



I.E.I NEWS

December 2025

Emerging Challenges of Sustainable Technical Textiles

3

Towards Sustainable Cities – Strategies and Technologies

4

The Role of Metallurgy in Renewable Energy Technologies

5

Carbon Capture and Storage (CCS) For Climate Change.....

10

Reports of World Habitat Day 2025

11

Reports of World Standards Day 2025

13

Reports of Engineers' Day 2025

16

A CENTURY OF SERVICE TO THE NATION

Volume 32

Number 9

IEI Participation at CAFE0-43 and 17th FEIAP Executive Board Meeting, 28-30 October, Pampanga, Philippines

The 43rd Conference of the ASEAN Federation of Engineering Organizations (CAFE0-43) was successfully held from 28–30 October 2025 at the SMX Convention Center, Clark, Pampanga, Philippines, on the theme “ASEAN Engineers: Beacons of Prosperity, Inclusivity, Equity, Resilience, and Sustainability.” The conference was hosted by the Philippine Technological Council (PTC) — the umbrella organisation representing engineering professionals in the Philippines — underscoring its longstanding role in advancing engineering excellence and regional cooperation.

CAFE0-43 served as a pivotal platform for ASEAN engineers to engage in high-level dialogue, exchange best practices and explore solutions to shared challenges in infrastructure development, sustainability, and technological advancement. The programme comprised keynote speeches, technical presentations, open forums, country reports, thematic sessions and industry exhibits, facilitating cross-border learning and collaboration across the region.

The conference’s agenda was structured around four strategic thematic areas:

- Education and Capacity Building – Strengthening engineering education and professional competencies across ASEAN.
- Water and Sanitation – Addressing critical water security, sanitation and resilient systems.

Green Energy and Net Zero – Promoting innovations and pathways toward decarbonised, climate-resilient futures.

- Sustainable and Intelligent Cities – Advancing smart, inclusive and environmentally responsible urban frameworks.

These thematic tracks featured distinguished keynote



Contd. on page 2

Fortieth National Convention of Electrical Engineers and National Seminar

Influence of AI on Modern Trends in Electricity Generation, Transmission, Distribution and Utilization

The 40th National Convention of Electrical Engineers was organized by Kerala State Centre, IEI during 15-16 October 2025 at Thiruvananthapuram under the aegis of Electrical Engineering Division Board, [ELDB], IEI. A National Seminar was organized concurrently on the theme **Influence of AI on Modern Trends in Electricity Generation, Transmission, Distribution and Utilization**. Shri K Krishnankutty, Hon'ble Minister of Power, Government of Kerala graced the inaugural function as the Chief Guest. Dr Tessy Thomas, Vice Chancellor, Noorul Islam Centre for Higher Education, Kumarakovil, Kanyakumari District, Tamil Nadu graced the occasion as the Guest of Honour. Er Anand Wamanrao Jawanjel, Chairman, Electrical Engineering Division Board, IEI [Session 2024-25] presided over the inaugural session. The program started with invocation and lightning of the lamp. Er P Balakrishnan Nair, Chairman, Kerala State Centre [Session 2023-25] delivered the welcome address. Er Shaji Jacob, Committee Member, Electrical Engineering Division, KSC, IEI briefed about the theme. On the occasion, Dr Tessy Thomas, Er M R Narayanan, Managing Director, Floatels India Private Limited and Chairman, Adtech Systems Limited, Kerala; Er A Nowshath, Chief Engineer [Electrical], O/o Chief Engineer, MTPS II, Mettur Dam, Tamil Nadu; and Prof (Dr) Sharad Wasudeorao Mohod, Former Professor & Head of Electronics Engineering, Prof Ram Meghe



Institute of Technology & Research [PRMIT&R], Amaravati, Maharashtra, were felicitated as Eminent Engineering Personalities in recognition of their eminence and contribution to the profession of Electrical Engineering. The IEI Young Engineers Award in Electrical Engineering Division for the year 2025 were presented to Dr [Ms] Ravita Lamba, Assistant Professor, Department of Hydro and Renewable Energy, Indian Institute of Technology Roorkee; Dr [Ms] S Hemavathi, Senior Scientist, CSIR-Central Electrochemical Research Institute, Taramani, Chennai and Mr P Sivaraman, Power Plant

Contd. on page 2

IEI Participation at CAFE0-43 and 17th FEIAP Executive Board Meeting, 28-30 October, Pampanga, Philippines

Contd. from page 1

addresses and technical sessions by experts and practitioners from across ASEAN, focusing on emerging technologies, resilient infrastructure, and sustainable development goals. Sessions offered insights into AI and robotics in engineering education, resilient water solutions, smart city infrastructure, and regional pathways toward net zero emissions — reflecting the diverse priorities and innovations shaping ASEAN's engineering landscape.

The Institution of Engineers (India) was represented at CAFE0-43 by Er. V. B. Singh, President, IEI (Session 2024–25) and Member, Executive Board of the Federation of Engineering Institutions of Asia and the Pacific (FEIAP).

Mr. V. B. Singh, President, IEI attended the Executive Committee Meeting of the Federation of Engineering Institutions of Asia & the Pacific (FEIAP) as Head of the Indian Delegation at Pampanga (Philippines), held concurrently with the Conference of the ASEAN Federation of Engineering Organizations during October 28–30, 2025. During the meeting, he held fruitful discussions on mutual cooperation and exchange of technical knowledge with representatives of various member economies, including Dr. Federico Monsada, President of the Philippines Technological Council.

The 17th FEIAP Executive Board (ExCo) Meeting, held on 30 October 2025, deliberated on important matters relating to FEIAP governance,



membership expansion, engineering personnel mobility, engineering education frameworks, sustainability initiatives, and planning of future FEIAP conventions and meetings. Participation in the ExCo Meeting further reinforced IEI's active engagement in regional and international engineering forums and its commitment to strengthening professional collaboration across the Asia-Pacific region.

CAFE0-43 also included ancillary activities such as the conferment of ASEAN Engineer (AER) recognitions, professional summits, exhibitions of innovative engineering technologies, and cultural networking events that enriched the overall experience for delegates and enhanced mutual understanding among member organisations.

The 43rd CAFE0 concluded on a befitting note, reaffirming the collective commitment of ASEAN engineers — including IEI delegates — to drive sustainable, inclusive and resilient engineering solutions across the region, while paving the way for future collaborative endeavours.

Influence of AI on Modern Trends in Electricity Generation, Transmission, Distribution and Utilization

Contd. from page 1



Dr Tessa Thomas

Control Engineer, Schneider Electric Solar India Private Limited, Guindy, Chennai in recognition of their contributions in the field of Electrical Engineering. Er K R Suresh Kumar, Honorary Secretary, Kerala State Centre, IEI proposed the vote of thanks at the end of inaugural session.



Er M R Narayanan

The M S Thacker Memorial Lecture was delivered by Er S M Ramanathan, Director [Engg, R&D], Bharat Heavy Electricals Limited. Dr S Dharmalingam, Council Member, IEI & Member, ELDB, IEI and Visiting Faculty, NIT Tiruchirappalli delivered an Invited Lecture on the topic 'AI-Fueling Next Wave of Innovation in the Power Sector'. Dr Arvind Dhingra, Chairman, Ludhiana Local Centre [Session 2023-25] and Associate Professor, Guru Nanak Dev Engineering College, Ludhiana, delivered Invited Lecture on 'Enhancing Profitability of MSME through Energy Audit'. Mehul Dansinh Solanki, Electrical Engineering Department, Shantilal Shah Engineering College, Bhavnagar, Gujarat and S K Joshi, Electrical Engineering Department, The Maharaja Sayajirao, University of Baroda, Vadodara, Gujarat delivered Invited Lecture on the topic 'From Classical to Modern and Optimal Control: A Comparative Analysis of Control Strategies for Electric Springs based on Robustness and Performance'.



Er A Nowshath



Prof (Dr) Sharad Wasudeorao Mohod

During the technical session, papers were presented on relevant sub theme, which include;

Hybrid AI and Decision Analysis Approaches for Precision Pest and Disease Prediction in Vineyards: A Survey and Design Framework; Artificial Intelligence-Enabled Battery Management System for Real-Time Safety Monitoring in Electric Vehicles; Impact of Harmonics from EV Chargers on CO₂ Emissions; Study of E-Bus Charging Stations under Different Energy Mixes in India;



Dr [Ms] Ravita Lamba



Dr [Ms] S Hemavathi



Mr P Sivaraman

Balakrishnan Nair.

An Overview Of The Role Of Solid-State Transformer in Extreme Fast Charging Of Electric Vehicle; Smart Street Lighting Powered by Road Induced Acoustic and Vibrational Energy; Prognos Transformer: An Interpretable Machine Learning Framework for the Predictive Health Management of Power Transformers; Impact of Electric Vehicle on Power Grid; Smart Wiper Systems for Solar panels: A LoRa-Enabled Solution for Predictive Maintenance; A Comparative Analysis of Control strategies for electric Spring based on Robustness and performance; Prognos Transformer: An Interpretable Machine Learning Framework for the Predictive Health management; Efficient Power management for Solar PV-based Autonomous System for BLDC Drives using PFM based MPPT; AI driven Predictive Analytics for Battery Lifespan Enhancement; Artificial Leaf for Renewable Energy Harvesting etc.

A panel discussion was organized on the occasion on the topic 'Future of Electrical Engineering with Recent Developments'.

During the valedictory function, Dr R Harikumar, Director, Energy Management Centre, Kerala graced the function as the Chief Guest and Er A C K Nair, Ombudsman, Kerala graced the function as the Guest of Honour. The session was presided over by Er P

The 40th National Convention of Electrical Engineers concluded successfully with active participation from professionals across the country. The deliberations highlighted the transformative role of AI in the power sector and the need for continuous innovation, academic reforms and interdisciplinary collaboration. The timely release of technical proceedings, smooth coordination and a rich technical lineup made the event a memorable and nationally relevant accomplishment for the Kerala State Centre, IEI.

Emerging Challenges of Sustainable Technical Textiles

Ghaziabad Local Centre of The Institution of Engineers (India), in association with Mewar Group of Institutions, Ghaziabad, organized the 38th National Convention of Textile Engineers under the aegis of Textile Engineering Division Board (TXDB), IEI. A National Seminar was organized concurrently on the theme **Emerging Challenges of Sustainable Technical Textiles** during 05 - 06 September 2025 at Ghaziabad. The event brought together eminent academicians, industrial leaders, technologists, researchers, corporate members, faculty and students to deliberate on the emerging challenges, innovations and sustainable approaches in the domain of technical textiles. The two-day programme comprised an inaugural ceremony, memorial and state-of-art lectures, three technical sessions with invited lectures and paper presentations and a valedictory session. Mr Ashok Kumar Malhotra, Mission Director, National Technical Textile Mission, Ministry of Textiles, Government of India, graced the inaugural function as the Chief Guest. Er I C Agarwal, a prominent industrialist, philanthropist and social worker at Ghaziabad and Dr Ashok Kumar Gadiya, Chairman, Mewar Group of Institutions, Ghaziabad graced the function as the Guests of Honour. The



inaugural session was presided over by Prof (Dr) Sadhan Chandra Ray, Chairman, TXDB, IEI. [Session 2024-25].

The event started with the welcome address delivered by Prof (Dr) S C Gupta, Chairman, Ghaziabad Local Centre, IEI [Session 2023-25]. Prof Gupta extended greetings to the dignitaries on the dais, members of the textile fraternity, authors, participants, sponsors, faculty members and students and hope that the Convention would act as a catalyst for research, innovation and cost-effective quality improvements in the textile sector. The Chief Guest, Mr Ashok Kumar Malhotra, highlighted the Government's vision to promote locally available fibres for high-profile textile production. He emphasized integrating advanced technologies i.e. AI, robotics, automation and modern manufacturing techniques to develop high-grade technical textile products using indigenous natural fibres. Guest of Honour, Er I C Agarwal, urged the use of indigenous raw fibres to manufacture high-quality, safe and reliable technical textiles at affordable cost. Guest of Honour, Dr Ashok K Gadiya, underscored the historical significance of Indian textiles and encouraged utilizing domestic resources to minimize production cost while ensuring quality. A souvenir was released on the occasion on the dais. Er Prof (Dr) Sadhan Chandra Ray, in his address, outlined the objectives of the Convention and emphasized the importance of indigenous fibres for advanced research and innovations. Convention Convenor, Dr Arindam Basu, Former Director General, Northern India Textile Research Association Ghaziabad elaborated on the National Seminar, the nature of papers, invited lectures and expected outcomes.



Dr Nandan Kumar



Prof Sunil Kumar Sett



Er Mahesh Kumar Singhal

On the occasion, Prof Sunil Kumar Sett, Former Professor, Department of Jute and Fibre Technology, University of Calcutta, Kolkata; Dr Nandan Kumar, Managing Director, High Performance Textiles Private Limited, Panipat, Haryana & Director, Institute of Technical Textiles Private Limited, Sonapat; and Er Mahesh Kumar Singhal, Managing Director., AMKO Exports, Ghaziabad, Uttar Pradesh, were felicitated as Eminent Engineering Personalities in recognition of their eminence and contribution to the profession of Textile Engineering. The IEI Young Engineers Award 2025 in Textile Engineering Division was presented to Dr Anasuya Roy, Head- Research and Innovation Founder, Chief Executive Officer, Nanosafe Solutions, Tughlakabad, New Delhi. Er Punit Goel, Honorary Secretary, Ghaziabad Local Centre, IEI [Session 2023-25] proposed the vote of thanks at the end of inaugural session.



Dr Anasuya Roy

The Dr B K Chakrabarti Memorial Lecture, was delivered by Prof (Dr) Sadhan Chandra Ray on 'Unveiling of Knitting Science: A New Horizon of Manufacturing Speciality Knitted Products'. The State of Art Lecture was delivered by Prof Sunil K Sett, on 'Spinning of Some Potentially New Natural Fibres'.

Across three technical sessions, 23 papers including invited lectures were presented. Dr Abhijit Majumder, Ramchandran Jaikumar Chair Professor for Decision Sciences (Operations Management) in the Textile and Fibre Engineering Department at IIT Delhi delivered Invited Lecture on 'Life Cycle Assessment of Textiles made from Post-Consumer Waste'. Invited Lecture was delivered by Dr Nandan Kumar, MD, High Profile Textiles on 'High Performance Textiles: Integrating Materials, Manufacturing & Validation'. Invited Lecture was presented by Dr Chandan Chatterjee, Member, TXDB, IEI [Session 2024-25] on 'Threads of Transformation in India's Textile Sector'. Dr Anasua Roy delivered presentation on 'Silane Technology for Antimicrobial Textiles: Bridging Durability, Safety and Market Demand'.

Papers were presented during the technical sessions on relevant sub themes, namely; Biodegradable, Flushable Sanitary Napkin Using Natural Fibre; Indian Origin Brown Cotton & UHMWPE based Protective Textiles; Woven Structure Effect on Jute Geotextiles for Soil Reinforcement and Erosion Control; Flexible Textile Energy Storage Device with PP-Mxene; Silane Technology for Antimicrobial Textiles; Waste-to-Weave: Unconventional Natural Fibres; Therapeutic Potential of Silk; Strategies for Textile Waste Disposal; Sustainable Silk Wet Processing Practices; Geotextiles for Flood Control; The technical sessions were followed by the interactive session.

For further details of technical sessions, kindly refer the link

<https://shorturl.at/2rpMG>

The valedictory session, was graced by the august presence of Dr Nandan Kumar, Dr Arindam Basu; Er R R Tanwar, Council Member, IEI; Prof (Dr) S C Gupta and Er Punit Goel,. Dr Kumar urged textile professionals to innovate and explore consumer oriented textiles made from unconventional natural fibres. Er Punit Goel, delivered the vote of thanks.

The key recommendations emerging from the seminar included; Promote indigenously available natural fibres like cotton, jute, hemp, pineapple leaf fibre, coir, sisal, etc. for technical textile manufacturing; Integrate advanced tools such as AI, quantum computing and robotics for high-profile textile production; Minimise environmental pollution through modern chemical-free or low-chemical processes and effective effluent treatment; Develop technologies to convert textile waste into value-added products; Reduce dependency on water-intensive fibres by shifting to sustainable natural alternatives.

It was collectively felt that these recommendations would significantly transform the Indian textile sector and inspire curriculum reforms in textile education.

Towards Sustainable Cities – Strategies and Technologies

Kochi Local Centre, IEI organized the 40th National Convention of Architectural Engineers during 09-10 October 2025 at Kochi under the aegis of Architectural Engineering Division Board, IEI. A National Seminar was organized concurrently on the theme **Towards Sustainable Cities – Strategies and Technologies**. Shri K Chandran Pillai, Chairman, GDCA graced the inaugural session as the Chief Guest and Dr M R A Pillai, Group Director, Molecular Group of Companies was present on the dais as the Guest of Honour. The inaugural session was presided over by Dr Sandip Kumar Deb, Chairman, Architectural Engineering Division Board, IEI. Er K K Gopalakrishnan Nair, Vice President, IEI [Session 2024-25] was also present on the dais.



The program started with invocation and lighting of the lamp by the dignitaries present on the dais. Er G Velayudhan Nair, Chairman, Kochi Local Centre, IEI [Session 2023-25] delivered the welcome address. Dr May Mathew, Convener of the event briefed about the theme of the National Convention. She explained the core objectives of the sustainable cities, prime imperatives, which include strategies and innovations for development of sustainable cities, mass rapid transport system, renewable energy utilization etc. Dr Sandip Kumar Deb, in his address, explained the role of architectural engineers and their wide domain of functioning. Dr Deb deliberated on the Architect Act 1972 and advocated for the inclusion of all practicing civil and architectural engineers in the Register of Architects. He mentioned further that the architectural engineers are ready to explore the advents of sustainable cities. He called upon institutions to develop academic programs in architectural engineering to foster interdisciplinary competence. He also pointed out that as India modernizes, the principles of sustainable construction must become central to engineering practice, not as an afterthought, but as an intrinsic value system.



Dr Anupama Sharma



Dr Naseer M A



Dr Badam Sundara Rao

Chief Guest, Shri K Chandran Pillai, in his address emphasized the convergence of policy orientation to overcome the challenges in the architectural sector. He explained geopolitical transformation, rapid urbanization of India and its effect, demographic situation and stressed on upskilling of young workforce to meet the urbanization challenges. He opined that continuous updation of knowledge base is imperative to meet the challenges for sustainability and future sustainable perspectives. He emphasized that conventional construction and planning paradigms must give way to technology-led, policy-integrated frameworks. His remarks also reflected on the evolution of Kochi from an industrial to an IT-driven city, highlighting GCDA's commitment to developing sustainable, inclusive projects through land pooling, infrastructure integration, and participatory planning.

