



# Thiagarajar

College of Engineering, Madurai - 15

Affiliated to Anna University

*Where quality and ethics matter*

# 68

YEARS

1957-2025

*Celebrating  
Academic Excellence*



# TCE - ALUMNI E - NEWSLETTER

**VOLUME 5- ISSUE 1**

**JAN - JUN 2025**

# Editor's Desk

Dear TCE Alumni,

Warm greetings from your alma mater!

This edition of the alumni newsletter will tell you about the numerous exciting events that have been influencing TCE's culture. From touching reunions to thought-provoking Alumni Speak events, the campus has been a hive of activity, tales, and intergenerational relationships.

We are delighted to announce the launch of the We Speak programme - an empowering initiative designed to support deserving students, made possible through the generous contribution of our esteemed alumnus, Mr. Ajayan Sahadevan.

Beyond alumni engagements, this edition also offers a glimpse into recent MoUs signed vibrant departmental celebrations, and several noteworthy campus developments, Alumni talks, Research activities— all captured in our very own TCE Times.

We also take pride in highlighting the remarkable achievements of our Management, faculty and students, who have received prestigious awards and recognitions at national and international platforms, reflecting TCE's continued commitment to academic excellence and innovation.

As you turn the pages, we hope you feel the pulse of the campus and the enduring bond that ties us all together as members of the ever-growing TCE family.

Happy reading and stay connected!



# Principal's Address



**Prof. Dr L.Ashok Kumar,  
Principal, TCE**

Dear Alumni,

Warm greetings from TCE!

Your alma mater takes immense pride in your outstanding achievements and the accolades you continue to earn on national and international platforms. Each award, recognition, and milestone you accomplish not only brings honor to you but also reflects the enduring values and excellence that TCE stands for.

From global leaders in technology and academia to innovators, entrepreneurs, and change makers across industries, our alumni have been setting benchmarks of brilliance.

Recent recognitions such as prestigious fellowships, leadership awards, and industry honors have once again highlighted the impact of TCEians across generations.

We are deeply grateful for your continued engagement through mentorship, philanthropy, and knowledge sharing, which enriches our students and strengthens our community. As we celebrate your success, we invite you to stay connected and continue to inspire future TCEians with your journey.

With pride and warm regards.

  
PRINCIPAL

# Excellence Across Generations

## A Tribute to Vision and Impact



Thiagarajar College of Engineering proudly celebrates a momentous recognition bestowed upon its guiding force —**Mr. K. Hari Thiagarajan, Chairman and Correspondent**, and Managing Director of Thiagarajar Mills, Madurai. On June 25, 2025, Mr. K. Hari Thiagarajan and his family were conferred the **Economic Times NOW Family Business Excellence Award 2025** at a distinguished ceremony held in Mumbai.

This prestigious award pays tribute to the multi-generational legacy of the Thiagarajar family and their enduring commitment to social upliftment through principled business practices and educational advancement. The family's visionary leadership, rooted in values and community impact, continues to shape both industry and academia, setting a benchmark for excellence across generations.



# Benchmarking Brilliance

## Meera Rajavel (CSE – 1992)



Ms. Meerah Rajavel (CSE-1992), a proud alumna of Thiagarajar College of Engineering, stands as a beacon of leadership in the technology world. Currently the CIO of Palo Alto Networks, her journey from a small town near Madurai to global recognition is truly inspiring. Ranked 8th on this year's Top 100 Women in Technology list, Meerah's influence extends across cybersecurity and IT. Her over 25 years of experience, including leadership roles at Citrix, McAfee, and Cisco, are marked by a deep commitment to innovation, customer service, and employee engagement. A true technologist at heart, she advocates for diversity and sustainability, driving transformative outcomes in the industry.

# Celebrating Excellence

## Prof. Dr Balaraman Ravindran (ECE – 1993)



**Prof. Dr Balaraman Ravindran  
(ECE-1993)**

Thiagarajar College of Engineering proudly celebrates the election of Professor Balaraman Ravindran (ECE-1993), Head of Data Science and Artificial Intelligence at IIT Madras, as a Fellow of the Association for the Advancement of Artificial Intelligence (AAAI) 2025.

