

## Guest Lecture on "The Language of Frequencies: Powering Today's Communication World"

The **Electronics and Communication Engineering Department** organised an expert talk titled "**The Language of Frequencies: Powering Today's Communication World**" on 19th May from 10:30 AM to 12:30 PM at the Smt.Rajalakshmi Jayaraman Seminar Hall, with Mr. Prasanna Kumar, Associate Director at Mobileum, as the distinguished resource person. Around 180 students attend the session. The lecture focused on the fundamentals and real-time applications of communication systems, particularly emphasizing the crucial role of frequency in modern communication technologies. The session was highly interactive, encouraging active participation from students. The event commenced with a warm welcome address by 4th semester students, followed by **Dr. Shima Ramesh Maniyath**, HOD, ECE, **presenting a bouquet to the guest.**



Figure 1: Dr. Shima Ramesh Maniyath, HOD of ECE, felicitating guest speaker Mr. Prasanna Kumar, Associate Director at Mobileum at the event.

### Objectives of the Event

The primary objectives of the event were:

To provide students with practical knowledge of communication engineering concepts.

To bridge the gap between theoretical learning and real-world applications.

To create awareness about frequency-based communication systems such as FM transmission and satellite communication.

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To expose students to current industry practices and technologies.

To motivate students to explore advancements in communication engineering.



Figure 2: Mr. Prasanna Kumar, Associate Director at Mobileum delivering an impactful session, helping students understand the complexities of mental health and the transformative role of AI in addressing these challenges at a population scale.

## Event Overview

The session provided a comprehensive understanding of communication technologies through practical insights and real-time examples. The resource person explained the concept of FM frequencies in a simple and relatable way, helping students grasp their real-world applications. He also delivered detailed insights into satellite communication systems, clearly describing how signals are transmitted and received over long distances. The discussion also covered live streaming technologies, highlighting how real-time data transmission is achieved in today's digital world. In addition, he gave an overview of various types of Dish TV systems and their working principles. The session was highly interactive, with active discussions and a question-and-answer segment that significantly enhanced student engagement and understanding.

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Figure 3: "Mr. Prasanna Kumar, Associate Director at Mobileum Exploring the invisible waves that power modern communication."



Figure 4: "Mr. Prasanna Kumar, Associate Director at Mobileum Empowering future engineers with the fundamentals of frequency-based communication".

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## **Outcomes and Impact**

The event gained a clearer understanding of how communication systems function in real-world scenarios. Enhanced knowledge about frequency modulation, satellite communication, and broadcasting technologies. Increased awareness of emerging technologies such as live streaming and digital broadcasting. Students showed active participation, reflecting improved interest in the subject. The session helped students connect academic concepts with industry applications. Conclusion The guest lecture was highly informative and engaging. Mr. Prasanna Kumar effectively simplified complex communication concepts using practical examples, making the session both interesting and educational. The interactive nature of the lecture kept

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the students involved throughout the session. Overall, the event was a great success, providing valuable exposure to students and contributing to their academic and professional development.

## **Conclusions**

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