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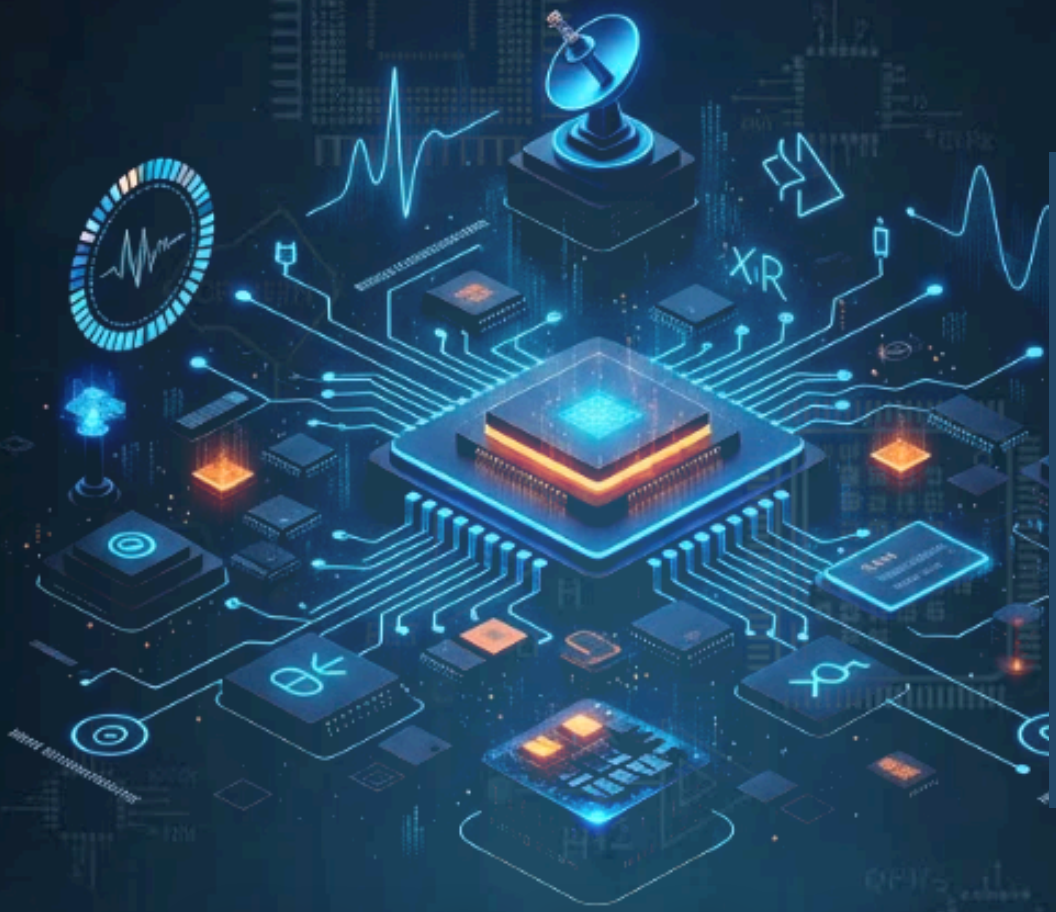

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CURRENT

ANNUAL NEWSLETTER OF

THE DEPARTMENT OF ELECTRONICS ENGINEERING

SARDAR VALLABHBHAI
NATIONAL INSTITUTE OF TECHNOLOGY
SURAT, GUJARAT, INDIA

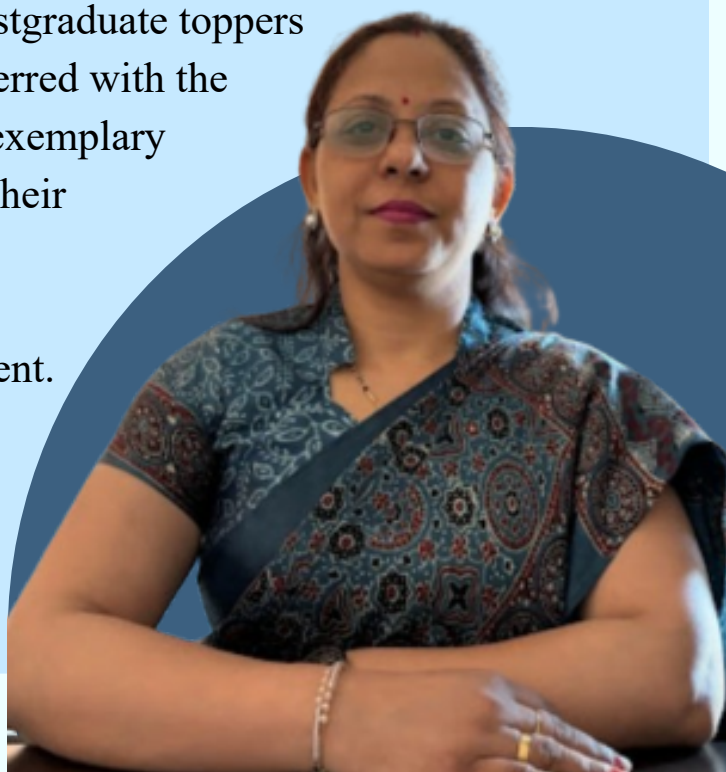
Message from HoD

Dear Faculty Members, Students, and Esteemed Well-Wishers,

Electronics Engineering lies at the very core of the digital revolution, serving as the driving force behind seamless connectivity, intelligent systems, and breakthrough technologies that define modern society. In this fast-paced **semiconductor and VLSI** era, the discipline—spanning next-generation communication networks, nanoelectronics, and smart embedded systems—continues to push the boundaries of innovation, scalability, and technological excellence.

