000	Ongoing
8	Fundus image based diagnosis and clinical decision support system for early prediction of glaucoma and grading of diabetic retinopathies	Dr. Megha Agarwal	Biotechnology Industry Research Assistance Council (BIRAC)	9.25 Lakhs	Ongoing

Research Achievements

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BOOK CHAPTERS

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Research Achievements

Patent data

S. No	Patent Title	Author
1	A Smart Luggage Cum Stroller System	Vimal Kumar Mishra
2	NOVEL THREE DIMENSIONAL SUBSTRATE INTEGRATED WAVEGUIDE CAVITY SLOT ANTENNA ARRAY WITH DUAL OPERATION (RADIATOR AND REFLECTOR)	Abhay Kumar and Shweta Srivastava
3	ZT_BUSM: A ROBUST BLOCKCHAIN BASED SECURE UAV-UAV COMMUNICATION USING ZERO TRUST SECURITY MODEL	Juhi Gupta and Arushi Srivastava
4	A TUNABLE ACTIVE INDUCTOR USING ON-CHIP BIAS VOLTAGES	Garima Kapur
5	A SYSTEM TO RECEIVE ACOUSTIC SIGNALS AND TO REFLECT NOISE FROM DIRECTION OF NO INTEREST	Kapil Dev Tyagi
6	A METHODOLOGY FOR SMART GREENHOUSE BASED MONITORING AND ANALYZING THE HEALTH OF WILD ANIMALS	Shruti Kalra and Ruby Beniwal
7	EMOIT: AN INTELLIGENT TOY WITH EMOTIONS	Shikha Jain, Madhu Jain, Prakhar Gupta and Vidit Singh
8	FITNESS SHOE	Madhu Jain, Tanishq Manuja and Karan Pechori
9	A WEARABLE SMART HEALTH MONITORING DEVICE.	Varnit Goswami and Gaurav Verma
10	A CAVITY BASED MULTI RESONANT PIEZOELECTRIC ENERGY HARVESTER WITH ONE STRAIGHT AND TWO L-SHAPED BRANCHES	Shradha Saxena, R. K. Dwivedi and Vijay Khare
11	FAST AND ACCURATE POWER ESTIMATION TOOL (FAPET) FOR FPGA BASED FIR SYSTEM	Neerja Singh, Gaurav Verma and Vijay Khare
12	A SYSTEM TO CLASSIFY THE UNDERWATER MAMMALS ON THE BASIS OF AGE AND GENDER USING ACOUSTIC CLICK DATA	Kapil Dev Tyagi
13	Rice Palanting Robot	Vimal Kumar Mishra, Vaiabhav Mishra, Abhinav Chaudhary and Shivangi
14	ERROR DETECTING PEN	Prateek Bansal and Shruti Kalra
15	Cavitation Noise Rejection Using Air As Discontinuity In Underwater Measurements	Kapil Dev Tyagi
16	Fully Active Dead-Zone Circuit with High Precision and Suitable for IC Design	Atul Kumar, Bhartendu Chaturvedi and Jitendra Mohan
17	Direction Of Arrival Estimation Of An Underwater Acoustic Source Using Two Sensors And Human Senses	Kapil Dev Tyagi
18	Safe and Intelligent Scissor	Madhu Jain and Shikha Jain
19	Direction of arrival estimation using single sensor and reflector for acoustic pulse source.	Kapil Dev Tyagi
20	Substrate Integrated Waveguide Yagi Array Antenna on Silicon Substrate.	Arnab Chakraborty and Shweta Srivastava
21	A System and Method for Real time Biometric Surveillance	Monika Singh and Akshay Kumar
22	Gizmo Fitmate- The Personal Fitness Assistant	Vijay Khare, Kanishk Mahor, Pankaj Garg and Manish Kumar
23	TV Distance Manager	Manish Kumar, Satyasundara Mahapatra, Ravi Kumar, Shamim Akhter, Saurabh Chaturvedi and Ankit Jain

Research Facilities

CENTRES OF EXCELLENCE

Centre for MEMS (Micro Electro Mechanical System) Design

A National MEMS Design Center (NMDC) was established at IIIT in 2009 under the National Program on Micro and Smart Systems (NPMASS). It is a collaborative effort between the Department of Electronics and Communication Engineering and the Department of Physics and Materials Science, IIIT Noida, focusing on MEMS and smart sensors. The program promotes MEMS through departmental courses and research activities, with a focus on device design, modeling, and characterization.