This prestigious recognition honors Professor Ravindran's exemplary contributions to Artificial Intelligence foundations and real-world applications of AI, a field revolutionizing the world. An alumnus of TCE, Professor Ravindran continues to inspire the academic and research communities with his visionary work and global impact. His achievements reaffirm TCE's legacy of nurturing innovators who shape the future of science and technology.



# Upliftment in Action – “We Speak” Launch



This year's edition of WE SPEAK programme, a remarkable journey of empowerment and transformation marked a vibrant beginning on April 15, 2025 at KS Auditorium, TCE. Organized in collaboration with the TCE Alumni Association, sponsored by Nellissery Trust, and supported by Skill Power, Chennai, the event set the stage for a transformative journey toward empowering young communicators. With the auditorium buzzing with energy, WE SPEAK has officially set forth its mission to develop strong, confident communicators.



Mr. Ajayan Sahadevan (2022-Mech), Founder of Nellissery Trust, played a pivotal role by generously sponsoring the programme and delivering an inspiring keynote address that set the tone for the occasion. His words resonated deeply, inspiring students to embrace the power of self-expression and personal growth. Mr. K. Hari Thiagarajan, Chairman & Correspondent, shared his visionary thoughts on nurturing confident, articulate individuals ready to make their mark in society. Mr. Subbaraman Balasubramanyan, Chairman, CII Madurai & BU Head, HCL, delivered an inspiring address that emphasized the importance of effective communication in shaping future leaders.

# Wisdom Across Generations: Alumni Mentorship Highlights



The third session of the Alumni Mentorship Program Series (AMPS) was organized on January 22, 2025, featuring a thought-provoking talk by Dr. J. Nagesh Kumar, Director of the Centre for Energy Environment and Productivity, Chennai, on "Energy Efficiency: How Organizations Apply Engineering Fundamentals to Boost Profits".

## **Dr. J. Nagesh Kumar (Mech-1984)**

Er. N. Balamurugan, B.E., M.Tech., retired Chief Engineer from the Highways Department and distinguished 1984 alumnus, offered insights into the leadership journey within public infrastructure development in his session titled "Roadmap to Leadership: An Alumnus's Perspective on Highways Engineering", on February 19, 2025.



## **Er N.Balamurugan (Civil-1984)**

Smt. Jeyanthi Rajesh, former Group Director of the Systems Integration Group at UR Rao Satellite Centre, ISRO, Bangalore shared her rich insights drawn from her illustrious career ISRO in her session on "Spacecraft Building and Current Trends in Space Technology", on March 17, 2025.



## **Smt. Jayanthi Rajesh (1984-ECE)**

Mr. K. Parthipan, M.E., Consultant at Royal Enfield Electric Vehicle (EV) and a proud member of TCE's 1984 alumni cohort, delivered a compelling session on March 19, 2025, titled "Embedded Systems in Electric Vehicles: Innovations, Challenges, and Career Opportunities".