With the rapid emergence of AI-enabled hardware, high-performance computing, and sustainable electronic solutions, the role of Electronics Engineering has become more critical than ever. The field not only bridges fundamental science and real-world applications but also empowers future-ready engineers to address global challenges through research, innovation, and entrepreneurship. This evolving landscape reaffirms the department's commitment to excellence in education, cutting-edge research, and meaningful societal impact.

It is a matter of immense pride to present the **8th issue of the Department Newsletter**, which stands as a true reflection of the collective excellence, dedication, and achievements of our students and faculty. I extend my heartfelt congratulations to our Undergraduate and Postgraduate toppers of the previous academic year for being conferred with the **Gold Medal Awards** in recognition of their exemplary performance and unwavering commitment. Their remarkable success underscores the strong academic culture, effective mentoring, and pursuit of excellence that define our department.



Message from HoD

I am pleased to acknowledge the enthusiastic participation and commendable achievements of our students and faculty on various technical platforms, competitions, conferences, internships, and professional forums beyond SVNIT, which greatly contribute to their holistic development.

I express my sincere gratitude to the **Hon'ble Director, SVNIT, Prof. Anupam Shukla**, for his constant encouragement, visionary leadership, and unwavering support to the department.

I place on record my deep appreciation for the exemplary efforts of **student committee members Divyavardhan, Aman Gupta and Raj Kothari** and the **faculty coordinator, Dr. Kirti Inamdar**, whose meticulous planning, creative vision, and unwavering dedication have been instrumental in bringing out this edition of the newsletter. Their committed and well-coordinated efforts have significantly contributed to the professional presentation and effective showcasing of the department's academic initiatives, activities, and achievements.

I congratulate all contributors and encourage everyone to continue striving for excellence, embracing opportunities beyond the classroom, and upholding the values of our institute as we advance on our academic and technological journey.

Dr. Shilpi Gupta
Associate Professor & Head
Department of Electronics Engineering
SVNIT

MISSION

The mission of the Electronics Engineering Department is to contribute to society and industry through excellence in education, research, innovations and ethics by stakeholders.

VISION

The vision of the Electronics Engineering Department is to aim to achieve quality in education and research to create leading Electronics engineers, researchers and entrepreneurs.

DEPARTMENT CORNER

- A Walk to Remember
- New Talent of DoECE
- Workshops & Boot camps
- Glimpses of Departmental Events

A Walk to Remember

An Exclusive Conversation with Prof. Piyush N. Patel

The story of the Department of Electronics Engineering at SVNIT is more than a chronicle of silicon and circuits; it is a narrative of evolution, witnessed through the eyes of those who built its foundation. In a profound sit-down, **Prof. Piyush N. Patel**—a name synonymous with the department's growth for over three decades—shares reflections on a career that spans from the analog origins of SVR to the hyper-connected era of 5G, VLSI, and beyond.

From Macro to Nano: The SVNIT journey

Prof. Patel's journey began in 1994, an era when personal computers and the internet were rare luxuries at the then-SVR College. Recalling the "infancy" of the field, he describes witnessing electronics emerge from a niche discipline into the omnipresent force it is today. Under his stewardship, the department has transitioned from a modest workspace in 2000 into a global research powerhouse. Today, SVNIT stands at the frontier of innovation, housing advanced Microwave, 5G, Machine Learning, VLSI, Semiconductor, Drone labs while securing high-impact grants from prestigious bodies like DRDO, ISRO, and MeitY.

"I have seen it grow from macro to micro, and now to nano," Prof. Patel remarks. *"It is the transition from manual systems to a world of intelligent, autonomous hardware."*

The Philosophy of the 'Test Match'

In an age of instant gratification and rapid-fire coding boot camps, Prof. Patel offers a grounding perspective on engineering education. He views the academic journey as a "Test Match"—a pursuit requiring endurance, strategy, and a deep-seated curiosity rather than a frantic chase for grades.

A Walk to Remember

- **The Human Element**: Adopting a "parent-mentor" approach, he believes a teacher must go beyond the role of an instructor to become a source of emotional support. "Students are humans, not machines," he insists, emphasizing that empathy is the most critical component of mentorship.

- The Core Advantage: Addressing the trend of students migrating to software, Prof. Patel is characteristically direct: pure software skills are accessible and easily replicated, making the field increasingly saturated. A solid foundation in Core Electronics, **including Semiconductors, Embedded Systems, Microwave Engineering, Drones, Machine Learning, and 6G,** provides the structural depth that allows an engineer to truly innovate and lead.

- The AI Frontier: While he predicts AI will "recolonize" the industry within the next five years, his vision remains focused on the smart integration of electronic systems for sustainable, human-centric development.

Bridging the Gap:
To close the divide between classroom theory and industrial application, Prof. Patel advocates for a pedagogical shift from passive lectures to **Active Immersion and Project-Based Learning**. He envisions a departmental culture in which faculty and students move beyond the traditional "Teacher and Learner" hierarchy to become "**Co-Investigators.**" This vision includes vertical research groups and a direct "research-to-startup" pipeline that empowers students to be creators rather than just consumers.

A Walk to Remember

A Message to the Next Generation

Beyond the technical rigors of research, Prof. Patel describes himself as a "pattern-seeker" and a "perpetual student of human culture," finding his balance in music, singing, and philosophy. When asked about an alternative path, he muses that he might have found fulfillment as a therapist or a medical professional—roles that, much like teaching, focus on healing and growth. His parting advice to the students of SVNIT serves as a blueprint for a meaningful life:

"**Be hungry to learn more, maintain a disciplined work ethic, and strive for inclusive growth. It is very simple to be difficult, but it is very difficult to be simple.**" As the department marches toward the future, Prof. Patel's journey remains a powerful reminder: while technology may shift from macro to nano, the values of **empathy, integrity, and persistent curiosity** remain the ultimate conductors of success.