Centre for Innovation in VLSI and Smart Systems (CIVSS)

The Centre, established in 2019, focuses on VLSI, IoT, AI, and Embedded Systems through innovation, standardization, and prototype realization. It offers chip design expertise from RTL to GDSII up to 22nm technology node, including pre-silicon testing and FPGA/simulation-based prototyping. The vision is to become a global landmark in VLSI, Smart Systems, and related fields, contributing to global growth and society.

Centre of Excellence on UAV and Electronic Border Security

The Center of Excellence on UAV and Electronic Border Security was established in 2022 with a focus on border security and drone security and privacy. It has three sub-projects: (a) Design of Compact Smart antenna system using switched beam technology for border security and demonstration at prototype level, (b) Design and Simulation of separate acoustic and RADAR system for drone detection, and (c) Design of Blockchain-based UAV security system and demonstration of the developed software. The Center also promotes student activities in radar and drone technology. A patent has been filed for a novel antenna array by Dr. Abhay Kumar, and Prof. Shweta Srivastava, and a research project entitled “Acoustically detecting and localizing the unmanned aerial vehicle using vector sensor” by Dr. Kapil Dev Tyagi has been awarded a grant of Rs. 29.79 Lakhs.

Research Facilities

HARDWARE FACILITIES

LPKF ProtoMat E44 PCB Machine

Capability:

LPKF ProtoMats are global standards in precision, flexibility, and user-friendliness. LPKF circuit board plotters are utilized for indispensable fast in-house production of PCBs – for quantities ranging from one offs for development projects to small batches. They are ideal for high-capacity, analog, digital, RF, and microwave applications. Made in Europe: for over three decades now, LPKF circuit board plotters have served as a benchmark in the milling, drilling, and contour milling of PCBs. Following are its key features:

1. Protective housing: The ProtoMat housing makes processing especially comfortable. It seals the working chamber off from the environment and reduces noise emissions.
2. Circuit board plotter spindles: The LPKF ProtoMats come with different milling spindles that rotate at speeds of 30000 RPM to 100000 RPM (controlled). A high spindle speed enables faster processing, increases resolution, and improves side wall quality.
3. Camera system: With the integrated registration camera system, the LPKF ProtoMats achieve a precision of $\pm 20 \mu\text{m}$ for processing of double-sided PCBs with fiducial marks. A camera increases this precision even more: it detects registration marks or geometric features of the board and automatically adjusts the milling width – for fully automated processing.
4. Vacuum table: The integrated vacuum table facilitates processing of flexible materials and securely holds small workpieces down on the working surface.

3D printer for PCB packaging

Capability:

The proposed machine can print the minimum feature of 1mm and the maximum size that can be printed in the machine is of 230mm*230mm*230mm in X,Y and Z direction. Following are its key feature:

- The Machine is completely indigenous and is designed and manufactured in India.
- Machine has 2 nozzles which make it efficient for printing complex to complex designs.
- Machine nozzles have the heating temperature upto 300 degrees C which makes it compatible for printing several materials with basic of ABS and PLA and higher end materials including Nylon and Carbon fibre.
- Machine is sturdy with complete metal body.
- Machine is completely a closed box to maintain proper temperature.
- Machine has a heating glass platform/print bed with the maximum heating temperature of 150 degrees C.

Research Facilities

HARDWARE FACILITIES

Hardware Facilities in R & D lab:

S. No	Name of Equipment	Make	Remarks
1	Bench Top Coater (Thermal Evaporation System And Water Chiller)	Hind High Vacuum	The cost of equipment is 12.34 Lakhs and used for deposition of epitaxial layers. In R7D project lab it is primarily used for metal depositions such as Au, Pt, Pd, Ag, Al, and Cu. The system also provide thickness of the deposited material in nanometre scale.
2	Digital Multimeter 7 ½	Keysight	The cost of equipment is 2.5 Lakhs and used measuring current, voltage, and capacitance.
3	Precision Source/Measure Unit (1 Ch)	Keysight	1
4	Mc-01 Micro Centrifuge	Tarson	1
5	Spinot Digital Magnetic Stirrer Hot Plate	Tarson	1
6	Digital Microscope	Almicro	1
7	Digital Ultrasonicator	Almicro	1
8	Digital Precision Balance	Almicro	1

