



IEI NEWS

April 2025

Modern Steel Manufacturing Process

2

Quantum Computing: Unleashing.....

5

Recent Advances on Smart Mining Technologies.....

10

Laser-based Processing: Advancements.....

16

Reports of World Engineering Day for Sustainable...

21

Reports of World Water Day 2025

24

IEI Diary

40

A CENTURY OF SERVICE TO THE NATION

Volume 32

Number 1

IEI Delegation Meets AICTE Chairman to Discuss Draft Professional Engineers Bill 2025



A delegation from The Institution of Engineers (India) [IEI], led by its President, Er V B Singh and comprising of Dr Anil Joseph, Council Member, and Maj Gen (Dr) MJS Syali, VSM (Retd), Secretary & Director General, met Prof. T G Sitharam, Chairman, AICTE, on 28 April 2025 at AICTE Headquarters, New Delhi for discussion on the Draft Professional Engineers (PE) Bill 2025.

The IEI delegation, presented the Institution’s comments on the draft PE Bill. President IEI emphasized the Institution’s unique status as the largest multi-disciplinary professional body incorporated under the Royal Charter and briefed about its objects and purposes, contribution to the promotion of general advancement of engineering profession and its application in India, vast network of centres, fora and organ in the country, recognition as SIRO by MoST and as an Awarding Body (Dual) by NCVET, global footprint including holding India register for IntPE certification etc. The delegation strongly advocated for IEI’s permanent representation on Indian Professional Engineers Council (IPEC) Board of Governors, additional proportional representation in the (IPEC), suitability of IEI as the First Licensed Registration Body, recognition of IEI qualifications and the authority to award CPD credits etc. Prof Sitharam acknowledged IEI’s historic role and expressed optimism regarding its inclusion in the proposed council’s governance.

The Chairman AICTE appreciated the recent recognition of IEI as an Awarding Body (Dual) by NCVET. and encouraged IEI to deepen its involvement in skill development through MoU-based collaborations. Furthermore, IEI delegation requested Chairman, AICTE for his support in the pending issue of recognition for candidates who qualified Section A & B examinations between 2013 and 2020.

The meeting concluded on a constructive note, with a shared commitment to foster professional collaboration, policy advocacy, and capacity building in the engineering sector.

From the President’s Desk.....

Bringing Everyone Along in the Digital Journey



Every year on 17 May, we celebrate World Telecommunication and Information Society Day (WTISD). The theme for this year — Gender equality in digital transformation — makes us pause and ask: as technology grows, are we ensuring everyone grows with it?

We live in a time when digital tools are opening doors to education, work, healthcare, and communication. Yet, many women and girls are still missing out on this transformation. And the reasons aren’t always what we think.

Sometimes, it’s not about attitude — it’s about infrastructure. In many rural or remote areas, there simply isn’t reliable internet or access to digital devices. When resources are limited, women and girls are often not the priority for training or tools. Even when connectivity is available, the lack of digital literacy programs tailored to women can create hesitation or fear of using technology.

There’s also the issue of representation. When young girls don’t see women working in tech roles or engineering fields, they begin to believe those spaces aren’t meant for them. And so, a silent divide grows — not because of a lack of potential, but because of a lack of inclusion.

This is where we, as engineers, have an important role to play.

We can build more than just machines — we can build pathways to participation. We can design systems that are accessible and intuitive, create learning tools in local languages, or develop platforms with women’s safety in mind. We can work with schools, colleges, and communities to spark curiosity and confidence in girls about engineering and technology.

As Kalpana Chawla once said: “The path from dreams to success does exist. May you have the vision to find it..”

Let’s make sure that path is open to everyone, and that technology becomes a bridge — not a barrier — for the women and girls who have just as much right to dream, build, and lead.

Modern Steel Manufacturing Process

Tamilnadu State Centre, IEI, in association with Thiagarajar Polytechnic College, Salem organised the 37th National Convention of Metallurgical and Materials Engineers at Salem during 06-07 December 2024 under the aegis of Metallurgical & Materials Engineering Division Board, [MMDB], IEI. A National Seminar was also organized on the theme **Modern Steel Manufacturing Process** concurrently with the National Convention.

The event commenced with the auspicious Invocation, followed by the lighting of the lamp by the dignitaries on the dais. Dr V Karthikeyan, Chairman, Tamil Nadu State Centre, IEI delivered the welcome address and outlined the objectives of the National Convention. Er S Natarajan, Convener & Member, MMDB, IEI [Session 2023-24] briefed about the theme of the National Convention. Er Kishore Kumar Mehrotra, Chairman, MMDB, IEI presided over the inaugural function. In his address, Er Mehrotra highlighted that this National Convention will serve as an invaluable platform for exchanging ideas & promoting collaboration for faster & effective use of New Steel Manufacturing Process to create a better tomorrow. Mr Thyagu Valliappa, Vice-Chairman, TPT-Sona Institutions graced the inaugural session as the Chief Guest. In his address, Mr Valliappa highlighted that India is the second largest producer of steel worldwide; National Steel policy is aiming to increase the steel production capacity to 300 million tons by 2030. This policy encourages modernization, efficiency and sustainability in steel production making India a competitive player globally.

Dr R Vijayan, Principal, Government College of Engineering, Salem graced



the occasion as the Guest of Honour. In his address, Dr Vijayan explained that Indian steel sector accounts for about 12% of CO₂ emission with an emission intensity of 2.55 ton of CO₂ / tones of crude steel production. He further mentioned that steel industry is responsible for around 240 million tones of CO₂ emissions annually and expects to increase in future considering the requirement for infrastructural development of the nation: There are multiple technology pathways that could help in the transition from traditional methods to low emission intensity technology like green hydrogen, renewable energy, carbon capture, usage and storage technology with Blast Furnace, Basic Oxygen Furnace, Direct Reduced Iron, Electric Arc Furnace etc and advocated for green hydrogen based route for steel production.

Dr G Ranganath, the then President, IEI in his address mentioned that the National Convention reflects the ongoing commitment of IEI to fostering collaboration and innovation in the field of metallurgical and materials engineering, one of the critical sector for industrial development of the country. On the occasion, Dr V Balasubramanian, Professor of Manufacturing Engineering & Director, Centre for Materials Joining & Research (CEMAJOR), Annamalai University, Chidambaram, Tamilnadu; Er S M Kumar, Senior Vice President and Head, Operations & Maintenance, JSW Steel Limited, Salem Works, Salem, Tamilnadu; and Dr S Ravi, Scientific Officer-G, Head, Hot Laboratory Ventilation and Operations Section, Post Irradiation Examination Division, Metallurgy & Materials



Dr V Balasubramanian



Er S M Kumar



Dr S Ravi



Dr Gaurav Kumar Bansal



Dr Rahul



Mr Kumar Abhishek

Group, Indira Gandhi Centre for Atomic Research, Kalpakkam were felicitated as Eminent Engineering Personalities in recognition of their eminence and contribution to the profession of Metallurgical and Materials Engineering. The IEI Young Engineers Award for the year 2024 were presented to Dr Rahul, Assistant Professor, Department of Mechanical Engineering, Chaitanya Bharathi Institute of Technology, Hyderabad; Dr Gaurav Kumar Bansal, Scientist, Materials Engineering Division, CSIR National Metallurgical Laboratory, Jamshedpur,

Jharkhand and Mr Kumar Abhishek, Manager, Research and Development Centre for Iron and Steel, Ranchi in recognition of their contributions in the field of Metallurgical and materials Engineering. Er D Gokul, Honorary Secretary, Tamilnadu State Centre, IEI proposed the vote of thanks at the end of inaugural session.

The Inaugural Session was followed by V Subramony Memorial Lecture, delivered by Dr Raguraman Munusamy, Associate Professor & Head, School of Interdisciplinary Design and Innovation, Indian Institute of Information Technology, Design and Manufacturing (IIITDM), Kancheepuram on the topic 'Optimization of Process Parameters during Laser Powder Bed Fusion of Thin-walled Aero Engine Components'. The speaker explained about complex thin-walled components, which find numerous applications in aerospace, automotive, and marine domains to meet the demands of design, manufacturing, durability, reliability, fuel efficiency, and sustainability due to their superior properties. Although thin-walled components offer several advantages, their manufacturing presents significant challenges, especially when it comes to achieving the required geometric characteristics, uniform distribution of tolerances, surface integrity, consistency and accuracy.



Further, the speaker explained that, Laser Powder Bed Fusion (LPBF) created interest in industries, particularly in aerospace sectors, in producing metallic components with complex geometries directly from the CAD model. In the LPBF process, a thin layer of material is selectively melted and solidified, resulting in the creation of a dense and precise geometric structure. However, the high-temperature gradient developed in this process due to the rapid heating and cooling cycles leads to thermal distortions, which cause dimensional inaccuracies and significant variation in the mechanical performance of the parts.

During the technical sessions, Mr N Sai Rama Krishna, Vice President, JSW Steel Limited, Salem Works delivered an Invited Lecture on the topic 'CO₂ Reduction in Steel Making Process' and explained that the global effects of CO₂ emissions are profound, as CO₂ is a major greenhouse gas contributing to climate change.

Contd. on page 5

Internet of Things (IoT) Reconnecting the World

Rourkela Local Centre of The Institution of Engineers [India], in association with the Department of Electronics and Telecommunication Engineering, NIT Rourkela organized the 39th National Convention of Electronics and Communication Engineers during 14-15 February 2025 under the aegis of Electronics and Telecommunication Engineering Division Board [ETDB], IET at the premises of Rourkela Local Centre, NIT Rourkela. A National Conference was also organised concurrently on the occasion on the theme **Internet of Things (IoT) Reconnecting the World**. Prof K Umamaheshwar Rao, Director, NIT Rourkela graced the inaugural function as the Chief Guest. Er R K Muduli, Chief General Manager [Electrical], Rourkela Steel Plant graced the function as the Guest of Honour. Dr (Ms) Gunnu Padmavati, Chairperson, Electronics and Telecommunication Engineering Division Board, IET presided over the inaugural session. Prof (Dr) Girish Shrikisan Mundada, Vice President, IET and Member, ETDB, IET and Dr Nutan Kumar Das, immediate Past Vice President, IET were also present on the dais and addressed the august audience.

The event started with invocation and lightning of the lamp by the dignitaries present on the dais. Er Santosh Kumar Polaki, Chairman, Rourkela Local Centre, IET welcomed the Chief Guest, Guest of Honour, Vice President and Immediate Past Vice President, IET, Council Members, delegates, researchers, industry personnel and participants. He said that in the present era, intelligent decision making with minimum human interventions is on the prime focus for the smart connected world. He opined that the real time and innovative ideas towards advancement of seamless communication and industrial automation will be explored during the two-day deliberation that leads towards the fulfilment of the objectives of Vikshit Bharat@2047. Chief Guest, Prof K Umamaheshwar Rao in his address emphasized on the development of indigenous technologies and import substitutions towards advancement of IoT and development of more startup initiatives in AI, ML, DL and development of 6G networks. He further appealed to the young engineering fraternity for more initiatives towards research and innovation in technological advancement in IoT and telecommunication domain. Guest of Honour, Er R K Muduli, in his address mentioned that the advancement in intelligent manufacturing, healthcare, sustainable energy conservation, integration of smart sensors, cyber security are the prime factors for technological advancement in the digital world. He stressed on continuous learning process, upskilling and reskilling and relooking towards the learning methodologies for further upgradation. He felt that it is the duty of the academicians, professionals and researchers to nurture the young minds towards research to achieve technological excellence for a better connected world.

On the occasion, Prof (Dr) D P Acharya, Centre for IoT and Embedded Technologies (CIET), Department of Electronics and Communication, NIT Rourkela; Er Sudip Pal Chowdhury, Executive Director (Projects), Steel Authority of India Limited, Rourkela Steel Plant and Prof (Dr) S Narayana Reddy, Department of Electronics & Communication Engineering, University College of Engineering, Sri Venkateswara University, Tirupati [in absentia] were felicitated as Eminent Engineering Personalities for their relentless contribution in the field of Electronics and Telecommunication Engineering. The IET Young Engineers Award 2023-24 in Electronics and Telecommunication Engineering Division was presented to Er Nami Susan Kurian, Assistant Professor, Department of Electronics and Communication Engineering, Jyothy Institute of Technology, Bengaluru for her achievement

in the field of Electronics and Communication Engineering. A Souvenir was released on the occasion in the august presence of the dignitaries on the dais. Dr Ajit Behra, Honorary Secretary, Rourkela Local Centre proposed the vote of thanks.

The inaugural session was followed by the Prof S K Mitra Memorial Lecture, State of art Lecture, Invited lectures and technical presentations. The National Convention was well attended by the academicians, industry professionals, researchers and students. Prof B B V L Deepak, Department of Industrial Design Engineering, NIT Rourkela delivered the Prof S K Mitra Memorial Lecture on the topic 'IoT for Robotic Application'. The Speaker in his lecture explained Internet of Robotic Things, human-robot interface, cognitive systems, customization etc. He discussed the function of sensors in robots with models and prototypes, development of robotic manipulators, relation between Biological Immune System and



Autonomous Mobile Robot Navigator. The State-of-Art Lecture was delivered by Er Chetan Kumar Shivakumar, Technopreneur in Residence, ART Park, IISc Bangalore on the topic 'AI Enabled Industry 5.0: Technology Stacks for the Future of Manufacturing'. In his lecture, Er Shivakumar outlined the concept of Technology stack that consists of Application Realm, Virtualization Realm and Physical Realm. He further explained Edge Computing Infrastructure, Simantic Digital Twins, AI enabled business applications, etc. Dr Sumantra Dutta Roy, Department of Electrical Engineering, IIT Delhi delivered the Keynote Lecture on the topic 'Machine Learning Applications in Land and Atmospheric Studies'. Dr Sudarsan Sahoo, Department of EI, NIT Silchar delivered Keynote Lecture on the topic 'Application of AI and IoT



Prof (Dr)
D P Acharya



Prof (Dr) S
Narayana Reddy



Er Sudip Pal
Chowdhury



Er Nami Susan
Kurian

for Condition Monitoring of Wind Turbine Generators'. Prof (Dr) D P Acharya delivered an Invited Lecture on the topic 'Transforming Industries through Internet and Intelligence' and deliberated at a length on the goals of industrial transformation, Mass Personalization and Industry 5.0, IIoT, Cyber Physical Systems and Smart Factory, Intelligent Computing, etc. Prof Jagabandhu Panda, Department of Earth and Atmospheric Sciences, NIT Rourkela delivered Invited Lecture on the topic ML/DL based Frameworks in Land and Atmospheric Studies: An Understanding through Scientific Research Outcomes'. Dr Amiya Dash, BML, Munjal University, Gurugram delivered Invited Lecture on the topic 'AI enabled IoT Framework for Leakage Detection and its' Consequence Prediction during External Transportation of LPG'. Dr Ashis Ranjan Dash, CEO, Smart Infrastructure Research Centre delivered Invited Lecture on the topic 'Harnessing AI, IoT and Automation for the Future of Farming'. Dr Udit Satija, Department of Electrical Engineering, IIT Patna delivered Invited Lecture on the topic 'Deep Learning for Internet of Things (IoT) based Biomedical systems through online mode. Dr Sougata Kar, Department of Electronics and Communication Engineering, NIT Rourkela

Contd. on page 6

Green Technology for Environmental Management

Assam State Centre, IEI, in association with the Pollution Control Board, Assam organized an All India Seminar on the theme **Green Technology for Environmental Management** during 24-25 September, 2024, under the aegis of Environmental Engineering Division Board [ENDB], IEI at Guwahati. The event, spread over two days, included three technical sessions and a panel discussion, with participation of professionals, researchers and students from various academic institutions, including IIT Guwahati.

The seminar commenced with a welcome address by Er Monojit Mishra, Honorary Secretary, Assam State Centre, IEI. He highlighted the importance of adopting green technologies for effective environmental management. Chief Guest, Dr A K Barua, Past Chairman, Assam State Centre, IEI, delivered a speech emphasizing the need for shifting to green technologies for environmental sustainability. Shri Pranta Pratim Singha, Chief Manager, Corporate Planning, Numaligarh Refinery Limited, delivered the Keynote Address. He highlighted the importance of transitioning from traditional energy sources to renewable energy and the potential role of nuclear energy in environmental management. Er Mahesh Barkataki, Chairman, Assam State Centre, IEI, summarized the speeches and deliberations during the inaugural session. Dr A Misra, Convenor of the Technical Committee, discussed the challenges associated with current energy sources and the need for green technology adoption in environmental management. Er Amitava Nath, Past Honorary Secretary, Assam State Centre proposed the vote of thanks at the end of inaugural session.

Eight papers were presented during three technical sessions on relevant



topics, namely, 'Mixed Matrix Membranes in Gas Separation: A Review on Utilization of Membranes for Greenhouse Control and Low Carbon Emission', 'Advancing Environmental Sustainability through Implementation of Green Technologies in Numaligarh Refinery Limited', 'Deriving Bio-Lubricants from Processed Mixtures of Vegetable Oils', 'Feasibility and Effective Analysis among Advanced Green Technologies in Waste Management', 'Expanded Polystyrene Waste in Bitumen Modifier for Road Construction Applications', 'Performance of Aerobic Suspended Growth Reactor operated with Batch Feeding Mode under Long Duration Non-aeration Conditions', 'Brick Kilns: Technology, Emissions, and Environmental Impacts' and 'Performance Monitoring of a Few Rural Water Supply Systems in North Guwahati'.

A Panel Discussion was held at the end of the seminar and the panel analyzed the technical papers presented and discussed their relevance to environmental sustainability, focusing on low-carbon emissions, green technologies in industries and innovations in waste management.

The seminar concluded with a valedictory address by Prof (Dr) S K Kakoty, Past Chairman, Assam State Centre, who provided a deep analysis of the technical papers and discussions. He emphasized the importance of continuing research and innovation in green technologies for environmental sustainability. The All India Seminar brought together experts from academia, industry and government to explore green technologies and their applications in environmental management. The participants engaged in lively discussions and the seminar highlighted the need for sustainable solutions in various sectors to mitigate environmental challenges.

Green Energy & Clean Energy for New India

Kerala State Centre, IEI, organized an All India Seminar on the theme **Green Energy & Clean Energy for New India** during 10-11 September, 2024, under the aegis of Electrical Engineering Division Board [ELDB], IEI at Thiruvananthapuram. The Seminar aimed to bring together professionals from various fields to discuss the importance and relevance in the present scenario of global warming and climate change.

Er Shaji Jacob, from Electrical Engineering Division of the host Centre, welcomed the guests, participants and speakers and set the tone for the seminar. Er P Balakrishnan Nair, Chairman, Kerala State Centre, IEI presided over the function. In his address, Er Nair elaborated the importance and relevance of the theme in present scenario. Er V N Prasad, Chief Engineer (Projects), Kerala State Electricity Board Limited, inaugurated the seminar and delivered the inaugural address. He emphasized the need of using maximum power during the day time by tapping the solar power, so as to reduce the peak load demand, the power for which are now purchased from outside agencies at a higher cost. Prof (Dr) M Jayaraju, Immediate Past Chairman, Kerala State Centre delivered the Keynote address, mentioned about the PARIS Conference (COP 24) on climate change in which India is a signatory. Er K R Suresh Kumar, Honorary Secretary, Kerala State Centre proposed the vote of thanks.

Dr G Pavithran, Former Chief Engineer, HR & Transmission, KSEBL delivered a talk on 'Impact on Distribution Transformers due to Adding of Solar Power to the Grid by Consumers', and discussed about KSEBL initiatives to augment the distribution process including capacity addition to the distribution transformers. Prof (Dr) K Surendran, Former Professor, Department of Electrical Engineering, College of Engineering, Thiruvananthapuram delivered a talk on 'Battery Technology and Battery

Management System', and discussed about the manufacturing of batteries of different range, capacity and specifications. Er J Sudhakaran Nair, Former Deputy Chief Engineer, KSEBL delivered a talk on 'Green Hydrogen' and projected Hydrogen as the future fuel. He discussed blue, grey and green hydrogen and their physical and chemical properties. Prof (Dr) P S Chandramohan, Former Professor, Department of Electrical Engineering, College of Engineering, Thiruvananthapuram, Former Principal Government



Engineering College, Barton Hill & Former Director, Agency for New and Renewable Energy Research and Technology (ANERT) delivered a talk on 'Can Renewable Energy help Solve Climate Change'. Mr Joseph Gerge, Energy Consultant, Carinae Consultants Private Limited delivered a lecture on 'Prospects and Challenges of Wind Power Development In Kerala' and furnished the statistics of wind power generation.

Dr Johnson Y, Associate Professor, Lourdes Matha College of Engineering & Technology, Thiruvananthapuram delivered a lecture on 'Possibilities

Contd. on page 6

Modern Steel Manufacturing Process

Contd. from page 2

Dr A Kannan, Head of Department, Production Engineering, Thiagarajar Polytechnic College delivered an Invited Lecture on the topic 'Advancements and Applications of Composite Materials in Industrial Engineering'. His research seeks to discover and analyse the characteristics of composites that contribute to their performance improvement.

Dr D Senthilkumar, Head, Mechanical Engineering Department, Sona College of Technology delivered an Invited Lecture on the topic 'Incorporating Biochar into Fuel Systems of Iron and Steel Industry'. Biochar presents a promising renewable energy source that can be integrated into the iron and steel production process to partially replace fossil fuels and reduce high-intensity greenhouse gas emissions. However, uncertainties remain regarding biochar's capacity for emission reduction and its economic feasibility, which are influenced by factors such as the type of biochar precursor, substitution strategies, energy consumption during biochar production, and associated costs. His study aims to explore optimized substitution strategies addressing these challenges.

Mr R Chandrasekaran, Deputy General Manager, SAIL - Salem Steel Plant delivered an insightful Invited Lecture on 'Stainless Steel – A Promising Material for the Modern Era', where sustainability matches performance. He said that stainless steel is the material for the new generation. Whatever be our expectation it could match and will take us to beyond the horizon.

During the technical sessions, IEI Young Engineer Awardees delivered their presentations. Dr Rahul deliberated on the topic 'Microstructure and Mechanical Property Evaluation of Friction Stir Welded AA6061-B4C Composite to SS304'. Dr Gaurav Kumar Bansal presented on the topic 'Steel: Tailored Micro structural Engineering for Improved Performance' and Mr Kumar Abhishek on the topic 'Enhancing Energy Efficiency and Reducing Power Consumption in Ladle Furnaces through Foamy Slag Formation with Lime Stone Chips'.

Also papers were presented on relevant sub theme, which include; Generation of Green Power in Captive Power Plant for Steel Making process at JSW Salem Works; Sustainable Iron Making in Mini Blast Furnace through Process Optimization and Digitalization; An Experimental and Numerical

Analysis on the Effective Utilization of Waste Heat from Ladle Pre-heating System through Heat Exchanger System' etc.

For more details, please follow the link: <https://shorturl.at/E5EdA>

A panel discussion was organized on the topic 'Modern Steel Manufacturing Process' with the objective to explore the recent advancements and technologies that are shaping the future of steel production. Panelists include Chairman, MMDB, IEI, Member of the Division Board and the experts from steel making industry. Experts highlighted the need to shift away from traditional coal-based methods, which are energy-intensive and produce significant CO₂ emissions. Instead, modern steelmaking processes, such as Electric Arc Furnaces (EAF) and Direct Reduced Iron (DRI), which are gaining prominence due to their ability to use alternative and less carbon-intensive energy sources were recommended. The panel also deliberated on the integration of Hydrogen-based steelmaking, which has the potential to completely transform the industry. Using green hydrogen as a reluctant in the DRI process can eliminate CO₂ emissions altogether, making steel production a zero-emission process, the panel opined.

The valedictory function was presided over by Dr V Karthikeyan. Shri V K Pandey, Executive Director I/c, SAIL - Salem Steel Plant delivered the valedictory address and appreciated the efforts taken by the team for the successful conduct of the convention. He further explained the challenges and opportunities faced by steel industries. Recommendations evolved out of two-day deliberation, which was placed during the valedictory session are as follows.

Improvement in decarbonization technologies during steel manufacturing process such as Hydrogen-based Direct Reduced Iron (DRI), Electric Arc Furnace (EAF) needs to be implemented in steel sector; Significant efforts to be taken for energy optimization in steel manufacturing, innovations in waste heat recovery and green energy integration, that can significantly reduce carbon foot prints; Role of global climate agreements, National Carbon pricing schemes and regional emissions regulations need to be explored more in driving the Steel Industry towards greener practices; Defined and precise Frameworks to be formulated for shaping steel Industries strategies and innovations.

All India Seminar under the aegis of Computer Engineering Division Board

Quantum Computing: Unleashing the Power of Quantum Bits

Madurai Local Centre, IEI, in association with the Department of Computer Science and Engineering, K L N College of Engineering, Pottapalayam organized a All India Seminar on **Quantum Computing: Unleashing the Power of Quantum Bits** during 05-06 September, 2024, under the aegis of Computer Engineering Division Board [CPDB], IEI at Pottapalayam. The Seminar was organized to explore the advancements in Quantum Computing. Several eminent personalities from academia and industry participated in the event, sharing their expertise and insights into various aspects of Quantum Computing.

The Chief Guest, Dr R Anandha Murugan, CTO and Co-founder of HR Blusky & Mteamz, Pruvity Group, India & Dubai, delivered the inaugural address, emphasizing the significance of Quantum Computing and its transformative impact on industries and innovation.

Prof (Dr) P Udhayakumar, Chairman, Madurai Local Centre, IEI, delivered the welcome address, setting the tone for the seminar. Following this, Dr S Miruna Joe Amali, Professor & Head

of the Department of Computer Science and Engineering, K L N College of Engineering provided a brief introduction to the Seminar's theme. Dr A V Ramprasad, Principal, KLN College of Engineering, in his address, highlighted the significance of the seminar and the role of Quantum Computing in shaping the future of technology. Dr R Anandha Murugan delivered the Keynote address on 'Foundations of Quantum Computing'. He elaborated on how Quantum Computing leverages quantum mechanics



to solve complex computational problems beyond the capabilities of classical computers. Dr A Muthumari, Assistant Professor, Anna University Regional Campus, Madurai, delivered an Invited lecture on the topic 'Quantum Hardware and Technologies', discussed the advancements and potential applications of quantum hardware, Qubit technologies, Control and Measurement Interface, etc. Dr J S Kanchana, Professor & Head, Cyber Security, KLN College of Engineering delivered Invited lecture on the topic 'Quantum Algorithms and

Contd. on page 8

Integrating Industry 4.0 and Circular Economy: A Path to Sustainable Industrial Transformation in India

Rajasthan State Centre, IEI organized an All India Seminar on the theme **Integrating Industry 4.0 and Circular Economy: A Path to Sustainable Industrial Transformation in India** during 23-24 November 2024 at Jaipur under the aegis of Mechanical Engineering Division Board [MCDB], IEI. The aim of the Seminar was to bring academicians, scientists, industrialists and students at one platform for mutual exchange of knowledge in their respective fields confirming to the theme of the seminar. The objective was to promote collaboration of industry, R&D labs and institutes, and also to identify common goals and problems in technology which need immediate attention. The seminar included topics ranging from traditional materials and manufacturing processes like, steel and casting to advanced materials and manufacturing processes like, nanomaterials and rapid prototyping. Besides, it included emerging topics like, artificial intelligence, machine learning, six sigma, lean manufacturing etc. The environmental and sustainability issues in the metallurgical industries were also included in the theme of the seminar. The technical papers were received from wide categories of scholars, industrialists, scientists and academicians from eminent Institutions and industries in India as well as from abroad. For better visibility and outreach, the Seminar was held in hybrid mode.

