



माधव प्रौद्योगिकी एवं विज्ञान संस्थान, ग्वालियर (म.प्र.), भारत
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.), INDIA

Deemed University

(Declared under Distinct Category by Ministry of Education, Government of India)

NAAC ACCREDITED WITH A++ GRADE

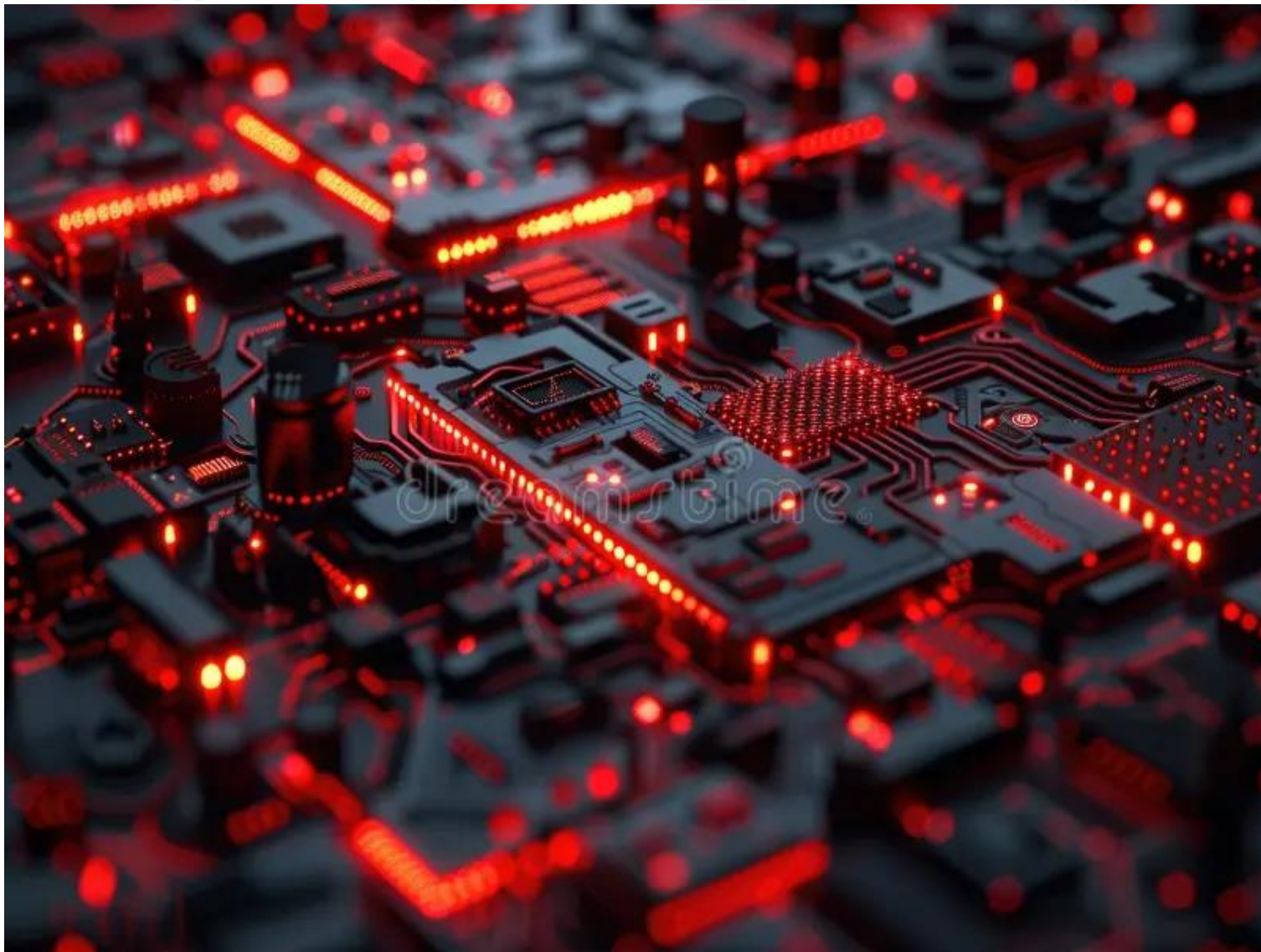


ISSUE 1 | JANUARY - MARCH 2026

NEWSLETTER

DEPARTMENT OF ELECTRONICS ENGINEERING

Madhav Institute of Technology & Science, Gwalior (M.P.), INDIA
Deemed University





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Department Vision

To Prepare Globally Competent Electronics Engineers for Industrial Challenges and Societal needs.