Anechoic Chamber in Electromagnetics Lab:

Anechoic chamber is an isolated environment to reduce the reflections of electromagnetic waves with the help of RF screens called Microwave Absorbers. The Chamber is used to test the antenna parameters (e.g. Radiation Pattern, Variation of Gain with Frequency, Scattering Parameter etc). The Electronics and Communication Engineering Department at Jaypee Institute of Information Technology, has the testing facility of Anechoic Chamber till 30GHz, which includes a wide range of coverage including the millimeter wave applications. Apart from antenna parameter testing the in-house facility of an Anritsu Site Master VNA S820 is capable of taking out the scattering parameters of multi-port microwave devices. The Lab also has two dual ridge horn antennas till 18 GHz and one horn antenna ranging 18 GHz - 40 GHz enabling Far-Field testing. The setup is supported by the automated software for parameter recording and display as well as to control the turn table at the test antenna side. The software has been customized to take parameters like S parameter, 2D radiation pattern (E/H fields), Gain measurement, axial ratio and beamwidth. The software has the capability of taking multipoint graphs at a single run for a maximum of 6 frequency point. The system also has an option of auto return and sensing of home position. The chamber includes a single axis Receiver positioner system (Azimuthal rotations only) and single axis transmitter positioner system which are fixed. The chamber is about 8 feet × 5 feet × 6 feet in size. This facility is a significant addition to the department which enables the total number of quality publications by several folds.

Research Facilities

SOFTWARES AVAILABLE

S.No	Softwares	Quantity	
1	Ansys HFSS	50	
2	Multisim V11	10	
3	MATLAB cloud-based suite	Unlimited	
4	Proteus	5	
5	Cadence University standard	20	
6	Synopsys	Front End University Bundle (3900)	5
		Back End University Bundle (3901)	1
		Full Custom University Bundle (3902)	5
		3D Advance TCAD University Bundle (4458)	1
7	COMSOL	Multiphysics, Single User CPU	1
		MEMS Model for use with COMSOL	1
8	Vivado	Vivado System Edition SDSOC	25
		ZED Board	5

EVENTS ORGANIZED

S. No.	Organizers	Event Name	Date
1	Dr. Ashish Gupta, Mr. Abhay Kumar	Training on Ansys Tools and Anechoic Chamber for Design, Characterization and Testing of Microwave Devices	24th-25th February 2022
2	Mr. Abhay Kumar & Mr. Raghvendra Kumar Singh	Workshop on Design, Simulations and Testing of Microwave Devices	12th -17th September 2022
3	Dr. Megha Agarwal and Dr. Abhishek Kashyap	Faculty development Program on Advanced research trends in signal and image processing (Hybrid mode)	28th July–August 03, 2022
4	Dr. Archana Pandey, Dr. Garima Kapur	ONE WEEK ONLINE FACULTY DEVELOPMENT PROGRAM On OUTCOME-BASED RESEARCH: VLSI DEVICES, CIRCUIT ANALYSIS, LATEST DESIGN TOOLS AND APPLICATIONS	21st - 27th July 2022



INTERNATIONAL CONFERENCE ICSC 2022

The Eighth Edition of International Conference on Signal Processing and Communication (ICSC-2022) was organized from December 01-03, 2022. In this conference total 303 paper submissions were received from various countries such as Chile, Saudi Arabia, Canada, UAE and from eminent institutions such as DTU, VIT, NIT's, BITS Ranchi, NIT's, NSUT, Andhra University, KIIT, Graphic Era, Symbiosis and so on. With the support of around 115 TPC members and after rigorous peer review, 122 papers have been accepted for presentation in ICSC 2022 and 121 papers are presented in different technical sessions through online mode. There were 22 technical sessions covering all possible aspects of Wireless Communication Systems, Signal Processing for System Analysis, VLSI Technology and Embedded Systems, Machine Learning in Signal Processing, Internet of Things in Communication, Machine Learning in Communication, Image Processing, etc. Apart from these 3 special sessions were conducted on Women in Engineering, Technology for Humanity, Young Professionals. Moreover 7 Keynote speakers were invited to deliver their talk on the relevant topics to cope up with the objective of the conference. These keynote speakers were eminent professors in different reputed universities in USA, Switzerland, Italy, IITs, IIITs, and NITs, including Scientist from the Center of Electromagnetics (R & D Lab).

