Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

An Autonomous Institution, Aided by Government of Karnataka,
Accredited by NAAC and Affiliated to VTU, Belagavi,
BDA Outer Ring Road, Mallathalli,Bengaluru-56

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Fly, Excel Beyond The Sky….

TechBelaku

Where circuit meets creativity.....

HIGHLIGHTS:

JULY 2025 to DECEMBER 2025, ISSUE-01

Our Inspiration

Bharatha Ratna Babasaheb

Dr. B. R. Ambedkar

M.A. , Ph.D., D.Sc., D.Lit., LLD, Bar-at-law

14-04-1891 to 06-12-1956

"Cultivation of mind should be the ultimate aim of human existence"

HONOURABLE FOUNDER SECRETARY

Late Sri M.H. Jayaprakash Narayan

Founder Secretary

Panchajanya Vidya Peetha Welfare Trust (R)

Dr. Ambedkar Institute of Technology was established in the year 1980 by Late Sri M.H. Jayaprakash Narayan, Ex-MLA, Ex-Syndicate / Senate Member of Bangalore University and Founder Managing Trustee of PVP Welfare Trust and Secretary of Dr. Ambedkar Institute of Technology. He was a visionary and an educationist. He had come from a very humble background and strong follower of the principles of Bharatha Ratna Dr. B.R. Ambedkar and he toiled relentlessly for the upliftment of the downtrodden. He believed that education is the main path for the oppressed classes for main streaming and started a number of educational institutions all levels to cater to the poor and economically weaker section of the society.

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Chairman, PVP Welfare Trust, Bengaluru

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Principal, Dr. AIT

Dr. H. V. Govindaraju,
Professor & HOS, School of Electrical and Electronics Sciences & Engineering, Dr. AIT

Dr. H. Umadevi,
Professor & HOP, Electronics & Communication Engineering, Dr. AIT

FOREWORD

It is a pleasure to present ***TechBelaku***, the technical magazine of the Department of Electronics and Communication Engineering. This issue highlights the commendable achievements of our faculty and students, reflecting their dedication to academic excellence, research, innovation, and professional growth.

The magazine also showcases various technical, academic, and co-curricular activities organized by the department, which enrich learning beyond the classroom and keep pace with emerging technologies. These accomplishments and initiatives exemplify the collective efforts of our department in fostering a vibrant and progressive academic environment.

We extend our appreciation to all faculty members and students for their valuable contributions. May ***TechBelaku*** continue to inspire learning, innovation, and excellence.

Editorial Team
TechBelaku | Dept. of ECE

MESSAGES

Dr. Mahalinga V. Mandi

Principal, Dr. Ambedkar Institute of Technology,

TechBeleku stands as a testament to the innovation, technical excellence and creativity of our students and faculty, providing a vibrant platform for sharing ideas and knowledge. In today's rapidly evolving technological landscape, it is essential for young minds to think beyond the classroom, explore new concepts, and express their insights effectively, and this magazine serves as an excellent medium for the same. I appreciate the dedicated efforts of the editorial team and the enthusiastic contributions from students that have made this edition possible. I am confident that *TechBeleku* will continue to inspire curiosity, learning, and innovation among its readers, and I extend my best wishes for its continued success.

Dr. H. V. Govindaraju

Professor & HoS, School of Electricals, Electronics Sciences & Engineering

It gives me immense pleasure to extend my warm greetings to all readers and contributors of the magazine. More than a collection of articles and achievements, it reflects the vibrant and creative spirit of our Electronics & Communication Engineering department, which nurtures holistic student development and innovation. I congratulate the Head of the Program and Editorial team for their dedication and thank all contributors for their time and creativity. May this magazine continue to inspire curiosity, collaboration, and a passion for excellence in every reader.

Dr. H. Umadevi

Professor & HoP, Electronics and Communication Engineering

it fills me with happiness to present the inaugural issue of **TechBelaku**, the technical magazine of the Electronics and Communication Engineering department at Dr. Ambedkar Institute of Technology. In today's rapidly evolving technological landscape, ECE drives innovation in communication systems, embedded technologies, AI, and smart infrastructure. Inspired by Dr. B. R. Ambedkar's vision of education as empowerment, this magazine aims to showcase emerging technologies, academic and research activities, and student innovations. I encourage faculty and students to contribute articles, project outcomes, and ideas, fostering a culture of curiosity, knowledge sharing, and technical excellence within our department.

"Best wishes for the success of this initiative."

ABOUT THE DEPARTMENT

The Department of Electronics and Communication Engineering was instituted in the year 1980 with the objective of imparting knowledge in cutting-edge technologies of Electronics and Communication Technology and came into grant-in-aid of Government of Karnataka in 1992. Ever since the inception of the department, it has been fulfilling to the needs of the students by imparting the latest and need based technical knowledge.

The PG course M.Tech in VLSI Design and Embedded Systems was started in 2003-2004 with an intake of 18. The department has Research & Development center, recognized by Visvesvaraya Technological University. Currently, the department is working on many funded Research projects.

The department has well-qualified faculty members who have made significant contribution in various fields and have published research papers in reputed journals, International and national conferences and also the members of prestigious professional bodies like IEEE, ISTE, SSI and CSI. IEEE student chapter has been setup. We encourage participation of students in various co-curricular and extra-curricular activities as well.

VISION OF THE DEPARTMENT

To excel in education and research in Electronics and Communication Engineering and its related areas through its integrated activities

MISSION OF THE DEPARTMENT

To provide students a strong foundation in Electronics and Communication Engineering.

To provide high quality technical education in Electronics and Communication Engineering discipline and its related areas to meet the growing needs and challenges of industry and society.

To be a contributor to the technology through the process of skill development, value based education, research and innovation.

ECE FACULTY

Dr. H Umadevi
Professor & HOP

Dr. Mahalinga V Mandi
Professor

Prof. B. S. Sudha
Associate Professor

Dr. Shivaputra
Professor

Dr. Meenakshi L Rathod
Associate Professor

Dr. Mala Sinoor
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Assistant Professor

Prof. Kesthara V
Assistant Professor

Dr. Siddesha K
Assistant Professor

Prof. Shwetha M
Assistant Professor

Dr. Divya A
Assistant Professor

Dr. Swamy T N
Assistant Professor

Prof. Nithyashree S
Assistant Professor

Prof. Anand H D
Assistant Professor

Prof. Vidyashree C
Assistant Professor

Dr. Manjula N
Assistant Professor

Prof. Sangeetha N
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Assistant Professor

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Assistant Professor

Dr. Rangaswamy Y
Assistant Professor

Prof. Jayashree B M
Assistant Professor

Prof. Vidyashree N
Assistant Professor

Prof. Harshini R
Assistant Professor

Dr. Nayana R Shenoy
Associate Professor

Prof. Seema B S
Assistant Professor

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Nagesha T
Helper

Nagaraja H P
Helper

Shakunthala K V
Instructor

Jayaramu S K
Assistant Instructor

Megha M
Assistant Instructor

Mahanthesh H L
Mechanic

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

ವಿದ್ಯಾರ್ಥಿಗಳಿಗೊಂದು ಕಿವಿಮಾತು

ಪ್ರೀತಿಯ ವಿದ್ಯಾರ್ಥಿಗಳೇ,

ವಿದ್ಯಾರ್ಥಿ ಜೀವನ ಮಂಥನದ ಸಾರವಿದ್ದಂತೆ, ಅರಿತಷ್ಟು ಆಳ-ಕಲಿತಷ್ಟು ಸಾರ ಕಲಿತ ವಿದ್ಯೆ ಯಾವುತ್ತೂ ಕೈ ಬಿಡುವುದಿಲ್ಲ. ಇಂದು ಕಲಿ-ನಾಳೆ ನಲಿ ಎಂಬಂತೆ ನಿಮ್ಮ ವಿದ್ಯಾರ್ಥಿ ಜೀವನದ ರಂಗು ರಂಗಿನ ಜೀವನದಲ್ಲಿ ವಿಷಯಗಳನ್ನು ಓದಿ ಅರಗಿಸಿಕೊಳ್ಳುವ, ಪರೀಕ್ಷೆಗಳಲ್ಲಿ ಅಂಕಗಳನ್ನು ಪಡೆದುಕೊಳ್ಳುವ, ಸಾಂಸ್ಕೃತಿಕ ಚಟುವಟಿಕೆಗಳಲ್ಲಿ ಪಾಲ್ಗೊಳ್ಳುವ, ಅಪ್ಪ-ಅಮ್ಮನ ಆಸೆಗಳನ್ನು ಪೂರೈಸುವ ನೂರಾರು ಕನಸುಗಳನ್ನೊಳಗೊಂಡ ಈ ನಿಮ್ಮ ಸುವರ್ಣ ವಿದ್ಯಾರ್ಥಿ ಪ್ರಯಾಣದಲ್ಲಿ ಯಶಸ್ಸು ಕಾಣುವುದು ಹೇಗೆ?

ಇಲ್ಲಿದೆ ಒಂದು ಸೂತ್ರ --- **ಮುದ್ದೆ + ನಿದ್ದೆ + ಶ್ರದ್ದೆ = ವಿದ್ಯೆ.**

ಹೊತ್ತಿತ್ತಿಗೆ ಚೆನ್ನಾಗಿ ಊಟ ಮಾಡಿ, ಗಾಢವಾಗಿ ನಿದ್ದೆ ಮಾಡಿ ಶ್ರದ್ಧೆಯಿಟ್ಟು ಓದಿ ಈ ನಿಯಮಗಳನ್ನು ಆಳವಡಿಸಿಕೊಂಡಾಗಲೇ ವಿದ್ಯೆ ನಿಮ್ಮದಾಗುವುದು ಮತ್ತು ನೀವು ನಿಮ್ಮ ಯಶಸ್ಸಿನ ಮೆಟ್ಟಿಲು ಏರಲು ಸಾಧ್ಯ.

ಡಾ. ಹೆಚ್. ಉಮಾದೇವಿ,
ಪ್ರಾಧ್ಯಾಪಕರು ಮತ್ತು ಮುಖ್ಯಸ್ಥರು

ಡಾ ಅಂಬೇಡ್ಕರ್ ತಾಂತ್ರಿಕ ಮಹಾ ವಿದ್ಯಾಲಯ

ಬನ್ನಿ ವಿದ್ಯಾರ್ಥಿಗಳೇ ಜ್ಞಾನ ದೇಗುಲಕೆ
ಅಂಬೇಡ್ಕರ್ ತಾಂತ್ರಿಕ ಮಹಾ ವಿದ್ಯಾಲಯಕೆ.
ತಾಂತ್ರಿಕ ಶಿಕ್ಷಣದ ಕಲಿಕೆಯಲಿ
ಪರಿಶ್ರಮ ಮತ್ತು ಪ್ರಯತ್ನದ ಉತ್ಸಾಹದಲಿ.
ಜ್ಞಾನ ಪಡೆದು ಪ್ರತಿಭಾವಂತರಾಗೋಣ ಬನ್ನಿ.

ತಾಂತ್ರಿಕ ಶಿಕ್ಷಣದ ದೀವಿಗೆ ಬೆಳಗಿ.
ಎಲ್ಲರ ಕನಸ ನೆನಸಾಗಿಸಿ.
ಸಮಾಜದಲಿ ಹೊಸ ಚೈತನ್ಯ ತುಂಬೋಣ ಬನ್ನಿ.

