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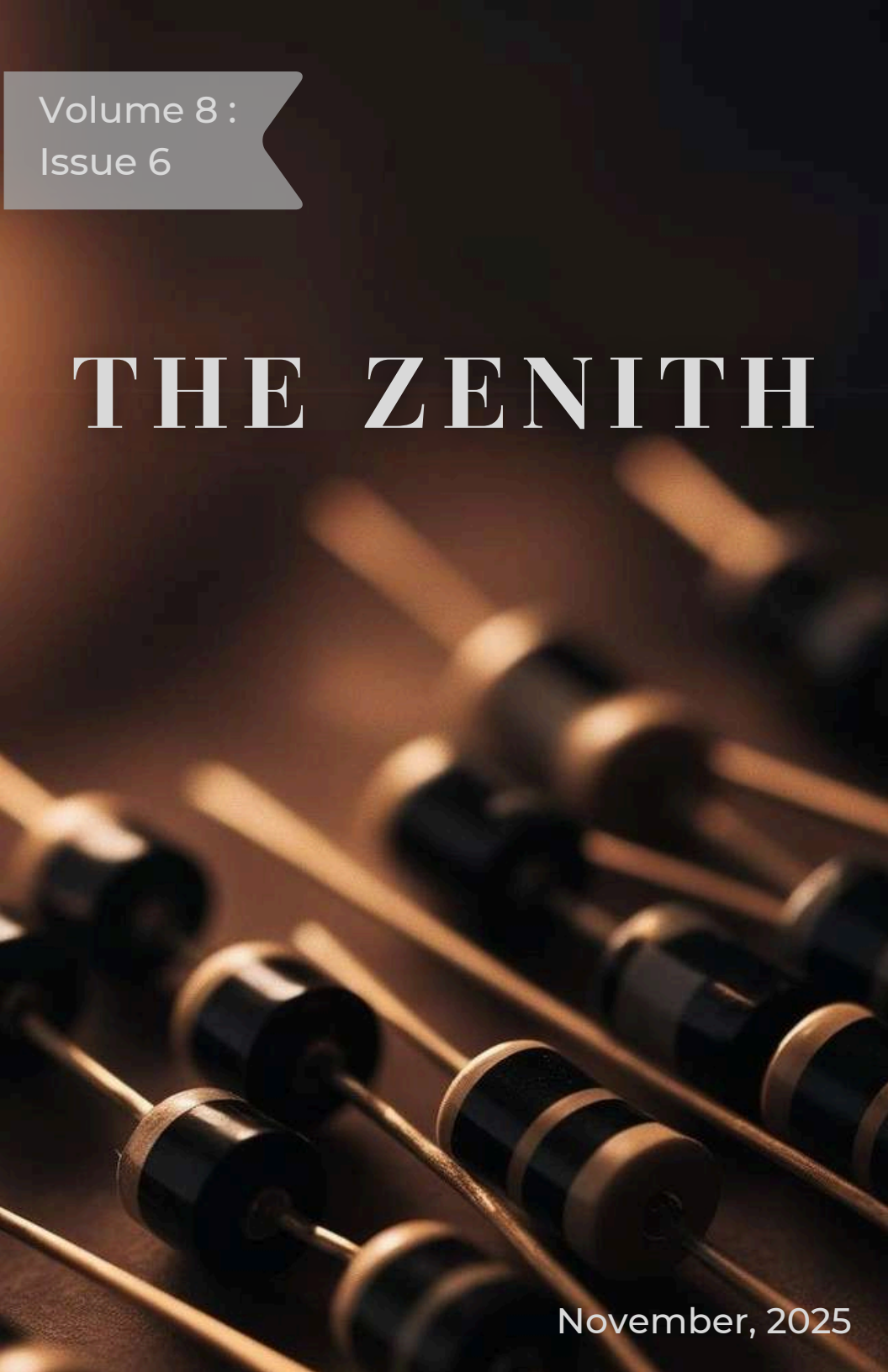
THE ZENITH



November, 2025

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TECHNICAL NEWS

📡Cornell University Installs Advanced MOCVD System to Drive Next-Gen Semiconductor Research

