

July
2019

Unique Features of the
New B.Tech. Program

New broad-based curriculum and flexible program structure

Balance of knowledge, hands-on, and experiential learning

Prepares for emerging demands of industry

Focus on building interdisciplinary technical capability

Emphasis on design-oriented thinking and creativity from Semester 1

Minor, Interdisciplinary, and Department-specific Specializations

Option to pursue entrepreneurship & product realization in Semester 8

Option to convert B.Tech. into 5-year B.Tech. + M.Tech. Dual Degree in Sem 7

Focus on State-of-the-art Technology Development and Research

B.Tech. Program in Electrical Engineering

Department of Electrical Engineering, IIT Jodhpur



॥ त्वं ज्ञानमयो विज्ञानमयोऽसि ॥

The **Department of Electrical Engineering**, formerly a part of the Centre for Information and Communication Technology (ICT) at IIT Jodhpur (2008), primarily focuses on imparting quality education and preparing students to face the future technological challenges.

The vision of the Department is to enhance the research environment and to innovate in pedagogy to address the challenges of socio-economic and human resource development. The Department is committed to engage in high quality research by faculty members and students, and in the pursuit of excellence in teaching.

Features of 4-year B.Tech. Program in Electrical Engineering

Option 1
Department Specialization in
Internet of Things (IoT)
Cyber Physical Systems (CPS)
Communication Systems
VLSI
Product Realization

Option 2
Interdisciplinary Specialization in
Artificial Intelligence (AI)
Data and Computational Science
Smart Healthcare
Quantum Information
Cognitive Science
Energy Materials

Option to convert into 5-year
B.Tech. + M.Tech. Dual Degree
in Semester 7 with **M.Tech. in**
Internet of Things (IoT)
Cyber Physical Systems (CPS)
Communication Systems
VLSI

Option 3
Minor in
Management
Entrepreneurship

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Courses and Teaching Laboratories

Basic Electrical & Electronics Engineering
Signals and Systems
Circuit Theory
Electrical Machines
Power Systems & Power Electronics
Control Systems

Analog & Digital Electronics
Microprocessors & Microcontrollers
Communication Systems
Digital Signal Processing
Electromagnetic Theory
Microwave Engineering



Research Laboratories

Embedded & Control Systems Lab
Microelectronics and VLSI Systems Lab
Electronic Circuit Simulation & Systems Lab
Micro-grid & Real-time Simulator Lab
Smart Grid Lab

Wireless Communication & Navigation Lab
Microwave & Millimeterwave Lab
Communication Systems Lab
Digital Signal Processing Lab
Image Processing & Computer Vision Lab



Technology Tracks

Signal processing for healthcare
Devices & circuits for security & sensing
Low-cost flexible electronics
Smart grids & distribution of renewable energy
Analog and Mixed-signal Circuits and Systems

Wireless & mobile communications
RF & Microwave
Guided & Free Space Optical Communication
Image Processing & Computer Vision

