

2025-26



DEPARTMENTAL NEWSLETTER



Yearly in house Newsletter

By

THE DEPARTMENT OF

Electronics and Communication Engineering

B.P. Poddar Institute of Management and Technology

Issue: OCTOBER EDITION



**EDITORIAL
BOARD**

Bapan Banik
(3rd Year)

Sakchham Kapoor
(2nd Year)

Archita Hazra
(2nd Year)



“

*A good teacher does not
teach facts but opens minds*

– Satyendra Nath Bose



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B. P. Poddar Institute of Management & Technology
Department of Electronics & Communication



Vision, Mission, PEO, PO, PSO

Vision of the Institute

To emerge as a progressive and premier institute for Engineering and Technology education with ethical values for creative engineering solutions with global changes.

Mission of the Institute

1. Offer quality education through a modern accessible, comprehensive and research oriented teaching-learning process.
2. Create opportunities for students and faculty members in acquiring knowledge through research and development.
3. Providing effective interface with industry by strengthening Industry- Institute interaction and developing entrepreneurial skills.
4. Meet ever-changing needs for the nation through rational evolution towards sustainable and environment friendly technologies.

Vision of the Department

To emerge as a premier department for studies in Electronics and Communication Engineering.

Mission of the Department

1. Imparting innovative educational program through laboratory and project-based teaching-learning process for meeting the growing challenges of industry and research.
2. Providing an inspiring and conducive learning environment to prepare skilled and competent engineers and entrepreneurs for sustainable development of the society.
3. Creating a knowledge centre of advance technologies committed to societal growth using environment-friendly technologies

Program Educational Objectives:

- PEO1:** Graduates of Electronics and Communication Engineering will be able to use latest tools and techniques to analyze, design and develop novel systems and products to solve real life problems.
- PEO2:** Graduates of Electronics and Communication Engineering will have strong domain knowledge, skills and attitude toward employment in core and allied industries, higher studies and research or will become successful entrepreneurs.
- PEO3:** Graduates of Electronics and Communication will exhibit ethical values, professionalism, leadership, communication and management skills, team work and multi-disciplinary approach to adapt current trends in technology through life-long learning.

Program Outcomes (POS)	
1. Engineering knowledge	7. Environment and sustainability
2. Problem analysis:	8. Ethics
3. Design/development of solutions	9. Individual and team work
4. Conduct investigations of complex problems	10. Communication
5. Modern tool usage	11. Project management and finance
6. The engineer and society	12. Life-long learning

Program Specific Outcomes (PSO)

- PSO1:** Students will acquire knowledge in Advance Communication Engineering, Signal and Image Processing, Embedded and VLSI System Design.
- PSO2:** Students will qualify in various competitive examinations for successful employment, higher studies and research.

TECH TRENDS-*FUTURE IS NOW*

1X NEO — By 1X TECHNOLOGIES

Release Date - October 28, 2025



Marketed as *"the world's first consumer-ready humanoid robot designed for life at home."*

Backed by OpenAI. Real preorders opened October 28, 2025 with a clear price tag and 2026 delivery window. NVIDIA demonstrated it live at GTC 2025 using the GR00T N1 AI model for autonomous tidying.

Physical Specs

- Weight: ~30 kg | Noise level: ~22 dB (near-silent)
- Tendon-drive actuators for smooth, human-like motion
- 22 degrees of freedom in hands
- Soft outer suit for safe human-robot coexistence

Mobility & Handling

- Lifts up to 68 kg | Carries ~25 kg continuously
- Navigates doors, stairs, and cluttered rooms autonomously
- Follows scheduled daily task lists

Frequency Fun

Bluetooth is named after the 10th-century Danish King Harald "Bluetooth" Gormsson, who united warring Scandinavian tribes.



The "Tolerance" Trap: A resistor marked as 100 Ω with a 10% tolerance can actually be anywhere between 90 Ω and 110 Ω . For precision circuits (like sensors), always reach for **1% Blue (Metal)**

Meta Ray-Ban Display — By META × RAY-BAN

Release Date: September, 2025 AI SMART GLASSES WITH DISPLAY

Unveiled by Mark Zuckerberg at Meta Connect 2025, the Meta Ray-Ban Display is the next evolution in AI glasses — designed to help you look up and stay present. With a quick glance at the in-lens display, you can check messages, preview photos, see translations, get help from Meta AI, and more — all without needing to pull out your phone.



