



# IEI NEWS

September 2024

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A CENTURY OF SERVICE TO THE NATION

Volume 31

Number 6

## Council Elects New President of IEI

Er. VB Singh, a distinguished Engineer and Legal Expert was elected as the President of The Institution of Engineers (India) [IEI] for the Session 2024-25 at the 726<sup>th</sup> Meeting of the IEI Council held in Hyderabad. He will formally assume office of President, IEI, at the 105<sup>th</sup> Annual General Meeting, scheduled to be held in Kolkata on 22 December 2024 during 39<sup>th</sup> Indian Engineering Congress.

### Academic and Professional Background



Er. Singh's illustrious academic journey began with a Bachelor of Engineering (Civil) degree from IIT-Roorkee (formerly Roorkee University). His thirst for knowledge led him to pursue a Bachelor of Laws (LL.B.) and a Specialization in Taxation Laws from Lucknow University. He further enhanced his administrative acumen by earning a Postgraduate Diploma in Public Administration from the same Institution. Er. Singh's academic excellence was evident early when he was awarded the prestigious National Merit Scholarship securing the 33<sup>rd</sup> rank in Uttar Pradesh in the High School Examination, a testament to

his exceptional performance and distinction.

### Professional Career

Er. Singh's professional career spans nearly four decades, during which he served in various roles at the Uttar Pradesh Power Corporation, where he joined as an Assistant Engineer. He held multiple leadership positions, including Executive Engineer, Superintending Engineer

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IEI Technical Webinar Series supported by  
Fédération internationale du béton (fib)

## Intercepting Rockfall Using Advanced Flexible Solutions



Dr. Ashish Juneja



Dr Ratnakar R Mahajan



Mr. Luca Gobbin

On September 16, 2024, The Institution of Engineers (India) (IEI), in collaboration with Maccaferri Environmental Solutions Pvt. Ltd., conducted the third installment of its Technical Webinar Series, titled **Intercepting Rockfall Using Advanced Flexible Solutions**. This webinar was also supported by the Fédération Internationale du Béton (fib), with which IEI is affiliated as a National Member Group. The event saw widespread participation from professionals across the engineering sectors, who were keen to explore innovative methods for mitigating rockfall risks.

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## From the President's Desk.....

### Advancing Sustainable Geotechnical Solutions for India's Infrastructure



Soil erosion and natural hazards such as landslides and rockfalls are two of the most critical challenges facing infrastructure development in India today. Soil erosion, exacerbated by deforestation and improper land use, destabilizes essential structures such as slopes and embankments, threatening both ecosystems and the built environment. To combat this, advanced geosynthetic solutions have emerged as sustainable tools to stabilize soil, prevent erosion, and enhance the long-term integrity of landscapes and infrastructure. In parallel, mountainous regions in India face increasing risks from natural hazards like landslides and rockfalls, which not only endanger lives but also cause significant disruptions to critical infrastructure. Reinforced soil structures, integrating both natural and synthetic materials, provide flexible and durable solutions for stabilizing these hazardous terrains. These techniques, particularly the use of geosynthetics, are proving effective in countering soil erosion and mitigating the impact of natural hazards, ensuring the resilience and safety of infrastructure in challenging geotechnical environments.

Incorporating geosynthetics and reinforced soil structures offers a sustainable alternative to conventional engineering methods. These solutions are not only cost-effective but also environmentally friendly, as they promote the stabilization of slopes, control erosion, and adapt to the complex demands of varying terrain. By utilizing materials such as geogrids and geotextiles, engineers can reinforce soil and create resilient infrastructure capable of withstanding both environmental stresses and the impacts of natural disasters.

The Institution of Engineers (India) remains committed to addressing these evolving challenges by fostering innovation and sustainable practices in geotechnical engineering. In collaboration with Maccaferri Environmental Solutions Pvt. Ltd. and supported by the Fédération internationale du béton (fib), we have launched a technical webinar series aimed at

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## Intercepting Rockfall Using Advanced Flexible Solutions

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Mr. Sumit Pathak, Deputy Manager - Technical Marketing at Maccaferri Environmental Solutions Pvt. Ltd., moderated the session, which brought together distinguished speakers from academia and industry.