Department Mission

- To provide quality education through need based curriculum and effective teaching learning process.
- To imbibe professional ethics, leadership and entrepreneur skills with a passion for lifelong learning.
- Strengthening of employability skills through multidisciplinary projects and internships.
- To inculcate the spirit of innovation and research to serve the needs of the society and industry.

Programme Educational Objectives

PEO-1

Graduates of the program will be successful global collaborators with thriving technical and professional careers in the field of Electronics Engineering.

PEO-2

Graduates will have the ability to adapt latest technologies to contribute for sustainable development of society with effective research and entrepreneurship attitude.

PEO-3

Graduates will have the teamwork, professional excellence, communication, and interpersonal skills to enable them to work effectively with interdisciplinary teams in Industry, Government, and Academia.

ACTIVITIES CONDUCTED

- The IEI Students' Chapter (Electronics), MITS Gwalior, in collaboration with the Department of Electronics Engineering, MITS (Deemed University), and IETE Bhopal Centre, successfully organized a 3-day hands-on workshop titled “**ESP32 Core – Hands-On Embedded IoT Workshop**” from 11–13 March 2026.



- Alumni Interaction (Ms. Shivi Tomar Junior Engineer, Indian Railway) held on 07th January 2026 titled “**Next-Generation Electromagnetic Techniques**”.



ACTIVITIES CONDUCTED: ORIENTATION SESSION



ACTIVITIES CONDUCTED

- **PCB Design Workshop** organized by the Department of Electronics Engineering, Madhav Institute of Technology and Science, Deemed University held on 13th April 2026.

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Department Of Electronics Engineering
Presents
PCB Design
WORKSHOP WORKSHOP WORKS

Faculty Coordinator	Resource Coordinator	Workshop Details
• Dr. Varun Mishra • Dr. Vikas Mahor • Dr. Shailendra Singh	• Dr. Varun Mishra • Dr. Vikas Mahor	1 st Year - 13 th April 2026 2 nd Year - 15 th April 2026 Time : 3 - 6 P.M

Student Coordinator Adarsh Narwariya **Contact Detail** 7440587543

Dr. Vikas Mahor (Presenting, annotating)

Dr. Vikas Mahor (Presenting, annotating)

Dr. Vikas Mahor (Presenting, annotating)

PCB Design/Manufacturing Workflow

1. Establish project requirements
2. Assign parts and quantities
3. Design your PCB schematics
4. Run electrical rule check (ERC)
5. Design board physical layout
6. Set up design rules (DRC)
7. Job 3D modeling
8. Use CAM for program creation
9. Rip up relevant Gerber files
10. Get PCB fabrication setup
11. Write up bill of material (BOM)
12. PCB assembly