## **Mr K. Parthipan (EEE-1984) 8**



# Walking back in Memory Lane!



**1965 Batch Diamond Jubilee Celebration**



**40 years reunion of 1981-1984  
batch ASc**



**1972 Batch Alumni Get together at  
Green Meadows/ Palavakkam  
Chennai in Feb, 2025**



**TCE alumni 1975-80 batch Reunion  
(RU45) at Yercaud.**



**TCE alumni in the UAE came  
together for a vibrant Dubai Meet  
and Greet**

# First National Research Conclave – 2025 @ TCE



**Glimpse of First National Research Conclave - 2025**



**Organizing Team of First National Research Conclave – 2025**



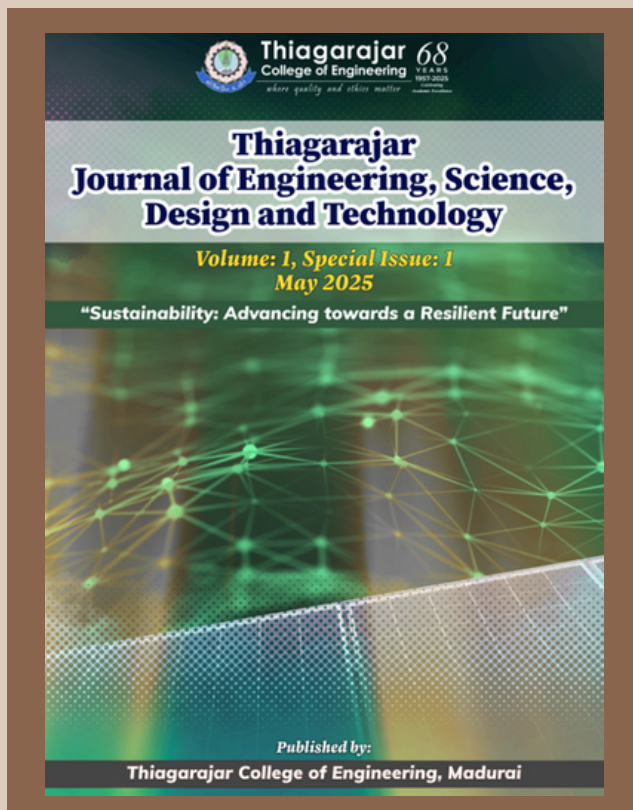
Thiagarajar College of Engineering (TCE), Madurai, proudly marked a significant milestone by hosting the First National Research Conclave on May 16–17, 2025, under the sponsorship of the Anusandhan National Research Foundation. Themed “Sustainability: Advancing Towards a Resilient Future,” the conclave served as a dynamic platform for academic excellence and interdisciplinary innovation.

### Highlights at a Glance

The event saw an enthusiastic response with,

- 209 paper submissions evaluated by 131 expert reviewers
- 21 presentation sessions showcasing cutting-edge research in sustainability and emerging technologies
- 11 keynote sessions featuring renowned speakers from leading organizations like Amazon, KPMG, BOSCH, ELGi, and others
- A total of ₹42,000/- in cash prizes awarded to outstanding contributions

## Publication Milestones



**The conclave's impact extended into key academic publishing avenues:**

- Springer Book Series featured 41 papers (26 internal, 15 external)
- Thiagarajar Journal of Engineering, Science, Design and Technology (TJESDT) published 14 papers (12 internal, 2 external), with Volume 1, Special Issue 1 officially launched
- Conclave Proceedings (TCE Publications): 84 papers (76 internal, 8 external)
- ICT Academy Journals (Extended Versions): 25 papers (20 internal, 5 external)
- This brings the total publication footprint to an impressive 139 papers (114 internal, 25 external), underscoring the conclave's scholarly momentum.

# Graduation Day – 2024 Batch



**Dr A. Seshadri Sekhar, Director of IIT Palakkad, presenting Degree Certificates to graduates**

Thiagarajar College of Engineering (TCE), Madurai, celebrated its Graduation Day for the Batch of 2024 with a grand ceremony attended by students, faculty, and dignitaries. A total of 1,081 graduates — 944 undergraduates and 137 postgraduates — received their degree certificates.

Dr. A. Seshadri Sekhar, Director of IIT Palakkad, Kerala, delivered the graduation address as the chief guest. He urged students to strengthen their domain knowledge and stay passionate in their chosen fields. "If Saraswati is strong, Lakshmi will follow," he said, emphasizing the importance of fundamental expertise, soft skills, teamwork, and perseverance. He encouraged graduates to stay positive, remember the sacrifices of their parents and teachers, and contribute meaningfully to the nation's growth under the 'Viksit Bharat 2047' mission.

The event was presided over by Dr. L. Ashok Kumar, Principal of TCE, in the august presence of Dr. Uma Kannan, Governing Council Member, along with deans and faculty members.