Industry-Institution Collaboration

S. no	Event	Dates	Speaker detail		
			Name of the Speaker(s)	Profile of the Speaker(s)	Company / Institution
1	Invited talk on Efficient Way of Writing Project proposals	2-Mar-2022	Dr.J.B.V Reddy (Scientist-E)	(Scientist-E Department of Science & Technology(DST),Govt.of India,Ministry of Science & Technology Bhavan,New Mehrauli Road New Delhi-110016	DST
2	Career Guidance	16-04-2022	Ms. Veditha Reddy	IAS, Secretary,	A&N Islands
3	Importance of Computer Architecture and Types of Jobs Digital Semiconductor Industry	5-Jul-2022	Mr. Utkarsh Mathur,	Senior Architect,	CPU, Nvidia
4	Webinar on Sensitising Youth for proper E-waste management	6-May-2022	Mr Aditya Rai	Co-Founder of Sorditcon Private Limited	Sorditcon Private Limited
5	FDP on Outcome Based Research: VLSI Devices,Circuit Analysis,Latest Design Tools and Applications	21-Jul-2022	Mr SK Aggarwal	Regional Manager	Entuple Technologies, Bangalore
		21-Jul-2022	Mr. Prayes Jain	Lead Application Engineer	Cadence Design Systems
		26-Jul-2022	Dr.Purnima Sethi	Director	SuperQ Technologies India Communication
6	One Week Workshop on "Design, Simulations and Testing of Microwave Devices"	13-Sep-2022	Mr. Vikram Dharmraj Singh	RF Antenna Design Engineer	Entuple Technologies
		14-Sep-2022	Mrs. Tanvi Agrawal	Application Engineer	Entuple Technologies
		14-Sep-2022	Mr. Vishal Kharadi	Application Engineer	Entuple Technologies
		16-Sep-2022	Mr. Gaurav Jindal	CEO	Applied Concept Group
		16-Sep-2022	Mr. Aditya Sharma	Sr. Engineer	Anritsu
7	Workshop on Introduction to UAV: Design, Simulation and Implementation	24-Sep-2022	Mr. Dharendra Singh,	founder	Renaissance Technology Pvt. Ltd.
8	Invited talk on GaN: the Game Changer	21-Sep-2022	Dr. Tushar Sharma	Staff RF Engineer at the Renesas Electronics, San Diego, California	Renesas Electronics
9	Awareness and Commercialization of IPR	24-Sep-2022	Ms. Mrunmayi Jadhav	Patent Associate A and Patent Agent	United IPR
10	Interaction and Motivation for ECE domain Jobs	24-Sep-2022	Mr. Dharendra Singh	Founder	Renaissance Technology Pvt. Ltd.
		7-Oct-2022	Mr. Praveen Kumar Verma	Memory Architect /Principal Engineer / Member of Technical Staff	STMicroelectronics
		7-Oct-2022	Mr. Atul Gupta	Solution Architect	Bharti Airtel
		7-Oct-2022	Mr.Salil Mittal	Lead Cyber Security	Jio
11	Invited talk on Scaling ML in Production	23-Dec-2022	Mr Atul Dhingra	Scaling ML in Production	Engineer Manager, ML at the Standard AI, San Francisco, California
12	One day workshop on "Advancements in Optical Communication System Design and its Applications"	03.03.2023	Mr. Amandeep Singh	Product Manager	HR Universal Inc.

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AT A GLANCE

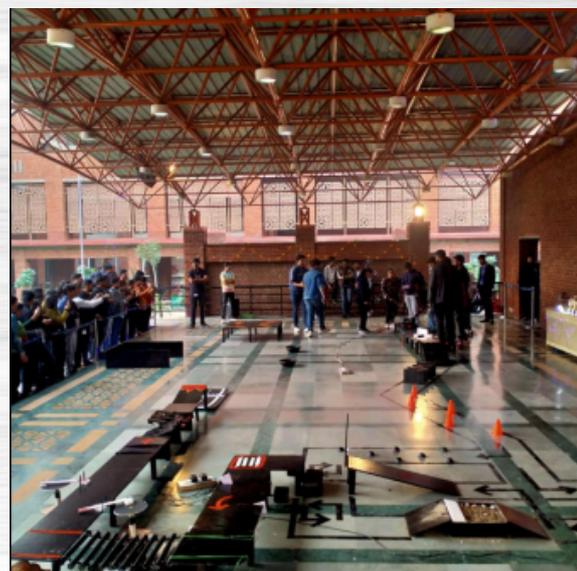
S.no	Event Name
1	SABOTEUR WORKSHOP
2	SABOTEUR HANDS ON
3	EXHIBITION 22

WORKSHOP

The adventure of the Manually controlled robotics workshop, organized by JIIT's Microcontroller Based Systems and Robotics Hub, started on November 15 and lasted for three days. For the first-year students, this was a first of its type. The workshop attracted students from the first to the fourth year of study.