Structure of a 1-layer PCB board

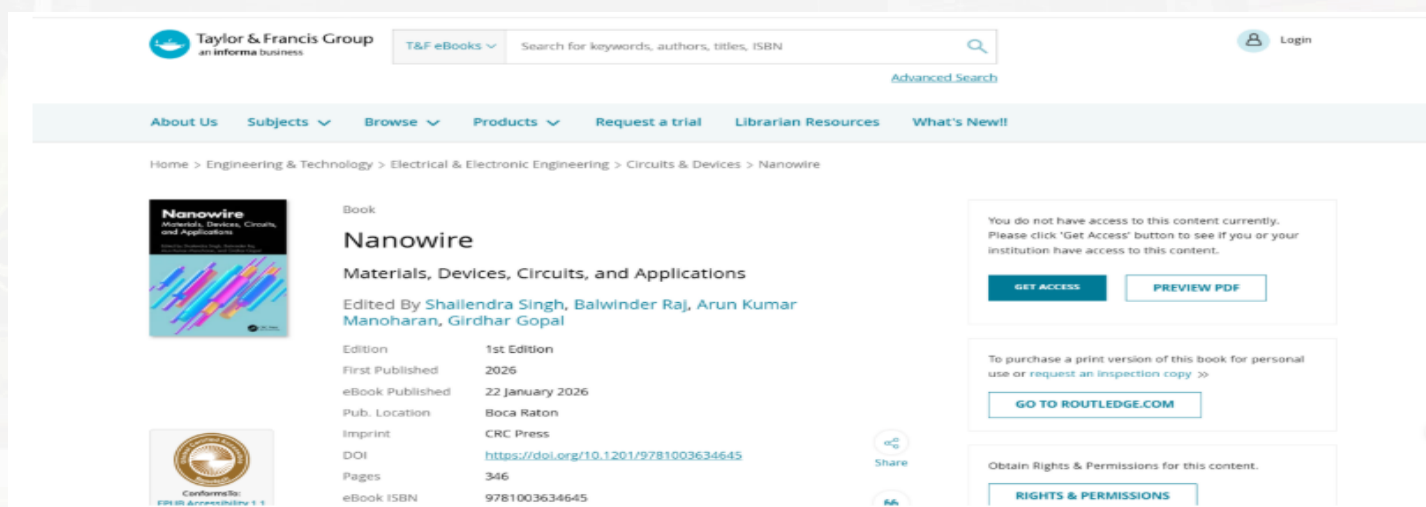
- Usually 1.6mm thick – applies to 2-4 layers too
- Silkscreen (usually white):
 - ➔ Ink test, usually used to mark out components
- Soldermask (usually green):
 - ➔ Prevents solder from flowing out of designated areas forming solder bridges
 - ➔ Made of organic polymer that is "solder-resistant"
 - ➔ Protects copper layer from oxidation
- Copper:
 - ➔ Carries the traces (links) between components
 - ➔ Also contains a ground/power plane (to be explained later)
- Substrate:
 - ➔ Gives the PCB mechanical strength and stability
 - ➔ Usually made of FR-4 com.

PROFESSIONAL CONTRIBUTIONS: OUTSIDE THE INSTITUTE

- Expert Lecture given by **Dr. Hemant Choubey** in a 5-day FDP organized by Sagar Institute of Research and Technology, Bhopal from 23-27 February 2026 on the topic "Biomedical Signal Processing using AI".



- Dr. Shailendra Singh** contributed as an editor to the book "*Nanowire: Materials, Devices, Circuits, and Applications*", published in 2026, highlighting advancements in nanotechnology and electronic systems.



NPTEL/ATAL/FDP/Internshala Courses Attended

- **Dr. Varun Mishra** attended the AICTE-approved NPTEL Faculty Development Programme (FDP) titled “The MOS Transistor Modeling” held from January to April 2026.
- **Dr. Shailendra Singh** attended the Faculty Development Programme on Universal Human Values (UHV). held from January to April 2026.
- **Dr. Kumar Gaurav** attended 8 week NPTEL course titled “Fundamental of Electronic Materials and Devices” held from January to March 2026.
- **Dr. Kumar Gaurav** attended 8 week NPTEL course titled “CMOS VLSI Design” held from January to March 2026.
- **Dr. Shailendra Singh** attended 8 week NPTEL course titled “Ethics in Engineering Practice” held from January to March 2026.
- **Dr. Varun Mishra, Dr. Shailendra Singh, Dr. Kumar Gaurav** has completed Industrial Training of 4-weeks on VLSI Based IC Design.



STUDENT ACHIEVEMENTS

- **Team Mind-Mesh** consisting of MITS's four brilliant students secured 1st place in the Data Science and Machine Learning Track among over 2100+ registered teams at Hacksagon 2026 a National Level Software & Hardware Hackathon held from 3rd to 5th April 2026 at ABV-IIITM Gwalior , Organized by the IEEE Student Branch of ABV-IIITM.