# 67<sup>th</sup> College Day



**Dignitaries from Left to Right: Dr S. Rajaram, Registrar, TCE, Dr L. Ashok Kumar, Principal, TCE. Dr Mylsamy Annadurai, Distinguished Space Scientist, Mr. K. Hari Thiagarajan, Chairman & Correspondent, TCE, Dr SJ. Thiruvengadam Professor, ECE.**

Thiagarajar College of Engineering (TCE), Madurai, celebrated its 67th College Day on April 3, 2025 with distinguished space scientist and former ISRO Satellite Centre Director Dr. Mylsamy Annadurai as the chief guest. In his keynote address, Dr. Annadurai inspired students by highlighting the values of perseverance, dedication, and self-discipline. He quoted Bharathiar's "Nirpathuve Nadapathuve" for self-awakening, cited Sachin Tendulkar's discipline-driven success, and praised India's Mars Mission as a milestone achieved through persistence. Four final-year students — Mr. P. Surya Prakash, Ms. M. Mahalakshmi, Ms. S. Ishvarya, and Mr. V. P. Srethan — were honoured with gold medals for their excellence in academics and extracurriculars. Dr. Annadurai also presented medals to the best outgoing students from each department. Chairman and Correspondent Mr. K. Hari Thiagarajan felicitated retiring staff members. Principal Dr. L. Ashok Kumar presented the annual report.

# Bridges of Belonging

## Alumni Engagements That Inspire

TCE continues to enrich student learning through impactful alumni interactions that bridge experience with ambition. From industry insights to career mentoring, alumni across domains offer firsthand perspectives that complement classroom knowledge. These sessions foster a dynamic exchange — inspiring innovation, clarifying career paths, and instilling professional values.

**Mr. Solai Alagappan (CSE - 1992),  
Vice President, CX Cloud Product  
Development, Oracle, San Francisco Bay Area**



**Praveenkumar Vasudevan (ECE - 2009),  
VP of Products at Rapyuta Robotics Tokyo**



**Dr. N. P. Padhy (M.E Powersystems - 1992),  
Chairperson, Board of Governors &  
Director, Malaviya National Institute of  
Technology, Jaipur**



**Dr. Deepa Muralidhar, (CSE - 1991) Faculty  
member at Georgia State University, USA**



# TCE Times – Chronicle of Milestones and Mastery

## THE World University Rankings 2025.



In recognition of its academic depth and engineering leadership, TCE has been ranked in the 1501+ band overall, with its Engineering discipline specifically placed in the 1251+ band, reflecting steady progress in technical education and research.

In the THE Impact Rankings 2025, which evaluate institutions based on their contributions to the UN Sustainable Development Goals (SDGs), TCE has made significant strides across key areas:

- SDG 5: Gender Equality – Ranked in the 1001–1500 band
- SDG 7: Affordable & Clean Energy – A standout achievement in the 301–400 band
- SDG 9: Industry, Innovation & Infrastructure – Recognized in the 401–600 band
- SDG 10: Reduced Inequalities – Placed within the 1001+ band

## Selection under AICTE IDEA Lab Scheme



Thiagarajar College of Engineering (TCE) has marked a pivotal achievement with its provisional selection under the AICTE IDEA Lab Scheme for 2024–25. The IDEA Lab initiative, designed to spur creativity and hands-on innovation across educational institutions, will now empower TCE with ₹1.1 Crore in funding to develop cutting-edge projects.

Spearheaded by Chief Mentor Dr. L. Ashok Kumar, Principal of TCE, and supported by Faculty Coordinators Dr. S. Karthiga (CSBS) and Dr. K. Hariharan (ECE), the lab promises to be a dynamic hub for interdisciplinary experimentation.



# TCE Times – Chronicle of Milestones and Mastery

## Academic Excellence Awards



**Faculty of TCE Dr C. Jeyamala, Dr D. Anitha, Dr A.M. Abirami receiving Academic Excellence Awards from IUCEE**

A powerful display of academic excellence was witnessed at the 12th International Conference on Transformations in Engineering Education (ICTIEE 2025), where seven research papers authored by faculty and students from Thiagarajar College of Engineering were chosen for publication in the renowned Journal of Engineering Education Transformations (JEET). With only 86 papers selected from a competitive pool of 369 submissions nationwide, this distinction places TCE among the leading contributors to pedagogical innovation in technical education.