In November 2025, Cornell University's College of Engineering announced a major laboratory upgrade that will significantly boost research in advanced semiconductor materials crucial for future electronics and communication systems. A state-of-the-art Metal-Organic Chemical Vapor Deposition (MOCVD) system—custom-designed to grow and engineer nitride semiconductor materials—has been installed in Duffield Hall, giving researchers a powerful new platform for innovation in materials science. Cornell Chronicle+1

Nitride semiconductors such as gallium nitride (GaN) and aluminum nitride (AlN) are already foundational to technologies like energy-efficient LEDs and high-frequency telecommunications. With the upgraded MOCVD system, scientists now aim to explore a broader palette of nitride materials with advanced properties such as superconductivity, ferroelectricity, and magnetism—pushing beyond conventional applications into areas like quantum computing components, high-coherence microwave qubits, and next-generation communication devices. Cornell Chronicle

The new system was developed in partnership with equipment maker AIXTRON SE and includes specialized channels to handle both traditional and low-vapor-pressure chemical precursors. This enables highly controlled, atomic-level growth of complex nitride layers that may lead to breakthroughs in optoelectronics, quantum information systems, and radio-frequency power electronics. Unlike older techniques that were difficult to scale industrially, MOCVD technology is already widely used in commercial semiconductor manufacturing—meaning discoveries made with this system could more easily translate into real-world devices. Semiconductor Today

According to researchers involved in the project, the upgraded MOCVD facility will not only expand Cornell's research capabilities but also contribute to national priorities in advanced materials research and high-performance electronic systems.

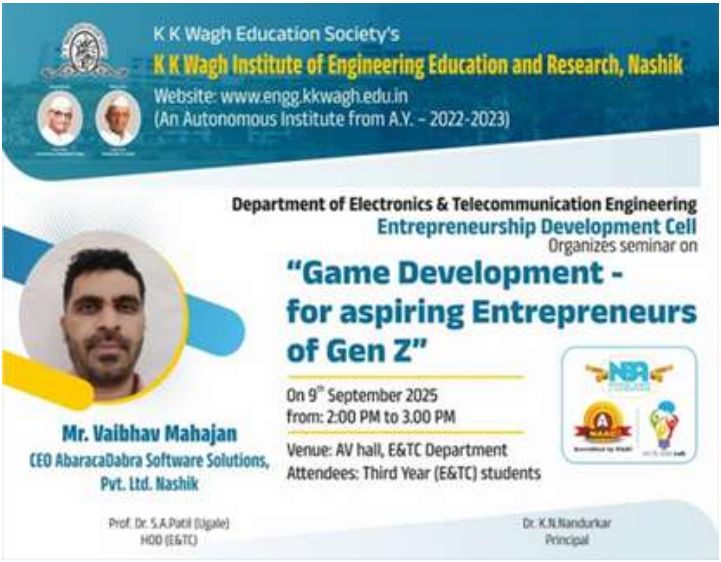
Source:Cornell Chronicle

From left: Doctoral students Wenyuan Yan and Yuxuan Deng observe as postdoctoral researcher Isabel Streicher operates a new metal-organic chemical vapor deposition system.

Source: Cornell Chronicle
Credit : Charissa King-O'Brien

The Electronics and Telecommunication Engineering Department organized the following informative event in September 2025:

- A seminar on “Game Development – for Aspiring Entrepreneurs of Gen Z” was conducted by Mr. Vaibhav Mahajan, CEO of AbaracaDabra Software Solutions Pvt. Ltd., Nashik, on 9th September 2025 from 2:00 pm to 3:00 pm for Third Year E&TC students under the Entrepreneurship Development Cell of the Department of Electronics & Telecommunication Engineering



An expert talk on “PIC Microcontroller Interfacing”

An expert talk on “PIC Microcontroller Interfacing” was delivered by Mr. Ashish Bhopale, Senior Embedded Design Engineer at MicroEmbedded Technologies, Pune, on 13th September 2025 from 1:00 pm to 3:00 pm for TY B.Tech (A & B) students. The session was organized by the Department of Electronics & Telecommunication Engineering in collaboration with IETE

Guidance Session on Intellectual Property Rights (IPR)

A guidance session on Intellectual Property Rights (IPR) was conducted by Dr. S. A. Patil (Ugale), Head of the Department, Electronics and Telecommunication Engineering, on 17th September 2025 from 2:00 pm to 3:00 pm for TY B.Tech (A & B) students.

