



Contents

1. AREEV – 2025
2. Parent Teacher Meeting held on 08-09 February 2025
3. Outreach Program
4. Seminar Week – Day 01: Metal Oxide Chemi resistive Gas Sensors
5. Seminar Week – Day 02: Bridging College and Career: How Academic Engagement Transforms into Industry Success
6. Seminar Week – Day 03: VLSI Implementation of Arithmetic Circuits
7. Seminar Week – Day 04: Eat Smart, Live Smart: Healthy Eating Habits for Life
8. Seminar Week – Day 05: Electric Vehicle Components and Trends in Traction Inverter Design
9. Visit of the Executives of GTTC, Bengaluru to NMAMIT and Nitte DU
10. Details of Workshop / STTP / FDP Attended by the Faculty Members

27 February 2025

The department of Electrical and Electronics Engineering (EEE) organised the two-day, IEEE technically sponsored international conference on Advances in Renewable Energy and Electric Vehicles (AREEV – 2025) on 06-07 February 2025 under the Aegis of International conference on Emerging Trends in Engineering – 2025 (ICETE – 2025). Dr. In Ho Ra, Professor, Department of Information & Telecommunication Engineering Kunsan National University South Korea, inaugurated the multi-conference on 06 February 2025 in Sambhram Auditorium of the Institute.

Keynote addresses: On day-1, 06 February 2025, the first keynote address was delivered by Dr. Mohamad Nur Khairul Hafizi Rohani, Associate Professor, Faculty of Engineering and Technology, University Malaysia Perlis (UniMAP), Malaysia on "Revolutionizing Asset Health: Advanced Partial Discharge Monitoring in High Voltage Infrastructure" at Abhyuday Seminar Hall between 3:00 PM and 4:15 PM.

On day-2, 07 February 2025, the second keynote address was delivered by Dr. Kumarappan P, Former Chairman, IEEE Madras Section, Chennai on "Smart Grid - Revolutionizing our Energy Future" at Abhyuday Seminar Hall between 09:15 AM and 10:30 AM.

The third keynote address of the conference was delivered by Mr. Murali S Iyer, Professor of Practice, Artificial Intelligence and Data Science, NMAMIT, Nitte and Dr. Prasant Misra, Vice-Chair Industry Engagement, IEEE Bangalore Section on "AI applications in EV and other Electrical Systems" on the second day between 02:00 PM and 03:15 PM in the Netravathi Seminar Hall.

Statistics on AREEV-2025 papers: A peer review committee of subject matter experts scrutinized all the 202 papers received for the conference from all over the world and accepted 65 papers for final presentation in four streams of Electrical and Electronics Engineering: Stream 1: Advances in Renewable Energy Systems, Stream 2: Electric Vehicles, Stream 3: Control System and Stream 4: Power Converters & Drives for EV. The conference management platform used for the submission and review of papers was Microsoft CMT. Out of the 65 accepted papers, 21 authors registered for the conference and out of 21 registered authors, 20 participants presented their papers in the physical mode.

Volume 04 Issue 07 February 2025 News Letter

The details of the sessions are as follows:

Day 1: 06 February 2025

Session: AREEV-01

The first technical paper presentation sessions of AREEV 2025 commenced at 11:30 AM

Venue: PG & Research Lab, Sir. M.V block, III floor

Track Chairs: Dr. Shashidhar Mecha Kotian, Assistant Professor, NITK Surathkal.

Dr. Rajalakshmi Samaga B L, Professor, NMAMIT, Nitte

Session Coordinator: Dr. Krishna Rao, Assistant Professor, NMAMIT, Nitte

Number of papers presented: 07

Day 1: 06 February 2025

Session: AREEV-02

The second technical paper presentation sessions of AREEV 2025 commenced at 01:30 PM

Venue: EV Lab, Sir. M.V block, IV floor

Track Chairs: Dr. Subramanya K, Assistant Professor, SJEC, Mangaluru

Dr. Sathyendra Kumar M, Professor, NMAMIT, Nitte

Session Coordinator: Dr. NSS Ramakrishna, Assistant Professor, NMAMIT, Nitte

Number of papers presented: 06

Day 2: 07 February 2025

Session: AREEV-03

The third technical paper presentation sessions of AREEV 2025 commenced at 11 AM.