Demonstrating leadership in curriculum innovation, TCE secured the Best Paper Award in the Curriculum Development track, reflecting its dedication to advancing engineering education. The institution was also recognized among the Top 10 Teaching-Learning Centers by IUCEE for its impactful contributions in 2023–2024. Further accolades included the prestigious Ing.Paed.IGIP titles conferred upon TCE faculty, celebrating excellence in global engineering pedagogy. Rounding out the honors, seven faculty members were awarded IUCEE Honorary Memberships for their outstanding contributions to transformative teaching practices.

# TCE Times – Chronicle of Milestones and Mastery

## ISRO Network Institute and Nodal Centre for Space Science and Technology



Thiagarajar College of Engineering (TCE) has achieved a significant milestone by being recognized as an ISRO Network Institute and Nodal Centre for Space Science and Technology. This honor places TCE among a select group of institutions contributing to India's expanding space research and educational outreach. The initiative has positively impacted the academic landscape, enabling 498 students to engage with space science modules and fostering deep scientific curiosity. Out of these, an impressive 250 students have received official course certifications from ISRO, validating the program's reach and rigor. Dr R.A. Alaguraja (1997-ECE), Professor of ECE coordinated the event.

## Launch of IEEE Computational Intelligence Society (CIS) Student Chapter



IEEE Computational Intelligence Society (CIS) Student Chapter was successfully launched at TCE. This newly established chapter @ieeecistce aims to empower students with opportunities in the dynamic field of computational intelligence. It will serve as a hub for innovative research, technical skill development, and active academic engagement. The chapter will host workshops, seminars, and collaborative events to foster learning and professional networking. As an official part of IEEE, the initiative reinforces the institution's commitment to driving technological advancement and student excellence.

# Empowering Innovation



**Dr R. Leenasri**  
**Associate Professor, CSE**

Dr. R. Leena Sri, Associate Professor from the Department of Computer Science and Engineering (CSE), who has co-authored the influential paper “Resource Provisioning in Fog Computing: A Survey.” The paper has been published in the esteemed ACM Computing Journal, recognized globally for its rigorous editorial standards and groundbreaking contributions to computing research.

The journal's 2025–26 Impact Factor stands at an extraordinary 23.8, earning it the #1 ranking out of 143 journals in the category Computer Science – Theory & Methods.



**Dr S.T Padmapriya**  
**Assistant Professor, AMCS**

In a significant achievement under the Anusandhan National Research Foundation (ANRF), Govt. of India, Dr. S.T. Padma Priya, Assistant Professor from the Department of AMCS, has been awarded the prestigious PM Early Career Research Grant for her cutting-edge initiative titled NEUROVISION: Intelligent Imaging Solutions for Accurate Brain Tumor Detection & Neurological Diagnostics. The project aims to advance the frontiers of neurodiagnostics through sophisticated AI-driven imaging technologies, offering hope for more accurate and early detection of brain tumors. With a funding of ₹26 Lakhs and support for one Junior Research Fellowship (JRF) over a duration of three years, the endeavor holds promise for high-impact outcomes in medical imaging and computational neuroscience.



**Dr B. Sathya Bama (2003- M.E**  
**Communication Systems)**  
**Professor, ECE**



**Dr S. Mohammed Mansoor Roomi**  
**(1992- M.E Power Systems)**  
**Professor, ECE**



**Dr S. Karthikeyan**  
**(M.E Industrial Engg. -2001),**  
**Professor, Mech**

The Department of Science & Technology (DST), Government of India, under its prestigious SHRI Program, has approved a transformative research initiative led by Thiagarajar College of Engineering (TCE), Madurai. The two-year project titled “Archival, Classification of Madurai's Chithirai Festival Attire, Rich Dances, and Rituals using Deep Learnt Features and Labanotation Generation for their Preservation” aims to digitally document and conserve the vibrant cultural practices of Tamil Nadu's iconic Chithirai festival.

With a total funding of ₹33.55 Lakhs, the project stands at the intersection of artificial intelligence and cultural studies. It is spearheaded by Dr. B. Sathya Bama, Professor in the Department of ECE, with co-investigators Dr. S. Mohamed Mansoor Roomi (ECE), Dr. S. Karthikeyan (Mechanical), and Dr. Leema Rose (Kalai Kaviri College of Fine Arts, Trichy).