Dr T M Gunaraja, Past President, IEI graced the inaugural function as the Chief Guest. The Programme started with Lighting of the Lamp & garlanding the portrait of Bharat Ratna Sir M Visvesvaraya by the Chief Guest, Chairman & Honorary Secretary, Rajasthan State Centre. Er Mahendra Kumar Chauhan, Chairman, Rajasthan State Centre, IEI delivered the welcome address and explained the theme of the event. Dr Hemant Kumar Garg, Honorary Secretary of the host Centre welcomed the Chief Guest, Dr T M Gunaraja. Dr Gunaraja appreciated the selection of the theme of All India Seminar & advised the budding engineers to remain updated with current development.

Er Sajjan Singh Yadav, Chairman, Mechanical Engineering Division Board, IEI also graced the inaugural session.

There were four technical sessions based on the topics, Sustainability, Circular Economy, Principle of 9Rs, Renewable Energy Sources. During the first technical session, Keynote address was delivered by Er P Balakrishnan Nair, Chairman, Kerala State Centre IEI on the topic 'Industry 4.0 Technologies: Generation of Circular Economy in a Sustainable World'. Keynote addresses also presented by Dr Sammer Mittal, Assistant Professor at the JK Lakshmipat University, Jaipur and Dr Punyasloka Pattanaik, Assistant Professor, IBS-ICFAI University Jaipur.



Papers were presented on relevant sub theme, namely; Industry 4.0: A Transformative Concept in Agriculture for Precision, productivity, and Sustainability; Evaluating the Role of Digitalization and Smart Manufacturing in Promoting Sustainable Industrial Growth in India; Achieving Sustainable Industrial Growth in India through the Convergence of Industry 4.0 and Circular Economy; Transforming Healthcare: The Role of Industry 4.0 Technologies in Medical Science and Technology; Developing Smart Manufacturing Systems for Sustainable Industrial Transformation in India through Machine Learning; Electric Vehicles as Product-Service Systems: Toward Sustainable Alternative Consumption Scenario; Challenges to circular practices in the steel industry: A DEMATEL Approach, etc.

For further details regarding Technical Sessions follow the link: <https://shorturl.at/7Qa6Y>

The two-day deliberation explored the sustainable development in industrial growth through digitization, smart manufacturing, convergence of Industry 4.0 and Circular economy, advancement in Supply Chain management, Multi-criteria Decision making etc.

Internet of Things (IoT) Reconnecting the World

Contd. from page 3

delivered Invited Lecture on the topic 'IoT for Healthcare Applications'. Young Engineer Awardee, Dr Nami Susan Kurian delivered her presentation on the topic 'WSN Lifetime Optimization through Cluster based Time Bound Mobile Sink Routing using Improved Ant Colony Optimization Algorithm'.

Further, during the technical sessions., papers were presented on related sub themes, which include; Leveraging Multi-agent AI-driven Design Thinking for Sustainability; Energy Prediction and Monitoring System in Smart Cities using Machine Learning and Internet of Things; A Hybrid FSO/RF Link Switching Prediction using Ensemble Machine Learning for

Turbulence Mitigation etc.

For more details, please follow the link: <https://shorturl.at/bbBcD>

Recommendations emanating from the National Convention are as follows.

Due to the global nature of IoT and data sensitivity, stronger security protocols and data encryption methods need to be emphasized; Data Interoperability, standardization and data regulation need to be promoted; More research and investment in Edge Computing and Data Analytics need to be strengthened; Ethical IoT with AI, ML and DL need to be developed more; It is the time to foster collaboration and knowledge among the Government researchers and Higher Educational Institutions.

Green Energy & Clean Energy for New India

Contd. from page 4

& Relevance of Solar Energy in Power Generation' and spoke on green energy. Prof (Dr) Mary J Gladis, IIST Thiruvananthapuram delivered a talk on 'Sustainability Challenges in Large Scale Battery Manufacturing'. Various other lectures and presentations were also presented during the seminar by the students of Marian Engineering, Thiruvananthapuram and St Thomas Institute of Science & Technology, Thiruvananthapuram.

During the valedictory session, Er A C K Nair from Kerala State Electricity Ombudsman, graced the function as the Chief Guest. He appreciated the timely need of the theme and elaborated on the advantages of the solar energy. The vote of thanks was given by Er K R Suresh Kumar, Honorary Secretary, Kerala State Centre, IEI.

The seminar successfully facilitated the exchange of views, ideas and knowledge among experts, academics and professionals on renewable sources of alternate energy for new India.

Alternative Energy Systems

Odisha State Centre, IEI, organized an All India Seminar on the theme **Alternative Energy Systems** during 27-28 July, 2024, under the aegis of Mechanical Engineering Division Board (MCDB), IEI at Bhubaneswar. The seminar aimed to bring together engineers, researchers and industry professionals to discuss the latest advancements in alternative energy technologies. Number of participants, including distinguished guests, speakers and attendees, engaged in discussions and knowledge-sharing sessions.

The event started with the welcome address delivered by Prof (Dr) Sudhansu Sekhar Dash, Chairman, Odisha State Centre, IEI. He outlined the seminar's objectives and significance in the context of advancing sustainable energy solutions. Chief Guest of the event, Dr Sunil Sarangi, Former Director, NIT Rourkela, delivered an insightful speech emphasizing the importance of innovative approaches in energy systems. Guest of Honour, Prof V Pandu Ranga, Dean, Continuing Education, School of Mechanical Sciences, IIT Bhubaneswar, discussed the integration of alternative energy systems into academic and industrial frameworks.

Earlier, Dr Bimal Sarangi, Convener, highlighted the scope of the seminar and the necessity for technological advancements in the field. Dr Nutan Kumar Dash, the then Vice-President, IEI, addressed the role of engineering institutions in promoting alternative energy research. The Chief Speaker, Shri P K Mahapatra, Joint General Manager (Tech), IFFCO Paradeep, Odisha, presented an in-depth analysis of recent developments in alternative energy systems. Er Umakant Sahoo, Joint Convener, emphasized the importance of interdisciplinary collaboration in the energy sector. Er Sangram Keshari Pattanayak, Honorary Secretary, Odisha State Centre proposed the vote of

thanks. A Souvenir was released on the occasion in the august presence of dignitaries on the dais.

During the technical sessions, two invited lectures were presented on; The Role of Cloud Computing in enhancing the Efficiency and Integration of Alternative Energy Systems and Wind Turbine: A review.



Also, technical papers were presented during the technical sessions on relevant sub theme, namely 'An Improved Multi-Kernel based Extreme Learning Machine Model for Crop Yield Prediction in IoT-based Energy Efficient Agriculture'; 'Fuel Cells: Pioneering the Future of Alternative Energy Systems'; 'Microbiome Engineering: An Innovative Approach to make Efficient Consortia of Microbial Fuel Cells (MFCs) towards

generating Bio-hydrogen from Wastewater', 'Numerical Study on Wind Parameters for Windmill on Rural Coastal belt and Rooftops'; 'Opportunities and Obstacles in PV Module Recycling in India'; 'Renewable Energy: A Sustainable Solution to Pollution'; 'Growth of Micro-crystalline Diamond using Transitional Metal Powders on Cemented Carbide inserts using HFCVD Technique and Dry Turning of Aluminium'; 'Global Trends and Regional Differences in Renewable Energy Adoption'; 'Performances of Passive Direct Methanol Fuel Cells' and 'Design and Development of a Mechanical based Device to lift Water for Irrigation Purpose towards Energy Efficiency in Agriculture'.

The All India Seminar on Alternative Energy Systems successfully provided a platform for knowledge exchange and collaboration among professionals and researchers. The discussions and presentations significantly contributed to understanding the advancements and challenges in the field.

Green Manufacturing

Tamilnadu State Centre, IEI, in association with Thiagarajar Polytechnic College (Sona Institutions), Salem organized an All India Seminar on the theme **Green Manufacturing** during 26-27 July, 2024, under the aegis of Mechanical Engineering Division Board [MCDB], IEI at Salem. The event gathered students, researchers, faculty members and industry experts from across the country to share knowledge and ideas focused on creating a greener and more sustainable manufacturing environment.

Dr V Karthikeyan, Chairman, Tamilnadu State Centre delivered the welcome address. He extended warm greetings to the Chief Guest of the event, Mr Valliappa Chockalingam, PhD Scholar, The University of Tokyo, Japan, Dr G Ranganath, Immediate Past President, IEI, dignitaries and participants. His address emphasized environmental preservation, the importance of oxygen and the necessity of reducing carbon emissions through afforestation.

Mr Valliappa Chockalingam inaugurated the seminar and commended the organizing team and participants for fostering a platform for green innovation. He emphasized the importance of sensitizing students to the concept of green manufacturing, especially in the context of renewable energy resources. The Guest of Honour, Er S Natarajan, Former Management Representative & TQM Head, SAIL, and Committee Member, Tamilnadu State Centre, IEI focused on the crucial role of steel in the context of green

manufacturing. His speech bridged the gap between the steel industry and green manufacturing.

Dr K Thangaraj, Chairman, Salem Local Centre, IEI in his address focused on renewable energy, with a special emphasis on the potential and sustainability of solar power. Convener of the event, Er G Balasivaramasubramanian, briefed the audience about the theme. A Souvenir was released on the occasion in the august presence of the Chief Guest, Er Valliappa Chockalingam, Dr V Karthikeyan and other dignitaries.



For further details, please refer the link <https://shorturl.at/QwAaO>

Dr A Kumaravel, Professor and Dean, KSR College of Technology, Tiruchengode, delivered presentation as an Invited speaker on Green Manufacturing. Dr D Senthilkumar, Professor & Head, Mechanical Engineering Department, Sona College of Technology, Salem delivered Invited lecture on 'Green manufacturing –Sustainability' and enlightened about a deep dive into cutting-edge technologies to minimize the environmental impact. Er V Ganapathi Raman, Armour Steel Building India Private Coimbatore delivered an Invited lecture on 'Green Manufacturing – Paving the Way for a Sustainable Future' and explained energy-efficient manufacturing, life cycle assessment. Sustainable materials for manufacturing and construction etc.

Contd. on page 8

AI-Powered 3D Printing: Bridging Innovation and Automation

Coimbatore Local Centre, IEI, in association with the Department of Mechanical Engineering and Department of Electronics and Instrumentation Engineering, Sri Ramakrishna Engineering College [SREC], Coimbatore organized an All India Seminar on the theme **AI-Powered 3D Printing: Bridging Innovation and Automation** during 25-26 July, 2024, under the aegis of Production Engineering Division Board [PRDB], IEI at Coimbatore. The seminar brought together academic professionals, industry experts and students to explore the latest trends, challenges, and opportunities in 3D printing and its intelligent applications in modern manufacturing. Over two days, nine invited lectures and a hands-on session were delivered, covering both theoretical and practical insights.

The event commenced with a welcome address delivered by Dr J Krishnamoorthi, Chairman, Coimbatore Local Centre, IEI who introduced the seminar's vision and highlighted IEI's continued efforts in promoting innovation in engineering practices. Dr A Soundarrajan, Principal, SREC, emphasized the relevance of AI and automation in engineering education and the growing need for interdisciplinary learning. Dr P Karuppuswamy, Professor and Head, Department of Mechanical Engineering, SREC outlined the theme and objectives of the seminar. Chief Guest of the event, Dr D Kesavan, Associate Professor, Department of Mechanical Engineering, IIT Palakkad, emphasized sustainability through green technologies and the future of smart manufacturing. Dr K Srinivasan, Professor and Head, Department of Electronics and Instrumentation Engineering, SREC delivered the concluding remarks at the end of inaugural session.

Dr D Kesavan delivered two invited lectures on the topics 'Introduction to Additive Manufacturing' and 'Introduction to AI and Additive Manufacturing in 3D Printing'. Mr S D R Niranjan, Founder and CEO, Mukkudal Robotics,

Coimbatore delivered an Invited lecture on 'Role of Artificial Intelligence and IoT in Automation'. Mr S Jeevanathan, Design Engineer, Robert Bosch, Coimbatore delivered Invited lecture on the topic 'Automated Design Techniques'. Dr V S Saravanan, Associate Vice President, [Foundry], Indo Shell cast Private Limited, Coimbatore delivered Invited lecture on 'IoT in Production Engineering'. Dr rajesh rangathan, Professor, Department of Mechanical Engineering, Coimbatore Institute of Technology, Coimbatore delivered Invited lecture on 'Rapid Prototyping and Health Care Engineering using 3D Printing'. Mr S Kaushik, Project Manager, Machmet Engineers, Coimbatore delivered an Invited lecture on 'Factory Automation using AI and IoT'. Dr T Velmurugan, Assistant Professor, Department of Mechanical Engineering, Sri Ramakrishna Engineering College, Coimbatore explained 'Hands on Training on 3D Printing'.



For further details, please follow the link: <https://shorturl.at/LVlg4>

The seminar concluded with a Valedictory Session where certificates were distributed to participants and contributors. The organizing committee expressed gratitude to all speakers and guests. The impact of AI-driven 3D printing and smart manufacturing was reiterated as a pivotal theme for the future of engineering.

The Seminar was a resounding success, offering a perfect blend of conceptual understanding and hands-on practice. The event not only expanded participants' knowledge on additive manufacturing and intelligent automation but also highlighted the collaborative potential between academia and industry in driving innovation. The seminar fostered valuable discussions, encouraged future collaborations and left a strong impression on the role of AI in shaping modern manufacturing.

Quantum Computing: Unleashing the Power of Quantum Bits

Contd. from page 5

their Applications' and discussed Shor's Algorithm, Grover's Algorithm HHL Algorithm etc. Dr M Raghini, Assistant Professor, Artificial Intelligence and Data Science, Velammal College of Engineering and Technology, Madurai, delivered Invited lecture on 'Quantum Simulations in Science and Industry'. Mr Sathish A, Senior Analyst, HCL Technologies, Madurai & Managing Director, Iyal Learn, Madurai, delivered Invited lecture on 'Challenges and Solutions in Quantum Computing'. Other papers were presented on relevant sub theme.

For further details regarding technical sessions, please follow the link: <https://shorturl.at/iK5wl>

Prof (Dr) P Udhayakumar, delivered the welcome address in the valedictory session. Mrs S Venkata Lakshmi, coordinated the event and summarized the key takeaways and contributions from speakers and presenters. The event concluded with a vote of thanks by Er A T Baskar, Honorary Secretary, Madurai Local Centre, IEI, followed by the National Anthem.

The All India Seminar was a resounding success, providing a platform for experts, researchers and students to exchange knowledge on Quantum Computing. The diverse range of keynote addresses, technical sessions and paper presentations enriched the understanding of the participants and contributed to the ongoing advancements in the field.

Green Manufacturing

Contd. from page 7

During the technical sessions, papers were presented on the sub themes, namely, Efficient Fuels, Carbon Sinks, Solar Power, E-vehicles and Fuel Cells and Green Production Methodology.

The Seminar proved to be a highly enriching platform for knowledge exchange

on sustainable industrial practices. With the collaborative efforts of the organizing team, participating institutions, and distinguished speakers, the event succeeded in promoting awareness and driving discussions toward a greener future.

Occupational Noise and Workplace Acoustics

Rourkela Local Centre, IEI, in association with the Department of Industrial Design, National Institute of Technology Rourkela organized an All India Seminar on the theme **Occupational Noise and Workplace Acoustics** during 25-26 July, 2024, under the aegis of Mechanical Engineering Division Board [MCDB], IEI at Rourkela. The seminar aimed to raise awareness and share recent advancements in noise control techniques, workplace acoustic design and health and safety implications of noise exposure. The event successfully facilitated interaction between experts, academicians and students on practical strategies for noise reduction and acoustic optimization in industrial and professional environments.

Er Santosh Kumar Polaki, Chairman, Rourkela Local Centre, IEI delivered the welcome address who highlighted the health and safety risks posed by occupational noise and the need for both engineering and administrative controls to mitigate such challenges in various industries.

Chief Guest, Prof K Umamaheshwar Rao, Director, NIT Rourkela emphasized the underestimated yet significant impact of occupational noise on worker well-being. Guest of Honour, Dr Nutan Kumar Dash, the then Vice President, IEI acknowledged NIT Rourkela's active partnership with IEI and appealed to its faculty to support the Institution's growth by encouraging membership. He appreciated the cross-disciplinary nature of the seminar and its relevance in



modern industrial design and environmental health. Dr Mohit Lal, Convenor of the seminar, introduced the theme and outlined the agenda and Dr B B V L Deepak, Head, Department of Industrial Design, NIT Rourkela, explained noise control research and ergonomic workspace design. A souvenir was released on the occasion in the august presence of the dignitaries on the dais. Dr Ajit Behra, Honorary Secretary, Rourkela Local Centre, IEI proposed the vote of thanks.

Different Keynote lectures were delivered on the occasion. Also papers were presented on relevant sub theme.

For further details, please refer the Souvenir in the following link:

<https://shorturl.at/4SFzG>

The Seminar offered a valuable platform to deliberate on the multifaceted impacts of occupational noise. With high-level technical contributions and enthusiastic participation from students, faculty and professionals, the event fostered actionable insights and collaborations in improving workplace health through acoustical engineering. It reinforced the need for awareness, policy integration and technological advancement to create safer and healthier work environments. Recommendations from the seminar emphasized continued research in occupational acoustics, increased adoption of noise mitigation strategies in industries and inclusion of acoustic design in civil and mechanical engineering curricula.

Disaster Mitigation and Engineering

Kanchepuram Local Centre, IEI, in association with Department of Civil Engineering, School of Infrastructure, B S Abdur Rahman Crescent Institute of Science & Technology organized an All India Seminar on the theme **Disaster Mitigation And Engineering** during 23-24 July, 2024, under the aegis of Civil Engineering Division Board (CVDB), IEI at Kanchepuram. The Seminar brought together professionals, academicians and students to discuss the multifaceted aspects of disaster risk reduction, mitigation, resilience strategies and the role of civil engineering in managing hazards and vulnerabilities. The seminar offered deep insights into various categories of hazards and promoted awareness on disaster preparedness and climate adaptation strategies.

Prof (Dr) S Ramesh, Chairman, Kanchepuram Local Centre, IEI welcomed the Chief Guest and participants and reiterated the significance of IEI as the nation's largest multi-disciplinary engineering professional body dedicated to advancing engineering knowledge and practices in the country. Dr M S Haji Sheik Mohammed, Professor & Dean, School of Infrastructure, B S Abdur Rahman Crescent Institute of Science & Technology emphasized the vast opportunities in the field of Civil Engineering and the critical importance of disaster mitigation in infrastructure development and urban planning. Chief Guest of the event, Dr Kurien Joseph, Professor of Environmental Engineering and Director, Centre for Climate Change & Disaster Management, inaugurated the Seminar. In his address, he underlined the importance of an integrated approach to disaster management, rooted in engineering practices and climate-sensitive planning. Earlier, Dr P Vasanthi, Professor & Student Advisor, IEI – School of Infrastructure, B S Abdur Rahman Crescent Institute of Science & Technology, provided an overview of the two-day seminar. She outlined the key topics and thematic structure of the sessions and explained how the seminar was designed to provide a comprehensive understanding of disaster management practices through engineering and environmental perspectives.



During the technical session, several speakers shared their insights. Mr Rajesh Kannan, District Fire Officer, Changanalpet District delivered lecture on 'Disaster Management'. Mr B Sai Sudhir, Assistant Engineering manager [Civil], Engineering Design and Research Centre, L&T Heavy Civil Infrastructure spoke on 'Recommended Steel Construction in Earthquake Regions'. Dr D S Saravanan, Professor, Centre for Water Resources, College of Engineering, Anna University, Chennai on 'The Impact of Climate Change on Water Resources'. Dr R Jaganathan, Dean, Research, Professor and Head, Department of Geography, School of earth and Atmospheric Sciences, University of Madras delivered presentation on 'Disaster Mitigation and Management'. Dr J Prawin, Senior Scientist, CSIR-SERC, Chennai on; 'New Techniques in Aseismic Design', etc.

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

The seminar concluded with a valedictory session summarizing the discussions and outcomes of the event. Certificates were distributed to the participants and appreciation was extended to the organizing teams, speakers and sponsors. The closing remarks reiterated the importance of collaborative efforts in enhancing disaster resilience and building a safer, more sustainable future through engineering innovation.

The Seminar successfully achieved its objective of disseminating knowledge on hazards, vulnerabilities and resilience measures. It provided a platform for participants to understand the multi-dimensional nature of disasters and emphasized the critical role that engineering plays in mitigating risks. The insights gained during the seminar are expected to inspire future initiatives in research, infrastructure development and policy-making to strengthen disaster preparedness and response frameworks in India.

Recent Advances on Smart Mining Technologies and Resources

West Bengal State Centre, IEI, organized an All India Seminar on the theme **Recent Advances on Smart Mining Technologies and Resources** during 19-20 July, 2024, under the aegis of Mining Engineering Division Board [MNDB], IEI at Kolkata. The seminar was a platform for professionals from the mining industry, academia and research organizations to discuss innovations in mining technology, focusing on automation, digitization and the use of AI/ML in the mining sector. The event saw active participation from industry leaders, researchers and engineers, with a total of 27 technical papers presented over two days.

The seminar commenced with a welcome address by Prof (Dr) Raju Basak, Chairman, West Bengal State Centre, IEI. He highlighted the objectives of the seminar and the growing importance of smart technologies in the mining industry. Chief Guest of the inaugural session, Shri Ujjal Tah, Deputy Director General (DDG), Directorate General of Mines Safety (DGMS), delivered a speech emphasizing the importance of enhancing safety in underground mining operations through the adoption of advanced technologies such as AI/ML/IoT and pastefill techniques. He also addressed the need to reduce dust-related diseases in mining operations. The Guest of Honour, Shri Niladri Roy, Director (Technical) Operations, Eastern Coalfields Limited (ECL), discussed the digitization efforts and technological advancements being implemented in the mining industry, such as 5G-enabled drones and AI-powered cameras for vehicle tracking. Er Anirban Datta, Honorary Secretary, West Bengal State Centre, IEI proposed the vote of thanks at the end of inaugural session.

In the second day of the Seminar, the programme started with the gracious presence of prominent industry experts, Shri P M Prasad, Chairman-cum-Managing Director, Coal India Limited (CIL), who discussed the adoption of new technologies like digital solutions, automated fleet management systems and surface coal gasification and Shri Sanjib Singh, Director (Mining), Hindustan Copper Limited (HCL), who spoke on Industry 4.0 in mining and the role of AI and ML in ore body delineation and underground communication improvements.

The seminar featured five technical sessions on the sub topics 'Innovation in Surface Mining Operations', 'U/G Mine Operations', 'Innovation in Digitization, Remote Operation, AI and ML', 'Land Acquisition, Mine Planning and Resource Management' and 'Advancement in Safety, Health and Environment'.

Papers were presented on emerging sub topics by industry experts.

For further details for Technical Sessions follow the link below:

<https://shorturl.at/kaSwY>

Based on the discussions and deliverables of the Seminar, the following recommendations were proposed:

Mining companies should invest in autonomous and robotic systems to improve operational efficiency and worker safety. Training programs should be established to upskill workers for managing and maintaining these technologies; Mining operations should integrate IoT devices and sensors to enable real-time monitoring and predictive maintenance, reducing downtime and improving resource management; Companies should utilize AI and ML to analyze operational data, optimize processes, and enhance decision-making. Collaboration with tech firms and research institutions can accelerate the adoption of these technologies; Drones should be employed for site surveys, mapping, and inspections to improve accuracy and efficiency. Regulatory frameworks need to be established to facilitate the safe and effective use of UAVs in mining; Blockchain technology should be implemented to ensure supply chain transparency and ethical sourcing of minerals. Industry standards and protocols should be developed for widespread adoption; Mining companies should invest in eco-friendly extraction methods and renewable energy sources to reduce their environmental footprint. Research into new sustainable technologies should be supported; Geospatial technologies should be integrated into exploration and operational planning to improve precision and environmental monitoring. Continuous training and development in these areas are essential; Wearable devices should be adopted to monitor the health and safety of mine workers. These technologies can provide real-time data on worker conditions, helping to prevent accidents and ensure compliance with safety regulations.

The seminar successfully brought together experts from the mining sector to discuss the latest innovations in smart mining technologies. The event highlighted the growing need for mining companies to embrace digitalization, automation and AI/ML to improve operational efficiency, safety and environmental sustainability.





IEI - Springer Journal



| | | | |
|--|--|--|--|
|  <p>ISSN Print: 2250-2149 ISSN Online: 2250-2157</p> <p>SCOPUS Indexed</p> <p>Series A CiteScore 2023 2.2 Google Scholar h5 Index 2022 22</p> |  <p>ISSN Print: 2250-2106 ISSN Online: 2250-2114</p> <p>SCOPUS Indexed</p> <p>Series B CiteScore 2023 3.1 Google Scholar h5 Index 2022 24</p> |  <p>ISSN Print: 2250-0545 ISSN Online: 2250-0553</p> <p>SCOPUS Indexed</p> <p>Series C CiteScore 2023 2.4 Google Scholar h5 Index 2022 24</p> |  <p>ISSN Print: 2250-2122 ISSN Online: 2250-2130</p> <p>SCOPUS Indexed</p> <p>Series D CiteScore 2023 2.0 Google Scholar h5 Index 2022 19</p> |
|  <p>ISSN Print: 2250-2483 ISSN Online: 2250-2491</p> <p>SCOPUS Indexed</p> <p>Series E CiteScore 2023 2.0 Google Scholar h5 Index 2022 11</p> | | | |

Free e-access of Journal papers for all Corporate Members of IEI log-in from www.ieindia.org

Advances in Methods, Materials and Characterization Techniques for Laser Material Processing

Coimbatore Local Centre, IEI, in association with the Department of Metallurgical Engineering, PSG College of Technology, Coimbatore and Centre of Excellence in Welding Engineering and Technology, organized an All India Seminar on the topic **Advances in Methods, Materials and Characterization Techniques for Laser Material Processing** during 12-13 July, 2024, under the aegis of Metallurgical and Materials Engineering Division Board [MMDB], IEI at Coimbatore. The seminar provided an enriching platform for academic researchers, industry professionals and students to understand the scientific principles and industrial applications of additive manufacturing, microstructural analysis and advanced laser processing techniques. The program featured eight invited lectures and technical demonstrations, offering a rich mix of theory and practical insights.

The inaugural session began with a welcome address by Dr J Krishnamoorthi, Chairman, Coimbatore Local Centre, IEI. Dr V Ramasamy, Visiting Professor, Department of Metallurgical Engineering, PSG College of Technology and Former Executive Director, Salem Steel Plant, SAIL graced the inaugural session as the Chief Guest. He elaborated on the importance of laser material processing in industrial applications and emphasized its role in transforming manufacturing through precision and efficiency. Prof (Dr) Madhan Mohan Gopalsamy, Honorary Secretary, Coimbatore Local Centre, IEI proposed the vote of thanks.

Mr M Gunaseelan, Senior Project Engineer, PSG TIFAC CORE delivered Invited lecture on 'Laser Additive Manufacturing – State of the Art' and explained different Laser based additive manufacturing process. Dr G Venkatesh, Assistant Professor, Department of Metallurgical Engineering, PSG College of Technology delivered Invited lecture on 'Microstructural Characterization Techniques for Laser Processed Materials' and detailed about the principle of macrostructural and microstructural analysis. He outlined the application of quantitative metallography in characterizing Laser processed materials.