The Electronics and Telecommunication Engineering Department organized the following informative event in October 2025:

A Guidance Session for the Emerson and Fox Placement Drive was conducted by Ms. Anushka Varade, System Engineer, DeltaV Upgrade Department, Emerson, Nashik, on 6th October 2025 at 6:00 PM. The session was organized for B.Tech students under the Training and Placement Cell (E&TC) of the Department of Electronics & Telecommunication Engineering, K. K. Wagh Institute of Engineering Education and Research, Nashik.

During the session, Ms. Varade provided valuable insights into the recruitment process of Emerson and Fox, including the selection procedure, types of interviews, and the skills expected from students. She also shared practical tips on resume building, technical preparation, and how to perform effectively in group discussions and personal interviews. In addition, she highlighted current industry trends, job roles, and career growth opportunities available in the core electronics sector.

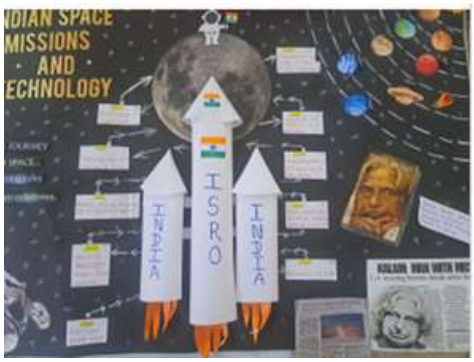
The session was highly interactive, and students actively participated by asking queries related to placements and career planning. Overall, the guidance session proved to be very informative and motivating, helping students to better prepare themselves for upcoming placement opportunities.

Expert Talk on “Space Habitats and Life Support Systems

An Expert Talk on “Space Habitats and Life Support Systems” was conducted by Mr. Dilip Thakur, Head of the Department of Physics and Member of the Ashoka Astronomical Society, Ashoka Universal School, Nashik, on 8th October 2025 from 1:00 pm to 3:00 pm. The session was organized for the students of the Department of Electronics & Telecommunication Engineering by the Astro Club of K. K. Wagh Institute of Engineering Education and Research, Nashik. During the talk, Mr. Thakur discussed the concept of future human settlements in space and the technological challenges involved in designing sustainable space habitats. He explained various life support systems required for human survival beyond Earth, including oxygen generation, water recycling, food production, waste management, and radiation protection. The importance of interdisciplinary collaboration among electronics, communication, mechanical, and biological sciences in space research was also highlighted.
He further elaborated on current missions and international efforts toward space colonization, such as lunar bases and Mars exploration, and emphasized the role of young engineers in contributing to space technology. The session also included engaging discussions on artificial gravity, closed ecological systems, and the impact of long-term space travel on human health.
The talk received an enthusiastic response from students, who actively interacted and asked insightful questions. Overall, the expert session proved to be highly informative and inspiring, enhancing students’ curiosity about space science and motivating them to explore career and research opportunities in the field of space technology.

Interdepartmental Poster Competition on Space Missions & Technology

·The Department of Electronics & Telecommunication Engineering in association with the Astro Club, K. K. Wagh Institute of Engineering Education and Research, Nashik, organized an exciting Poster Competition on the theme “Space Missions & Technology.”
The event aimed to encourage creativity and scientific thinking among students by blending artistic expression with space exploration concepts. Participants showcased their imagination through visually captivating posters depicting various space missions, technological advancements, and futuristic ideas.



CAMPUS PLACEMENTS / ACHIEVEMENTS

Internship Selections

An incubation screening drive was conducted by QSpider Company, through which several students from the department were successfully selected for a 6-month internship program commencing from 5th January 2026. In addition, students were also selected for internships at AADD, Proexcel Systems, and Bosch Limited under various industry training initiatives. These internship opportunities will help students gain practical exposure, enhance technical skills, and bridge the gap between academic learning and industrial requirements.