Physical Specs

- Display: 600×600 pixel in-lens display with 20-degree field of view and up to 5,000 nits brightness — visible even in direct sunlight
- Camera: 12MP ultra-wide with 3× digital zoom, records 3K video at 30fps
- Audio: Two open-ear speakers and six microphones for calls, voice commands, and audio playback
- Connectivity: Bluetooth 5.3 and Wi-Fi 6

- Colors: Black and Sand | Frame sizes: Standard and Large | Transitions lenses included

Battery & Charging

- Up to 6 hours of mixed-use battery life, with up to 30 hours total thanks to the portable collapsible charging case
- Wireless charging case with USB-C

Meta Neural Band (Included)

- An EMG (electromyography) wristband that translates muscle activity signals from your wrist into commands for your glasses — letting you silently scroll, click, and control your experience using subtle finger movements without touching your glasses
- Comes in three sizes for perfect fit
- Product of years of surface EMG research with nearly 200,000 research participants

AI & Smart Features

- Meta AI with Visuals: shows step-by-step answers on the display rather than just reading them aloud
 - Pedestrian Navigation: phone-free, turn-by-turn walking directions with a visual map on the display
 - Live Captions & Translation: real-time captions and language translation displayed in the lens while you stay present in the conversation
 - Two-way video calling on WhatsApp, Messenger, and Instagram — they see the world through your eyes
 - Watch and share Instagram Reels, stories, and posts from the in-lens display
-

RECENT EVENTS

Abhigyan 2.25

The **SPIE Student Chapter, BPPIMT**, in association with the Department of ECE, organized “**Abhigyan 2.25**”, the Annual Technical Quiz, on **30th July & 29th August, 2025**. The preliminary round was conducted online, followed by the finale at the institute auditorium.

The event was graced by **Principal Prof. Sutapa Mukherjee**, with the presence of **Dr. Ivy Majumdar**, faculty members, and technical staff. It concluded with inspiring words from the **Head of the Department, ECE**.



SCHOOL AWARENESS PROGRAM

On **17th November 2025**, students from the **SPIE Student Chapter of B.P. Poddar Institute of Management and Technology** visited **Sewli Higher Secondary School** as part of a school outreach program. The objective was to promote scientific curiosity and introduce Class 8 students to practical applications of engineering and technology.

The team members—**Sakchham Kapoor, Archita Hazra, Insha Hossain, and Abdul Razzak**—conducted interactive sessions featuring two projects: a **Weather Detection System** using ESP-32 and sensors, and a **Radar Monitoring System** using Arduino and ultrasonic sensors. These demonstrations helped students understand concepts like IoT, real-time data monitoring, and object detection.

The session was highly engaging, with students actively participating and asking questions about electronics and programming. The initiative successfully connected theoretical knowledge with real-world applications, inspiring interest in STEM fields.

Overall, the visit was impactful and aligned with the goal of spreading scientific awareness, encouraging innovation, and strengthening collaboration between the institute and schools.



ACHIEVEMENTS & AWARDS-

YOU MAKE US PROUD

Abhiyantran Events

- Oindrilla Mishra , Adrija Ghosh– 1st Prize in Forma 2.25, organized by Abhiyantran, BPPIMT
- Harshvardhan Singh, Yash Kumar, Shreyansh Vedic, Israfil Hoque – 2nd Prize in Forma 2.25, organized by Abhiyantran, BPPMT
- Himobanta Dutta – 2nd Prize in Juno 2.25, organized by Abhiyantran, BPPIMT
- Yash Kumar Singh, Anamika Bhunia – 3rd Prize in Juno 2.25, organized by Abhiyantran, BPPIMT

SPIE Events

- Soumili Saha, Abhik Sarak – 1st Prize in Abhigyan 2.25, organized by SPIE Student Chapter
- Archita Hazra, Urba Das– 2nd Prize in Abhigyan 2.25, organized by SPIE Student Chapter
- Aditya Saha – 3rd Prize in Abhigyan 2.25, organized by SPIE Student Chapter