Guest of Honour, Dr M R A Pillai spoke on the significant aspects of affordable healthcare and the associated challenges for the sustainable cities. On the occasion, Dr Annapurna Sharma, Professor, Energy & Astro, Department of Architecture and Planning, Maulana Azad National Institute of Technology

Bhopal; Dr Badam Sundara Rao, Architectural Engineer, Sundar Associates, Kakinada, Andhra Pradesh; and Dr M A Naseer, Professor, Department of Architecture and Planning, National Institute of Technology Calicut were felicitated as Eminent Engineering Personalities in recognition of their eminence and contribution to the profession of Architectural Engineering. A technical volume was released on the occasion in the august presence of the dignitaries. Er T C Prasanth, Honorary Secretary, Kochi Local Centre, IEI [Session 2023-25] proposed the vote of thanks at the end of the inaugural session.

The inaugural session was followed by the T S Narayana Rao Memorial Lecture, delivered by Dr Balagopal T S Prabhu, Former Professor, Architectural Engineering Department and Head, Civil Engineering Department, National Institute of Technology Calicut. Dr Prabhu started his lecture with the introduction of urban settlements and town development. He explained urbanization in terms of work distribution in primary, secondary and tertiary sectors in the context of exchange of communication and knowledge density of population settlement. The erudite speaker focused on the drawbacks happened due to unplanned urban growth and explained the effect of overcrowding, air and noise pollution, social disassociation and self-centeredness of people in the standard of living. Shri Rajesh T N, Chief Town Planner [Vigilance], Government of Kerala delivered State of Art Lecture on 'Kerala 2050: From Spatal Challenges to Growth Opportunities'. He explained the effect of rapid urbanization in Kerala and forecasted that the 20250 urbanization scenario depends on service sector economy.

Dr Annapurna Sharma delivered a Plenary Lecture on 'Integrating Vaastu and Sustainability in Temples'. She analyzed nine temple case studies across India to demonstrate that ancient design philosophies often anticipated modern environmental principles. Her comparative study of Nagara and



Dravidian, along with the modern architectural styles of temples, revealed that these structures embodied climatic adaptation, social inclusivity, and energy efficiency, values that modern design must rediscover.

Dr Badam Sundara Rao delivered Plenary Lecture on 'Energy Efficient and Sustainable Buildings – Towards Sustainable Cities – Strategies and Technologies'. Dr M A Naseer delivered Plenary Lecture on 'Cooling Load and Energy Impacts of RCC Roofs: Significance of Roof Retrofit in Tropical Residential Buildings'. Dr May Mathew, Founder, Centre for Environmental Efficiency, Kochi delivered Plenary Lecture on 'SDG 11: Sustainable Cities and Communities: The Mother SDG with Effective Indicators'. Er Anita Lukose, Secretary, South Zone, INVEST, delivered Plenary Lecture on 'Value Engineering: A strategic Approach to Urban Resilience'. Mr H Raghavendra Rao, Functional Consultant – VA/VE Indian Value Engineering Society [INVEST] delivered Plenary lecture on 'Value Engineering – A Key Strategy towards Sustainability'.

Dr Ashalatha Thampuran, Former principal, College of Engineering, Thiruvananthapuram delivered Invited Lecture on 'Aghrahams – Unique Sustainable Neighbourhood unit in Urban Settlement System'. Ms Anju A P, Senior Technical Content Writer, Kerala Blockchain Academy delivered

Contd. on page 6

Recent Trends and Technology in Refrigeration & Air Conditioning

Indore Local Centre, IEI, in association with Oriental University, Indore organized an All India Workshop on **Recent Trends and Technology in Refrigeration & Air Conditioning** during 09 & 10 September, 2025, under the aegis of Mechanical Engineering Division Board [MCDB] at Indore. The Workshop aimed to explore the evolving landscape of the Refrigeration and Air Conditioning (RAC) industry, focusing on energy efficiency, environmental sustainability and innovation in refrigerants, compressors, controls and system designs.

The event started with the welcome address by Er R P Gautam, Immediate Past Chairman, Indore Local Centre, IEI. He also highlighted the objectives of the Workshop. The Chief Guest, Prof (Dr) Amol Gore, Hon'ble Vice Chancellor, Oriental University, Indore, addressed the gathering and emphasized the vital role of HVAC systems in promoting sustainable technologies and achieving energy-efficient solutions. His address inspired the participants to engage in research and development to meet future challenges in the RAC sector.

The Workshop comprised eight technical sessions delivered by eminent academicians, researchers, and industry experts. Dr. Govind Maheshwari, Professor, Institute of Engineering and Technology, Devi Ahilya Vishwavidyalaya [IET DAVV], Indore, delivered a lecture on "Energy Analysis of a Simple Vapour Absorption Refrigeration System." Dr Harekrishna Yadav, Associate Professor, Department of Mechanical Engineering, IIT Indore spoke on 'Thermal Storage and Alternative Cooling Technologies'. Mr Nishant Gupta, Managing Director, Degree Day Private Limited Indore discussed on 'Indoor Air Quality & Industrial Ventilation'. Dr Rakesh Malviya, Assistant Professor, DTU, Delhi on 'Energy Management and Sustainability in HVAC System'. Mr Sanjay Singh, Managing Director, SABS Group on 'Energy Conservation and Saving through HVAC Systems'.



Dr Gunjan Yadav, Professor & Principal, PITS Ujjain on 'Energy Efficiency, Sustainability and Supply Chain in Cold Storage Systems'. Mr Shiv Kumar Sahu, Industry Expert on 'Maintenance Practices in HVAC System' and Dr Chetan Jaiswal, Associate Professor, Oriental University, Indore on 'Humidification and Human Comfort through HVAC System'. The sessions witnessed interactive discussions, practical insights and the presentation of invited papers emphasizing innovation and sustainable design approaches in modern RAC systems.

During the valedictory session, Dr Chetan Jaiswal, summarized the key recommendations and learning from the Workshop. He appreciated the active participation of engineers, academicians and students in the event.

The vote of thanks was delivered by Er Ramesh S Chouhan, Honorary Secretary, Indore Local Centre, IEI [Session 2023-25], who expressed gratitude to all for their valuable contributions, leading to the grand success of the Workshop.

Unlocking the Future with 3D Printing and Additive Manufacturing

Kancheepuram Local Centre, IEI, in association with Department of Mechanical Engineering, St Joseph's College of Engineering, Chennai organized an All India Seminar on **Unlocking the Future with 3D Printing and Additive Manufacturing** during 09 & 10 July 2025, under the aegis of Production Engineering Division Board [PRDB], IEI at Chennai. The Seminar aimed to explore emerging technologies, innovations and industrial applications of 3D Printing and Additive Manufacturing (AM). The event provided a common platform for industry professionals, academicians, researchers and students to exchange ideas, share experiences and understand the transformative potential of AM technologies in various sectors such as aerospace, automotive, biomedical and manufacturing.

The Seminar began with an inaugural session which set the tone for two days of intensive discussions and hands-on learning on design, prototyping and production using AM technologies.

The Chief Guest, Mr V Iramudi, CEO & Co-Founder, Addblu Innovators Private Limited, Chennai, delivered the Keynote address on 'Medical Additive Manufacturing: Current Innovations and What's Ahead' and explained how medical AM is revolutionizing healthcare through patient-specific implants, prosthetics, dental devices and bioprinted tissues. He also highlighted emerging trends such as organ bio-printing, AI-driven design and 4D



printing with smart materials. A souvenir was released on the occasion.

The Seminar featured several expert sessions conducted by distinguished speakers from industry and academia. Mr Mohan Kumar K, Project Associate, Additive Manufacturing, Precision Engineering Technology Centre (PETC), delivered a talk on 'Topology Meets Technology: Lattice Structures with Additive Manufacturing' and discussed how complex lattice geometries, optimized through topology design, enhance strength-to-weight ratios and performance in aerospace and biomedical applications. Mr Prithvirajan R, Application Specialist, Additive Manufacturing, PETC, presented a session

on 'Metal 3D Printing for Industrial Efficiency' and demonstrated how metal AM reduces production lead times, minimizes material waste and enables on-demand manufacturing across industries.

Mr Raghul Shivakumar, Managing Director, Shiv Prema Industries Private Limited, Chennai shared his entrepreneurial experience and insights on additive design applications. Two hands-on sessions were organized at the AICTE IDEA Lab, namely 'Design to Prototype Using Additive Manufacturing' by Mr

Raghul Shivakumar and 'Reverse Engineering using Additive Manufacturing' by Mr Sathiskumar N, Assistant Professor, Department of Mechanical

Contd. on page 6

Towards Sustainable Cities – Strategies and Technologies

Contd. from page 4

Invited Lecture on 'Blockchain Technology for Sustainable Cities' and explained the benefits of Blockchain for urban environment. She explained the key applications of Blockchain for urban sustainability and the challenges. Dr C Mohammed Firoz, Department of Architecture and Planning, National Institute of Technology Calicut delivered Invited Lecture on 'Climate Resilient Development strategies for Linear Coastal Settlements of Kerala: A Multi-scaler Planning Framework for Urban Corridor'. Er Ajaykumar, former Chief Town Planner delivered Invited Lecture on 'Achieving Circular Economy in Solid Waste Management in Kerala'. Dr P Gireesan, Chairman, Kozhikode Local Centre, IEI delivered Invited Lecture on 'Prospects of Timber: The Infinitely Renewable mainstream Material for Energy Efficient and Sustainable Buildings'. A panel discussion was also organized on the occasion on the future of Architectural Engineering, which acted as the synthesis point of the entire Convention, reinforcing the notion that strategies and technologies alone cannot create sustainable cities unless guided by inclusive governance, ethical leadership, and collaborative participation.

The three technical sessions on the topics Urban Studies and GIS Applications, Spatial Planning and Urban Strategies and Environmental Systems and Materials formed the analytical and research-oriented foundation of the convention, presenting empirical studies, design experiments, and data-based approaches to urban sustainability.

The panel discussion was followed by the valedictory session, which was chaired by Er G Velayudhan Nair. Dr May Mathew, Convener summed up the proceedings of deliberation. The Chief Guest, Prof (Dr) Jagathy Raj V P, Vice Chancellor, Sreenarayanaguru Open University, spoke on the global scenario with respect to sustainability with facts and figures.

The deliberations across all sessions and the concluding panel discussion culminated in a collective recognition that the transition in urban development is necessary from fragmented and sectoral approaches to integrated, ecosystem-based, and technology-enabled planning frameworks.

The following recommendations emanating from the deliberations can be accomplished effectively through the widespread adoption of peer-reviewed EE&CC frameworks at every level, from national to city scales. *SDG 11—Sustainable Cities and Communities—holds the status of the Mother SDG within the EE&CC framework, enabling the simultaneous achievement of all other 16 SDGs. This approach offers the shortest possible pathway, ensuring solutions are holistic and address both sustainability within the present generation and across future generations. Policies formulated on the basis of EE&CC frameworks enable robust monitoring and equitable balancing, ensuring that urban and regional systems move forward on a truly progressive trajectory.*

The deliberations during the National Seminar emphasized the importance of capacity building at every level of governance, academia, and professional practice. Continuous training and knowledge exchange are essential to enable adaptive management in the face of emerging challenges such as

climate variability, urban inequality, and technological disruption. Urban compaction, when coupled with green infrastructure, was recognized as vital for reducing ecological footprints and enhancing livability. The principle of compact urban form, supported by accessible public transport and green corridors, emerged as a key strategy for optimizing land use and minimizing sprawl.

A strong consensus also emerged around the need for regional planning and multi-level governance. The discussions highlighted that rapidly urbanizing regions can no longer be managed within the administrative silos of individual Urban Local Bodies. The discussions advocated for establishing Regional Planning Authorities with defined jurisdictions, roles, and financial mechanisms that transcend municipal boundaries. These authorities, designed around ecological and watershed boundaries, would serve as nodal bodies ensuring balanced growth, resource efficiency, and equity across regions.

The role of existing Development Authorities constituted prior to the enactment of the 74th Constitutional Amendment Act is to be redefined by assigning the new role as the Technical Secretariat of the Metropolitan Planning Committees to be constituted mandatorily above Urban and Rural Local Bodies. Even after three decades of the Constitutional Amendment Act of 1992, Metropolitan Regional Planning Authorities are not constituted, nor is the new role assigned to the existing development authorities in many states.

In the area of technology, the Convention reiterated that data-driven governance is the foundation of sustainability. The integration of GIS, remote sensing, Artificial Intelligence, and machine learning into urban management systems was seen as essential for monitoring land-use changes, predicting environmental risks, and enhancing transparency. The inclusion of Blockchain technology in urban governance was proposed to ensure data integrity, participatory planning, and traceable accountability.

The deliberations also stressed that financial sustainability is the backbone of long-term urban transformation. Innovative mechanisms such as rationalized Floor Area Ratios (FAR), Transferable Development Rights (TDR), and Public-Private Partnerships (PPP) were discussed as tools to manage urban expansion, promote equity, and attract private investment into public infrastructure. Such mechanisms, when applied judiciously, can enable cities to remain fiscally sound while maintaining ecological integrity.

The Convention also underlined the significance of academic-professional collaboration. It was agreed that the future of Sustainable Cities depends on the continuous exchange of knowledge between academia, government, and professional bodies. Structured collaborations, pilot projects, and multidisciplinary research initiatives were recommended to bridge the gap between theory and implementation. These recommendations, rooted in the deliberations of each session and the collective wisdom of the panel discussion, represent not only an action plan but a vision, a vision of cities that evolve through strategy, supported by technology, and sustained by collaboration.

Unlocking the Future with 3D Printing and Additive Manufacturing

Contd. from page 5

Engineering, St Joseph's College of Engineering. These sessions provided practical exposure in 3D Modelling, slicing and printing processes, bridging theoretical knowledge with industrial applications. The session also included a brief panel discussion on the future of additive manufacturing in India, emphasizing industry-academia collaboration, innovation and skill development.

For further details about the technical sessions, please follow the link <https://shorturl.at/JAuVu>

The Seminar fostered enthusiasm among young engineers to embrace modern manufacturing technologies and highlighted the growing relevance of additive manufacturing in engineering education and industry. The collaborative efforts of Kancheepuram Local Centre, IEI; the Production Engineering Division and St Joseph's College of Engineering ensured the seminar's resounding success.

The Role of Metallurgy in Renewable Energy Technologies

Kerala State Centre, IEI, organized an All India Seminar on **The Role of Metallurgy in Renewable Energy Technologies** during 13 & 14 May, 2025, under the aegis of Metallurgical and Materials Engineering Division Board [MMDB], IEI at Thiruvananthapuram. The Seminar aimed to highlight the critical role of metallurgical science and advanced materials in the development and sustainability of renewable energy systems. The programme brought together experts from premier institutions, industry professionals, researchers and students to deliberate on recent trends, challenges, innovations and applications of metallurgical engineering in the renewable energy sector.

Er P Balakrishnan Nair, Chairman, Kerala State Centre, IEI [Session 2023-25] welcomed the gathering and delivered the presidential address. He briefed the audience on the relevance of the seminar theme in the context of India's growing focus on renewable energy technologies and the evolving role of advanced materials in enhancing system performance, sustainability and reliability. Er S Hemachandran, Executive Director, KELTRON, graced the inaugural ceremony as the Chief Guest and inaugurated the Seminar by lighting the lamp and delivered the inaugural address, where he emphasized the importance of adopting advanced metallurgical technologies and material innovations to strengthen India's renewable energy infrastructure and ensure long-term energy security.

Dr N Sivasubramanian, Former Senior Scientist / Chief General Manager, ISRO, delivered the Keynote address on 'Role of Energy Materials in Aerospace Programme'. He elaborated on Smart Materials, Sensor Materials, Hybrid and Bio Materials, Energy Materials, Smart Composites and Meta-Materials, explaining their applications in aerospace systems and their emerging relevance in renewable energy technologies. During the technical session, number of papers were presented. Dr B Anil, Former Principal, CET spoke on 'Metal Recycling and Circular Economy'. Dr Mary Gladis, Professor, Indian Institute of Space Science and Technology [IIST]

spoke on 'Corrosion Resistance in Extreme Environments' and explained the corrosion fatigue and corrosion control methods. Dr Rohit Kumar Gupta, VSSC, ISRO spoke on 'Failure Analysis of Metallic Components'. Dr T P D Rajan, CSIR - National Institute For Interdisciplinary Science and Technology (NIIST) spoke on 'High-Performance Alloys for Aerospace Applications' and Mr K P Surendran, CSIR-NIIST on 'Wearable Bio-Based Sensors'.

Shri P K Jayan, VSSC, ISRO discussed on 'Surface Engineering of Materials'. Dr Chenna Krishna, VSSC, ISRO on 'Advanced Metal Forming Technologies'. Dr Ajith Gopi, Clean Energy Specialist & Chair, Professional Activities, IEEE Kerala Section on 'Innovations in PV Technologies and Materials Helping the Energy Transition'. Mr S Dineshraj, Scientist / Engineer "SF", VSSC, ISRO on 'Hot Isostatic Pressing (HIP)', Dr Siva Kumar K G V, SCTIMST on "Simulation Studies of a Novel Filling System for Casting Cobalt Alloy Knee Implants" and Dr V Anil Kumar, VSSC, ISRO on 'Additive Manufacturing'.



During the valedictory function, Mr Shabujan T K, Joint Director, Factories & Boilers, Government of Kerala, was the Chief Guest and delivered the valedictory address. Er P Balakrishnan Nair, summed up the deliberation of proceedings, highlighting key insights and outcomes. Er K R Suresh Kumar, Honorary Secretary, Kerala State Centre, IEI [Session 2023-25] proposed the vote of thanks.

The All India Seminar successfully brought together leading experts to share knowledge on the role of metallurgy in emerging renewable energy technologies. The technical sessions provided deep insights into advanced materials, innovative manufacturing processes, failure analysis, corrosion studies and surface engineering – all of which are integral to the nation's sustainable energy transition. The programme concluded with rich academic exchange, constructive interactions and renewed commitment towards fostering research and development in metallurgical materials for future energy systems.



The Institution of Engineers (India)

IEI YOUNG ENGINEERS AWARD 2026

Notification

The Institution of Engineers (India) is a multi-disciplinary professional body of engineers with 15 engineering disciplines and over 9,00,000 members in India and abroad. The Institution was established in 1920 and was incorporated by Royal Charter in 1935. It has been in the forefront of engineering profession addressing the socio engineering problems for progress of the country. IEI functions among professional engineers, academicians, research workers to update their professional knowledge through continuous professional development. With its large international linkages and a network of 124 Centres in India and Six Overseas Chapters, the Institution has built up wide reach and large infrastructure to meet its objectives of promoting engineering in all aspects.