Students selected for Internship at QSpider Company

1. **Chaitanya Kulkarni**
2. **Rutvij Mahesh Thete**
3. **Ritesh Sakhare**
4. **Bhakhar Drashti Kantilal**
5. **Kanchan Mukund More**
6. **Bhavi Sundeep Sankhala**
7. **Tanmay Sandip Gajkal**
8. **Yash Sanjay Giri**
9. **Harsh Ganesh Gawali**
10. **Sweety Ratnakar Wagh**

This achievement reflects the department's commitment to excellence and the students' consistent hard work and determination.

CAMPUS PLACEMENTS / ACHIEVEMENTS

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Students selected for Internship at AADD

1. **Aditya Garmode**
2. **Ankita Bhosale**
3. **Payal Patil**
4. **Jayesh Joshi**
5. **Ketan Sawat**
6. **Manish Jadhav**
7. **Prem Dalvi**
8. **Sahil Jorwar**
9. **Drushti Bhakhar**

Students selected for Internship at Proexcel Systems

1. **Yashraj Tayade**
2. **Rushikesh Palaskar**

This achievement reflects the department's commitment to excellence and the students' consistent hard work and determination.

CAMPUS PLACEMENTS / ACHIEVEMENTS

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Students selected for Internship at Bosch Limited

1. **Metkar Vidhi Vivek**
2. **Chavan Sakshi Yogendra**
3. **Patil Tejal Jayant**
4. **Bhosale Ankita Dattatray**
5. **Gharate Sakshi Suresh**
6. **Kasar Rutuja Dinkar**
7. **Patil Utkarsha Vijay**
8. **Susar Mayur Devidas**
9. **Zagade Aditya Sunil**
10. **Amrutkar Sakshi Dhananjay**
11. **Aditi Mogal**
12. **Pratiksha Pagar**
13. **Kirti Sherikar**

This achievement reflects the department's commitment to excellence and the students' consistent hard work and determination.

CAMPUS PLACEMENTS / ACHIEVEMENTS

Internship Selections

Students from the Department of Electronics & Telecommunication Engineering have successfully secured internships in reputed organizations, providing them with valuable industry exposure and hands-on practical experience. A total of eight students have been placed across various companies in diverse technical domains. These internships will enhance students' professional skills, industry readiness, and understanding of real-world engineering applications.
Company-wise internship placements:

- **TDK Corp – 1 student**
- **Yomit Solution – 4 students**
- **NeuMe Beauty Solutions, Thane – 1 student**
- **Elite Technologies, Ambad – 1 student**
- **Elansol Technology – 1 student**

This achievement reflects the department's commitment to excellence and the students' consistent hard work and determination.

CAMPUS PLACEMENTS, Internships/ ACHIEVEMENTS

Placement

Ms. Siddhi Sangale, a student from the Department of Electronics & Telecommunication Engineering, has successfully secured placement in a reputed industry. This achievement reflects the department's focus on strengthening technical skills, aptitude, and professional readiness among students. During the recent placement drive, students were placed in well-recognized organizations, enabling them to begin their professional careers with strong industry exposure. Company-wise placement details:

- Fox Control Pvt. Ltd. – 01 student placed

This achievement reflects the department's commitment to excellence and the students' consistent hard work and determination.

Ms. Siddhi Sangale

CAMPUS PLACEMENTS / ACHIEVEMENTS

Student Achievement:

Ms. Sanskriti Atal, from the Electronics Engineering batch of 2022–23, has brought great pride to the department and the institute by being awarded the Gold Medal (University Topper) at the University Convocation held on 29th September 2025. This prestigious recognition reflects her outstanding academic performance, consistent dedication, and sincere hard work throughout her engineering program. Her remarkable achievement serves as an inspiration and motivating example for her juniors, showcasing the importance of perseverance, discipline, and excellence in academics. The department congratulates her on this significant milestone and wishes her continued success in all her future endeavors.