# Showering Laurels



**Prof V. Muthu, Recipient of Lifetime Achievement Award**

TCE family proudly celebrates our esteemed Prof. V. Muthu, former head of the Department of Civil Engineering and Department of Architecture, receives the prestigious Lifetime Achievement Award from the Indian Concrete Institute and Ultratech Cement for his outstanding contributions to Structural Engineering. Dr. Arunachalam, Retd. Professor & Head, Civil Engineering graced the event.



**Dr S. Nagan (1990–Civil),  
Professor of Civil Engineering**

Dr. S. Nagan, Professor, Dept. Of Civil Engineering, TCE, received the ICI-Ultratech Award 2024 as an Outstanding Doctoral Thesis Guide. The award recognizes his guidance on the groundbreaking research of Dr. M. Indhumathi Anbarasan on Geopolymer mortar and concrete



**Ar. Raghu,  
Assistant Professor, T'SEDA**

In a proud moment for sustainable design, Ar. Raghu S, Assistant Professor and Sustainability Consultant at T'SEDA, has been honored with the Green Consultant – Best Built House award at the ICI UltraTech Awards 2024. The recognition celebrates the eco-conscious marvel Linbrick House, located in South Chennai and designed by @webedesignlab, showcasing a perfect blend of environmental responsibility and architectural elegance.

# Memorandum of Understanding (MOU)



**MOU with Global Knowledge Technologies, Bangalore**

Thiagarajar College of Engineering (TCE), Madurai, has signed an MoU with Global Knowledge Technologies, Bangalore, on 07.01.2025. This collaboration aims to empower our alumni with cutting-edge technology advancements and provide hands-on experience in the latest trends.



**MOU with Smart Cliff Learning Solutions**

Thiagarajar College of Engineering (TCE) signed a Memorandum of Understanding (MoU) with Siruthuli, in collaboration with SmartCliff Learning Solutions, on December 4, 2024. This initiative aims to empower M.E. Computer Science and Engineering students by providing industry-focused training, hands-on experience, and essential technological skills to prepare them for the future.



**MOU with ICT Academy for establishment of COE in Electronic System Design and Manufacturing**

Thiagarajar College of Engineering (TCE) has signed a Memorandum of Understanding (MoU) with ICT Academy to establish a MeitY-sponsored Centre of Excellence in Electronics System Design and Manufacturing (ESDM). This significant initiative, supported by the Ministry of Electronics and Information Technology (MeitY), was launched during the Uimage TN event held on January 9, 2025, at the Chennai Trade Centre. The occasion was graced by distinguished dignitaries, including Dr. Palanivel Thiagarajan, Honorable Minister for IT & Digital Services, Tamil Nadu; Mr. Neeraj Mittal IAS, Secretary, Department of Telecommunications, Government of India; and Mr. Kumar Jayant IAS, Additional Chief Secretary, ITDS, Tamil Nadu.

**TCE Signs MoU with NPTEL Swayam Plus at IIT Madras**



### **MOU with IIT Madras – Swayam Plus Initiative**

Thiagarajar College of Engineering (TCE) has signed a Memorandum of Understanding (MoU) with IIT Madras as part of the SWAYAM PLUS initiative, in collaboration with the Ministry of Education. Through this partnership, TCE will offer industry-aligned online courses aimed at enhancing students' employability by providing job-relevant content and valuable internship opportunities.

**Signed - TCE & Hygge Mobility Collaborate for Industry-Academia Growth**



### **MOU with Hygge Mobility, Bengaluru**

Thiagarajar College of Engineering (TCE) is excited to announce the signing of a Memorandum of Understanding (MoU) with Hygge Mobility Pvt Ltd, Bengaluru, on February 27, 2025. This collaboration aims to strengthen institute-industry interaction by promoting research, innovation, and enhanced industry exposure for both students and faculty.

**Signed - TCE & IITM Pune Collaborate for Advanced Meteorological Research**



### **MOU with Indian Institute of Tropical Meteorology**

Thiagarajar College of Engineering (TCE), Madurai, has signed a Memorandum of Understanding (MoU) with the Indian Institute of Tropical Meteorology (IITM), Pune, under the Ministry of Earth Sciences, Government of India, on March 3, 2025. This partnership aims to foster scientific collaboration for advanced research in meteorology, focusing on lightning, thunderstorms, and related atmospheric phenomena.