ಜ್ಞಾನದ ಶಿಖರವ ಏರಿ.
ಸಾಧನೆಯ ಮೆಟ್ಟಿಲ ತುಳಿದು.
ಸಂವಿಧಾನ ಶಿಲ್ಪಿಯಾಗಿ ಜಗಕೆಲ್ಲಾ ಬೆಳಕ ನೀಡಿದ ಪ್ರತಿಭಾವಂತ
ಡಾ ಬಿ ಆರ್ ಅಂಬೇಡ್ಕರ್ ರಂತೆ ನಾವಾಗೋಣ ಬನ್ನಿ ವಿದ್ಯಾರ್ಥಿಗಳೇ.

ಡಾ. ರಂಗಸ್ವಾಮಿ ವೈ.
ಸಹಾಯಕ ಪ್ರಾಧ್ಯಾಪಕರು

RESEARCH CORNER

Illuminating Innovation at ECE

The Department of Electronics and Communication Engineering continues to strengthen its research ecosystem through innovations, quality publications, funded projects, patents, and academic and industry collaborations.

🎓 Faculty Research Profile

- **18 Faculty Members** hold Ph.D. degrees and **03 Faculty members** hold Post Doc. degree.
- **15 Faculty Members** are currently pursuing doctoral research at various universities, out of which **4 have submitted their theses**.
- The Department is recognized as a **VTU Research Centre**.
- **14 Recognized Research Supervisors** guide Ph.D. scholars.
- **11 Ph.D. Degrees** have been successfully awarded under the ECE Research Center.

Research Grants & Funded Projects

- The department actively secures funding from prestigious agencies such as: **VGST | KSCST | AICTE | VTU | KSTA**
- 📊 **Project Statistics**
- **03 Completed Projects** funded by AICTE, VTU, and Dr. AIT
- **01 Ongoing VGST Project**
- **10 Funded Projects** from KSCST and KSTA
- **30 Patents** filed / published / granted

🏆 Academic & Professional Excellence

- Faculty members are active members of professional bodies such as: **IEEE, ISTE, ISO, CRSI, IACSIT, IETE and IE.**
- Research papers are published in reputed **Scopus, Web of Science, and SCI indexed journals**, including: **Elsevier, Hindawi, John Wiley, IETE Journal of Research, Inderscience**
- Papers are presented at international conferences organized by: **IEEE, Springer, Atlantis Press**
- **10 Textbooks** authored by ECE faculty.
- Faculty have received **Shining Star, Gold, and Silver Medals** in NPTEL MOOC courses.

Institutional & Industry Engagement

Dr. AIT served as a **Mentor Institute under TEQIP-III (2017–2021)** for IET, Dr. Rammanohar Lohia Avadh University. The ECE department played a key role in academic enhancement and research development during this tenure. Regular **industry interaction activities** are conducted to bridge the gap between academia and industry.

Research Vision

The Department of ECE envisions becoming a centre of excellence in emerging domains such as: 5G & 6G Communication, IoT & Embedded Systems, Artificial Intelligence & Machine Learning, Signal & Image Processing, VLSI Design, Electromagnetic & Antenna Engineering. Through sustained research, industry collaboration, and scholarly contributions, the department continues to illuminate the path of technological advancement.

Faculty	Project Title	Funding Agency	Amount
Dr. Jambunath S Baligar & Dr. Shanthi P	Analysis and Assessment of 6G Electromagnetic Exposure and Absorption – A Study on Biological Aspects	VTU	₹25,00,000
Dr. Mahalinga V Mandi & Anand H D	Multimedia Security based on Non-linear Stream Cipher	VGST	₹15,00,000
Dr. Siddesha K	Cloud Based Examination Hall Authentication System	Dr. AIT	₹3,50,000
Dr. Jambunath S Baligar	Switched Beam Antenna Array based on Butler Matrix for 5G Wireless Communication	Dr. AIT	₹2,00,000
Sudha B S	Design of 6G Antenna	KSCST	₹5,500
Dr. Kavithdevi C S	IoT Based Hydroponics System Using Machine Learning	KSCST	₹5,500
Dr. Kavithdevi C S	Infant Emotion Monitoring and Soothing System using Multisensory Feedback and GSM Alert	KSCST	₹5,500
Nagarathna H S	IoT Based Air Quality Monitoring with Multi-Model Analysis using ML Algorithm	KSCST	₹4,000

"Recent Publications"

1. Shweta Mehta , Shivaputra , S. Ramesh, Mahalinga V. Mandi and Mandeep Singh, "High-Q Plasmonic Resonator for Volatile Organic Compound Detection", IEEE Transactions on Plasma Science, 2025.

2. Ramakrishna Kolikipogu, Shivaputra, Elangovan Muniyandy, Jnaneshwar Pai Maroor, Gundala Venkata Rama Lakshmi, Bhagavan Konduri and R. Naveenkumar, "Improving Food Safety by IoT-based Climate Monitoring and Control Systems for Food Processing Plants", Remote Sensing in Earth Systems Sciences, 2025.

3. Renuka B, Shivaputra, Ramesh S, Mahalinga V Mandi, Meena Dasan and Mandeep Singh, "Microwave photonic signal generation using a quadratic FBG based optoelectronic oscillator", Physica Scripta, 2025.

4. Kumaravel Kaliaperumal, Meenakshi L Rathod, RajuLeo, Mahil J, "Efficient Overlapping Community Detection Using MapReduce-based Fuzzy C-Means Clustering on Seed Nodes", IEIESPC(IEIE Transactions on Smart Processing and Computing) IEIESPC Vol. 14, No. 01, p.1-10, ISSN (online) : 2287-5255, DOI :https://doi.org/10.5573/IEIESPC.2025.14.1.1

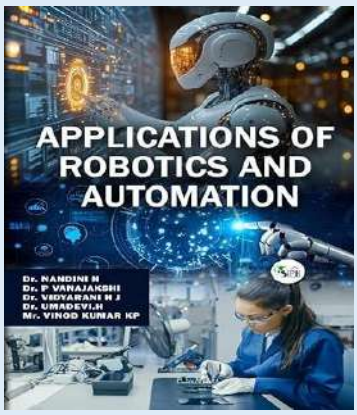
5. Shwetha, N., Jadhav, A., Singh, C. et al. "Meta-RL Based Micro-Expression Recognition Framework Using MAML with Calibrated Regression Function" Int J Comput Intell Syst 19, 28 (2026). https://doi.org/10.1007/s44196-025-01108-8

6. Kesthara V, Divya A, Triveni and Sajidha B Thabbassum, "Face recognition with low dimensional discriminative features and neural networks" IEEE 7th PhD Colloquium on Emerging Domain Innovation and Technology for Society (PhD EDITS), 2025.

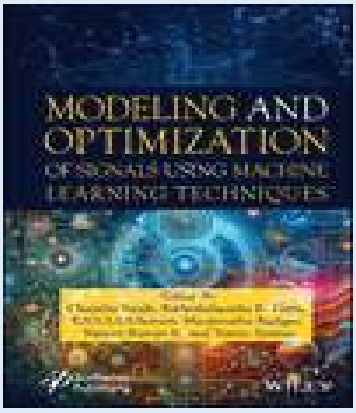
7. Anand H D, Abhishek R, "Design and Verification of Floating-Point Multiplier for DSP Applications", 2025 9th International Conference on Computational System and Information Technology for Sustainable Solutions (CSITSS) | 979-8-3315-8894-6/25/$31.00 © 2025 IEEE | DOI: 10.1109/CSITSS67709.2025.11295169

"Books & Chapters"

1. **Dr. Umadevi H**, HoP at Dr. Ambedkar Institute of Technology, authored the book **"Applications of Robotics and Automation"**, contributing valuable insights to the field of robotics and automation.



2. **N. Shwetha, N.** Gangadhar, M. B. Neelagar, **N. Sangeetha,** and V. Dalal, **"Hybridization of artificial neural network with spotted hyena optimization (SHO) algorithm for heart disease detection,"** Chapter 8 from the book: **Modeling and Optimization of Signals Using Machine Learning Techniques,** 2024. [Online]. Available: https://doi.org/10.1002/9781119847717.ch8



G Srinivasalu
Research Scholar,
Electronics & Communication Engineering Department, **Awarded Ph.D. degree** from VTU under the Supervision of **Dr. H Umadevi**
Topic: Novel Technique for Efficient Energy Management In Wireless Sensor Networks.

RIPAL PATEL
Research Scholar,
Electronics & Communication Engineering Department
Completed **Comprehensive Viva Voce** on **10/12/2025** under the Supervision of **Dr. Tanuja Patgar**.
Topic: Advanced Video Surveillance and Crowd Monitoring Systems

Hearty Congratulations

Post Doctrate Awardees

Dr. Mahalinga V. Mandi,
Professor, Department of ECE

Awarded a Post-Doctoral position at National Institute of Technology Karnataka (NITK), Surathkal, under the sponsorship of Anusandhan National Research Foundation (ANRF), Government of India. His research work is titled "**Nanophotonic porous-silicon based nanostructures for ultra-fast methanol sensing at room temperature**."

Dr. Shivaputra,
Professor, Department of ECE

Awarded a Post-Doctoral position at National Institute of Technology Karnataka (NITK), Surathkal, under the sponsorship of Anusandhan National Research Foundation (ANRF), Government of India. His research work is titled "**Development of Low Phase Noise Optoelectronic Oscillator with Phase Compensation Approach for Radar Application**."

Ph. D Awardee

Dr. Manjula N,
Assistant Professor, Department of ECE

Awarded a Ph.D. degree from Visveswaraya Technological University (VTU), Belagavi. Her research work is titled "**On chip energy measurement and optimization for portable electronics systems**

Faculty Corner

Faculty Achievements

NPTEL Achievers

- **Dr. Shwetha N, Assistant Professor, recognized as NPTEL BELIEVER** (Recognition for consistent engagement and commitment to lifelong learning through NPTEL courses.) **and NPTEL ENTHUSIAST** (Recognition for completing multiple NPTEL courses with dedication and active participation)**, July-Dec 2025.**

- **Dr. Rangaswamy Y.,** Assistant Professor**,** secured **Elite grade Topper within 5%** in the course **Signal Processing Algorithm and Architecture, Aug-Sept 2025.**

- **Dr. Nayana R Shenoy.,** Assistant Professor, secured **Elite grade, silver medal** in the course **VLSI Design Flow: RTS to GDS, Jul-Oct 2025.**

- **Dr. Hemantaraj M Kelagadi.,** Associate Professor, secured **Elite grade, silver medal** in the course **Strategic Management - The Competitive Edge, Aug-Oct 2025.**

- **Dr. Shwetha N,** Assistant Professor, secured **Elite grade, silver medal** in the course **Signal Processing Algorithm and Architecture, Aug-Sept 2025.**

- **Kesthara V,** Assistant Professor, secured **Elite grade,** in the course **VLSI Design Flow: RTS to GDS, Jul-Oct 2025**

Other Awards & Recognitions

Dr. H. Umadevi,
Professor & HOP, ECE

- Served as a **Jury member** at **TECH XPO-2025** organized by ECE, Dr. Sri Si Sri Shivakumara Mahaswamy College of Engineering on 24/11/2025, evaluating student ideas and innovations.