Ms. Sanskriti Atal

CAMPUS PLACEMENTS / ACHIEVEMENTS

Student Achievement:

Team Medibites Secures 2nd Place at Technitude International Hackathon

Team Medibites brought laurels to the institute by securing World Rank 2 at the Technitude International Hackathon, organized online by SP Jain School of Management, Sydney. Competing against international teams, they developed an innovative GenAI-powered intelligent service system capable of functioning both as a smart restaurant ordering assistant and a clinic appointment-booking platform.

The system integrates conversational AI with real-time database support, enabling automated order processing, patient appointment scheduling, and enhanced user interaction. The versatility and scalability of the solution impressed the judges, showcasing the team's strong problem-solving abilities and technical excellence in artificial intelligence.

For this outstanding performance, the team was awarded a prize of $598 (₹50,000). Their success highlights the students' ability to excel at global platforms and reflects their commitment to cutting-edge technological innovation.

Team Members:

1. **Ritesh Sakhare**
2. **Samyak Raka**
3. **Vedant Deore**
4. **Ritesh Borse**

CAMPUS PLACEMENTS / ACHIEVEMENTS

Student Achievement:

A team of talented students achieved a remarkable milestone by winning the 1st Prize at the State Level Poster Presentation Competition held at MET College of Engineering, Nashik, on 19 September 2025. Their project titled “Hydro Track: Microcontroller-Based Borewell Timer” was highly appreciated for its innovation, practical application, and relevance to present-day water management challenges.

The project aims at the smart regulation of borewell usage using a microcontroller-based timer system. It helps prevent overuse of groundwater, motor burnout, and power wastage, while ensuring efficient and safe operation of borewell pumps. The solution is especially beneficial for farmers and rural communities, addressing real-life problems associated with irregular water extraction and manual monitoring.

The team impressed the judges with their technical understanding, clarity of presentation, and problem-solving approach. In recognition of their outstanding performance, they were awarded a trophy, cash prize, and gift vouchers. This achievement has brought immense pride to the department and stands as an inspiration for other students to actively participate in technical competitions and develop innovative solutions.

List of Winners:

1. **Janhavi Tambat**
2. **Rajas Yeole**
3. **Devashri Shastri**

CAMPUS PLACEMENTS / ACHIEVEMENTS

Student Achievement:

Team Spirit Shines with 3rd Place Win at Robotex India 2025

Team Spirit from our department achieved an impressive milestone by securing 3rd place at Robotex India 2025, held at MIT ADT University on 19–20 September 2025. The team also received a cash prize of ₹10,000 in recognition of their outstanding performance.

The team, consisting of 8 dedicated members and led by Captain Atharva Mayekar, participated in the highly competitive 0.5 kg Autonomous Robo Sumo category. They designed and developed their autonomous robot entirely on their own, from conceptualization and mechanical design to electronics integration and programming. The robot successfully demonstrated intelligent autonomous movement, strategic combat techniques, and precise control during the arena battles.

Competing against strong opponents from various institutions across the country, Team Spirit showcased exceptional teamwork, innovation, and technical problem-solving abilities. Their achievement highlights the department's strong focus on hands-on learning, robotics, and automation technologies. This victory serves as a motivation for other students to actively participate in national-level technical competitions and explore emerging fields in robotics.

CAMPUS PLACEMENTS / ACHIEVEMENTS

Student Achievement:

Interdisciplinary Team Led by Atharva Mayekar Wins 2nd Prize at AVISHKAR 2025

Atharva Mayekar, along with team members from various departments, secured the 2nd Prize in the AVISHKAR Project Competition 2025 (College Level Round) held on 19th September 2025 at the AICTE–IDEA Lab, K. K. Wagh Institute of Engineering Education and Research, Nashik.

The team presented an innovative project titled “Affordable, Sustainable Semen Storage for Bull.” The project focuses on developing a cost-effective, energy-efficient, and sustainable semen storage solution to support the agriculture and dairy sectors. By integrating concepts from electronics, mechanical design, biology, and farm innovation, the team proposed a system that ensures reliable storage conditions while minimizing operational costs.