- **Prakriti Krishna Pal** a second year student won **Second Prize** in the **Interdepartmental Basketball Tournament** and secured Second Runner-Up position in the Designathon organized by a college club (Aarambh).


STUDENT ACHIEVEMENTS

GATE 2026 qualified students:

- Teesha Batav (0901EC221139)

CAT/XAT 2026 qualified students:

- Prajeev Jain (0901EC221075)
- Harshit Dharm Krishna (0901EC221042)



XAT-2026 Scorecard

XAT ID : XAT2605383

Name of the Candidate : Harshit dharm krishna

Address : A-93 flower city, baghmugaliya bhopal462043

Gender : Male

Date of Birth : 17Jul2004


Test Date : 2026-01-04

Your (Recipient's) Scores for the XAT 2026									
Quantitative Aptitude & Data Interpretation (QA & DI)		Verbal Ability & Logical Reasoning (VA & LR)		Decision Making (DM)		Total		General Knowledge (GK)	
Percentage	Percentile	Percentage	Percentile	Percentage	Percentile	Percentage	Percentile	Percentage	Percentile
8.9286	54.2620	27.8846	76.3552	58.3333	88.6094	29.3333	78.0727	45.0000	86.9134

NB: This card is valid till December 31, 2026

Rakesh Kumar
Convenor, XAT

COMMON ADMISSION TEST 2025 (CAT 2025) INDIAN INSTITUTES OF MANAGEMENT



CAT 2025 SCORE CARD

Name of the Candidate : PRAJEEV JAIN



Candidate's Contact Details :
MIG 20, JANKI NAGAR, VIJAY NAGAR

Town/City : JABALPUR


District : Jabalpur

State : Madhya Pradesh

Email : prajeevjain@outlook.com

Test Day Photo Uploaded Photo





CAT Application Number	25130417	PwD Status	No
Gender	Male	Category	General
Date of Birth	15/Oct/2004	Date of Test	30th November 2025


Section		Section		Section		Total	
Verbal Ability & Reading Comprehension		Data Interpretation & Logical Reasoning		Quantitative Ability			
Scaled Score	Percentile	Scaled Score	Percentile	Scaled Score	Percentile	Overall Scaled Score	Overall Percentile
7.87	45.41	18.47	92.87	0.91	29.35	27.25	66.84

GRADUATE APTITUDE TEST IN ENGINEERING 2026 अभियांत्रिकी स्नातक अभिक्षमता परीक्षा 2026

Organizing Institute : INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

SCORE CARD



Name of the Candidate: TEESHA BATAV

Name of the Parent/Guardian: RAJESH BATAV

Registration Number: EC26S75015189

Date of Birth: December 10, 2002

Test Paper: Electronics and Communication Engineering (EC)

Date of Examination: February 15, 2026

GATE Score: 357 **Marks out of 100:** 27.0


All India Rank (AIR) in the test paper: 12994

Number of candidates appeared for the test paper: 95752


Qualifying Marks General: 26.4

EWS/OBC-NCL: 23.7

SC/ST/PwD: 17.5



Prof. Manabendra Sarma
Organizing Chairperson, GATE 2026
On behalf of NCB-GATE, Ministry of Education