**MoU Signed - TCE & AIIMS Raipur: Advancing Healthcare through AI & ML**



### **MOU with AIIMS, Raipur**

Thiagarajar College of Engineering (TCE), Madurai, signed an MoU with AIIMS Raipur on April 21, 2025, to foster interdisciplinary healthcare innovation. The partnership will utilize AI, ML, and biosensor technologies to manage NCDs, enhance pharmacovigilance, and develop personalized AI-driven rehabilitation solutions.





### **MOU with the Government of Democratic Republic of Congo**

Thiagarajar College of Engineering (TCE), Madurai, has proudly signed a Memorandum of Understanding (MoU) with the Ministry of Environment and Sustainable Development, Government of the Democratic Republic of Congo, to introduce Plastic Road Technology. The MoU was signed on March 13, 2025, in Kinshasa, with the support of TCE Chairman Mr. K. Hari Thiagarajan and Principal Dr. L. Ashok Kumar. Representing TCE were Dr. G. Balaji and Dr. A. Ramalinga Chandra Sekar, while Ms. Maitre Eve BazaibaMasudi, Minister of Environment and Sustainable Development, represented the Congolese government.

Padmashree Dr. R. Vasudevan, the inventor of Plastic Road Technology, highlighted the transformative potential of converting plastic waste into durable, eco-friendly roads, contributing to sustainability and infrastructure development. The college acknowledges and appreciates the dedicated efforts of Padmashree Dr. R. Vasudevan, Dr. A. Ramalinga Chandra Sekar, and Dr. B. Sundarakannan for their instrumental roles in making this international collaboration a reality.



### **MOU with Young Indians, Madurai Chapter**

Thiagarajar College of Engineering (TCE) renewed its Memorandum of Understanding (MoU) with Young Indians (Yi), Madurai Chapter, on 25th March 2025. This continued partnership aims to empower students through leadership development, community engagement, and impactful initiatives.



**MOU with Padavan Engineering, a subsidiary of Sherpa Engineering**

Thiagarajar College of Engineering (TCE) signed a Memorandum of Understanding (MoU) with PADAVAN ENGINEERING INDIA, a subsidiary of Sherpa Engineering, France, on April 29, 2025. This strategic partnership aims to enhance student employability in the Model-Based Design (MBD) domain through expert training, industry-relevant projects, and career opportunities.



**MOU with Midas R&D Centre**

The Department of Civil Engineering at Thiagarajar College of Engineering (TCE) has established a Centre of Excellence for Civil Infrastructure and signed a Memorandum of Understanding (MoU) with MIDAS R&D Centre, India Pvt. Ltd., on March 21, 2025. Key experts from MIDAS and TechApps included Mr. Hashmat (Techno Commercial Engineer, MIDAS), Mr. Kamal Nayan (Technical Engineer – Civil, MIDAS), and Mr. S. Rajesh Kumar (Director, Technical Sales, Tech Apps). TCE was represented by Dr. L. Ashok Kumar (Principal), Dr. S. ArulMary (Head of Civil Engineering), Dr. G. Chitra, Dr. G. AngelinLincy, and Mr. B. Dinesh Kumar.



**MOU with Marlion Technologies, Madurai**

Thiagarajar College of Engineering (TCE), Madurai, signed a Memorandum of Understanding (MoU) with Marlion Technologies Pvt Ltd, Madurai, on May 16, 2025. This collaboration aims to advance cutting-edge research in Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR), shaping the future of immersive technology.



**NDA with Marlion Technologies, Madurai**

Thiagarajar College of Engineering (TCE), Madurai, signed a Non-Disclosure Agreement (NDA) with Balanetra Technologies, Madurai, on May 8, 2025. This agreement lays the groundwork for confidential collaboration in areas of mutual interest, fostering innovation through secure and trusted knowledge exchange.