The first presentation was delivered by Dr. Ashish Juneja, Professor at the Indian Institute of Technology Bombay. Dr. Juneja's talk focused on the challenges posed by rockfall events along the Western Railway, particularly near Monkey Hill Station, which is located approximately 100 km from Mumbai. He presented a case study where geotechnical and hydrological assessments were conducted to evaluate the region's vulnerability to heavy monsoon rains and subsequent erosion, which contribute to frequent rockfall incidents. Dr. Juneja emphasized the effectiveness of flexible barriers in intercepting rockfalls, noting that these barriers, installed in critical areas, demonstrated resilience in real-world conditions. He particularly highlighted the 2023 impact test, which confirmed the efficacy of these barriers, leading to their broader adoption by Indian Railways for enhancing safety along vulnerable stretches.

Following Dr. Juneja, Dr. Ratnakar R. Mahajan, Regional Technical Head for India, Southeast Asia, and the Pacific at Maccaferri, delivered an insightful



Mr Sumit Pathak

crucial in mitigating rockfall hazards in high-risk zones.

The final presentation was delivered by Mr. Luca Gobbin, Corporate Rockfall Technical Specialist from Officine Maccaferri S.p.A., Italy. Mr. Gobbin introduced the HELLOMAC Geo system, a cutting-edge IoT-based solution for monitoring rockfall events. The system integrates real-time monitoring capabilities with traditional barriers, enabling stakeholders to receive instant alerts through satellite, GSM, and 4G networks when a rockfall event occurs. This

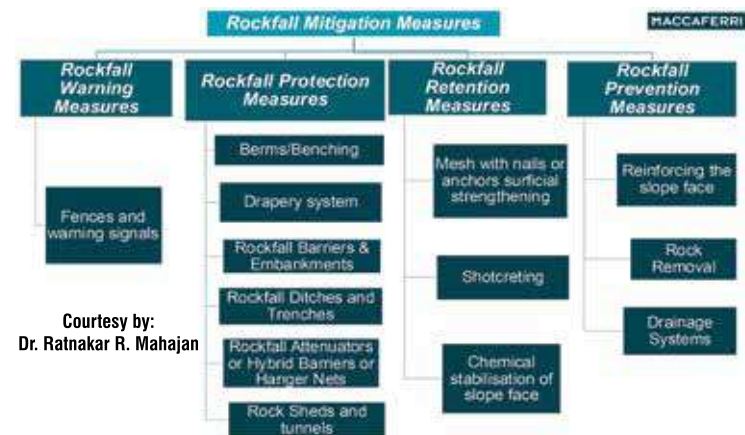
MACCAFERRI

### Smart barrier systems

PROTECTING PALMI'S BEACHES WITH COMMUNITY ALERTS  
Smart Rockfall Barriers for Urban Safety



Courtesy by: Mr. Luca Gobbin



Courtesy by:  
Dr. Ratnakar R. Mahajan

presentation on advanced rockfall mitigation strategies. Dr. Mahajan explained the importance of tailored rockfall solutions based on site-specific conditions. He elaborated on the application of high-energy absorption (HEA) panels and dynamic rockfall barriers as key solutions to intercept falling rocks. Dr. Mahajan also shared successful case studies from challenging terrains across India, such as the Mumbai-Pune Expressway and Saptashrungi Temple, showcasing how these technologies have been

smart solution allows for enhanced safety management and rapid response, ensuring critical infrastructure is better protected.

The webinar concluded with an engaging Q&A session, where participants had the opportunity to interact directly with the speakers, further discussing the technical aspects of rockfall mitigation. A feedback form was distributed to all attendees to gather their insights and suggestions for future sessions.

## Corporate Air Ticketing Benefit for Members

Corporate Members are entitled to Corporate Air Ticket benefit. For details please visit

<https://www.ieindia.org/webui/IEI-AirTickets.html>

## From the President's Desk.....

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exploring cutting-edge solutions to enhance infrastructure stability across diverse geotechnical conditions. As part of this series, two more webinars are scheduled on October 7, 2024, and October 28, 2024, respectively, focusing on Resilient Geosynthetic Solutions to Counter Soil Erosion and Mitigating Natural Hazards using Reinforced Soil Structures.

Addressing these areas is essential to ensuring that India's infrastructure development is both sustainable and resilient. By focusing on such innovations, we are paving the way for safer and more durable engineering solutions that can withstand the challenges posed by dynamic and varied terrains.