Dr R Sivasankari, Assistant Professor, Department of Metallurgical Engineering, PSGCT delivered Invited lecture on 'Hybrid Laser Additive Manufacturing – State of the Art' and spoke on the principle of selective Laser Melting and Direct Energy Deposition.

Mr E Sreedhar Kumar, Senior Manager & Mr M Gunaseelan, PSG TIFAC CORE delivered Invited lecture on 'PSG TIFAC Additive Manufacturing Facilities – Demo' and explained modeling and manufacturing of components through Rapid Prototyping.

Dr D Kesavan, Associate Professor, Department of Mechanical Engineering, IIT Palakkad delivered Invited lecture on 'Laser Powder Bed Fusion Processing (LPBF) of Titanium and Nickel Alloys' and explained LPBF processing of nickel based super alloy IN718.

Dr S Kanmani Subbu, Associate Professor, Mechanical Engineering Department, IIT Palakkad delivered Invited lecture on 'Understanding the Challenges in Fabrication of Parts in Metal Additive Manufacturing' and explained Laser Powder Bed Fusion process.

Dr S M Ganesan, Principal Scientist, Corrosion and Materials Protection Division, CSIR-CECRI, Karaikudi delivered Invited lecture on 'Laser Cladding of B₄C Particle Reinforced 304L SS Composite for Gamma and Neutron Shielding Applications'.

Dr S Prabhakaran, Assistant Professor, Robotics & Automation, PSGCT delivered Invited lecture on 'PSG-MHI CoE Welding – Additive Manufacturing Facilities Demo and explained Wire Arc Additive Manufacturing process and Laser Direct Energy deposition.

For further details regarding Technical Sessions, please follow the link: <https://shorturl.at/lw4XT>

Throughout both days, the Seminar incorporated live demonstrations and walk throughs of state-of-the-art facilities at PSG TIFAC CORE and PSG-MHI CoE. These sessions offered valuable exposure to equipment used in laser-based manufacturing and characterization.

The All India Seminar served as a rich technical forum bridging academia and industry in the rapidly evolving field of laser material processing. The event effectively highlighted the importance of advanced materials, manufacturing technologies and microstructural analysis in achieving engineering excellence. With a strong line up of expert speakers, technical demos and knowledge-sharing sessions, the seminar significantly contributed to capacity-building and innovation in the field.



Role of AI & ML in Mechanical Engineering Field and Challenges

Navi Mumbai Local Centre, IEI, in association with Fr C Rodrigues Institute of Technology (FCRIT), Vashi organized a All India Seminar on **Role of AI & ML in Mechanical Engineering Field and Challenges** during 05-06 July, 2024, under the aegis of Mechanical Engineering Division Board [MCDB] IEI at FCRIT, Vashi. The Seminar brought together thought leaders, academicians, professionals and students to explore the transformative role of Artificial Intelligence (AI) and Machine Learning (ML) in the domains of mechanical engineering and manufacturing. The seminar focused on innovations, challenges and opportunities offered by these technologies in revolutionizing industrial practices, increasing productivity, enhancing fault diagnostics and enabling intelligent manufacturing systems. Across two days, the seminar



featured 4 Keynote addresses, 15 Invited Talks and a panel discussion, all aligned with the central theme.

The event began with a warm welcome extended to the distinguished dignitaries, invited speakers and participants by Dr Nilajkumar Najukrao Deshmukh, Chairman, Navi Mumbai Local Centre, IEI. Dr S M Khot, Principal, FCRIT and Dr Nilaj Deshmukh, who is also the Dean of Faculty, FCRIT shared the importance of embracing AI/ML in contemporary engineering education and industry practices.

Chief Guest, Shri Sanjay Bhataiya IAS, Upa-Lokayukta, Maharashtra State, inaugurated the seminar with an insightful address that emphasized the necessity of adopting technological advancements such as AI and ML in governance and industry to foster

insightful address that emphasized the necessity of adopting technological advancements such as AI and ML in governance and industry to foster

Contd. on page 12

Electric Mobility's Recent Trends and Advancements

Coimbatore Local Centre, IEI, in association with the Department of Electrical and Electronics Engineering, SNS College of Technology, Coimbatore organized an All India Seminar on the theme **Electric Mobility's Recent Trends and Advancements** during 05-06 July, 2024, under the aegis of Electrical Engineering Division Board [ELDB], IEI at Coimbatore. The Seminar served as a platform for industry professionals, academicians and students to discuss emerging trends, technologies and challenges in the field of electric mobility in India.

The inaugural session commenced with a welcome address by Prof (Dr) Madhan Mohan Gopalsamy, Honorary Secretary, Coimbatore Local Centre, IEI. He welcomed the dignitaries, guests and participants and emphasized the importance of electric mobility in achieving a sustainable future. Dr S Chenthurpandian, Principal, SNS College of Technology, in his address highlighted the relevance of the seminar topic in the current technological and environmental scenario. Dr C Ramakrishnan, Professor and Head, Department of Electrical and Electronics Engineering [EEE], SNS College of Technology, provided an overview of the seminar's objectives, sessions and technical scope. Chief Guest, Mr P Manikandan, Founder & CEO of Greenerg Mobility Solutions Private Limited, in his address, provided valuable insights into recent trends and advancements in electric mobility. He stressed the importance of adopting electric vehicles (EVs), discussed market opportunities and highlighted the growing role of Indian youth in shaping the future of sustainable transport. At the end of inaugural session, Dr R Senthilkumar, Associate Professor, Department of EEE, SNS College of Technology, Coimbatore expressed gratitude to all dignitaries, speakers and participants.

The first invited lecture was delivered by Chief Guest, Mr P Manikandan, on the topic 'Introduction to Mobility in India, Overview of E-Mobility'. The speaker explained the working principle of EVs and recent advancements. The second invited lecture was presented by Mr T Vasanthakumar, Founder and Chief Executive Officer, Radhva Motors Private Limited, Coimbatore on 'Trends in Electric Mobility and Hybrid Technology and Comparison of LV and HV Electric Mobility'. The speaker differentiated between hybrid and

electric cars. He further explained electric mobility and hybrid technology and comparison of LV and HV electric mobility. The third invited lecture was presented by Mr R Satheeshkumar, Assistant professor, Department of EEE, SNS College of Technology on 'Brief Discussion about Chargers for E-Mobility' and discussed about the purpose and types of chargers. The fourth invited lecture was delivered by Mr M Varun, Founder and Chief Executive Officer, TOPTEK transformers, Coimbatore on the topic 'Brief Discussion about Charging Technologies for E-Mobility'. The



speaker explored the charging technology trends including faster charging speeds, wireless charging, bidirectional charging for vehicle-to-grid applications, and smart charging solutions to optimize energy use and grid integration. He further briefed about Electric Vehicle charging station design and implementations. The fifth invited lecture was presented by Mr R Vijayakumar, Assistant

Professor, Department of EEE, SNS College of Technology, Coimbatore on 'Challenges faced during Implementation of Chargers and Autonomous E-Vehicles in Indian Environment'. The challenges include high initial cost and low returns in setting up charging stations, gridlock, patchy distribution, range anxiety, etc. The sixth invited lecture was presented by Mr Arun Raaj Manickaraj, Head BD and Investments, AIC RAISE Associate Vice President Investment, RAIN - Raise Angle Investor Network, Technical Lead, Entuple Technology Solutions India Private Limited Coimbatore on the topic 'Market Opportunities for EV Battery Manufacturing and Research'. The seventh invited lecture was delivered by Ms P Shantha Sheela, State Business Facilitation Officer, District Industries Centre (DIC), Coimbatore on 'Schemes and Subsidies for E-Mobility' and explained the difference in subsidy levels between EMPS 2024 and its predecessor. Further, technical papers were presented on relevant sub theme, which include; Life Cycle Identification for EV Charging Stations; User Feedback System Ratings for Smart EV Charging Station Monitoring; Navy Station Battery Management System for Sustained Power Provision from a Renewable Plant; and Enhancement of Battery Management System Efficiency for LV Grade Electric Vehicles.

For further details, please follow the link: <https://shorturl.at/zRg8l>

Role of AI & ML in Mechanical Engineering Field and Challenges

Contd. from page 11

transparency, efficiency and development. The Guest of Honour, Er Jagdish Chand Singhal, Chairman-BoG, SQF, IEI appreciated the thematic focus of the Seminar and highlighted the commitment of IEI in promoting emerging technologies and interdisciplinary collaboration. Other notable dignitaries also present during the seminar named Er S P Singh, Head, Marketing & Business Development, Dr Aqleem Siddiqui, HoD, Mechanical Engineering Department, FCRIIT, and former Chairmen of Navi Mumbai Local Centre, namely Er R K Modi, Retired GM, ONGC, Er V C Kamble, Retired Additional Chief Engineer, CIDCO, ErJaswant Mistry, Retired Executive Engineer, NMMC and Er K K Varkherdkar, Retired Chief Engineer, CIDCO.

Dr Srinivasan Radhakrishnan, Professor, Northeastern University presented Keynote lecture on 'AI/ML in Factory Digital Twins and Smart Manufacturing'. Dr Abhishek D Patange, Data Science & AI Specialist, ABB delivered Keynote lecture on 'Operational and Maintenance Enhancement through AI/ML'. Mr Siddhesh Gunjal, Senior Research Scientist, Nielsen Q delivered Keynote lecture on 'ML Applications in Mechanical Contracting' and Mr Pranav Nerurkar, Founder & Researcher, Utkarsh Minds Skill Training Center delivered Keynote on 'ML for Predicting Mechanical Properties of Elastomers'.

For further details regarding Keynote lectures and Invited talks, please follow the link: <https://shorturl.at/Lz22y>

A panel discussion was held in august presence of the industry experts, Mr Rajiv Ranjan, CEO, Certification Engineers International Limited, Mr Prasad Karande, Associate Professor, VJTI, Mr Chandrakant R Mohikar, Former HoD, Petroleum Development Organization, Oman and Dr S M Khot, Principal, FCRIIT. The discussion focused on "AI and ML in Engineering: Future Landscape, Integration Challenges and Ethical Considerations". The panel highlighted the importance of policy-making, academia-industry collaboration and interdisciplinary training for maximizing AI's potential.

The seminar concluded with a Valedictory Function, graced by the Chief Guest, Dr Girish Shrikisan Mundada, the then Chairman, CATE and now Vice President, IEI, Guest of Honour Mr Rajiv Ranjan and other dignitaries. Dr Khot and Dr Deshmukh summarized the seminar's success and reiterated the need for continuous engagement with emerging technologies.

The All India Seminar successfully created a platform for dialogue, learning and inspiration. With its balanced blend of academic discourse, practical insights and visionary leadership, the event set a strong precedent for the integration of AI and ML into core mechanical engineering practices. It also reinforced the need for ethical frameworks and collaborative innovation in shaping India's technological future.

Applications of Smart Grid Technology For Sustainable Green Solutions and Enhanced Cyber Security

Kancheepuram Local Centre, IEI, in collaboration with the Department of Electrical and Electronics Engineering, Sathyabama Institute of Science and Technology, organized an All India Seminar on the theme **Applications of Smart Grid Technology For Sustainable Green Solutions and Enhanced Cyber Security** during 20-21 June, 2024, under the aegis of Electrical Engineering Division Board [ELDB], IEI at Chennai. The seminar provided a platform to discuss the applications of smart grid technology in promoting sustainability and enhancing cyber security in power systems.

The seminar commenced with opening remarks by Dr S D Sundarsingh Jebaseelan, Professor, Department of Electrical and Electronics Engineering, Sathyabama Institute of Science and Technology. Prof (Dr) S Ramesh, Chairman, Kancheepuram Local Centre, IEI presided over the inaugural session. He welcomed all and highlighted the significance of the seminar.

Chief Guest of the session, Dr B Chitti Babu, Professor & Head, IITDM, Kancheepuram, delivered a Keynote address during the inaugural session on the topic 'Investigation on the Control Techniques for Grid-tied Solar PV System with Power Quality Features'. He discussed the control techniques for grid-tied solar PV systems and their importance in achieving pollution-free energy production. Dr S Karthikeyan, Honorary Secretary,

Kancheepuram Local Centre, IEI offered insights into the role of smart grids in modern power systems.

Dr V Saravanan, Professor, Department of Electrical and Electronics Engineering, Tiruvannamalai, Arunai Engineering College, delivered a talk on 'Cyber Security in Indian Power Systems: Framework, Implementation Procedures, Standards and Challenges', shedding light on the critical role of cyber security in interconnected global power systems. Dr N B Muthu Selvan, Associate Professor, SSN College of Engineering, discussed on 'Smart Metering: Indian Utilities Address the Revenue Challenge', emphasizing the importance of energy audits in thermal and electrical systems. Dr M Ramesh Babu, Professor, Electrical & Electronics Engineering, St.



Joseph's College of Engineering, presented a lecture on 'Overview of the Smart Grid for Green, Sustainable Solutions and Its Challenges' and Mr Asborn T M E, Engineering Manager (R&D - AI) at Digitalytic Technologies, discussed on the topic 'Smart Grids and AI: Powering the Future of Energy'.

For further details, please follow the link : <https://shorturl.at/CnA9P>

The seminar was a success, providing valuable insights into the applications of smart grid technology for green solutions and enhanced cyber security. It fostered discussions on innovative technologies that can contribute to a more sustainable and secure energy future.

All India Seminar under the aegis of Interdisciplinary Coordination Committee

Challenges and Opportunities of Machine Learning Techniques on Structural Health Monitoring

Madurai Local Centre, IEI, organized an All India Seminar on the theme **Challenges and Opportunities of Machine Learning Techniques on Structural Health Monitoring** during 28-29 June, 2024, under the aegis of Interdisciplinary Coordination Committee [ICC], IEI at Madurai. The seminar provided a platform for engineers, researchers and industry professionals to discuss the intersection of machine learning and structural health monitoring. The event addressed the growing importance of applying artificial intelligence and machine learning to improve the safety and reliability of structures like bridges, tunnels and high-rise buildings.

The Seminar commenced with a welcome address by Prof (Dr) P Udhaya Kumar, Chairman, Madurai Local Centre, IEI who emphasized the importance of the seminar's theme and the role of engineers in shaping the future of SHM systems. Prof (Dr) V Karthikeyan, Chairman, Tamilnadu State Centre, IEI delivered the inaugural address, focusing on the integration of intelligent agents in structural health monitoring (SHM). He highlighted the evolving landscape of SHM systems using machine learning and artificial intelligence to detect structural anomalies and enhance decision-making processes.

Prof (Dr) V Karthikeyan further delivered a Keynote address titled 'The Next Frontier in Structural Health Monitoring: Harnessing Intelligent Agents', exploring how machine learning algorithms can revolutionize SHM through real-time data processing, anomaly detection and predictive maintenance. Er S Nagaraj, Executive Committee Member of the Civil Engineering Division, provided a thematic overview of the seminar, discussing how machine learning can fill gaps in traditional structural monitoring methods. Er A T

Baskar, Honorary Secretary, Madurai Local Centre, IEI proposed the vote of thanks.

During the technical sessions, Invited lectures were delivered and number of papers were presented. Dr S Arul Mary delivered Invited Lecture on the topic 'An Opportunity for Non-Destructive Evaluation of RC Structures Using ML'; Er C Balamurugan delivered Invited lecture on 'Superstructure Failures Diagnostic Approach to Problems of Cracks in Structures – Modern Approach to Repair and Rehabilitation & Preventive Measures'. Papers were presented on different sub topics, which include; Transparent Decision Making in Structural Health Monitoring with Explainable AI; Utilizing DNNs for Real-time



Crack Detection and Localization using Sparse Strain Sensors in Structural Health Monitoring etc.

For further details, please refer the Souvenir of the event, available with the link: <https://shorturl.at/VWJJO>

The seminar concluded with a valedictory address by Prof (Dr) P Udhayakumar, who reflected on the seminar's success. Participation certificates were distributed and Er A T Baskar, Honorary Secretary, Madurai Local Centre, IEI delivered the vote of thanks. The event ended with the National Anthem.

The All India Seminar provided a significant platform for knowledge exchange on how machine learning can enhance structural health monitoring systems. The participants, including experts and researchers, contributed valuable insights into the future of civil engineering and infrastructure management.

Advanced Heavy Water Reactors

Udaipur Local Centre, IEI organized a One Day Seminar on the theme **Advanced Heavy Water Reactors** under the aegis of Mechanical Engineering Division Board, IEI at Udaipur on 15 February 2025.

The program started with a welcome address by Er Purushottam Paliwal, Chairman, Udaipur Local Centre, IEI. While sharing his views on the theme of the event, he said that Advance Heavy water Reactors are the nuclear reactors, which produces electricity using Thorium. These reactors have several advantages over conventional light water reactors, including improved safety, higher efficiency, and less wastage. Er Piyush Javeria, Honorary Secretary of Udaipur Local Centre briefed that the eminent experts, researchers, and industry professionals will share their views on the latest advancements and future prospects of this important nuclear technology. Prof (Dr) Prithvi Yadav, President and Vice-Chancellor, Sir Padampat Singhania University, Udaipur graced the function as the Chief Guest and explained the vision and mission of eminent Scientist and Father of Nuclear Energy program in India, Dr Homi J Bhabha. Er Mahendra Kumar Chauhan, Chairman, Rajasthan State Centre, and Council Member, IEI graced the occasion as the Guest of Honour and addressed the gathering.

The Keynote speaker of the Seminar, Dr Dharmendra Kumar Jain, Lecturer, Department of Mechanical Engineering, Government Polytechnic College, Kota and Council Member IEI, said that Advanced Heavy Water Reactor, developed by BARC, refers to the next-generation nuclear reactor design which mainly uses low enriched uranium fuel. He mentioned its passive and built-in safety features including much first-of-a-kind system. The Guest speaker of the Seminar, Er Suresh Chandra Gandhi, Former Scientific Officer, Department of Atomic Energy NPCIL informed that nuclear energy can be obtained in two ways, Nuclear Fusion and Nuclear Fission. He said that Nuclear energy can be a long-term alternative to fossil fuel, the reserve of which is limited and import of the same will be more expensive in future. He shared his views about the challenges before the Indian nuclear program. Outlining the growth and future of nuclear energy in India, he said that the nuclear programme is the only way to become self-reliant for its energy needs.

Guest speaker, Er. K K Sharma Former Scientific Officer, Department of Atomic Energy, NPCIL said that the reactor system mainly consists of reactor block, cylindrical vessel, coolant channel, assembly, fuel management and storage system, fuel transfer system and fuel storage vessel.

Guest speaker, Er Karan Singh Singhvi, Former Scientific Officer, HWP, Department of Atomic Energy informed that Dr Homi Jehangir Bhabha, one of the leading scientists of India, had conceived the nuclear power programme of India, had dreamed of heavy water production in the country. With the increasing targets of nuclear power generation, the need for heavy water production has also increased. He mentioned that India adopted a two-pronged approach for its heavy water program based on two different technologies, ammonia, and hydrogen exchange. The fully indigenously developed hydrogen sulfide water exchange required sustained efforts over a long period including R&D. He explained the heavy water manufacturing process and shared his views on the three-stage Indian nuclear power programme.

Guest speaker, Er Prem Kumar Sharma, former Deputy Chief Engineer, RR Site DAE described the global scenario of nuclear power plant. He discussed about the details of nuclear power generation, status of under construction nuclear power plants, nuclear power share in total power generation in India, and so on. He further talked about the safety aspect of nuclear power plants and mentioned that nuclear power plants are designed, constructed, commissioned, and operated with very strict nuclear safety standards.



During the valedictory Session, Er Mahendra Kumar Chauhan said that the event results insightful discussions, shared groundbreaking research, and explored innovative solutions that will undoubtedly shape the future of nuclear energy and the development of Advanced Heavy Water Reactors, which represents a significant milestone in our pursuit of sustainable and safe nuclear power. Er Purushottam Paliwal mentioned that when the world is facing increasing energy demands and the urgent need to mitigate climate change, the exploration and advancement of nuclear technologies, particularly those involving heavy water reactors, hold immense significance. India, with its vast thorium reserves, has long recognized the potential of heavy water reactor technology. He hopes, to meet the next generation's energy demand nuclear energy plays a vital role.

Er Piyush Javeria extended vote of thanks to all and said that the event brought the opportunity to delve into cutting-edge advancements, technological innovations, and strategic developments in the field. In his concluding remarks, he appealed to all to carry forward the insights gained during the event and continue the pursuit of excellence in the field of Advanced Heavy Water Reactors.

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 for participating in IEI Election process.

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
Email: datamemb@ieindia.org

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



Next Gen Engineering in IoT: A New Era of Smart Products & Systems

Madurai Local Centre, IEI, organized a One Day Seminar on the theme **Next Gen Engineering in IoT: A New Era of Smart Products & Systems** on 26 September 2024, under the aegis of Mechanical Engineering Division Board [MCDB] at Kamaraj College of Engineering and Technology, Virudhunagar. The Seminar aimed to explore the latest advancements and future trends in IoT-based smart products and systems. Prof (Dr) P Udhaya Kumar, Chairman, Madurai Local Centre, IEI, welcomed the gathering and introduced the objectives of the seminar. He highlighted the importance of IoT in modern engineering applications and its potential impact on various industries. Dr S Senthil, Principal, Kamaraj College of Engineering and Technology, in his address emphasized the role of IoT in revolutionizing smart systems and the necessity for engineers to adapt to these technological changes. Dr S Thanga Kasi Rajan, HoD, Mechanical Engineering Department, Kamaraj College of Engineering and Technology, provided an overview of the Seminar's theme, explaining the significance of IoT in modern engineering and how it integrates with various technological domains. Mr A Kesavan, CEO, Quantanics Techserv Private Limited, inaugurated the Seminar and delivered the inaugural address. He discussed the practical applications of IoT and how it is shaping the future of smart systems. Er R Narayanasamy, Past Honorary Secretary, Madurai Local Centre, IEI delivered the vote of thanks.

The seminar covered four technical sessions, each focusing on different aspects of IoT technology. Experts from academia and industry provided

insights into current and emerging trends in IoT-based smart systems and the participants engaged in discussions, sharing their knowledge and experiences in the field of IoT. Dr K Muruganathan, Assistant Professor, Mechanical Engineering Department, Kamaraj College of Engineering and Technology, delivered a lecture on the topic 'Foundations of IoT' and discussed the fundamental principles of IoT, covering aspects such as network connectivity, embedded systems and cloud computing. Er A



Kesavan, delivered lecture on the topic 'Smart Products & Systems: Design and Development' and explained the user-centric approaches of smart products, energy efficiency and real-time data processing. Er A Siva, Project Manager, SSS Automation India, discussed the role of IoT in industrial automation, highlighting predictive maintenance, real-time monitoring and advanced analytics.

Mrs C Nagavani, Assistant Professor, Electronics and Communication Engineering Department, Kamaraj College of Engineering and Technology delivered lecture on 'Future Trends in IoT & Next-Gen Technologies' and spoke about upcoming trends such as 5G, AI integration, Edge Computing and Blockchain applications in IoT.

The seminar successfully provided a platform for professionals, academicians and students to explore the latest advancements in IoT. The seminar fostered knowledge-sharing and discussions on the future of smart engineering, leaving participants with valuable takeaways for their respective fields.

Advancements in Machine Learning for Structural Engineering: From Identification to Design

Durgapur Local Centre, IEI, in collaboration with the Department of Civil Engineering, Dr B C Roy Engineering College, Durgapur organized a One Day Seminar on the theme **Advancements in Machine Learning for Structural Engineering: From Identification to Design** on 28 August 2024, under the aegis of Civil Engineering Division Board [CVDB], IEI at Durgapur. The event aimed to explore how machine learning is revolutionizing structural engineering by optimizing design, enhancing safety and improving efficiency in civil infrastructure projects. The seminar witnessed the participation of faculty members from Dr BC Roy Engineering College, students from various institutions and committee members of the Durgapur Local Centre, IEI.

The seminar commenced with a welcome address by Mr Debi Prasad Das, Convener of the Civil Engineering Division, Durgapur Local Centre, IEI. He emphasized the significance of the seminar, highlighting that machine learning plays a crucial role in solving complex structural engineering problems efficiently and predicting the health of civil engineering structures.

The Chief Guest, Prof (Dr) Sanjay S Pawar, Principal, Dr B C Roy Engineering College, Durgapur, emphasized the critical role of technology in modern engineering. He elaborated the role of Artificial Intelligence in civil engineering and the importance of integrating machine learning techniques in research and practical applications. The Guest of Honour, Prof (Dr) Sanjay

Sengupta, Head, Department of Civil Engineering, Dr B C Roy Engineering College, Durgapur, delivered a talk on Health Monitoring of Civil Engineering Structures. He discussed the importance of ensuring structural safety and



how AI-powered tools are assisting civil engineers in gaining real-time insights into infrastructure health. Dr Bimal Das, Honorary Secretary, Durgapur Local Centre, IEI concluded the inaugural session by expressing gratitude to the Chief Guest, Guest of Honour, invited speakers and dignitaries. He acknowledged the efforts of the organizing team, faculty members and students in making the seminar a grand success.

The Keynote speaker, Dr Aloke Kumar Datta, Associate Professor, Department of Civil Engineering, National Institute of Technology Durgapur, delivered an insightful talk on the topic 'AI and Structural Engineering: Preparing the Next Generation of Civil Engineers', where he discussed how structural engineering is undergoing a paradigm shift with the integration of AI.

The Guest Speakers, Dr Dipankar Dutta, Associate Professor, Department of Computer Science & Engineering, University Institute of Technology, Burdwan delivered a lecture on 'Artificial Intelligence (AI), Machine Learning (ML) and Its Applications' and Dr Gour Sundar Mitra Thakur, Associate Professor & Head, Department of Computer Science and Engineering (AIML), Dr B C

Contd. on page 16

Laser-based Processing: Advancements and Applications in Modern Manufacturing

Jharkhand State Centre, IEI, organized a One Day Workshop on the theme **Laser-based Processing: Advancements and Applications in Modern Manufacturing** on 25 August 2024, under the aegis of Production Engineering Division Board [PRDB], IEI at Ranchi. The Workshop aimed to explore advancements in laser-based technologies and their applications in modern manufacturing, providing a platform for discussions among industry experts, academicians and professionals from government organizations. The event witnessed the participation of number of attendees from BIT Mesra, Jharkhand Government Tool Room, MECON, SAIL and various departments from Government of Jharkhand.

The event commenced with a welcome address delivered by Dr Mahesh Kumar Gupta, Chairman, Jharkhand State Centre, IEI who emphasized the importance of laser technology in modern manufacturing and its evolving role in industrial applications.

Chief Guest of the event, Prof Vinay Sharma, Director, University Polytechnic & Professor, PIE, BIT Mesra, delivered an insightful address on the applications of LASER technology in manufacturing. He discussed new advancements in LASER processing techniques and their significance in industrial production. The Guest of Honour, Er Suresh Kumar, Senior General Manager In-charge (IM&R), MECON Limited, Ranchi, focused on the practical applications of LASER in iron-making and refractory linings. His speech provided a practical industry perspective, highlighting how LASER technology is being integrated into steel and metallurgy sectors. The inaugural session concluded with a vote of thanks by Er MR Kumar, Past Honorary Secretary, Jharkhand State Centre, IEI.