Prof. Piyush N. Patel
Professor
Department of Electronics Engineering
SVNIT

New Talent of DoECE

Dr. Rajeev Arya received the Engineering Degree in Electronics & Communication Engineering from Government Engineering College, Ujjain (RGPV University, Bhopal) India and the Master of Technology in Electronics & Communication Engineering from Indian Institute of Technology (IIT-ISM), Dhanbad. He received the Ph.D. degree in Communication Engineering from the Indian Institute of Technology (IIT Roorkee), Roorkee. He is a member of several professional bodies, such as a senior member of IEEE, an associate member of The Institute of Engineers (India). He has worked as an Assistant Professor from Aug-2018 to Nov-2025 in the Department of Electronics and Communication Engineering at the National Institute of Technology, Patna. He is currently an Assistant Professor with the Department of Electronics Engineering at Sardar Vallabhbhai National Institute of Technology Surat, India. His current research interests are in Wireless Sensor Networks, Device-to-Device Communication, 5G/6G Networks, UAV Communications, IoT, Quantum Computing, and Detection Probability.

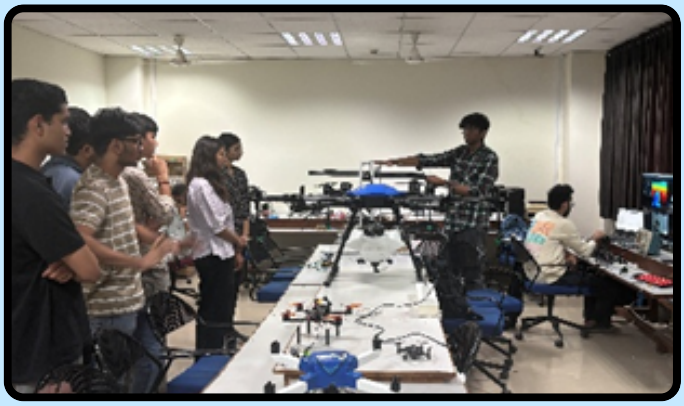
Dr. Arya has shown exemplary supervision skills as a guide to PhD candidates, besides several P.G. and U.G. students in the domain of Wireless Sensor Networks and Wireless Communication. He has published many articles in international journals and conferences. He is the recipient of best paper awards in several international conferences. He has been undertaking Research Projects from various funding Agencies such as DST-SERB and MeitY, Govt. India and NPIU. Dr. Arya has shown the highest standards of ethics and workmanship in his profession. He has been very effective in his efforts to engage himself and the people around him towards academic fulfilment.

New Talent of DoECE

Dr. Pankaj Sharma received his B. E. in ECE from MDU, Rohtak and M.E. in VLSI Design from CDAC Noida. He did his Ph.D. in Nanoelectronics from IIT Indore. He has worked as Assistant Professor from May-2020 to Nov-2025 in the Indian Institute of Information Technology, Design & Manufacturing (IIITDM) Jabalpur. He is currently an Assistant Professor with the Department of Electronics Engineering at Sardar Vallabhbhai National Institute of Technology Surat, India. His current research interests are fabrication of novel semiconductors materials and device growth optimizations, material characterizations and semiconductor properties investigation, design and simulation of optoelectronic devices, Fuel cells, Solar cells, Photodetectors, LEDs, Gas sensors etc. He has completed three research projects sponsored by funding agencies like AICTE, SERB, and UGC DAE CSR. He has many reputed journal and conference publications to his credit. He has received many awards and fellowships.

Workshop & Bootcamp

- The department organized 12 boot camps on Drone Technology and its applications throughout the year. The participants were the graduates and post graduate students of different technical institute of Surat including SVNIT. The boot camps had industry partners like CYINT, Technologies, New Delhi, CYINT, Roarbit Technologies, Surat, JASTAC Aerospace PVT. LTD., Sonawala Integrated Circuits Industries and The Energy Lab which gave a useful industrial insight to its participants. The coordinators were Prof. A.D. Darji, and Dr. Suresh Dahiya, from DoECE and Dr. Dipti Rana, from DoCSE.



Workshop & Bootcamp

- A five-week Training program on ‘VLSI Design, Semiconductor Process Technology, and Packaging’ from June 2 to July 4, 2025, in association with Suchi Semicon Pvt Ltd., IETE-ISF and IEEE student chapter of SVNIT.

- · An Advanced Entrepreneurship and Skill Development Programme (A-ESDP) on Recent Trends and Future Prospects in Energy Storage and Energy Harvesting Devices was organized in the department from 17th – 21st February 2025. This program was in collaboration with the Ministry of Micro, Small & Medium Enterprises (MSME), Government of India. The five-day program featured expert-led discussions, hands-on workshops, and industry interactions, fostering skill development among MSME professionals, researchers, and entrepreneurs. The experts were from IIT Bombay, IIT Delhi, NIT Calicut, NIT Srinagar, NIT Sikkim and SVNIT.

Workshop & Bootcamp

- ·The Department of Electronics and Communication Engineering, SVNIT Surat, successfully conducted the AICTE QIP–PG Certificate Programme on “Deep Learning: Fundamentals and Applications” during June–December 2025 in hybrid mode. The programme was attended by 47 faculty participants from various engineering institutions across India, representing core disciplines such as Electronics, Electrical, Mechanical, Civil, and allied branches. The course was delivered by faculty members from SVNIT, Surat, and featured a well-balanced blend of theoretical foundations and hands-on practical sessions. As part of the programme outcomes, participating faculty members successfully completed projects based on deep learning applications on various engineering domains, enabling them to gain practical exposure and strengthen their research and teaching capabilities. The programme received very positive feedback for its content quality, delivery, and interdisciplinary relevance.