Venue: PG & Research Lab, Sir. M.V block, III floor

Track Chairs: Dr. Omid Ansary, Professor Emeritus PSU, Harrisburg

Volume 04 Issue 07 February 2025 News Letter

Dr. Nagesh Prabhu, Director (Curriculum Development at Nitte Deemed to be University),

Professor, NMAM Institute of Technology, Nitte

Session Coordinator: Mr. Ravikiran Rao, Assistant Professor, NMAMIT, Nitte

Number of papers presented: 07

Best paper certificate was provided session wise. The details of best papers are as follows.

Sl. No	Session	Authors	Paper Title
1	AREEV-01	Mamatha N, Ramesh H R	Reduced THD and CMV In A 5-Level Inverter Fed Induction Motor Using Fotic Controller with Meerkat Optimisation Algorithm
2	AREEV-02	Anand Bhat B, Parashurama Bheemappa Mutthalageri B, Siddhanth Harischandra Jambavalikar B, Sushmita Waderatti B, Vinayaka T B	Li-Ion Cell Discharge Unit for Accurate Battery Capacity Measurement
3	AREEV-03	Krishna Rao, Shubhanga K N	The Ability of Eigen System Realization Algorithm to Identify the Dominant System Modes

The valedictory ceremony of AREEV – 2025 took place on 07 February 2025 at 03:30 PM at the PG & Research Lab. Dr. Girisha Joshi, Secretary of AREEV – 2025, provided a comprehensive summary of the session proceedings and expressed gratitude to the Head of the Department and faculty members for their unwavering support in organizing the conference.

Mr. Pradeep Kumar, Coordinator of AREEV – 2025, shared insights on managing the double-blind review process as per IEEE guidelines. Additionally, Dr. Suryanarayana K, Program Chair of AREEV – 2025 and Professor & Head of the Department of Electrical and Electronics Engineering, offered a brief

Volume 04 Issue 07 February 2025 News Letter

overview of the conference and commended the team for their systematic and efficient management of the event.



Parent Teacher Meeting held on 08-09 February 2025

11 February 2025

The Department of Electrical and Electronics Engineering (EEE) at NMAM Institute of Technology successfully organized a Parent-Teacher Meeting on 8–9 February 2025. The event was conducted at the Netravathi Seminar Hall on Day 1 and at LH304 on Day 2, witnessing active participation from 59 students' parents on Day 1 and 16 on Day 2.

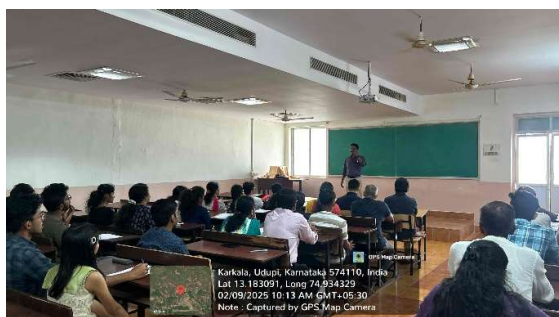
Dr. Niranjana N. Chiplunkar, Principal, NMAMIT, Nitte, graced the occasion and commended the department for its efforts in hosting a large-scale Parent-Teacher Meeting. He extended his gratitude to the parents for their participation and emphasized the various facilities available within the department and the institution to support students' holistic development.

Dr. Suryanarayana K, Professor and Head, EEE, addressed the gathering, emphasising the various opportunities offered by the department. He explained the significance of such meetings in ensuring the progress of students and encouraged parents to appreciate their child's efforts and improvements. He urged parents to help their wards identify their fields of interest and support them in excelling post-engineering. Additionally, he stressed the collective role of faculty members, students and parents in shaping the career of the students.

The session also emphasized the significance of internships as outlined in the academic curriculum, along with GATE examination preparation for career opportunities in the public sector and higher education. Additionally, the department's initiative in offering GATE coaching was discussed.

During the meeting, parents raised queries regarding SGPA and CGPA calculations, which were addressed by the Head of the Department. They also requested a mentor-mentee assignment sheet to facilitate direct communication with mentors.

