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Guest Lecture organized by the Department of Electronics and Communication Engineering

Report on the Guest Lecture

"Intelligent Reflecting Surfaces: Fundamentals and Applications Towards 6G Wireless Networks"

A guest lecture on **"Intelligent Reflecting Surfaces: Fundamentals and Applications Towards 6G Wireless Networks"** was organized by the ECE and IIOT Department on 16th October 2024.

The session started at 10.30 AM with 330 participants, focusing on Fundamentals and Applications Towards 6G Wireless Networks with the benefits of the IEEE Society.

The session began with Sandhya Bhat, Rachitha, 5th Semester ECE students, welcoming the chief guest, **Dr. PRIYANKA DAS, Assistant Professor at IIIT Bangalore,** Uma Maheshwaran, Principal, Dr. Srinivas L Gombi, Dean Academics, Dr. Niranjanappa, Dean Research, and Dr. Shima Ramesh Maniyath, HoD-ECE, MVJCE. As a token of appreciation, a flower bouquet was presented to the chief guest by the Principal, MVJCE. Followed by the introduction, the session was continued by the chief guest on the topic "Intelligent Reflecting Surfaces: Fundamentals and Applications Towards 6G Wireless Networks".

During the session, the Chief Guest provided an insightful take on **Reconfigurable Intelligent Surfaces (RIS)**, a revolutionary concept in the field of wireless communications. The chief guest emphasised the significance of this emerging technology, explaining its potential to transform the future of wireless networks, particularly in the context of **5G and 6G** systems. The chief guest elaborated on how these surfaces consist of low-cost, passive reflecting elements which can intelligently redirect and modify signals to improve coverage, enhance signal strength, and reduce interference.

The session highlighted the core idea that RIS has the potential to overcome limitations faced by conventional MIMO systems and could be a game-changer in the design of green and energy-efficient wireless communication systems. This novel approach can lead to better connectivity in urban environments, smart cities, IoT-based infrastructure, and satellite communication systems. The session was an eye-opener for students and faculty alike, motivating them to explore research areas that align with future technological demands.

The attendees gained insights into emerging trends like AI, IoT, energy-efficient devices, smart homes, and robotics. The Session ended at 12.30 PM.

Dr. Uma Maheshwaran, Principal MVJCE with Chief Guest Dr. PRIYANKA DAS.

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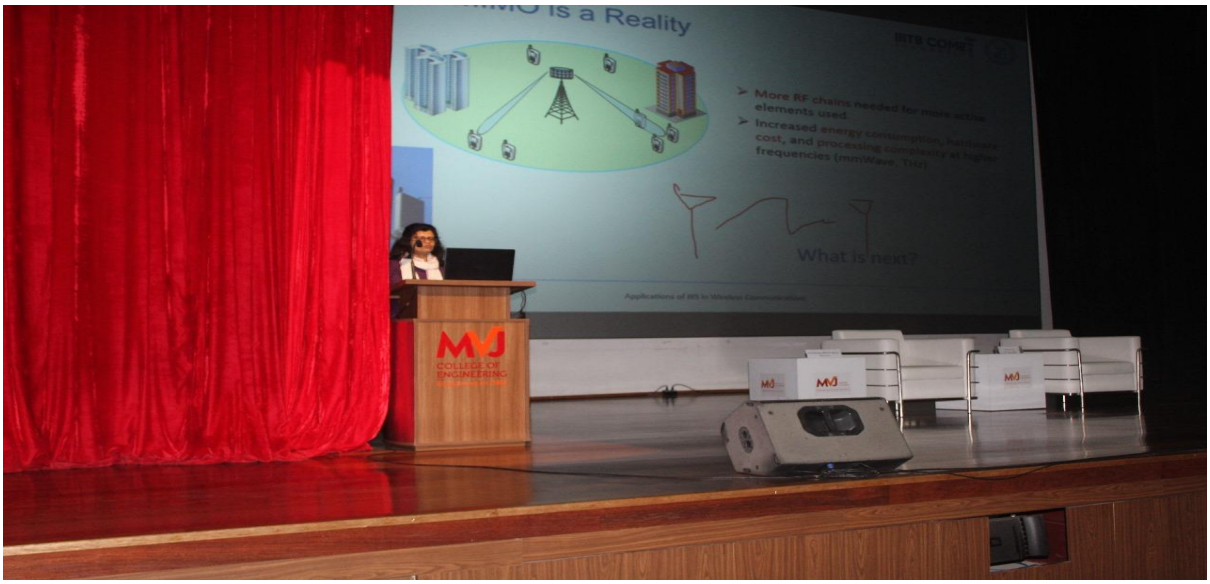

Chief Guest Dr. PRIYANKA DAS delivering her talk

Participants attending the Guest Lecture