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Guest lecture organized by the

Department of Electronics and Communication Engineering and IIOT

Report about Session on

"6G and Beyond: Research Applications"

One-day Session on "**6G and Beyond: Research Applications**" was organized by the ECE and IIOT Department on 20th June 2024. The Session received an overwhelming response, with 95 participants.

ABOUT THE SESSION

The session started at 10.30 AM with 95 participants, focussing on 6G and Beyond:research Applications with the benefits of IEEE Society.

Session (20.06.2024): Inauguration Ceremony and FN Session

The session began with Ms.Yavanika ans Ms.Sreelithika, 6th Semester ECE student welcoming the guest and gathering followed by the Invocation song from Ms.Keerthi, 2nd Semester ECE student. The chief guest of the session was Dr. Navin Kumar, IEEE Execom Member, Chairperson & Professor Amrita Vishwa Vidyapeetham, Bangalore. Ms Yavanika, 6th Sem ECE student welcomed the guest Dr. Navin Kumar and Dr Shrinivas L. Gombi, Dean Academics, MVJCE. Ms.Sreelithika, 6th Sem ECE student introduced the chief guest. As a token of appreciation, flower bouquet was presented to chief guest by Dr. Shrinivas L. Gombi, Dean Academics, MVJCE. Followed by the introduction the session was continued by the chief guest. The topic of discussion was 6G and Beyond: Research Applications. Dr. Navin Kumar connected very well with the audience.

6G is expected to utilize terahertz (THz) frequency bands, offering significantly higher bandwidth compared to current technologies. This will enable ultra-fast data transfer rates and support data-intensive applications.

Massive Multiple Input, Multiple Output (MIMO) technology will be further enhanced in 6G, allowing for more efficient use of the spectrum and improved signal quality. 6G represents a transformative leap in wireless communication, promising to revolutionize how we connect, interact, and engage with the world around us. The Session ended at 12.45 PM.



Dr. Shrinivas L. Gombi Presenting bouquet of flowers to the guest Dr. Navin Kumar.

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Dr. Shrinivas L. Gombi, Dean Academics, MVJCE welcoming the guest.



Chief Guest Dr. Navin Kumar delivering the insights of 6G and Beyond.



Participants attending the Guest Lecture

Outcomes:

- 1.Learners Understood why there is a need for 6G, identifying the gaps in 5G.
- 2. Participants became familiar with key 6G technologies, including terahertz frequency bands, advanced MIMO, AI and machine learning integration, and quantum communication.
- 3. Participants learnt about the major global initiatives, key players, and collaborative efforts in 6G research and development.