Faculty members handling second-year courses were present, and the program was coordinated by Mrs. Nutana Shetty and Mrs. Swathi Hatwar H. Parents expressed their appreciation for the department's dedicated efforts in ensuring students' well-being and academic progress in their absence.





Outreach Program

11 February 2025

The Department of Electrical and Electronics Engineering (EEE) conducted an outreach program activity for the students of Anandatheertha PU college, Udupi on 10 February 2025 at Shambhavi Hall, NMAMIT, Nitte. Dr. Suryanarayana K, Professor and Head, EEE engaged the sessions on visualisation of physics through hands-on experiments. The interactive session allowed students to engage with working models, reinforcing their theoretical knowledge through practical applications. The outreach program was aimed at igniting the curiosity and inspiring young minds to explore engineering as a career. Mr. Ravikiran Rao M, Assistant Professor, Department of EEE, NMAMIT and student volunteers assisted the HoD in ensuring the smooth conduction of the event. Mr. Sourabh and Mr. Vakshath, lecturers from the Anandatheertha PU College accompanied their students, while Mr. Krishnaraja Joisa, PRO, NMAMIT, Nitte watched the program.





Seminar Week – Day 01: Metal Oxide Chemi Resistive Gas Sensors

16 February 2025

The Department of Electrical and Electronics Engineering (EEE) in association with the association of electrical and electronics engineering students – Elites, conducted a seminar week between 10-15 February 2025. On the day one, there was a seminar on "Metal Oxide Chemi resistive Gas Sensors" by Dr. Nisha, Assistant Professor, Department of Electronics and Communication Engineering, Sahyadri College of Engineering and Management, Mangalore, an alumna of EEE, NMAMIT, Nitte at Shambhavi Seminar Hall. The session commenced with a warm welcome by Miss. Pragna, sixth semester student EEE. Miss. Krithi Bangera, sixth semester student EEE introduced the guest to the audience.

Dr. Nisha commenced her session with an introduction to gas sensors, emphasizing their significance and applications. She shared her early fascination with the subject, driven by her passion for chemistry and sensor science.

She provided insights into her initial research on Gas Chromic Metal Oxide Sensors, with a specific focus on Tungsten Oxide, detailing its material properties, performance, and real-world applications. Additionally, she highlighted the advancements in nanoscale sensors, emphasizing their superiority over traditional sensor technologies.

Volume 04 Issue 07 February 2025 News Letter

Dr. Nisha also discussed hydrogen safety sensors and space-qualified sensors, shedding light on their potential impact on future technological advancements. Encouraging students from the Electrical and Electronics Engineering discipline, she emphasized the promising career prospects in this field.

The session concluded with an interactive Question-and-Answer segment, where students actively engaged with Dr. Nisha, seeking further insights on the topic.

Following this, Dr. Suryanarayana K, Professor and Head of the Department of Electrical and Electronics Engineering, delivered the vote of thanks, expressing gratitude to the speaker and attendees.

Overall, the event was a resounding success, providing participants with a comprehensive understanding of Metal Oxide Gas Sensors and their significance in modern technology.



Seminar Week – Day 02: Bridging College and Career: How Academic Engagement Transforms into Industry Success

16 February 2025

The Department of Electrical and Electronics Engineering (EEE), in association with the Elites – the student association of Electrical and Electronics Engineering, organized a Seminar Week from February 10–15, 2025.

On February 11, 2025, the second day of the event, a seminar titled "Bridging College and Career: How Academic Engagement Transforms into Industry Success" was conducted by Mr. Prashant Suarez, Service Engineer, Advanced Technology, Kuwait, and an esteemed alumnus of the EEE Department. The session, held at the Shambhavi Seminar Hall, was specifically designed for second-year students.

Volume 04 Issue 07 February 2025 News Letter

The seminar commenced with a welcome address by Ms. Nidhishree, a fourth-semester student. Mr. Prashant Suarez introduced Advanced Technology, an organization specializing in the supply and service of medical equipment. He shared insights into his professional journey, detailing his transition from electrical engineering to the biomedical sector. Highlighting his academic experiences, he emphasized the role of learning from failures in shaping his career. He also elaborated on his first job opportunity in Kuwait, the challenges faced, and his professional growth, leading to his current role at Advanced Technology.