## Change Yourself, not the Nature

**Kochi Local Centre** of the Institution organized the 38<sup>th</sup> National Convention of Environmental Engineers during 23-24 August 2024 at Kochi under the aegis of Environmental Engineering Division [ENDB], IEI. A National Seminar was also concurrently organized on the theme **Change Yourself, not the Nature**. Dr Muralee Thummarakudy, Director, G20 Global Land



Initiative Coordination office, UN Convention to Combat desertification (UNCCD) graced the inaugural function as the Chief Guest. Er S Sreekala, Chairperson, Kerala State Pollution Control Board graced the occasion as the Guest of Honour. Dr G Ranganath, President IEI, graced the function with his virtual presence and expressed best wishes to the host Centre for arranging the National Convention in a befitting manner. Dr V Karthikeyan, Chairman of the Environmental Engineering Division Board presided over the inaugural session.

The National Convention started with Invocation followed by Lightning of the Lamp in august presence of the dignitaries on the dais. Mr G Velayudhan Nair, Chairman, Kochi Local Centre, IEI delivered the welcome address and briefed about the importance of National Convention. Prof (Dr) M M Prabhakaran, Convener of the National Convention explained about the theme of the National Convention. He emphasized on the drastic change in climate and nature which is hazardous to mankind as it will pave forthcoming natural calamities.

Chief Guest, Dr Muralee Thummarakudy in his address stressed on the importance of environmental protection through the involvement of the stakeholders and strict implementation of the policies related to solid waste management, waste water treatment and air pollution. He advocated for utilization of nature in an effective manner for human well-being that minimize harms with continuous monitoring and adjustments of the standards, as and when required.

On the occasion, Er K G Govindan Kutty Nair, Former Technical Member and Managing Director, Kerala Water Authority [in absentia]; Dr Arup Kumar Misra, Chairman, Pollution Control Board, Assam and Er S Loganathan, Head, Structural and Environmental Division, Centre for Civil Testing & Consultancy, Thiagarajar Polytechnic College [SONA], Salem were felicitated as Eminent Engineering Personalities for their commendable service rendered in the field of Environmental Engineering. Dr Sreenivasan Ramaswami, Assistant Professor, Centre for Sustainable Technologies, Indian Institute of Science Bangalore and Ms Medha Mili, Senior Scientist, CSIR - Advanced Materials and Processes Research Institute, Bhopal were conferred with IEI Young Engineers Award 2024-25 in Environmental Engineering Division for their immense contribution in the field of Environmental Engineering. On the occasion, a Proceedings containing the technical papers were released in the august presence of dignitaries on the dais. Er T C Prasanth, Honorary Secretary of the Kochi Local Centre proposed the vote of thanks at the end of inaugural session.

The N V Modak Memorial Lecture was presented by Prof (Dr) S Shrihari, Professor, Department of Civil Engineering, National Institute of Technology Surathkal, Karnataka on the topic 'Ensure Life will be Sustainable in 2050'. In his deliberation he mentioned in detail about the critical need to tackle the 'polycrisis' of climate change through advanced technologies and sustainable practices, such as reducing water use, enhancing recycling,

and adopting renewable energies. The G D Agarwal Memorial Lecture was delivered by Dr N S Raman, Former Chief Scientist and Deputy Director, National Environmental Engineering Research Institute [NEERI] Nagpur on the topic 'Environmental Audit: First Step towards Productivity in an Indian Industry'. The speaker discussed the pivotal role of environmental auditing in Indian industries, underscoring the importance of proactive waste management and the challenges posed by inadequate enforcement of environmental laws. Dr E J James, Former Director, CWRDM, Kozhikode and presently, Pro-Vice Chancellor of Karunya University, Coimbatore delivered the State –of-Art Lecture. He focused on water security in India, advocating for Integrated Water Resources Management (IWRM) and the use of Industry 4.0 tools to address water scarcity issues and inefficiencies in current practices.

Ms Medha Mili, the IEI Young Engineer Awardee in her presentation highlighted bamboo as a versatile and sustainable material for eco-friendly construction, discussing its potential for green buildings and societal benefits despite existing challenges. Dr Sreenivasan Ramaswami, the IEI Young Engineer Awardee delivered presentation on the topic 'Compact, Robust and Efficient Biofilters for Recirculating Aquaculture Systems' and demonstrates a very compact system requiring lesser land area and minimum use of freshwater. He mentioned that the reduced reactor volume and exchange rate of energy and operating cost would further improve the sustainability of Recirculating Aquaculture Systems.