The technical sessions featured expert lectures and invited paper presentations on various LASER-based manufacturing techniques. The

Keynote address delivered by Prof G Rajamohan, NIAMT, Hatia on the topic 'Laser in Metrology' analyzed the role of Laser technology in precision measurement and quality control. The Keynote lecture by Dr Bappa Acherjee, BIT Mesra on the topic 'Laser Welding of Polymers and Hybrid Structures: Recent Status and Future Prospects' discussed the latest developments in laser welding techniques for polymer and hybrid materials. Mr Dilip Kumar Joshi, General

Manager, Joshi Jampala Engineering Private Limited focused on sales and marketing aspects of LASER-based manufacturing systems. The Invited Lecture delivered by Dr SK Parida, NIAMT, Hatia explored the integration of LASER technology in advanced industrial applications. Mr Purusattam delivered presentation on 'Laser-Based Fabrication of Metal-Polymer Laminates' that highlighted new fabrication techniques utilizing LASER technology for composite materials.

The workshop concluded with a valedictory session, acknowledging the contributions of all speakers and participants. The discussions during the workshop reinforced the growing importance of LASER technology in industrial production, precision engineering and material processing.

The event was well-received, with participants appreciating the technical depth of the sessions and calling for more workshops focusing on hands-on industrial applications. The organizing committee ensured the smooth conduct of the event, fostering industry-academia collaboration for future advancements in LASER-based manufacturing technologies.



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>

Advancements in Machine Learning for Structural Engineering: From Identification to Design

Contd. from page 15

Roy Engineering College, Durgapur delivered lecture on 'Machine Learning Essentials'. Mr Soumyadip Das, Assistant Professor, Department of Civil Engineering, Dr B C Roy Engineering College, Durgapur in his concluding remarks expressed gratitude to the keynote speaker, guest speakers, faculty members and participants for making the seminar a success.

The seminar successfully brought together experts from civil and computer science engineering domains to discuss how AI and ML are transforming structural engineering. The discussions provided a deeper understanding of how AI-driven tools can optimize design, enhance safety and improve infrastructure health monitoring. The seminar concluded on a positive note, with a strong emphasis on furthering research and collaboration between structural engineers and AI specialists.

Fog Computing Using Industry 5.0

Tiruchirappalli Local Centre, IEI, in collaboration with Department of Computer Science and Engineering, University College of Engineering, BIT Campus, Tiruchirappalli organized a One Day Workshop on **Fog Computing Using Industry 5.0** on 23 August 2024, under the aegis of Computer Engineering Division Board [CPDB] at Tiruchirappalli. The primary objective of this Workshop was to provide participants with insights into Fog Computing technologies and their integration with Industry 5.0. The event brought together academicians, researchers, industry experts and students to discuss the challenges, opportunities and applications of Fog Computing in real-world scenarios.

The Workshop commenced with a warm welcome address by Dr S Ravimaran, Chairman, Tiruchirappalli Local Centre, IEI. He introduced the theme of the workshop and highlighted the growing importance of Fog Computing in modern technology. His insightful speech set the stage for the discussions and motivated the participants to actively engage in the sessions.

The Keynote address was delivered by Dr U Srinivasulu Reddy, Associate Professor, National Institute of Technology (NIT), Tiruchirappalli. His technical speech provided participants with valuable insights into the future of Fog Computing and its applications in smart manufacturing and efficient data processing.

Other speakers namely Dr U Srinivasulu Reddy, Associate Professor, NIT

Tiruchirappalli delivered his lectures on "Architecture and Implementation of Fog Computing Systems" and Mr Antony Rajesh, Solution Architect, HP India Software Operations Private Limited, Bengaluru delivered his lecture on "Real-World Applications of Fog Computing in Smart Cities, Healthcare, and IoT Environments". The workshop featured interactive discussions on key topics, including Introduction to Fog Computing and Industry 5.0, Challenges and Opportunities in Implementing Fog Computing, Case Studies on Fog Computing Applications and Future Trends and Research Opportunities in Fog Computing. Participants were encouraged to explore these research areas for future academic work and innovation in their careers.



Prof (Dr) S Ravimaran, Chairman of the host Centre, summarized the key discussions and insights from the Workshop. The event concluded with a vote of thanks by Dr S Senthilkumar, Assistant Professor,

Department of Computer Science and Engineering, University College of Engineering, BIT Campus, Tiruchirappalli, in his concluding remarks, expressed gratitude to the speakers and panelists for their valuable contributions, the organizing team for their efforts in coordinating the event and the participants for their active engagement and enthusiasm.

The Workshop was a resounding success and not only enhanced participants' technical knowledge but also inspired them to explore the potential of Fog Computing in their respective fields.

AI and Cyber Security: Safeguarding the Digital World

Gorakhpur Local Centre, IEI, in association with the Institute of Technology & Management (ITM), GIDA, Gorakhpur organized a one-day seminar on **AI and Cyber security: Safeguarding the Digital World** on 22 August 2024, under the aegis of Computer Engineering Division Board [CPDB] at Gorakhpur. The event brought together experts, academicians, industry professionals and students to discuss the evolving landscape of artificial intelligence (AI) and cybersecurity.

The seminar was inaugurated by the Chief Guest, Prof Poonam Tandon, Hon'ble Vice Chancellor, DDU Gorakhpur University, Gorakhpur. In her address, Prof Tandon highlighted the importance and impact of AI and Machine Learning across industries, emphasizing their applications in healthcare, finance, transportation and entertainment. She encouraged students to explore AI responsibly and ethically. The Guest of Honour, Er J B Rai, President, Malviya Alumni Association, expressed his concerns about the misuse of AI and ML for malicious activities, such as cyberattacks, misinformation and deepfakes.

Dr Pawan Kumar Mishra, Chairman, Gorakhpur Local Centre, IEI [2022-24] welcomed the dignitaries and participants. He emphasized the need for ethical and intelligent use of AI and ML in various domains and urged attendees to contribute to a safer digital world. Prof Rakesh Kumar, Dean-Research, M M M University of Technology, Gorakhpur, delivered the keynote address. He provided an overview of the seminar's theme and technical

sessions. His talk set the stage for the discussions that followed. The other speakers namely, Mohd Husain Zaidi, Judicial Magistrate, UP delivered a comprehensive presentation on "AI and Cyber Security: Safeguarding the Digital World". Prof Rakesh Kumar focused on the application of ML and DL techniques in diagnosing neurological diseases like Alzheimer's, brain tumors, epilepsy and Parkinson's. Dr Pawan Kumar Mishra spoke on "Building AI-Enabled Cybersecurity Teams: Skills and Training" and Prof Krishna Kumar, HOD, Department of Computer Science, ITM, GIDA, delivered a session on "Future of AI in Cybersecurity: Trends and Innovations".



The seminar concluded with closing remarks from Dr N K Singh, Director, ITM, Gorakhpur, who summarized the key takeaways from the event. He reiterated the significance of AI in reshaping cybersecurity and urged continued research in the field. The Vote of Thanks was delivered by Er R C Pandey, Honorary Secretary, Gorakhpur Local Centre, IEI, who expressed gratitude to the speakers, participants and organizing team for making the seminar a success.

The seminar provided a valuable platform for experts and students to explore the evolving landscape of AI and cybersecurity. It emphasized the need for ethical AI implementation, workforce skill development and advanced security strategies to combat cyber threats. The event successfully fostered discussions that will contribute to a more secure digital world.

Accelerating DevOps Adoption: Strategies, Tools, and Best Practices

Coimbatore Local Centre, IEI, in collaboration with the Department of Computer Engineering, PSG Polytechnic College (PSG PTC) organized a one-day seminar on **Accelerating DevOps Adoption: Strategies, Tools, and Best Practices** on 13 August 2024, under the aegis of Computer Engineering Division Board [CPDB] at PSG Polytechnic College, Coimbatore. The seminar aimed to explore various aspects of DevOps, including strategies for successful adoption, essential tools and best practices for automation. The event attracted software engineers, industry professionals and students, offering them valuable insights into DevOps practices and the latest industry trends.

The Chief Guest, Mrs Rohini Ashok, PPSM Manager, Accenture, Coimbatore, delivered an engaging address on the importance of DevOps in modern organizations.

She emphasized the significance of collaboration between development and operations teams and discussed the current trends in the DevOps landscape. Dr B Giriraj, Principal, PSG PTC, delivered the felicitation address, appreciating the initiative and emphasizing the importance of equipping future engineers with knowledge about DevOps.

The seminar began with a welcome address by Prof (Dr) Madhan Mohan Gopalsamy, Honorary Secretary, Coimbatore Local Centre, IEI. He provided an overview of the day's agenda, underlining the importance of the seminar in the context of emerging trends in software engineering. Dr S Brindha, Head of the Department, Computer Engineering, PSG PTC, presented a brief overview of the seminar's objectives, focusing on the importance of DevOps in bridging the gap between development and operations.

The Keynote address was delivered by the Chief Guest, Mrs Rohini Ashok who provided a foundational understanding of DevOps and its relevance in

today's technology-driven environment. The inaugural session concluded with a vote of thanks by Mrs P Thilakaveni, Lecturer, Department of Computer Engineering, PSG PTC, acknowledging the contributions of the speakers and organizers.

The invited lectures were delivered by Mr D Manikandan, Chief Technology Officer, iDevOpz, Coimbatore, who discussed essential DevOps tools, including version control systems, continuous integration/continuous delivery (CI/CD) platforms and configuration management tools. Mr M Mohammed Arief, AWS Associate DevOps Engineer, OneData Software Solutions Private Limited, Coimbatore, led the other invited lecture. He introduced various Infrastructure as Code (IAC) tools such as Terraform, Ansible, and AWS Cloud Formation. The next invited lecture, delivered

by Ms S Geetha, Co-Founder and DevOps Lead, iDevOpz, Coimbatore, who focused on the importance of automation in DevOps.

The seminar concluded with a certificate distribution ceremony, where participants received certificates for their active engagement in the sessions. The concluding session provided a summary of the key takeaways from the day and Dr G Madhan Mohan, Honorary Secretary, Coimbatore Local Centre, IEI extended gratitude to the speakers, organizers and attendees for their contributions and participation.

The One Day Seminar successfully provided participants with a comprehensive understanding of DevOps practices, tools and automation strategies. The sessions highlighted the critical role of DevOps in enhancing collaboration, streamlining workflows and accelerating software delivery, making it an essential approach for modern software engineering.



World Telecommunication and Information Society Day 2025

17 May, 2025

Theme: Gender Equality in Digital Transformation

<https://shorturl.at/K1ENa>

On 17 May 2025, the annual celebration of World Telecommunication and Information Society Day (#WTISD) will focus on gender equality in digital transformation as resolved by the ITU Council 2023 in Resolution 1416. The Sustainable Digital Transformation is one of the Union's Strategic Goals approved by the ITU Plenipotentiary Conference 2022, to foster equitable and inclusive use of telecommunications/information and communication technologies (ICTs) to empower people and societies for sustainable development.

The world is moving slowly towards gender parity in Internet use – Based on the ITU Facts and Figures 2024 report, an estimated 70 per cent of men use the Internet worldwide in 2024, compared with 65 per cent of women. Although there are 189 million more men than women using the Internet, the world has been moving towards gender parity except in least developed countries. Gender, geographic, and economic divides prevent equitable access to the Internet. Equality for women and girls in the ICT sector remains an ongoing challenge of extending the benefits of new technologies to all the world's inhabitants, regardless of age, gender, ability, or location.

In 2025, the 30th anniversary of the Beijing Platform for Action offers a chance to accelerate action for gender equality in digital transformation. The Beijing+30 Action Agenda includes key actions to advance gender equality, such as bridging the digital gender gap.

Celebrated every year on 17 May, World Telecommunication and Information Society Day (WTISD) marks the founding of the International Telecommunication Union (ITU) – the United Nations Agency for Digital Technologies. This yearly celebration helps raise awareness of the possibilities that the use of the Internet and other information and communication technologies (ICTs) can bring to societies and economies, as well as of ways to bridge the digital divide.

Renewable Energy Integration in Chemical Engineering: Role and Challenges

Coimbatore Local Centre, IEI, in collaboration with the Department of Chemical Engineering, KPR Institute of Engineering and Technology (KPRIET), Coimbatore organized a One Day Seminar on **Renewable Energy Integration in Chemical Engineering: Role and Challenges** on 31 July 2024, under the aegis of Chemical Engineering Division Board [CHDB] at KPRIET, Coimbatore. The seminar focused on the critical role of chemical engineering in renewable energy technologies and the challenges and opportunities in integrating renewable energy into chemical engineering processes. The event brought together renowned researchers, industry experts, faculty members and students to discuss cutting-edge advancements in renewable energy storage, hydrogen fuel systems and sustainability.



The seminar commenced with a welcome address by Prof (Dr) Madhan Mohan Gopalsamy, Honorary Secretary, Coimbatore Local Centre, IEI who briefed the audience about the objectives and activities of IEI, emphasizing its efforts in promoting engineering and technological advancements. Following this, Dr S Balasubramanian, Professor and Head, Department of Chemical Engineering, KPRIET, provided an overview of the seminar, outlining its key themes and importance in the current global scenario.

The Chief Guest, Dr P Ragupathy, Principal Scientist, Flow Battery Section, Electrochemical Power Sources Division, CSIR - Central Electrochemical Research Institute, Karaikudi, delivered an insightful address on the

significance of renewable energy integration in chemical engineering. Dr A K Priya, Professor, Department of Chemical Engineering, KPRIET & Committee Member, Coimbatore Local Centre, IEI introduced the Chief Guest and shared key insights into his contributions. The inaugural session concluded with a vote of thanks by Dr Uma Priya, Assistant Professor, Department of Chemical Engineering, KPRIET, who expressed gratitude to the distinguished guests, faculty members and participants.

The invited lectures on 'Electrochemical Energy Storage and Conversion Systems: Great Challenges and Opportunities' by Dr P Ragupathy, Principal Scientist, Flow Battery Section, CSIR - CECRI, Karaikudi, 'Role of Chemical Engineering in Renewable Energy' by Dr A Karthick, Associate Professor, Department of

Electrical and Electronics Engineering, KPRIET, 'Carbon-Free Fuel System' by Dr R Ranjith Kumar, Project Officer, Department of Civil Engineering, IIT Madras and 'Technologies for Sustainable Production of Hydrogen' by Dr S Pranav, Assistant Professor (Sr G), Department of Chemical Engineering, KPRIET enriched the participants.

The seminar concluded with a valedictory session and distribution of certificates to participants. The event successfully provided an engaging platform for discussions on renewable energy technologies and their role in chemical engineering.

Novel Technical Textiles Products –Technology, Production & Applications

Coimbatore Local Centre, IEI organized a One Day Seminar on the theme **Novel Technical Textiles Products –Technology, Production & Applications** on 19 June 2024 under the aegis of Textile Engineering Division Board [TXDB], IEI at Coimbatore. The event started with the welcome address delivered by Prof (Dr) Madan Mohan Gopalsamy, Honorary Secretary, Coimbatore Local Centre, IEI. Dr B Giriraj, Principal, PSG PTC and Dr M Senthilkumar, Head of Department, Department of Textile Technology, PSG PTC delivered the opening remarks and briefed about the seminar. Mr S Viswanathan, Director of Business, HUESKER Asia Pacific Pte Ltd, Singapore, was the Chief Guest for the event and addressed the gathering. He explained the significance of novel technical textile products, technology, production & applications. Dr B Sathish Babu, Lecturer (Sr Gr), Department of Textile Technology, PSG PTC, Coimbatore delivered the concluding remarks.



steps of nonwovens, classification of technical textiles, and the difference between non-technical textiles and technical textiles. Chief Guest, Mr S Viswanathan delivered an Invited Lecture on 'Technical Textile Products and their Applications' and explained the principle categories of technical textiles. Mr V Viswanathan Murugesan, Manager - CRM & Business Development, Texperis India Private Limited, Mumbai, Maharashtra delivered Invited Lecture on the topic 'Technical Textile Products and their Manufacturing Methods and focussed on selection of raw materials for technical textile products. Mr S Sivakumar, Principal Scientific Officer - Gr. 'A', Head - Textile Chemistry Division, The South India Textile Research Association (SITRA), Coimbatore delivered the last Invited Lecture on the topic 'Technical

Textiles in SITRA'. In his lecture, Mr Sivakumar detailed testing and evaluation, standards formulation, incubation services, preparation of detailed project reports and pilot scale production of medical / technical textile products such as face masks, sanitary napkins, surgical gowns and wipes. Finally he displayed some medical textile products. During the Seminar, fruitful deliberations obtained on advancement in technical textiles, textile products, applications etc.

Cyber Security Challenges and Solutions in the Age of IoT

Erode Local Centre, IEI, in association with Velalar College of Engineering and Technology, successfully organized a One-Day Seminar on **Cybersecurity Challenges and Solutions in the Age of IoT** on 06 July 2024 under the aegis of Computer Engineering Division Board [CPDB] at Velalar College of Engineering and Technology, Thindal, Erode. The primary objective of the seminar was to discuss the challenges associated with cybersecurity in the rapidly growing Internet of Things (IoT) ecosystem and explore practical solutions for ensuring data protection and system security.

The inaugural session began with the welcome address delivered by Prof (Dr) Kumaravelan Radhakrishnan, Chairman, Erode Local Centre, IEI who emphasized the significance of cybersecurity in the modern technological world and the vital role of engineers in addressing IoT security challenges.

The keynote address and invited lectures in the forenoon session were delivered by Mr S M Sampath Kumar, Director – Cybersecurity, MNC, Bangalore. He spoke on “Introduction to Internet of Things” highlighting IoT fundamentals, applications and challenges. In his second lecture on “Cybersecurity: An Industry Perspective & Privacy Considerations and Data

Protection”, he discussed industrial cyber risks, data privacy, authentication standards and strategies to mitigate cyber attacks in IoT systems.

The afternoon technical session was led by Dr V Kavitha, Professor, Department of Data Science and Business Systems, SRM Institute of Science and Technology, Chennai. She delivered lectures on “Security Risks in IoT Environments & Securing IoT Devices and Networks” and “Industrial IoT (IIoT) Systems & Emerging Technologies for IoT Security”. She elaborated on device, network and data security in IoT environments and discussed emerging technologies like Artificial Intelligence (AI), Machine Learning, Blockchain and Edge Computing as crucial tools in



strengthening IoT security.

The seminar concluded with the valedictory address by Dr V Kavitha, who summarized the key takeaways of the seminar and stressed the importance of continuous learning to tackle evolving cybersecurity challenges in IoT. Dr C N Marimuthu, Honorary Secretary, Erode Local Centre, IEI proposed the vote of thanks acknowledging the contributions of the speakers, participants and organizing team.

Digital Transformation in Mining - Revolutionizing Efficiency, Safety and Sustainability

Neyveli Local Centre, IEI in association with Neyveli Lignite Corporation India Limited (NLCIL) organized a One-Day Seminar on the theme **Digital Transformation in Mining - Revolutionizing Efficiency, Safety and Sustainability** on 22 June 2024 under the aegis of Mining Engineering Division Board [MNDB], IEI at Neyveli. The event drew participation from large number of engineers, primarily from NLCIL. The Seminar aimed to explore the application of digital technologies in enhancing mining operations' efficiency, safety and sustainability.

The welcome address was delivered by Er Appavu Eraniyan, Honorary Secretary, Neyveli Local Centre, IEI who acknowledged the vital support extended by NLCIL in sponsoring the event and encouraging participation by deputing engineers. Dr Suresh Chandra Suman, Director (Mines), NLC India Limited graced the inaugural function as the Chief Guest and inaugurated the seminar. He emphasized the need for digital transformation in mining and commended the initiative by the Neyveli Local Centre. The Guest of Honour, Shri Samir Swarup, Director (Human Resources), NLCIL, graced the event with his presence and support. Er M Venkatachalam, Chairman, Neyveli Local Centre, IEI and Director (Power), NLCIL, presided over the function. He congratulated the organizers and thanked IEI HQRS for approving the seminar, also appreciating NLCIL's continued cooperation. There were six technical sessions on different sub



themes, namely Integrated Mining Planning, Short Term Scheduling and Operations Management; Mobility Platform and Solutions India: Digitizing the Mining Industry; Digital Mining – Prospects and Challenges; Secured Connectivity and IT – OT Convergence etc. Shri S Kumaraswamy, Former Executive Director, Mines, NLCIL delivered Keynote address on the topic ‘Recent Technological Innovation in the Mining Industry’ and discussed on Smart safety, Coal India Vision 2030, application of autonomous technologies in mining industry for cost reduction, improvement in productivity, reduction

in exposure of workers to hazardous conditions etc. Shri T Malleswara Rao, Head of Mine Planning delivered Keynote address on the topic ‘Digital Transformation in Mining Industry’. In his address, Shri Rao highlighted the importance of re-engineering processes and advocating for a shift from post-accident scientific investigations to pre-operational scientific analysis to prevent accidents. During the valedictory function, Dr Suresh Chandra Suman, Director, Mines, NLC India Limited graced the function as

the Chief Guest.

The One Day Seminar effectively bridged the theory and practice, offering valuable perspectives on the digital evolution of the mining industry. It served as a platform for knowledge exchange among professionals and encouraged the adoption of emerging technologies to ensure safer, smarter, and more sustainable mining practices.

IEI Celebrates World Engineering Day for Sustainable Development 2025

Theme
**Unleashing the Power of
Engineers to Advance the
Sustainable Development
Goals**

World Engineering Day for Sustainable Development was celebrated by the Centres of the Institution all over the country on March 04, 2025. Brief accounts of the celebration as received from various Centres are reported hereunder.

STATE CENTRES

Andhra Pradesh



Andhra Pradesh State Centre, IEI, in collaboration with IEI Students' Chapter - EEE, Vasireddy Venkatadri Institute of Technology (VVIT), and the Board for Community Development through Education (BCDE),

Government of AP, organised a hybrid session on World Engineering Day for Sustainable Development on 04 March 2025 at Vijayawada. Prof Dr S V Satyanarayana, Director, Academic & Planning, JNTUA, delivered Keynote lecture on 'Waste to Wealth: Circular Economy Strategies for a Sustainable Future', emphasizing engineers' role in sustainable solutions. Messages from dignitaries, including Mr Vasireddy Vidyadagar, Chairman, VVIT and Dr Y Mallikarjun Reddy, Principal, VVIT reinforced the commitment to sustainability. The event concluded with key insights on waste management, recycling and eco-friendly innovations.

Bihar

Bihar State Centre, IEI celebrated World Engineering Day for Sustainable Development on 04 March 2025, at Patna. Keynote speaker, Prof Manabendra Pathak, Professor, Department of Mechanical Engineering, IIT Patna in his address discussed various next-generation renewable energy technologies for sustainable development. Chief Guest, Prof Santosh Kumar, Former Professor, NIT Patna, praised the engineer's expertise to design, develop and implement solution that address pressing global challenges. He mentioned that by applying innovation, problem solving skills and technical know-how, engineers can create sustainable technologies, improve the systems and able to contribute to social, environmental and economic advancements.

Telangana

Telangana State Centre, IEI organized World Engineering Day for Sustainable Development on 04 March 2025, in virtual mode. Keynote speaker, Prof Dr I V Muralikrishna, Dr Raja Ramanna Distinguished Fellow, DRDO, delivered lecture on the theme.

Uttar Pradesh



Uttar Pradesh State Centre, IEI celebrated World Engineering Day for Sustainable Development on 04 March 2025, at Lucknow. The event featured a Keynote address by Dr R C Srivastava, Former Vice Chancellor, Dr Rajendra Prasad Central Agricultural University, Pusa, Former Director, ICAR- Central Island Agriculture Research

Institute, Port Blair (A & N Islands) & Former Director, ICAR-Indian Institute of Water Management, Bhubaneswar on the technological approach to achieving Sustainable Development Goals (SDGs). He emphasized engineering solutions for zero hunger, poverty alleviation, climate action, and sustainable land use.

LOCAL CENTRES

Agra



Agra Local Centre, IEI, in collaboration with the Department of Computer Science and Engineering, Eshan College of Engineering, Farah, Mathura celebrated World Engineering Day for

Sustainable Development 2025 on 04 March 2025 at Agra Dr J Ghosh, Ex-Deputy Director, MSME, CFTI Agra was the Chief Guest. Dr (Prof) Pankaj Sharma, Director, Eshan College, spoke on sustainable development goals, while Er Vyom Kulshreshtha, Head, Department of Computer Science and Engineering, Eshan College of Engineering highlighted research initiatives. Earlier, Ms Stuti Bhardwaj, Assistant Professor, Computer Science and Engineering Department, Eshan College of Engineering delivered the opening remarks.

Bareilly



Bareilly Local Centre, IEI, celebrated World Engineering Day for Sustainable Development 2025 on 04 March 2025 at Rajshree Institute of Management and Technology, Bareilly. Dr

Anil Kumar, Director, Rajshree Institute of management and Technology, Bareilly discussed the crucial role of engineers in achieving the UN-SDGs. He further focused on the contribution of engineers in the areas of green technology, renewable energy, smart cities, climate change mitigation etc. Er Z N Khan, Former Chief Engineer, Jal Nigam, Uttarakhand, and Er Rudra Kumar, Assistant Professor, Rajshree Institute of Management and Technology, Bareilly also shared their insights.

Bhimavaram



Bhimavaram Local Centre, IEI celebrated World Engineering Day for Sustainable Development on 04 March 2025, at S R K R Engineering College, Bhimavaram. Dr T Vamsi

Nagaraju, Dean R&D, S R K R Engineering College, delivered a lecture on 'Sustainable Development Goals', emphasizing the role of engineering in addressing global sustainability challenges. The session underscored the need for interdisciplinary collaboration and ethical responsibilities in engineering for a sustainable future.

Coimbatore



Coimbatore Local Centre, IEI, in association with the Department of Production Engineering, PSG College of Technology, celebrated World Engineering Day for Sustainable Development

on 04 March 2025 at Coimbatore. A seminar was arranged on the topic 'From Engineer to Entrepreneur: Building Sustainable Startups for a Better Tomorrow'. Speaker of the session, Er Kathiresan Kulandayan, Co-founder & Chief Business Officer, EVtron Tech Private Limited, Chennai emphasized the importance of innovation, resilience and sustainability in transforming engineering ideas into successful start ups.

Dhanbad



Dhanbad Local Centre, IEI, in association with TEXMiN, IIT ISM Dhanbad, celebrated World Engineering Day for Sustainable Development 2025 on 04 March 2025 at

Dhanbad. The event featured a lecture by Prof Biswajit Paul, Department of Environmental Science & Engineering, IIT ISM, Dhanbad on 'Unleashing the Power of Engineers to Advance the Sustainable Development Goals', emphasizing engineering's role in sustainability. Distinguished participants included Prof D K Singh, Ex-Director, BIT Sindri, Mr Suraj Prakash, CEO, TEXMiN, Prof Alok Sinha, HoD, Environmental Science & Engineering, IIT ISM Dhanbad and other dignitaries.

Durgapur

Durgapur Local Centre, IEI, celebrated World Engineering Day for Sustainable Development on 04 March 2025 at Durgapur. Dr Aniruddha Bhattacharya,



Assistant Professor, Department of Electrical Engineering, NIT Durgapur, graced the occasion as the Guest of Honour and Keynote Speaker, delivering

an insightful lecture on 'Impact of Electric Vehicles on Power Distribution Networks'. He discussed the implications of the increasing adoption of electric vehicles (EVs) on power distribution infrastructure. His presentation covered the challenges posed by rising energy demand, the need for smart grid integration, and the importance of efficient energy management strategies to ensure grid stability and reliability. He emphasized the pivotal role of electrical engineers in developing sustainable and resilient power systems in response to the growing penetration of EVs. His insights added a practical and forward-looking perspective to the event's broader themes of sustainability and safety.

