Telecommunication Laboratory

Communication engineering plays a pivotal role in shaping the modern age by enabling a seamless and efficient exchange of information across various platforms and devices. In today's interconnected world, communication engineering impacts virtually every aspect of our lives, from personal interactions to global business operations.

The Telecommunication Lab of the Department of Electronics and Communications is one of the oldest laboratories of the department where the students get hands-on experience in the design and analysis of Analog and Digital Communication systems, Signals and Systems and Wireless Communication. The lab is quite spacious and well-equipped with trainer kits for both analog and digital communications systems, software-defined radio USRP kits to emulate wireless communication networks, personal computers, waveform generators and digital storage oscilloscopes (including Mixed Domain Oscilloscopes). The lab also has the latest MATLAB and Simulink software for simulation and computation purposes, along with excellent internet connectivity through Wi-Fi and ethernet LAN.

The Telecommunication lab is equipped with state-of-the-art equipment and software that enable students and researchers to explore, experiment, and innovate in the field of communication engineering. With a focus on both theoretical concepts and hands-on experience, the lab serves as a hub for learning and discovery. It also serves as a platform for collaboration and mentorship with academicians, and industry professionals. The Doctoral, PG, and UG students can utilize the lab and work closely with experienced researchers and faculty members, benefiting from their guidance and expertise, and also contributing to ongoing research initiatives. This exposure to real-world projects leads to students' critical thinking, problem-solving abilities, and overall academic growth.

The lab covers a wide range of research areas within communication engineering, including but not limited to Analog Communication, Digital Communication, Wireless Communication and Signal Processing.

The lab is equipped with the latest tools and resources to support research and experimentation, including Multichannel Mixed Domain Oscilloscope, Digital Storage Oscilloscope, Function Generator, Arbitrary Function Generator, Analog Communications Trainer Kits, Digital

Communications Trainer Kits, National Instruments SWR USRP Kits, PCs, MATLAB and Simulink.

Several courses offered by the ECE department utilize the resources of the Telecommunication Lab, enabling students to apply theoretical concepts learned in class to practical experiments and projects.