f3aba7865ef1d28b417566859cc471

This Score Card is valid up to 31st March 2029

S.No.	Details of Publications
1.	B. Khadka, Kumar Gaurav , M. S. Kim, J. H. Lee, P. R. Adhikari, A. Srivastava, and J. W. Jang, "Defect-Engineered Monolayer MoS ₂ via Chemical Etching: A Facile Route to Study SERSSensitivity," Small Methods, 2026. (SCI, IF 9.1). Available: https://doi.org/10.1002/smt.202502137
2.	C. K. Bulusu, P. Swami, M. Pattanaik, M. K. Mishra and T. Ratnarajah, "NOMA-Enabled UAV Trajectory Optimization Using Deep Reinforcement Learning for Efficient IoT Data Collection," in IEEE Access, vol. 14, pp. 48212-48221, 2026, doi: 10.1109/ACCESS.2026.3677012.
3.	Ashish Kumar Singh, Ramesh Kumar, Manoj Kumar Yadav, Ekta Goel, and Varun Mishra . "Enhanced Switching and RF Performance in Extended Source Heterojunction Tunnel FETs for Next-Gen Electronics." In 2025 13th International Conference on Intelligent Embedded, MicroElectronics, Communication and Optical Networks (IEMECON), pp. 1-4. IEEE, 2025.
4.	Yash Uchhasare , and Varun Mishra . "HE4-Mediated Identification of Epithelial Ovarian Cancer Subtypes: Vertical TFET Biosensor Modelling." In 2025 IEEE International Conference on Intelligent Signal Processing and Effective Communication Technologies (INSPECT), pp. 1-5. IEEE, 2025.
5.	Swati Dixit , Varun Mishra , and Manisha Pattanaik. "Simulation Study of an $\text{In} - \text{Ga} - \text{In}$ as Vertical TFET Biosensor for Ultra-Low Concentration Lung Cancer Biomarker Detection." In 2025 International Conference on Electrical, Communication, and Computing Technologies (iCONECCT), pp. 1-5. IEEE, 2025.
6.	Swati Dixit , Varun Mishra , and Manisha Pattanaik. "Emergent TFET Design and Challenges for Low-Power Biosensors." Biochip Design and Health Informatics Using IoT and SDN (2026): 1-10.
7.	Ravindra Pratap Narwaria et al "Deep Learning Approaches For Arrhythmia Detection Using Ecg Signals: A Comparative Review" 5th International Conference on Communication, Computing and Electronics Systems (ICCCES 2026) on 21-22 January 2026, organized by PPG Institute of Technology, Coimbatore
8.	Rishi Kant Sharma , Laxmi Srivastava , and Karuna Markam. "Next-Generation Green Wireless Sensor Networks: A Review on Energy Consumption." In 2025 International Conference on Electrical, Communication, and Computing Technologies (iCONECCT), pp. 1-6. IEEE, 2025.
9.	Sharma, Varnika, Laxmi Shrivastava , and Neeraj Shrivastava. "Multi-Layer Image Security Framework Using Autoencoder Compression and Chaotic-AES Hybrid Security." In 2025 International Conference on Electrical, Communication, and Computing Technologies (iCONECCT), pp. 1-5. IEEE, 2025.
10.	Dhakad, Bhupendra, Sadhana Mishra, Shailendra Singh Ojha, and Laxmi Shrivastava . "Analysis of Channel Congestion for Vehicular Network in High Vehicle Density Environment." In 2025 International Conference on Electrical, Communication, and Computing Technologies (iCONECCT), pp. 1-6. IEEE, 2025.

- Atharva Shrotiya a IV year student got his article published in “Vichar Pravah” .

विचार प्रवाह

यथा संगत, तथा रंगत - विचारों की शक्ति

आहारशुद्धौ सत्त्वशुद्धिः सत्त्वशुद्धौ ध्रुवा स्मृतिः। स्मृतिलम्भे सर्वग्रन्थीनां विप्रमोक्षः॥ – छान्दोग्य उपनिषद्

(अर्थः जब आहार और संगत शुद्ध होती है, तो मन शुद्ध होता है; मन शुद्ध होने पर विवेक जागता है और यही सभी बंधनों से मुक्ति का मार्ग है।) जैसा अन्न, वैसा मन; जैसी संगत, वैसी रंगत – यह केवल एक साधारण लोकोक्ति नहीं, बल्कि मानव जीवन और विचारों के उद्गम का सबसे गहरा सत्य है। हमारे भीतर जो विचार उठते हैं, वे कोई आकस्मिक घटना नहीं हैं। वे उस मिट्टी की उपज हैं जिसमें हम पले-बढ़े हैं, उस वातावरण का परिणाम हैं जिसमें हम सांस लेते हैं और उन लोगों का प्रतिबिम्ब हैं जिनके साथ हम समय बिताते हैं। हम जो पढ़ते हैं, जो देखते हैं, जो सुनते हैं – वह सब धीरे-धीरे हमारे अवचेतन मन में उतरता जाता है और हमारे चिंतन को एक निश्चित दिशा देता है।