Departmental Events

EXPERT TALK

- An alumni expert talk by Mr. Mombasawala Mohmedsaeed, Chief Technology Officer at Keysight Technologies India pvt. Ltd. was organized on 30th January 2025. The topic of his talk was Envision future of Wireless Communication with Trail Blazing AI-driver 6G.

- An expert talk under the 5G Use-Case lab initiative was arranged on 16th April 2025. Sh. Vivek Narayan, retd. DDG (DoT) GoI delivered the talk and shared the useful aspects of 5G communication.

Departmental Events

- The students and staff members of the department took a mass pledge during the Nasha-Mukt Bharat Abhiyaan on 13 August 2025.

- Under the aegis of The Swachhata Hi Sewa (SHS)-2025 campaign, Swachhata pledge was undertaken by the students and staff members of the department.

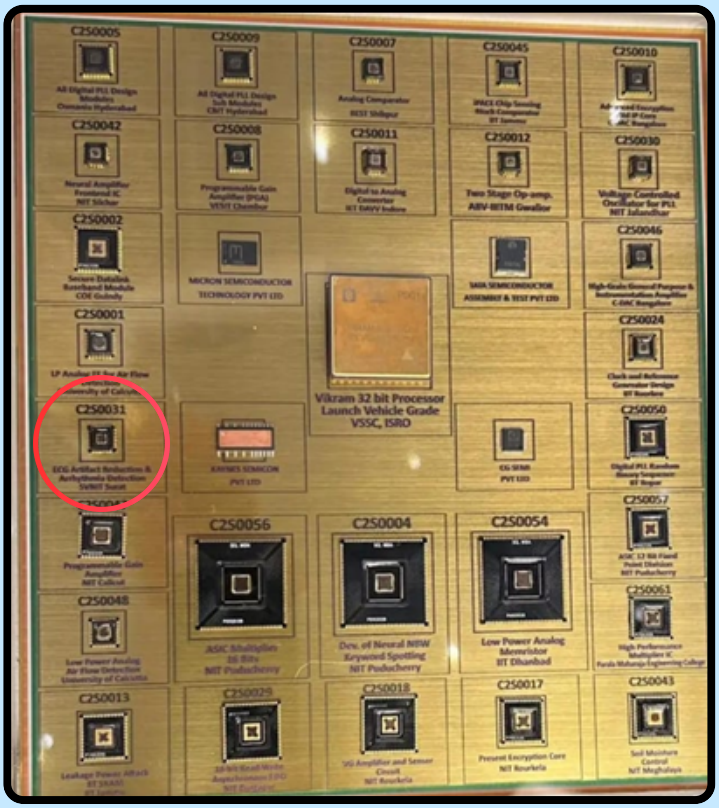
- The Vigilance Awareness Week (VAW) was observed during on Oct 27 to Nov 2 2025 with a theme "सतर्कता: हमारी साझा जिम्मेदारी" / "Vigilance: Our Shared Responsibility". The faculty members participated in a quiz competition.

- The department observed Constitution Day on 26th November 2025 in a befitting manner. This day commemorates the adoption of the Constitution of India and aims to highlight its values and principles.

Departmental Events

- For the celebration of the Commemoration of 150 Years of the National Song “Vande Mataram”, the mass singing and live streaming of the Hon’ble Prime Minister’s speech was done on 07th November, 2025.

- A Ph.D. student, Priyank Prajapati, developed an indigenous ECG Artifact Reduction & Arrhythmia Detection chip under the guidance of Dr. Anand Darji and Dr. Pinal Kumar Engineer. This 180-nanometer, 15 lakh INR Chip to Startup project (C2S) was successfully tested by C-DAC, Bengaluru, and featured at SEMICON India 2025.



FACULTY CORNER

- Research Publications
- Expert Talks

Research Publications

Journal Publications

1. U. Dalal, M. R. Prajapati, J. M. Joshi, and M. M. Joshi, "Virtual MIMO-based cross-layer optimization strategy for routing in WSN," *Int. J. Wireless Mobile Comput.*, vol. 29, no. 4, pp. 365–384, 2025.
2. A. Darji, J. N. Sarvaiya, G. Singh, and S. Patnaik, "Preprocessing and frame level classification framework for cardiac phase detection in 2D echocardiography," *Biomed. Signal Process. Control*, vol. 107, Art. no. 107803, 2025.
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12. A. Acharya *et al.*, "TID-aware efficient standard cell characterization and its application to path-level timing performance in nanoscale digital circuits," *Nanotechnology*, 2025.
13. A. Acharya *et al.*, "Spin-orbit torque MRAM performance with different materials," *Mater. Res. Express*, vol. 12, no. 8, Art. no. 086103, 2025.
14. S. Gupta and M. Solanki, "A novel intrusion detection framework using ensemble learning in MQTT IoT applications," *Ann. Math. Artif. Intell.*, pp. 1–23, 2025.
15. A. Acharya, Panwar, S., Srivastava, S., Shashidhara, M., Banchhor, S., "Impact of body bias on metal–ferroelectric–insulator stacked Si/SiGe negative capacitance line TFET," *IEEE Trans. Dielectr. Electr. Insul.*, 2025.
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17. K. Upla et al., "UnCapsTSR: An unsupervised transformer-based image super-resolution approach for capsule endoscopy images," *Neurocomputing*, Art. no. 132161, 2025.
18. K. Upla et al., "LoRA-enhanced vision transformer for single-image morphing attack detection via knowledge distillation," *arXiv preprint*, arXiv:2511.12602, 2025.
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20. P. J. Engineer, S. Shah, and S. Daware, "Review of beamspace channel estimation techniques: Technical comparison across various methods," *IETE J. Res.*, pp. 1–12, 2025.