Faculty Achievements

Dr. Tanuja P Patgar,
Assistant Professor

- **Start-up Mentor** - National Entrepreneurship Challenge (NEC) Entrepreneurship Cell at IIT Bombay 2025
- **Jury Panel Member-** Department of Electronics, IT-BT and S&T, Government of Karnataka, for Startup Karnataka Grant-in-Aid Program -2025
- **Idea Evaluator**-Ministry of Education and Innovation, Government of India & AICTE--- Smart India Hackothon-2025
- **Nominated Jury Member** - Ministry of Education and Innovation, Government of India & AICTE--- Smart India Hackothon-2025
- **Nominated Mentor** for E-Cell, IIT Madras, E-Cell, IIT Bombay
- **Innovation Ambassador**, Ministry Of Education , Government of India -2025
- **Congress Chair**- - International Congress on Mobile and Wireless 2025,Hong Kong
- **Advisory Committee Member** Eighth International Conference on Cloud of Things and Wearable Technologies 2025, IIIT Delhi
- **"Excellent Startup Mentor of the year-2025"** felicitation with cash prize 25,000/ by E- Cell, IIT Bombay

Dr. Shwtha N,
Assistant Professor

- **AICTE ATAL FDP Coordinator:** Served as the **Main Coordinator** for a **Six-Day Faculty Development Programme (FDP)** titled **"Exploring the Synergy between eAcoustics and Machine Learning for Tomorrow's Technologies"** sponsored by the All-India Council for Technical Education under the AICTE Training and Learning (ATAL) Academy. The programme received **₹1,00,000 funding support** from AICTE.
- **Session Chair** at the International Conference on AI-Driven Smart Systems and Ubiquitous Computing (ICAUC 2026) organized by Shinawatra University, Thailand in association with S.E.A College of Engineering and Technology, Bengaluru.
- Served as the **editor** for the books Cryptographic Vulnerabilities and Blockchain Forensics in Cybersecurity and Eco-Acoustic Intelligence: Innovations, Trends, and Applications.

Dr. Tanuja Patgar
Founder & Director

IWTRF
International Women Technology & Research Forum

IWTRF

A space where women can share the knowledge and collaborating as individuals, professionals, community and as an industry in development of professional and personal networks.

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Facebook: https://www.facebook.com/profile.php?id=100095336597204

Dr. Pushpalatha G. S.
Author

PRM

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India's Deeptech Innovation Ecosystem

India's tech story has traditionally focused on software and consumer internet. However, a growing need for solutions to global challenges like climate change and healthcare has driven a shift towards **deep tech**. This new wave of Indian innovation is tackling complex problems with advanced technologies like AI, robotics, and biotechnology. Deep tech is driven by scientific discoveries and engineering breakthroughs, turning theoretical concepts into real-world applications. Unlike conventional tech, which focuses on incremental improvements, deep tech ventures leverage novel technologies for competitive advantage, often through long and uncertain R&D processes.

The Indian deeptech ecosystem has emerged as a powerhouse of innovation, driven by advancements in artificial intelligence, semiconductor design, space technology, and robotics. Over the past three months, the sector has witnessed significant funding inflows, strategic government interventions, and breakthroughs in research commercialization. Startups are leveraging cutting-edge technologies to address both domestic and global challenges, supported by a growing network of venture capital firms and policy frameworks.

Key Sectors driving Deeptech Ecosystem: Deep tech contributes to advancements across various sectors, including healthcare, manufacturing, energy, and transportation, amongst many others. By tackling complex, large-scale challenges, these technologies have the potential to drive innovation, enhance efficiency, and support the development of new industries. Their ability to optimize existing systems and introduce novel solutions can lead to significant shifts in industrial operations, shaping the future of Social and economic progress.

Artificial Intelligence and Multiagent systems: AI startups are moving beyond conventional SaaS solutions to build core, infrastructure-level innovations. Alchemyst AI, for instance, is creating multi-agent systems that can embed into enterprise processes. Its AI system, Maya, is designed to act as a digital co-worker in sales development teams, automating complex tasks while enabling more coordinated workflows. Another rising player, Deceptive AI, is pushing the envelope on AGI with advanced capabilities in image synthesis and semantic segmentation, targeting use cases in fashion, media, and design. India's AI sector is steadily evolving from end-user applications toward fundamental research and systems development with practical, cross-sector deployment potential.

Semiconductor Software and Hardware innovation system: Hardware innovation in India is gaining ground. Mindgrove Technologies reached a key milestone by taping out a 28nm Secure-IoT chip earlier this year. Built using the open-source Shakti core from IIT Madras, this chip has applications in automotive electronics and consumer devices, offering a homegrown alternative to imported components. Government programs such as the Design Linked Incentive (DLI) are playing a critical role by supporting fabless startups and covering R&D costs. Meanwhile, Agnikul Cosmos has demonstrated engineering ingenuity by launching the first rocket powered by a single-piece 3D-printed engine—an achievement that speaks volumes about India's growing stature in aerospace and additive manufacturing

Key Challenges in Deeptech Ecosystem: India's deeptech ecosystem stands at an inflection point, buoyed by technological breakthroughs, strategic funding, and policy tailwinds. While challenges like funding gaps and adoption barriers persist, the convergence of academic excellence, entrepreneurial Vigor, and global demand positions the country as a future leader in frontier technologies. The next decade will hinge on translating innovation into economic impact, ensuring that deeptech becomes a cornerstone of India's $10 trillion GDP ambition.The Draft National Deep Tech Startup Policy (NDTSP) is strategically formulated to stimulate innovation, spur economic growth, and promote societal development through the effective utilization of deep tech research-driven innovations. This initiative centralizes on bolstering deep tech startups, thereby solidifying India's financial stability and stimulating the transition towards a knowledge-centric economy, consequently augmenting India's overall productivity. NDTSP aims to harness the transformative potential of technological advancement across diverse sectors, serving as a catalyst to stimulate ripple effects throughout the economy and laying the groundwork for new industry creation. This policy aims to significantly strengthen India's capabilities and enhance global competitiveness.

Dr. Tanuja P Patgar, PhD, PostDoc
Assistant Professor, Department of ECE, Member, DeepTech Club, NASSCOM

Education - A New Dimension in Modern World

Education has taken new path in our technology driven world. Gaining knowledge through education not limited to only class room and laboratory it has entered into public life through different online courses and social media platform.

Beginning days of obtaining a knowledge through education restricted to choosing specific domain and excellence in the selected field to lead the career based on our experience and expertise.

As technology advanced educating young minds has taken new dimension expecting more practical learning with understanding new fields leading to inter disciplinary knowledge to build technological driven society making our life comfortable and eco-friendly.

The motivation behind our young minds education is to keep always eye on **LEARN UNLEARN AND RELEARN** and update with present technology and innovation making them more competitive and active in facing challenges of modern society. On this moment we should recall sayings of a poet T S Eliot.

“Where is the Life we have lost in Living?

Where is the wisdom we have lost in knowledge?

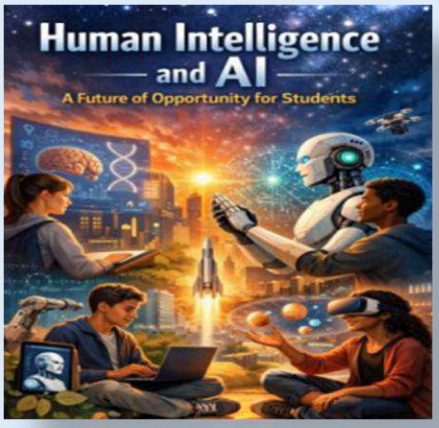
Where is the knowledge we have lost in the information".

We are living in an **INFORMATION RICH WORLD** our aim, task is to convert information to knowledge and from knowledge, we should create wisdom world around us making our life comfortable and meaningful on this Earth.

The Goal of Education is to mould the young minds with skill knowledge and attitude, making them better citizens through becoming a good professionals covering a work force of Engineers scientist Researchers and self employable Entrepreneur who can contribute to social economical and cultural development of country. The skilled younger generation are the real assets of Nation and hope for our better Future.

Dr. Rangaswamy Y, Assistant Professor, Department of ECE

Human Intelligence and AI: A Future of Opportunity for Students



The rapid growth of **Artificial Intelligence (AI)** has made many students wonder: Will AI take my job? The truth is, AI is not here to replace human intelligence—it is here to transform how we work. For young people, this change is not a threat but an opportunity.

- **AI Complements, Not Replaces, Humans** AI is powerful at analyzing data, recognizing patterns, and performing repetitive tasks quickly. However, it cannot think creatively, feel empathy, make moral decisions, or lead with emotional intelligence. These are uniquely human strengths. When AI handles routine work, it allows people to focus on innovation, critical thinking, and problem-solving. Instead of competing with humans, AI works best as a tool that enhances human ability.
- **Technology Creates New Careers** History shows that every technological revolution creates new types of jobs. AI is already opening doors in Data science and AI development, Robotics and automation, AI ethics and policy, Digital marketing, Content creation, Data Security and Entrepreneurship using AI tools. AI-based learning platforms personalize education. Students who master AI can become trainers, mentors, and digital educators. Careers in AI governance, digital law, and ethical consulting will expand. As AI grows, society needs leaders who ensure technology is ethical and fair. Students who learn how to use AI will be better prepared for tomorrow's job market.
- **The Real Risk Is Not AI**—It Is Lack of Adaptation The world is changing quickly. The most valuable skill today is not memorization but adaptability. Youth who continuously learn, reskill, and upgrade their knowledge will remain relevant regardless of technological shifts.
- **Turning Fear into an Opportunity** Instead of asking, "Will AI replace me?" students should ask, "How can I use AI to grow?" AI can help start businesses, improve learning, boost productivity, and create new solutions to global problems. The future belongs to those who embrace change. AI is not the end of jobs—it is the beginning of smarter, more meaningful work. For students today, it represents possibility, not fear. AI may be fast, but humans are visionary. AI may calculate, but humans imagine. AI may process data, but humans create meaning. For today's youth, AI is not the end of opportunity—it is the beginning of a new era of possibility.

Dr. Pushpalatha G. S. Assistant Professor, Department of ECE

Role of AI in VLSI Design

Many engineering domains, particularly **V**ery **L**arge-**S**cale **I**ntegration (VLSI), are being transformed by artificial intelligence (AI). Designing integrated circuits (ICs) with millions or even billions of transistors on a single chip is the focus of VLSI technology. Traditional hand design techniques are getting slower and more challenging as new chips get more complicated. Many aspects of the chip design process are automated by AI techniques like machine learning and deep learning, increasing productivity and cutting design time. Engineers can automatically optimize circuits and evaluate vast amounts of design data with the aid of artificial intelligence. AI systems can speed up the creation of intricate integrated circuits, minimize manual labor, and forecast design results.

With AI-based tools, designers can explore many possible circuit configurations quickly and choose the best design that meets power, performance, and area requirements. AI aids semiconductor firms in handling the increasing complexity of chip design. It is more effective than manual methods at analyzing massive amounts of design data, finding trends, and optimizing circuit parameters. AI is now a crucial component of the Electronic Design Automation (EDA) technologies that semiconductor businesses utilize.

AI assists in: Design optimization, Predicting timing issues, Improving power efficiency, Faster verification and testing.

“AI-driven VLSI design is the key to building the next generation of intelligent computing systems.”