Technical & Innovation Events

- D Samir Dora, Debesh Dey, Ayush Kumar Shaw, Ajay Kumar Mahato – 3rd Prize in LUMORA'25, organized by Kalyani Government Engineering College E-Cell
- Himobanta Dutta, Kuntal Mondal – 2nd Prize in Photography Competition, organized by DRISHYAM, BPPIMT
- Parthib Das – Internship on Arduino, organized by Internshala

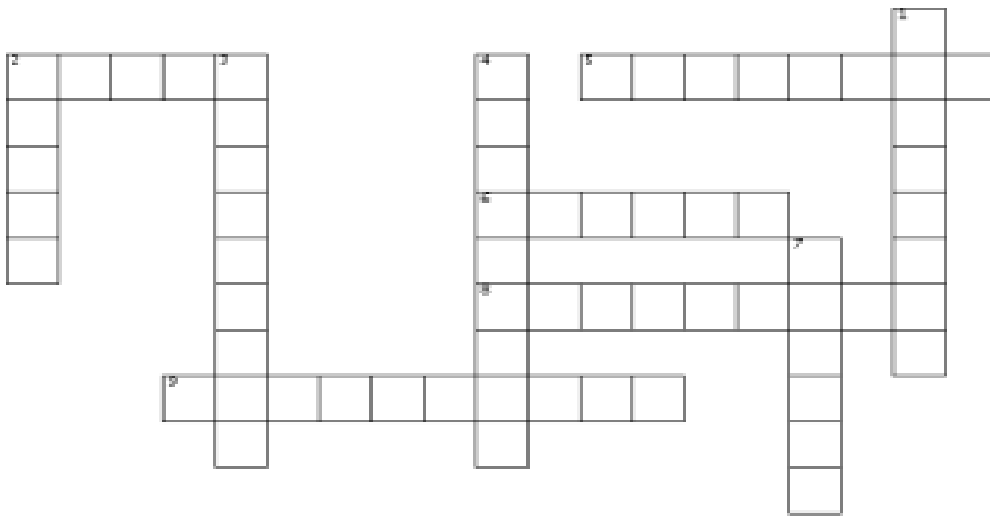
Robotics Achievements

Team Ares

- 1st position in Robo Soccer at MSIT
- 1st & 2nd positions in Robo Soccer at KGEC
- 3rd position in Death Race
- 2nd position in RCC Race
- 1st & 3rd positions in Death Race at Jadavpur University
- 3rd position in FIT Race

Brain-Break

CROSSWORD PUZZLE



ACROSS

- 2. - Online storage and computing services
- 5. - Rules that govern data communication
- 6. - Website address name (like example.com)
- 8. - Point where user interacts with a system
- 9. - Process of securing data by converting it into code