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22. Z. M. Patel and P. A. More, “Low-power decentralized differentially private multi-armed bandit algorithm-based performance improvement on long-range radio networks,” *Wireless Networks*, vol. 31, no. 2, pp. 1145–1162, 2025.
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24. Sandeep Mishra, R. Yadav, N. Kushwaha, and A. Ranjan Kumar, “An optimized reversible multiplier with Sklansky adder for next-generation ALUs,” *IETE Journal of Research*, pp. 1–13, 2025.
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Research Publications

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53. R. Arya and R. Patel, “Trust-based resource allocation and task splitting in ultra-dense mobile edge computing networks,” *Peer-to-Peer Networking and Applications*, vol. 18, no. 1, p. 38, 2025.
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Research Publications

Conference Publications

1. Prashant Shah, P. Tiwari et al., "Realistic model-based non-invasive electromagnetic biosensing for lung health monitoring," in *Proc. IEEE AP-S/URSI*, Jul. 2025, pp. 1068–1071.
2. Shilpi Gupta , Joshi Hardik, Dhaval Shah "Outage Performance Analysis and Link Optimization of Selection Combining based Hybrid RF-(FSO/RF) link". *6th International Conference on Optical and Wireless Technology*, (OWT-2025), NIT Goa.
3. Shilpi Gupta, Ramya R.,K Deepthi, "Gap-Coupled Circularly Polarized SIW Filtenna for S-Band Applications", *5th IEEE International Conference on Applied Electromagnetics, Signal Processing, & Communication (AESPC-2025)*, 5-6 Dec 2025, KIIT Bhubaneswar 979-8-3315-6719-4/25/$31.00 , DOI: 10.1109/AESPC67542.2025.11326895
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7. Shilpi Gupta, Abhishek Tripathi, P.V. Yuga Vardhan, et. al "IoT-Enabled Smart Bin for Wet and Dry Waste Segregation with Liquid Extraction" in Second International Conference on Smart Computing and Sustainable Convergence (ISCCSC 2025), Chitkara University, Punjab, Dec 5-6, 2025.

Research Publications

8. Shilpi Gupta, Abhishek Tripathi, S. Rahul Raj, et. al "Intelligent Robotic Arm System for Automated Wet and Dry Waste Segregation in Smart Cities" in Second International Conference on Smart Computing and Sustainable Convergence (ISCCSC 2025), Chitkara University, Punjab, Dec 5-6, 2025.
9. Shilpi Gupta, Nandini Lashkari, Mitesh Solanki, Chandrasinh Parmar, "Augmented Reality-Based Support System for Automotive Assembly Using Unity and Vuforia" in 2nd International Conference on Innovations in Data Science (ICIDS), Manipal University, Jaipur, 21-22 Nov 2025.
10. Virendra Patel, Shweta Shah, "Analysis of NavIC Positioning during Tropical Cyclone Ockhi", *International Conference on Systems, Control and Automation (ICSCA)*, pp 285–300, 01 April 2025.
11. Z. M. Patel, K. Inamdar, and D. Agarwal, "A 2.5 W Class-F power amplifier using balanced stub harmonics on 150 nm GaN HEMT device for 5G applications," in *Proc. 2025 Devices for Integrated Circuit (DevIC)*, Kolkata, India, 2025, pp. 661–669, doi: 10.1109/DevIC63749.2025.11012296.
12. P. Engineer, S. Swati et al., "Exploring quantization approaches for optimized training and inference for edge AI applications," in *Proc. 11th Int. Conf. Commun. Signal Process. (ICCSP)*, Jun. 2025, pp. 1362–1367.
13. P. Engineer and M. S. Nagar, "Energy-efficient non-neural face recognition on multi-core RISC-V system," in *Proc. IEEE Int. Symp. Circuits Syst. (ISCAS)*, May 2025, pp. 1–5.
14. P. J. Engineer, N. Kawa, and Swati, "Efficient object tracking on edge devices with quantized Siamese networks," in *Proc. IEEE DevIC*, 2025, pp. 604–609.
15. K. Inamdar, M. B. Hasani, T. N. Patel, and P. V. Bhale "Theoretical and Simulation Based Analysis of Biochar-Polymer Based Composite for Electromagnetic Shielding Application", *MAPCON*, December 2025.

Research Publications

16. Nithin Chatterji, Vivek Garg, Shivendra Yadav, Dhruv Singh Thakur, Rajesh Kumar Sharma, "Theoretical Insights through DFT into $AgBiS_2$ Thin Films Absorber for Photovoltaic Applications", EUPVSEC 2025
17. K. Captain, A. N. Tiwari et al., "Reputation-based classification for malicious user detection in cognitive radio networks," in Proc. IEEE COMSNETS, Jan. 2025, pp. 852–856.
18. K. Captain, R. Shah et al., "OFDM signal modulation classification using dilated CNN," in Proc. IEEE COMSNETS, Jan. 2025, pp. 857–861.
19. R. Pal, N. Rajput, A. Kumar, and S. S. Kandu, "Application of Internet of Things for," in Advances in VLSI, Communication, and Signal Processing: Select Proc. 7th Int. Conf. VCAS 2024, Singapore, Springer Nature, 2025, p. 89.
20. R. Pal, S. S. Kandu, A. Prakash, M. Tiwari, S. Tripathi, and N. Gupta, "C-V2X and 5G-V2X: Challenges and improvement strategies," in *Proc. 2025 Third Int. Conf. Microwave, Antenna and Communication (MAC)*, Jun. 2025, pp. 1–6.
21. R. Pal, U. D. Dalal, K. B. Iyengar, and A. Shukla, "A matched pilot resource allocation scheme for downlink OFDMA systems," in *Proc. Int. Congr. Inf. Commun. Technol.*, Feb. 2025, pp. 267–279.
22. R. Arya, S. Chandra, and M. Prasad Singh, "Energy-efficient AoI minimization in D2D-assisted social IoET networks," in *Proc. Int. Conf. Security, Privacy and Data Analytics*, Singapore, Dec. 2024, pp. 267–279.