Dr. Meenakshi L. R. Associate Professor, ECE

Dr. Jambunath S. Baligar, Professor & HOS, **School Of Applied Science & Humanities**

Monolithic Microwave Integrated Circuit

Monolithic microwave integrated circuit, or **MMIC** (sometimes pronounced "mimic"), is a type of integrated circuit (IC) device that operates at microwave frequencies (300 MHz to 300 GHz). These devices typically perform functions such as microwave mixing, power amplification, low-noise amplification, and high-frequency switching. Inputs and outputs on MMIC devices are frequently matched to a characteristic impedance of 50 ohms. This makes them easier to use, as cascading of MMICs does not then require an external matching network. Additionally, most microwave test equipment is designed to operate in a 50-ohm environment.

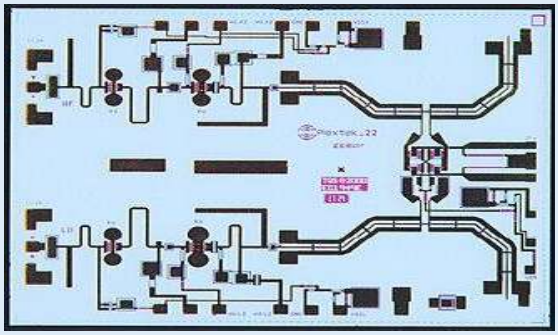
MMICs are dimensionally small (from around 1 mm^2 to 10 mm^2) and can be mass-produced, which has allowed the proliferation of high-frequency devices such as cellular phones. MMICs were originally fabricated using gallium arsenide (GaAs), a III-V compound semiconductor. It has two fundamental advantages over silicon (Si), the traditional material for IC realisation: device (transistor) speed and a semi-insulating substrate. Both factors help with the design of high-frequency circuit functions. However, the speed of Si-based technologies has gradually increased as transistor feature sizes have reduced, and MMICs can now also be fabricated in Si technology. The primary advantage of Si technology is its lower fabrication cost compared with GaAs. Silicon wafer diameters are larger (typically 8" to 12" compared with 4" to 8" for GaAs) and the wafer costs are lower, contributing to a less expensive IC.

Originally, MMICs used metal-semiconductor field-effect transistors (MESFETs) as the active device. More recently high-electron-mobility transistor (HEMTs), pseudomorphic HEMTs and heterojunction bipolar transistors have become common.

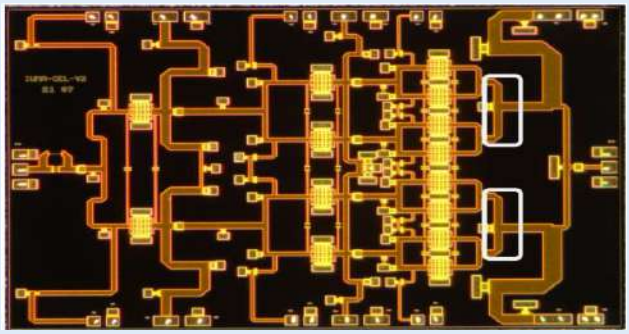
Other III-V technologies, such as indium phosphide (InP), have been shown to offer superior performance to GaAs in terms of gain, higher cutoff frequency, and low noise. However, they also tend to be more expensive due to smaller wafer sizes and increased material fragility.

Silicon germanium (SiGe) is a Si-based compound semiconductor technology offering higher-speed transistors than conventional Si devices but with similar cost advantages.

Gallium nitride (GaN) is also an option for MMICs. Because GaN transistors can operate at much higher temperatures and work at much higher voltages than GaAs transistors, they make ideal power amplifiers at microwave frequencies.



2–18 GHz up converter



A Ku-Band GaN-on-Si MMIC Power Amplifier with an Asymmetrical Output Combiner

Dr. Meenakshi L. R. Associate Professor, ECE

Dr. Jambunath S. Baligar, Professor & HOS, **School Of Applied Science & Humanities**

ವಿದ್ಯಾರ್ಥಿಯ ಪಂಚ ಲಕ್ಷಣ – ಆದರ್ಶ ವಿದ್ಯಾರ್ಥಿಯ ಗುಣಗಳು

“ಕಾಕಚೇಷ್ಟಾ ಬಕಧ್ಯಾನಂ ಶ್ವಾನನಿದ್ರಾ ತಥೈವ ಚ |
ಅಲ್ಪಾಹಾರಿ ಗೃಹತ್ಯಾಗಿ ವಿದ್ಯಾರ್ಥಿ ಪಂಚ ಲಕ್ಷಣಮ್ ||”

ಈ ಶ್ಲೋಕವು ವಿದ್ಯಾರ್ಥಿಯ ಜೀವನಕ್ಕೆ ಮಾರ್ಗದರ್ಶಕವಾದ ಐದು ಮಹತ್ವದ ಗುಣಗಳನ್ನು ತಿಳಿಸುತ್ತದೆ. ಶಿಕ್ಷಣವೆಂಬುದು ಕೇವಲ ಪುಸ್ತಕ ಜ್ಞಾನವಲ್ಲ; ಅದು ಶಿಸ್ತು, ಪರಿಶ್ರಮ ಮತ್ತು ಮನೋನಿಗ್ರಹವನ್ನು ಒಳಗೊಂಡ ಜೀವನಶೈಲಿ. ಈ ಐದು ಲಕ್ಷಣಗಳು ವಿದ್ಯಾರ್ಥಿಯ ವ್ಯಕ್ತಿತ್ವವನ್ನು ರೂಪಿಸುವ ಮೂಲ ಸ್ತಂಭಗಳಾಗಿವೆ.

“ಮೊದಲನೆಯದು **ಕಾಗೆಯಂತೆ ಪರಿಶ್ರಮ (ಕಾಕಚೇಷ್ಟಾ).** ಕಾಗೆ ಸದಾ ಚುರುಕಾಗಿ ಲವಲವಿಕೆಯಿಂದ ಆಹಾರ ಹುಡುಕಾಟದಲ್ಲಿ ತೊಡಗಿರುತ್ತದೆ. ಅದು ಸಣ್ಣ ಸಣ್ಣ ವಸ್ತುಗಳನ್ನು ಕೂಡ ಗಮನಿಸಿ, ಪರಿಶ್ರಮದಿಂದ ತನ್ನ ಆಹಾರವನ್ನು ಸಂಗ್ರಹಿಸುತ್ತದೆ. ವಿದ್ಯಾರ್ಥಿಯೂ ಕೂಡ ಇದೇ ರೀತಿಯಾಗಿ ನಿರಂತರ ಪ್ರಯತ್ನಶೀಲನಾಗಿರಬೇಕು. ಕಠಿಣ ಸಮಸ್ಯೆಗಳು ಬಂದಾಗ ಹೆದರಿ ಹಿಂತಿರುಗದೆ, ತಾಳ್ಮೆಯಿಂದ ಪರಿಹರಿಸುವ ಗುಣ ಅವನಲ್ಲಿ ಇರಬೇಕು.

ಎರಡನೆಯದು **ಕೊಕ್ಕರೆಯಂತೆ ಏಕಾಗ್ರತೆ (ಬಕಧ್ಯಾನಂ).** ಕೊಕ್ಕರೆ ನೀರಿನಲ್ಲಿ ಮೀನುಗಾಗಿ ಕಾಯುವಾಗ ಅಪಾರ ಏಕಾಗ್ರತೆಯಿಂದ ನಿಂತಿರುತ್ತದೆ. ವಿದ್ಯಾರ್ಥಿಗೂ ಅಧ್ಯಯನದ ವೇಳೆ ಮನಸ್ಸನ್ನು ಚದುರಿಸದೆ, ತದೇಕಚಿತ್ತದಿಂದ ಗುರಿಯ ಮೇಲೆ ಕೇಂದ್ರೀಕರಿಸುವ ಗುಣ ಅಗತ್ಯ. ಏಕಾಗ್ರತೆ ಇಲ್ಲದೆ ಜ್ಞಾನ ಸಂಪಾದನೆ ಸಾಧ್ಯವಿಲ್ಲ.

ಮೂರನೆಯದು **ನಾಯಿಯಂತೆ ಎಚ್ಚರಿಕೆಯ ನಿದ್ರೆ (ಶ್ವಾನನಿದ್ರಾ).** ನಾಯಿ ಸೂಕ್ಷ್ಮ ಶಬ್ದಕ್ಕೂ ಎಚ್ಚರವಾಗುತ್ತದೆ. ವಿದ್ಯಾರ್ಥಿಯು ಸಹ ಅಲಸ್ಯಕ್ಕೆ ಒಳಗಾಗದೆ ಸದಾ ಜಾಗರೂಕರಾಗಿರಬೇಕು. ಸಮಯದ ಮಹತ್ವವನ್ನು ಅರಿತು, ಅವಕಾಶಗಳನ್ನು ಚಟುವಟಿಕೆಯಿಂದ ಸದ್ಬಳಕೆ ಮಾಡಿಕೊಳ್ಳಬೇಕು.

ನಾಲ್ಕನೆಯದು **ಅಲ್ಪಾಹಾರಿ.** ಅತಿಯಾಗಿ ಆಹಾರ ಸೇವಿಸುವುದು ಮನಸ್ಸಿನ ಮಂದಗತಿಗೆ ಕಾರಣವಾಗಬಹುದು. ಆರೋಗ್ಯ ಮತ್ತು ಏಕಾಗ್ರತೆ ಕಾಪಾಡಿಕೊಳ್ಳಲು ಮಿತ ಆಹಾರ ಮತ್ತು ಸರಳ ಜೀವನ ಶೈಲಿ ವಿದ್ಯಾರ್ಥಿಗೆ ಸಹಾಯಕವಾಗುತ್ತದೆ.

ಐದನೆಯದು **ಗೃಹತ್ಯಾಗಿ.** ಇದು ಕುಟುಂಬವನ್ನು ಸಂಪೂರ್ಣವಾಗಿ ತ್ಯಜಿಸುವುದೆಂದಲ್ಲ; ಆದರೆ ಅಧ್ಯಯನದ ಗುರಿಗಾಗಿ ತಾತ್ಕಾಲಿಕವಾಗಿ ಸುಖ-ಸೌಲಭ್ಯಗಳನ್ನು ವರ್ಜಿಸಿ ಶ್ರಮಿಸುವ ಮನೋಭಾವ, ಶಿಸ್ತು ಮತ್ತು ತ್ಯಾಗವೇ ಯಶಸ್ಸಿನ ದಾರಿ.

ಈ ಶ್ಲೋಕವು ವಿದ್ಯಾರ್ಥಿಗೆ ಜೀವನದ ಸಾರ್ಥಕತೆಯನ್ನು ತಿಳಿಸುವ ಅತ್ಯಮೂಲ್ಯ ಸಂದೇಶವಾಗಿದೆ. ಪರಿಶ್ರಮ, ಏಕಾಗ್ರತೆ, ಜಾಗರೂಕತೆ, ನಿಯಮಿತ ಜೀವನ ಮತ್ತು ತ್ಯಾಗ – ಇವುಗಳ ಸಮನ್ವಯವೇ ಆದರ್ಶ ವಿದ್ಯಾರ್ಥಿಯ ಲಕ್ಷಣಗಳು. ಈ ಗುಣಗಳನ್ನು ಅಳವಡಿಸಿಕೊಂಡ ವಿದ್ಯಾರ್ಥಿಯೇ ಭವಿಷ್ಯದಲ್ಲಿ ಯಶಸ್ವಿ ವ್ಯಕ್ತಿಯಾಗಿ ಬೆಳಗುವನು.

