Academic Year- 2025-26-ODD SEM *JAIHIND POLYTECHNIC KURAN*

https://jaihind.edu.in/jpk/

Department of Electronics and Telecommunication Engineering

FROM HOD'S DESK

It is my great pleasure to be a part of Jaihind Polytechnic, a place where every student, faculty and staff member's matters and each one has an important role to play for the development of institute.

Electronics and Telecommunication Engineering is rapidly evolving with advancements in areas such as Artificial Intelligence,Internet of Things, 5G communication, VLSI design, embedded systems, and automation. Our department continuously strives to keep pace with these developments by integrating modern technologies into the curriculum, encouraging hands-on learning, and promoting research-oriented thinking among students.

I am proud of our students for their enthusiasm, and active participation in academic, technical, co-curricular and extra-curricular activities. I also appreciate the dedicated efforts of our faculty members who guide and mentor students to achieve academic excellence and professional competence.

Mr. Rane S.P.

HOD
E&TC Engineering Department

Department of Electronics and Telecommunication Engineering

ABOUT DEPARTMENT

The Department of Electronics and Telecommunication Engineering is committed to providing quality education and developing technically skilled, innovative, and socially responsible engineers. The department focuses on building strong fundamentals in electronics, communication systems, and emerging technologies to meet the needs of industry and society.

The curriculum covers core areas such as Electronic Devices and Circuits, Analog and Digital Communication, Signal Processing, Microcontrollers, Embedded Systems, VLSI, Wireless Communication, Optical Fiber Communication, and Network Technologies.

The Electronics and Telecommunication Engineering Department established in year 1997 with intake of 60. The Department has highly qualified and experienced faculties. Most of the faculties are post graduates. The department is having well equipped in-house developed laboratories, departmental library, classrooms with projectors and workshop with good infrastructure. The department has always strived for bridging the gap between industry and institute. The department has strong interaction Industry Institute Interaction (III).

DEPARTMERNTAL GOALS

To provide quality education.

To prepare students to meet industry and societal needs.

Technical Competence To promote innovation, research, and project-based learning.

To enhance the overall academic performance of students.

To support holistic development through co-curricular and extracurricular activities.

To boost industry–institute interaction, internships, and real-world exposure.

Department of Electronics and Telecommunication Engineering

Program Outcomes (POs)

PO1: Basic and Discipline specific knowledge:

Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.

PO2: Problem analysis:

Identify and analyze well-defined engineering problems using codified standard methods.

PO3: Design/ development of solutions:

Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.

PO4: Engineering Tools, Experimentation and Testing:

Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.

PO5: Engineering practices for society, sustainability and environment:

Apply appropriate technology in context of society, sustainability, environment and ethical practices.

PO6: Project Management:

Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.

PO7: Life-long learning:

Ability to analyze individual needs and engage in updating in the context of technological changes.

Department of Electronics and Telecommunication Engineering

Thoughts of Faculty

Digital Twinning in Electronics & Telecommunication Engineering

The rapid advancement of digital technologies has introduced the concept of Digital Twins, which is gaining significant importance in modern engineering education and industry. A Digital Twin is a virtual replica of a physical system, process, or device that continuously receives real-time data from its physical counterpart. This enables engineers to monitor, analyze, and optimize system performance efficiently. Digital Twins offer a powerful platform to bridge the gap between theoretical knowledge and practical application. In engineering education, especially at the diploma level, students often face limitations due to the high cost and limited availability of industrial equipment. Digital Twin technology helps to overcome these challenges by allowing students to observe and interact with virtual models of real systems.

In the field of Electronics and Telecommunication Engineering, Digital Twins can be used to simulate communication networks, electronic circuits, embedded systems, and signal processing units. Students can visualize signal flow, monitor system behavior under different conditions, and analyze faults without damaging actual hardware. This improves understanding of complex concepts and enhances problem-solving skills. Digital Twins also support Outcome Based Education (OBE) by promoting experiential learning, data analysis, and critical thinking.

In conclusion, Digital Twins represent a significant step toward smart and industry-oriented engineering education. Integrating Digital Twin concepts into diploma curriculum and laboratories can prepare students to meet future industrial demands and contribute effectively to technological development.

Ms.Ganjale S.D.

Lecturer (E&TC Engg.Dept)

Department of Electronics and Telecommunication Engineering

Voice of Student

Technical Events: Learning Beyond Syllabus

As a final-year Electronics and Telecommunication (E&TC) diploma student under the MSBTE curriculum in Pune, Maharashtra, I've learned that technical events outside the regular syllabus are key to building real skills alongside our daily coursework, practical's, and projects like IoT-based intrusion detection or manhole safety setups. Classes teach the basics—programming microcontrollers such as AT mega, ESP32, or Raspberry pi,, working with RFID tags, handling I2C and CAN networks, and simple embedded designs—but events like hackathons, tech fests, workshops, and contests take us further. For example, you might spend a day or two building low-power wearable's that run on harvested energy, secure RFID systems for better data protection, or sensor setups that combine multiple inputs, all while learning to solve problems quickly and work well in a team, just like in actual jobs.

These events fit our needs perfectly. They help create strong project examples for contests like the Smart India Hackathon or applications to IoT companies, where employers care more about what you've built than just your grades. You get to meet experienced people at places like hackathonist, which can lead to internships or advice on your work—and most are easy on the pocket, with free online sessions from YouTube or IEEE groups, or travel costs under 5,000 INR. Unlike solo lab tasks, these activities mean using tools like Ki CAD for circuit boards, Fusion 360 for 3D models, or Arduino software for fast testing, giving a taste of how real teams operate and supporting our entrepreneurship classes.

Firake Mohit (TY E&TC)

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INDUSTRIAL VISIT

Industrial Visit: - GMRT Khodad **Topic:-Electronic Communication**

Date:-18/07/2025 **Class:- EJ3K**

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EXPERT LECTURE

Topic:-Digital Literacy for Employability **Date:-27/09/2025**

Class:- EJ5K

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WORKSHOP

Topic:- Generative AI and Industry 4.0 **Class:- EJ5K**

Date:- 26/09/2025 - 29/09/2025

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FACULTY DEVELOPMENT PROGRAM

Topic: - "Enhancing Teaching-Learning Practices through OBE and NBA Framework"

Date: - 13/10/2025 – 14/10/2025

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WINTER 2025 TOPPER LIST

Year	Rank	Photo	Name of the Candidate	Marks Obtained	Out of	Percentage
Third Year (5th sem)			NEHARKAR PAYAL ASHOK	764	850	89.88
			UKIRDE YASH DATTATRAYA	758	850	89.18
			MHASKE SANCHI SHIVAJI	755	850	88.82
Second Year (3rd sem)			SHINDE AJINKYA ANIL	810	900	90.00
			MULE ADITI SHANKAR	739	900	82.11
			JEJURKAR ADITI ANIL	739	900	82.00

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			WABALE KARTIK TANHAJI	681	850	80.12
First Year (1st sem)			WABLE MANJIRI SHIVAJI	661	850	77.77
			PATIL VEDIKA VIJAY	641	850	75.41

THANK YOU

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