मनोविज्ञान भी यही कहता है कि मनुष्य का मस्तिष्क एक दर्पण की तरह होता है – वह वही छवि लौटाता है जो उसके सामने रखी जाती है। यदि हम प्रतिदिन ज्ञानवर्धक पुस्तकें पढ़ें, सकारात्मक और विचारशील लोगों की संगति करें, तो हमारे विचार भी सृजनात्मक और उन्नत होते हैं। इसके विपरीत, यदि हम नकारात्मक परिवेश में रहें, निरर्थक सूचनाओं में डूबे रहें, तो हमारा मन भी भ्रम और चिंता का घर बन जाता है।

आज के डिजिटल युग में यह चुनौती और भी बढ़ी हो गई है। हम एक वीडियो से दूसरे वीडियो पर भटकते रहते हैं, एक सूचना से दूसरी सूचना में खो जाते हैं और घंटों बाद यह भी नहीं जान पाते कि हमने सीखा क्या। यह मन की चंचलता नहीं, बल्कि हमारी संगत और आदतों का परिणाम है। यहीं एक सच्चे चिन्तक (Thinker) की भूमिका सामने आती है।

मन एव मनुष्याणां कारणं बन्धमोक्षयोः। – अमृतबिन्दु उपनिषद्

(अर्थः मन ही मनुष्य के बंधन और मोक्ष दोनों का कारण है।)

एक चिन्तक वह नहीं जो केवल बहुत सोचता है, बल्कि वह है जो सही दिशा में सोचता है। वह भीड़ की तरह केवल सुनता नहीं, बल्कि हर बात को परखता है। वह समस्याओं में उलझने के बजाय समाधान का मार्ग खोजता है। वह अपने विचारों को परिवेश के प्रवाह से बचाकर स्वतंत्र चिंतन करता है। पशु केवल अपनी जैविक आवश्यकताओं – भोजन, निद्रा और भय – के अधीन जीता है, परंतु मनुष्य अपनी विचार-शक्ति से समय और परिस्थिति दोनों को बदलने की क्षमता रखता है। यही उसे सृष्टि का सर्वश्रेष्ठ प्राणी बनाता है।

विश्व चिंतन दिवस हमें यह याद दिलाता है कि सोचना एक कला है – और इस कला को निखारने के लिए हमें अपनी संगत, अपना आहार और अपना परिवेश – तीनों को शुद्ध करना होगा। जिस दिन हमारा मन हमारे वश में आ जाएगा, उस दिन हम सच्चे अर्थों में स्वतंत्र हो जाएंगे। याद रखें – महान चिन्तक वही है जिसका मन उसके नियंत्रण में है, न कि वह जो अपने चंचल विचारों का गुलाम है।

– अथर्व श्रोत्रिय इंदौर

DEPARTMENT AND FACULTY ACHIEVEMENTS



- **Dr. Mukesh Kumar Mishra** was honored on MITS Day 2026 for securing the top position in the NPTEL course “Modern Digital Communication Techniques” (July–Oct 2025).

- **Dr. Shailendra Singh** honored on MITS Day 2026 for being recognized among the Top 2% Scientists globally by Stanford University and Elsevier (2025).



- On MITS Day 2026, **Dr. Varun Mishra** was honored for being among the top researchers of MITS – Deemed University, Gwalior.

- **Dr. Varun Mishra** contributed as a TPC Member at RAIST 2026, organized by the Indian Institute of Information Technology Surat (23–25 February 2026).



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EDITORIAL BOARD OF DEPARTMENTAL NEWSLETTER

Faculty Members :

- Dr. Laxmi Shrivastava (HoD)
- Dr. Varun Mishra (E-newsletter Coordinator)

Student Members :

- Purna Pandey (EC- 3rd year)
- Shaivya Kushwah (EC – 2nd year)
- Snehal Bhardwaj (EC – 2nd year)

NEWSLETTER DEPARTMENT OF ELECTRONICS ENGINEERING

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