Mr. Prashant underscored the importance of effective communication in the corporate world, encouraging students to engage actively by asking and responding to questions. Additionally, he outlined career prospects in the biomedical industry for electrical engineers interested in this interdisciplinary domain.

The session concluded with an interactive Question-and-Answer session, where students engaged in meaningful discussions with Mr. Prashant. Dr. Suryanarayana K, Professor and Head of the EEE Department, delivered the vote of thanks, expressing gratitude to the speaker and attendees.

Overall, the seminar was a resounding success, offering students valuable insights into industry requirements and professional development opportunities.

**Seminar Week – Day 03: VLSI Implementation of Arithmetic Circuits**

16 February 2025

The Department of Electrical and Electronics Engineering (EEE), in collaboration with Elites – the student association of Electrical and Electronics Engineering, organized a Seminar Week from February 10–15, 2025.

Volume 04 Issue 07 February 2025 News Letter

On February 12, 2025, the third day of the seminar series, Dr. Kiran Kumar VG, Professor and Head, Department of Electronics and Communication Engineering, AJ Institute of Engineering and Management, Mangalore, and a distinguished alumnus of EEE, NMAMIT, delivered a session on "VLSI Implementation of Arithmetic Circuits" at the Shambhavi Seminar Hall. The seminar catered to sixth-semester students, offering them insights into advanced circuit design techniques.

The session commenced with Ms. Amoolya, a sixth-semester EEE student, extending a cordial welcome to the guest speaker. Mr. Prasiddh Korian, also a sixth-semester student, provided an overview of the speaker's professional background and contributions to the field.

Dr. Kiran Kumar VG introduced the audience to VLSI technology and its role in arithmetic circuit design. He elaborated on key aspects of integrated circuits, emphasizing their efficiency, scalability, and relevance in modern computing. His discussion covered cryptographic applications of VLSI, the design of 28T CMOS adders, and block-level architecture. Furthermore, he explained various circuit methodologies, including Brent-Kung and Ladner-Fischer adders, culminating with insights into Reversible Logic Adder design.

Following the presentation, an engaging Q&A session allowed students to interact with the speaker, gaining clarity on complex circuit implementations and emerging trends in VLSI research.

The event concluded with a vote of thanks by Dr. Suryanarayana K, Professor and Head of EEE, who acknowledged the speaker's expertise and the department's efforts in facilitating such knowledge-driven initiatives.

In summary, the seminar proved to be highly informative, broadening students' understanding of VLSI applications in arithmetic processing and its significance in modern electronics and computing.



Seminar Week – Day 04: Eat Smart, Live Smart: Healthy Eating Habits for Life

16 February 2025

The Department of Electrical and Electronics Engineering (EEE) in association with the association of electrical and electronics engineering students – Elites, conducted a seminar week between 10-15 February 2025. On the day four, there was a seminar on "Eat Smart, Live Smart: Healthy Eating Habits for Life" by Ms. Rachitha, Assistant Professor, Manipal College of Health Professions, MAHE, Manipal for second-year students at Shambhavi seminar hall. The session began with a warm welcome by Mr. Anish, fourth semester student, EEE, NMAMIT and Miss. Vaishnavi, fourth semester student introducing the speaker to the gathering.

Ms. Rachitha emphasized the significance of a balanced diet and its necessity for everyone. To illustrate this, she used a food pyramid chart—first explaining its structure and then delving deeper into its details. She highlighted the recommended intake of carbohydrates, proteins, fats, other vital vitamins and minerals for a healthy body. Additionally, she strongly advised limiting junk food consumption, as it is a major cause of obesity and various health problems. She also briefed the importance of water intake, recommending that at least 2-3 liters be consumed daily for proper hydration and overall health. She concluded the session by stressing that, alongside a balanced diet, regular exercise is crucial for overall well-being.