Further during the two-day Technical Sessions, 36 papers were presented along with invited lectures and special lectures. The technical sessions were chaired by Er Jagdish Chand Singhal, Member, ENDB; Er Sanjay Sen, Member, ENDB; Er Ajoy Kumar Sinha, Member, ENDB, Prof (Dr) Susan Jacob and Dr P K Chandravathi.

Prof (Dr) G Resmi, Professor, Civil Engineering Department, NSS College of Engineering, Palakkad delivered Invited Lecture on the topic 'Air Pollution in India - Current Status and Challenges'; Er Nair Nandkumar, Consultant & Former Senior Associate Vice President –Manufacturing & Projects, Electro Mineral Division, Carborundum Universal Limited (CUMI) delivered Invited Lecture on 'Achieving Net-Zero Carbon Emissions in Kerala by 2050 – Trends & Challenges for the Industries in Kerala', outlining the challenges of transitioning to renewable energy and potential solutions, including energy conservation and policy innovations. Prof V K Sasikumar, Former Professor, Department of Chemical Engineering, Government Engineering College, Thrissur delivered Invited Lecture on Non Ionising Radiation from wireless communication devices, and its' classification as an air pollutant due to its' potential health risks. In the special lecture, on the topic 'Dark Realities of Environmental Pollution and Evolution of Environmental Citizenship', Mr P Balakrishnan Nair, Chairman of Kerala State Centre, IEI emphasizes the need for meticulous monitoring and assessment of various types of environmental pollution using modern technology, and calls for government commitment and international discussions to achieve zero pollution and promote environmental citizenship. Prof (Dr) KRS Krishnan, Director, Water Centre, Karunya University, Coimbatore in his Special Lecture mentioned about the management of clean environment. Prof (Dr) Mohammad Jawad, Department of Civil Engineering, Centre for the Environment, School of Agro and Rural Technology, IIT Guwahati, in his Special Lecture highlighted the importance of ground water requirement and the indigenous household groundwater filter being used by the rural community. Er Anand Kulkarni, KPMG India in his Invited Lecture, emphasizes the need for transparent biodiversity, driven by government regulations and intergovernmental requirements. Er Koya Venkata Reddy, Fact Engineering and Design Organization [FEDO-FACT], Cochin presented a solution of air pollution, caused by burning biomass, by converting it into compressed biogas through enzymatic treatment, which can be used as a clean fuel, aligned with India's Bio Fuel Policy.

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## Council Elects New President of IEI

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and also performed the duties of the Chief Engineer. His work involved the design and planning of thermal power projects, the construction of Extra High Voltage Substations (up to 400 KV), and the mass production of PCC LT line supports. Er. VB Singh also contributed significantly to quality assurance and standardization in these projects.



Currently, he serves as an Adjunct Faculty in the Department of Civil Engineering at the SMS Group of Institutions, affiliated with Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, imparting his vast knowledge and experience to the next generation of Engineers.

### Contributions to Professional Organizations

Er. VB Singh has made remarkable contributions to several academic and professional organizations. He served on the Senate of Roorkee University for 20 years and is a long-standing member of the Uttar Pradesh Board of Technical Education. He is also actively involved with the Bureau of Indian Standards (BIS) as a member of the General Engineering Division Council. His role extends to various educational and research institutions, such as the Babasaheb Bhimrao Ambedkar Central University, Birbal Sahni Institute of Palaeosciences (Under DST, Govt. of India).

Er. Singh's dedication to promoting Water Resource Management is evident from his service on the National Executive Committee of the Indian Water Resources Society (IWRS) since 2013. He has also served as the Secretary of the elite Club of Lucknow, which comprises top administrators and executives of the region.

His exemplary contributions to the engineering community earned him the prestigious 'Abhiyanta Ratna' award in 2014, conferred by the Uttar Pradesh State Electricity Board Engineers' Association in recognition of his long-standing services and leadership to engineering fraternity.