This interdisciplinary work highlighted:

- practical relevance to farmers and dairy industries
- emphasis on sustainability and affordability
- creative application of engineering principles to biological systems

The project was highly appreciated for its innovation, social impact, and feasibility of implementation. The achievement reflects the strong problem-solving orientation and collaborative spirit of the students, while also encouraging others to engage in research-driven projects addressing real-world challenges.


K. K. Wagh Institute of Engineering Education and Research, Nashik- 422003

AVISHKAR Project Competition

Certificate of Participation

This is to certify that Mr./Ms. ______ of ______ have/has participated in 'AVISHKAR' Project Competition-2025 (College Level Round) on 19th September 2025 at AICTE- IDEA Lab, K. K. Wagh Institute of Engineering Education and Research, Nashik 422003 and presented project on ______

ARC, KKWIEER

Dr. K.N.Nandurkar

Director, KKWIEER

CAMPUS PLACEMENTS / ACHIEVEMENTS

Faculty achievement:

IETE Nashik Subcentre Wins Best Subcentre Award (2024–25)

The IETE Nashik Subcentre has brought great pride and recognition by winning the prestigious Best Subcentre Award for the year 2024–25. This honour reflects the continuous academic activities, professional contributions, and active involvement of the subcentre in promoting technical education and innovation in the field of Electronics and Telecommunication.

The award was formally received by Dr. D. M. Chandwadkar, Chairman of the Nashik Subcentre, on 27th September 2025. His dynamic leadership, dedication, and consistent efforts, along with the support of the entire team, played a pivotal role in securing this achievement.

This accomplishment highlights the commitment of the faculty and the members of IETE Nashik toward creating impactful technical platforms, organizing seminars, expert talks, and workshops, and fostering strong industry–academia interaction. It serves as an inspiration for students and professionals to strive for excellence and contribute meaningfully to the technical community.

CAMPUS PLACEMENTS / ACHIEVEMENTS

Faculty achievement:

Faculty Members Complete Wipro Certified Program in Data Science with Python

Two of our esteemed faculty members, Dr. Mrunal Vasant Marathe and Dr. V. D. Saudagar, have successfully completed the Wipro Certified Faculty Program on “Data Science with Python.” The intensive training program was conducted by TalentNext in association with Wipro Limited from 15th September to 3rd October 2025.

The program focused on key concepts of data analytics, machine learning, Python programming, data visualization, and real-world application development. Through hands-on sessions and industry-oriented training modules, the participants gained deeper exposure to modern data science tools and techniques widely used in academia and industry.

This accomplishment not only reflects their commitment to continuous professional development but also strengthens the department’s capability to deliver industry-relevant, skill-based education to students. Their enhanced expertise will greatly benefit learners through improved course content, advanced laboratory practices, and mentorship in data-driven projects and research activities.

CAMPUS PLACEMENTS / ACHIEVEMENTS

Faculty achievement:

Faculty Research Publication in Reputed International Journal

A research paper titled “Deep GoogLeNet Model with SGDM Optimizer for Handwritten Sanskrit Character Recognition” has been successfully published in the prestigious Journal of the Chinese Institute of Engineers. The paper was received on 7 June 2024, accepted on 20 August 2025, and published online on 16 October 2025.

The research work is authored by Shraddha V. Shelke, Dr. Dinesh M. Chandwadkar, Dr. Sunita Patil Ugale, and Rupali V. Chothe. The study focuses on developing an efficient deep learning-based approach for recognizing handwritten Sanskrit characters, a challenging task due to diverse handwriting styles and the complex structure of vowels and consonants.

The authors proposed a 22-layer GoogLeNet Convolutional Neural Network architecture, optimized using Stochastic Gradient Descent with Momentum (SGDM). The model was trained on a Devanagari handwritten dataset containing 72,000 samples, with experiments conducted by varying both epochs and learning rates to obtain optimal performance.

The proposed model achieved a maximum accuracy of 99.68% at a learning rate of 0.01, outperforming earlier reported methods with an improvement of 1.68% in classification accuracy. The model also achieved 99.03% accuracy on the SD dataset and 95.26% accuracy on the NHCD dataset, demonstrating its robustness and effectiveness in recognizing handwritten Sanskrit characters.