Faridabad

Faridabad Local Centre, IEI, in association with the Department of



Electronics Engineering, J C Bose University of Science & Technology, YMCA, Faridabad celebrated World Engineering Day for Sustainable Development on 04 March 2025 at

Faridabad. Er Inderdeep Singh Oberoi, Chairman, Faridabad Local Centre, IEI delivered the theme speech, emphasizing the crucial role of engineering in sustainable development. A technical competition was organized, where five students qualified for the final round, showcasing their technical skills and eloquence.

Gorakhpur



Gorakhpur Local Centre, IEI in association with the Institute of Technology and Management (ITM), GIDA, Gorakhpur, celebrated World Engineering Day for Sustainable Development

2025 on 04 March 2025 at Gorakhpur. Chief Guest, Dr P K Mishra, Senior Director, Construction Industry Development Council, delivered an insightful Keynote, highlighting engineers as problem-solvers shaping a sustainable future. He stressed the importance of innovative, ethical and responsible engineering practices to address global challenges.

Gwalior



Gwalior Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2025 at Gwalior. The Keynote address was delivered by Col A S Bais

(Retd), who underlined the crucial role of engineers in achieving Sustainable Development Goals (SDGs) through technological innovations. Er V K Shukla, Past Honorary Secretary, and former Manager, NFL, stressed on the socio-economic impact of engineering innovations.

Jammu



Jammu Local Centre, celebrated World Engineering Day for Sustainable Development on 04 March 2025 at Jammu. Er Raheela Wani, Managing Director, J&K Power Transmission Corporation Ltd, Power Development

Department, J&K Government, graced the occasion as Chief Guest. While speaking on the occasion, Er Raheela Wani lauded the efforts of engineers in presenting wonderful papers on the theme. She advocated that education is very important and engineers need to be trained not just in technical skills but also in understanding the sustainability principles which can be possible only if SDGs are included in the engineering curricula. She also touched the role of NGOs & Private entrepreneurs in collaborating with the Governments for sustainable projects.

Jodhpur



Jodhpur Local Centre, IEI, in association with UltraTech Cement Limited World Engineering Day for Sustainable Development on 04 March 2025 at Jodhpur. Keynote Speaker of the session was Dr Rajani Bora,

Professor, JIET College, Jodhpur. Er Manish Garg, Regional Head-TCS, Rajasthan West, UltraTech Cement Limited, introduced the Keynote speaker and highlighted the relevance of the theme. Dr Rajani Bora, in her lecture,, emphasized the vital role of engineers in achieving Sustainable Development

Goals (SDGs) through innovations in green technology, renewable energy, smart cities, water conservation and the application of digital tools like Artificial Intelligence in education, health and agriculture sectors for a sustainable future. The program was coordinated by Er Narendra Kumar Sharma, Territory Manager-TCS, UltraTech Cement Ltd, Jodhpur.

Kanpur

Kanpur Local Centre, IEI celebrated World Engineering Day for Sustainable Development on 04 March 2025 through online mode. Theme speaker of the session, Dr Imran Khan, Assistant Professor, Department of Computer Science and Engineering, HBTU, Kanpur in his lecture, emphasized engineers' critical role in addressing global challenges through innovation, sustainable design and interdisciplinary collaboration.

Kochi



Kochi Local Centre, IEI organized a Technical Talk on World Engineering Day for Sustainable Development 2025 on 04 March 2025 at Kochi. Speaker of the session was Dr Vasudev R, Professor & Head, Department of Civil

Engineering, TocH Institute of Science & Technology. Dr Vasudev R highlighted various aspects of sustainability in engineering, focusing on bamboo as an environmentally friendly material for construction. He explained its rapid growth, durability, affordability, and minimal environmental footprint compared to traditional building materials. He also shared insights into its applications in structural design and urban development, demonstrating its potential to support the Sustainable Development Goals (SDGs).

Kozhikode



Kozhikode Local Centre, IEI, in collaboration with IEEE Malabar Section, organized a Technical Presentation on 27 February 2025 at Kozhikode, as part of World Engineering Day for Sustainable Development. Speaker of the session, Dr

N S Deepa, Associate Professor, Department of Electrical Engineering, NIT Calicut delivered an insightful lecture on the theme, discussing engineering achievements, sustainability principles and the evolving role of engineers in addressing global challenges.

Ludhiana

Ludhiana Local Centre, IEI, in collaboration with NSS units, Sustainability Hub and GNDEC School of Architecture, celebrated World Engineering Day for Sustainable Development on 04 March 2025 at Ludhiana. Prof Jasvir Singh, Officer In-Charge, NSS, discussed the urgent need for sustainability. A poster contest was held, where students presented creative ideas on sustainable development. Er Bir Bhan Goyal, Senior Member, Ludhiana Local Centre, IEI, Dr Pardeep Rajan, Scientist F, MERADO CMERI CSIR and Ar Vivek Sehgal, GNDEC School of Architecture shared valuable insights.



North Bengal

North Bengal Local Centre, IEI observed World Engineering Day 2025 on 04 March 2025 at Jalpaiguri. Er Shrayasi Datta, Honorary Secretary, North Bengal Local Centre, IEI, introduced the theme, highlighting engineers' vital role in achieving the UN's Sustainable Development Goals (SDGs) through innovation and problem-solving. Er Ujjal Dey, Assistant Professor, Department of Electrical Engineering, Jalpaiguri Government Engineering College emphasized that engineers are not just problem-solvers but architects of a sustainable future, driving transformative change.



Tiruvallur

Tiruvallur Local Centre, IEI, celebrated World Engineering Day on 04 March 2025 at Tiruvallur. The event emphasized the role of engineers in addressing global challenges through sustainable innovations. The Keynote address was delivered by Dr K Subramanian, Senior Vice President, Ashok Leyland. He shared insights on engineering advancements and sustainability. In recognition of his contributions. The event saw active participation from students, educators and industry professionals. Discussions focused on integrating engineering with creativity to drive sustainability. The program concluded with appreciation expressed to the speaker and participants for their engagement in promoting sustainable engineering solutions.



40th INDIAN ENGINEERING CONGRESS

Durgapur

Theme: Innovative Engineering Solutions for Viksit Bharat @ 2047



Organized by

The Institution of Engineers (India)

Hosted by: **Durgapur Local Centre**

Date: December 19-21, 2025

The e-edition is available at www.ieindia.org

Old Volume 75

I.E.I NEWS
April 2025

IEI Celebrates World Water Day



Theme - Glacier Preservation

The World Water Day was celebrated by the Institution all over the country on March 22, 2025. Reports of celebration received from various Centres are reported here.

STATE CENTRES

Assam



Assam State Centre, IEI, in association with the Pollution Control Board, Assam and other sponsoring organizations, celebrated World Water Day 2025 on 22 March 2025 at Guwahati. Chief Guest, Lt Gen Rana

Pratap Kalita (Retd) highlighted the global water crisis and urged action to preserve glaciers through emission reduction and sustainable practices. The Keynote speaker, Prof (Dr) Sudip Kumar Mitra, Head, School of Agro and Rural Technology, IIT Guwahati, emphasized glaciers' ecological role and called for collective preservation efforts. Dr Arup Kumar Mishra, and Prof (Dr) Sashindra Kumar Kakoty, Former Chairman, Assam State Centre, IEI were also present. A souvenir and quarterly newsletter were released. During the technical session, Er Pradipta Pran Changkakati, Secretary, North East India Water Forum (NIWaF), Guwahati delivered presentation on the topic 'Understanding the Role of Glaciers in Ecosystems'. Er Digvash Borakakati, Pollution Control Board, Guwahati delivered lecture on 'Water Resource Management in Assam: Lessons from Global Case Studies'. Er Kasturi Mishra, Department of Energy Engineering, Assam Science and Technology University, Guwahati on 'Climate Crisis: Its Impact, Risk Mitigation & Water Governance' Dr Hemanta Medhi, et al, Department of Civil Engineering, Tezpur University, Tezpur presented paper on 'Incorporation of Stream Network Information for Estimation of Flood Quantile'.

Karnataka

Karnataka State Centre, IEI in collaboration with the Department of Civil Engineering, DayanandaSagar College of Engineering (DSCE), Bengaluru, and Indian Water Works Association (IWWA), Bengaluru, observed World Water Day on 22 March 2025 through virtual mode. Dr H K Ramaraju, Vice Principal and HoD, Civil Engineering, DSCE, provided an overview of the program. Er R P Mallik, Chairman, IPHE, Karnataka explained the significance of the theme. Dr B G Prasad, Principal, DSCE, in his address, emphasizing technical collaboration. Keynote speaker, Dr K Balakrishna, MIT, Manipal shared insights on glacier preservation, followed by Dr B R Manjunath from DSCE, Bengaluru discussing early warning systems. The informative and engaging webinar was attended by number of participants.

Puducherry

Puducherry State Centre, IEI in collaboration with the Department of Civil Engineering, Puducherry Technological University (PTU), celebrated World Water Day on 24 March 2025 at Puducherry. Prof (Dr) S Mohan, Hon'ble Vice Chancellor of PTU delivered an insightful Keynote address on the significance of glacier conservation and wastewater recycling in sustainable water management. Earlier, Dr



G Ramakrishna, Professor and Head, Department of Civil Engineering delivered the opening remarks.

Uttar Pradesh



Uttar Pradesh State Centre, IEI celebrated World Water Day on 22 March 2025 at Lucknow, emphasizing the vital role glaciers play in sustaining the global water supply. Shri Sudhir Kumar Verma, Former MD, Dakshinchal Vidyut Vitran Nigam Limited, delivered the opening remarks. Chief Guest, Prof Jamal Nusrat, Former Professor, Walimi & SE, UP Irrigation, stressed the urgency of global efforts to manage glacier melt sustainably and reduce emissions to secure future water resources. The event underscored the need for technological tools like satellite monitoring, climate models and conservation initiatives.

LOCAL CENTRES

Agra

Agra Local Centre, IEI celebrated World Water Day 2025 on 23 March 2025 at Agra. Er Surya Narayan Deo Sharma, Committee Member, Environmental Engineering Division of the host Centre spoke on glaciers' critical role in freshwater supply. Er D S Chaudhary, Past Honorary Secretary of the Centre emphasized global efforts to sustain glacial ecosystems. Er V K Gupta advocated emission reduction and sustainable energy, while Er Nirmal Kumar Gupta from DEI highlighted regional conservation and led a water conservation oath.



Ahilyanagar

Ahilyanagar Local Centre, IEI, in association with Shri Chhatrapati Shivaji Maharaj College of Engineering, Nepti, celebrated World Water Day on 25 March 2025 at Ahilyanagar. Dr Y R Kharde, Principal, Shri Chhatrapati Shivaji Maharaj College of Engineering, Nepti graced the function as the Chief Guest and Mr Prasanna Popatrao Pawar, Member, Yashwant Krishi and Village Development Institute, Hivarebajar as the Guest of Honour. Dr Akshaya Verma, Scientist 'C', Centre for Cryosphere & Climate Change Studies, NIH Roorkee, delivered the Keynote address virtually on the topic 'Himalayan Glaciers in a Warming Climate: Monitoring & Future Adaptations'. Dr Kharde emphasized the value of fresh water and explained the importance of glaciers. Mr Pawar in his address focused on water management and self sufficiency in water requirement. Dr Akshaya Verma in his address spoke on the effect of global atmospheric concentration of CO₂, rise in sea level, etc.



Aligarh

Aligarh Local Centre, IEI celebrated World Water Day on 29 March 2025, at Aligarh. Prof (Dr) Nadeem Khalil, Chairman, Aligarh Local Centre, during his welcome address, underscored the global significance of glacier conservation. Chief Guest, Prof Ateeque Ahmad, Department of Geography, Aligarh Muslim University, delivered an impactful Keynote highlighting glaciers' crucial role in ecological balance and the urgent need to mitigate climate change effects. The program successfully promoted awareness and collective responsibility toward glacier preservation and environmental sustainability.

Bareilly



Bareilly Local Centre, IEI celebrated World Water Day on 22 March 2025 at Bareilly. Er Pradeep Madhwar, Immediate Past Honorary Secretary, Er Subhash Mehra, Past Chairman of the centre. Prof

(Dr) Pankaj Kumar Sharma, Chairman, Bareilly Local Centre, highlighted the importance of glaciers in freshwater sustainability and climate regulation. Er K B Agrawal, Er Sudhir Gupta, and Er Prem Prakash Gupta, Past Chairmen, shared critical insights on glacier preservation, climate change mitigation and sustainable environmental practices. The seminar stressed the urgency of reducing carbon emissions, afforestation and community awareness.

Bathinda

Bathinda Local Centre, IEI celebrated World Water Day 2025 on 26 March 2025 at Bathinda. A Seminar was organized on the topic 'Glacier Conservation', drawing active participation from engineers, scholars and students. Chief Guest, Er Sukhvir Singh Mundi, Former Vice President, IEI, who emphasized the importance of water conservation and sustainable management for future generations. The Keynote address was delivered by Dr Adarsh Pal Vig, Professor and Director (UGC-HRDC), Department of Botanical & Environmental Sciences, Guru Nanak Dev University, Amritsar, who stressed the urgent need to recharge water sources at consumption points and shared effective conservation strategies. Prof (Dr) T S Kamal, Former Vice President, IEI and Dr Jagtar Singh, Former Chairman, Bathinda Local Centre, IEI contributed their expert views on the preservation of water resources amid growing environmental challenges.

Bokaro Steel City

Bokaro Steel City Local Centre, IEI celebrated World Water Day on 23 March 2025, at Bokaro. The Chief Guest, Shri Kundan Kumar, Chief General Manager, Town Administration Department, SAIL, Bokaro Steel Plant, emphasized on conserving water in Bokaro Steel Plant and BSL township. The

Keynote speaker, Er Lambodar Upadhyay, General Manager, TA (Water Supply), SAIL deliberated on the challenges and opportunities being faced across the globe regarding water conservation. Er Mayank Aakash, Senior Manager, TA (Water Supply), SAIL presented paper on the theme.

Chandrapur

Chandrapur Local Centre, IEI commemorated World Water Day on 25 March 2025 with a technical program focused on the theme, highlighting the crucial role of glaciers in sustaining life and the water cycle on 25 March 2025 at



Chandrapur. The event featured Er Nitin Janwe, In-charge Principal, RCERT Chandrapur, as the Chief Guest and Mr Bandu Dhotre, noted Indian wildlife activist and President, Eco-Pro, Chandrapur, as the Keynote speaker. Er Janwe expressed his concern over fast melting of glaciers due to climate change and making the availability of freshwater uncertain. Mr Dhotre in his address emphasized on formulating strategies for glacier preservation to meet the global water crisis.

Chhatrapati Sambhajinagar



Chhatrapati Sambhajinagar Local Centre, IEI in collaboration with the Department of Agricultural Engineering, MIT (Autonomous), Chhatrapati Sambhajinagar, celebrated World Water Day on 22 March 2025 through virtual

mode. The event was graced by Chief Guest and Keynote Speaker Er Vijaykumar Ghogare, Chief Engineer, Water Resources Department, GMIDC, Chhatrapati Sambhajinagar, delivered an insightful address emphasizing the critical importance of glacier preservation for global water security, climate regulation and biodiversity. He focused on implementing sustainable practices to reduce greenhouse gas emissions and addressing climate change.

Indore



Indore Local Centre, IEI celebrated World Water Day 2025 on 29 March 2025 at Indore. Shri Tulsiram Silawat, Hon'ble Cabinet Minister - Water Resources, Government of Madhya Pradesh, graced the event

as the Chief Guest. Prof (Dr) Neetesh Purohit, Director, SGSITS, Indore, was present as the Guest of Honour, Dr Sunil Chaturvedi, Director, Vibhavari, Dewas, delivered the theme lecture, highlighting the alarming pace of glacier melting due to rising global temperatures and its ripple effects on nature, water sources and public health.

Kochi



Kochi Local Centre, IEI observed World Water Day 2025 on 26 March 2025 at Kochi focusing on the urgency of conserving glaciers and promoting sustainable water

management. Er G Velayudhan Nair, Chairman, Kochi Local Centre, IEI stressed the engineer's role in sustainable water solutions. Prof (Dr) M M Prabhakaran, Programme Convener and Prof (Dr) G Madhu, Programme Coordinator, highlighted the global significance of glacier preservation. Chief Guest of the event was Prof (Dr) Paul K Mathew, Former Principal, MA College of Engineering. Er K K Gopalakrishnan Nair, Vice President, IEI, also present on the occasion. Prof Mathew delivered a Keynote address on the alarming rate of glacial retreat and its impact on freshwater reserves. Prof (Dr) Susan Jacob, Former MD, Kerala Water Authority, summarized the key takeaways of the event.

Kozhikode

Kozhikode Local Centre, IEI observed World Water Day 2025 on 22 March 2025 at Kozhikode with a hybrid technical session centered on the theme. Dr Ishaq Ahmad Mir, Senior Geologist, National Centre for Earth System Geosciences Research (NCEGR), GSI, Bengaluru, delivered an insightful

presentation on the topic 'Potentially Toxic Elements in the Aquatic Environment of Bengaluru Megacity and Their Biohazard Threats'. Mr Muneer Ahmad Mukhta, Director, NCEGR, GSI, Bengaluru, followed with an engaging talk on 'Review of Himalayan Cryosphere in the Light of Shining Climate, Problems and Emerging Challenges'. The session included an active discussion on water stress and sustainable water resource management.

Meerut



Meerut Local Centre, IEI celebrated World Water Day on 22 March 2025 at Meerut. The event, featured insightful talks by Er PS Singhal, a veteran civil engineer from IIT Roorkee

and Er BD Sharma, Convener, Indian Water Resources Society, Meerut. Er Singhal, served PWD, UP Irrigation emphasized the critical link between glaciers, water and life, advocating for a global 45% cut in greenhouse gas emissions by 2050 to combat glacial melt. Er BD Sharma, having expertise on rainwater harvesting system underscored glaciers' role in sustaining river systems like the Ganga and Yamuna and called for a dedicated Himalayan Ministry to manage glacier-related issues. He cited the Central Water Commission report on glacial melt and advocated using Sentinel-1 and Sentinel-2 technologies for monitoring.

Munirabad



Munirabad Local Centre, IEI celebrated World Water Day on 22 March 2025 at Munirabad. The Guest of Honor, Sri W Lalithaprasad, Former Assistant Executive Engineer, Head Works Sub-

Division, Munirabad, delivered a Keynote address emphasizing the urgent global need for freshwater conservation and glacier preservation. The event effectively brought attention to pressing water issues and reinforced the role of engineers in sustainable development. It concluded on a thoughtful note, leaving attendees motivated to support water conservation efforts locally and globally.

Muzaffarpur

Muzaffarpur Local Centre, IEI celebrated World Water Day on 23 March 2025 at Muzaffarpur through virtual mode. Resource person of the session was Prof Anil Kumar, Assistant Professor, Department of Civil Engineering, NIT Patna.

Rourkela

Rourkela Local Centre, IEI celebrated World Water Day on 22 March 2025, through online mode. A webinar was organized on the topic 'Marine Energy and Desalination Projects by National Institute of Ocean Technology'. Keynote speaker, Sct. Ashwani Vishwanath, Scientist-E, Energy & Fresh Water Division, National Institute of Ocean Technology (NIOT), Chennai, delivered an insightful presentation on marine energy and desalination technologies, highlighting the rising demand for freshwater and the potential of oceans as a sustainable source through desalination.



Trichur

Trichur Local Centre, IEI observed World Water Day on 23 March 2025 at Trichur. Prof (Dr) C P Sunil Kumar, Immediate Past Chairman, Trichy Local Centre mentioned that glacier preservation is essential for sustaining ecosystems, human livelihoods and global climate balance. The Keynote talk was delivered by Dr E J James, Institute Professor

and Advisor, Karunya Institute of Technology & Sciences, Coimbatore and Former Executive Director of Centre for Water Resources Development & Management [CWRDM], Kozhikode. He discussed glacier retreat, causes of glacier loss and strategies for preservation, highlighting the urgent need to address these challenges through sustainable action.

Vallabh Vidyanagar

Vallabh Vidyanagar Local Centre, IEI, in association with B & B Institute of Technology, Vallabh Vidyanagar celebrated World Water Day on 25 March 2025 at Vallabh Vidyanagar. The event featured a Keynote lecture by Mrs Prachi M Gor, Lecturer, Civil Engineering Department, B & B Institute of Technology, on the topic 'Melting Glacier, Sinking Future'. She highlighted the alarming effects of glacial retreat due to climate change, such as rising sea levels, loss of freshwater and disrupted ecosystems, urging urgent action through sustainable water management, emission reduction and global collaboration. A poster-making competition on 'Glacier Preservation' attracted number of participants. The event was praised for its insightful sessions, expert contributions and excellent hospitality, leaving participants inspired about environmental sustainability.

Visakhapatnam

Visakhapatnam Local Centre, IEI observed 'World Water Day' on 22 March 2025, through virtual mode. The event featured a Keynote address by Dr C Chandra Sekhar Rao, Former Hydrogeologist at the AP State Ground Water & Audit Department. The lecture explored the critical role glaciers play in the global water cycle, the impact of climate change on their retreat and innovative mitigation strategies such as using feldspar, fly ash and agricultural by-products to reduce melting. The event emphasized the need for global cooperation and sustainable practices to preserve these vital freshwater sources.

Warangal

Warangal Local Centre, IEI observed World Water Day on 25 March 2025 through virtual mode. The Keynote address was delivered by Dr Prasad Jaladi, a social entrepreneur and Founder & Chief Facilitator at Suraksha, who emphasized the global and national impacts of glacial retreat due to climate change, presenting various case studies including those from the Himalayas. He further elaborated on flooding risks from glacial lake bursts and the role of industrial and vehicular pollution. The session concluded with a discussion on pollution control strategies for glacier preservation.

FORA

Water Management Forum

Water Management Forum, IEI in collaboration with Vadodara Local Centre, IEI and Community Science Centre, Vadodara organized a Poster Making Competition on Glacier Preservation on the occasion to celebrate World Water Day 2025 during 20-25 March 2025 at Vadodara.

Superannuation from IEI



Ms K Lalitha, an employee of the Tamilnadu State Centre of the Institution superannuated from the services of IEI on 30 April 2025. She joined the Institution on 15 September 2017 and rendered her services to the Institution over a period of 7 years.

IEI wishes Ms K Lalitha and her family a happy and healthy life in the future.

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>.

Advertisement Rates in IEI Publications

IEI News (Printed + online)

Reach: 2,00,000 members by email + 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 email + 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 cm (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 email + 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

Email: 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

List of Institutional Members (IM) from January to March 2025

| IM No. | Name of Institution/ Organisation | Date of Election |
|-----------|--|------------------|
| IM0008025 | Bhoj Reddy Engineering College for Women, Hyderabad | 03 February 2025 |
| IM0008038 | D Y Patil College of Engineering, Pune | 03 February 2025 |
| IM0008046 | Madanapalle Institute of Technology & Science, Andhra Pradesh | 18 February 2025 |
| IM0008054 | Dr B C Roy Engineering College, Durgapur, West Bengal | 25 February 2025 |
| IM0008062 | Amrita Vishwa Vidyapeetham, Thiruvallur, Tamil Nadu | 25 February 2025 |
| IM0008070 | Atria University, Bengaluru | 25 February 2025 |
| IM0008089 | Elan Greentech Energies Limited, Gurgaon | 20 March 2025 |

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>

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

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.

Certificate of Practice for Practicing Chartered Engineers

The Corporate Members of the Institution having **Chartered Engineer Certificate in the current grade of Membership with five years of experience** as an Engineer in the relevant field can apply for **Practicing Chartered Engineers Certification**. The Institution will issue **Practicing Registration No.** for practicing Chartered Engineers, which is valid for **five years**.

The application fee for empanelment is, Rs.5900/- (GST included), which may be paid through Demand Draft/ Multi-city Cheque in favour of "The Institution of Engineers (India)" payable at Kolkata.

The hard copy of application form duly filled in alongwith supporting documents should reach to:-

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

Please visit : <https://www.ieindia.org/webui/IEI-RegistrationForPPCE.aspx> for more details

News-in-Brief

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

STATE CENTRES

Andhra Pradesh

Celebrated the Birthday of Padma Bhushan Dr K L Rao on 15 July 2024, honouring his legacy in civil engineering and irrigation. Prof (Dr) M L S Deva Kumar, presently Chairman of the host Centre, delivered a keynote address detailing Dr K L Rao's ground breaking contributions, including his role in designing major irrigation projects, introduction to innovative water management techniques and his advocacy for rural development. His efforts transformed arid regions into fertile lands, improving agricultural productivity and livelihoods. Dr Rao's vision and dedication to infrastructure and water resource management continue to inspire engineers and policymakers today. His pioneering work, including efficient water usage strategies and large-scale irrigation planning, remains foundational in India's development. The event recognized his enduring legacy, emphasizing the impact of his contributions on India's engineering, agriculture and rural sectors.

Puducherry

In collaboration with the Electronics and Communication Engineering (ECE) and Electrical and Electronics Engineering (EEE) Departments of Acharya College of Engineering Technology (ACET), organized an Invited Guest Talk and Poster Presentation Competition to commemorate World Telecommunication Day on 15 July 2024, at the ACET Auditorium. Chief Guests, Mr T Manivannan, Programming Head, Hello FM 106.4, Puducherry and Mr S Elangovan, All India Radio, Mysore, delivered insightful sessions on communication. Dr S Gurulingam, Principal, ACET, and Mr FD Anfinston, Head, ECE, ACET were also present on the dais. A poster presentation competition was conducted, where teams from schools and colleges showcased innovative ideas on telecommunication.

Tamilnadu

Organised the Dr K C G Verghese Memorial Lecture on 13 July 2024, at the Centre Auditorium, Chennai. Chief Guest, Col (Hon) Dr S N Sridhara, Vice Chancellor, Hindustan Institute of Technology and Science, highlighted the contributions of Dr K C G Verghese. The memorial lecture was delivered by Dr S Pandian, Visiting Professor, IIT Madras and Former Director, Satish Dhawan Space Centre SHAR, ISRO. Dr Pandian's lecture focused on space debris and asteroid mining opportunities, along with historical and future asteroid events.

Tripura

Celebrated its 105th Foundation Day on 13 September 2024 at Agartala. A technical talk on 'Sustainable Waste to Energy Technologies' was delivered by Dr Sagarika Panigrahi, Assistant Professor, Civil Engineering, NIT Agartala. The event highlighted the significance of sustainable energy solutions and reinforced IEI's commitment to engineering excellence and innovation.

LOCAL CENTRES

Amravati

Celebrated Engineers' Day with a week-long series of events from 09 – 15 September 2024 at Amravati. As part of the celebration, 'Techno-Ignite 2024' a National Level Quiz Competition, was held on 14 September 2024 at Abhiyanta Bhavan, Amravati.

Bareilly

In association with Rohilkhand Incubation Foundation (RIF), M J P Rohilkhand University, Bareilly organized The 'TECH-INNOVATION' on the

topic 'Digitization, Renewable Energy, Environmental Protection and Health Sector' on 14 September 2024 at Bareilly. The competition provided a platform to showcase innovative ideas. The event focused on four key themes: Digitization, Renewable Energy, Environmental Protection and the Health Sector, with 42 teams presenting groundbreaking solutions. Industry experts and academic leaders judged the projects based on innovation, feasibility and societal impact. Prof (Dr) Vinay Rishiwal, Head, Computer Engineering Department, MJPR University, Bareilly was the Keynote Speaker of the session. The event successfully promoted creativity, technical excellence, and a spirit of competition among budding engineers.