# PATENTS GRANTED

## 1. Compact Space Filling Curve-Based RF MEMS Phase Shifters for 5G Applications



**Dr. S. Md. Mansooroomi**(1992-ME power  
Systems)  
Professor and Dean (Infrastructure),ECE



**Dr. S. Padmavathi**  
(1999- EEE)  
Professor,IT



**Dr. S. Kanthamani** (1998-M.E  
Communication Systems)  
Professor,ECE

The newly developed RF MEMS phase shifter introduces a compact and efficient design leveraging H-order space-filling curves, marking a significant advancement in 5G component engineering. By integrating MEMS membranes with optimized coplanar waveguide (CPW) configurations, the design achieves a full 360° phase shift while maintaining exceptionally low RF loss. This innovation minimizes die area, offering a high-performance solution.

## 2. COIN SORTER AND COUNTER



**Dr. L. Ashok Kumar**  
Principal



**Dr. P. S. Manoharan**  
Professor



**Dr. B. Ashok Kumar**  
Associate Professor,EEE

Engineered to streamline the process of coin handling, this invention offers a highly accurate and efficient solution for detecting, classifying, and sorting coins. What sets it apart is its ability to deliver real-time data and generate printed reports, making it an ideal tool for financial institutions, retail environments, and automated kiosks seeking precision and operational ease in currency processing.

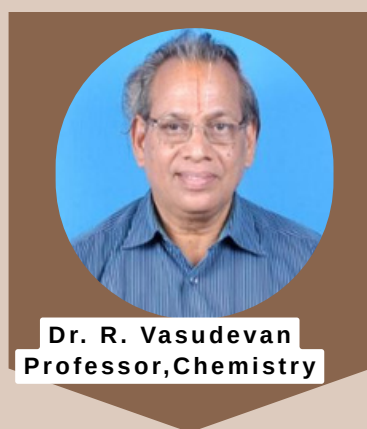


### 3. SYSTEM AND METHOD FOR AUTOMATIC MOTOR WINDING RESISTANCE TESTING



A groundbreaking innovation in the field of industrial motor diagnostics: an automatic system designed to measure stator winding resistance in three-phase induction motors during start-up. Utilizing a programmable logic controller (PLC), this invention ensures precise and reliable testing, addressing a critical need in industrial environments where motor performance and safety are paramount.

### 4. ECO HEAT COOKER



A revolutionary advancement in sustainable kitchen technology has emerged with the introduction of an innovative cooker design that boosts efficiency by an impressive 35%. This breakthrough not only sets a new standard for energy-conscious cooking but also achieves a 25% reduction in fuel consumption. The result is a substantial decrease in carbon dioxide emissions, positioning the cooker as a key contributor to environmentally responsible living.

### 5. Paver Block-Design Patent



A newly introduced Paver Block design is setting a fresh precedent in infrastructure innovation by combining structural efficiency with visual appeal. Engineered with an advanced pattern that optimizes load distribution, this design is particularly suited for urban and industrial paving applications. Its emphasis on durability and simplified installation not only streamlines construction processes but also supports sustainable development goals, making it a valuable asset in modern infrastructure planning.

## 6.Spice Guide – A Voice Assisted Spice Identifier for the Visually Impaired



**Dr. D. Gracia Nirmala Rani**  
Professor, ECE



**Dr. S. Rajaram**  
Professor, ECE

The Spice Guide is a voice-assisted innovation designed to empower visually impaired individuals by simplifying the identification of spices during cooking. This intuitive system uses auditory cues to recognize and announce spice names, enabling users to navigate culinary tasks with confidence and independence. By bridging accessibility gaps in the kitchen, the Spice Guide not only enhances safety and convenience but also promotes inclusive design in everyday technology.

## 7.Hydraulic ladder lift



**Dr. L. Ashok Kumar**  
Principal



**Dr. P. S. Manoharan**  
Professor



**Dr. B. Ashok Kumar**  
Associate Professor, EEE

The Hydraulic Ladder Lift represents a significant leap forward in workplace safety and operational efficiency. Designed to automate ladder movement through a robust hydraulic system, this innovation minimizes manual handling and substantially reduces the risk of injury in construction and maintenance environments. By streamlining access and positioning tasks, it not only safeguards workers but also enhances overall productivity, making it an indispensable tool for modern industrial operations.

# NEWS LETTER



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