This significant publication showcases the department’s growing research contribution in the domains of Artificial Intelligence, Deep Learning, and Indian Language Character Recognition, and stands as an inspiration for budding researchers.


Deep GoogLeNet model with SGDM optimizer for handwritten sanskrit character recognition

Shraddha V. Shelke, D. M. Chandwadkar, S. P. Ugale & Rupali V. Chothe

Received 07 Jun 2024, Accepted 20 Aug 2025, Published online: 16 Oct 2025

CAMPUS PLACEMENTS / ACHIEVEMENTS

Faculty achievement:

FDP/STTP Attended by Faculty

Faculty members actively enhanced their technical expertise by attending various FDP/STTP programs in emerging domains:

- Mrs. P. P. Patil – AI/ML-Based Reconfigurable Antenna Design for Next-Generation Wireless Communication
- Mrs. K. Niramalakumari – Next-Gen Electronics and Communication Systems: Empowered by ML and AI
- Mrs. S. D. Raut – Cyber Threat Intelligence and Defense Mechanisms

These programs helped faculty stay updated with AI/ML, wireless communication, and cybersecurity, strengthening teaching and research activities.

CAMPUS PLACEMENTS / ACHIEVEMENTS

Faculty achievement:

Faculty Participation in IIT Bombay TCAD Course

Dr. A. A. Gupta and Mrs. S. D. Raut, esteemed faculty members from the Department of Electronics & Telecommunication Engineering, successfully participated in the Power Semiconductor Devices TCAD Course organized by the Indian Institute of Technology Bombay (IIT Bombay) under its Educational Outreach Program.

The course was conducted through SemIX from 8–12 September 2025, and provided in-depth exposure to the design, simulation, and performance analysis of power semiconductor devices using advanced TCAD (Technology Computer-Aided Design) tools. Participants were trained in device modeling, understanding electrical characteristics, thermal behavior, and reliability aspects of modern semiconductor devices used in power electronics, electric vehicles, renewable energy systems, and high-performance converters.

Through expert-led sessions, hands-on simulation exercises, and case studies, the faculty members enhanced their technical expertise in semiconductor technology and electronic device engineering. Their participation will significantly benefit students through improved teaching content, advanced laboratory practices, and guidance in research projects related to VLSI, power electronics, and semiconductor device design.

CAMPUS PLACEMENTS / ACHIEVEMENTS

Faculty achievement:

Faculty Member Completes Innovation Ambassador Training

Mrs. S. V. Shelke, faculty member from the Department of Electronics & Telecommunication Engineering, has successfully completed the Innovation Ambassador (IA) Training Programs organized by the Ministry of Education's Innovation Cell (MoE's IIC) in collaboration with AICTE.

The program comprised both 'Reskilling' and 'Upskilling' training modules, through which participants received hands-on exposure to innovation practices, design thinking, entrepreneurship development, intellectual property awareness, and startup ecosystem building. The training also emphasized mentoring techniques to guide students in idea generation, project development, and incubation support.

Completion of this program equips Mrs. Shelke to actively contribute as an Innovation Ambassador, promoting a culture of creativity, problem-solving, and entrepreneurial thinking among students. This accomplishment strengthens the institution's efforts toward fostering innovation-driven education and startup initiatives on campus.

CAMPUS PLACEMENTS / ACHIEVEMENTS

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VISION & MISSION

VISION

Excel in quality technical education and research in Electronics and Telecommunication (E&TC) Engineering for sustainable solution development for industry and betterment of society.

MISSION

M 1: To provide quality education for the preparation of technically and professionally competent E&TC engineers.
M 2: To create an environment to enhance life-long learning and 21st century skills
M 3: To inspire students' innovative thinking and creativity to promote research
culture.