The coordinators and mentors of the hub conducted the event. They informed the students about the significance of the workshop and its potential for growth in the field.

The session began shortly after the induction address, about 5:30 p.m. At the beginning of the workshop, the students were quite energized. It began with the introduction of manual bots, which we could build according to our needs and requirements.



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AT A GLANCE

HANDS-ON



First year Students were first shown all the components and given the brief introduction of each. Teams of four were formed, and each team was assigned a mentor, and they all worked under the supervision of the Coordinators. They were taught how to do soldering, sawing, drilling and using their creativity to come up with different ideas on how to build the hand mechanism of the robot. First they learned how to convert AC voltage to DC using a rectifier and transformer. Everything which the students studied in books was implemented in real life. After the power supply was set, the mentors showed them how to build the remote and the base chassis of the bot. The hand mechanism was left up to their creativity but full support was given from our side even till the last hour of the event.

Exhibition 2022

Venu and Time: ABB-1 on 17-10-22

Brief Description: Analogous to all previous academic sessions, our hub exhibited the talent, hard work and skills of our young engineers in the field of Robotics. Various manual and automated robots were designed by second year students under the guidance of our hub's coordinators. The motive was to showcase a glimpse of the legacy of our hub. The purpose of this exhibition, which was organized by the Microcontroller Based System and Robotics Hub of IIIT, was to bring together students who share a passion for robotics and display their love for robotics and urge the other students to participate and indulge in designing robots.



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The IEEE logo is a large, stylized downward-pointing chevron shape. It is composed of three nested chevrons: the outermost is black, the middle one is cyan, and the innermost is white. The word "IEEE" is written in white, bold, sans-serif capital letters inside the black chevron.

AT A GLANCE

S NO.	Event Name
1	Webinar On Awareness of IPR Quiz with IPR cell
2	Hacktoberfest
3	Tech-De-Bait
4	Techblocks 8.1
5	Xenith 2022 (Main Event) <u>TechTalk</u> Tech Talk by StriverTech Talk by Utkarsh Gupta <u>Events</u> Runtime Terror Treasure Trail Trident Arc
6	Tech Talk by Dr. Kundan Kumar
7	Webinar by Shivam Gupta

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IEEE

AT A GLANCE

Sharing of strategies to crack product based companies and build strong portfolios for MAANG by Mr Bharat Khanna And Mr Vivekananda Vivek , both alumni of IIT and founders of Programming Paathshala on Day-1 followed by a coding contest with exciting prizes up for grabs on Day-2

A two day talk series was organized by IEEE JIIT under the aegis of IEEE UP section where new methodologies to enforce sustainability through technologies including blockchain and IOT were extensively discussed.



An informative online webinar held to create awareness amongst students regarding intellectual property rights and its commercialization.

An online, hands-on-session to familiarize students with git, git-hub and creating their own repositories as well as contributing to existing ones

An extempore cum debate competition where students were made to brainstorm on a multitude of tech-based topics and present their views and challenge those of the opponents in a verbal battle. A five-day teaching event where students were taught by their seniors and mentored on various trending technical domains like C++, Web Development, IOT, CyberSecurity with fun quizzes and extensive teaching material.

An event organized by IEEE JIIT's WIE wing where participants needed to display their imaginative and creative abilities by weaving a speech on a word or image shown to them.



HUBS

CICE

AT A GLANCE

S no.	Event Name
1	UAV DESIGN
2	TECH TALK (by LOVE BABBAR)
3	PROJECT EXHIBITION
4	PCB FABRICATION
5	RIPPER DOC QUEST
6	VIDYUT

UAV DESIGN

CICE JIIT in association with the ECE department organized a one day workshop on 24th September 2022 about 'Introduction to UAV: Design, Simulation, and Implementation' by Mr.Dhirendra Singh.The conveners of the workshop were Dr.Richa Gupta and Dr.Gaurav Verma.The event was highly appreciated by the participants.