ಹೆಚ್.ಎಸ್. ನಾಗರತ್ನ, ಸಹಾಯಕ ಪ್ರಾಧ್ಯಾಪಕಿ.
ಬಿ. ಎಸ್. ಸುಧಾ, ಸಹಪ್ರಾಧ್ಯಾಪಕಿ.

ಅಷ್ಟಾಂಗ ಮಾರ್ಗ ಮತ್ತು ವೃತ್ತಿಪರ ನೈತಿಕತೆ

ಮಾನವ ಜೀವನವನ್ನು ಸಾರ್ಥಕಗೊಳಿಸುವ ಮಹಾನ್ ಮಾರ್ಗಗಳಲ್ಲಿ ಒಂದಾಗಿದೆ ಗೌತಮ ಬುದ್ಧ ಬೋಧಿಸಿದ **ಅಷ್ಟಾಂಗ ಮಾರ್ಗ**. ಈ ಮಾರ್ಗವು ಧಾರ್ಮಿಕ ಉಪದೇಶ ಮಾತ್ರವಲ್ಲ, ಬದುಕಿನ ಪ್ರತಿಯೊಂದು ಕ್ಷೇತ್ರದಲ್ಲೂ—ವಿಶೇಷವಾಗಿ ವೃತ್ತಿಪರ ಜೀವನದಲ್ಲಿ— ಅತ್ಯಾವಶ್ಯಕವಾಗಿದೆ. ಇಂದಿನ ಯುಗದಲ್ಲಿ ತಂತ್ರಜ್ಞಾನ, ಸ್ಪರ್ಧೆ ಮತ್ತು ವೇಗದ ನಡುವೆ ನೈತಿಕತೆ ಕಾಪಾಡಿಕೊಳ್ಳುವುದು ಸವಾಲಾಗಿರುವ ಸಂದರ್ಭದಲ್ಲಿ ಅಷ್ಟಾಂಗ ಮಾರ್ಗವು ದಿಕ್ಕು ತೋರಿಸುವ ದಾರಿದೀಪವಾಗಿದೆ. ಅಷ್ಟಾಂಗ ಮಾರ್ಗದ ಎಂಟು ಅಂಶಗಳು—ಸಮ್ಮಾ ದೃಷ್ಟಿ (ಸರಿಯಾದ ದೃಷ್ಟಿಕೋನ), ಸಮ್ಮಾ ಸಂಕಲ್ಪ (ಸರಿಯಾದ ಉದ್ದೇಶ), ಸಮ್ಮಾ ವಾಚ (ಸರಿಯಾದ ಮಾತು), ಸಮ್ಮಾ ಕರ್ಮ (ಸರಿಯಾದ ಕ್ರಿಯೆ), ಸಮ್ಮಾ ಆಜೀವ (ಸರಿಯಾದ ಜೀವನೋಪಾಯ), ಸಮ್ಮಾ ವ್ಯಾಯಾಮ (ಸರಿಯಾದ ಪ್ರಯತ್ನ), ಸಮ್ಮಾ ಸ್ಮೃತಿ (ಜಾಗೃತ ಮನಸ್ಸು) ಮತ್ತು ಸಮ್ಮಾ ಸಮಾಧಿ (ಏಕಾಗ್ರತೆ). ಇವುಗಳನ್ನು ವೃತ್ತಿಪರ ನೈತಿಕತೆಯ ಮೂಲತತ್ವಗಳೆಂದು ಪರಿಗಣಿಸಬಹುದು.

ಒಂದು ಸಣ್ಣಕಥೆ: ಬೆಳಕು ಎಂಬ ಯುವತಿ ನಗರದಲ್ಲಿರುವ ಒಂದು ದೊಡ್ಡ ತಂತ್ರಜ್ಞಾನ ಸಂಸ್ಥೆಯಲ್ಲಿ ಡೇಟಾ ವಿಶ್ಲೇಷಕಿಯಾಗಿ ಕೆಲಸ ನಿರ್ವಹಿಸುತ್ತಿದ್ದಳು. ಅವಳ ತಂದೆ ಪ್ರತಿದಿನವೂ ಗೌತಮ ಬುದ್ಧರ ಉಪದೇಶಗಳನ್ನು ಹೇಳುತ್ತಿದ್ದರು.ಬಾಲ್ಯದಿಂದಲೇ ಅವಳ ತಾತ ಮತ್ತು ತಂದೆಯ ಆದರ್ಶದ ಜೀವನದಿಂದ ಬುದ್ಧನ ಮೌಲ್ಯಗಳನ್ನು ಮೈಗೂಡಿಸಿಕೊಂಡು ಬೆಳೆದವಳು. "ಅಷ್ಟಾಂಗ ಮಾರ್ಗವನ್ನು ಜೀವನದಲ್ಲಿ ಪಾಲಿಸಿದರೆ ತಪ್ಪು ದಾರಿ ಹಿಡಿಯುವುದಿಲ್ಲ" ಎಂದು ಅವರು ಹೇಳುತ್ತಿದ್ದರು. ಕೆಲವು ವರ್ಷಗಳ ನಂತರ ಬೆಳಕು ಕಂಪನಿಯಲ್ಲಿ ಮಹತ್ವದ ಪ್ರಾಜೆಕ್ಟ್ ಹೊಣೆ ಹೊತ್ತಳು. ಹೊಸ ಸಾಫ್ಟ್‌ವೇರ್ ಉತ್ಪನ್ನವನ್ನು ಬಿಡುಗಡೆ ಮಾಡುವ ಕೆಲಸ ಅದು. ಕಂಪನಿಯ ಭವಿಷ್ಯವೇ ಅದರ ಮೇಲೆ ನಿರ್ಧರಿತವಾಗಿತ್ತು. ಆದರೆ ಪರೀಕ್ಷಾ ಹಂತದಲ್ಲಿ ಕೆಲವು ಗಂಭೀರ ಲೋಪದೋಷಗಳು ಪತ್ತೆಯಾದವು, ಅವು ಗ್ರಾಹಕರ ಮಾಹಿತಿಗೆ ಹಾನಿ ಉಂಟುಮಾಡುವ ಸಾಧ್ಯತೆಯಿತ್ತು. ಮ್ಯಾನೇಜರ್ ಸಭೆಯಲ್ಲಿ ಹೇಳಿದರು: "ಈ ದೋಷಗಳನ್ನು ಈಗ ಹೇಳಿದರೆ ಬಿಡುಗಡೆ ವಿಳಂಬವಾಗುತ್ತದೆ. ಹೂಡಿಕೆದಾರರು ಕೋಪಗೊಳ್ಳುತ್ತಾರೆ ನಾವು ನಂತರ ಅಪ್ಡೇಟ್ ಮೂಲಕ ಸರಿಪಡಿಸಬಹುದು."

ಸಭೆಯ ನಂತರ ಬೆಳಕಿನ ಮನಸ್ಸಿನಲ್ಲಿ ಭಾರವಾದ ಚಿಂತನೆ ಶುರುವಾಯಿತು. ಅವಳಿಗೆ ಅಷ್ಟಾಂಗ ಮಾರ್ಗದ ಮೊದಲ ಪಾಠ ನೆನಪಾಯಿತು — **ಸಮ್ಮಾ ದೃಷ್ಟಿ**. ಸತ್ಯವನ್ನು ಸರಿಯಾಗಿ ನೋಡುವುದು. "ನಿಜವಾಗಿ ಇದು ಸಣ್ಣ ದೋಷವಲ್ಲ. ಗ್ರಾಹಕರ ವಿಶ್ವಾಸಕ್ಕೆ ಧಕ್ಕೆಯಾಗಬಹುದು," ಎಂದು ಅವಳು ತನ್ನ ಮನಸ್ಸಿಗೆ ಹೇಳಿಕೊಂಡಳು.

ಮುಂದಿನ ದಿನ ಅವಳು ತನ್ನ ವರದಿಯಲ್ಲಿ ಎಲ್ಲಾ ದೋಷಗಳನ್ನು ಸ್ಪಷ್ಟವಾಗಿ ದಾಖಲಿಸಿದಳು. ಇದು **ಸಮ್ಮಾ ವಾಚ** — ಸತ್ಯವನ್ನು ಮಾತನಾಡುವುದು. ಆದರೆ ಸಹೋದ್ಯೋಗಿಗಳು ಎಚ್ಚರಿಸಿದರು: "ನಿನ್ನ ಪ್ರೊಮೋಷನ್ ಹೋಗಬಹುದು. ಯೋಚಿಸಿ ನೋಡು." ಬೆಳಕಿಗೆ ತನ್ನ ಕುಟುಂಬದ ಆರ್ಥಿಕ ಪರಿಸ್ಥಿತಿ ಚಿತ್ರಣ ಕಣ್ಣು ಮುಂದೆ ಅನಾವರಣವಾಗಿತ್ತು. ತಾಯಿಯ ಚಿಕಿತ್ಸೆಗಾಗಿ ಹಣದ ಅವಶ್ಯಕತೆಯಿತ್ತು, ಒಂದು ಕ್ಷಣ ಅವಳ ಮನಸು ಗೊಂದಲಾದ ಗುಡಾಯಿತು ಆದರೆ ಅವಳ ಮನಸ್ಸು ಹೇಳಿತು — **ಸಮ್ಮಾ ಕರ್ಮ** — ಸರಿಯಾದ ಕಾರ್ಯ ಮಾಡಬೇಕು. ಅವಳು ಮ್ಯಾನೇಜರ್‌ಗೆ ನೇರವಾಗಿ ಹೇಳಿದಳು: "ನಾವು ಗ್ರಾಹಕರಿಗೆ ಅಪಾಯ ಉಂಟುಮಾಡಬಾರದು. ವಿಳಂಬವಾದರೂ ಸತ್ಯವನ್ನು ಹೇಳೋಣ."

ಮ್ಯಾನೇಜರ್ ಮೊದಲಿಗೆ ಕೋಪಗೊಂಡರು, ಪ್ರಾಜೆಕ್ಟ್ ಬಿಡುಗಡೆ ಒಂದು ತಿಂಗಳು ಮುಂದೂಡಲಾಯಿತು ಕಂಪನಿಯೊಳಗೆ ಒತ್ತಡ ಹೆಚ್ಚಾಯಿತು. ಕೆಲವರು ಬೆಳಕನ್ನು ದೂರವಿಟ್ಟರು ಅವಳು ಏಕಾಂಗಿತನವನ್ನು ಅನುಭವಿಸಿದಳು ಆದರೆ ಅವಳು **ಸಮ್ಮಾ ವ್ಯಾಯಾಮ** — ನಿರಂತರ ಪ್ರಯತ್ನ — ಮುಂದುವರಿಸಿದಳು. ದಿನರಾತ್ರಿ ಶ್ರಮಿಸಿ ದೋಷಗಳನ್ನು ಸರಿಪಡಿಸಿದಳು. ಈ ಸಮಯದಲ್ಲಿ ಅವಳು ಮನಸ್ಸನ್ನು ಸ್ಥಿರವಾಗಿಡಲು ಧ್ಯಾನ ಅಭ್ಯಾಸ ಆರಂಭಿಸಿದಳು. ಅದು **ಸಮ್ಮಾ ಸಮಾಧಿ ಮತ್ತು ಸಮ್ಮಾ ಸ್ಮೃತಿ** — ಏಕಾಗ್ರತೆ ಮತ್ತು ಜಾಗೃತ ಮನಸ್ಸಿನ ಅಭ್ಯಾಸ. ಆತಂಕ ಮತ್ತು ತಿರಸ್ಕಾರದ ನಡುವೆ ಅವಳು ಒಳಗಿನಿಂದ ಶಾಂತಳಾದಳು.