### Role in The Institution of Engineers (India)

At the national level, Er. VB Singh has played a pivotal role in the governance and management of IEI. He has served as a Council Member for around a decade and as Vice President of IEI for the Session 2021-22. He previously served as Chairman, Civil Engineering Division Board (CVDB), the Institution's largest Engineering Division, for three years and continues to

contribute as a key member of the CVDB. Additionally, Er. Singh is an active member of the Finance Committee and the Board of Governors of both the National Skill Development Forum and the Sustainable Development Forum. His leadership in restructuring the headquarters' cadre and revising Service Rules has enhanced the efficiency and productivity of IEI.

Er. Singh has made notable contributions to the promotion of Regional Languages in technical literature during his tenure as Chairman, National Languages Promotional Committee/Chief Editor of the 'Abhiyanta Bandhu' magazine.

He also served IEI as Chairman (2012-14) and Hony. Secretary (1996-2000) of the Uttar Pradesh State Centre. He has been involved in organizing numerous National and International Seminars, Workshops, and Conventions and successfully led large-scale renovations of the Uttar Pradesh Centre's infrastructure.

### Vision and Mission for IEI

As President of The Institution of Engineers (India), Er. VB Singh is focused on strengthening IEI's role as a prominent centre of technical knowledge, contributing meaningfully to the nation's development. His vision includes enhancing the Institution's visibility and reputation both nationally and internationally. He is dedicated to promoting collaboration between industry and academia, improving the quality of IEI publications and supporting the professional growth of members through technical sessions and short-term courses.

Er. Singh is also attentive to the needs of AMIE students, advocating for their recognition in government jobs, higher education, and competitive exams. Additionally, he emphasizes the importance of providing placement assistance to help AMIE holders secure employment, reflecting his commitment to the professional success of all IEI members.

### Financial Sustainability and Governance

Er. VB Singh aims to elevate and coordinate various vocational training initiatives in partnership with the National Skill Development Corporation (NSDC), positioning the Institution as a key player within the national skill ecosystem. His vision is to ensure IEI plays a meaningful role in advancing the Government of India's skill development objectives. Er. Singh is focused on improving the financial position of IEI by leveraging the grant of provisional recognition in Dual Category (Awarding & Assessing) to IEI by the National Council for Vocational Training (NCVT) in alignment with the National Skills Qualifications Framework (NSQF). He also plans to strengthen membership growth through strategic digital marketing and enhanced social media engagement.

With his extensive experience and proven leadership, Er. VB Singh brings a wealth of knowledge and dedication to his role as President (Elect) of The Institution of Engineers (India). His efforts to strengthen the organization's foundation, foster collaboration, and enhance IEI's visibility reflect his deep commitment to the engineering profession.

## 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 practising 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.



# Deep Ground Improvement over Soft Soil & Unstable Ground

On 27 August, 2024, the second webinar of the IEI Technical Webinar Series was held, bringing together leading experts on **Deep Ground Improvement over Soft Soil & Unstable Ground**. This webinar was a collaborative effort by The Institution of Engineers (India), with Maccaferri Environmental Solutions Private Limited (India), and was supported by the Fédération internationale du béton (fib), with which IEI is affiliated as a National Member Group.

The webinar attracted significant participation from professionals across the engineering community. The session was moderated by Mr Sumit Pathak, Assistant Manager-Technical Marketing, Maccaferri Environmental Solutions Private Limited.