HUBS

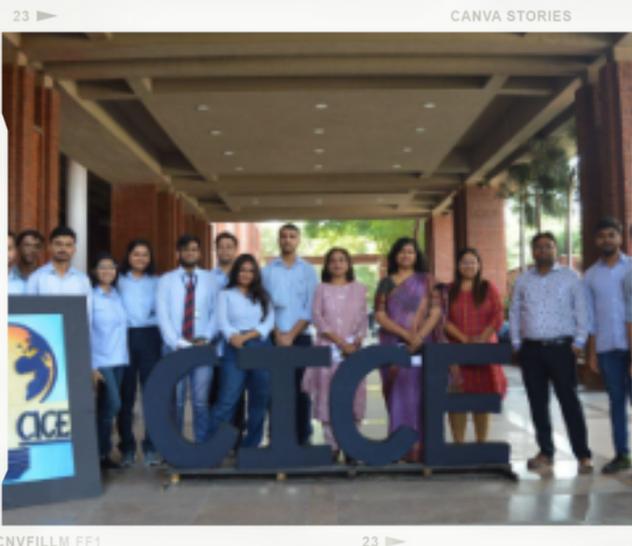
CICE

AT A GLANCE

PROJECT EXHIBITION

Creativity and Innovation Cell in Electronics (CICE) in association with Electronics and Communications Department of Jaypee Institute of Information Technology, Noida successfully organized a Project Exhibition in the University premises on 14th October 2022.

The exhibition was a great success and got excellent reviews from all of its 700 visitors.



TECH TALK (by LOVE BABBAR)

CICE JIIT presented a Tech-Talk. by team CodeHelp which seeks to give students with appropriate mentorship and education to aid in their learning and development.

The speakers for the tech-talk were Mr. Love Babbar, a renowned Youtuber with over 470k followers and Mr. Lakshay Kumar, Computer Scientist at Adobe Systems.

RIPPER DOC QUEST

Creativity and Innovation Cell in Electronics JIIT Noida successfully conducted their 3 hour long Electronics Contest "Ripper Doc " in the college annual fest " Impressions: CyberPunk 2023".

The event had three rounds: Resistance Identification and formation, Blindfold Circuit Building and Error correction in Hardware Circuits.

PCB FABRICATION

The Creativity and Innovation Cell in Electronics successfully conducted a hands-on workshop cum competition for the BTech. students of 1st,2nd and 3rd years in the college premises.

The event was attended by 32 participants who learnt the designing Automatic Light Detecting sensor circuit on Proteus Software and its fabrication in the Centre and Innovation Lab.

PLACEMENT STATUS

Placement Status - B.Tech, ECE									
S No.	Graduating Year	Participating Students	Total Offers	% of Total Offers	Absolute Offers	% of Absolute Offers	Highest Package	Median Package	Average Package
1	2023*	239	300	126%	195	82%	44.14	8.50	9.22
2	2022	256	489	191%	255	100%	44.14	6.25	7.11
3	2021	307	513	167%	304	99%	20.50	4.00	5.04
4	2020	306	509	166%	295	96%	18.50	4.10	5.34
5	2019	320	474	148%	304	95%	18.00	3.60	4.44
6	2018	225	203	90%	187	83%	13.25	3.25	3.92



Department Of Electronics and Communication Engineering

Placement-Highlights

Student Name	Year	Company	Package (INR Lacs)
SHRUTI JAIN	2023	Amazon Wow	44.14
ANUJ MISHRA	2023	Snackmagic	32.00
SHRUTI VYAS	2023	Morgan Stanley	29.48
SARVAGYA RAUT	2023	Snackmagic	29.00
Anmol Ahuja	2022	Amazon Wow	44.14
Ishan Gupta	2022	Amazon Wow	44.14
Manav Tyagi	2022	Amazon Wow	29.36










LIFE AS AN

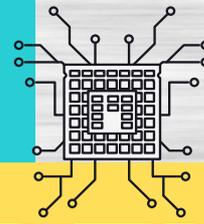


ECE STUDENT

A few months ago, we started our life as college students. We were exposed to a whole new world during this time, but as ECE students, there is still more to discover. At the moment, Electrical Science seems to be quite fascinating, but we all know that over the time these circuits and networks will become an integral part of our academic lives. Well, it's just the beginning of a four-year long journey of making new friends, exploring new opportunities and discovering a whole new world. I am looking forward to this memorable and breathtaking adventure as an ECE student at IIIT.