With a view to promote the pursuit of excellence in the field of engineering, IEI has instituted '**IEI Young Engineers Award**'. The Award consists of a Plaque and a Certificate. The purpose of the Award is to recognize outstanding achievements/contributions made by young engineers in engineering research, excellence in engineering technology development, technology transfer, etc. Any engineer citizen of India not older than **35 years** of age/women engineer citizen not older than **37 years** of age as on **March 31, 2026** is eligible for the Award, provided that he/she is a Corporate Member of IEI or has applied for IEI Membership. The IEI Young Engineers Award is presented to awardees for all the 15 Engineering Divisions of the IEI during the respective National Conventions. The awardees attending the National Convention will be provided with free accommodation & their traveling expenses (AC-3 Tier train fare by shortest route) will be reimbursed on production of original documents.

The Application Proforma may be downloaded from IEI website <https://www.ieindia.org/webui/IEI-Activities.aspx#young-engineering-awards> or scan the QR code below. Soft copy of the filled-in application proforma should be forwarded to award@ieindia.org by **March 31, 2026**. Further, six copies of the duly filled application form, along with all supporting documents, endorsed by appropriate authority should be sent to the below mentioned address so as to reach us latest by **April 15, 2026**:

Deputy Director (Technical)
The Institution of Engineers (India)
8 Gokhale Road, Kolkata 700020



The envelope containing the application should be superscribed at the top as '**IEI Young Engineers Award 2026**' and name of the engineering division under which the applicant desires to be considered for the Award.

AI and Emerging Technologies for Enhancing Occupational Safety in Industries

Palghat Local Centre, IEI, in association with the Department of Factories & Boilers, Government of Kerala, National Safety Council, Safety Council Kerala and the Department of Mechanical Engineering, NSS College of Engineering, Palakkad, successfully organized an All India Seminar on **AI and Emerging Technologies for Enhancing Occupational Safety in Industries** during 28 & 29 March 2025, under the aegis of Mechanical Engineering Division Board (MCDB) at AGORA Auditorium, IIT Palakkad. The Seminar, held as part of Safety 2025, aimed to explore the evolving role of artificial intelligence, digital tools and modern engineering technologies in strengthening occupational safety and health (OSH) practices across industrial sectors.

The inaugural session commenced with invocation, followed by the welcome address by Er A V Rajappan, Chairman, Palghat Local Centre, IEI [Session 2023-25]. He contextualized the Seminar theme and highlighted the growing need for adopting modern safety technologies in industries. Er P Balakrishnan Nair, Chairman, Kerala State Centre, IEI [Session 2023-25] provided a brief preview of the Seminar and its relevance to the future of industrial safety.

The Seminar was inaugurated by Prof (Dr) A Seshadri Sekhar, Director, IIT Palakkad, who delivered an insightful inaugural address. He emphasized the transformative role of emerging technologies, such as AI, automation and sensor-based systems in mitigating industrial risks and enhancing workplace safety. He also highlighted the responsibility of engineers in implementing innovative and sustainable safety practices. A souvenir was released on the occasion in the august presence of Er K K Gopalakrishnan Nair, Vice President, IEI [Session 2023-24], Shri Pramod P, Director of Factories and Boilers, Government of Kerala, Er P Venugopalan, Secretary, Safety Council of Kerala and other dignitaries from Cochin Shipyard, BPCL Kochi Refinery and Saint-Gobain, Palakkad.

The Keynote address was delivered by Shri Pramod P, Director, Factories and Boilers, Government of Kerala, on the topic 'OSH Profile of Kerala: Challenges and Way Forward'. He outlined the current OSH landscape of Kerala, regulatory enhancements, major challenges and strategic pathways for strengthening industrial safety across the state.

Prof (Dr) Jhareswar Maiti, Professor and Head, Department of Industrial & Systems Engineering, IIT Kharagpur and Founder Chairman, CoE, Safety Engineering and Analytics delivered lecture on 'AI and Emerging Trends in Safety'. His presentation explored the transformative role of AI in workplace safety, highlighting advancements in predictive analytics, automation and AI driven monitoring systems. The session also covered the challenges and ethical considerations in implementing AI based safety solutions, emphasizing the need for regulatory compliance and workforce adaptation to AI-driven safety innovations.

Ms Kristina Eger, Project Manager, Occupational Safety, BG BAU deliberated on 'AI Tools for Occupational Safety and Health'. This session provided an in-depth exploration of the latest AI tools that are revolutionizing workplace safety. The speaker elaborated on how artificial intelligence is being integrated into safety management systems, enabling proactive identification of workplace hazards. The discussion focused on AI-driven real-time monitoring solutions, such as smart sensors and automated surveillance systems, which help in predicting and preventing accidents.

Additionally, the session emphasized the role of machine learning algorithms in analyzing workplace incident data to develop predictive models for safety improvements.

Er P Balakrishnan Nair, spoke on 'Human Factors in Accident Causation'. This session provided an in-depth analysis of how human factors play a critical role in workplace accidents. The speaker discussed psychological, physiological, and environmental influences that contribute to human errors leading to accidents. Key topics included fatigue, stress, lack of training, and cognitive overload, which can impair decision-making and reaction times.



Dr Balagopal G Menon, Department of Industrial & Systems Engineering, IIT Kharagpur spoke on 'Statistical Tools in Safety Analysis'. This session provided an in-depth examination of statistical tools and methodologies used to analyze workplace safety incidents and improve safety policies. The speaker emphasized the importance of data-driven decision-

making in occupational safety and explained how statistical techniques can identify patterns, trends, and risk factors in workplace accidents. Topics covered included probability theory, regression analysis, and predictive modeling, which help in understanding accident causation and implementing preventive measures.

Dr G Madhu, Retired Principal, CUSAT on 'Safety Engineering in Chemical Process Industries: Recent Trends'. Dr. Madhu discussed the critical challenges associated with handling hazardous substances, risk assessment methodologies, and recent advancements in safety technologies designed to prevent industrial accidents. The session highlighted the significance of Digital Twins, AI and ML, Dynamic Models and Bayesian correction, applications of AR/VR etc. The discussion concluded with an interactive segment where participants shared industry-specific concerns and explored solutions to improve safety in chemical processing environments.

Er Emmanuel S Fernandez, Health and Safety Practitioner on 'Emerging Technologies in Fire Protection'. This session provided a comprehensive insight into the latest advancements in fire protection technologies and suppression systems for industrial and commercial settings. The speaker elaborated on modern fire detection methods, including intelligent sensor networks, IoT-enabled fire alarm systems, and real-time monitoring applications. Emphasis was placed on cutting-edge suppression techniques such as water mist systems, gas-based fire suppression, and advanced foam agents designed for high-risk environments.

Er Karthikeyan, Safety Council of Kerala, spoke on 'Safety/Loss Prevention Management in Industries' and highlighted the critical role of engineers in implementing robust safety measures to mitigate risks and prevent workplace accidents.

Mr Saju V Eugene, Senior Manager at Cholamandalam MS Risk Services Limited [CMSRS] Kerala spoke on 'Integrating Fire Safety in Design Stage' and emphasized the significance of proactive planning in reducing fire hazards, discussing best practices for designing fire-resistant structures and incorporating advanced fire suppression systems from the outset.

Er Vipin P M, Inspector of Factories & Boilers, Government of Kerala spoke on 'Safety Legislations'. Er Rajkrishna M R, Manager, Health safety

Contd. on page 9

Energy Efficiency in HVAC & R Industries and Air Pollution Control Equipment

Jharkhand State Centre, IEI, organized an All India Seminar on **Energy Efficiency in HVAC & R Industries and Air Pollution Control Equipment** during 08 & 09 February, 2025, under the aegis of Environmental Engineering Division Board (ENDB) at Ranchi. The Seminar provided a comprehensive platform for exchange of knowledge, experience, and technological innovations among academicians, engineers, consultants, architects, and industry professionals. The deliberations focused on various aspects such as energy efficiency in HVAC & R systems, use of alternative energy sources, automation benefits and emerging technologies for pollution control.

The inaugural session commenced with the lighting of the ceremonial lamp. Dr Mahesh Kumar Gupta, Chairman, Jharkhand State Centre, IEI [session 2023-25] delivered the welcome address, highlighting the importance of energy efficiency and the responsibility of every citizen towards energy conservation. He emphasized adherence to government policies on energy efficiency and sustainable practices.

Er Pradumn Kumar Dixit, Director (Projects), MECON Limited, Ranchi, graced the occasion as the Chief Guest and spoke on the importance of designing energy-efficient plants and buildings, citing examples of green buildings utilizing natural light and ventilation. Er S K Das, Chief General Manager (Mechanical, C&S, U&S and Refractory), CET, SAIL, Ranchi and Er Sanjay Sen, Member, Environmental Engineering Division Board and Council Member, IEI, graced the occasion as Guests of Honour and shared their valuable insights on sustainability and technological advancement in the HV sector. Er Aziz Ahmad, Organising Secretary of the event, also addressed the gathering.

Chief Guest, Er Dixit shared his insights regarding energy savings by using start-rated Air conditioners and other electrical appliances. He spoke on energy efficiency, green buildings and stressed on more applications of solar energy and natural ventilations in the high rise buildings to save energy.

The inaugural session concluded with a vote of thanks proposed by Er Harun Ansari, Honorary Secretary, Jharkhand State Centre, IEI [session 2023-25] appreciating the participation of the delegates from MECON, ISHRAE,

SAIL, Oasis, Chemtech, Fuji Electric, Andritz, Thermax and Kirloskar among others.

The technical sessions featured insightful presentations, which include 'Energy Efficiency & Advance Automation' by Er D K Mishra, DGM (I&PC), MECON Limited, Ranchi; 'Designing Steam System' by Er Anand Trivedi, DGM (U&S), SAIL-CET, Ranchi; 'Green Human Resource Management (GHRM): Integrating Sustainable Practices into HR Policies' by Smt Banani Nanda, HoD (HR), Airports Authority of India, Ranchi; A Motivational Talk by Shri Chandra Nath Kumar, Senior Manager (Academics & IT), SAIL-MTI; 'Air Conditioning of OT' by Dr S K Mishra, Ex-CMO (I/c), Ispat Hospital; 'Evaluation of Latest Technologies for Control of Fugitive Dust in Bulk Material Handling' by Er S Chakravarti, Ecodea Projects & Control Private Limited ; 'HVAC & R Systems Integrated with Clean Air Technologies for Clean India' by Er S P Sharma, Ex GM, NTPC Limited and others.

Other industrial presentations were made by Batliboi Environmental Engg Limited, Daikin Air Conditioning and F Harley & Co Private Limited.

During the valedictory session, concluding remarks were delivered by Er Kumar Anand Bharti, President, ISHRAE Ranchi Chapter; Er Aziz Ahmad, Sr General Manager (FSPD), MECON Ltd and Dr Mahesh Kumar Gupta. The event concluded with a vote of thanks by Er Harun Ansari, Honorary Secretary of the centre appreciating the active participation of delegates and the valuable contributions made during the Seminar.

The event was well attended by the dignitaries from different organizations, namely ISHRAE, MECON, Oasis, Chemtech Industries Values Limited, RM Applied Engineers, Fuji Electric. Andritz Thermax and Kirloskar.

The Seminar recommended promoting sustainable design practices by maximizing natural light and ventilation in buildings, discouraging excessive air-conditioner usage and encouraging zero liquid discharge systems in housing societies. The participants emphasized the collective responsibility of all stakeholders to adopt cleaner and energy-efficient technologies for a sustainable future.



AI and Emerging Technologies for Enhancing Occupational Safety in Industries

Contd. from page 8

Environment & Sustainability, MRF Limited spoke on 'OSH Laws and Policies in Various Countries Including India'. Er K Madhana Mohan, Former IRSEE Officer, Indian Railways delivered lecture on 'Electrical Safety in the Digital Age: Industry's New Frontier in enhancing Electrical safety in Workplace' and Er Shaji Jacob, Founder and CEO, PURESOU Technologies Private Limited deliberated on 'Hospital Safety: Engineering Controls for Improving Indoor Air Quality and Infection Control'.

For further details of technical session, please follow the link

<https://shorturl.at/8KKp7>

During the valedictory session, the valedictory address was delivered by Er P K Vasisht, CMD, Instrumentation Limited, Kanjikode, Palakkad, who

highlighted the importance of adopting technology-driven safety practices in modern industries. A preview of the seminar outcomes was presented by Er Nithish Devaraj, Joint Director of Factories & Boilers (Ernakulam), Government of Kerala. The session concluded with a vote of thanks by Dr Rajesh Menon B, Honorary Secretary, Palghat Local Centre, IEI [Session 2023-25] .

The All India Seminar successfully created a platform for cross-disciplinary discussions on enhancing occupational safety using AI and emerging technologies. Experts from academia, industry and regulatory bodies contributed insights into modern safety methodologies, compliance frameworks, human factor analysis and technological innovations. The seminar fostered collaborative learning and reinforced the need for continual advancement in OSH practices to meet the evolving industrial landscape.

Carbon Capture and Storage (CCS) For Climate Change Mitigation

Puducherry State Centre, IEI, in association with Department of Civil Engineering, Sri Manakula Vinayagar Engineering College (SMVEC), Madagadipet, Puducherry organized a One-Day Seminar on **Carbon Capture and Storage (CCS) For Climate Change Mitigation** under the aegis of Environmental Engineering Division Board [ENDB], IEI on 15 April 2025 at Puducherry. The Seminar aimed to bridge the gap between academic research and industrial practices in addressing global climate change challenges through Carbon Capture and Storage (CCS) technologies. It brought together experts, academicians, students and professionals to exchange ideas and discuss innovative methods for carbon management and sustainability.

The Seminar commenced with a brief invocation, setting a solemn and respectful atmosphere and was followed by a welcome address by Dr S Thirougnaname, Chairman, Puducherry State Centre, IEI [Session 2023-25]. Dr S Sundararaman, Head, Department of Civil Engineering, SMVEC, outlined the objectives of the seminar and emphasized the growing importance of carbon capture and storage in mitigating climate change. He introduced the Chief Guest, Guest of Honour and expert speakers to the audience, setting the tone for a day of technical and intellectual enrichment.

Dr V S K Venkatachalapathy, Director-cum-Principal, SMVEC, in his address, highlighted the necessity of connecting theoretical research with practical applications. He encouraged students and professionals to leverage engineering innovation in addressing environmental challenges. Dr K Velmurugan, Dean (Research), SMVEC; and Dr L M Varalakshmi, HoD, Instrumentation and Control Engineering, SMVEC & Coordinator, IEI Student Chapter commended the organizers for conducting such a relevant seminar and stressed the importance of technological leadership and sustainable engineering practices in combating climate change.

The Keynote sessions served as the foundation for the technical discussions that followed. They covered key aspects of carbon capture, utilization and storage (CCUS) technologies, their environmental and economic implications and the role of innovation in promoting a carbon-neutral future.

The Seminar included four expert lectures, covering diverse aspects of carbon management and sustainable engineering. Dr R Saravanane, Professor, Department of Civil Engineering, Puducherry Technological University delivered his presentation on 'Carbon Sequestration and Climate Change Mitigation' and discussed the principles of carbon sequestration, emerging technologies in greenhouse gas reduction and his research experiences in environmental risk assessment and hazardous waste management. The second lecture was delivered by Er K Kalamegam, Environmental Engineer, DSTE, Puducherry Pollution Control Committee (PPCC) on 'Puducherry: Climate Risks and Carbon Capture Sequestration Gains', who presented an insightful overview of Puducherry's regional climate vulnerabilities and the gains achieved through local carbon capture and sequestration initiatives. He emphasized policy implementation, environmental governance and the need for regional adaptation strategies.

Dr A Muthadhi, Associate Professor, Department of Civil Engineering, Puducherry Technological University

spoke on 'Carbon Sequestration in Concrete', who discussed sustainable construction materials and how carbon sequestration can be integrated within concrete technology. Her lecture showcased the dual benefit of structural performance enhancement and environmental sustainability. Dr R Arun Prasath, Professor & Head, Department of Green Energy Technology, Pondicherry University and UNESCO Chair discussed on 'Renewable and Clean Energy on the topic Renewable Energy to Carbon Capture, Utilization and Sequestration Technologies to Mitigate Climate Change' and bridged renewable energy systems with emerging CCUS technologies, presenting innovative approaches to integrating clean energy solutions with carbon management strategies. He emphasized global trends, technological innovation and policy-driven approaches for sustainable energy transition.

The Seminar successfully provided a comprehensive understanding of Carbon Capture and Storage (CCS) technologies and their role in reducing greenhouse gas emissions. Students and participants gained insight into the fundamentals of carbon capture, transport and storage processes, including economic and technical aspects of CCS implementation.



Professional Engineers (PE) Certification by IEI — A Pathway towards Success

Get the **Professional Engineers Certification** by IEI to enhance your knowledge, skill and competency and also elevate your career by becoming a member of an elite group of engineers.

Who can be a Professional Engineer —

- Having Bachelor's Degree in Engineering or equivalent recognized by Statutory Authority or Government of India;
- Having experience of at least 5 years in engineering practice.

Why become a Professional Engineer (PE) —

- Improved career prospects and employability;
- Makes you suitable to attain higher levels of authority and responsibility;
- It is envisaged that in future, only a professional engineer would be empowered to prepare, sign, seal and submit engineering plans and drawings to a public authority for approval, or to seal engineering work for public and private clients;
- With growing economy and large scale expansion of infrastructure, the demand of PE certified engineers is expected to be much higher.

How to apply for Professional Engineers?

The details are available on IEI Website

<https://shorturl.at/mRIYu>

or

scan the code



For any query and assistance, please send email to: pe@ieindia.org or contact (033) 40106275

IEI Celebrates World Habitat Day 2025

Theme : **Urban Solutions to Crisis**

The World Habitat Day was celebrated by the Institution on October 6, 2025. Brief accounts of celebration as received from various Centres are reported hereunder

STATE CENTRES

Goa



Goa State Centre, IEI, in association with Padre Conceição College of Engineering (PCCE), celebrated World Habitat Day 2025 on 07 October 2025 at Goa. Dr Mahesh B Parappagoudar, Principal,

PCCE, emphasized the engineer's responsibility to ensure growth without environmental degradation and encouraged students to address real-world urban and sustainability challenges. Fr Agnelo Gomes, Director, PCCE, urged students to embrace environmental stewardship and values-based leadership in their careers. The Keynote Lecture was delivered by Ms Sharwari Prabhudesai, Assistant Professor, Department of Basic Science and Humanities, PCCE, on inclusive urban development and the interdisciplinary role of engineers, emphasizing the interdisciplinary role of engineers in creating sustainable, equitable communities. The seminar successfully inspired participants to contribute meaningfully toward sustainable and inclusive urban futures.