Research Publications

Book Chapter

1. R. Arya and R. Patel, “Resource allocation for D2D underlay communication in 6G networks considering 3D distance path loss model,” in Intelligent Computing and Communication Techniques. Boca Raton, FL, USA: CRC Press, 2025, pp. 269–274.

Expert Talks

- Dr. Kishor Upla delivered an expert talk on The application of Singular Value Decomposition at the S & SS Gandhi Government Engineering College, Surat on 30th September, 2025.
- Dr. Kishor Upla delivered an expert talk on Application ML algorithms at AVPTI, Rajkot in ATAL FDP program on 15th Sept, 2025.
- Dr. Shweta Shah delivered an expert talk on Utilization of Drones in Agriculture Across Crop Phases GeoLeap Accelerator series organised by IIT Tirupati Navavishkar I-Hub Foundation on 17th June 2025.
- Dr. Shweta Shah delivered an expert talk on Strengthening Academia-Industry Linkages For Employability during Faculty Development Program on Upskilling India: NEP 2020, Industry Linkages, and the Road to Self-Reliance, at Vidhyadeep University Campus on 19th June 2025
- Dr. Shweta Shah delivered an expert talk on Impact of Intentional & Unintentional Interference on IRNSS/NavIC during a Five-Day National Workshop on the Indian Regional Navigation Satellite System (NavIC) Department of Geography, Sophia Girls' College (Autonomous), Ajmer on 1st August 2025.
- Dr. Shweta Shah delivered an expert talk on Innovation for Atmanirbhar Bharat - Building a Swadeshi Startup Ecosystem at Surat Municipal Corporation on 13th October 2025.
- Dr. Shweta Shah delivered an expert talk on AI/ML-Driven VLSI System Design for Next-Generation Wireless Communication Technologies at 1st International Conference on Artificial Intelligence and Data Science (ICAIDS 2025), Sri Lanka Association for the Advancement of Science (Eastern Chapter) in collaboration with South Eastern University of Sri Lanka on 28th October 2025.
- Dr. Shweta Shah delivered an expert talk on The Evolving Role of AI in Academic Research under Malaviya Mission Teacher Training Centre, at the University of Burdwan, RC on Artificial Intelligence for Education & Research on 11th November 2025.

Expert Talks

- Dr. Vivek Garg delivered an expert talk on Advanced energy materials for Indoor Solar Cells at EICT Sponsored Workshop at IIITDM Jabalpur in March 2025.
- Dr. Vivek Garg delivered an expert talk on Light Management Strategies for Solar Cells at EICT Sponsored Workshop at IIITDM Jabalpur in March 2025.
- Dr. Vivek Garg delivered an expert talk on Advanced energy materials for Indoor Solar Cells at EICT Sponsored Workshop at NIT Patna in June 2025.
- Dr. Vivek Garg delivered an expert talk on Recent Trends in Semiconductor Sector and Upcoming Semiconductor Ecosystem in India at AIU-AADC sponsored FDP on Next Gen of Design, Manufacturing, Packaging, Semiconductor Technologies, GTU Ahmedabad in July 2025.
- Dr. Vivek Garg delivered an expert talk on Semiconductor Fabrication Techniques in AIU-AADC sponsored FDP on Next Gen of Design, Manufacturing, Packaging, Semiconductor Technologies at GTU Ahmedabad in July 2025.
- Dr. Vivek Garg delivered an expert talk on Recent Trends in Semiconductor Sector and Upcoming Semiconductor Ecosystem in India at GEC Surat in August 2025.

STUDENT CORNER

- Ph. D. Completion
- Student’s Achievement
- Student Chapter Events
- Alumni Interview

Ph. D. Completion

Sr. No.	Name	Roll No.	Title	Date of Completion	Photo
1	Mr. Anjankar Shubham	D17EC009	Radiation Sensor Design for Mitigation of Total Ionizing Dose in Space Technologies.	16th May 2025 at 8:30 AM	
2	Ms. Shinde Kalindi Shivaji	D17EC008	Design and Performance Analysis of Microwave Sensing Devices to Identify Raw, Pipe and Spoilt Fruits.	18th July 2025 at 3:00 PM	
3	Mr. Ankit Chouhan	D20EC003	Defense Against Byzantine Attack in Cooperative Spectrum Sensing for Cognitive Radio	28th July 2025 at 10:30 AM	
4	Ms. Vasundhara	D20EC010	Dynamic Resource Allocation and Performance Optimization in Elastic Optical Networks	6th August 2025 at 5:00 PM	
5	Mr. Mehulkumar Chhibabhai	D17EC006	A Framework and Modelling of Various DBAs for Long-reach XGPON Network	26th August 2025 at 11:30 AM	