At the end there was a question-and-answer session, where students got engaged with Ms. Rachitha. Dr. Suryanarayana K Professor and Head, EEE then gave her a token of appreciation and Mr. Adithya, fourth semester student EEE rendered the vote of thanks. Overall, the seminar was a huge success, offering insightful knowledge on healthy habit for leading a happy and healthy life.



.Seminar Week – Day 05: Electric Vehicle Components and Trends in Traction Inverter Design

16 February 2025

The Department of Electrical and Electronics Engineering (EEE), in collaboration with Elites, the association of electrical and electronics engineering students, organized a seminar week from 10-15 February 2025. On the fifth day, a seminar on “Electric Vehicle Components and Trends in Traction Inverter Design” was delivered by Mr. Vishwas K, Principal Engineer – Applications, On Semiconductor Technology India Pvt. Ltd., and an esteemed alumnus of EEE. The session was conducted at the Netravati Seminar Hall for sixth-semester students.

The event commenced with a cordial welcome extended by Miss Prithvi V M, followed by an introduction of the speaker by Miss Navami, both sixth-semester EEE students. Mr. Vishwas began his presentation by providing a technical overview of electric vehicle components and the latest advancements in traction inverter design. He elaborated on the role of various EV components, traction motor design, and shared insights from his professional journey. The session also covered key research aspects, such as traction motor operations in different regions, performance enhancements in inverters, and pulse-width modulation techniques. Additionally, he highlighted the significance of gate drivers in traction motors and their impact on efficiency.

The seminar concluded with an engaging question-and-answer session, where students actively interacted with the speaker. Dr. Suryanarayana K, Professor and Head, EEE, presented a token of appreciation to Mr. Vishwas and delivered the vote of thanks. The event was highly informative and impactful, equipping students with valuable insights into electric vehicle technologies and industry trends.



Volume 04 Issue 07 February 2025 News Letter

Visit of the Executives of GTTC, Bengaluru to NMAMIT and Nitte DU

27 February 2025

Mr. Ashok Wallikar, Zonal-In-Charge and Dr. Narendra Kumar, Technical Advisor, GTTC Bengaluru visited NMAM Institute of Technology, Nitte on 14-15 February 2025 to discuss and explore the possibility of collaboration. Here are the key highlights of the day wise visit:

Day 1: 14 February 2025**Agenda:**

1. Introduction and discussion on student and faculty exchange programs for training and internships.
2. Exploration of NMAMIT's facilities, especially the EV Lab, to align with GTTC's focus areas.
3. Discussion on GTTC's support for upskilling NMAMIT students and utilizing GTTC's COE facilities.

Key Highlights:**1. Introduction and Collaboration Discussion:**

- The GTTC team expressed interest in collaborating with NMAMIT for student and faculty exchange programs for training and internships.
- They highlighted GTTC's excellent facilities for Centers of Excellence (COE) and their focus on establishing an EV Lab.

2. Support for Upskilling Students:

- GTTC offered to support NMAMIT in upskilling students by providing access to their COE facilities and expertise.
- They proposed joint faculty development programs to improve teaching methodologies and enhance industrial exposure for both the faculty members and students.

3. Department and Lab Visits:

- The GTTC team was introduced to Dr. Suryanarayana K, Professor and Head, Department of Electrical and Electronics Engineering (EEE), NMAMIT, Nitte. They discussed the possibilities for collaboration.

Volume 04 Issue 07 February 2025 News Letter

- The executives were taken on a tour of the laboratories of NMAMIT with a special focus on the EV Lab, which aligns with GTTC's objectives.

Conclusion:

The first day focused on introducing GTTC to NMAMIT's facilities and discussing potential collaborations for student and faculty exchange programs. GTTC also extended their support for upskilling NMAMIT students and utilizing their COE facilities. The GTTC team showed keen interest in NMAMIT's EV Lab and other infrastructure.

Day 2: 15-02-2025

Agenda:

1. Meeting with NMAMIT's Director and university officials to discuss collaboration opportunities.
2. Exploration of joint proposals for VGST funding and organizing joint research conclaves.
3. Strengthening GTTC's positioning as a center of excellence in technical education and skill development.

