

The Spintronics NEWS LETTER

J. B. Institute of Engineering & Technology

June 2024

Volume 1, Issue01



Department of ECE

Vision:

To be a guiding force enabling multifarious applications in Electronics and Communications Engineering, promote innovative research in the latest technologies to meet societal needs.

Mission:

- To provide and strengthen core competencies among the students through expert training and industry interaction.
- To promote advanced designing and modeling skills to sustain technical development and lifelong learning.

INSIDE HIGHLIGHTS:

HOD'S MESSAGE

EVENTS

STUDENTS ACHIEVEMENTS

ARTICLES



Dr. Towheed Sultana

From the Head of Department's Desk

It gives me immense pleasure to present this edition of the Department of Electronics and Communication Engineering (ECE) newsletter. At J. B. Institute of Engineering & Technology, we take pride in nurturing young minds and shaping them into competent engineers and innovators.

This Semester has been truly rewarding, marked by the commendable efforts of our faculty, the enthusiasm of our students, and the continued support from our management and alumni. Our department has seen significant progress — from impactful student projects, research publications, and industry collaborations, to the successful organization of seminars, workshops, and technical events. These milestones are a testament to our commitment to academic excellence and holistic development.

Looking ahead, our focus remains on enhancing research initiatives, promoting industry interaction, and fostering entrepreneurial spirit among students. With emerging technologies like AI, IoT, and 5G reshaping the ECE landscape, we are continuously evolving our curriculum and practices to keep pace with global advancements.

Let us continue to work together — faculty, students, alumni, and industry partners — to take our department to even greater heights.

Warm regards,

Dr. Towheed Sultana

Head of the Department

Electronics and Communication Engineering

J. B. Institute of Engineering & Technology

Events Conducted:

- One Day Seminar on 5G Technology and It's Benefits on 2nd February 24
- Five-Day Boot camp on UAVDRONE Technology from 12th - 16th February 2024
- PPT and Poster Presentation on 14th March 2024

Department Highlights

1. Accreditations, Recognitions, and Rankings

**J.B. INSTITUTE OF
ENGINEERING & TECHNOLOGY**

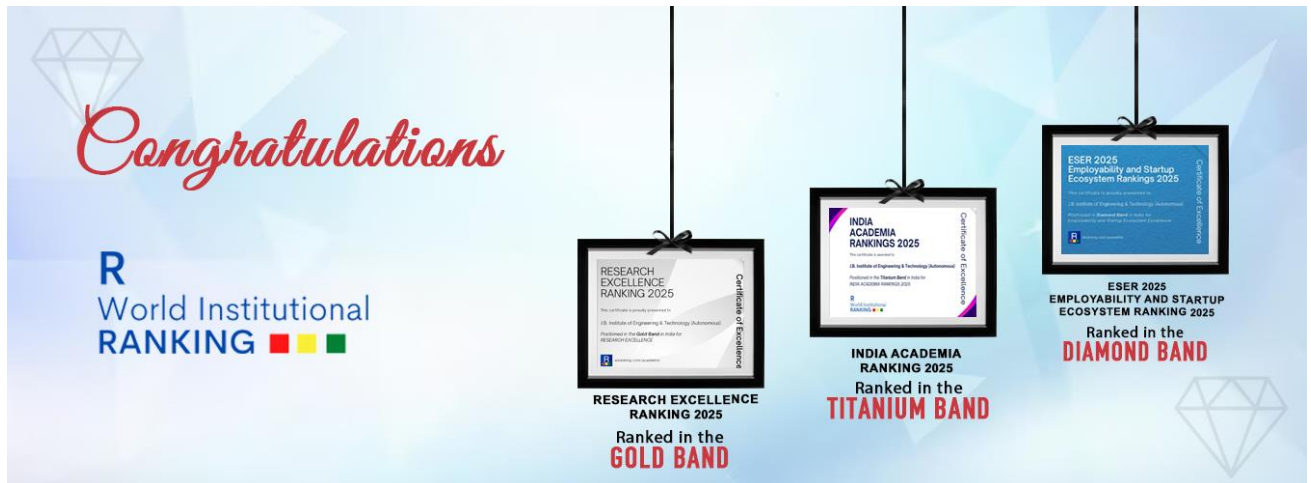
**ACCREDITED BY NAAC - GRADE "A"
WITH HIGH SCORE 3.23**

