

A Report on IEEE Graduate Talk Series 2025

The IEEE Student Branch STB62961 at the Electronics and Communication Department (ECD), Institute of Engineering & Technology (IET), Lucknow, successfully organized the **Graduate Talk Series 2025** between April and May. The five-part series featured distinguished academicians, industry professionals, and student project teams, offering a vibrant platform for technical knowledge sharing and interdisciplinary learning.

The sessions were conducted in **hybrid mode**, enabling both in-person and virtual participation. The event drew enthusiastic attendance from **undergraduate and postgraduate students, research scholars, and faculty members**. Each session concluded with an engaging Q&A segment, where attendees actively interacted with the speakers, raising thoughtful questions and discussing contemporary challenges in engineering and technology.

Graduate Talk 1: Error Correcting Codes (Convolutional Codes and Viterbi Algorithm)

Date: April 5, 2025

Speaker: Dr. R.C.S. Chauhan, Associate Professor, IET Lucknow

The graduate talk series started with an enlightening session on error correction techniques by Dr. R.C.S. Chauhan, focusing on convolutional codes and the Viterbi algorithm. He emphasized their role in ensuring reliable communication over noisy channels. The talk served as an excellent primer for those exploring digital signal processing and communication protocols.

Graduate Talk 2: Control of Renewable Energy-Based Microgrid System

Date: April 8, 2025

Speaker: Dr. Arunima Verma, Professor, IET Lucknow

In the second session, Dr. Arunima Verma discussed the architecture and control of renewable energy-based microgrids. She highlighted the integration of distributed energy resources, the importance of load balancing, and the use of advanced control strategies for sustainable power management. The talk underscored the significance of smart grids in future energy systems and inspired students to explore green energy solutions.

Graduate Talk 3: Agrivoltaics

Date: April 16, 2025

Speaker: Dr. Shrish Bajpai, Assistant Professor, Integral University, Lucknow

Dr. Shrish Bajpai's session on Agrivoltaics offered an innovative outlook on the dual use of land for agriculture and solar energy generation. He discussed practical implementations, design considerations, and environmental benefits, presenting agrivoltaics as a sustainable solution to land-use conflicts. The session resonated with students interested in environmental engineering, renewable energy, and sustainable development.

Graduate Talk 4: IoT-Based Health Monitoring System for Emergency Conditions

Date: April 17, 2025

Presenters: Aradhana Kanojia, Devraj Modanwal, Shivam Pal, Vashu Sharma

Supervisor: Dr. Abhishek, Assistant Professor, IET Lucknow

This session featured a student project demonstration of a working prototype that utilizes IoT technology for real-time health monitoring in emergency situations. Guided by Dr. Abhishek, the team presented how wearable sensors can detect critical health parameters and transmit data to medical responders instantly. The project highlighted the potential of smart health technologies in saving lives, especially in underserved areas.

Graduate Talk 5: Global Impact of Digital Transformation on Gender Equality

Date: May 22, 2025

Speaker: Er. Yatish Katheria, Principal General Manager, BSNL Satna (MP)

The final session was delivered by Er. Yatish Khateria, who provided a compelling analysis of the global impact of digital transformation on gender equality. He explored the ways in which digital tools and platforms can

either bridge or widen gender gaps in education, employment, and empowerment. The session concluded with a discussion on the role of inclusive digital policies in fostering a more equitable society.

Conclusion

The **IEEE Graduate Talk Series 2025** was an **informative and enriching experience** for all participants. Conducted in hybrid mode, it facilitated wide accessibility and fostered active dialogue between speakers and attendees. The IEEE Student Branch STB62961 and the ECD Department at IET Lucknow once again demonstrated their commitment to fostering technical excellence, innovation, and academic-industry collaboration.