Jammu & Kashmir



Jammu & Kashmir State Centre, IEI, in collaboration with Indian National Trust for Art and Cultural Heritage [INTACH], Kashmir Chapter, observed World Habitat Day 2025 on 06 October 2025 at Srinagar. The

event convened engineers, urban planners, architects, academicians, policymakers, conservation experts and students to deliberate on strategies for sustainable, resilient and inclusive urban development. Dr Jahangeer Ali, Honorary Secretary, Jammu & Kashmir State Centre, IEI, [Session 2023-25] highlighted the importance of engineering-led approaches for harmonizing urban growth with environmental sustainability. Mr Saleem Beg, Convenor, INTACH – Kashmir Chapter, presented insights on Srinagar's urban and ecological evolution, stressing heritage-sensitive planning, wetland conservation and restoration of traditional water systems. Er Iftikhar Ahmad Hakim, Former Chief Town Planner, J&K, and Chairman, Jammu & Kashmir State Centre, IEI [Session 2023-25] outlined solutions including wetland restoration, green corridors, SCADA-enabled drainage and legacy waste biomining. A panel discussion emphasized the integration of technology, governance and community participation, identifying priorities such as decentralized waste management and a City Resilience Coordination Framework.

Uttar Pradesh

Uttar Pradesh State Centre, IEI, organized a technical lecture on the occasion of World Habitat Day 2025 on 06 October 2025 at Lucknow. The Keynote speaker, Er J B Singh, Former Head of Department, Engineering, LIC HFL



Care Homes, Mumbai (PSU under the Ministry of Finance, Government of India), delivered an insightful lecture emphasizing the need for sustainable urban development, improved infrastructure,

environmental balance and active community participation to address challenges arising from rapid urbanization. The lecture was well-received, stimulating thoughtful discussion on innovative strategies for urban crisis response.

LOCAL CENTRES

Agra



Agra Local Centre, IEI, in association with the Department of Electronics and Communication Engineering, BSA College of Engineering and Technology, Mathura, observed World Habitat Day

2025 on 06 October 2025 at Agra. Er Baidhnath Chakravarty, Member, ET Division, IEI Agra Local Centre, delivered address on the theme. He said that in an increasingly urbanized world, displacement is become an urban phenomenon, with over 60% of displaced persons and migrants seeking refuge in cities. Er Rajneesh Kumar Yadav, Chairman, Agra Local Centre, IEI in his address, highlighted the need for sustainable, scalable and transformative urban solutions that promote prosperity and social cohesion. A student debate was also organized, where the aspects of urban planning and social behavior toward the homeless was discussed. The celebration witnessed the participation of Corporate and non-corporate members, along with faculty and students.

Bareilly

Bareilly Local Centre, IEI, celebrated World Habitat Day 2025 on 06 October 2025, through digital mode. The Keynote Lecture was delivered by Dr Aditya Pratap Sanyal, Department of Architecture, Planning & Design, Indian Institute of Technology (BHU), Varanasi, on the topic 'Addressing Challenges in Rapidly Growing Urban Areas'. Dr Sanyal highlighted the need for integrated planning, smart city technologies, green infrastructure and community participation to ensure sustainable and inclusive urban growth. The program concluded with expressing gratitude to all speakers and participants for their valuable contributions to making the event a success.

Bhimavaram

Bhimavaram Local Centre, IEI, observed World Habitat Day on 06 October 2025 through virtual mode. Speaker of the session, Mr N Siva Kishan, Research Scientist, WET Research Centre, SRKR Engineering College, Bhimavaram delivered a Guest Lecture on the occasion. In his address, discussed innovative strategies for developing sustainable, resilient and inclusive urban environments, emphasizing the crucial role of technology,

effective planning and community engagement in tackling modern urban challenges. The interactive session offered valuable perspectives on addressing environmental, infrastructural and social issues in growing urban areas.

Coimbatore

Coimbatore Local Centre, IEI, in association with the Department of Civil Engineering, PSG College of Technology, Coimbatore, celebrated World Habitat Day 2025 on 06 October 2025 at Coimbatore. Guest speaker of the session, Er Natarajan Krishnasamy, Founder, The Lime Life, Coimbatore,

delivered an enlightening lecture on the topic 'Engaging Youth to Create a Better Urban Future', emphasizing youth empowerment, climate change mitigation and sustainable urban development. He stressed the importance of river restoration, ecosystem recovery and reducing plastic pollution while promoting traditional materials like lime and mud as climate-resilient alternatives in construction. The celebration witnessed an enthusiastic participation of around 100 delegates, including faculty, students and engineers.

Dhanbad



Dhanbad Local Centre, IEI, in association with the Department of Environmental Science & Engineering, IIT ISM Dhanbad, celebrated World Habitat Day 2025 on 06

October 2025 at Dhanbad. The event commenced with a formal inaugural session, graced by Prof Alok Sinha, HOD, Environmental Science & Engineering, IIT ISM Dhanbad; Keynote speaker, Prof Riya Dutta, Assistant Professor, Department of Environmental Science & Engineering, IIT ISM Dhanbad and other members of Dhanbad Local Centre, IEI along with faculty and students of IIT ISM Dhanbad. Prof Alok Sinha introduced the theme, followed by a compelling Keynote lecture by Prof Riya Dutta on 'Climate Change and its Impacts on Urban Areas', highlighting the pressing challenges and sustainable solutions for urban habitats.

Gorakhpur

Gorakhpur Local Centre, IEI, celebrated World Habitat Day 2025 through online mode and a webinar was organised on the theme. Dr Narendra Kumar Singh, Chairman, Gorakhpur Local Centre, IEI highlighted the challenges faced by rapidly urbanizing cities, including climate change, housing shortages, traffic congestion, pollution and social inequality, emphasizing the need for innovative and sustainable urban solutions. The Keynote Speaker, Dr Ashutosh Gupta, delivered an insightful address on leveraging smart city technologies and data-driven approaches to manage urban resources efficiently, citing examples such as Barcelona's use of smart sensors for air quality and energy management.

Gwalior



Gwalior Local Centre, IEI, celebrated World Habitat Day 2025 on 06 October 2025 at Gwalior and highlighted the role of youth in shaping sustainable urban environments. The Keynote

Lecture was delivered by PE Vinay Kumar Shukla, Former Manager, NFL, who discussed resilient, inclusive and sustainable urban planning, tackling climate change, urban migration and global housing challenges.

Er R K Khetan, Guest Professor, Vikrant College elaborated on UN-Habitat initiatives, housing affordability, upgrading urban areas and youth participation in sustainable urban projects. Mr K N Jha, Former Principal, Ashok Nagar Polytechnic, MP and Er U S Pandey, Former Chief Engineer, PHE, emphasized the global challenges of urbanization and innovative housing solutions.

Jammu



Jammu Local Centre, IEI, celebrated World Habitat Day 2025 at Jammu on 06 October 2025, by organizing a seminar on the theme, attended by a large number

of engineers, professionals and civil society members. Er Anil Verma, Chairman, Jammu Local Centre, IEI highlighted that in future, a large percentage of India's population and the world's population will reside in urban areas and explained the critical role of stakeholders in maintaining livable cities. He stressed the importance of the J&K Real Estate Regulatory Authority in ensuring proper urban planning and curbing unauthorized land use, particularly for urban waste dumping. The Chief Guest, Dr Deepak Bansal, Regional Chief, Housing and Urban Development Corporation Limited, Jammu, presented an insightful lecture on the causes and types of urban crises in India, strategies for preparedness, rapid response, governance and coordination, illustrated with national and international case studies. Five technical papers were presented during the technical session.

Jodhpur



Jodhpur Local Centre, IEI, organized World Habitat Day 2025 on 06 October 2025 at Jodhpur. Er Resham Ram Hooda, Chairman, Jodhpur Local Centre, IEI emphasized that sustainable

urban development requires active participation of youth in society. The Keynote Speaker, Dr Vinit Mehta, Dean, Faculty of Engineering & Technology, JIET, Jodhpur, in his address, urged youth to actively engage in addressing rapidly growing urban challenges, emphasizing technological innovation and community participation as essential tools for urban crisis mitigation.

Kollam

Kollam Local Centre, IEI, organized World Habitat Day 2025 on 06 October 2025 through virtual mode. The Keynote Speaker, Dr Sreekumar Punnappilly, Former Senior Civil Support Engineer-Qatar Fertiliser Company delivered an insightful lecture on 'Urban Crisis Response', addressing urgent urban challenges such as climate change, social inequality and the need for resilient and inclusive cities. The session included an engaging interactive segment with active participation from the attendees, including Corporate Members, student chapter members, students and faculty coordinators. The program results participants enriched with practical insights on sustainable and crisis-resilient urban development.

Ludhiana



Ludhiana Local Centre, IEI, in association with CT Institute of Architect, Jalandhar, celebrated World Habitat Day 2025 with a program emphasizing

sustainable urban development. The Keynote Address was delivered by Dr Arvind Dhingra, Chairman, Ludhiana Local Centre, IEI [Session 2023-25] and Faculty, GNDEC, Ludhiana, who highlighted the adverse effects of unplanned urban development and stressed the urgent need for systematic

Contd on page 15

IEI Celebrates

World Standards Day 2025

Shared vision for a better world: Spotlight on SDG 17 - Partnerships for the Goals

The World Standards Day was celebrated by the Institution on October 14, 2025. Brief accounts of celebration as received from various Centres are reported hereunder.

STATE CENTRES

Assam



Assam State Centre, IEI, celebrated World Standards Day 2025 on 14 October 2025 at Guwahati. Speaker of the session, Dr Sashindra Kumar Kakoty, Professor, Department of Mechanical

Engineering, IIT Guwahati, delivered an insightful presentation on the theme and emphasized the pivotal role of standards as a cornerstone for fostering partnerships, highlighting that adherence to standards strengthens cooperation among industries, governments and organizations to achieve sustainable development goals.

Goa



Goa State Centre, IEI, in association with Don Bosco College of Engineering (DBCE), Fatorda, celebrated World Standards Day 2025 on 17 October 2025 at Goa. Er Suryakant Gawde,

Consultant and Certified Expert in Vibration Monitoring was the Chief Guest and Keynote speaker. Er Gawde delivered an insightful Keynote address highlighting the role of standards like ISO 9001, ISO 14001 and ISO 45001 in ensuring operational safety and quality assurance. A documentary film was presented on the evolution and relevance of International standards. A poster exhibition was also commenced on the occasion.

LOCAL CENTRES

Agra



Agra Local Centre, IEI, in association with the Department of Computer Application and Management, RBS Management Technical

Campus, Khandari Farm, Agra (UP) celebrated World Standards Day 2025 on 14 October 2025 at Agra. Dr K K Sharma, Dean, RBS Management Technical Campus Khandari Farm, Agra introduced the Keynote speaker, Mr Arvind Kumar Roy, Assistant General Manager (HSE), AFCONS Infrastructure Limited. Prof (Dr) A N Singh, Director, RBS Management Technical Campus, emphasized the importance of international standards in promoting collaboration for sustainable development. Keynote speaker, Mr Arvind Kumar Roy, delivered a presentation on Safety Standards during Construction of Agra Metro Rail and led a safety pledge. Er Mahesh Chand Kushwah, Member, Mechanical Engineering Division, Agra local Centre, IEI also shared insights on UN SDG 17.

Bareilly

Bareilly Local Centre, IEI, celebrated World Standards Day 2025 on 14 October 2025 through digital mode. Dr Raveesh Agarwal, Professor, Rajshree Institute of Management & Technology, Bareilly, introduced the theme and shared his insights on the need for unity, compassion and collective commitment to progress. Er Anuj Verma, from Bureau of Indian Standards (BIS), Noida Branch, Bareilly, delivered a detailed presentation stressing that global challenges require collaborative efforts among governments, industries and academia, as partnerships built on trust and inclusivity accelerate innovation and sustainable growth.

Bhimavaram

Bhimavaram Local Centre, IEI, observed World Standards Day 2025 through online platform on 14 October 2025. A webinar was organised on the topic 'Partnerships for the Goals' on the occasion. The Chief Guest and Speaker, Dr M Suresh Babu, Professor and Program Coordinator, Department of CSD, SRKR Engineering College, Bhimavaram, delivered an insightful presentation on the significance of global partnerships and standardization in driving innovation, ensuring quality and achieving the United Nations Sustainable Development Goal 17. The session was highly informative and encouraged participants to strengthen collaboration through shared standards for a sustainable future.

Bokaro Steel City

Bokaro Steel City Local Centre, IEI, celebrated World Standards Day 2025 on 14 October 2025 at Bokaro.



The event was graced by Sri Manohar Lal, Chief General Manager (Quality), SAIL, Bokaro Steel Plant, as the Chief Guest. In his address, Sri Manohar Lal spoke on the

significance of standardization and its global relevance in ensuring quality, consistency and sustainability. Mrs Nikita Gupta, Senior Manager, Research and Control Department, presented a paper highlighting the importance of World Standards Day, the role of IEI in promoting standards and the various standards adopted in steelmaking at Bokaro Steel Plant and across SAIL.

Coimbatore



Coimbatore Local Centre, IEI, in association with the Department of Electronics and Communication Engineering, Coimbatore Institute of Technology, celebrated World Standards

Day 2025 on 14 October 2025 at Coimbatore. On the occasion, Dr Ramalatha Marimuthu, Founder, iExplore Foundation for Sustainable Development, Coimbatore, delivered lecture on 'Building a Resilient, Inclusive and Sustainable Future Together'. She emphasized sustainable career pathways, industry-academia partnerships and inclusive workforce

participation, drawing special attention to her Returning Mothers Conference initiative for empowering women professionals.

Dhanbad



Dhanbad Local Centre, IEI, in association with the Department of Mechanical Engineering, IIT ISM Dhanbad, celebrated World Standards Day 2025 on 14 October 2025 at Dhanbad.

Prof Alok Sinha, Head, Department of Environmental Science & Engineering, IIT ISM Dhanbad; introduced the theme and emphasized the importance of standardization in achieving global sustainability goals. The Keynote address titled 'Building Partnerships Through Standards: An Engineering Perspective' was delivered by Dr Mohammad Sikandar Azam, Associate Professor, Department of Mechanical Engineering, IIT ISM Dhanbad, highlighting the role of standards in fostering innovation and collaboration.

Faridabad



Faridabad Local Centre, IEI, celebrated World Standards Day 2025 on 12 October 2025 at Faridabad. Er Inderdeep Singh Oberoi, Chairman, Faridabad Local Centre & Council Member,

IEI emphasized the significance of technical excellence and collaboration between industry and academia, inspiring young professionals to innovate for nation-building. The Keynote address was delivered by Mr Vijay Kumar, Scientist-D / Joint Director, Bureau of Indian Standards (BIS), Faridabad, who highlighted the vital role of standards in promoting innovation, quality and global competitiveness, underscoring that 'uniform standards are the foundation of trust, safety and progress'.

Ghaziabad



Ghaziabad Local Centre, IEI, celebrated World Standards Day 2025 on 16 October 2025, at Ghaziabad in hybrid mode. The event was graced by Dr Nidhi Sisodia, Sr Scientific Officer,

NITRA, as the Chief Guest. In her address, Dr Sisodia elaborated on various Sustainable Development Goals (SDGs), with a focus on SDG-17, stressing the crucial role of standards in driving quality, efficiency and progress in business and manufacturing.

Gorakhpur



Gorakhpur Local Centre, IEI, in association with the Institute of Technology & Management GIDA, Gorakhpur celebrated World Standards Day 2025 on 15 October 2025 at Gorakhpur.

The Chief Guest for the occasion, Er Neeraj Gautam, General Secretary, APGCE (India) and the Keynote speaker, Er M W Beg, Past Chairman of the Centre, delivered insightful addresses. In his Keynote, Er M W Beg discussed the importance of global partnerships in achieving the UN – SDGs, particularly SDG 17, which focuses on strengthening collaboration across sectors for sustainable development by 2030. Chief Guest, Er Neeraj Gautam emphasized the crucial role of global standards in fostering trust, interoperability and cooperation among stakeholders.

Gwalior

Gwalior Local Centre, IEI, in association with IETE Bhopal State Centre celebrated World Standards Day 2025 on 14 October 2025 at Gwalior.



Keynote Speaker, Er Anuj Pratap Singh, Director, Azakti Energy UAE/India/UK and Project Manager, Gwalior Smart City emphasized that international standards are vital for interoperability, trust and global cooperation

towards achieving SDGs. Er B L Singh Umrao, former Executive Engineer, MPSEB, discussed the financial challenges faced by developing nations post-pandemic. Er K K Saraswat, former Executive Engineer, PHE, spoke on the importance of quality data for sustainable decision-making.

Jodhpur



Jodhpur Local Centre, IEI, in association with MBM 1972 Welfare Trust, celebrated World Standards Day 2025 at the Local Centre premises. Er M M Aggarwal, Immediate Past Chairman of

the Centre and Secretary, MBM 1972 Welfare Trust, in his opening remarks, emphasized that quality, reliability and cooperation are fundamental to progress and that adherence to standards fosters transparency and trust. The Keynote Speaker, Dr Lata Singh, Professor, Department of Management Studies, JIET, Jodhpur, highlighted that achieving sustainable development goals requires active partnerships between government, industry, academia and society and urged youth to contribute through innovation and collaboration.

Kanpur

Kanpur Local Centre, IEI, in association with The Textile Association (India), UP Unit, celebrated World Standards Day 2025 on 15 October 2025 through online mode Speaker of the session, Er Asim Kumar Bera, former Scientist 'G', Bureau of Indian Standards, New Delhi, delivered the Keynote lecture on the theme. Er Bera underscored the vital role of international standards, such as those from ISO and IEC, in enabling cooperation, innovation and sustainable growth.

Kollam

Kollam Local Centre, IEI, in association with the IEI Students' Chapter (Civil) of MES Institute of Technology and Management [MESITM], celebrated



World Standards Day 2025 on 14 October 2025 at Kollam. Prof Anees Beegom, Head, Department of Civil Engineering, MESITM highlighted the importance of standardization in

achieving sustainable development. Prof Rafi A, Principal-in-Charge, MESITM stressed the role of standards in ensuring quality, safety and uniformity in engineering practices. A technical talk on 'Standardisation and Its Importance – A Walkthrough' was delivered by Mr Anoop Surendran, Energy Technologist-B, Energy Management Centre, who explained the evolution and relevance of standards in engineering and technology.