Ph. D. Completion

Sr. No.	Name	Roll No.	Title	Date of Completion	Photo
6	Mr. Shashidhara M.	DS20EC007	Advancing Spin-Orbit Torque Magnetic Tunnel Junctions for Scalable Field-Free Switching and Logic-in-Memory Architectures	25th August 2025 at 4:30 PM	
7	Mr. Shobhit Srivastava	D20EC009	Design and Optimization of Gate-All-Around Nanosheet Field-Effect Transistor: A Physical Insight	25th August 2025 at 10:30 AM	
8	Ms. Anju Mahesh Gupta	DS17EC004	Design and Fabrication of Chemiresistive Sensor for Selective Detection of Heavy Metal Ions from Water	24th September 2025 at 4:00 PM	
9	Mr. Siba Prasad Mishra	DS20EC005	Exploring Feature Extraction Methods for Effective Speech Emotion Recognition	6th November 2025 at 4:00 PM	
10	Ms. Krupali Umaria	D17EC010	Enhancing Spectral Efficiency Through Hybrid Precoding And Adaptive Antenna Selection	17th December 2025, at 11:00 AM	

Student's Achievement

B.Tech. IV Year

- Uday Khunti (U22EC004) and team participated in Anveshan 2024-25and stood as first runner-up. They received a cash prize of 1lakh.

- Ashish Rajput (U22EC018) participated as a solo innovator in National-level innovation competition "Samsung Solve for Tomorrow", organized by Samsung India under the theme "Social Change through Sports and Technology. He designed and developed an accessibility-first digital platform focused on empowering early para-athletes by improving access to training resources, opportunities, and technological support. After several evaluation rounds, the project was selected among the Top 40 teams for semifinals across India and Top 10 teams in the Sports theme. The final pitching round was conducted offline at IIT Delhi where he presented his idea before Samsung leaders and experts. He was awarded a cash prize of ₹20,000 and a Samsung Galaxy Book5 Pro 360 laptop.

- Pankaj Vaniya (U22EC055) qualified GATE 2025 and secured a score of 350.
- Siripireddy Sumanth Reddy (U22EC062) qualified GATE 2025 and secured a score of 733 with AIR 304.

Student's Achievement

B.Tech. III Year

- As a core member of Team Phoenix Aero, Aishwarya Agarwal (U23EC142) participated in the Autonomous Drone Development Challenge (ADDC) 2025, a prestigious national-level competition held during April 4th and 5th, 2025. The team secured the Overall Second Position and also achieved Second Position in the 'Safe Design System' category. She contributed to the design and development of the autonomous drone's technical systems. The achievement was recognized with a cash prize of ₹25,000 during the valedictory ceremony.
- Nishil Ittan (U23EC012) secured National finalist position in Enigma - The Data Analytics Case Competition during Atharv Ranbhoomi 2025 held at IIM Indore.
- Rhythm Patel (U23EC047) secured a position of second runner-up in Design Contest during Design and Verification Conference (DVCON) 2025 held at Bengaluru.

Student's Achievement

- Snigdha Chatterjee (U23EC006) secured 13th position at the International Space Drone Challenge (ISDC), a prestigious space engineering competition organised by the Space Robotics Society (SPROS) held at BITS Pilani, K. K. Birla Goa Campus.

Student's Achievement

B.Tech. II Year

- Aman Gupta (U24EV011) had an enriching leadership experience contributing to India's vision of Viksit Bharat @2047. He ranked 1st in the Atmanirbhar Bharat track at the Viksit Bharat Young Leaders Dialogue 2026, organized by the Ministry of Youth Affairs & Sports, Government of India. He was elected to represent Gujarat at the national level from among 5.5 million registrations across four competition tracks, too. He presented ideas before Hon'ble Prime Minister Shri Narendra Modi Ji, and interacted with NSA Shri Ajit Doval Ji and other Hon'ble Union Ministers. He also engaged with national delegations and had the privilege of sharing dinner with Shri C.R. Patil Ji and Shri Himang Joshi Ji

Student's Achievement

ACADEMIC STARS OF ELECTRONICS DEPARTMENT
ACADEMIC YEAR 2024-25

Duddekunta Devamani received a gold medal for being the topper of the batch in B.Tech. in Electronics & Communication Engineering.	
Athulya A S received a gold medal for being the topper of the batch in M.Tech. in Communication System.	
Cheruku Rahul Bhaskar received a gold medal for being the topper of the batch in M.Tech. in VLSI & Embedded System.	

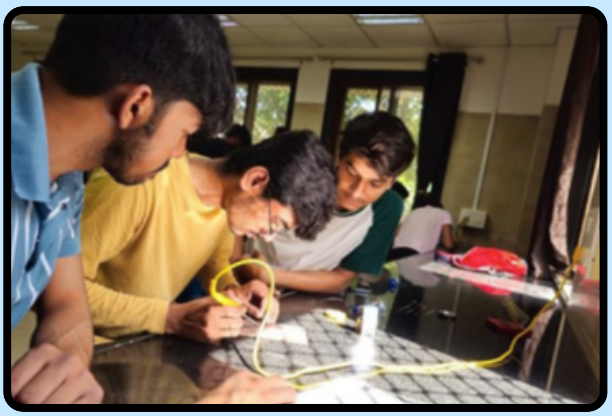
Student Chapter Events

IEEE Student Chapter Events

The IETE and IEEE Student Chapters at SVNIT Surat jointly organized an expert talk on Physical VLSI Design, delivered by Prof. Lava Bhargava from MNIT Jaipur on February 24–25, 2025, for PG and UG students respectively. Attended by over 120 students, the sessions provided deep insights into low-power VLSI, FPGAs, embedded systems, MEMS, and IoT, while also addressing SoC verification and memristor-based architectures. With a strong focus on real-world design workflows and challenges, the talk bridged academic theory with industry relevance and inspired students toward advanced research in electronics.

