Basic Electronics Laboratory

The Basic Electronics Laboratory serves as a foundational platform for undergraduate students

to gain practical exposure to the principles and applications of electronic devices and circuits.

This laboratory is an integral part of the academic curriculum and is designed to help students

bridge the gap between theoretical concepts and real-world applications. In this lab, students

are introduced to a wide range of fundamental topics in electronics, including the

characteristics and operations of basic components such as resistors, capacitors, inductors,

diodes, transistors, and operational amplifiers. They also learn how to use essential electronic

instruments like digital multimeters, cathode ray oscilloscopes (CRO), and function generators.

Through a structured series of experiments, students develop a deeper understanding of analog

and digital circuits, starting from basic diode circuits and transistor amplifiers to logic gates

and combinational systems. The laboratory emphasizes circuit construction on breadboards,

careful measurement and observation of electrical quantities, and the interpretation of

experimental data. By performing these experiments, students enhance their skills in circuit

analysis, design, testing, and troubleshooting. The lab also fosters critical thinking and

encourages students to relate experimental outcomes with theoretical predictions, promoting a

more holistic understanding of electronics. Overall, the Basic Electronics Lab at DTU plays a

crucial role in laying the groundwork for more advanced studies in electronics and electrical

engineering, and prepares students for practical challenges in both academic projects and

professional environments.

Laboratory In charge: Prof. O. P. Verma

Co-In charge: Dr. Rohit Kumar