Belagavi

Organized the Balekundri Memorial Lecture on 08 January 2025, at Belagavi to honor the legacy of Late Sh S G Balekundri, a key contributor to Karnataka's water resource development, especially in drought-prone northern regions. Chief Guest of the session, Er Basavaraj Bandiwaddar, Superintending Engineer and Professor, Water & Land Management Institute (WALMI), Dharwad delivered an invited lecture on the topic 'Water Resources of Karnataka – Today Need for its Optimum Utilization' and highlighted the significance of irrigation water management in command areas. He discussed the adoption of drip irrigation to improve efficiency. Er Kundargi Shivappa Yallappa, Chairman, Belagavi Local Centre, IEI stressed the crucial role of water resources in food grain production for a growing population and urged WALMI to innovate irrigation strategies. Er Venkatesh B, Honorary Secretary, Belagavi Local Centre, IEI expressed gratitude to WALMI's Director for his efforts in promoting irrigation efficiency and transferring practical knowledge to farmers.

Chandrapur

Celebrated Regional Language Promotion Day on 27 February 2025 at Chandrapur. The event featured Er Anil Chitade, Principal, Rajiv Gandhi College of Engineering Research and Technology, Chandrapur, [RCERT], as the Chief Guest and Er Parag Dhankar, Head of the Department of Electronics and Communication, Rajiv Gandhi College of Engineering, Research and Technology (RCERT), Chandrapur, as the Keynote speaker. In his address, Er Anil Chitade underscored the relevance of education in regional languages as envisioned in NEP 2020. Er Parag Dhankar delivered an insightful keynote on the role of regional language in day-to-day life.

In association with the Department of Mechanical Engineering, RCERT Chandrapur, organized a seminar featuring insightful sessions on mechanical design and product development on 18 March 2025 at Chandrapur. The event featured Er Aditya Masade and Er Ajinkya Shastrakar, co-founders, Audazz Engineers along with Er Pritam Narlawar, freelancer in Mechanical Design as Keynote speakers. Er Masade presented a detailed approach to product design, while Er Shastrakar and Er Narlawar focused on advanced design tools like CAD and CATIA, stressing their utility in modern product development and analysis.

In association with the Department of Electronics and Communication Engineering, RCERT Chandrapur, organized a seminar on 'Green Data Centres and Digital Transformation' on 26 March 2025 at Chandrapur. The event aimed to update members on the latest advancements in data communication. Er Anil Chitade, Principal, RCERT Chandrapur, graced the occasion as Chief Guest. Er Avinash Lengure, Business Development Executive and Trainer, Chandrapur, was the Keynote speaker, Er R K Krishna, Executive Member and Convener, emphasized the rising importance of data communication technologies. Er Parag Dhankar, HOD, ECE, RCERT, Chandrapur discussed the relevance of green data centres in electronics and communication. The Keynote speaker, Er Lengure, explained how green

data centres integrate renewable energy sources to minimize environmental impact, promoting digital transformation.

Ghaziabad

Organized a lecture on 'Future Energy Storage in Power Sector of India: Role of Pumped Hydro Storage and Green Hydrogen' on 13 July 2024, at Ghaziabad. Speaker of the session was Er Sabha Kant Shukla, Former Director (Technical), THDC India Ltd (GoLU). Er Shukla traced the history of hydro-power development in India and discussed the shift toward renewable energy sources due to carbon neutrality concerns. He highlighted the challenges of integrating solar and wind power, making hydro-power crucial for energy stability. The session included discussions on handling power plants, especially pumped storage.

In association with the IEI-Disaster Awareness Management Forum (DAMF), organized a technical lecture on 'Safety, Disaster & Accident in Coal Mines and Preventive Measures Taken' on 11 March 2025 at Ghaziabad. The event featured Er Arun Kumar Sharma, Former General Manager & HOD, Mahanadi Coal Fields (Coal India Limited), as the Guest Speaker. Er Sharma discussed recent disaster incidents in coal mines, their causes and the measures implemented to prevent recurrence. He also presented a case study on the Raniganj Coal Mine incident.

Organized a technical lecture on 'Land Degradation – A Silent Disaster' on 20 March 2025 at Ghaziabad. The Guest speaker, Er O S Maurya, Professor of Practice, Madan Mohan Malaviya University of Technology (MMMUT) Gorakhpur and former General Manager, THDCIL (GoI) and former HoD, Civil Engineering, ITM Gida-Gorakhpur, delivered an insightful presentation on the causes and consequences of land degradation, including deforestation, soil erosion and unsustainable irrigation practices. He emphasized that a large percentage of Punjab's land is at risk of becoming desert and proposed solutions such as crop rotation, afforestation and better irrigation techniques.

Indore

Organized the 27th Er T N Kutumbale Memorial Lecture on 29 March 2025 at Indore. Shri Tulsiram Silawat, Hon'ble Cabinet Minister for Water Resources, Government of Madhya Pradesh, graced the event as the Chief Guest, while Prof (Dr) Neetesh Purohit, Director, SGSITS Indore, was the Guest of Honour. Dr Rahul Banerjee, a noted social activist and development researcher, delivered the Memorial Lecture on 'Circular Water Management in Urban Areas'. Er Shirish Kutumbale, son of late Er T N Kutumbale shared insights into the legacy of Late Er T N Kutumbale. Shri Silawat emphasized the critical importance of water conservation and the vital role of engineers in safeguarding water resources. Prof Purohit highlighted the need for urgent action to protect glaciers and rivers like the Narmada. Dr Banerjee discussed the inefficiencies in urban drainage and stressed the importance of grey water reuse.

Kakinada

In collaboration with JNTU Kakinada and the Retired Irrigation Engineers Association, organized a seminar on 15 July 2024 at Kakinada to celebrate the 123rd birth anniversary of Padma Bhushan Dr KL Rao. Er VT Chandrashekhara Rao, Vice President and Dean (Retd), L&T Institute of Project Management, graced the occasion as the Chief Guest. During his address, Er Chandrashekhara Rao highlighted Dr KL Rao's remarkable journey, from his early education in Andhra Pradesh to earning his PhD from the University of Birmingham. He emphasized Dr Rao's significant contributions to irrigation and power sectors, including his tenure as President of the Central Board of Irrigation and Power and Vice-President of the International Society for Soil Mechanics and Geotechnical Engineering. The session also acknowledged his pioneering work in structural engineering, his contributions to India's water resource management and his role as a design engineer.

Kanchepuram

In association with the Department of Mechanical Engineering and IEI Student Chapter of St Joseph's College of Engineering, OMR, Chennai,

organized a technical talk on 'Hydraulic and Pneumatic System Applications' on 08 February 2025 at Kanchepuram. The guest lecture was delivered by Mr Thyagarajan T, Engineering Manager, Flowserve India Controls Private Limited, Maraimalai Nagar, Chengalpattu District. Mr Thyagarajan shared insights from his extensive industry experience in the fluid motion control sector, focusing on industrial valves, pumps, sealing systems and the impact of automation and computational simulations on modern engineering practices. Number of students attended the session, which concluded with an interactive Q&A, where Mr Thyagarajan encouraged students to stay updated with emerging technologies. The event was visually documented, capturing the engaging atmosphere and serving as a valuable record of the enriching knowledge sharing experience.

Kochi

Organized a technical visit to the ongoing Compressed Biogas (CBG) Plant project at Brahmapuram on 01 February 2025, Er Rajendraprasad, site-in-charge, BPCL provided an in-depth briefing on the project and mentioned that the plant, once completed, will treat 150 tonnes of waste daily and generate 15 tonnes of biogas to be supplied to the BPCL-Kochi Refinery. The project is a significant initiative for the scientific management of biodegradable waste in Kochi, with the Kochi Corporation supplying food waste for processing.

Mangalore

Organized a Lecture Meeting on 15 January 2025 at Mangalore. Chief Guest, Er Dr Prasanna Belur D, Professor and Associate Dean (Faculty Recruitment), Department of Chemical Engineering, NITK Surathkal, delivered lecture on 'Novel Aroid Corm Technology' and emphasized the potential of aroids like taro, one of the world's oldest food crops, highlighting their nutritional value and challenges due to anti-nutritional factors such as trypsin inhibitors and oxalates.

Prayagraj

Celebrated 'Regional Languages Promotion Day' in hybrid mode on 21 February 2025 at Prayagraj. A seminar on 'Technical Education and Regional Languages in Indian Perspectives' was organised on the occasion. The event featured keynote addresses by Dr Alok Pandey, Professor, College of Southern Nevada, USA and Dr Dinesh Kumar Srivastava, Senior Scientist and Professor, National Institute of Advanced Studies, Bengaluru. Dr Avanish Kumar Dubey, Chairman, Prayagraj Local Centre, IEI emphasized the need for regional languages to bridge communication gaps in engineering for societal benefit. Dr Pandey highlighted the historical prominence of English and advocated integrating regional languages into technical education. Dr Srivastava spoke about the cultural strength of regional identity and the power of technology in preserving linguistic diversity.

Pune

In association with Dnyandeep Foundation MVP, organized a lecture on 12 July 2024, on the topic 'Environment and Development Issues of Pune'. Keynote Speaker, Mr S Ranade, Chairman, Dnyandeep Foundation, discussed the environmental issues and developmental challenges in Pune.

In association with Tech Forum, organized an online lecture on 'Materials for Batteries' on 14 July 2024 at Pune. Keynote speaker, Mr Saksham Mamtani, a Chemical Engineer from Manipal Institute of Technology, in his lecture covered the evolution of battery materials—past, present and future—highlighting advancements in battery technology and his personal journey in the field. He shared insights from his experience working on battery chemistries for electric superbikes, particularly in student projects focused on optimizing battery materials for vehicles. The session provided valuable insights into emerging battery technologies and their applications in sustainable energy solutions.

In association with Tech Forum, organized an online lecture on 'Reverse Engineering' on 11 August 2024 at Pune. Keynote speaker of the session was Mr Girish Ranade, Director, Futura Apsol Private Limited, an experienced

electronics design engineer specializing in automatic test equipment. Mr Ranade delivered a presentation titled 'My Experiences in Reverse Engineering' sharing practical insights on reducing time to market, product selection and market acceptance. He discussed the significance of reverse engineering in modern product development with real-world examples. The session included an engaging question-and-answer segment, allowing participants to interact with the expert.

In collaboration with IEEE Pune and PES Group, organized the Prof M V Deshpande Memorial Lecture on 31 August 2024 at Pune. The event commenced with a welcome speech by Shri Mukund Toke, Convenor of the program, who highlighted Prof Deshpande's contributions to Electrical and Power Plant Engineering and the revival of this program after its suspension due to the pandemic. Chief Guest, Shri Jayant Deo, MD & CEO of Indian Energy Exchange Limited, spoke on Artificial Intelligence (AI), its development, its impact on professional skills and future job market trends. Shri Dilip Vairagkar, General Manager, delivered the Keynote address on the importance of Supercritical Power Plants, explaining their superiority over subcritical plants.

In association with Tech Forum, organized an online lecture on 09 March 2025, on the topic 'Medical Equipment Ecosystem: Options for Maharashtra'. Keynote speaker, Mr Abhijit Pimpley, Director, Operations and Marketing, Vishay Components (India) Private Limited, Pune presented an insightful talk emphasizing the growth opportunities in Maharashtra's medical equipment sector, especially post-COVID-19, and called for alignment between government policy and industry needs, including simplified regulations, better access to raw materials and enhanced R&D.

Silchar

Celebrated National Science Day on 28 February 2025 at Silchar. A lecture meeting was organised on the occasion. The Keynote lecture was delivered by Prof Fazal Ahmed Talukdar, Faculty at NIT Silchar, on the topic 'Empowering Indian Youth for Global Leadership in Science & Innovation for Vikshit Bharat'. His insights into scientific innovation and youth leadership were well-received by all attendees.

South Gujarat

In collaboration with Dr S & S S Ghandhy Government Engineering College, Surat and ISTE Students' Chapter, organized a seminar on 'Role of Green Buildings in Smart Cities' on 06 March 2025 at Surat. The session featured Dr Krupesh Chauhan, Professor (Urban Planning), Sardar Vallabhbhai National Institute of Technology, Surat, as the Keynote speaker and coordinator. Dr Chauhan highlighted how green buildings enhance energy efficiency, water conservation and sustainability while reducing environmental impact throughout a building's lifecycle. Other key contributors included Dr S R Joshi, Principal, DGGEC, Surat, Dr S I Wikhom, HOD, Civil Engineering Department, DGGEC, Surat and coordinators Dr H D Golakiya and Prof M J Patel, both Asst Professors, CED DGGEC, Surat. The seminar received enthusiastic participation and appreciation from attendees.

Tiruchirappalli

In collaboration with the Indian Institute of Welding Tiruchirappalli Branch, Computer Society of India Tiruchirappalli Chapter, Safety Quality Forum - IEI New Delhi, Indian Welding Society Southern Zone, Indian Institute of Metals Tiruchirappalli Chapter, Indian Institution of Industrial Engineering Tiruchirappalli, Indian Institution of Plant Engineers Trichy Chapter, Kumari Arival Peravai Kanyakumari and Indian Society for Non-destructive Testing Trichy Chapter, organized a technical lecture on 13 August 2024, through online mode on the topic 'Managed Printing Services'. Guest speakers of the session were Shri Kapil Arora, Regional Manager, HP India Sales Private Limited and Shri Nikhilesh Jaiman, HP Executive, Haryana. The event highlighted the synergy between various technical institutions and industries.

Tiruchirappalli

Celebrated International Women's Day on 17 March 2025 at Tiruchirappalli. Chief Guest of the session was Mrs Leema Peter, Psychologist and Student Counsellor, Member of the Juvenile Justice Board, Perambalur. Dr V Sunitha, Associate Professor, Department of Civil Engineering, National Institute of Technology Tiruchirappalli was present on the dais.

Tirunelveli

Organized a technical seminar on 'Steel Erection: Its Hazards and Standards' on 14 September 2024 at Einstein College of Engineering, Tirunelveli. Chief Guest and Resource person, Mr A Thiyanam Antony, Technical Manager, Sri Sai Power and Equipments Private Limited, Trichy delivered a Keynote address on the steel erection process, associated hazards and mitigation strategies. The session provided valuable insights into safety standards and best practices in the field.

Visakhapatnam

Organized the 123rd Birthday Celebrations of Padma Bhushan Dr KL Rao on 15 July 2024, at Visakhapatnam. Prof (Dr) K Rajeswara Rao, Dean, Former Professor, Department of Civil Engineering, MVGR College of Engineering outlined the life sketch of Dr K L Rao. The Keynote lecture on 'Irrigation Projects Related to Dr KL Rao in India & AP & Polavaram Project' was delivered by Sri Er U Narayana Raju, Former Chief Engineer, Department of Irrigation, AP. The talk highlighted Dr Rao's pivotal role in India's irrigation and power sectors, including major projects like Nagarjuna Sagar, Srisaillam, Hirakud and Bhakranangal dams. His advocacy for interlinking rivers and urban development initiatives, like Gandhi Hill in Vijayawada, was also discussed.

WATER MANAGEMENT FORUM (WMF)

In collaboration with Gujarat State Centre, IEI and the Department of Computer Science & Engineering (CSE), Indus Institute of Technology & Engineering, Ahmedabad successfully organized Indus Hackathon 2025 on 31 January 2025 at Indus University, Ahmedabad. The event, supported by Indus Centre for Startups, Incubation & Innovation (ICSII), Student Startup and Innovation Policy (SSIP), Akash Technolabs, Ahmedabad, Setubridge Technolabs, Ahmedabad, AWS Academy, Electro Mech Cloud Tech Private Limited, Ahmedabad, Eleics Design Private Limited, Gandhinagar, eInfochips and The Line Tech (UK), provided a platform for students to showcase technical excellence and problem-solving skills. The inauguration was graced by Er S B Vasava, Chairman- BoG, WMF, Council Member, IEI & Housing Commissioner, Government of Gujarat as Chief Guest and Er Subhash Ghelani, Chairman, Gujarat State Centre, IEI as the Guest of Honor. Prof (Dr) Ishbir Singh, Chairperson, Indus Hackathon 2025 & Director, IITE, Indus University and Prof Zalak Vyas, Convener, Indus Hackathon & Head, CSE Department, IITE, Indus University led the event with insightful addresses. Prof (Dr) Sandeep Chakravorty, Executive President (Vice Chancellor), Indus University highlighted technology's role in shaping future leaders. The event successfully fostered innovation and technological advancement, reaffirming Indus University's commitment to nurturing young talent.

The Water Management Forum (WMF), Ahmedabad, in collaboration with Gujarat Technological University (GTU), organized a workshop and exhibition on "Change in Lifestyle to become 'aatmaNEERbhar' – Self-Reliant in Water" and 'SAVE WATER' on 03 March 2025, at Ahmedabad. The event, attended by students, faculty members and water management professionals, aimed to raise awareness about water conservation and sustainable practices. The program began with the opening remarks by Dr Jignesh Ami, Professor, Gujarat Technological University, followed by the lighting of the lamp. Er Vijay Solanki, WMF, Ahmedabad provided an overview of the seminar's objectives, stressing the need for water management reforms. Mr Setu Shah, Founder, Sujalaam, Ahmedabad and a water conservationist, delivered the Keynote address, emphasizing ancient water conservation techniques and

Contd. on page 38

The Institution of Engineers (India)

8 Gokhale Road, Kolkata-700020

15 May 2025

Notice of Special General Meeting of the Corporate Members under Bye-Law 32 (b)(i)

Notice is hereby given that a Special General Meeting of the Corporate Members of **The Institution of Engineers (India)** will be held at **The Institution of Engineers (India) Madhya Pradesh State Centre located at Dr M Visvesvaraya Marg, PO: Habibganj, Bhopal 462024 (M.P.)** on **01 June 2025** at **1100 hrs** for the following purpose:

To consider the recommendations of the Council vide its 729th meeting held on 22-23 Mar 2025 at Gandhinagar for the amendment of the Regulations as listed below:

| EXISTING REGULATIONS | RECOMMENDED AMENDMENT |
|--|--|
| <p>3. (c) (i) The term of Committee of each State Centre or Local Centre shall be for two sessions only.</p> <p>(ii) Notwithstanding anything contained in the Regulations, considering the unprecedented circumstances due to pandemic COVID-19 in the year 2020, the term of existing elected members of the Committee in State/ Local Centre in the Sessions 2018-20 or 2019 – 21 (as the case may be) referred in sub-clause (c)(i) above shall be extended by one more session so that each of such elected members continues as member of the Committee for three sessions with effect from his becoming a member of the Committee.</p> | <p>3. (c) (i) The term of Committee of each State Centre or Local Centre shall be for two sessions only.</p> <p>(ii) (To be deleted)</p> |
| <p>4(c) The notice convening the meeting of the Committee shall be issued with approval of the Chairman along with the agenda not less than fifteen days in advance. However, the Chairman of the Centre may cause a meeting to be convened on a shorter notice but not less than five days in advance for specific urgent matter.</p> | <p>4(c) The notice convening the meeting of the Committee along with the agenda shall be issued by the Honorary Secretary with written approval of the Chairman along with the agenda not less than fifteen days in advance. The Chairman shall approve the notice with all agenda or part agenda within seven days of the date of receipt of draft notice and agenda, otherwise the notice and agenda shall deem to be approved.</p> <p>However, the Chairman of the Centre may cause a meeting to be convened on a shorter notice but not less than five days in advance for specific urgent matter/s. The specific urgent matter/s meeting notice shall be signed by the Chairman.</p> |
| <p>4(f) A Member of the State / Local Centre who does not attend three consecutive meetings of the Committee in a session without valid reasons and in spite of issuance of warning notice, will automatically cease to be a Member of the Committee from the date of the fourth Meeting. The cessation of the member shall be communicated to the concerned member by the Honorary Secretary. However, if the member intimated in advance the reason of absence on registered email id addressing to the Chairman and Honorary Secretary of the State/ Local Centre Committee the Member shall stand exempted from such regulation. Ex-officio members stand exempted from the provisions of this Regulation.</p> | <p>4(f) A Member of the State / Local Centre who does not attend three consecutive meetings of the Committee in a session without valid reasons and in spite of issuance of warning notice, will shall automatically cease to be a Member of the Committee from the date of the fourth Meeting. The cessation of the member shall be communicated to the concerned member by the Honorary Secretary before the next meeting of the committee. However, if the member intimated in advance the reason of absence on from his registered email id addressing to the Chairman and Honorary Secretary of the State/ Local Centre Committee the Member shall stand exempted from such regulation. Ex-officio members stand exempted from the provisions of this Regulation.</p> |
| <p>7. (b) (i) The term of office of a Chairman of a State Centre shall be for two sessions, subject to Regulation 3(c)(ii) and he shall not be eligible for further election as a Chairman of any State Centre after laying down his office as the Chairman completing his term of office partly or fully.</p> <p>(ii) In view of Regulation 3(c)(ii) the election to the office of the Chairman of a State Centre for the sessions 2020-22 or sessions 2021-23 (as the case may be) stands postponed by one year.</p> | <p>7. (b) (i) The term of office of a Chairman of a State Centre shall be for two sessions, subject to Regulation 3(c)(ii) and he shall not be eligible for further election as a Chairman of any State Centre after laying down his office as the Chairman completing his term of office partly or fully. He shall not be eligible for further election as an Honorary Secretary of any State Centre / Local Centre Committee.</p> <p>(ii) (To be deleted)</p> |
| <p>7. (c) (i) The term of office of a Chairman of a Local Centre shall be for two sessions, subject to Regulation 3(c)(ii) and he shall not be eligible for further election as a Chairman of any Local Centre after laying down his office as the Chairman completing his term of office partly or fully.</p> <p>(ii) In view of Regulation 3(c)(ii) the election to the office of the Chairman of a Local Centre for the sessions 2020-22 or sessions 2021-23 (as the case may be) stands postponed by one year.</p> | <p>7. (c) (i) The term of office of a Chairman of a Local Centre shall be for two sessions, subject to Regulation 3(c)(ii) and he shall not be eligible for further election as a Chairman of any Local Centre after laying down his office as the Chairman completing his term of office partly or fully. He shall not be eligible for further election as an Honorary Secretary of any Local Centre.</p> <p>(ii) (To be deleted)</p> |

| | |
|--|---|
| <p>8. (a) (i) Before Annual General Meeting in the year in which the election is due, the Committee of each State Centre, subject to Regulation 3(c)(ii), shall also elect one of its members to be the Honorary Secretary of the Committee for two ensuing sessions, subject to the provisions of Regulation 3 (e) and before the date of inviting nominations by the Board of Scrutineers, in the election process to the committee of the respective State Centre and he shall not be eligible for further election as an Honorary Secretary of any state Centre after laying his office as Honorary Secretary completing his term of office partly or fully. The person so elected shall take office as Honorary Secretary of the State Centre at the Annual General Meeting of the State Centre. An Honorary Secretary of a State Centre shall not be eligible for further election. Such election meeting of the Committee shall be held in physical mode.</p> <p>(ii) In view of Regulation 3(c)(ii) the election to the office of the Honorary Secretary of a State Centre for the sessions 2020-22 or sessions 2021-23 (as the case may be) stands postponed by one year.</p> | <p>8. (a) (i) Before Annual General Meeting in the year in which the election is due, the Committee of each State Centre, subject to Regulation 3(c)(ii), shall also elect one of its members to be the Honorary Secretary of the Committee for two ensuing sessions, subject to the provisions of Regulation 3 (e) and before the date of inviting nominations by the Board of Scrutineers, in the election process to the committee of the respective State Centre and he shall not be eligible for further election as an Honorary Secretary of any state Centre after laying his office as Honorary Secretary completing his term of office partly or fully. The person so elected shall take office as Honorary Secretary of the State Centre at the Annual General Meeting of the State Centre. An Honorary Secretary of a State Centre shall not be eligible for further election. Such election meeting of the Committee shall be held in physical mode.</p> <p>(ii) (To be deleted)</p> |
| <p>8. (b) (i) Before Annual General Meeting in the year in which the election is due, the Committee of each Local Centre, subject to Regulation 3(c)(ii) shall also elect one of its members to be the Honorary Secretary of the Committee for two ensuing sessions, subject to the provisions of Regulation 3(e) and before the date of inviting nominations by the Board of Scrutineers in the election process to the committee of the respective Local Centre and he shall not be eligible for further election as an Honorary Secretary of any Local Centre after laying his office as Honorary Secretary completing his term of office partly or fully. The person so elected shall take office as Honorary Secretary of the Local Centre at the Annual General Meeting of the Local Centre. An Honorary Secretary of a Local Centre shall not be eligible for further election. Such election meeting of the Committee shall be held in physical mode.</p> <p>(ii) In view of Regulation 3(c)(ii) the election to the office of the Honorary Secretary of a Local Centre for the sessions 2020-22 or sessions 2021-23 (as the case may be) stands postponed by one year.</p> | <p>8. (b) (i) Before Annual General Meeting in the year in which the election is due, the Committee of each Local Centre, subject to Regulation 3(c)(ii) shall also elect one of its members to be the Honorary Secretary of the Committee for two ensuing sessions, subject to the provisions of Regulation 3(e) and before the date of inviting nominations by the Board of Scrutineers in the election process to the committee of the respective Local Centre and he shall not be eligible for further election as an Honorary Secretary of any Local Centre after laying his office as Honorary Secretary completing his term of office partly or fully. The person so elected shall take office as Honorary Secretary of the Local Centre at the Annual General Meeting of the Local Centre. An Honorary Secretary of a Local Centre shall not be eligible for further election. Such election meeting of the Committee shall be held in physical mode.</p> <p>(ii) (To be deleted)</p> |
| <p>14. In the event of a State Centre or Local Centre failing to hold its Annual General Meeting in accordance with Regulation 6, the President shall cause the election of a regular Committee to be held within 90 days from the last day of the month of October of the year in which the election was due. For the conduct of the election, the President shall nominate a Board of Scrutineers (hereinafter called BOS) comprising five Corporate Members attached to the respective Centre. The members of the BOS or their respective relatives shall not be permitted to contest the elections for that tenure. The BOS shall act according to Regulation 25. For any reason, if the above referred election is not completed within the stipulated time, the President shall constitute the Committee of the State Centre or the Local Centre by appointing corporate members from the State Centre or the Local Centre, as the case may be, in accordance with Regulation 3. The constituted committee by the President shall have the same powers and responsibilities, as if it had been duly elected as per provisions of Regulations. The Committee so elected/ constituted shall assume office at the Annual General Meeting of the State Centre or Local Centre to be held on a day as may be determined by the President. Provided however, that if the constitution of the committee of the State Centre or Local Centre by appointing corporate members from the State Centre or the Local Centre by the President be taken place after the Annual General Meeting of the State Centre or Local Centre, the Committee so constituted shall assume office at the next Annual General meeting of the State Centre or Local Centre or earlier as may be decided by the President. The term of office of the Committee so elected/ constituted shall be for the remainder period of that session(s), notwithstanding violation of the provisions of the Bye-Law and Regulation.</p> | <p>14. In the event of a State Centre or Local Centre failing to hold its Annual General Meeting in accordance with Regulation 6, the President shall within 30 days cause the election of a regular Committee to be held within 90 days from the last day of the month of October of the year in which the election was due. For the conduct of the election, the President shall nominate a Board of Scrutineers (hereinafter called BOS) comprising five Corporate Members attached to the respective Centre. The members of the BOS or their respective relatives shall not be permitted to contest the elections for that tenure. The BOS shall act according to Regulation 25. For any reason, if the above referred election is not completed within the stipulated time, the President shall constitute appoint the Committee of the State Centre or the Local Centre by appointing corporate members from the State Centre or the Local Centre, as the case may be, to constitute a Committee in accordance with Regulation 3. The constituted committee thus constituted by the President shall have the same powers and responsibilities, as if it had been duly elected in the ordinary course as per provisions of Regulations. The Committee so elected/ constituted shall assume office at the Annual General Meeting of the State Centre or Local Centre to be held on a day as may be determined by the President. Provided however, that if the constitution of the committee of the State Centre or Local Centre by appointing corporate members from the State Centre or the Local Centre by the President be taken place after the Annual General Meeting of the State Centre or Local Centre, the Committee so constituted shall assume office at the next Annual General meeting of the State Centre or Local Centre or earlier as may be decided by the President. The term of office of the Committee so elected/ constituted shall be for the remainder period of that session(s), notwithstanding violation of the provisions of the Bye-Law and Regulation.</p> |