ಕೊನೆಗೆ, ಉತ್ಪನ್ನವು ಮಾರುಕಟ್ಟೆಗೆ ಸುರಕ್ಷಿತವಾಗಿ ಬಿಡುಗಡೆಗೊಂಡಿತು. ಕೆಲ ತಿಂಗಳ ನಂತರ, ಒಂದು ಸ್ಪರ್ಧಿ ಕಂಪನಿಯ ಉತ್ಪನ್ನದಲ್ಲಿ ಡೇಟಾ ಲೀಕ್ ಸಂಭವಿಸಿತು ಗ್ರಾಹಕರು ಭಯಗೊಂಡರು. ಆದರೆ ಬೆಳಕಿನ ಕಂಪನಿಯ ಉತ್ಪನ್ನದ ವಿಶ್ವಾಸಾರ್ಹತೆ ಹೆಚ್ಚಾಯಿತು. ಹೂಡಿಕೆದಾರರು ಹೇಳಿದರು: "ನಮ್ಮ ನಿರ್ಧಾರ ವಿಳಂಬವಾದರೂ ಸರಿಯಾಗಿತ್ತು. ನೈತಿಕತೆಯೇ ನಮ್ಮ ಶಕ್ತಿ." ಕಂಪನಿ ಅವಳನ್ನು "ಎಥಿಕಲ್ ಲೀಡರ್" ಪ್ರಶಸ್ತಿಗೆ ಆಯ್ಕೆ ಮಾಡಿತು. ಮ್ಯಾನೇಜರ್ ಸಾರ್ವಜನಿಕವಾಗಿ ಹೇಳಿದರು: "ಒಬ್ಬ ಉದ್ಯೋಗಿಯ ನಿಷ್ಠೆ ಕಂಪನಿಯ ಹೆಸರನ್ನುಉಳಿಸಿತು." ಬೆಳಕು ಮೌನವಾಗಿ ತಂದೆಯ ಮಾತುಗಳನ್ನು ನೆನಪಿಸಿಕೊಂಡಳು — **"ಸಮ್ಮಾ ಆಜೀವ"** — ಸರಿಯಾದ ಜೀವನೋಪಾಯ. ಹಣ ಗಳಿಸುವುದು ಮುಖ್ಯ, ಆದರೆ ಅದು ಧರ್ಮಪರವಾಗಿರಬೇಕು.

ಸಾರಾಂಶ: ವೃತ್ತಿಪರ ಜೀವನದಲ್ಲಿ ಯಶಸ್ಸು ಸಾಧಿಸುವುದು ಕೇವಲ ಕೌಶಲ್ಯದಿಂದ ಸಾಧ್ಯವಲ್ಲ; ನೈತಿಕತೆಯೊಂದಿಗೆ ನಡೆಯಬೇಕು. ಅಷ್ಟಾಂಗ ಮಾರ್ಗವು ಕೇವಲ ಧಾರ್ಮಿಕ ಮಾರ್ಗವಲ್ಲ, ಅದು ವೃತ್ತಿಜೀವನದ ನೈತಿಕ ದಿಕ್ಕು ತೋರಿಸುವ ದೀಪವಾಗಿದೆ. ಸತ್ಯ, ಪ್ರಾಮಾಣಿಕತೆ, ಜವಾಬ್ದಾರಿ ಮತ್ತು ಮಾನವೀಯತೆ—ಇವುಗಳನ್ನು ಅಳವಡಿಸಿಕೊಂಡಾಗ ಮಾತ್ರ ವೃತ್ತಿಜೀವನ ನಿಜವಾದ ಸಾರ್ಥಕತೆಯನ್ನು ಪಡೆದುಕೊಳ್ಳುತ್ತದೆ ಮತ್ತು ಸಾಧನೆಯಾಗುತ್ತದೆ. ಯಶಸ್ಸು ಕ್ಷಣಿಕವಾಗಿರಬಹುದು, ಆದರೆ ನೈತಿಕತೆ ಶಾಶ್ವತ.

ನಾಗರತ್ನ ಹೆಚ್. ಎಸ್., ಸಹಾಯಕ ಪ್ರಾಧ್ಯಾಪಕಿ

ಕಾಲಗರ್ಭದಲ್ಲೊಂದು ಭರತರತ್ನ

ಸಮಾನತೆಯ ಸಮತಾವಾದಿ, ನ್ಯಾಯವಾದಿಗೆ ಜಯವಾಗಲಿ...

ಭೀಮಾಬಾಯಿಯ ಗರ್ಭದಲ್ಲರಳಿದ ಹದಿನಾಲ್ಕನೇ ಮಾನವಅಂಶಕ್ಕೆ ಜಯವಾಗಲಿ...

ಹಿಂದೂ ಸಮಾಜದ ಅಸ್ಪೃಶ್ಯ ಜನಾಂಗ ಮಹಜಾತಿಯ ರಾಮಜಿ ಸಕ್ಪಾಲರ ಮಗನಾದ ದಲಿತ ಜನಾಂಗದ ಆಶಾಕಿರಣ ಭೀಮಾರಾವ್‌ಗೆ ಜಯವಾಗಲಿ....

ವೈಯಕ್ತಿಕ ಜೀವನದ ವೈಭವೀಕರಣವನ್ನು

ದಿಕ್ಕರಿಸಿದ ತ್ಯಾಗಿ, ಸಂವಿಧಾನ ಶಿಲ್ಪಿಗೆ ಜಯವಾಗಲಿ.....

ಜಯವಾಗಲಿ, ಜಯವಾಗಲಿ, ಜಯವಾಗಲಿ...

ಜಯಮಾಲೆಯನ್ನೊತ್ತುನಿಂತ ಭಾರತಾಂಬೆಯೆ

ಧನ್ಯಳಾಗಿರುವೆಯಾ ಈ ಜಯಘೋಷಗಳ ಕೇಳಿ

ಕಂಡೆಯಾ... ನಿನ್ನ ಕೊರಳ ಮಾಲೆಯೊಲ್ಲೊಂದು ದಲಿತ ದನಿಯ ಆರ್ಭಟದಿಂದಿರುವ ಗತಕಾಲದ ನೋವಿನ

ಕಾಲಚಕ್ರ ನೆನಪಿದೆಯಾ ನಿನಗೆ,

ಉಕ್ಕುವ ದು:ಖದ ಕತ್ತನು ಹಿಸುಕಿ ಊರ ಹೊರಗೆ

ಬಾಳಿದ ಸ್ವಾಭಿಮಾನಿ ದಲಿತ ಆ ದಿನ,

ಉಕ್ಕುವ ನಗುವಿನ ಕತ್ತನು ಎತ್ತಿ ಊರಿನೊಳಗೆ ಬಾಳುತ್ತಿರುವ ಆಶಾವಾದಿ ದಲಿತ ಈ ದಿನ,

ಮುಂದುವರೆಸುವನೆ ಬಾಬಾರವರ ತತ್ವಗಳ ಕ್ರಾಂತಿಕಾರಿಯ ತೇರನ್ನು?
ವಿಚಾರ ಮಾಡಲು ಅಂಜಿ ಗುಲಾಮರಾಗಬೇಡಿ

ಭವಿಷ್ಯದ ಮೇಲೆ ನಂಬಿಕೆಯಿಡದೆ ನಿಮ್ಮ ಶ್ರಮದ ಮೇಲೆ ನಂಬಿಕೆಯಿಡಿ...

ಹೌದು ಭಾರತಾಂಬೆ;ಭಾರತದ ಕೆಲವೆಡೆ ಅಂಬೇಡ್ಕರ್‌ರವರ ಹೆಸರಿನ ವಿದ್ಯಾಲಯಗಳು ತಲೆಯೆತ್ತಿ ಭೀಗುತಿವೆ ಅವರ ನಂಬಿಕೆ ಉಳಿಸಿವೆ. ಉಳಿಸುತ್ತಲಿವೆ....

ಆದ್ದರಿಂದ ಭೀಮ್‌ಜೀಯ ವಿದ್ಯಾರ್ಜನೆಯದಾಹಕ್ಕೆ ಆರ್ಥಿಕ ನೆರವಿನ ನೀರೆರೆದು ಬೆಳಿಸಿದ ಬರೋಡಾ

ಮಹರಾಜರಿಗೆ ಜಯವಾಗಲಿ...

ಪ್ರೋತ್ಸಾಹದ ನೆಪದಲ್ಲಿ ಆತ್ಮಶಕ್ತಿ ತುಂಬಿ

ಓದಲು ಹುರಿದುಂಬಿಸಿದ ಗಾಯಕ್‌ವಾಡರಿಗೆ ಜಯವಾಗಲಿ..

ಉನ್ನತ ಶಿಕ್ಷಣ ನೀಡಿದ ನ್ಯೂಯಾರ್ಕಿನ ಕೊಲಂಬಿಯ ವಿಶ್ವವಿದ್ಯಾಲಯಕ್ಕೆ ಜಯವಾಗಲಿ..

ಹೀಗೆ ಘಾತುಕ ಸಮಾಜದಲ್ಲಿ ಅಲ್ಲೊಂದು ಇಲ್ಲೊಂದು ಹಸ್ತಗಳು ಸೇರಿ ಮೇಲಿತ್ತಿಸಿಕೊಂಡ ಈ ದಲಿತನ ಕೈಯಲ್ಲಿನ ತೋರು ಬೆರಳಿನ ಸಂದೇಶತಿಳಿದಿದೆಯಾ ತಾಯಿ ನಿನಗೆ?

ಕೇಳು ಹೇಳುವೆ,

ಮರಣೋತ್ತರ ಭಾರತರತ್ನ ಬಾಬಾರವರ ಘರ್ಜನೆಯ: ಪ್ರಗತಿಗೆ ವಿಧ್ಯೆಯೇ ಮೂಲ ಏಳಿ ನನ್ನ ಜನರೆ, ಕಟ್ಟಿರಿ ಸಂಘಟನೆಗಳ ಮಾಡಿರಿ ಸಮಾವೇಶಗಳ,

ಕಟ್ಟಿರಿ ವಿದ್ಯಾಸಂಸ್ಥೆಗಳ ಬೆಳೆಸಿರಿ ಜ್ಞಾನ ಸಂಪತ್ತನ್ನು...

ನದಿಯ ದಿಕ್ಕನ್ನು ಬದಲಿಸುವ ಬಂಡೆಕಲ್ಲುಗಳಾಗಿ

ಆದರೆ ಕರಗುವ ಮಣ್ಣಾಗಬೇಡಿ

ಶಕ್ತಿಯನ್ನು ಬಿಂಬಿಸುವ ಸಿಂಹವಾಗಿ ಬಲಿಕೊಡುವ ಕುರಿಕೋಳಿಗಳಾಗದಿರಿ....