IETE Student Forum

The IETE Student Forum at SVNIT successfully hosted HERTZ 10.0, a flagship technical event featuring five dynamic activities: Fuse It (circuit design challenge), Mock Placement (interview simulation), Cobweb (web designing competition), Flip Flop (debate competition), and Cine Vista (technical short film screening). Designed to enhance technical proficiency, problem-solving, communication skills, and creativity, the event saw enthusiastic participation from students across all levels. HERTZ 10.0 provided a vibrant platform for exploration, competition, and collaboration in a professional environment.



Alumni Interview

Dr. Doel Bose Pande
B.E (NIT Surat)
Ph.D (AI in Embryo Assessment)
IVF Lab Director @ Indore Infertility Clinic & Course Director @Embryogeny

1. **Can you briefly introduce yourself and tell us about your journey after graduating in Electronics Engineering?**

- I am an IVF Lab Director at an Infertility Clinic in Indore. I am a mother of two growing boys. Passionate about learning and teaching, I also run a training institute specializing in skill training programs for Embryologists. After graduating in 1999, I joined an MNC in Indore and worked as a Product Architect for rich-client applications. I used to love my IT job too, but finally quit after 12 years of service after my elder son was born.

2. **During your time at the institute, were there particular subjects, projects, or mentors that influenced your thinking?**

- I liked attending JwalantDesai Sir's lectures, honestly, he was the only professor whose lecture I did not bunk. A few seniors and batchmates helped me a lot in shaping my thought process; they were my true mentors. I am still fortunate to stay in touch with them regularly.

3. **Your career path is quite unique—moving from Electronics Engineering to Embryology. What inspired this transition?**

- I used to work briefly as the clinic manager of this Infertility unit before I ventured into their IVF lab. Embryology happened by chance; the girls who used to operate our IVF Lab suddenly quit at the same time, which opened an opportunity in the IVF Lab. My employer had faith in my abilities, so he invested in my training and lit the path towards embryology. I took the leap of faith in 2014 and applied for my Bachelor's in life sciences, then pursued my Master's and finally completed my PhD in 2025.

Alumni Interview

4. **What were the biggest challenges you faced while switching from an engineering background to a biomedical profession?**

- I think the biggest shift was working Saturdays
- Coming from an industry where a “first name” basis is the norm, moving to a medical fraternity where you are expected to address every doctor as Sir or Ma'am was the greatest shift. Doctors have fragile ego and as a professional, Mam-ing or Sir-ing never came naturally to me. Also, as an engineer, I was trained to question & derive logic in everything, but unfortunately, medicine did not follow mathematical rules or logic. So at times it was difficult to accept certain things that defied logic.

5. **Did any skills from Electronics Engineering help you in your current field?**

- To be honest, Electronics as a branch did not help me much, but Engineering overall was very helpful. Engineers are problem solvers; unlike most doctors and embryologists, hardware and software came easily to me. IVF lab hosts many pieces of equipment and instruments, and understanding how they function came naturally to me, making my job easier. Also, knowledge of computers & especially Excel, made record-keeping very easy for me and helped me define processes in an agile system.

6. **What are some of the most rewarding aspects of working in reproductive medicine?**

- The most rewarding part is the power to create and impact lives. But with great power comes great responsibility. Every action that you take, every decision that you make in the lab, has the ability to impact the process of embryogenesis and eventually not only affect the embryo quality, but also the long-term health of the progeny.
- It is a blessing to work in a field where deliverables are so tangible and visible in real time.

Alumni Interview

7. **How important is interdisciplinary learning in today's careers?**

- Interdisciplinary learning is a skillset; some people are good at it, while others are better at super-specialization into a niche field. Organizations need both kinds of skillsets to function & progress as a unit. And each type of person should acknowledge and respect the other.

8. **In your opinion, how can engineering students explore opportunities in biomedical or life-science fields?**

- Engineering students interested in biomedical or life-science careers in India usually move through two broad pathways. One is the instrumentation route, where they specialize in biomedical equipment and design, develop, and maintain devices used in hospitals and laboratories.
- The other is the analytics route, where engineers build expertise in data science, AI, or bioinformatics and work on areas such as medical imaging AI, genomics analysis, and digital health platforms. Both pathways allow engineers to apply core engineering skills to solve real problems in healthcare and biomedical research.

9. **What were the biggest lessons you learned while changing fields completely?**

- Stay agile and inquisitive always. It is easy to learn and adapt only when you let go of your ego. Don't be afraid of asking. Learning has no age. As long as you stay inquisitive & agile, you can adapt to any field or situation. I wasn't afraid to start as a fresher in embryology at 36. Be respectful of those teaching you, and give your full energy to whatever field you are entering.

Alumni Interview

10. **Is there anything you would have done differently in your career journey?**

- I should have invested more time in structured learning and technical certifications during my IT days. Preparing for an exam forces you to study concepts in a deeper and more disciplined way. That kind of focused preparation tends to make the knowledge stickfar better than casually readingor browsing through information.

11. **What skills do you think are most important for young professionals in today's rapidly changing career landscape?**

- Patience and taking a task to completion.
- The young generation today lacks attention span and attention to detail. Be accountable. Be someone who finishes what they start. Be present and stay focused. In this AI-driven world, the future belongs to someone who can show up and take responsibility.

12. **Finally, what message would you like to share with current students and young alumni?**

- **Read. Research.** Do it while you are still young. Don't just skim information. Take the time to understand things deeply and logically. In the early years of your career, don't chase money. Focus on building so much knowledge and capability that money eventually finds its way to you.
- **Aim to be indispensable**, not by hoarding information or refusing to share what you know, but by being the person who can find solutions for problems.

Committee Members

Dr. Shilpi Gupta
Chairperson

Dr. Kirti Inamdar
Co-Chairperson

Divyavardhan
B.Tech III, Coordinator

Aman Gupta
B.Tech II, Co-Coordinator

Raj Kothari
B.Tech II, Designer