| PROCEDURES FOR ELECTIONS | PROCEDURES FOR ELECTIONS |
|--|--|
| 23. (j) NA | 23. (j) Members laying down from the Council after completion of twelve sessions at a stretch in any capacity, or having been elected for consecutive three tenures but not completing full twelve sessions due to any reason, shall not be eligible for contesting election without giving a break of minimum four sessions. |
| (k) NA | (k) Members retiring from the Committee of a State Centre or Local Centre after completion of six sessions at a stretch in any capacity, or having been elected for consecutive three tenures but not completing full six sessions due to any reason, shall not be eligible for contesting election without giving a break of minimum two sessions. |
| <p>23(h) The Council shall constitute an Election Grievance Redressal Committee. The Committee shall consist of five members one from each zone. The term of the Committee will be for two years. In any meeting, three members will form the quorum.</p> <p>Any member aggrieved by any matter arising out of in connection with conduct of Elections under Regulations 24, 25 and 26 may make a representation to the Secretary and Director General within 30 days of declaration of the result, for being placed before the Election Grievance Redressal Committee for its consideration.</p> <p>However, the Election Grievance Redressal Committee members shall not take part in the election in question.</p> <p>The Election Grievance Redressal Committee shall investigate/ conduct an enquiry/ interpret the Bye-Law or Regulation, etc as the case may be and communicate its decision to the aggrieved member within 60 days from the date of declaration of the election result.</p> <p>The matter will be appealable within fifteen days from the date of decision of the Committee. The President will be the Appellate Authority and his decision will be final.</p> | <p>23(h) The Council shall constitute an Election Grievance Redressal Committee. The Committee shall consist of five members at least one from each zone. No sitting Council member shall be in this Committee. The term of the Committee will shall be for two years. In any meeting, three members will form the quorum.</p> <p>However, the Election Grievance Redressal Committee members shall not take part in the election in question.</p> <p>Any member aggrieved by any matter arising out of or in connection with conduct of Elections under Regulations 24, 25 and 26 may make a representation to the Secretary and Director General within 30 days of declaration of the result, for being placed before the Election Grievance Redressal Committee for its consideration.</p> <p>However, the Election Grievance Redressal Committee members shall not take part in the election in question.</p> <p>The Election Grievance Redressal Committee shall investigate/ conduct an enquiry/ interpret the Bye-Law or Regulation, etc as the case may be and communicate its decision to the aggrieved member within 60 days from the date of declaration of the election result. The matter will be appealable within fifteen days from the date of decision of the Committee. The President will be the Appellate Authority and his decision will be final.</p> |
| Election from Divisions to the Council under Bye-Law 4(a)(iv) | Election from Divisions to the Council under Bye-Law 4(a)(iv) |
| 24. (e) Members retiring from the Council after completion of three full tenure at a stretch shall not be eligible for re-election. However, they shall be eligible for re-election after a break of one term. | 24. (e) (To be deleted). |
| Election from Divisions to the Committee of the State / Local Centres | Election from Divisions to the Committee of the State / Local Centres |
| <p>25. (a) In the year in which election under Regulation 3(a)(v) is due, the Committee of the State Centre or Local Centre shall appoint, except in case of a State Centre or Local Centre covered by Regulation 25(h), not later than the month of May, a Board of Scrutineers comprising five Corporate Members attached to the respective Centre who are not themselves candidates for the election nor their relatives are candidates for the elections being conducted by it. Three members shall form the quorum for meeting of the Board of Scrutineers and all decisions shall be taken collectively. The Board of Scrutineers, from amongst themselves, shall appoint a Convener who will also Chair all the meetings.</p> <p>The Chairman and the Honorary Secretary in the office and the Chairman-elect and Honorary Secretary-elect shall not be members of the BOS.</p> <p>No person shall be member of BOS for more than two consecutive elections.</p> <p>Casual vacancy in the Board of Scrutineers due to resignation, disqualification or any other reason, of one or more members, shall be filled by co-option by the Board of Scrutineers.</p> | <p>25. (a) In the year in which election under Regulation 3(a)(v) is due, the Committee of the State Centre or Local Centre shall appoint, except in case of a State Centre or Local Centre covered by Regulation 25(h), not later than the month of May, a Board of Scrutineers comprising five Corporate Members attached to the respective Centre who are not themselves candidates for the election nor their relatives are candidates for the elections being conducted by it. Three members shall form the quorum for meeting of the Board of Scrutineers and all decisions shall be taken collectively. The Board of Scrutineers, from amongst themselves, shall appoint a Convener who will also Chair all the meetings.</p> <p>In case the Committee of the State Centre or Local Centre is unable to appoint the Board of Scrutineers within the timeline, the President may constitute the Board of Scrutineers notwithstanding other provisions in the Regulation.</p> <p>The Chairman and the Honorary Secretary in the office and the Chairman-elect and Honorary Secretary-elect shall not be members of the BOS.</p> <p>No person shall be member of BOS for more than two consecutive elections.</p> <p>Casual vacancy in the Board of Scrutineers due to resignation, disqualification or any other reason, of one or more members, shall be filled by co-option by the Board of Scrutineers.</p> |

| | |
|---|--|
| 25. (e) Members retiring from the Committee after completion of three full tenure in any capacity completing 6 years continuously at a stretch shall not be eligible for re-election. However, they shall be eligible for re-election after a break of one term. | 25. (e) (To be deleted). |
| Election to the Council from State Centre | Election to the Council from State Centre |
| 26. (a) The Honorary Secretary of a State Centre, on receipt of a notification from the Secretary and Director General under Bye-Law 11 calling upon the State Centre to elect the representative of the State Centre in the Council, shall call a meeting of the State Centre Committee to appoint, not later than the month of May, a Board of Scrutineers comprising five Corporate Members attached to the Centre who are not themselves candidates for the election nor their relatives are candidates for the election being conducted by it. Three members shall form the quorum for meeting of the Board of Scrutineers. The Board of Scrutineers, from amongst themselves, shall appoint a Convener who will also Chair all meetings. The Chairman and the Honorary Secretary in the office and the Chairman-elect and Honorary Secretary-elect shall not be members of the BOS. No person shall be member of BOS for more than two consecutive terms. Casual vacancy in the Board of Scrutineers due to resignation, disqualification or any other reason, of one or more members, shall be filled by co-option by the Board of Scrutineers. | 26. (a) The Honorary Secretary of a State Centre, on receipt of a notification from the Secretary and Director General under Bye-Law 11 calling upon the State Centre to elect the representative of the State Centre in the Council, shall call a meeting of the State Centre Committee to appoint, not later than the month of May, a Board of Scrutineers comprising five Corporate Members attached to the Centre who are not themselves candidates for the election nor their relatives are candidates for the election being conducted by it. Three members shall form the quorum for meeting of the Board of Scrutineers. The Board of Scrutineers, from amongst themselves, shall appoint a Convener who will also Chair all meetings. In case the Committee of the State Centre or Local Centre is unable to appoint the Board of Scrutineers within the timeline, the President may constitute the Board of Scrutineers notwithstanding other provisions in the Regulation. The Chairman and the Honorary Secretary in the office and the Chairman-elect and Honorary Secretary-elect shall not be members of the BOS. No person shall be member of BOS for more than two consecutive terms. Casual vacancy in the Board of Scrutineers due to resignation, disqualification or any other reason, of one or more members, shall be filled by co-option by the Board of Scrutineers. |
| 26. (e) Members retiring from the Council after completion of three full tenure at a stretch shall not be eligible for re-election. However, they shall be eligible for re-election after a break of one term. | 26. (e) (To be deleted). |
| CERTIFICATE | CERTIFICATE |
| 27(f) N.A. | 27 (f) Every Institutional Member shall on election receive a Certificate of membership appropriate to his class signed by the President and the Secretary and Director General, and sealed in accordance with Bye-Law 118. |
| AUTONOMOUS FORA OF THE INSTITUTION | AUTONOMOUS FORA OF THE INSTITUTION |
| 49. The National Design and Research Forum (NDRF), the Rural Development Forum (RDF), the Safety & Quality Forum (SQF), the Sustainable Development Forum (SDF), the Water Management Forum (WMF), the National Skill Development Forum (NSDF) and such other autonomous Fora as may be established from time to time by the Council, shall each be a Forum of the Institution incorporated in pursuance of Bye-Law 97(a). Each such Forum shall be an autonomous body under the umbrella of the Institution whose affairs shall be managed by a Board of Governors in accordance with the Statutes of the Forum as approved by the Council. | 49. The National Design and Research Forum (NDRF), the Rural Development Forum (RDF), the Safety & Quality Forum (SQF), the Sustainable Development Forum (SDF), the Water Management Forum (WMF), the National Skill Development Forum (NSDF), the Disaster Awareness and Management Forum (DAMF) and such other autonomous Fora as may be established from time to time by the Council, shall each be a Forum of the Institution incorporated in pursuance of Bye-Law 97(a). Each such Forum shall be an autonomous body under the umbrella of the Institution whose affairs shall be managed by a Board of Governors in accordance with the Statutes of the Forum as approved by the Council. |

By Order of the Council
Sd/-
Maj Gen (Dr) M J S Syali, VSM (Retd)
Secretary and Director General

Note: If a Corporate Member is unable to attend the meeting, he may fill the Form of Proxy with name of his representative in compliance with the provisions of Bye-Laws 40, 41 and 42. The Form of Proxy is to be signed and to be returned to the Secretary and Director General, The Institution of Engineers (India), 8 Gokhale Road, Kolkata 700020 to reach him not later than 1100 hrs on 29 May 2025.

The Institution of Engineers (India)
SPECIAL GENERAL MEETING
FORM OF PROXY

I, of being a Corporate Member of the above Institution hereby appoint
..... of or failing him of as my proxy
at Special General Meeting of the Institution to be held on the day of 2025 and at any poll held in connection therewith.

As witness my hand day of 2025.

Signature.....

Class of Membership of IEI..... No.....

The Institution of Engineers (India)

8 Gokhale Road, Kolkata-700020

15 May 2025

Notice of Extraordinary General Meeting of the Corporate Members under Bye-Law 32(c)(i)

Notice is hereby given that an Extraordinary General Meeting of the Corporate Members of The Institution of Engineers (India) will be held at **The Institution of Engineers (India) Madhya Pradesh State Centre located at Dr M Visvesvaraya Marg, PO: Habibganj, Bhopal 462024 (M.P.)** on **01 June 2025** immediately after the Special General Meeting for the following purpose:

To consider the recommendations of the Council vide its 729th meeting held on 22-23 Mar 2025 at Gandhinagar for the amendment of the Bye-Laws as listed below:

| EXISTING BYE-LAWS | RECOMMENDED AMENDMENT |
|---|--|
| 1. (g) 'Regulations' means the Regulations of the Council for the time being in force, made pursuant to Bye-Law 26. | 1. (g) 'Regulations' means the Regulations of the Council Institution for the time being in force, made pursuant to Bye-Law 26. |
| 4. (d) The Chairman of the Governing Council of Autonomous Organ and the Chairman of the Board of Governors of each autonomous Forum or his nominee shall be special invitees to the Council providing a coordinating linkage between the Council and the Organ/Forum. | 4. (d) The Chairman of the Governing Council of Autonomous Organ and the Chairman of the Board of Governors of each autonomous Forum or his nominee shall be special invitees to the Council providing a coordinating linkage between the Council and the Organ/Forum. |
| 6(b) Notwithstanding anything contained in the Bye-Laws and the Regulations, considering the unprecedented circumstances due to pandemic COVID-19 in the year 2020, the term of the existing elected members of the Council in the session 2019-20 referred sub-clause – (a) above shall be extended by one more session so that each of such elected members continues as a member of the Council for five sessions with effect from his becoming a member in the Council. | 6(b) (To be Deleted) |
| 12. (a) The Council may fill by co-option any casual vacancy arising from death or resignation or any other cause of an elected member of the Council which may occur between one Annual General Meeting and the succeeding Annual General meeting. Resignation from the Council including resignation from Chairmanship of a State Centre and Local Centre, shall become effective from the date of resignation and shall not be withdrawn except by special permission of the Council. | 12. (a) The Council may fill by co-option any casual vacancy in the Council arising from death or resignation or any other cause of an elected member of the Council which may occur between one Annual General Meeting and the succeeding Annual General meeting shall be filled by conducting re-election for that vacancy for the remaining term provided the remainder term as on the date of casual vacancy is more than one session, else that casual vacancy be kept vacant, notwithstanding other Bye-Laws and Regulations. Resignation from the Council including resignation from Chairmanship of a State Centre and Local Centre, shall become effective from the date of resignation and shall not be withdrawn except by special permission of the Council. |
| 17. The Council may appoint Committee or Committees and may delegate any of its powers to any such Committees except as stated in Bye-Law 18. The Council may, in addition, delegate any of its powers to the President, the Chairmen of State or Local Centres, the Chairmen of the Governing Council of Autonomous Organ and Board of Governors of the Autonomous Fora, the Chairmen of the Divisions, the Secretary and Director General or such other person or persons or bodies as it may appoint or constitute from time to time for the efficient working of the Institution. All such Committees or persons shall in the exercise of powers delegated to them by the Council and in the transaction of business conform to any directions that may be given to them by the Council and subject thereto may regulate their proceeding as they think fit. | 17. The Council may appoint Committee or Committees and may delegate any of its powers to any such Committees except as stated in Bye-Law 18. The Council may, in addition, delegate any of its powers to the President, the Chairmen of State or Local Centres, the Chairmen of the Governing Council of Autonomous Organ and Board of Governors of the Autonomous Fora, the Chairmen of the Divisions Division Boards , the Secretary and Director General or such other person or persons or bodies as it may appoint or constitute from time to time for the efficient working of the Institution. All such Committees or persons shall in the exercise of powers delegated to them by the Council and in the transaction of business conform to any directions that may be given to them by the Council and subject thereto may regulate their proceeding as they think fit. |
| Fellows | Fellows |
| 47. Every candidate for election as a Fellow or for transfer to the class of Fellows shall satisfy the Council that he possesses the following qualifications: (i) Age: He shall have attained the age of forty years on the date of his application for election or transfer. (ii) Occupation: He shall be engaged in the profession of engineering in a position of high responsibility or shall have retired from the profession after having held, before his application for election or transfer, a position of high responsibility. | 47. Every candidate for election as a Fellow or for transfer to the class of Fellows shall satisfy the Council that he possesses the following qualifications: (i) Age: He shall have attained the age of forty years on the date of his application for election or transfer. (ii) Occupation: He shall be engaged in the profession of engineering in a position of high responsibility or shall have retired from the profession after having held, before his application for election or transfer, a position of high responsibility. The position of high responsibility shall be defined by the Council. |

| | |
|---|---|
| <p>(iii) Attainments: He shall either be a Member or shall have fulfilled the conditions necessary for Membership; and he shall have had at least fifteen years employment in the aggregate in a position of responsibility in the design or execution of important engineering works.</p> <p>For the purpose of this Bye-Law, employment as a senior member of the engineering staff in an engineering college or institute which has regular courses of study leading to an educational qualification recognised by the Council as exempting from Sections A and B of the Institution Examinations or employment in a responsible position on important engineering research may be accepted by the Council in place of employment in the design or execution of important engineering works.</p> | <p>(iii) Attainments: He shall either be a Member or have fulfilled the conditions necessary for Membership; and he shall have had at least fifteen years in the aggregate in a position of responsibility in the design or execution of important engineering works.</p> <p>For the purpose of this Bye-Law, employment as a senior member of the engineering staff in an engineering college or institute which has regular courses of study leading to an educational qualification recognised by the Council as exempting from Sections A and B of the Institution Examinations or employment in a responsible position on important engineering research may be accepted by the Council in place of a position of responsibility in the design or execution of important engineering works.</p> |
| <p>Members</p> | <p>Members</p> |
| <p>48. Every candidate for election as a Member or for transfer to the class of Members shall satisfy the Council that he possesses the following qualifications:</p> <p>(i) Age: He shall have attained the age of thirty years on the date of his application for election or transfer.</p> <p>(ii) Occupation: He shall have been engaged in a position of responsibility in the design and execution or operation of engineering works. For the purpose of this Bye-Law, employment as a teacher of engineering or in a likewise capacity in an engineering college or institute which has regular courses of study leading to an educational qualification recognised by the Council or employment in engineering research may be accepted by the Council in place of employment in the design and execution or operation of engineering works.</p> <p>At the discretion of the Council, occupation may also include teaching an engineering subject in an institute/ college which does not confer/ award degree in engineering.</p> <p>(iii) Examination: He shall have passed Sections A and B of the Institution Examinations prescribed by the Council or possesses an educational qualification recognised by the Council as exempting therefrom.</p> <p>(iv) Training: He shall have received engineering training in a regular course of study in an engineering college or institute leading to an educational qualification recognised by the Council as exempting from Sections A and B of the Institution Examinations or as a pupil or apprentice or assistant in an engineering office or works as would provide him with engineering training to the satisfaction of the Council.</p> <p>(v) Experience: He shall have had further at least eight years professional engineering experience in a position of responsibility.</p> <p>In the case of a candidate who has passed Sections A and B of the Institution Examinations, the Council may, at its discretion, take into account periods of responsible employment prior to his passing Section B.</p> | <p>48. Every candidate for election as a Member or for transfer to the class of Members shall satisfy the Council that he possesses the following qualifications:</p> <p>(i) Age: He shall have attained the age of thirty years on the date of his application for election or transfer.</p> <p>(ii) Occupation: He shall have been engaged in a position of responsibility in the design and execution or operation of engineering works. For the purpose of this Bye-Law, employment as a teacher of engineering or in a likewise capacity in an engineering college or institute which has regular courses of study leading to an educational qualification recognised by the Council or employment in engineering research may be accepted by the Council in place of employment in the design and execution or operation of engineering works.</p> <p>At the discretion of the Council, occupation may also include teaching an engineering subject in an institute/ college which does not confer/ award degree in engineering.</p> <p>(iii) Examination: He shall have passed Sections A and B of the Institution Examinations prescribed by the Council or possesses an educational qualification recognized by the Council as exempting therefrom.</p> <p>(iv) Training: He shall have received engineering training in a regular course of study in an engineering college or institute leading to an educational qualification recognised by the Council as exempting from Sections A and B of the Institution Examinations or as a pupil or apprentice or assistant in an engineering office or works as would provide him with engineering training to the satisfaction of the Council.</p> <p>(v) Experience: He shall have had further at least eight years professional engineering experience in a position of responsibility. In the case of a candidate who has passed Sections A and B of the Institution Examinations, the Council may, at its discretion, take into account periods of responsible employment prior to his passing Section B. The position of responsibility shall be defined by the Council.</p> |
| <p>Member Technologists</p> | <p>Member Technologists</p> |
| <p>52. Every candidate for election as a Member Technologist shall satisfy the Council that he possesses the following qualifications:</p> <p>(i) Age: He shall have attained the age of thirty two years on the date of his application for election or transfer.</p> <p>(ii) Occupation: He shall have been engaged in engineering or industrial profession at least for a period of ten years in a position of responsibility to the satisfaction of the Council.</p> <p>(iii) Qualification: He shall have passed Diploma in Engineering from approved AICTE / State Board of Technical Education or B.Sc degree in Applied Science or B.Sc with Physics, Chemistry and Mathematics and Postgraduate degree in Applied Science / Technology / Computer Science / Computer Application or equivalent.</p> <p><i>Note: The Member Technologists will enjoy all the benefits and rights of Non-Corporate Members.</i></p> | <p>52. Every candidate for election as a Member Technologist shall satisfy the Council that he possesses the following qualifications:</p> <p>(i) Age: He shall have attained the age of thirty two years on the date of his application for election or transfer.</p> <p>(ii) Occupation: He shall have been engaged in engineering or industrial profession at least for a period of ten years in a position of responsibility to the satisfaction of the Council. The position of responsibility shall be defined by the Council.</p> <p>(iii) Qualification: He shall have passed Diploma in Engineering from approved AICTE / State Board of Technical Education or B.Sc degree in Applied Science or B.Sc with Physics, Chemistry and Mathematics and Postgraduate degree in Applied Science / Technology / Computer Science / Computer Application or equivalent.</p> <p><i>Note: The Member Technologists will enjoy all the benefits and rights of Non-Corporate Members.</i></p> |

| Associate Member Technologists | Associate Member Technologists |
|---|--|
| <p>53. Every candidate for election as an Associate Member Technologist shall satisfy the Council that he possesses the following qualifications:</p> <p>(i) Age: He shall have attained the age of twenty six years on the date of his application for election.</p> <p>(ii) Occupation: He shall have engaged in engineering or industrial profession at least for a period of five years and shall, in the opinion of the Council, be making satisfactory progress in a position of responsibility.</p> <p>(iii) He shall have passed Diploma in Engineering from approved AICTE / State Board of Technical Education or B.Sc degree in Applied Science or B.Sc with Physics, Chemistry and Mathematics and Postgraduate degree in Applied Science / Technology / Computer Science / Computer Application or equivalent.</p> <p><i>Note: The Associate Member Technologists will enjoy all the benefits and rights of Non-Corporate Members.</i></p> | <p>53. Every candidate for election as an Associate Member Technologist shall satisfy the Council that he possesses the following qualifications:</p> <p>(i) Age: He shall have attained the age of twenty six years on the date of his application for election.</p> <p>(ii) Occupation: He shall have engaged in engineering or industrial profession at least for a period of five years and shall, in the opinion of the Council, be making satisfactory progress in a position of responsibility.</p> <p>(iii) He shall have passed Diploma in Engineering from approved AICTE / State Board of Technical Education or B.Sc degree in Applied Science or B.Sc with Physics, Chemistry and Mathematics and Postgraduate degree in Applied Science / Technology / Computer Science / Computer Application or equivalent.</p> <p><i>Note: The Associate Member Technologists will enjoy all the benefits and rights of Non-Corporate Members.</i></p> |
| <p>61. (a) Each proposal form for Institutional Member shall be scrutinized by the Secretary and Director General as to whether or not it is desirable to attach the applicant to the grade applied for.</p> <p>(b) If the applicant in the opinion of the Secretary and Director General is suitable, the Secretary and Director General shall on behalf of the Council declare the proposal as duly approved by the Council, or if not suitable, as not approved by the Council.</p> | <p>61. (a) Each proposal form for Institutional Member shall be scrutinized by the Secretary and Director General as to whether or not it is desirable to attach the applicant to the grade applied for to approve the application.</p> <p>(b) If the applicant in the opinion of the Secretary and Director General is suitable, the Secretary and Director General shall on behalf of the Council declare the proposal as duly approved by the Council, or if not suitable, as not approved by the Council.</p> |

By Order of the Council
Sd/-
Maj Gen (Dr) M J S Syali, VSM (Retd)
Secretary and Director General

Note: If a Corporate Member is unable to attend the meeting, he may fill the Form of Proxy with name of his representative in compliance with the provisions of Bye-Laws 40, 41 and 42. The Form of Proxy is to be signed and to be returned to the Secretary and Director General, The Institution of Engineers (India), 8 Gokhale Road, Kolkata 700020 to reach him not later than 1100 hrs on 29 May 2025.

The Institution of Engineers (India)
EXTRAORDINARY GENERAL MEETING
FORM OF PROXY

I, of being a Corporate Member of the above Institution hereby appoint of or failing him of as my proxy at Extraordinary General Meeting of the Institution to be held on the day of 2025 and at any poll held in connection therewith.

As witness my hand day of 2025.

Signature.....

Class of Membership of IEI..... No.....

News-in-Brief

Contd. from page 31

modern challenges. He highlighted the principles of Reduce, Retain and Reuse. The event also featured a poster exhibition showcasing innovative water conservation ideas.

In association with Narmada Piyat Research Centre, Khandha, Vadodara and Anand Agricultural University, Anand, organized a one-day Farmers Training on 18 March 2025 at Village Lingashtali, Tal. Dabhoi, Vadodara. The event began with opening remarks by Mr D D Gurajar, Agricultural Assistant, Narmada Piyat Research Centre, Khandha. Er C R Patel, Research Assistant, SSNNL, Gandhinagar, discussed methods for draining excess

water from fields and its impact. Mr Rameshbhai Solanki, Junior Officer, GGRC Limited Vadodara, highlighted the importance of micro-irrigation and water conservation. Dr J H Chaudhary, Unit Leader, Narmada Piyat Research Centre, Khandha explained the role of fertilizers in increasing crop yield. Shri J D Baldaniya, Senior Research Fellow, Narmada Piyat Research Centre, Khandha emphasized new castor varieties and vermicomposting. Er Vijay Solanki, WMF, Ahmedabad, spoke on the significance of water management and micro-irrigation benefits. The event concluded with a vote of thanks by Sh J D Baldaniya, followed by a field visit where farmers learned soil sampling techniques. This program was attended by a number of participants who are mainly farmers.