Madurai



Madurai Local Centre, IEI, observed World Standards Day on 15 October 2025 at Madurai. Chief Guest, Dr K Jegatheesan, Lead Auditor,

ISO 9001:2015 and ISO 14001:2015, delivered lecture on the theme and elaborated on the critical role of global collaboration, partnerships and accountability in achieving the United Nations Sustainable Development Goals, emphasizing finance, technology, capacity-building and trade as key pillars of SDG 17. He also discussed challenges such as inequality in resources and the need for transparent data systems to monitor progress.

North Bengal

North Bengal Local Centre, IEI, observed World Standards Day 2025 on 14 October 2025 through online mode. During the deliberation it was highlighted that SDG 17 forms the foundation for achieving all other Sustainable Development Goals by fostering global unity and cooperation for a peaceful and sustainable world. Er Sandipan Ganguly, Executive Committee Member of the centre, emphasized strengthening partnerships among governments, private sectors and civil society to tackle global challenges such as poverty, inequality and climate change. Er Devyani Subba, Member of the host centre, underlined the importance of teamwork and mutual trust in achieving inclusive development. Other members,

including Er Prithwish Roy and Er Chinmoy Ghosh, also shared their views, enriching the discussion.

Rourkela



Rourkela Local Centre, IEI, observed World Standards Day 2025 on 14 October 2025 at Rourkela, in hybrid mode. Er Santosh Kumar Polaki, Chairman, Rourkela State Centre, IEI, [Session

2023-25] emphasized the importance of international standards in fostering global cooperation. The Keynote address was delivered by Prof Saroj Kumar Patel, Professor and Head, Department of Mechanical Engineering, NIT Rourkela, who highlighted that international standards are the cornerstone of global collaboration, promoting interoperability, trust and sustainable development through multi-stakeholder partnerships. The event featured an engaging interactive discussion among academicians and industrialists.

IEI Celebrates World Habitat Day 2025

Contd from page 12

city planning. The celebration also included a program where students of CT Institute of Architecture presented enthralling performances, reflecting creativity and engagement with the theme of urban habitat. Ar (Dr) Shruti, Principal, CT Institute of Architecture and Planning in her concluding remarks expressed gratitude to the speakers, participants and organizers for their contributions in making the celebration a meaningful and inspiring occasion focused on urban sustainability and resilient city planning.

Madurai



Madurai Local Centre, IEI, celebrated World Habitat Day 2025 on 06 October 2025 at Madurai. Chief Guest of the session was Er S Venkata Lakshmi, Associate Professor, Department

of Computer Science and Engineering, K L N College of Engineering, Pottapalayam. The session highlighted the urgent need for sustainable urban planning to address challenges posed by rapid urbanization, environmental degradation and climate change, emphasizing the role of engineers and planners in designing resilient, inclusive and efficient urban spaces.

North Bengal

North Bengal Local Centre, IEI, observed World Habitat Day 2025 on 06 October 2025 through online platform. Er Samir Das, Honorary Secretary, North Bengal Local Centre, IEI, introduced the theme and highlighted the multiple challenges faced by cities worldwide, including climate change, pandemics, housing shortages and unemployment, emphasizing the need for innovative, sustainable and inclusive urban solutions. During deliberation, the key strategies such as implementing green infrastructure, including rooftop gardens, urban forests and rainwater harvesting systems, along with promoting renewable energy and efficient public transport to create eco-friendly and resilient cities were discussed. The discussion was enriched by contributions from Er Chinmoy Ghosh, Er Sandipan Ganguly, Er Abhishek Roy and Er. Debyani Subba, all Executive Members of the centre, who shared insights on sustainable urban planning and community engagement. The program witnessed participation from the members and, successfully fostering awareness and dialogue on building resilient, inclusive and sustainable urban environments.

Rourkela

Rourkela Local Centre, IEI, celebrated World Habitat Day 2025 on 06 October 2025 at Rourkela. Er Santosh Kumar Polaki, Chairman, Rourkela



Local Centre, IEI [Session 2023-25] & General Manager I/C, Centralized Electrical Maintenance, SAIL, Rourkela Steel Plant delivered an insightful

presentation emphasizing sustainable, resilient and inclusive approaches to address urban challenges. Following the lecture, an interactive discussion engaged industrialists and academicians in deliberations on practical urban solutions and crisis management strategies.

Sunabeda

Sunabeda Local Centre, IEI, observed World Habitat Day 2025 on 06 October 2025 at Sunabeda.



Er Sanjaya Kumar Bishoyi, Honorary Secretary, Sunabeda Local Centre, IEI [Session 2023-25] emphasized the significance of World Habitat Day and

highlighted the multiple crises facing urban areas, including climate change, conflict, displacement and inequality. The Chief Speaker, Er Manoj Kumar Patnaik, Manager (Tooling), HAL, Sunabeda, delivered an insightful lecture underscoring the need for resilient urban planning, inclusive governance and effective crisis response strategies to create stronger and more equitable cities. The session stressed the importance of transformative, sustainable and scalable solutions in line with the UN's mission to promote sustainable human settlements. Er Manas Ranjan Subudhi, Chief Manager (Indigenization), HAL, Sunabeda, in his concluding remarks inspired all to contribute to resilient urban development.

Visakhapatnam

Visakhapatnam Local Centre, IEI, organized a technical activity on 06 October 2025 through virtual mode to commemorate World Habitat Day 2025. The Keynote lecture was delivered by Mr S Suryanarayana, Project Manager, Mumbai Port Trust who spoke on the theme, emphasizing the urgent need for innovative, inclusive and sustainable solutions to address challenges posed by rapid urbanization, environmental degradation and housing crises. Number of participants, including members of the Executive Committee, Corporate Members and students from various colleges, actively attended and engaged in the discussions, making the program interactive and informative. The event concluded successfully, providing valuable insights into sustainable urban planning and inspiring participants to contribute toward shaping smarter and more resilient urban environments.

IEI Celebrates

58th Engineers' Day 2025

Theme : Deep Tech & Engineering Excellence: Driving India's Techade

The 58th Engineers' Day was celebrated by the Institution all over the country on September 15, 2025 to commemorate the 164th birth anniversary of legendary Engineer-Statesman Bharat Ratna Sir M Visvesvaraya. Brief accounts of the celebration as received from various Centres are reported hereunder.

STATE CENTRES

Andaman & Nicobar



Andaman & Nicobar State Centre, IEI, in association with Dr B R Ambedkar Institute of Technology (DBRAIT), Pahargaon celebrated the 58th Engineers' Day on 15 September 2025 at Port Blair. Er VB Singh, the then

President, IEI graced the event as the Chief Guest. Prof (Dr) Sanmukh Kaur, Principal, DBRAIT, delivered the Keynote Address on the theme. The event was also graced by Er Prejith Rekh, Chief Engineer, APWD; Er D Sathyamoorthy, Deputy Chief Engineer, APWD, Er Dilip Kumar Pandey, Deputy Chief Engineer, APWD; Er Mamta Jijith, Deputy Chief Engineers, APWD and Er U K Singh, Superintending Engineer, APWD as Special Guests. During the technical session, papers were presented by Dr E Muthukumaran, Assistant Professor, Department of Electronics and Communication Engineering, DBRAIT and Ms S Aishwarya, Lecturer, Department of Civil Engineering, DBRAIT.

Goa



Goa State Centre, IEI, celebrated the 58th Engineers' Day on 20 September 2025 at Goa. Shri Digambar Kamat, Hon'ble Minister for PWD, Captain of Ports and Legal Metrology, Goa State, graced

the event as the Chief Guest and Er Shekhar Sardessai, Founder, Chairman & Managing Director, Kinenco Group as the Guest of Honour. Shri Kamat delivered a Keynote address emphasizing the strategic importance of infrastructure, technology and engineering expertise in building a self-reliant and future ready India. Sponsor presentations from Sun 360, Upgrade Enterprises Private Limited, EpBiocomposites Limited, CDSP Global Private Limited and Fomento Realty Private Limited highlighted industry innovations. Dr M S Krupashankara, Principal, Goa College of Engineering, delivered the keynote on the role of DeepTech in India's Techade.

Gujarat



Gujarat State Centre, IEI, celebrated 58th Engineers' Day 2025 at Ahmedabad on 18 September 2025, with a discussion focussed on 'Application of AI in the Civil Industry'. A panel discussion

was organised on the occasion that featured Maj [Dr] Chaitanya Sanghvi, Head of the Applied Mechanics Department, LDCE and other speakers.

Jharkhand

Jharkhand State Centre, IEI, celebrated the 58th Engineers' Day on 15 September 2025 at Ranchi. The event was graced by Chief Guest, Er Sushant Gaurav, IAS,

Administrator, Ranchi Municipal Corporation; Guest of Honour, Er J K Jha, Director (Commercial), MECON Limited, Ranchi and Keynote Speaker Dr Sudip Das, Professor, Department of Space Engineering & Rocketry, BIT Mesra. Prof Das in his Keynote address, highlighted India's advancements in defence and space technologies and the importance of innovation for sustainable growth. The event observed the gracious presence of Er Amit Raj Director, (Technical), MECON Limited, Ranchi; Er Shahnawaz Ahmad, Assistant General Manager, Electrical Power, MECON Limited; Er Pramod Kumar, Assistant General Manager, MECON Limited; Er Ishwar Nath Munda, Assistant General Manager, Coal & Coke Oven, MECON Limited, Ranchi and Er Santosh Kumar, DGM, RDCIS Bokaro Centre, R&C Lab Building, Jharkhand.

Meghalaya

Meghalaya State Centre, IEI, celebrated the 58th Engineers' Day on 15 September 2025 at Shillong. The Keynote address was delivered by Er M Marbaniang, Past Chairman of Meghalaya State Centre and the life sketch of Sir M Visvesvaraya was presented by Er Sekhar Dey, Honorary Secretary, Meghalaya State Centre, IEI [session 2023-25]. The theme address was delivered by Er M F Mawlieh, Past Honorary Secretary of the Centre, who emphasized the role of Artificial Intelligence as a powerful tool for efficiency and innovation, noting that its use is not limited to computer engineers alone. The program inspired attendees to uphold engineering excellence and contribute meaningfully to societal development.

Punjab & Chandigarh



Punjab & Chandigarh State Centre, IEI, in collaboration with Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, celebrated the 58th Engineers' Day on 15 September 2025 at Chandigarh. The event was

graced by Prof (Dr) Rattan Singh, Vice-Chancellor, Jagat Guru Nanak Dev Punjab State Open University, Patiala, as the Chief Guest and Dr Lakhvir Singh, Principal, Baba Banda Singh Bahadur Engineering College and Er Parminderjeet Singh Boparai, Deputy General Manager, Punjab State Civil Supplies Corporation, as Guests of Honour. Keynote speaker, Dr Niraj Bala, Professor, NITTTR Chandigarh, highlighted engineers' contributions to India's growth, emphasizing deep tech innovations in AI, robotics, quantum computing and sustainable Industry 5.0, citing examples from ISRO missions to UPI. Er Gurjot Singh, Structural Engineer, M/S Brawny Structural Consultants, Panchkula, presented on sustainable civil engineering, retrofitting and seismic resilience.

Uttar Pradesh

Uttar Pradesh State Centre, IEI, celebrated the 58th Engineers' Day on 15 September 2025 at Lucknow. The Chief Guest, Dr Arun Mohan Sherry, Director, IIIT Lucknow, emphasized the pivotal role of deep technology and engineering excellence in transforming India into a global technological power. Keynote



Immediate Past Chairman, Uttar Pradesh State Centre and Former Managing Director, UP State Bridge Corporation, included a detailed account of Sir Visvesvaraya's life and contributions.

LOCAL CENTRES



Dr Sharad Magar, Director Operations, Hoganas India Private Limited and Er Dwij Kabra, Research & Development Head and Director, Polaad Steel, Jalna, attended the event as the Guests of Honour. Er Kabra discussed the integration of AI in industrial operations, while the Chief Guest lauded engineers' contributions to national infrastructure and pledged his support to engineering initiatives. Mr Prasad Kulkarni, Managing Director & Chief Technology Officer, SAP Parts, Pune, delivered the Keynote address on the theme 'Deep Tech & Engineering Excellence: Driving India's Techade' and emphasized the growing importance of artificial intelligence, innovation and interdisciplinary engineering in shaping India's technological future.

Belagavi



and Dr R Prabhu, Associate Professor, Department of Physics, IIT Dharwad, was the Keynote Speaker. Dr Prabhu delivered an insightful address on the theme 'Deep Tech & Engineering Excellence: Driving India's Techade', highlighting the growing significance of deep technologies and artificial intelligence in industrial innovation and problem-solving. The event also observed the presence of Dr Raghuraj K Rao, Managing Director, AKXA Tech Private Limited, Belagavi and Er Sanjeevkumar Hulkai, Superintending Engineer, PWD, Belagavi Circle. The celebration witnessed enthusiastic participation from engineers, academicians and students, making it a memorable event that reinforced the importance of innovation and excellence in engineering practice.

Chandrapur

Chandrapur Local Centre, IEI, commemorated the 58th Engineers' Day on 18 September 2025 at Chandrapur. Dr A Z Chitade, Principal, Rajiv Gandhi College of Engineering, Research and Technology, Chandrapur graced the function as the Chief Guest and Er M Srinivasa Reddy, IFS, Principal Chief Conservator of Forests, M S Nagpur and Director, Chandrapur Forest Academy, as the Keynote Speaker. Chief Guest, Dr Chitade emphasized engineers' role in minimizing resource use and promoting sustainability. In the second



session, Er Reddy delivered an insightful keynote on AI applications in forestry, including wildlife census, poaching prevention and sustainable management, demonstrating how technology supports environmental goals.

speaker, Er A K Singh, Former Engineer-in-Chief & Head of the Department, Irrigation Department, Lucknow, underscored engineers' responsibility in nation-building through innovation. The program was convened by Mr Masarrat Noor Khan,

Ahilyanagar

Ahilyanagar Local Centre, IEI, celebrated the 58th Engineers' Day on 18 September 2025 at Ahilyanagar. Shri Sangram Jagtap, MLA graced the occasion as the Chief Guest.

Durgapur

Durgapur Local Centre, IEI, celebrated the 165th Birth Anniversary of Bharat



Ratna Sir M Visvesvaraya and the 58th Engineers' Day on 15 September 2025 at Durgapur. Shri S Subbaraj, Executive Director, Alloy Steels Plant, Durgapur graced the function as the Chief Guest. Prof (Dr) Santanu Koley, Principal, Bengal College and Engineering and Technology, Durgapur was Guest of Honour and Dr Sambhunath Nandy, Chief Scientist and Head, Underwater Robotics and Autonomous Systems Group, CSIR-CMERI Durgapur was Keynote Speaker. Chief Guest, Shri Subbaraj encouraged young engineers to innovate responsibly for sustainable growth, while Prof Koley underscored collaboration between academia and industry. Keynote Speaker, Dr Nandy presented lecture on 'Underwater Robotics and Deep Tech Innovations', illustrating how engineering excellence addresses real-world challenges.

Faridabad



Critical Materials for India's Global Leadership'; Hard facing Welding Overlay; Sustainable 6G: Driving Green Wireless Communication for a Carbon Neutral World: AI Powered Journal & Mood Wellness Web Application: A Deep Tech Approach to Emotional Well Being' etc. During the valedictory function, Er S Adhikari, Director Technical, NHPC Limited graced the event as the Chief Guest and highlighted India's progress in engineering field. Guest of Honour, Er Ravi Goel, Senior Vice President, Ultratech Cement Limited highlighted the role of engineers in attaining growth and development.

Ghaziabad

Ghaziabad Local Centre, IEI, in association with RKG Institute of Technology,



Ghaziabad, celebrated the 58th Engineers' Day on 15 September 2025 at RKGIT. The event was graced by Mr A K Mishra, Director (Works), IRCON International Limited, as the Chief Guest and Er S Tyagi, Ex-Chief Engineer, UPPWD and Freelance Consultant & Arbitrator, as the Guest of Honour. Dr B C Sharma, Director, RKGIT, emphasized engineers' role in nation-building and tackling challenges like climate change and poverty. Er Jagdish Kumar, Convener briefed about the theme. Er Tyagi discussed national projects, and Mr Mishra elaborated on deep tech innovations for transforming India into a Vikshit Bharat. Dr Laxman Prasad, Advisor, RKGIT Group also spoke on the occasion.

Gorakhpur



Gorakhpur Local Centre, IEI, in association with the Institute of Technology & Management, GIDA, celebrated the 58th Engineers' Day on 15 September 2025 at ITM, GIDA. The program was graced by Er J B Rai, President, Malviya Alumni Association MMMUT, Gorakhpur, as the Chief Guest; Er Neeraj Gautam, National General Secretary, APGCE India, as Guest of Honour and Er Ajay Kumar Srivastava, Former Chairman, APGCE Gorakhpur, as the Keynote Speaker. Er Neeraj Gautam discussed India's potential to emerge as a global technology leader, while Keynote Speaker Er Ajay Kumar Srivastava highlighted the transformative role of cutting-edge technologies such as AI, ML, blockchain, quantum computing and biotechnology. Chief Guest Er J B Rai

encouraged innovation, entrepreneurship and government initiatives like Make in India to propel India's leadership in the Techade.

Jamshedpur



Jamshedpur Local Centre, IEI, celebrated the 58th Engineers' Day on 15 September 2025 at Jamshedpur. Chief Guest of the session was Er Sharad Kumar Sharma, General Manager, Tata Growth Shop, Tata Steel Limited. Er Sharma,

in his keynote address, emphasized that India's technological growth depends on transforming deep-tech concepts into public-benefit innovations and elaborated on India's three technology waves - global services, global capability centers and indigenous development for commercialization. The programme was graced by distinguished engineers and guests including corporate and non-corporate members participating.

Jodhpur



Jodhpur Local Centre, IEI, in association with the Satish Kunti Goyal Foundation, celebrated the 58th Engineers' Day at Jodhpur on 15 September 2025. The Chief Guest, Shri Gaurav Agarwal,

IAS, Collector, Jodhpur, stressed upon the role of Artificial Intelligence in the present century. Prof Ajay Kumar Sharma, Vice-Chancellor, MBM University, Jodhpur emphasized the crucial role of engineers in shaping modern India. Guest of Honour Er S N Bhargava, CMD, Sigma Minerals Limited, recalled India's technological journey from bullock carts to rockets.