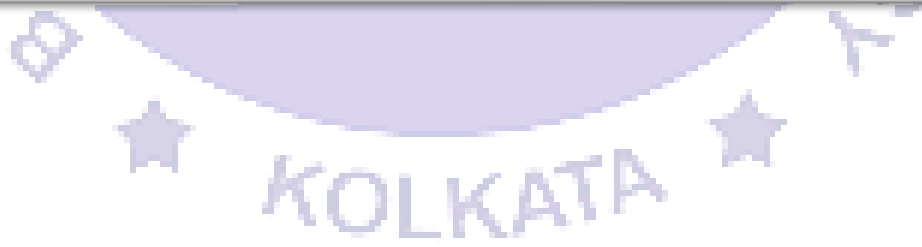
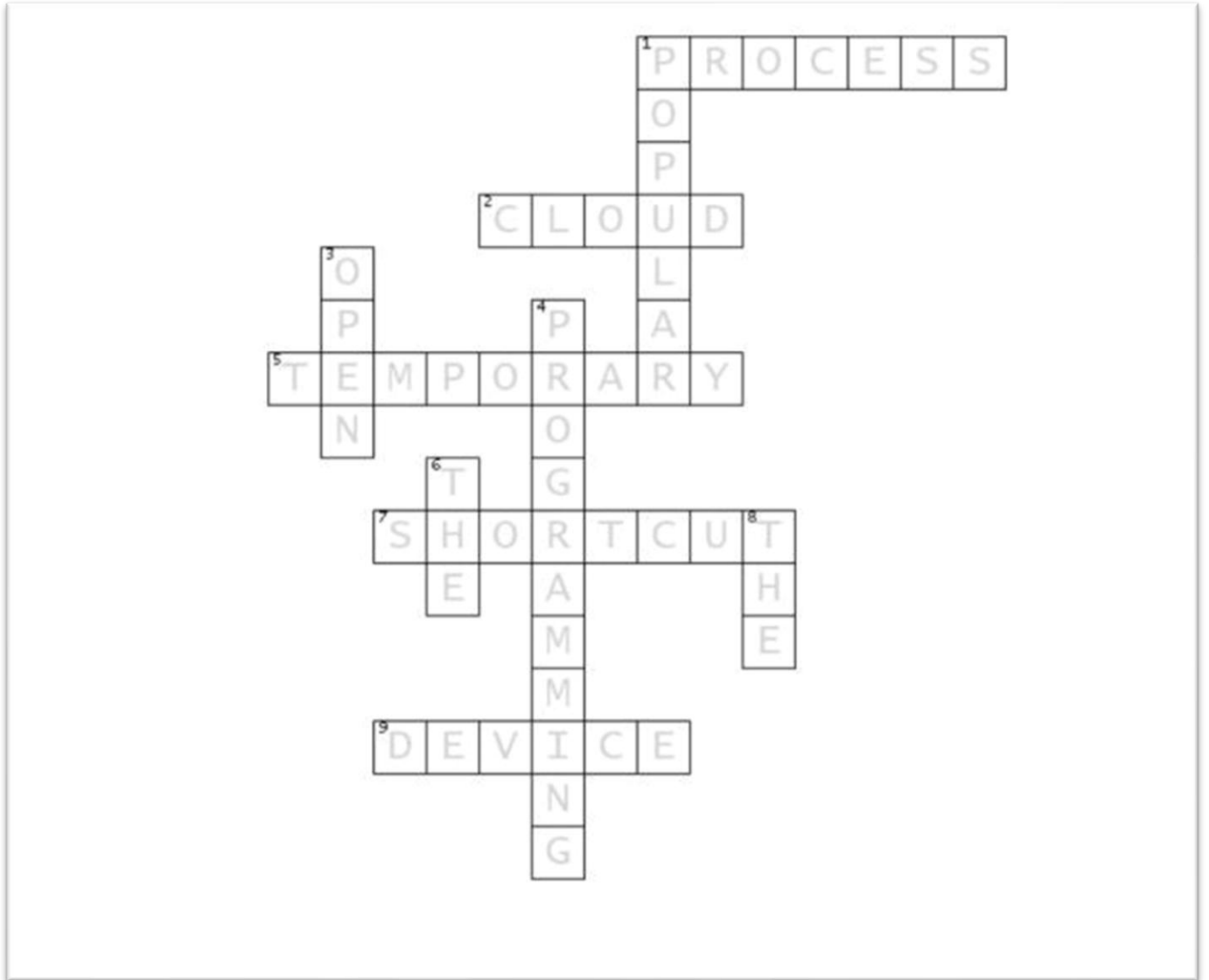
DOWN

- 1. - Translates code into machine language
- 2. - Temporary storage for quick data access
- 3. - Finding and fixing errors in a program
- 4. - Amount of data transmitted over a network per second
- 7. - Copy of data for recovery purposes

Tech Tips

The "Ctrl + Shift + T" Lifesaver: Accidentally closed a browser tab? This shortcut reopens it immediately. On Mac, use Cmd + Shift + T.

ANSWER TO MARCH 2024-2025



“Nothing is too wonderful to be true, if it be consistent with the laws of nature.”

— **Michael Faraday**

Michael Faraday (1791–1867)



Michael Faraday was an English scientist who made groundbreaking contributions to electromagnetism and electrochemistry, forming the foundation of modern electrical engineering. He discovered that electricity and magnetism are interconnected and can be used to generate power. He Discovered Electromagnetic Induction (1831), Introduced concepts of electric and magnetic fields, Laid groundwork for electric generators, transformers, motors, and modern communication systems.

EDITORIAL BOARD

Faculty

- Prof. (Dr.) Ivy Majumdar
- Ms. Rashmita Mishra
- Dr. Vedatrayee Chakroborty

ECE isn't just a department — it's a vibe. Keep exploring. Keep creating. Keep shining!