ಆಸೆಯಿಂದ ದು:ಖವೆಂದು ಬುದ್ಧನಿಂದ ತಿಳಿದ ಡಾ.ಅಂಬೇಡ್ಕರ್ ಸ್ವಾಭಿಮಾನದ ಆಸೆಯನ್ನುಗೆದ್ದುಬಿಟ್ಟರಲ್ಲಾ.

ತನ್ನ ಹಿಂಬಾಲಕರಿಗೂ ಹಂಚಿಬಿಟ್ಟರಲ್ಲಾ ಜಯವಾಗಲಿ....

ಭೀಮ್‌ಜೀ ನಿನ್ನನ್ನೂ ಪಡೆದ ಭಾರತಾಂಬೆಗೆ ಜಯವಾಗಲಿ....

ಡಾ. ಹೆಚ್. ಉಮಾದೇವಿ,
ಪ್ರಾಧ್ಯಾಪಕರು ಮತ್ತು ಮುಖ್ಯಸ್ಥರು

STUDENT CORNER

Students' Achievements

12th Graduation Day

12th Graduation was held on 20/09/2025 Saturday and **191** students were graduated from Department of Electronics and communication engineering and two of the following students won medals,

Sahana C R with CGPA of **9.45** was awarded with **Academic Excellence Topper in ECE Branch**

Vinay C Kadechur with CGPA of **9.08** was awarded with **Academic Excellence among SC students.**

Placements

Congratulations to all the students who have secured placements!

Being placed is not just an achievement, but the beginning of an exciting tech journey. Every challenge you embrace, every line of code you write, and every problem you solve will shape your growth. Stay curious, keep innovating, and let your passion for technology drive you forward—today's learning is tomorrow's breakthrough.

Shreya Santhosh

S S Spoorthy Devaramane

Sania

Codeyoung
International Sales Specialist- US Shift, **8.36 LPA**

Shashank B
MJohnson controls
Graduate Engineer Trainee,
5.0 LPA

LIKITHA B POOJAR

Hema.R.G

PARVATHI

Mindeneous
Business Development Associate , Marketing Executive, **6.5 LPA**

Megharaj KN
Besant Technologies
Software test engineer,
5 LPA

Akshata Vasant Ballolli

Ankit Kumar singh

Palle technologies
Software Developer & AI Engineer, **8.0 LPA**

RAKSHA.D

Sunil Kumar H E

K12 techno services
School Executive, **6 LPA**

"All our dreams can come true, if we have the courage to pursue them" - Walt Disney

YUKTI Innovation Challenge(YIC) – 2025
AICTE Productization Fellowship (APF) -2025 Achievers

The YUKTI Innovation Challenge (YIC) – 2025 celebrates outstanding student innovators who transform ideas into impactful solutions. The 2025 achievers demonstrated excellence in research, entrepreneurship, and real-world problem solving. Their projects were recognized for innovation potential, scalability, and contribution to national development goals.

AICTE Productization Fellowship (APF) – 2025 Achievers

The All-India Council for Technical Education Productization Fellowship (APF) – 2025 honors student teams and innovators who successfully convert prototypes into market-ready products. APF 2025 achievers stood out for their technological advancement, commercialization strategy, and sustainable impact.

Title: She-Fit. Empowering Women through health, fitness and support

Rohith Krishna K V

Gowtham K P

Title: GAJA (Guided AI Agent for Juxtaposition Analysis)

Manoj Gowda

Kashvi V

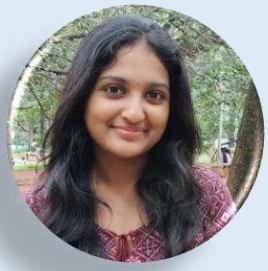
Spoothi Ramesh

Title: Maglev Trains: a new era of high-speed transportation using magnetic levitation

Namith Gowda C S

Varun K

Shree Priya P



Manasa G

NASA SPACE APPS CHALLENGE 2025

We are truly honoured to share that a multidisciplinary student team from our institution emerged as the Winner of the NASA Space Apps Challenge 2025, a prestigious global hackathon organized by NASA that brings together innovators from around the world to solve real-world challenges using open data.

The team's project, **"UrbanScope",** was recognized for its innovation, technical depth, and strong social relevance among numerous outstanding global submissions. The solution focuses on urban analytics and decision support, demonstrating how data-driven technologies can address contemporary societal challenges.

The 36-hour hackathon tested not only technical skills but also endurance, teamwork, and resilience. The team worked continuously without food or sleep, driven by passion, determination, and a shared commitment to represent the institution with excellence on a global platform.

Team Members from ECE Branch:

Suraksha K S – ECE

Spoorthi Ramesh – ECE

This remarkable achievement highlights the institution's culture of innovation, interdisciplinary collaboration, and global competitiveness.

The department congratulates the team on their outstanding success and wishes them continued excellence in future endeavours.

Hackathon wins of team SEA-KERS

Team SEA-KERS including Spoorthi Ramesh, Manasa and Manoj Gowda, students from Department of Electronics and communication Engineering have participated in prestigious Hackathons at various levels, have won prizes and brought lawrence to the department and institution.

NAME: JAZZE TECHNOLOGIES
PLACE: IIT Bhubaneshwar
PROJECT DESCRIPTION:
Professional AI medical assistant designed to gather key health information from a patient.
PRIZE: Best Team

NAME: HAL HACKATHON
PLACE: PRESEDENCY COLLEGE
PROJECT DESCRIPTION:
Revolutionizing aerial surveillance by solving critical flaws in EO/IR systems.
PRIZE: First Prize

NAME: AICTE and YUKTHI
PLACE: Ramaiah Institute of Technology
PROJECT TITLE: GAJA (Guided AI for Juxtaposition Analysis)
PROJECT DESCRIPTION:
Situational Awareness in the most unforgiving terrains through UAVs
PRIZE: Qualified for the second Round

SMART INDIA HACKATHON 2025

We are happy to share that the **Department of Electronics and Communication Engineering (ECE)** recorded the **maximum contribution** in the **Internal Smart India Hackathon (SIH) 2025**, with a total of **11 teams** participating from the department. This enthusiastic participation reflects the strong technical culture, innovative mindset, and problem-solving skills of ECE students. The achievement highlights the department's commitment to promoting hands-on learning, teamwork, and active engagement in national-level innovation platforms.

SAE WESTERN BUSINESS PLAN PRESENTATION

Priyanka K represented **Team Saranyu Racing** from Dr. AIT Motorsports Club at the **virtual Business Plan Presentation** organized by the **Society of Automotive Engineers**. Competing at a national level, team presented a comprehensive and strategic business model that highlighted innovation, performance, and market viability. It was an intense and insightful experience, competing against some of the best teams across the country, and were proud to secure an overall 4th rank. The event not only strengthened team's understanding of the business side of motorsports engineering but also reinforced their ability to communicate ideas effectively in a competitive environment.

CODE RED WINNERS 2025

The **CODE RED WINNERS 2025** title was proudly secured for their innovative project titled **"Optical Device for Intelligent Navigation."**

🗓️ **Date:** 10/10/2025

💰 **Prize Amount:** ₹30,000

Winners Names:
Pramoda S -1DA21EC108
Fardeen S Khadri - 1DA21EC178
Manoj Gowda - 1DA21EC080
Kashvi V - 1DA21EC067

The winning project focused on developing an advanced optical-based navigation device designed to assist users with intelligent, real-time environmental detection and guidance. The solution demonstrated innovation, technical excellence, and strong practical application, earning the team top honors in the competition.

ECE Students Excel in Heartfulness Essay Competition

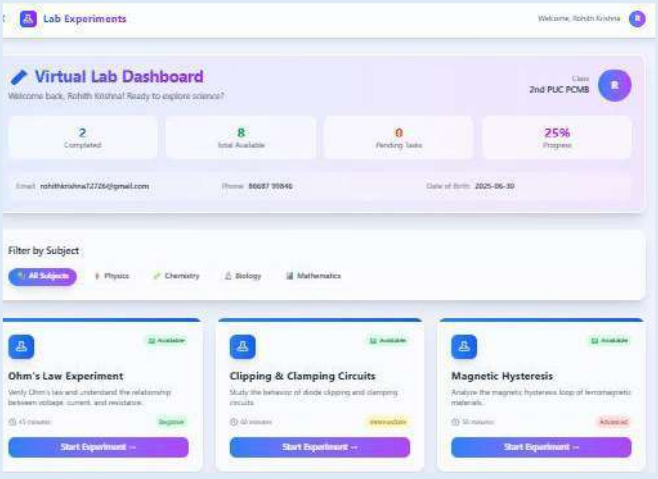
Students of the Department of ECE actively participated in the Heartfulness Essay Competition, showcasing their creativity, clarity of thought, and depth of understanding on values such as mindfulness, inner balance, and holistic well-being. The competition provided a meaningful platform for students to articulate their perspectives on personal growth and emotional intelligence.

Their enthusiastic involvement reflects the department's commitment not only to academic excellence but also to nurturing character, ethics, and self-awareness among future engineers. The list of students participated is as follows: **KISHAN H, LEKHANA S, PRIYANKA R, PREETHY Y, BASAWARAJ, NANDINI B**

Student Innovations: Ready to Market

Rohith Krishna K V

Gowtham K P



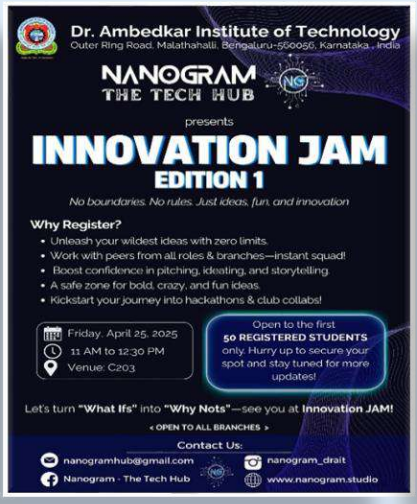
1. **SHE-FIT:** Empowering Women through health, fitness and support

2. **EDUHUB:** Digital lab platforms have emerged as an effective solution, simulating real-world experiments online and allowing students to interact with virtual instruments, manipulate variables, and observe outcomes at their own pace.

Department Student Club Activities

Nanogram club

The Nanogram Club of the Department of ECE at Dr. Ambedkar Institute of Technology is an active technical forum dedicated to enhancing students' knowledge beyond the classroom. The club regularly organizes technical events, expert talks, workshops, and seminars on emerging technologies such as VLSI, embedded systems, IoT, communication systems, and core electronics domains. It provides a platform for students to interact with industry professionals, researchers, and alumni, helping them gain practical insights and career guidance.



Abdul Kalam Innovation Club

The Abdul Kalam Innovation Club of the Department of ECE at Dr. Ambedkar Institute of Technology is a student-led initiative inspired by the vision of A. P. J. Abdul Kalam. The club encourages innovation, research, and practical learning among Electronics and Communication Engineering students. It provides a platform for students to develop technical projects, explore emerging technologies, and transform creative ideas into real-world solutions.

“KHEL RATNA” - Chaitra Shree N

Chaitra Shree N (1LVS) studying Mtech. in VLSI design and embedded systems in department of Electronics and Communication Engineering as represented India at international tournaments and has won various medals, awards and recognitions.