Kadapa

Kadapa Local Centre, IEI, celebrated the 58th Engineers' Day on 15 September 2025 at Kadapa. Er D V Krishna Kumar, Chief Engineer, APTRANSCO, Kadapa Zone,



graced the event as the Chief Guest and highlighted the sterling contributions of Sir Visvesvaraya to engineering and nation-building. The

theme address was delivered by Dr Kasigari Prasad, Associate Professor, AITS University, Rajampet who emphasized the role of deep technologies in driving India's innovation-led growth.

Kanpur

Kanpur Local Centre, IEI, in collaboration with the Artificial Limbs Manufacturing Corporation of India (ALIMCO), Naramau, Kanpur and The Institution of Electronics & Telecommunication Engineers, Kanpur Centre,



celebrated the 58th Engineers' Day on 15 September 2025 at Kanpur. Chief Guest of the

session was Er Praveen Kumar, Chairman & Managing Director, ALIMCO. Dr Anurag Tripathi, Associate Professor, Department of Chemical Engineering, IIT Kanpur, delivered an enlightening lecture on the theme, emphasizing the convergence of robotics, AI, quantum computing and sustainable technologies as drivers of future innovation. Er Praveen Kumar highlighted ALIMCO's initiatives in leveraging AI to enhance the lives of differently abled citizens.

Meerut

Meerut Local Centre, IEI, in collaboration with Sir Chhotu Ram Institute of Engineering & Technology (SRIET), Meerut, celebrated the 58th Engineers' Day on 15 September 2025 at Meerut. Prof Niraj Singhal, Director, SRIET graced

the function as the Chief Guest. The technical session began with a presentation by Er V C Gupta, Past Chairman, Meerut Local Centre, IEI highlighting Sir



Visvesvaraya's contributions as an engineer, administrator and visionary statesman. The celebration featured lectures by Er Guru Sharan Kant, Assistant Professor, SRIET on AI, robotics, biotechnology and clean energy and Dr Kavi

Bhushan, Assistant Professor, Department of Computer Science, SRIET on global leadership through deep tech. Prof Niraj Singhal, Director, SRIET addressed the gathering on responsible use of AI.

Muzaffarpur

Muzaffarpur Local Centre, IEI, celebrated the 58th Engineers' Day on 15 September 2025 at Muzaffarpur. The function was inaugurated by Chief Guest, Er Shyam Kumar Mishra, former Chief Manager (Civil), Coal India Limited & Guest of Honour, Shri Ganesh Jee, Superintending Engineer, Road Division-01, Road Construction Department, Muzaffarpur. Dr Ramjee Prasad Gupta, Chairman, Muzaffarpur Local Centre, IEI highlighted Sir Visvesvaraya's life and achievements, including his



contributions to the Krishna Sagar Dam and Hyderabad's flood control system. The theme lecture was delivered by the Chief Guest, Er Shyam Kumar Mishra, emphasizing the role of engineers in nation-building. Shri Ganesh

Jee motivated participants to pursue engineering with dedication.

Navi Mumbai

Navi Mumbai Local Centre, IEI, organized the 58th Engineers' Day on 16 September 2025, at Belapur. Shri Kishan Ganga Narayan Jawale, IAS, Collector Raigad, graced the occasion as the Chief Guest. along Dr S M Khot, Principal, FCRIT Vashi and Dr K M Godbole, Immediate Past Chairman of the Centre; Er V C Kamble, Past Chairman, Navi Mumbai Local Centre, IEI, also attended the event.



The program highlighted the contributions of engineers in national development and provided an opportunity to reflect on the legacy of Bharat Ratna Sir Mokshagundam Visvesvaraya. The event fostered

professional engagement among corporate members, students and local engineers, celebrating the spirit of engineering excellence and inspiring the next generation of engineers to contribute meaningfully to society.

Silchar

Silchar Local Centre, IEI, celebrated the 58th Engineers' Day on 15 September 2025 at Silchar, attended by the Corporate and non-corporate members, past and present Chairmen and Secretaries, faculty and students from Assam University and NIT Silchar, engineers from the Pollution Control Board and media representatives. Chief Guest of the session was Prof Dilip Kumar Baidya, Director, NIT Silchar and Guest



of Honour was Er Neeraj Kharbanda, Chief General Manager, ONGC, Srikona. Prof Baidya addressed the responsibilities of engineers in societal development, while Er Kharbanda discussed

deep technologies such as AI, quantum computing, robotics and automation. Keynote speaker, Prof Nidul Sinha from NIT Silchar elaborated on deep tech applications in modern civilization and his research in cognitive learning and quantum computing.

IEI Celebrates Royal Charter Day

The Institution of Engineers (India) was incorporated by Royal Charter on September 9, 1935 by King and Emperor George V at the Court at Buckingham Palace, London and remains the only professional body in India to be accorded this Honour. This endowed the Corporate Members of the Institution with the right to use the title 'Chartered Engineer' after their names, implying that they are qualified engineers deemed worthy to hold a Charter. The 'Royal Charter Day' was celebrated by IEI all over the country on September 9, 2025. Brief accounts of celebration, as received from various Centres, are reported hereunder.

STATE CENTRES

Arunachal Pradesh



Arunachal Pradesh State Centre, IEI, commemorated Royal Charter Day at North Eastern Regional Institute of Science and Technology Itanagar on 09 September 2025. A technical lecture session on 'Microphone Array Signal Processing' was organised on the occasion. Prof Sarsing Gao, Dean (Academics), NERIST, graced the occasion as the Chief Guest, highlighting the historical significance of Royal Charter in fostering engineering excellence across India. Dr Rajib Sharma, Assistant Professor, Department of Electronics and Communication Engineering, NERIST, provided an in-depth overview of microphone array principles, including spatial filtering, beam forming and noise reduction techniques. The session was highly engaging, offering participants valuable insights into emerging innovations in acoustics and communication engineering.

Punjab & Chandigarh

Punjab & Chandigarh State Centre, IEI, celebrated Royal Charter Day on 09 September 2025 through an online session. The Keynote Speaker, Dr Shilpa Jindal, Assistant Professor, CCET Chandigarh, highlighted the role of IEI in supporting R&D for small-scale industrialists, contributing to the "Make in India" initiative and promoting advanced technologies such as Artificial Intelligence and Optical Networks. The Chief Guest, Dr Alka Jindal, Assistant Professor, PEC Chandigarh, underscored that the Royal Charter is not only a historical document but a testament to professionalism, dedication and engineering excellence, inspiring engineers to uphold ethical standards while driving innovation, industrialization and sustainable development.

West Bengal



West Bengal State Centre, IEI, celebrated Royal Charter Day on 09 September 2025 at Sir R N Mookerjee Hall, WBSC, IEI, Kolkata. Theme Speaker, Prof (Dr) N R Bandyopadhyay, Former Chairman, CATE & MMDB, IEI, delivered a lecture

on the topic 'Royal Charter: A Legacy of Excellence Beyond the IEI Centenary Milestone'. The speaker mentioned that the engineering fraternity is expected to emerge as the leading contributor to the national developmental trajectory, who are ready to participate in enduring global collaborations. The speaker highlighted that IEI has a chequered history of hundred years and witnessed several turns and tides and positioned itself well to meet the changing demands of engineering and society.

LOCAL CENTRES

Belagavi

Belagavi Local Centre, IEI, celebrated 'Royal Charter Day' on 09 September 2025 at Belagavi with an enlightening talk on 'Water and Climate Change'. Keynote speaker, Er C B Hiremath, former Superintending Engineer, PWD, Government of

Karnataka, began by highlighting the historical significance of IEI's incorporation under the Royal Charter, explaining the privileges, titles and recognitions available to members and the advantages of being part of this esteemed institution.



Participants, including members of Belagavi Local Centre, IEI, local engineers and professionals found the session highly informative and thought-provoking. The program successfully combined the celebration of

Royal Charter Day with a technical discourse, emphasizing the responsibility of engineers in addressing environmental challenges through informed planning and innovation.

Faridabad

Faridabad Local Centre, IEI, observed Royal Charter Day on 08 September 2025, through virtual mode. The Keynote lecture was delivered by Prof Pradeep Kumar Dimri, Professor, Electronics Engineering Department, J C Bose University of Science & Technology, YMCA, Faridabad, who elaborated on the history and privileges granted to IEI through the Royal Charter awarded by King George V at Buckingham Palace in 1935. He emphasized the enduring legacy of engineering excellence, underscoring the pivotal role of engineers in addressing challenges such as sustainability, renewable energy, digitalization and infrastructure development.

Jammu

Jammu Local Centre, IEI, celebrated Royal Charter Day on 09 September 2025 at Jammu, with distinguished engineers from various departments,



organizations and members of the IEI Jammu Committee in attendance. Er Devinder Singh Pawar, former Member [Technical], J&K State Electricity Regulatory Commission graced the function as the Chief Guest.

The Keynote address was presented by Er Rabinder Shekher, Past Honorary Secretary, Jammu Local Centre, IEI and Former Superintending Engineer, PWD, J&K Government, who elaborated on the history, relevance and privileges of the Royal Charter. Er P K Nanda, former Honorary Secretary, Jammu Local Centre mentioned that engineers are the architects for overall development of mankind.

Kanpur



Kanpur Local Centre, IEI, in association with Uttar Pradesh Textile Technology Institute (UPTTI), Kanpur, celebrated Royal Charter Day on 09 September 2025 at Kanpur. Chief Guest of the event was Prof (Retd) Gopal Dixit, Eminent Industrialist,

Guest Speaker was Dr Vivek Mani Tripathi, Assistant Professor, UPTTI. Dr Tripathi delivered a Keynote lecture on 'Hybrid Additive Manufacturing Approaches for

Next Generation Battery Current Collectors', emphasizing the potential of lithium metal batteries in revolutionizing energy storage, enhancing vehicle range by 20–50%, reducing weight, enabling fast charging and improving lifespan compared to conventional lithium-ion batteries.

Kochi

Kochi Local Centre, IEI, in collaboration with Kollam, Trichur and Kozhikode Local Centres of IEI celebrated Royal Charter Day 2025 through virtual platform on 07 September 2025. Dr K Madhusoodanan Pillai, Chairman, Kollam Local Centre, IEI [session 2023-25] highlighted the enduring legacy of the Royal Charter. Er G Velayudhan Nair, Chairman, Kochi Local Centre, IEI [session 2023-25] focussed IEI's pivotal role in promoting engineering knowledge, ethics, and technological advancement. Prof (Dr) G S Madhu, Council Member, IEI introduced the Chief Guest, Dr S Dharmalingam, Chairman, Centres Coordination Committee, IEI and Visiting Faculty, NIT Trichy, who delivered a Keynote address on the historic significance of the Royal Charter and the responsibilities of engineers in areas such as sustainability, digital transformation, infrastructure modernization and inclusive development. The event successfully reinforced professional unity and inspired engineers to uphold IEI's ideals in advancing national development.

Ludhiana

Ludhiana Local Centre, IEI, in association with the Students Chapter of Guru Nanak Dev Engineering College [GNDEC], Ludhiana, celebrated Royal Charter Day on 08 September 2025 at Ludhiana, engaging students in an informative and inspiring session. The programme was presided over by Dr Arvind Dhingra, Chairman, Ludhiana Local Centre, IEI, [session 2023-25], who delivered a comprehensive lecture on the historical significance and relevance of the Royal Charter. The session underscored the importance of engineering excellence, professional ethics and continuous learning, inspiring the young engineers to contribute meaningfully to technological development and nation-building. By connecting the history of IEI and the Royal Charter with contemporary expectations from engineers, the event successfully motivated students to embrace innovation, leadership and responsibility in their professional journey, reinforcing the enduring legacy of the Institution and its pivotal role in shaping India's engineering future.

Meerut

Meerut Local Centre, IEI, celebrated Royal Charter Day on 09 September 2025 through online mode. The session featured a presentation by Er Rajneesh Kumar, Past Chairman of the Centre on the Royal Charter, covering its history, background, the sequence of events leading to its award to IEI and the objectives and regulations incorporated in the Charter. This was followed by an insightful lecture on 'Artificial Intelligence: A Revolution for Society' by Er Shiv Kumar, Lecturer, Computer Engineering Department, DN Polytechnic, Meerut, who explained AI's evolution, applications and societal impact, highlighting its advantages such as reduced human error, continuous availability and unbiased decision-making, as well as challenges like high cost, lack of creativity, unemployment and dependence on machines.

Prayagraj



Prayagraj Local Centre, IEI, celebrated Royal Charter Day on 09 September 2025 at Prayagraj. The programme was convened by Er Kalpana Maurya, Executive Committee Member, Prayagraj Local Centre and Assistant Professor Prayagraj Institute

of Technology, Prayagraj who highlighted the significance of Royal Charter Day. Prof Avanish Kumar Dubey, Chairman, Prayagraj Local Centre, IEI in his address, outlined the history and importance of the Royal Charter. The Keynote Speaker, Er U P Srivastava, Honorary Secretary of Prayagraj Local Centre elaborated the relevance of the Royal Charter and delivered an insightful lecture on engineering materials, emphasizing the use of ferrous and non-ferrous materials, alloys and conventional materials, while advocating for non-conventional materials in line with modern innovations and inventions.

Rourkela



Rourkela Local Centre, IEI, observed Royal Charter Day on 09 September 2025 at Rourkela. Speaker of the event, Prof Hara Mohan Jena, Associate Professor, Department of Chemical Engineering, NIT Rourkela elaborated on the significance

of a Royal charter as a formal legal document issued by a monarch, defining an organization's objectives, powers and governance, highlighting its role in professional bodies and public-interest organizations. The presentation was followed by an interactive discussion among academicians and industrialists. The session focussed on how new technologies raise pro-active approaches to engineering ethics like Value Sensitive Design and Responsible Innovation.

Silchar

Silchar Local Centre, IEI, celebrated Royal Charter Day on 09 September 2025 in hybrid mode. Guest of Honour, Dr Fazal Ahmed Talukder, Professor (HAG), Department of Electronics and Communication Engineering, NIT Silchar highlighted the historical significance of the day. Dr Talukder delivered a detailed presentation titled 'In



Commemoration of the Royal Charter of 1935', tracing the establishment of IEI in 1920, its recognition under the Royal Charter and the contributions of Indian engineers in nation-building, including railways, dams, ISRO and IT.

Udaipur

Udaipur Local Centre, IEI, celebrated Royal Charter Day on 15 September 2025 at Udaipur. Er Purushottam Paliwal, Chairman, Udaipur Local Centre, IEI addressed the gathering, explaining the significance of Charter Day as the anniversary marking the formal establishment of an organization, when its charter or foundational



document is adopted, granting official recognition and legal status. Highlighting the historical background, the Keynote speaker, Er Piyush Javeria, Honorary Secretary of the Udaipur Local Centre, emphasized that the Royal Charter represents prestige, authority and credibility, while the day serves to reflect on IEI's achievements, acknowledge engineers' contributions, and reinforce commitment to professional development and regulation.

Upper Assam



Upper Assam Local Centre, IEI, celebrated Royal Charter Day 2025 on 09 September 2025 at Oil India Limited, Duliayan. Shri Diganta Kumar Dutta, Ex-CGM, Assam Gas Company Limited, Duliayan, graced the occasion as the Chief Guest and delivered

an inspiring speech highlighting the significance of Royal Charter Day. Shri Rajendra Singha, Deputy General Manager (Internal Audit), Oil India Limited Duliayan, addressed the gathering as the Special Guest, elaborating on the historical background of the IEI Royal Charter and its continued relevance in promoting engineering excellence in India and worldwide.

News-in-Brief

The following are brief accounts of Technical Activities organised by various Centres and Fora

STATE CENTRES

Goa

Organized a Technical Talk on 'The Future of Jet Propulsion: Green Fuels and Electric Planes' in association with Padre Conceição College of Engineering (PCCE), by Dr Anirudha Ambekar, Assistant Professor and Associate Dean (Infrastructure & Support), School of Mechanical Sciences, IIT Goa, on 07 October 2025, at Goa. Dr Ambekar delivered an insightful address highlighting the transition from conventional jet fuels to sustainable aviation fuels (SAFs), hydrogen and biofuels, along with advancements in electric propulsion systems aimed at achieving cleaner and more efficient aviation. The talk emphasized the urgent need for innovation in green aviation technologies and the engineering challenges involved. The session concluded with an engaging Q&A, where participants discussed emission standards, fuel efficiency and the feasibility of electric aircraft. The program concluded with a call for engineers to spearhead sustainability in future air travel.

Karnataka

Organized webinar on 'AI-Driven Engineering: Transforming Traditional Industries through Intelligent Automation' on 09 August 2025. Dr Kavitha Jayaram, Associate Professor, Department of Computer Science and Engineering, BNMIT, Bengaluru, was the Guest Speaker. In her comprehensive presentation, Dr Kavitha Jayaram explained how AI-driven engineering integrates artificial intelligence into engineering workflows to enhance accuracy, adaptability and predictive capabilities across industries like manufacturing, energy, civil engineering, healthcare and agriculture. She discussed enabling technologies such as machine learning, computer vision, NLP, robotics and digital twins, emphasizing that AI will augment rather than replace human roles by creating new opportunities. She also highlighted the essential skills for future engineers, including AI literacy, creativity and adaptability. The webinar witnessed participation from scientists, academicians, industry professionals and IEI members.

Organized a technical webinar on 'Application of Modal Analysis for Noise & Vibration Control' on 20 August 2025. The session was delivered by Dr S B Kandagal, Principal Research Scientist, Department of Aerospace Engineering, Indian Institute of Science (IISc), Bengaluru. Dr Kandagal, in his insightful presentation, explained how modal analysis serves as a crucial technique in identifying natural frequencies, mode shapes and damping characteristics to control noise and vibration in mechanical and structural systems, particularly in aerospace, automotive and civil applications. He highlighted the role of Finite Element Analysis (FEA) and advanced modal-based control methods in improving design efficiency and acoustic performance. The webinar was well attended by corporate members of IEI, scientists and professionals from academia and industry.

Telangana

Organized the Prof (Dr) S Raghavachari 11th Endowment Lecture on 15 August 2025 through online mode. Prof Dr P R Bhanu Murthy, Professor of Civil Engineering and Director, Industrial Consultancy Services, JNTUA, delivered the Endowment Lecture as the Keynote Speaker on the thought-provoking topic 'You Are a Pedestrian, Who Cares'. The lecture shed light on pedestrian rights, infrastructure challenges and the need for inclusive urban design to ensure safety and accessibility for all road users.

Organized the Dr Narla Tata Rao 24th Endowment Lecture on 04 September 2025 through online platform. Dr Sridhar Gaddam, MISTE, Professor and Head, Department of EEE, Malla Reddy Engineering College for Women, delivered the Keynote lecture on the topic 'High Voltage Generation and

Measurement Techniques'. The lecture provided valuable insights into advanced methods for generating and accurately measuring high voltages essential for research, testing, and industrial applications.