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 May 2025

| Sl. No. | Name of the Course | Scheduled Dates |
|---------|---|-----------------|
| 1. | Contract Management & Legal Aspects of Government Projects | 05 - 07 May, 25 |
| 2. | ISO 9001:2015 QMS - Effective Implementation & Internal Auditor Training | 05 - 08 May, 25 |
| 3. | Data Management using MS Access & MS Excel 2019 | 06 - 09 May 25 |
| 4. | Techno-Managerial Excellence for Engineering Managers | 07 – 09 May 25 |
| 5. | Conducting EIA Study and Preparation of EIA reports – Case study & Group Discussion. | 07 – 09 May 25 |
| 6. | Insights into Mechanization & Technology in Underground and Opencast Mining for optimum Coal Extraction. | 07 – 09 May 25 |
| 7. | Ferrous and nonferrous castings: Technology, Production, Defects & Rectifications | 12 – 15 May 25 |
| 8. | Renewable Energy Systems - Wind & Solar - Grid Integration | 13 - 16 May, 25 |
| 9. | Industry 4.0 Quality aspects | 13 - 16 May, 25 |
| 10. | Environmentally Responsible Mining Practices | 14 - 16 May 25 |
| 11. | CNC Milling, Turning, Drilling and Machine Tools – Programming, Selection of Cutting tools & Lubricants | 19 - 22 May 25 |
| 12. | GEM Procurement Procedures – Gem Account operation from Basic to expertise (Buyer module) | 19 -21 May 25 |
| 13. | Cyber Security Best Practices for Managers & Executives | 19 - 21 May 25 |
| 14. | Advanced Technologies in Casting & Sheet Metal Forming | 19 - 22 May 25 |
| 15. | Total Quality in Vigilance | 19 - 21 May, 25 |
| 16. | Dam Safety Guidelines - Monitoring and Protection Measures and Emergency Action Plan | 19 -21 May,25 |
| 17. | Storm and Flood Risk Management | 20 - 23 May 25 |
| 18. | Geospatial Solutions: Addressing Societal Challenges | 21 - 23 May 25 |
| 19. | Sponsored Research Programs-Opportunities, Procedures and Best Practices | 21 - 23 May 25 |
| 20. | Optimal Utilization of Organizational Resources in Opencast Mining Projects: Total Productive Maintenance of Machinery, OITDS, Machine Utilization, Standard Operating Procedures, Design of Haul Roads, Tyre-Care, Conservation of Fuels & Energy, Mine Wastes to Resources ISO-50001:2018 | 21 - 23 May 25 |
| 21. | Testing of Civil Engineering Materials | 26 – 30 May, 25 |
| 22. | Electrical Safety Procedures & Accident Prevention | 27 - 30 May, 25 |
| 23. | Personality Development (An Ordinary to Extraordinary Personality Empowerment) | 28 - 30 May 25 |

For detail information please contact:

Engineering Staff College of India

Old Bombay Road, Gachibowli, Hyderabad – 500 032

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



Agricultural Engineering Division

One Day Workshop on "Micro Irrigation for Enhanced Water Use in India"

Sunabeda, May 10, 2025

The Honorary Secretary, IEI, Sunabeda Local Centre, Qtr No: M-8, Post Box No. 11, HAL Township, Sunabeda 763002, Dist - Koraput, Odisha [☎: 06853-222488, E-mail :sunabedalc@ieindia.org]

All India Seminar on "Irrigation Drainage Water Management Soil Conservation Practices Watershed Management Practices"

Bareilly, May 23-24, 2025

The Honorary Secretary, IEI, Bareilly Local Centre, Engineers' Bhawan, 44 Camphor Estate Colony, Near Camphor Hospital, Rampur Road, C B Ganj, Bareilly 243502, Uttar Pradesh [Mobile : 9634953691, E-mail: bareillylc@ieindia.org, Website:www.blcieindia.in]

One Day Seminar on "IoT Enabled Smart Irrigation Enhancing Water Efficiency in Natural Resources Engineering"

Salem, June 14, 2025

The Honorary Secretary, IEI, Salem Local Centre, 104/7, Manivannan Road, 3rd Floor, SPC, Bhawan, Opp to Salem New Bus Stand, Salem 636004 [Ph: 0427-2332544, E-mail: salemclc@ieindia.org, Website: www.ieisl.com]

Thirty-seventh National Convention of Agricultural Engineers on "Innovation Approaches in Agricultural Engineering for Agriculture of Viksit Bharat A Road Map for Next 25 Years"

Lucknow, August 29-30, 2025

The Honorary Secretary, IEI, Uttar Pradesh State Centre, Engineers' Bhawan, River Bank Colony, Lucknow 226018 [☎: 0522-3512499, E-mail: upsc@ieindia.org, Website: www.ieiup.org.in]

Architectural Engineering Division

All India Seminar on "Sustainable Urban Development Green Architectural Engineering and Smart City Planning for A Greener Future"

Coimbatore, May 08-09, 2025

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]

Aerospace Engineering Division

All India Workshop on "Advancement of Drone Technology Transforming Industries in 2025"

Hosur, July 15-16, 2025

The Honorary Secretary, IEI, Hosur Local Centre, No. 69, Kamaraj Nagar, Kumudepall, Near, Adhiyamaan College of Engineering, Hosur, 635109, Tamilnadu [Email: hosurclc@ieindia.org]

All India Seminar on "Applications of Smart Materials in Aerospace Defense"

Coimbatore, July 24-25, 2025

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]

One Day Seminar on "Living in Space" Kattankulathur, October 08, 2025

The Honorary Secretary, IEI, Kattankulathur Local Centre, SRM Institute of Science and Technology, Mahatma Gandhi Road, Potheri, SRM Nagar, Dist Chengalpattu, Kattankulathur, Tamilnadu 603203, [☎: 044-2745 2270]

Chemical Engineering Division

One Day Seminar on "Biofuels Like Ethanol and Biodiesel Towards Energy Security and Environmental Protection"

Bareilly, May 10, 2025

The Honorary Secretary, IEI, Bareilly Local Centre, Engineers' Bhawan, 44 Camphor Estate Colony, Near Camphor Hospital, Rampur Road, C B Ganj, Bareilly 243502, Uttar Pradesh [Mobile : 9634953691, E-mail: bareillylc@ieindia.org, Website:www.blcieindia.in]

All India Seminar on "Safety and Security in Process Plant Installations and Facilities"

Bareilly, June 13-14, 2025

The Honorary Secretary, IEI, Bareilly Local Centre, Engineers' Bhawan, 44 Camphor Estate Colony, Near Camphor Hospital, Rampur Road, C B Ganj, Bareilly 243502, Uttar Pradesh [Mobile : 9634953691, E-mail: bareillylc@ieindia.org, Website:www.blcieindia.in]

All India Workshop on "Hydrogen Economy- Opportunities & Challenges"

Kochi, July 25-26, 2025

The Honorary Secretary, IEI, Kochi Local Centre, IEI Bhawan, Government Homeo Hospital Road, Pallepady, PO: Kaloor, Kochi 682017 [☎: 0484-2403838 / 2403993, E-mail: kochilc@ieindia.org; Website: www.ieikochi.org]

One Day Seminar on "Energy Materials and AI Enabled Sustainability Solutions"

Salem, July 26, 2025

The Honorary Secretary, IEI, Salem Local Centre, 104/7, Manivannan Road, 3rd Floor, SPC, Bhawan, Opp to Salem New Bus Stand, Salem 636004 [Ph: 0427-2332544, E-mail: salemclc@ieindia.org, Website: www.ieisl.com]

All India Seminar on "Circular Economy in Chemical Engineering Innovations for A Sustainable Future"

Puducherry, August 05-06, 2025

The Honorary Secretary, IEI, Puducherry State Centre, No. 63, Nethaji Subash Chandra Bose Salai, Ground Floor, PWD Campus, Puducherry 605001 [Mobile: 9489766701, E-mail : puducherryisc@ieindia.org, Website : www.ieipsc.org]

All India Seminar on "Sustainability on Process During Chemical Operations"

Thiruvananthapuram, September 19-20, 2025

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]

All India Seminar on "Innovations in Biotechnology: Shaping the Future of Health and Sustainability"

Hosur, September 24-25, 2025

The Honorary Secretary, IEI, Hosur Local Centre, No. 69, Kamaraj Nagar, Kumudepall, Near, Adhiyamaan College of Engineering, Hosur, 635109, Tamilnadu [Email: hosurclc@ieindia.org]

Civil Engineering Division

One Day Seminar on "Thoughtful, Impactful Construction Aligned with Sustainability and Quality"

Thiruvananthapuram, May 27, 2025

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]

One Day Seminar on "Advances in Microstructural Analysis of Durable and Sustainable Concrete"

Kattankulathur, July 30, 2025

The Honorary Secretary, IEI, Kattankulathur Local Centre, SRM Institute of Science and Technology, Mahatma Gandhi Road, Potheri, SRM Nagar, Dist Chengalpattu, Kattankulathur, Tamilnadu 603203, [☎: 044-2745 2270]

One Day Seminar on "Emerging Trends in Civil Engineering"

Hosur, July 31, 2025

The Honorary Secretary, IEI, Hosur Local Centre, No. 69, Kamaraj Nagar, Kumudepall, Near, Adhiyamaan College of Engineering, Hosur, 635109, Tamilnadu [Email: hosurclc@ieindia.org]

One Day Seminar on "Emerging Techniques In Pavement Stabilization"

Agartala, June 20, 2025

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

One Day Seminar on "Cutting Edge Technologies In Infrastructure Projects"

Puducherry, July 22, 2025

The Honorary Secretary, IEI, Puducherry State Centre, No. 63, Nethaji Subash Chandra Bose Salai, Ground Floor, PWD Campus, Puducherry 605001 [Mobile: 9489766701, E-mail : puducherryisc@ieindia.org, Website : www.ieipsc.org]

All India Seminar on "Artificial Methods for Retrofitting and Rehabilitation of Buildings"

Chennai, 24-25 July 2025

The Honorary Secretary, IEI, Tamil Nadu State Centre, No. 19, Swami Sivananda Salai, Chepauk, Chennai 600005 [☎: 044-25360614 / 9962950333, E-mail: ieitamilnadu@gmail.com; tnscc@ieindia.org, Website: www.ieitnsc.org]

All India Seminar on "3D Printing in Civil Engineering: Advancements Design and Sustainability"

Coimbatore, July 28-29, 2025

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]

All India Seminar on "Forensic in Civil Engineering"

Nagpur, October 10-11, 2025

The Honorary Secretary, IEI, Nagpur Local Centre, North Ambazari Road, Nagpur 440010 [☎: 0712-2525617, E-mail: nagpurclc@ieindia.org, Website: ieinagpur.net]

One Day Seminar on "Urban Flood Management Strategies For Resilient Cities"

Coimbatore, October 11, 2025

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]

Computer Engineering Division

One Day Seminar on "Artificial Intelligence for Elderly Care at Home"

Agartala, May 10, 2025

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

One Day Seminar on 'Artificial Intelligence, Machine Learning And Its Application'

Kanpur, May 24, 2025

The Honorary Secretary, IEI, Kanpur Local Centre, Engineers Bhawan, HBTU Campus, Nawabganj, Kanpur 208002 [Mobile: 9140018277, E-mail: kanpurc@ieindia.org, Website: www.ieikanpur.org]

One Day Seminar on 'Exploring Quantum Frontiers The Future Of Computation'

Coimbatore, June 27, 2025

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]

One Day Seminar on 'Smart Cloud Based Meditation System With Adaptive AI for Holistic Wellbeing'

Erode, July 03, 2025

The Honorary Secretary, IEI, Erode Local Centre, Sri Ramakrishna Seva Samithi Religious Library, Thindal Murugan Temple Premises, Thindal, Erode 638012, Tamilnadu [E-mail : ieierode2015@gmail.com, erodelc@ieindia.org, Web: www.ieierode.org]

One Day Seminar on 'Computational Intelligence in Healthcare Systems'

Hyderabad, August 03, 2025

The Honorary Secretary, IEI, Telangana State Centre, 6-2-910, Visvesvaraya Bhavan, Khairatabad, Hyderabad 500004, Telangana [☎: 040-23314969, E-mail: telanganasc@ieindia.org]

All India Workshop on "Android and IOS App Development for Preservation and Revitalization of South Dravidian Endangered"

Kattankulathur, August 07-08, 2025

The Honorary Secretary, IEI, Kattankulathur Local Centre, SRM Institute of Science and Technology, Mahatma Gandhi Road, Potheri, SRM Nagar, Dist Chengalpattu, Kattankulathur, Tamilnadu 603203, [☎: 044-2745 2270]

All India Seminar on "Quantum Computing Bridging Theory Research and Applications" Salem, August 08-09, 2025

The Honorary Secretary, IEI, Salem Local Centre, 104/7, Manivannan Road, 3rd Floor, SPC, Bhawan, Opp to Salem New Bus Stand, Salem 636004 [Ph: 0427-2332544, E-mail: salemc@ieindia.org, Website: www.ieislsc.com]

All India Seminar on "AI Powered Innovations Shaping the Future of Healthcare"

Coimbatore, August 21-22, 2025

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]

One Day Seminar on "AI and Machine Learning in Quantum Computing Bridging the Future of Intelligent Systems"

Kattankulathur, September 08, 2025

The Honorary Secretary, IEI, Kattankulathur Local Centre, SRM Institute of Science and Technology, Mahatma Gandhi Road, Potheri, SRM Nagar, Dist Chengalpattu, Kattankulathur, Tamilnadu 603203, [☎: 044-2745 2270]

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

Agartala, December 19-20, 2025

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

Electrical Engineering Division

One Day Seminar on "Electric Vehicles: Steering towards a Greener Future"

Puducherry, May 13, 2025

The Honorary Secretary, IEI, Puducherry State Centre, No. 63, Nethaji Subash Chandra Bose Salai, Ground Floor, PWD Campus, Puducherry 605001 [Mobile: 9489766701, E-mail : puducherryesc@ieindia.org, Website : www.ieipsc.org]

One Day Seminar on "Opportunities and Challenges of Electrical Vehicles EV in Bharat"

Jaipur, May 24, 2025

The Honorary Secretary, IEI, Rajasthan State Centre, Gandhi Nagar, Tonk Road, Jaipur 302015 [☎: (0141) 2706327, E-mail: rajasthansc@ieindia.org]

One Day Seminar on "Recent Trends in AI Enabled Technologies and IoT in Emobility"

Salem, June 28, 2025

The Honorary Secretary, IEI, Salem Local Centre, 104/7, Manivannan Road, 3rd Floor, SPC, Bhawan, Opp to Salem New Bus Stand, Salem 636004 [Ph: 0427-2332544, E-mail: salemc@ieindia.org, Website: www.ieislsc.com]

One Day Seminar on "Big Data Analytics for Smart Grids Challenges and Opportunities"

Vijayawada, July 18, 2025

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, Email: apsc@ieindia.org, Website: www.ieiapsc.org]

All India Seminar on "Electric Vehicles and Their Impact on Power Grid Infrastructure"

Agartala, July 25-26, 2025

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

All India Seminar on "Electric Vehicles the Future of Transportation in Sustainable Energy Systems"

Amravati, July 26-27, 2025

The Honorary Secretary, IEI, Amravati Local Centre, Govt. Polytechnic Premises, Opp Venus Plaza, Shegaon

Naka, VMV Road, Amravati 444603 [Ph : 9325444884, E-mail: amravatic@ieindia.org, Website: www.ieiamt.org]

All India Workshop on "Energy Sphere IoT Powered Smart Grids for Sustainable Cities and Green Power"

Chennai, August 29-30, 2025

The Honorary Secretary, IEI, Tamil Nadu State Centre, No. 19, Swami Sivananda Salai, Chepauk, Chennai 600005 [☎: 044-25360614 / 9962950333, E-mail: ieitamilnadu@gmail.com; tnscc@ieindia.org, Website: www.ieitnsc.org]

One Day Workshop on "Essentials of Electric Vehicle Hardware Design"

Coimbatore, September 12, 2025

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]

One Day Seminar on "Smart Cities and Digital Transformation"

Kanpur, September 27, 2025

The Honorary Secretary, IEI, Kanpur Local Centre, Engineers Bhawan, HBTU Campus, Nawabganj, Kanpur 208002 [Mobile: 9140018277, E-mail: kanpurc@ieindia.org, Website: www.ieikanpur.org]

Fortieth National Convention of Electrical Engineers on "Influence of Artificial Intelligence on Modern Trends in Electricity Generation, Transmission & Distribution"

Thiruvananthapuram, October 15-16, 2025

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]

Electronics & Telecomm. Engineering Division

One Day Seminar on "Medical Applications of Nano Robots"

Salem, 23 May 2025

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: salemc@ieindia.org, Website: www.ieislsc.com]

One Day Seminar on "Embedded IoT Innovations: Enhancing Connectivity with Sensors"

Coimbatore, 24 May 2025

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]

All India Seminar on "AIOT Powered Smart Cities enhancing Connectivity and Sustainability"

Chennai, 13-14 June 2025

The Honorary Secretary, IEI, Tamil Nadu State Centre, No. 19, Swami Sivananda Salai, Chepauk, Chennai 600005 [☎: 044-25360614 / 9962950333, E-mail: ieitamilnadu@gmail.com; tnscc@ieindia.org, Website: www.ieitnsc.org]

One Day Seminar on "Dive into AI Deep Learning and Machine Learning"

Kanchepuram, 25 June 2025

The Honorary Secretary, IEI, Kanchepuram Local Centre, Jerusalem College of Engineering Campus,

Velachery Main Road, Narayanapuram, Pallikaranai, Chennai 600100 [Mobile: 9789924739, Whatapp number: 8870531609, Email: kanchepuramlc@ieindia.org; Website: www.ieindiaklc.org]

Environmental Engineering Division

All India Seminar on **"Blue Planet, Green Future: The Critical Role of Water in Maintaining Biodiversity and Environment"**

Thiruvananthapuram, June 10-11 2025

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]

One Day Workshop on **"Climate Change and Sustainable Environment"**

Madurai, July 26, 2025

The Honorary Secretary, IEI, Madurai Local Centre, Er TM Jambulingam Bhavan, No. 1, Vivekananda Nagar, 120 Feet Road, Surveyor Colony, K Pudur, Madurai 625007 [☎: 0452-4373067, E-mail: madurailc@ieindia.org, Website: www.ieimadurailc.org]

All India Seminar on **"Drone Remote Sensing Satellite and Artificial Intelligence Based on Environment Management Solution"**

Salem, July 29-30, 2025

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.ieisl.com]

Thirty-ninth National Convention of Environmental Engineers on **"Environment and Digital World for Sustainable Development"**

Chennai, August 22-23 2025

The Honorary Secretary, IEI, Tamil Nadu State Centre, No. 19, Swami Sivananda Salai, Chepauk, Chennai 600005 [☎: 044-25360614 / 9962950333, E-mail: ieitamilnadu@gmail.com; tnscc@ieindia.org, Website: www.ieitnsc.org]

All India Seminar on **"Air Pollution and Control in Factories and Industries"**

Hosur, August 28-29, 2025

The Honorary Secretary, IEI, Hosur Local Centre, No. 69, Kamaraj Nagar, Kumudepall, Near, Adhiyamaan College of Engineering, Hosur, 635109, Tamilnadu [Email: hosuric@ieindia.org]

All India Workshop on **"Smart Solutions for Environmental Applications"**

Dhanbad, November 03-04, 2025

The Honorary Secretary, IEI, Dhanbad Local Centre, Signature Corals Apartment, Flat No.B/4, First Floor, Block – A, Kusum Vihar, Phase-I, PO: BCCL Township, Koyla Nagar, Dhanbad 826005, Jharkhand, Mobile: 9934896322/8789853083, E-mail: dhanbadlc@ieindia.org; Website: www.iedhanbad.org

Mechanical Engineering Division

One Day Workshop on **"Future of Steelmaking Navigating the Digital Revolution with AI and Machine Learning"**

Salem, May 09, 2025

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.ieisl.com]

All India Seminar on **"Rural Industrialization"** Bareilly,

15-16 May, 2025

The Honorary Secretary, IEI, Bareilly Local Centre, Engineers' Bhawan, 44 Camphor Estate Colony, Near Camphor Hospital, Rampur Road, C B Ganj, Bareilly 243502, Uttar Pradesh [Mobile : 9634953691, E-mail: bareillylc@ieindia.org, Website: www.blcieindia.in]

One Day Seminar on **"Robotics and Automation - Shaping the Future of Engineering"**

Agartala, June 07 2025

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

All India Seminar on **"Role of AI & ML for Sustainable Development – Vikshit Bharat@2047"**

Belapur, July 18-19 2025

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, Website: www.ieinmlc.org]

Fortieth National Convention of Mechanical Engineers on **"Recent Advances in Mechanical Engineering"**

Durgapur, August 23-24, 2025

The Honorary Secretary, IEI, Durgapur Local Centre, Nehru Avenue, B Zone, Durgapur 713 205 [Fax: 0343-2564770, Email: durgapuric@ieindia.org, Website: http://www.ieidurgapuric.org]

All India Seminar on **"Additive Manufacturing for Enhanced Productivity"**

Agartala, September 05-06, 2025

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

All India Seminar on **"Comprehensive Insights into Vibration-Based Condition Monitoring: Theory, Techniques, Applications, and Case Studies for Mechanical Systems"**

Coimbatore, September 19-20, 2025

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]

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]

Metallurgical & Materials Engineering Division

All India Seminar on **"The Role of Metallurgy in Renewable Energy Technologies"**

Thiruvananthapuram, May 13-14 2025

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]

One Day Seminar on **"Advances in Modelling and Simulation for Material Processing"**

Coimbatore, July 04, 2025

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]

Thirty-eighth National Convention of Metallurgical & Materials Engineers on **"Capacity Building in Process Metallurgy"**

Rourkela, July 26-27, 2025

The Honorary Secretary, IEI, Rourkela Local Centre, National Institute of Technology Campus, Rourkela 769008, Odisha [☎: 0661-2472709, E-mail: rourkelalc@ieindia.org]

Mining Engineering Division

Thirty-fifth National Convention of Mining Engineers on **"Mining And Environment Quo Vadis 2070"**

Dhanbad, November 07-08, 2025

The Honorary Secretary, IEI, Dhanbad Local Centre, Signature Corals Apartment, Flat No.B/4, First Floor, Block – A, Kusum Vihar, Phase-I, PO: BCCL Township, Koyla Nagar, Dhanbad 826005, Jharkhand, Mobile: 9934896322/8789853083, E-mail: dhanbadlc@ieindia.org; Website: www.iedhanbad.org

Production Engineering Division

Thirty-ninth National Convention of Production Engineers on **"Recent Advancement and Challenges on the Fabrication of Semiconductor Chips in India"**

Madurai, May 23-24, 2025

The Honorary Secretary, IEI, Madurai Local Centre, Er TM Jambulingam Bhavan, No. 1, Vivekananda Nagar, 120 Feet Road, Surveyor Colony, K Pudur, Madurai 625007 [☎: 0452-4373067, E-mail: madurailc@ieindia.org, Website: www.ieimadurailc.org]

All India Seminar on **"Unlocking the Future with 3D Printing and Additive Manufacturing"**

Kanchepuram, July 09-10, 2025

The Honorary Secretary, IEI, Kanchepuram Local Centre, Jerusalem College of Engineering Campus, Velachery Main Road, Narayanapuram, Pallikaranai, Chennai 600100 [Mobile: 9789924739, Whatapp number: 8870531609, Email: kanchepuramlc@ieindia.org; Website: www.ieindiaklc.org]

One Day Seminar on **"Innovations and Best Practices in Production Management"**

Kanchepuram, 24 July, 2025

The Honorary Secretary, IEI, Kanchepuram Local Centre, Jerusalem College of Engineering Campus, Velachery Main Road, Narayanapuram, Pallikaranai, Chennai 600100 [Mobile: 9789924739, Whatapp number: 8870531609, Email: kanchepuramlc@ieindia.org; Website: www.ieindiaklc.org]

All India Seminar on **"Nanotechnology for Industrial Applications"**

Chennai, June 27-28, 2025

The Honorary Secretary, IEI, Tamil Nadu State Centre, No. 19, Swami Sivananda Salai, Chepauk, Chennai 600005 [☎: 044-25360614 / 9962950333, E-mail: ieitamilnadu@gmail.com; tnscc@ieindia.org, Website: www.ieitnsc.org]

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

IEI DIARY

One Day Seminar on "Building the Future: An Introduction to Smart Manufacturing"

Coimbatore, July 18, 2025

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]

Textile Engineering Division

All India Seminar on "CAD Based Design and Development of Value Added Textile and Apparel Products"

Coimbatore, July 16-17, 2025

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]

Thirty-eighth National Convention of Textile Engineers on "Emerging Challenges of Sustainable Textiles"

Ghaziabad, September 05-06, 2025

The Honorary Secretary, IEI, Ghaziabad Local Centre, 15, Shopping Complex, ALT Centre, Rajnagar, Ghaziabad 201002 [☎: 0120-2702673, Email: ghaziabadlc@ieindia.org]

Interdisciplinary Coordination Committee

One Day Seminar on "Human Re-engineering"

Ghaziabad, May 10, 2025

The Honorary Secretary, IEI, Ghaziabad Local Centre, 15, Shopping Complex, ALT Centre, Rajnagar, Ghaziabad 201002, Ph: 0120-2702673, Email: ghaziabadlc@ieindia.org

All India seminar on "Sustainable Technologies and Green Initiative"

Durgapur, 17-18 July, 2025

The Honorary Secretary, IEI, Durgapur Local Centre, Nehru Avenue, B Zone, Durgapur 713 205 [Fax: 0343-2564770, Email: durgapurlc@ieindia.org, Website: http://www.ieidurgapurlc.org]

One Day Seminar on "Green Energy and Sustainable Development"

Puducherry, 11 August 2025

The Honorary Secretary, IEI, Puducherry State Centre, No. 63, Nethaji Subash Chandra Bose Salai, Ground Floor, PWD Campus, Puducherry 605001 [Mobile: 9489766701, E-mail : puducherryisc@ieindia.org, Website : www.ieipsc.org]

National Languages Promotional Committee

One Day Seminar on "Repair Rehabilitation Retrofitting and Strengthening of Structures A Practical Approach"

Puducherry, June 01, 2025

The Honorary Secretary, IEI, Puducherry State Centre, No. 63, Nethaji Subash Chandra Bose Salai, Ground Floor, PWD Campus, Puducherry 605001 [Mobile: 9489766701, E-mail : puducherryisc@ieindia.org, Website : www.ieipsc.org]

REINFORCE 2025
The Future of Resilient Engineering!

The Institution of Engineers (India) (IEI), in association with Maccaferri and supported by WFEO, presents:

REINFORCE 2025

A Virtual International Conference on "Resilient Engineering Innovations for a Future-Oriented, Reliable & Circular Economy Infrastructure" (REINFORCE).

15th - 16th July 2025
Online | Zoom
10:00 AM - 6:00 PM (IST)

SAVE THE DATE

Join global industry leaders, academicians, and innovators as they discuss:

- ✓ Sustainable Geotechnical Solutions
- ✓ Digital Transformation in Engineering
- ✓ Advanced Materials for Longevity
- ✓ Engineering for Lasting Infrastructure
- ✓ Urban Infrastructure Resilience
- ✓ Environmental Impact Mitigation in Civil Engineering

Be part of the transformative discussions & shape the future of resilient infrastructure!

RSVP:
Tanmoy Chakraborty: +91-9830761661
Sumit Pathak: +91-9873007275

Elevate your status as a Certified Professional Engineer (PE) and International Professional Engineer (IntPE)

Professional Engineers (PE) Certification by IEI

ELIGIBILITY REQUIREMENT

To attain the Professional Engineers (PE) certification through the Institution of Engineers (IEI), you must meet the following eligibility criteria:

1. Hold a BE/BTech or equivalent degree recognized by a Statutory Authority or the Government of India.
2. Have accumulated five years or more of professional experience.
3. Be a member of a recognized professional engineering institution or association.
4. Maintain a satisfactory level of Continued Professional Development (CPD).

For more information and details, please visit the following link :

https://www.ieindia.org/webui/IEI_PE_Certification.aspx

International Professional Engineers (IntPE) Certification by IEI

ELIGIBILITY REQUIREMENT

To be eligible for IntPE Certification by IEI, candidates must meet the following criteria:

1. Hold a BE/BTech or equivalent degree recognized by the Statutory Authority or the Government of India.
2. Possess seven years or more of professional experience.
3. Have a minimum of two years of professional experience in a significant engineering activity.
4. Be a member of a recognized professional engineering institution or association.
5. Maintain a satisfactory level of Continued Professional Development (CPD).

For more information and details, please visit the following link :

https://www.ieindia.org/webui/IEI_IntPE_Certification.aspx

**The eligible candidate can submit application in the prescribed format to:
Deputy Director (Technical), The Institution of Engineers (India), 8 Gokhale Road, Kolkata 700020
For any query and assistance please send email to: pe@ieindia.org**



The Institution of Engineers (India)

IEI YOUNG ENGINEERS AWARD 2025

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, 2025** 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 **May 15, 2025**. 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 **May 30, 2025**:

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 2025**' and name of the engineering division under which the applicant desires to be considered for the Award.

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 VB Singh

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