



# What's New

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

### Vision

To become a leading Centre of Excellence in higher learning and research, and to facilitate the transformation of students into good human beings and competent professionals recognized nationally and globally.

### Mission

- Focus on assimilation, generation and dissemination of knowledge in the field of Electronics and Communication Engineering.
- Practice and inculcate high standards of professional ethics, transparency and accountability.
- Provide an academic environment that fosters leadership, research aptitude and promotes life-long learning.
- Increase the visibility of academic programs globally and attract talent at all levels.

### Nexperia's Breakthrough in Wide-Bandgap Semiconductor Technology

In 2023, Nexperia made notable progress in wide-bandgap semiconductor technology, focusing on innovation and energy efficiency. In May, the company introduced its next-generation Gallium Nitride (GaN) FET devices, designed for industrial and renewable energy applications. These devices use advanced high-voltage GaN HEMT technology and feature a unique copper-clip CCPAK packaging for improved performance and reliability.



In November, Nexperia launched its first Silicon Carbide (SiC) MOSFETs, offering two 1,200 V models with low RDS(on) values of 40 mΩ and 80 mΩ in TO-247 packaging. These devices are built to handle demanding applications with exceptional efficiency and durability. Through these innovations, Nexperia is meeting the rising demand for energy-efficient solutions and setting new benchmarks in semiconductor technology. These advancements are paving the way for smarter, more sustainable industrial and renewable energy applications.

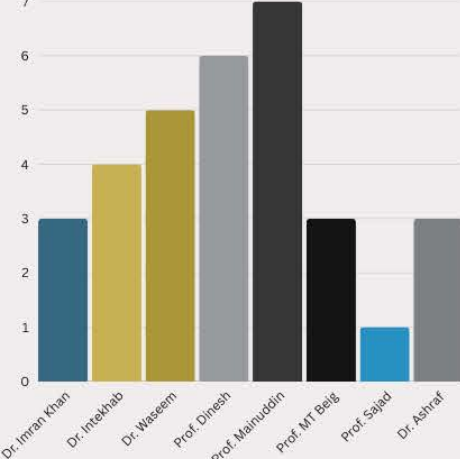
### ECE Students Shine at Kavach Hackathon with Winning Solution



Students from the Department of Electronics and Communication Engineering displayed exceptional skills and determination at the Kavach Hackathon, organized by the Ministry of Home Affairs and Ministry of Education in collaboration with AICTE and the Union Education Ministry's Innovation Cell. Representing their team, 'Heckerpeeps,' the students developed an innovative solution for the problem statement "Hardware Forensic Suite" (KVH-017) during the intense 36-hour coding competition held from 8th to 9th August. The hackathon involved three rigorous rounds of mentoring and evaluation, where the team continuously refined their solution despite facing challenges in the initial rounds. Their dedication, teamwork, and perseverance ultimately paid off, earning them first place. As a result, they were awarded a prestigious trophy and a cash prize of ₹1 lakh. Their success serves as a great example of innovation, hard work, and determination in the field of technology and cybersecurity.

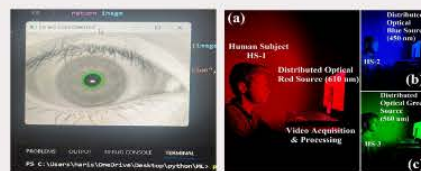
### International Journals 2023

Research Publication by Faculty of ECE (Jul- Dec)



### Student Corner

Innovative Eye-Disease Detection System

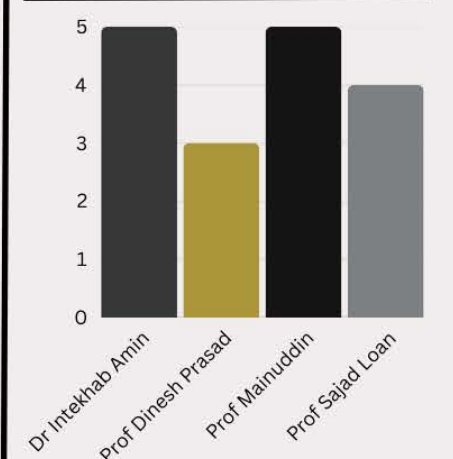


Haris Manazir and Mohammad Anas Majid from the Department of ECE, in collaboration with IIIT Guwahati, developed a "Portable and Cost-Effective Eye-Disease Early Warning System." Using a smartphone camera and laptop screen, the system achieves 94% accuracy in detecting eye abnormalities, offering a revolutionary, affordable solution for early diagnosis.

Source: <https://ieeexplore.ieee.org/document/10466041>

### International conferences 2023

Conferences Attended by Faculty of ECE (July-Dec)



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