NAAC
NATIONAL ASSESSMENT AND
ACCREDITATION COUNCIL

JB INSTITUTE OF
ENGINEERING &
TECHNOLOGY
UOE, Jalandhar
Accredited by NAAC & NBA, Approved by AICTE
& Permanently Affiliated to JNTUH

Certificate of Accreditation
The Executive Committee of the
National Assessment and Accreditation Council
has approved the
J.B. Institute of Engineering and Technology
for temporary membership. The Institute, Jalandhar
affiliated to JNTUH, is eligible for the following categories:
Bachelors
and CESTAT is a permanent member
of 12 years
and from 2014-15.

**ACCREDITED WITH GRADE
A
NAAC**



2. MoUs and Collaboration

- MOU with Jadavpur University, Jadavpur
- MOU with Kalyan Industry, Hyderabad

3. New Labs and Infrastructure Upgrades: DST FIST LAB Established students are enrolled to PhD programs under the FIST LAB

4. Innovation in Teaching and Learning: **I2Hub – Inclusive Innovation Hub center is established**



The Department of Electronics and Communication Engineering at **J. B. Institute of Engineering & Technology** organized a **One Day Seminar on “5G Technology and Its Benefits”** on **2nd February 2024**. The event aimed to enlighten students and faculty members about the transformative impact of 5G on communication systems, industries, and future technologies.

The seminar featured expert talks from distinguished industry professionals and academicians, who provided deep insights into the architecture, key enablers, and real-world applications of 5G. Topics such as enhanced mobile broadband, ultra-reliable low-latency communication (URLLC), and massive machine-type communication (mMTC) were discussed in detail.

Participants gained a comprehensive understanding of how 5G is set to revolutionize sectors like healthcare, transportation, smart cities, and the Internet of Things (IoT). The seminar also emphasized career opportunities and research prospects in the evolving 5G ecosystem.

The session concluded with an engaging Q&A, where attendees interacted with the speakers to clarify their doubts and explore further applications of the technology. The seminar was a grand success, fostering awareness, curiosity, and enthusiasm among the budding engineers.



Five-Day Boot camp on UAV/DRONE Technology from 12th - 16th February 2024

The Department of Electronics and Communication Engineering at **J. B. Institute of Engineering & Technology** organized a comprehensive **Five-Day Boot Camp on UAV/Drone Technology** from **12th to 16th February 2024**. This hands-on training initiative was designed to provide students with a robust understanding of unmanned aerial vehicles (UAVs), their architecture, and real-time applications across various sectors.

The boot camp covered key areas including:

- Fundamentals of drone technology and aerodynamics
- Drone components: frame, ESC, motors, flight controller, GPS, and propellers
- Assembly and calibration of drones
- Simulation and programming for autonomous flight
- Live flight training and troubleshooting

Participants actively engaged in assembling drone kits, conducting test flights, and understanding the nuances of flight control systems. The camp was led by experienced trainers from the industry, offering students real-world insights into current trends and future opportunities in UAV technology.

The hands-on sessions were complemented by interactive lectures and Q&A segments that kept the participants intellectually stimulated throughout the camp. The final day featured a **live drone demonstration and flying challenge**, which saw enthusiastic participation and impressive technical prowess from the students.

This boot camp not only enhanced the technical skill set of the students but also fostered innovation, teamwork, and a passion for aerospace technology. It was a resounding success and a step forward in bridging academic knowledge with practical industry applications.

Participants

PPT and Poster Presentation on 14th March 2024





Students
Presentation



Principal message on the program

Dr. P. C. Krishnamachary, Principal of J. B. Institute of Engineering and Technology, delivered an inspiring message at the PPT and Poster Presentation event organized by the Department of Electronics and Communication Engineering. In his address, he emphasized the importance of innovation, research-oriented thinking, and effective communication skills for budding engineers. Dr. Krishnamachary appreciated the enthusiastic participation of students and applauded the faculty for encouraging a culture of inquiry and creativity. He encouraged students to continue exploring and sharing their ideas through platforms like these, which foster technical growth and collaborative learning.

Upcoming Events

DISC 2024

Planned an International Conference on Devices,
Intelligent Systems & Communications (DISC) 2024.
November 08th - 09th, 2024

WORKSHOP ON IOT and PCB

Next Semester