-Anmol Singh, First year

LIFE AS AN



ECE STUDENT

As an ECE (Electronics and Communication Engineering) student, your academic life will involve a lot of learning and practical applications of electronic devices, communication systems, and networks.

Here are some aspects of your life as an ECE student:

Coursework: You will study courses in mathematics, electronics, communication systems, computer programming, and digital signal processing. You will be expected to learn how to design, analyze, and troubleshoot electronic circuits and communication systems.

Labs and Projects: In addition to coursework, you will also be involved in lab sessions where you will have hands-on experience with electronic devices and communication systems. You may also work on projects where you will be required to apply your theoretical knowledge to solve practical problems.

Group Work: You may be required to work on projects and assignments in groups. This will give you the opportunity to collaborate with your peers and learn from each other.

Career Opportunities: ECE graduates are in high demand in a variety of industries, including telecommunications, aerospace, defense, and healthcare. You may find opportunities in research and development, design, testing, and manufacturing.

Challenges: As with any academic program, you will face challenges as an ECE student. The coursework can be demanding, and you may need to invest a lot of time and effort to succeed. However, with dedication and hard work, you can overcome these challenges and achieve your goals.

Extracurricular Activities: ECE students can participate in various extracurricular activities, such as robotics clubs, coding competitions, and engineering societies. These activities provide opportunities to develop leadership skills, network with professionals, and apply technical knowledge to real-world projects.

In summary, life as an ECE student in college can be challenging but also highly rewarding. With dedication and hard work, you can develop the skills and knowledge necessary to succeed in this field and have a fulfilling career.

-Dhruv Neeraj Vashishtha, First year

PENNED BY STUDENTS

TO HOPE

To the sliver of hope that lingers on,
Through the troubles and tragedies of time.

And the voice in my head,
That stubbornly advocates for sunny days
ahead,
I shall not let you down.

For, through all the pain and heartbreaks,
And the betrayals and let-downs,
You encouragingly whispered, 'Keep marching
on',
Without which, my journey might not have
been as long.

You've seen the dark nights,
And the devastation and silent cries,
Yet, your stubborn persistence embedding in
me,
The dreams of experiencing the joys of the
clear blue skies.

So, even though the path right now is dimly lit,
And the road ahead mighty long,
I shall not give up,
The least, I owe you, is to stand strong.

-Yash Srivastava, Second year

PENNED BY STUDENTS

Dreams and Choices

A thousand dreams flash before my eyes
And alas! I can only pick one
For, to pick one would be wise
Giving me clarity of the clear blue skies
Offering me great fulfillment and fun.

A part of me, wants to live them all
Stopped in its tracks by the cruel reality
That each one has to make his call
To pick just one, for the long haul
And to commit to it in totality.

If only it was that easy to make that choice
Amidst all the hustle, bustle and chatter
To hold on till I find my own voice
And to not mistake it for mere noise
For, this choice, in the course of time will
matter.

And at each one I look with lust
Hoping to make my choice
Which, before it's too late, I must
As a thousand dreams flash before my eyes
Each looking like the perfect one.

-Yash Srivastava, Second year

PENNED BY STUDENTS

"Dear you
When I think of you, my mind silences.
Your laughter frees me of all desires.
When I am with you, I can finally just be.
I began this journey in search of myself.
Never felt like I hit home
After endless longing on a neverending road..
Our paths crossed and I knew...
I had found myself in you.
When I first met you, I am with a shattered heart...
You made It a whole again.
I had never dreamt of the peace I found waking up next to
you,
I'm leaving to see what your absence does to me...or if I ever
left alone
A few steps out and I'm sure you're my final destination.
You're like this timeless tale engraved on my eternal soul
You live in me, like the sky lives in the sea, like obvious
telepathy.
Our romance isn't haunted by distances..
We are connected even in the dark,
Our love will alive even if death does us apart
We are one. We are forever
We will meet again.... in this life or the next

How do I know?
Well..
The wind told me so.
Love, A."