MEET OUR TEAM

FACULTY ADIVSOR

Prof. S. D. Raut

STUDENTS FROM THIRD YEAR

Sayali Patil
[TY - A]

Aryan Bhanuse
[TY - A]

Ankit Mansotra
[TY - A]

Chaitanya Patil
[TY - A]

Narayan Bhute
[TY - A]

Anushka Patil
[TY - A]

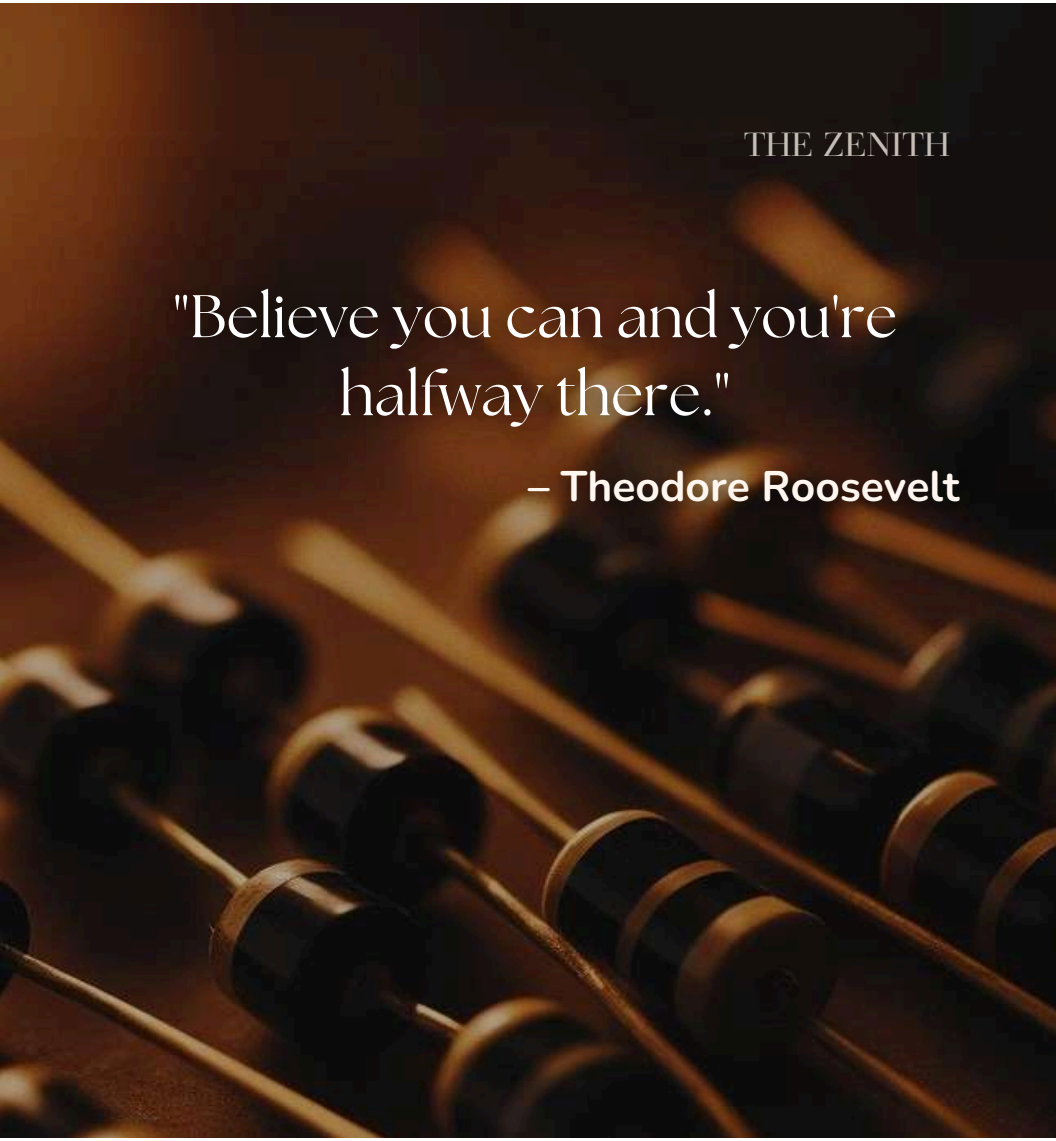
Vedant Gangurde
[TY - A]

Atharva Paranjpe
[TY - A]

Siddharth Pingle
[TY - A]

Amaan Sayyed
[TY - A]

Anurag Mohod
[TY - B]



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