Received the Khel Ratna Award in November for the achievements in the International level Karate tournaments

Received the Star of Silicon City award from Chaitanya Arts academy for my excellence in Karate

- **Won First in kata and the Grand Championship in the Bangalore 2nd All India Open Karate Championship 2025, held on 27th July, 2025.**
- **Won Gold in Kata in the 6th International Open Karate Championship 2025 held at Shivamogga on 3rd of August 2025.**
- **Won First in Kata Grand Championship in the Bangalore Open Karate Championship 2025, held on 24th August 2025.**
- **Won two Gold, one silver and one bronze in the 4th South India Zonal Karate Championship 2025 held at Koramangala Stadium from 30th to 31st of August 2025**
- **Won Gold in Kata in the 12th National Level Open Karate Championship 2025 held at Kurnool on 14th September 2025.**
- **Participated in the World Karate Championship 2025 representing the Indian Karate Team in Kuala Lumpur, Malaysia on 3rd of October 2025.**
- **Won Two Gold medals in the VTU State selections 2025-26 and selected to represent VTU in the All India University Games 2025-26.**
- **Won Gold, two silver and a bronze in the 4th All India Inter-Zonal Karate Championship 2025 held at New Delhi from 1st to 3rd of December 2025.**

Gymnast: Thrishul Gowda B N

Mr. Thrishul Gowda B N, a student of **7th Semester, Electronics and Communication Engineering**, has represented at state, national and international gymnastics championships and secured **many medals** bringing pride to the department and the institution. This remarkable achievement reflects his dedication, discipline, and excellence in sports, alongside academic pursuits. The department congratulates him on his outstanding performance and wishes him continued success in future endeavours. Following are few of his achievements during July-2025 to Dec -2025.

- **SENIOR TRAMPOLINE GYMNASTICS NATIONAL CHAMPIONSHIP 2025 – 26** DEHRADUN, UTTARAKHAND 07/08/2025 - 10/08/2025
- **AEROBICS GYMNASTICS NATIONAL CHAMPIONSHIP 2025 – 26** ERNAKULAM, KERALA 08/09/2025 - 10/09/2025
- **STATE LEVEL AEROBICS GYMNASTICS CHAMPIONSHIP 2025-26** GOPALAN SPORTS CENTRE, BANGALORE - 24/08/2025 Individual Men- SILVER MEDAL, Aero Step - SILVER MEDAL
- **DASARA KREEDAKUTA C.M CUP – 2025 CHAMUNDI VIHAR STADIUM, MYSORE 22/09/2025 – 25/09/2025** ARTISTIC GYMNASTICS TEAM CHAMPIONSHIP– GOLD MEDALTRAMPOLINE GYMNASTICS - SILVER MEDAL

India is witnessing a remarkable transformation in its scientific landscape as it steps confidently into the era of **Space Exploration 2.0**. No longer limited to Earth-centric missions, the nation is now venturing into deep space with ambition, precision, and a spirit of innovation that inspires millions. The story of India's rise as a spacefaring nation is not just a technological achievement—it is a symbol of national pride, scientific excellence, and global leadership.

From local missions to global impact: India's spaceflight legacy:-

India's space journey began with simplicity: a small team of passionate scientists, limited resources, and a vision to use space technology for national development. Over time, consistent progress in satellite design, remote sensing, and launch vehicles laid the foundation for advanced missions. The development of reliable launchers like **PSLV** and **GSLV** played a key role in this evolution. These rockets helped India send satellites into various orbits and created a strong reputation for affordable, dependable space launches. Today, countries across the world trust India to carry their payloads into space.

Mars Orbiter Mission: A Leap into history:

India entered the global spotlight with the **Mars Orbiter Mission**, launched in 2013. With this mission, India achieved three extraordinary distinctions.

Becoming the **first country** to reach Mars on its **first attempt.** Completing one of the **lowest-cost** Mars missions ever. Demonstrating advanced navigation and deep-space communication capability.

This mission showed the world that innovative, cost-effective engineering can achieve results once thought possible only by major space powers.

Touching the Moon: Chandrayaan's triumphs:

India's lunar ambitions began with Chandrayaan-1, It was launched by ISRO in October 2008, and operated until August 2009. which made the groundbreaking discovery of **water molecules on the Moon**, one of the most important scientific findings of the century.

Chandrayaan-2 tested critical technologies, and although the lander did not achieve a perfect soft landing, the orbiter continues to map the Moon with high-quality scientific instruments. Then came **Chandrayaan-3**, a mission that changed India's place in global space history. In 2023, India:

- Became the **fourth nation** to softly land on the Moon.
- Became the **first in the world** to land near the Moon's south pole.
- Demonstrated unmatched precision and reliability in lunar landing technology.

The images of the Vikram lander on the lunar surface became a symbol of national celebration.

P.T.O.

Why space exploration matters for India?

Space exploration may feel distant, but its benefits reach everyday life. India's satellites support:

Disaster management. Weather forecasting Agriculture and crop monitoring Navigation and transportation Communication in remote regions Climate and environmental research.

These applications directly support development, making space technology a backbone of national progress.

The Future: A new age of Indian space power:

India's vision for the future is ambitious and forward-looking:

1. Gaganyaan:-

India aims to send its first crewed spacecraft into low-Earth orbit, marking a major step in human spaceflight capability.

2. Solar and Planetary Missions:-

Future missions will study the Sun, Venus, and potentially bring back samples from the Moon.

3. Private Space Ecosystem:-

Dozens of Indian startups are building rockets, satellites, propulsion systems, and space components, turning India into a competitive global space hub.

4. International Collaboration:-

India is increasingly partnering with global space agencies for research, payload-sharing, and advanced scientific missions.

Conclusion: India's Sky Is Expanding

From humble beginnings to international recognition, India's space journey reflects the spirit of determination and innovation. As the world enters Space Exploration 2.0, India stands confidently at the forefront, shaping the future of space science and inspiring an entire generation of dreamers and builders. The sky is no longer the limit—it is just the beginning.

Article by:

Manoj Mathapati

MTech (VLSI Design & Embedded systems), Department of ECE

Distinguished Alumni

Sudhamika Vanzara
IPS Officer

Sajin
Lt. Commander**, Indian Navy**

Kubendra K
Associate Director,
Samsung, India

Dr. Premakumar Melkote,
Senior Engineering
Manager-CCG, **Intel**

Raghavendra Srinivas
in-house GPU Development
Team Member at **Apple Inc**.

Somashekar Anandan
HR Recruiter, **TCS**

Dr. Pramod KB
Researcher, **Upsala University**

Prashanth Chauan
Dy. SP**, CAPF**

DEPARTMENT ACTIVITIES

Refreshing team outing

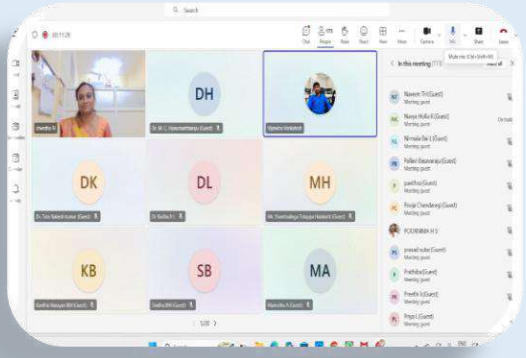
The faculty and staff members of the Department of Electronics and Communication Engineering enjoyed a refreshing team outing to **Amegundi Resort,** Kanakapura, which provided an excellent opportunity to unwind, interact, and strengthen professional camaraderie outside the academic environment. Set amidst the serene natural surroundings, the outing fostered informal interactions, teamwork, and mutual bonding among faculty members. With the wholehearted support of the management, such initiatives play a vital role in promoting a positive work culture, enhancing collaboration, and rejuvenating the faculty, ultimately contributing to improved academic and institutional excellence.

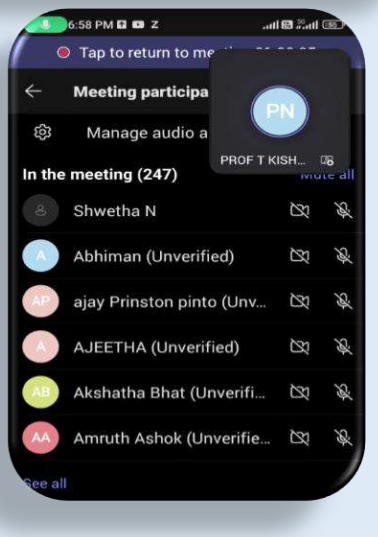
MOTIVATION AND SKILL DEVELOPMENT PROGRAM

A **three-day workshop on "Motivation and Skill Development Program – Sustainable Health and Wellbeing: Sustainable Development Goals (SDG-3)"** was successfully conducted from **17th September to 19th September, 2025**. The program focused on creating awareness about sustainable health practices, mental wellbeing, and skill enhancement aligned with the United Nations Sustainable Development Goal 3, which emphasizes ensuring healthy lives and promoting well-being for all. The sessions included expert talks, interactive discussions, and practical activities aimed at motivating participants to adopt healthy lifestyles, develop essential life skills, and understand the role of sustainability in personal and professional growth. The workshop witnessed active participation from students and faculty members, making it a meaningful and impactful learning experience.

AICTE Sponsored ATAL Faculty Development Programme

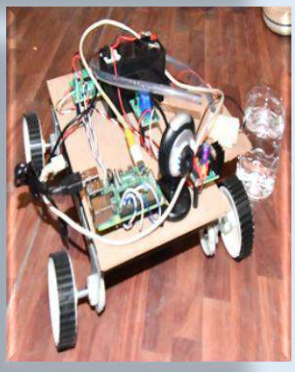
An AICTE Sponsored ATAL Online Six-Day Faculty Development Programme (FDP) on “Exploring the Synergy between eAcoustics and Machine Learning for Tomorrow’s Technologies” was conducted from 15th December 2025 to 20th December 2025. The programme aimed to enhance faculty knowledge in the emerging interdisciplinary domain that integrates electronic acoustics with machine learning techniques. The sessions covered fundamental concepts, advanced methodologies, and real-world applications in areas such as intelligent audio processing, speech recognition, noise control, and smart sensing systems. Eminent experts from academia and industry delivered insightful lectures, fostering research-oriented discussions and knowledge exchange among participants. The FDP provided valuable exposure to contemporary tools and techniques, contributing significantly to faculty professional development and research competence.



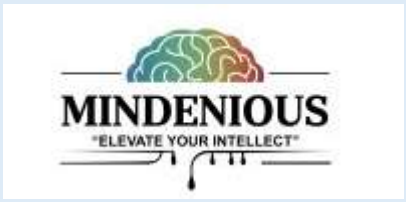


Project Exhibition "TechExplore"

The **Project Exhibition "TechExplore"** was organized on 23rd December 2025 for **final year students** with the objective of providing a platform to showcase innovative project ideas and practical engineering solutions. The exhibition featured a wide range of projects across domains such as embedded systems, communication technologies, Internet of Things, artificial intelligence, and signal processing. Students demonstrated their technical knowledge, problem-solving abilities, and creativity through working models and presentations. The event encouraged peer learning, faculty interaction, and industry-oriented thinking, thereby enhancing students' confidence and readiness



Our Leading Recruiters



INHOUSE MOTIVATORS

INSTITUTION'S INNOVATION COUNCIL (Ministry of HRD Initiative)

Internal Quality Assurance Cell — IQAC — Dr.A.I.T

NANOGRAM THE TECH HUB — Where Curiosity Meets Innovation

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