-Akshay Sharma, First year

PENNED BY STUDENTS

मेरे देश की कितनी निर्भया सहमी सहमी डरी हैं,
ज़िंदा बस दिख रही हैं पर अंदर से मरी मरी हैं।
चेहरे हैं खिलखिलाते पर आँखें डर से भरी हैं,
हुक्मरान देश के हो गए आत्माएँ मरी पड़ी हैं।
कितने चेहरे तेज़ाब खा गये कितनी फाइलें सड़ी हैं,
धर्म जात पर होते फैसले सब ज़मीरें मरी हैं।
दाँत पीच कर रह जाता हूँ ज्वाला अंदर भरी हैं,
मीत बड़ा हूँ हिम्मत वाला पर बहन बेटी मेरी डरी हैं।

वैभव पाण्डेय, प्रथम वर्ष

ACHIEVEMENTS OF STUDENTS

Pranav Srivastava, Fourth year

2019- 2021; Member of Eloquence (Literary and Debating Society, JIIT-128);

CAMUN 19- CAMBRIDGE INDIRAPURAM- 'UNITED NATIONS HUMANS RIGHTS COUNCIL'(UNHRC)- VICE PRESIDENT ;

IMSMUNC'19-IMS MANAGEMENT COLLEGE-'UNITED NATIONS GENERAL ASSEMBLY' (UNGA)- FRANCE-SPECIAL MENTION;

SANSMUNC 19- SANSKAAR THE SCHOOL- UNGA- VICE CHAIRPERSON ;

STMUN'19- ST. THOMAS SCHOOL- UNHRC- PRESIDENT;

AVYMUN 1.0- AMBITIOUS VISIONARY – LOK SABHA-SPEAKER;

GDMUN'20- GURGAON D MODEL UNITED NATIONS-'INTERNATIONAL ATOMIC ENERGY AGENCY' (IAEA)- CHAIRPERSON.

2021-2023; Head of Eloquence (Literary and Debating Society, JIIT-128);

ABESMUNC'21- ABES ENGINEERING COLLEGE-UNGA 4- VICE CHAIRPERSON;

IIITUMUNC'22- IIIT UNA – AIPPM- MODERATOR;

SAJAG YUVA MANCH 2.0- RAJDHANI YUVA SANSAD – AIPPM- DEPUTY MODERATOR;

SPARKMUN'22- FATHER AGNEL SCHOOL,N.DELHI – 'United Nations Educational, Scientific and Cultural Organization' (UNESCO)- CHAIRPERSON;

IMSMUNC'22- IMS MANAGEMENT COLLEGE- MARVEL VS DC- VICE CHAIRPERSON

STUDENT ACHIEVEMENTS

Suryansh Saxena, Third year

I worked with the Indian Space Research Organization on India's first solar mission and second in observation class the Aditya-L1. I was involved in the making of the world's first Solar telescope that was working in the Ultraviolet region as a part of the mission, and now I am going to work with the Laser Interferometer Gravitational Wave Observatory (LIGO) India collaboration. It was fun to work in the field and organization I always expected to work in. Its like you are interested in a particular subject and you dream about associating with an organization or institution that is working in the sector in which you are passionate to work in or its your dream org in which everyone is desires to work, and suddenly after years of dedicated hard work and struggle you finally get the opportunity to do so. My feeling was similar when I got the call to join ISRO. So how did I get there? It was not only my hard work but my luck too. I was always passionate about astrophysics. I knew that being a student from the electronics and communication engineering background would be a challenge for me if I wanted to enter the field of astronomy and astrophysics. Despite this challenge I didn't back off from my passion. I started to research about the topic, attended several conferences, workshops, courses, etc. and finally, I was in possession of significant knowledge that was required to take me to a level I always desired.

What I want to convey is, people back off from their true and real passion. The passion and dreams they always see but due to a number of obstacles and hurdles they break and decide to live without them. It's not just dedicating yourself to the course you are "officially" enrolled in. You should focus on it, but even focus on your dreams by the side. Knowledge is never officially imparted, you can self-develop yourself and finally work in your dream organization and tell yourself while sitting on a desk "once I dreamt of coming here". We are living in a world that is so advanced in technology. Free resources on every topic are available everywhere, so make use of them for yourself. Mostly, everyone reading this, has experienced the same scenario mentioned. So just keep faith in you, your knowledge and make yourself grow over others. Don't be in a competition, make the competition.

रत्नाकराधौतपदां हिमालयकिरीटिनीम् ।
ब्रह्मराजर्षि रत्नाढ्यां वन्दे भारतमातरम् ॥

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