Organized the Er Maturi Gopal Rao 28th Endowment Lecture on 10 September 2025 at Hyderabad. Er G L Rao, Past President, IEI, graced the occasion as the Chief Guest, while Dr M Kameswara Rao, Principal, MVSR Engineering College, Hyderabad, delivered the Endowment Lecture as the Keynote Speaker on the topic 'Structural Health Monitoring'. The lecture focused on modern techniques for assessing and maintaining the safety and durability of structures.

Uttar Pradesh

Organized a special screening of the documentary film 'The Dirty Sky' on 20 September 2025, at Lucknow highlighting the emerging environmental crisis caused by space junk and orbital debris. The thought-provoking film, examines the overcrowding of Earth's orbit by defunct satellites, rocket fragments and mega-satellite constellations such as Starlink and OneWeb. Through compelling visuals and expert insights, the documentary warns of the potential onset of the Kessler Syndrome and emphasizes the urgent need for global collaboration to manage orbital pollution.

Organized a technical lecture on 'Radiocarbon Dating: How and Why' on 26 September 2025 at Lucknow. The session featured an enlightening address by Dr C M Nautiyal, Former Head, Radiocarbon Laboratory, Birbal Sahni Institute of Palaeosciences, Lucknow, who explained the scientific principles, working methods and wide-ranging applications of radiocarbon dating in archaeology, geology and environmental research. He emphasized that radiocarbon dating is one of the most reliable techniques for determining the age of ancient artifacts and plays a crucial role in verifying authenticity, constructing historical timelines and studying natural phenomena such as volcanic eruptions and climate change. Er G M Pandey, Convener of the program, highlighted the importance of such lectures in equipping young engineers, researchers and students with scientific insights and motivating them towards innovation and research excellence.

West Bengal

Celebrated the Late P N Ghosh Memorial Function on 26 August 2025 at Sir R N Mookerjee Hall, West Bengal State Centre, IEI, in a befitting manner. Guest Speaker, Dr Prabir Kumar Mukhopadhyay, Former Chair, DVC, highlighted the significance of the memorial event. Prof (Dr) N R Bandyopadhyay, Former Chairman, West Bengal State Centre, IEI and Former Chair, CATE, IEI, presented a life sketch of Late Prof P N Ghosh. Er Gautam Sen, Senior Corporate Fellow Member, IEI, introduced the Guest Speaker, Dr Biswanath Roy, Professor of Illumination Engineering and Former Head, Electrical Engineering Department, Jadavpur University, who delivered the Commemorative Lecture on 'Contemporary Illumination Engineering'. Dr Roy discussed advancements in LED technology, emphasizing its role in energy efficiency, sustainability and emerging innovations like Li-Fi and intelligent lighting systems.

Celebrated the Late Prof A K Seal Memorial Function on 02 October 2025 at Sir R N Mookerjee Hall, West Bengal State Centre, IEI, in a befitting manner. Prof (Dr) N R Bandyopadhyay, Former Chairman, West Bengal State Centre, IEI and Former Chair, CATE, IEI, presented the life sketch of Late Prof A K Seal and apprised the participants about the theme of the event. Guest Speaker, Dr Sandip Ghosh Chowdhury, Director, CSIR-National Metallurgical Laboratory, Jamshedpur delivered the Commemorative Lecture on 'Rare Earth Elements: Role of CSIR-NML in Making Viksit Bharat'. Dr Chowdhury elaborated on the critical role of rare earth elements in advanced

technologies and defence systems, emphasizing their indispensability in modern electronics.

LOCAL CENTRES

Ahilyanagar

Organized a technical lecture on 'Tax Liability for Civil Engineers in Joint Development Agreement' on 24 September 2025 at Ahilyanagar. The lecture was delivered by Er Avinash D Kulkarni, Past Chairman, Ahmednagar Local Centre, IEI & Registered Valuer and RERA certified Consultant, who addressed contractors, builders and civil engineering professionals. Er Kulkarni explained that under RERA 2016, 'development' encompasses any engineering or construction activities on immovable property, including redevelopment. He elaborated on the concept of Joint Development Agreements (JDA) as a collaborative framework between landowners and developers, pooling resources and expertise to achieve mutual goals. The lecture covered key legal provisions from the Income Tax Act 1961, Transfer of Property Act, RERA Act and Registration Act, highlighting the roles and responsibilities of both owners and developers. Er Kulkarni also discussed types of legal possession in JDAs - landowner's and developer's possession, and stressed that careful drafting of agreements is critical to protect all parties' interests.

Belagavi

Organized a lecture programme on 'Flood Management of Krishna Basin and Precautions in Executing Inter-State Projects' on 10 July 2025 at Belagavi. Keynote speaker, Er C D Patil, former Executive Engineer, Karnataka Water Resources Department elaborated on the existing flood management system in the Krishna River Basin, with a special focus on operations at the Almati Dam, and described through posters the procedures adopted at various hydraulic structures within Karnataka for effective flood control. In his welcome address, Er Kundargi Shivappa Yallappa, Chairman, Belagavi Local Centre, IEI [Session 2023-25] highlighted the potential for improving flood management through the installation of modern flow and level monitoring sensors to enhance real-time data accuracy. Er Venkatesh B, Honorary Secretary, Belagavi Local Centre, IEI [Session 2023-25] emphasized the importance of regular interaction among officials of the Krishna Basin to minimize flood risks and ensure coordinated response. The event witnessed active participation from engineers, professionals and students.

Organized a technical lecture on 'Role of Faculty in NEP 2020' on 30 July 2025 at Belagavi. The Keynote address was delivered by Dr Venkatratnam Chitturi, Professor and Head, Electrical & Electronics Engineering Department, Jain College of Engineering, Belagavi. Dr Chitturi elaborated on the objectives of the National Education Policy (NEP) 2020 and its transformative impact on India's education system. He emphasized that NEP 2020 opens new avenues for students to explore interdisciplinary learning and skill development, essential to meet present and future challenges. In his welcome address, Er Kundargi Shivappa Yallappa, Chairman, Belagavi Local Centre, IEI [Session 2023-25] highlighted that just as India's ancient education system evolved to suit its time, today's academic framework too must adapt to modern needs to prepare students for emerging global demands. Er Venkatesh B, Honorary Secretary, Belagavi Local Centre, IEI [Session 2023-25] stressed on continuous innovation within NEP 2020 to align education with technological and societal advancements. The lecture drew active participation from faculty members and engineering professionals.

Organized a lecture programme on 'An Insight into the Entrepreneurial Journey' on 28 August 2025 at Belagavi. The Keynote address was delivered by Mr Mahesh S Kollyiyavar, Entrepreneur, who shared his valuable experiences and insights on how individuals can successfully start new ventures in their chosen fields by identifying opportunities and maintaining discipline and dedication. The session was well attended by local members and engineering professionals, who interacted enthusiastically with the speaker, making the programme both inspiring and informative.

Coimbatore

Organized a technical lecture on 'Sustainability Management in Apparel Industry' in association with the Department of Fashion Technology, PSG College of Technology, Coimbatore on 24 September 2025 at Coimbatore. The session was graced by Mr Vignesh Amalraj, Country Manager, Institute for Ecology and Innovation, Tiruppur as the Guest Speaker. In his address, Mr Vignesh Amalraj elaborated on key aspects of sustainability in the apparel industry, focusing on environmental, quality and chemical management. He emphasized eco-friendly materials, ethical labour practices, resource-efficient processes and the circular economy approach of reducing, reusing and recycling. The session concluded with an engaging interactive discussion, where participants explored future challenges and opportunities in sustainability management.

Ghaziabad

Organized a Technical Lecture on 'Micro Farming' on 12 August 2025 at Ghaziabad. The lecture was delivered by Er Piyush Goyal, Former General Manager, Steel Authority of India Limited (SAIL). Er Piyush Goyal discussed the health and environmental challenges of modern society and demonstrated micro farming techniques using trays for growing vegetables indoors. He emphasized that microgreens possess over 30 times the nutritional value of regular vegetables and encouraged the cultivation of radish, mustard, spinach and other common greens at home. The session received an enthusiastic response from the participants, including corporate and non-corporate members.

Kanpur

Organized an enlightening online lecture on 'The Future is Green: How Renewable Energy is Shaping the 21st Century' on 29 September 2025 through online mode. Er Jitendra Kumar Gautam, Assistant Professor, Uttar Pradesh Textile Technology Institute (UPTTI), Kanpur, was the Guest Speaker on the occasion. In his highly informative talk, Er Gautam emphasized that the world is witnessing an irreversible shift from fossil fuels to renewable energy sources, driven by the need to combat climate change, ensure energy security and promote sustainable economic growth. He elaborated on leading technologies such as solar, wind and green hydrogen, highlighting their potential in transforming global energy systems. The lecture also covered vital aspects like energy storage, grid modernization and social equity in energy access. A large number of corporate and student members of IEI actively participated in the session.

In association with the All India Valuers Association (AIVA), Kanpur, organized a technical lecture on 'Drive by Valuation in NPA Cases: A Practical Compromise' on 04 October 2025 through online mode. Er Bhupendra Pratap Singh, Proprietor, Mortgage Valuation Expert, Ghaziabad, was the Guest Speaker of the session. In his insightful address, Er Bhupendra Pratap Singh elaborated on the crucial role of asset valuation in resolving non-performing assets (NPAs) and the challenges faced by valuers when banks lack physical possession of mortgaged properties. He discussed the concept of drive-by valuation as a practical approach in such situations, ensuring financial prudence without incurring high costs. The lecture was highly informative and appreciated by all participants. A large number of corporate and student members of IEI and AIVA actively participated in the event.

Madurai

Organised a technical visit at Water Resources Department for Full Weather Station – Kundrakudi and Kali Aerated Water Works, Karaikudi on 10 September 2025.

Muzaffarpur

In association with MIT Muzaffarpur, organized a Technical Activity Programme on Robotic Model Competition (DANGAL) – as part of TECHMITI 2025, during 19 and 20 September 2025 at Muzaffarpur. The two-day Tech Fest witnessed enthusiastic participation from around 600

students representing 35 Engineering and Polytechnic Colleges across Bihar, competing in 17 different technical events. The inaugural ceremony of TECHMITI 2025 was graced by Prof Ramanna Reddy, Director, NIT Kurukshetra, who inaugurated the event and encouraged students to innovate through technology. The Robotic Model Competition (DANGAL), coordinated by the Muzaffarpur Local Centre, IEI, drew immense interest for its creative and technical excellence. The event concluded successfully, fostering innovation, teamwork and a spirit of engineering excellence among the participants.

Tiruchirappalli

In association with The Safety & Quality Forum, IEI, New Delhi; The Indian Institute of Welding, Tiruchirappalli Branch; The Computer Society of India, Tiruchirappalli Chapter and The Indian Society for Non-Destructive Testing, Tiruchirappalli Chapter, Organized an online lecture programme on 05 August 2025. The lecture was delivered by Dr Hariprasath Ganesan, Senior Scientist, Materials Data Science and Informatics (IAS-9), Forschungszentrum Jülich, Germany, who shared his expert insights on the integration of data science and informatics in materials engineering, highlighting its applications in predictive analysis, material design and structural reliability. The programme witnessed the active participation from the corporate members, including engineers, researchers, academicians and professionals from allied disciplines.

In association with the Computer Society of India, Tiruchirappalli Chapter organized an online lecture on 12 August 2025. Er R Selvaraj, Past Chairman of the centre, emphasized the importance of technological awareness in the modern digital era. The lecture was delivered by Er T Jaganathan, Managing Director, Future Calls Technology Private Limited, Chennai, an expert in IT infrastructure and information security consulting, who shared valuable insights on emerging trends in cyber security, data protection and IT management strategies for enterprises Mr R Saravana Kumar, Former Director, CTS and Vice Chairman, CSI Coimbatore Chapter, delivered the concluding remarks.

Organized an online lecture programme on 19 August 2025. The lecture was delivered by Dr T Senthil Vinayakam, Vice President, Janyu Technologies Pvt Ltd, Vasai, Maharashtra, who shared his insights on emerging technological advancements and their impact on quality and safety in engineering systems. The event witnessed active participation from the corporate members, including professionals, academicians and students from various technical domains.

In association with the Quality Forum, IEI, New Delhi, organized an online lecture programme on 26 August 2025. The lecture was jointly delivered by

Er Murugan Mallaiyan, Implementation Manager and Lead, NBS – Carbon Project Development, M/s Thyrye Earth and Er Prabhakar Panda, Lead, NBS – Carbon Project Development, M/s Thyrye Earth, who discussed innovative strategies for carbon management and sustainability initiatives through Nature-Based Solutions (NBS). Their presentation highlighted the role of engineering practices in supporting global carbon neutrality goals and environmental conservation. Er Kannan Rahavan, TQM Consultant, Visiting Faculty and National & International Jury for ICQCC, Tiruchirappalli, introduced the speakers and outlined their professional expertise. The event witnessed active participation from engineers, academicians and professionals across various disciplines.

Trichur

Organized an Invited Lecture on 'Research and Innovation in the Era of AI' on 28 August 2025 at Trichur. Speaker of the session was Dr Shalij P R, former Director of Technical Education, an eminent academician with rich experience in industry, research and administration. He highlighted the evolving landscape of engineering research and discussed how AI tools can enhance research productivity while cautioning against over-dependence on generative AI, which may impede creativity and problem-solving skills. During the interactive session, he addressed concerns raised by faculty members from Vidya Academy of Science and Technology and Maharaja's Technological Institute, offering practical solutions to balance AI-assisted research with human intellect. Er Thomas John V, Chairman, Trichur Local Centre, IEI who contextualized the topic with examples of AI applications in pharmaceutical R&D.

Udaipur

Organized a highly informative technical talk on 'ISRO Space Exploration Beyond Chandrayaan-3' on 29 August 2025 at Udaipur. Chief Guest and Keynote Speaker, Shri Nilesh M Desai, Distinguished Scientist and Director, Space Applications Centre (SAC/ISRO), Ahmedabad, in his address, praised the historic achievement of Chandrayaan-3, describing it as a moment of national pride and a gateway to greater space accomplishments. Shri Desai delivered an inspiring lecture highlighting ISRO's roadmap for future missions, including Gaganyaan, India's first indigenous human spaceflight project and upcoming collaborative ventures such as Chandrayaan-4 with Japan. He elaborated on advanced satellite technologies, sensors developed at SAC and the growing role of private participation in India's space program. Dr Harsh Seth, Scientist, SAC/ISRO, spoke on ISRO's scientific applications, emphasizing innovations in weather forecasting, disaster management and the NavIC navigation system.

Be Proud to be a Certified International Professional Engineers (IntPE) by IEI

Who can apply for International Professional Engineers?

Basic Requirements for certification as International Professional Engineer

- ⊙ Bachelor's Degree in Engineering or equivalent recognised by Statutory Authority or Government of India;
- ⊙ Experience of 7 years in engineering practice. Out of 7 years of experience 2 years in a responsible position of significant engineering activity.

How to apply for International Professional Engineers?

For details
please visit the link:
<https://shorturl.at/j36fo>
or
scan the code →



Why become an International Professional Engineer??

International Professional Engineer (Int.PE) Certification enables engineering professionals to advance their career aspiration in wide ranging ways.

- ⊙ The International Professional Engineers, registered with IEI, may receive credit when seeking registration or licensure in the jurisdiction of another member i.e this will facilitate an engineer in mobility across member jurisdictions;
- ⊙ Empowered by International Professional Engineers Agreement (IPEA), IEI maintains the register of the International Professional Engineers (IntPE) in India;
- ⊙ Enhances an engineering professional's stature and gives confidence to employer/ prospective employer about competency of Certified Engineer;
- ⊙ IntPE Certificate facilitates an engineer in Professional Mobility.

For any query and assistance, please send email to: pe@ieindia.org or contact (033) 40106220

Discount at the Samsung e-store for IEI Corporate Members

Exclusive access to the Samsung e-store for IEI Corporate Members. This shall enable the Corporate Members to procure the Samsung Products at a discounted rate. The Samsung e-store can be accessed at www.samsung.com/in/multistore/iei using your Membership No. and email id/Mobile Number.

Chartered Engineer Certification

The Members who have not availed the Chartered Engineer Certificate [CEng(I)], are requested to apply online:

<https://www.ieindia.org/WebUI/iei-Memb.aspx#chartered-engineering>

Corporate Air Ticketing for IEI Members

Corporate Members may book Corporate Air Ticket through M/s EBIX Travels Private Ltd. For details please visit <https://www.ieindia.org/webui/IEI-AirTickets.html>

Empanelment as Advocate/ Attorneys & Chartered Accountant who are also Engineers

The Institution of Engineers (India) invites practicing Advocates/Attorneys and Chartered Accountants who are also Engineers to apply for empanelment to enhance their visibility in the public domain. Empanelment entails a nominal application fee of Rs. 5900/- (inclusive of GST) payable by Demand Draft/Multi-city Cheque drawn in favor of "The Institution of Engineers (India)" and payable at Kolkata.

Applicants are requested to send a hard copy of their application to the **Deputy Director (Membership)**, The Institution of Engineers (India), 8 Gokhale Road, Kolkata 700020. For further details, please visit our website at <https://www.ieindia.org/webui/iei-home.aspx>.

Know-Your-Member (KYM)

Is your mobile number & e-mail updated with us? If not, then please forward your Know-Your-Member (KYM) form immediately to participate in the elections of IEI from 2026 onwards.

You are requested to forward your KYM along with the self-attested copy of photo ID proof to the address given below:-

Deputy Director (Membership)

The Institution of Engineers (India)
8 Gokhale Road, Kolkata 700020
E-mail: datamemb@ieindia.org

The form is available on IEI Website <https://shorturl.at/8Q5tF> or scan the code:



Upgradation of Membership

Members of The Institution of Engineers (India) who meet the prescribed eligibility criteria are encouraged to apply for upgradation of their membership as follows:

Associate Members (AMIE) who fulfill the required experience and qualifications may apply for upgradation to the Member (MIE) or Fellow (FIE) grade, as applicable.

Members (MIE) who satisfy the requisite professional standing and contributions are invited to apply for elevation to the prestigious grade of Fellow (FIE).