Key Highlights:**1. Meeting with Director and Officials:**

- The GTTC team met the Director – Technical Education, Dean Research and Development and other Nitte DU officials to discuss collaboration opportunities.
- Discussions included joint proposals for VGST funding, organizing joint research conclaves and exploring future collaborations.

2. Focus on Research and Development:

- Both institutions discussed the potential for joint research initiatives and the establishment of a Research Grant Office.
- The GTTC team appreciated NMAMIT's research facilities and expressed interest in collaborating on high-impact research projects.

3. Strengthening GTTC's Positioning:

- GTTC emphasised their commitment to strengthening their positioning as a center of excellence in technical education and skill development.

Volume 04 Issue 07 February 2025 News Letter

- They proposed joint faculty development programs to improve teaching methodologies and enhance industrial exposure, benefiting both institutions.

4. Last Action Point:

- Both parties agreed to formalise the discussions into actionable collaboration plans.
- A follow-up meeting will be scheduled to draft the Memorandum of Understanding (MoU) and define the framework for student and faculty exchange programs, joint research initiatives and faculty development programs.

Conclusion:

The second day was dedicated to strategic discussions with NMAMIT's leadership, focusing on collaborative research opportunities, potential funding avenues, and long-term academic-industry partnerships. GTTC reaffirmed its commitment to supporting NMAMIT by facilitating skill enhancement programs for students and faculty, providing access to their Centre of Excellence (COE) facilities, and fostering industrial engagement. Both institutions reached a mutual understanding to actively collaborate on upcoming projects and proposals, ensuring a sustainable and impactful partnership.



Volume 04 Issue 07 February 2025 News Letter

Details of the Workshop / STTP/ Faculty Development Program attended by the faculty of E&E Engg in the month of February 2025

Sl. No.	Name	Dept	Title of the Programme	Place	Date
1.	Dr. Dinesh Shetty	EEE	Generative AI: Comprehensive Approach to Research Writing, Proposal Development and Funding	Sri Krishna College of Engineering and Technology, Tamil Nadu	27 January 2025 to 01 February 2025
2.	Dr. Nandini K K	EEE	The future of smart mobility: Integrating AI and IOT in Electric vehicle ecosystem	Sree Sakthi Engineering college	27 January 2025 to 01 February 2025
3.	Mr. Pradeep Kumar	EEE	FPGA Realization of Intelligent Controllers - An Industrial perspective	ATAL FDP- NMIT- Bangalore	10-15 February 2025
4.	Dr. Dhananjaya B	EEE	FPGA Realization of Intelligent Controllers - An Industrial perspective	ATAL FDP- NMIT- Bangalore	10-15 February 2025
5.	Mrs. Akshatha N M	EEE	FPGA Realization of Intelligent Controllers - An Industrial perspective	ATAL FDP- NMIT- Bangalore	10-15 February 2025
6.	Mrs. Swathi K	EEE	FPGA Realization of Intelligent Controllers - An Industrial perspective	ATAL FDP- NMIT- Bangalore	10-15 February 2025
7.	Mrs. Nutana Shetty	EEE	FPGA Realization of Intelligent Controllers - An Industrial perspective	ATAL FDP- NMIT- Bangalore	10-15 February 2025

Volume 04 Issue 07 February 2025 News Letter

Sl. No.	Name	Dept	Title of the Programme	Place	Date
8.	Mr. Mahabaleshwara Sharma K	EEE	Classroom Management Series: Sharpening Minds - Critical Thinking Strategies for Engaged Classrooms	Staff Development Centre, Nitte (DU)	17 February 2025
9.	Dr. Krishna Rao	EEE	Transforming Renewable Energy Systems for a Sustainable Future	Dayananda Sagar College of Engineering, Bengaluru	17- 21 February 2025
10.	Dr. Pramod Bhat Nempu	EEE	Understanding Adolescents for Effective Mentoring using a Holistic Approach	Staff Development Centre, Nitte (DU)	18 February 2025
11.	Dr. Nandini K K	EEE	Understanding Adolescents for Effective Mentoring using a Holistic Approach	Staff Development Centre, Nitte (DU)	18 February 2025
12.	Mr. Naveen J	EEE	Mastering Programming with Matlab	Coursera	19 February 2025