For detailed eligibility criteria and application procedures, please contact:

Deputy Director (Membership)

The Institution of Engineers (India), 8 Gokhale Road, Kolkata 700020

✉ dd.membership@ieindia.org

Advertisement Rates in IEI Publications

IEI News (Printed + Online)

Reach: 2,00,000 members by e-mail + 400 hard copies to industries, Government Departments and others + Available online

Schedule: Monthly - 12 issues in a year

Rate per issue

Description	Size	Type	Total Cost (Rs.) (including GST)
Inside Full Page	20.6 cm (width) x 27.6 cm (height)	Colour	50,000
Inside Half Page	20.6 cm (width) x 13.75 cm (height)	Colour	30,000
Inside Quarter Page	10.3 cm (width) x 13.75 cm (height)	Colour	15,000
5% discount for advertisement in 6 consecutive issues			
10% discount for advertisement in 12 consecutive issues			

IEI Epitome (Online)

Reach: 1,25,000 members by e-mail + Available online perpetually

Schedule: Monthly - 12 issues in a year

Rate per issue

Description	Size	Type	Total Cost (Rs.) (including GST)
Inside Full Page	18.9 cm (width) x 23.1 cm (height)	Colour	30,000
Inside Half Page	18.9 cm (width) x 11.55 cm (height)	Colour	15,000
Inside Quarter Page	9.46 cm (width) x 11.55 (height)	Colour	8,000
5% discount for advertisement in 6 consecutive issues			
10% discount for advertisement in 12 consecutive issues			

Annual Technical Volumes of Engineering Divisions (Online)

- ❖ Aerospace Engineering Division,
- ❖ Agricultural Engineering Division,
- ❖ Architectural Engineering Division,
- ❖ Chemical Engineering Division,
- ❖ Civil Engineering Division,
- ❖ Computer Engineering Division,
- ❖ Electrical Engineering Division,
- ❖ Electronics & Telecommunication Engineering Division,
- ❖ Environmental Engineering Division,
- ❖ Marine Engineering Division,
- ❖ Mechanical Engineering Division,
- ❖ Metallurgical and Materials Engineering Division,
- ❖ Mining Engineering Division,
- ❖ Production Engineering Division,
- ❖ Textile Engineering Division,
- ❖ Interdisciplinary Coordination Committee

Reach: 1,25,000 members by e-mail + Available online

Schedule: One issue in a year per Engineering Division

Rate per issue

Description	Size	Type	Total Cost (Rs.) (including GST)
Back Cover Page	16.8 cm (width) x 22.6 cm (height)	Colour	30,000
Inside Cover Page	16.8 cm (width) x 22.6 cm (height)	Colour	25,000
Inside Full Page	16.8 cm (width) x 22.6 cm (height)	Colour	20,000
Inside Full Page	16.8 cm (width) x 22.6 cm (height)	B&W	15,000
Inside Half Page	16.8 cm (width) x 11.3 cm (height)	B&W	8,000

For booking, Please write to:

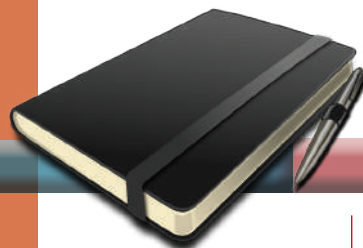
Deputy Director (Technical)

The Institution of Engineers (India), 8 Gokhale Road, Kolkata - 700020

E-mail: technical@ieindia.org/dd.technical@ieindia.org

Payment is to be made by 'at par' cheque drawn in favour of **The Institution of Engineers (India)/RTGS/NEFT**

IEI DIARY



Agricultural Engineering Division

All India Seminar on **"Watershed Development and Management Programmes: Monitoring and Evaluation"**

Ahilyanagar, January 8-9, 2026

The Honorary Secretary, IEI, Ahilyanagar, Abhiyanta Bhavan, Survey No. 243, Behind Haral Hospital, Kalyan Road, Ahilyanagar 414001 [☎: 0241-2323359, E-mail: ahmednagarlc@ieindia.org]

Aerospace Engineering Division

International Conference on **"Sustainable Aerospace Technologies"**

Bhopal, February 26-27, 2026

The Honorary Secretary, IEI, Madhya Pradesh State Centre, Dr M Visvesvaraya Marg, PO: Habibganj, Bhopal 462024 (M. P.), [☎: 0755-2474572, E-mail: mpssc@ieindia.org, Website: www.mpssc@ieindia.org]

Chemical Engineering Division

Civil Engineering Division

One Day Seminar on **"Strategies for Reducing Carbon Footprint in Construction Industry"**

Faridabad, January 28, 2026

The Honorary Secretary, IEI, Faridabad Local Centre, 2nd Floor, Bank Building, J C Bose University of Science and Technology (YMCA), Sector 6, Faridabad 121006, [☎: 01292245008, E-mail: faridabadlc@ieindia.org, Websites: www.ieifbdlc.in]

Computer Engineering Division

All India Seminar on **"Artificial Intelligence Design Thinking and Innovation"**

Agartala, January 16-17, 2026

The Honorary Secretary, IEI, Tripura State Centre, Pandit Nehru Complex, Gurkhabasti, PO: Kunjaban, Agartala, West Tripura 799006 [☎: 0381-2304700, Mobile: 9774129593; E-mail: tripurasc@ieindia.org; ieitripura@gmail.com, Web: www.ieitripura.org]

Electrical Engineering Division

All India Seminar on **"Electrical Vehicle and Charging System Transforming Tomorrows Mobility"**

Navi Mumbai, January 30, 2026

The Honorary Secretary, IEI, Navi Mumbai Local Centre, Plot No. 106, Sector 15, C.B.D Belapur, Navi Mumbai 400614, [☎: 022-49706724, E-mail: navimumbailc@ieindia.org]

All India Seminar on **"Distributed Generation Power Quality Navigating Grid Integration Challenges"**

Coimbatore, February 12, 2026

The Honorary Secretary, IEI, Coimbatore Local Centre, PSG Tech Campus, Peelamedu,

Coimbatore, Tamilnadu 641004 [☎: 0422-2580733, E-mail: coimbatorelc@ieindia.org; ieicoimbatore@gmail.com, Website: www.ieicoimbatore.org]

Electronics & Telecomm. Engineering Division

All India Seminar on **"Flexible Nanoelectronics for Sensing and Biomedical Applications"**

Agartala, February 05-06, 2026

The Honorary Secretary, IEI, Tripura State Centre, Pandit Nehru Complex, Gurkhabasti, PO: Kunjaban, Agartala, West Tripura 799006 [☎: 0381-2304700, Mobile: 9774129593, E-mail: tripurasc@ieindia.org; ieitripura@gmail.com, Web: www.ieitripura.org]

All India Seminar on **"Advances of Electronics & Communication in the Artificial Intelligence Era"**

Chandigarh, February 6-7, 2026

The Honorary Secretary, IEI, Punjab & Chandigarh State Centre, Plot No.1-A, Engineers Bhawan, Madhya Marg, Sector 19-A, Chandigarh 160019 [☎: 0172-2775418, E-mail: pcsc@ieindia.org; ieichd@yahoo.com, Website: www.ieichd.org]

Environmental Engineering Division

One Day Workshop on **"Smart Air Leveraging Cloud and AI to Combat Ultrafine Air Pollution PM.1 and PM1.0 for a Safer Environment"**

Tiruchirappalli, January 08, 2026

The Honorary Secretary, IEI, Tiruchirappalli Local Centre, BHEL Main Office Road, Opposite to 79 Building, Kailasapuram Post, Tiruchirappalli 620014, Tamil Nadu [E-mail: tiruchirappallilc@ieindia.org]

All India Seminar on **"Energy Efficiency in Heating Ventilations and Air Conditioning"**

Ranchi, February 8-9, 2026

The Honorary Secretary, IEI, Jharkhand State Centre, Engineer Bhawan, Nepal Kothi Campus, PO: Doranda, Ranchi 834002 [☎: 0651-3510412, E-mail: jharkhandsc@ieindia.org; Website: ieijscjharkhand.org]

Mechanical Engineering Division

One Day Seminar on **"Green Manufacturing"**

Agra, January 17, 2026

The Honorary Secretary, IEI, Agra Local Centre, Institute of Engineering and Technology, Dr Bhimrao Ambedkar University, Khandari Campus, Agra 282002 [Mobile: 8126892221, E-mail: agralc@ieindia.org, Website: www.ieialc.org.in]

One Day Seminar on **"AI, Digital Twin for Smart CAD/CAM/CAE and Adaptive Toolpath"**

Salem, January 30, 2026

The Honorary Secretary, IEI, Salem Local Centre, 104/7, Manivannan Road, 3rd Floor, SPC Bhawan, Opp to Salem New Bus Stand, Salem

636004 [☎: 0427-2332544, E-mail: salemic@ieindia.org, Website: www.ieislsc.com]

International Conference on **"Advancements in Aerospace, Mechanical and Materials Engineering"**

Vijayawada, February 01-02, 2026

The Honorary Secretary, IEI, Andhra Pradesh State Centre, Dr K L Rao Bhavan, #29-33-14, Near Civil Courts, Gopal Reddy Road, Governorpet, Vijayawada 520002 [☎: 0866-2576822, E-mail: apsc@ieindia.org, Website: www.ieiapsc.org]

All India Seminar on **"Eco Friendly Materials"**

Kanchepuram, April 09-10, 2026

The Honorary Secretary, IEI, Kanchepuram Local Centre, IEI, Jerusalem College of Engineering Campus, Velachery Main Road, Narayanapuram, Pallikaranai, Chennai 600100 [Mobile: 9789924739, Whatsapp No. 8870531609, E-mail: kanchepuramlc@ieindia.org, Website: www.ieindia.org]

Forty-first National Convention of Mechanical Engineers on **"Emerging Domains in Robotics and AI"**

Thiruvananthapuram, September 23-24, 2026

The Honorary Secretary, IEI, Kerala State Centre, Visvesvaraya Bhavan, Opposite Kanakakunnu Palace, Thiruvananthapuram 605033 [☎: 0471-2322991, 8078027563; E-mail: keralasc@ieindia.org; Website: www.ieitvm.org]

Forty-second National Convention of Mechanical Engineers, on **"AI & ML: Bridging Innovations and Shaping Tomorrow's Industries"**

Navi Mumbai, September 17-18 2027

The Honorary Secretary, IEI, Navi Mumbai Local Centre, Plot No. 106, Sector 15, C.B.D Belapur, Navi Mumbai 400614, [☎: 022-49706724, E-mail: navimumbailc@ieindia.org]

Production Engineering Division

Fortieth National Convention of Production Engineers on **"Sustainable Smart Manufacturing for Circular Economy"**

Coimbatore, June 19-20, 2026

The Honorary Secretary, IEI, Coimbatore Local Centre, PSG Tech Campus, Peelamedu, Coimbatore, Tamilnadu 641004 [☎: 0422-2580733, E-mail: coimbatorelc@ieindia.org; ieicoimbatore@gmail.com, Website: www.ieicoimbatore.org]

National Languages Promotional Committee

All India Seminar on **"AI Powered Augmented Reality and Virtual Reality Technologies"**

Coimbatore, January 07-08, 2026

The Honorary Secretary, IEI, Coimbatore Local Centre, PSG Tech Campus, Peelamedu, Coimbatore, Tamilnadu 641004 [☎: 0422-2580733, E-mail: coimbatorelc@ieindia.org; ieicoimbatore@gmail.com, Website: www.ieicoimbatore.org]



Engineering Staff College of India

Autonomous Organ of The Institution of Engineers (India)
(IMS [ISO 9001:2015, ISO 14001:2015, ISO 50001:2018, ISO 45001:2018],
ISO/IEC 17025:2017 Certified, AICTE & CEA Recognized Institution)

Continuing Professional Development Programmes (CPDPs) for the Month of January 2026

Sl. No.	Name of the Course	Scheduled Dates
1.	Preparation of DPR and Tender Documents for Sewage Treatment Plant.	05 - 07 Jan 26
2.	Pumped Storage for Sustainable Power System - Implementation Challenges	05 - 07 Jan 26
3.	Artificial Intelligence and Machine Learning for Predictive Maintenance, and Process Automation in Process Industries	05 - 08 Jan 26
4.	Cyber Forensic Tools & Investigation Process	05 - 09 Jan 26
5.	Principles & Practices of Sustainable Mining: Corporate Social Responsibility, Social Impact Assessment, Dump Management, Controlled Blasting Techniques, Sewage Treatment, Bio-Medical Waste Management, Conservation and Recycling of Resources, Conversion of Wastes to Resources, Water-Body in Mined out Areas	05 - 09 Jan 26
6.	Planning, Design and Implementation of Water Supply Network and Distribution using GIS	05 - 09 Jan 26
7.	Electronics, Optical Test & Measurements	06 - 08 Jan 26
8.	Internal Auditor training - ISO 45001:2018 Occupational Health and Safety Management Systems	06 - 09 Jan 26
9.	Leadership Styles and Teambuilding Skills for Organisational Excellence	07 - 09 Jan 26
10.	Software Quality Assurance	19 - 21 Jan 26
11.	Effective Technical & Managerial Skills for Overman, Foremen, Electrical Supervisors & Chargehands in Industries.	19 - 21 Jan 26
12.	Design and Optimization of IoT Based Smart Irrigation System	19 - 21 Jan 26
13.	Non - Destructive Testing and Failure Analysis of Castings, Forgings, Weldments and Tubes	19 - 22 Jan 26
14.	ISO 9001:2015 QMS - Effective Implementation & Internal Auditor Training	19 - 22 Jan, 26
15.	Contract Management & Dispute Resolution in Engineering Projects	19 - 23 Jan 26
16.	Reciprocating compressors, screw compressors, pumps – Operational problems and remedial methods	19 - 23 Jan 26
17.	CEA Regulations 2023 - Measures relating to Safety, Electric Supply Associated Maintenance and Safety Practices	20 - 23 Jan 26
18.	Building Resilient Towns through Effective Solid Waste Management	21 - 23 Jan 26
19.	Training on Artificial Intelligence (AI) and Machine Learning	21 - 23 Jan 26
20.	Current Environment legislation and Regulations	22 - 24 Jan 26
21.	IT Solutions in DISCOMs	27 - 29 Jan 26
22.	CNC Cutting tools and Machining Techniques (Selection of Tools, Sustainable Cutting Fluids and Cutting Parameters for CNC Machining)	27 - 30 Jan 26
23.	Laboratory Management System Awareness & Internal Auditing (As per ISO/IEC 17025:2017 & NABL Requirements)	27 - 30 Jan 26
24.	Operation & maintenance of Hydro Mechanical Equipment Effective	28 - 30 Jan 26

For detailed information please contact:

Engineering Staff College of India

Old Bombay Road, Gachibowli, Hyderabad – 500 032

Landline : 040-66304100 & Mobile: +91 7337319038 E-mail : mis@escihyd.org / URL : <https://escihyd.org>

Superannuation from IEI

Mr Samir Chakraborty, an employee of the West Bengal State Centre was superannuated from the services of IEI on 31 December 2025. He joined the Institution on 11 September 1991 and rendered his services to the Institution over a period of 34 years.

IEI wishes Mr Samir Chakraborty and his family a happy and healthy life in the future.



The Institution of Engineers (India)

Notification for R&D Grant-in-Aid

To promote appropriate technology, assist in building up design & research talents and, most importantly, to help in nurturing potential R&D venture amongst engineering students pursuing Diploma/UG/PG/PhD courses, The Institution of Engineers (India) had instituted the R&D Grant-in-Aid program way back in 2001.

Like every year, the Institution invites applications for the session 2025-26 for funding industry-oriented R&D projects and research initiatives aimed at improving the life-style of common people from engineering students pursuing full time Diploma/UG/PG/PhD engineering program in AICTE/UGC/NAAC approved Institutions/Colleges/Universities. The application form and guidelines are available in our website <https://www.ieindia.org>. The projects should be carried out under the guidance of faculty members who are Corporate Members of IEI. Membership criteria for student investigator(s), guide(s) and Institution(s) are as follows:

Project Category	Student/Applicant Membership	Guide(s) Membership	Institutional Membership	Quantum of Grant (INR)
1. Diploma	Exempted [Membership of Student Chapter is desirable]	AMIE/MIE/FIE	Not Mandatory	Not exceeding ₹15,000/- for a single project
2. UG (BE/BTech/AMIE/Equivalent)	SMIE	AMIE/MIE/FIE	Applicant's Institute should preferably be an Institutional Member with NBA / NAAC Accreditation	Not exceeding ₹50,000/- for a single project
3. PG (ME/MTech/Equivalent)	AMIE/MIE/FIE	MIE/FIE	Applicant's Institute should preferably be an Institutional Member with NBA / NAAC Accreditation	Not exceeding ₹1,00,000/- for a single project
4. PhD	AMIE/MIE/FIE	MIE/FIE	Applicant's Institute should preferably be an Institutional Member with NBA / NAAC Accreditation	Not exceeding ₹1,50,000/- for a single project

The soft copy of the duly filled-up applications (in editable format), as per the pro-forma available in our website www.ieindia.org, should be sent through email to research@ieindia.org and one printed copy of the same should reach the following address:

Deputy Director (Technical)

The Institution of Engineers (India), 8 Gokhale Road, Kolkata 700 020

Applications received in format other than that available on our website will not be accepted. Application should be forwarded through the Guide, Head of the Department or Head of the Institution. Please note that preference will be given to project proposals received from Institutions who are Members of The Institution of Engineers (India) and with NBA / NAAC Accreditation. Kindly go through the guidelines ([visit link https://shorturl.at/BiAOQ](https://shorturl.at/BiAOQ)) carefully before filling up the application.

The grant is not intended for the faculty members / working individuals who have access to other avenues of research funding. Proposals received will be scrutinized and the recipients of R&D Grant will be informed accordingly.

I.E.I NEWS

ISSN 0971-3352

Owner : The Institution of Engineers (India), 8 Gokhale Road, Kolkata 700 020
 Printer : Maj Gen (Dr) MJS Syali, VSM (Retd), Secretary & Director General
 Publisher : Maj Gen (Dr) MJS Syali, VSM (Retd), Secretary & Director General
 Published from : 8 Gokhale Road, Kolkata 700 020
 Printed from : M/s Florence Offset Process Pvt. Ltd.
 6A S N Banerjee Road, Kolkata 700013
 Editor : Maj Gen (Dr) MJS Syali, VSM (Retd), Secretary & Director General

President : Er Manish Mahendra Kothari

Editor : Maj Gen (Dr) MJS Syali, VSM (Retd)

Special Contributors: Mr S Chakraverty, Dr K Sen
 Mr D Nath, Ms H Roy, Mr S Bagchi, Mr Joydeep
 Bhattacharya, Ms Tania Kumar

The Institution of Engineers (India) as a body accepts no responsibility for the statements made by individuals. Reprints of any portion of the publication may be made provided reference thereto is quoted.

Telephones: 91-33-40106299/248/228/215; Web: <http://www.ieindia.org>; E-mail: iei.technical@gmail.com