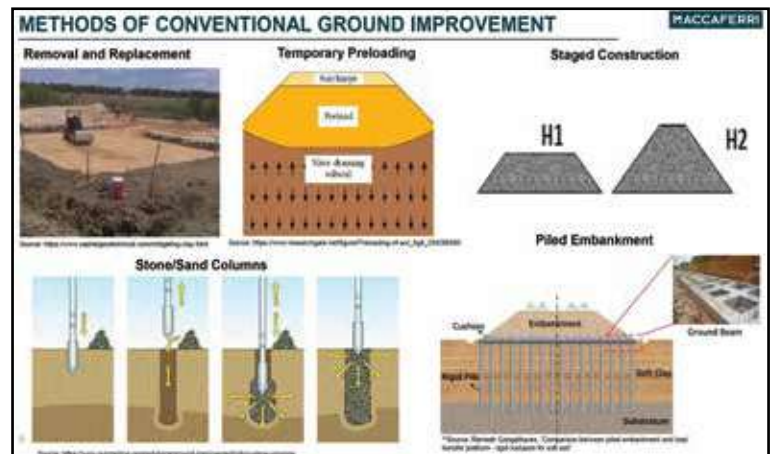


Prof. G. L. Sivakumar Babu

The first speaker, Prof G L Sivakumar Babu, from the Department of Civil Engineering at the Indian Institute of Science Bangalore, provided a comprehensive overview of the challenges posed by soft soils. He elaborated on the unique properties of these soils, such as their large void ratio, high water content, and low shear strength, which make them particularly problematic for construction projects like high-speed transportation systems, high-rise buildings, and underground works in urban areas. Prof. Babu explained various methods to address these issues, including preloading and the use of vertical drains, which can help minimize post-construction settlement. His presentation covered techniques such as sand drains, prefabricated vertical drains (PVDs), and vacuum consolidation, highlighting the advantages

foundation support is inadequate. Dr Juneja's presentation delved into the practical application of these techniques in various infrastructure projects, providing examples of how they have been successfully implemented to improve the bearing capacity and reduce the settlement of soft soils. He also discussed the impact of soil liquefaction and how specific ground improvement methods can mitigate this risk, especially in earthquake-prone areas. His session was rich with technical details, offering valuable guidance on the selection and execution of ground improvement strategies based on soil conditions.

The final speaker, Dr Ratnakar R Mahajan, Regional Technical Manager, India, South-East Asia, and the Pacific (ISEAP) at Maccaferri Environmental Solutions Private Limited, brought a practical industry perspective to the



Courtesy by: Dr. Ratnakar R. Mahajan

**High Energy Impact**

Deep compaction technique: heavy tamper is repeatedly raised and dropped onto the ground surface to compact the underlying soil deposits.



- Tamper raised and dropped using conventional heavy crawler, cable and free spool.
- Made of steel or steel shell filled with sand or concrete (area of tamper ~ contact pressure 40 to 75kPa). Square, circular or octagonal.
- Impact points spaced to prevent creation of dense zones.

Copyrights@ Soilmec (mass 25 t, drop height 25 m) Courtesy by: Dr. Ashish Juneja

and challenges of each method. He also discussed the critical aspects of embankment construction over clay foundations, emphasizing the importance of pre-compression and the settlement-time relationship under structural loads. His detailed analysis on the installation and spacing of vertical drains provided practical insights, especially through the discussion on trial embankments and the role of instrumentation in assessing the success of these methods.

Following Prof Babu, Dr Ashish Juneja, Professor, Indian Institute of Technology Bombay, spoke on advanced ground improvement techniques, including dynamic compaction and the use of granular columns. He explained how these methods can enhance soil stability, particularly in cases where the

discussion. Dr Mahajan provided an in-depth exploration of Maccaferri's approaches to ground improvement, focusing on both conventional and advanced methods. He highlighted the company's global reach and expertise in dealing with challenging soil conditions, particularly through the use of geosynthetics. His presentation outlined the advantages of using prefabricated vertical drains, geosynthetic encased stone columns, and basal reinforcement techniques. Dr. Mahajan also shared several case studies from projects in India, such as the ground improvement for the Barasat to Krishnagar section of NH-34 and the Kakinada Bypass Project, demonstrating the effectiveness of these methods in real-world scenarios. His insights into the design and implementation of these solutions provided a valuable bridge between academic research and practical application.

The webinar concluded with a lively Question & Answer session, where participants engaged with the panelists on various technical aspects of ground improvement. The interaction highlighted the relevance of the topics discussed and the participants' eagerness to apply these techniques in their own projects.

Overall, the second webinar of the IEI Technical Webinar Series was a resounding success, offering a rich blend of academic knowledge and practical insights.

## 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 in a discounted rate. The Samsung e-store can be accessed at [www.samsung.com/in/multistore/iei](http://www.samsung.com/in/multistore/iei) using your Membership No. and email id/Mobile.

## Change Yourself, not the Nature

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Further during the technical session, papers were presented related to a wide spectrum of fields like forest conservation rules, Air Quality Analysis, Rainwater Harvesting, Clean and green energy, exploring Solar energy and EV charging station, application of effective and cost-efficient bio-adsorbent etc. A study made on removal of Fluoride from Groundwater using Spent Coffee Waste, which is an efficient bio sorbent for the removal



of fluoride. Papers were presented on Natural Plant Extracts as Eco-Friendly Inhibitors Corrosion for Mild Steel Structures, Hydro chemical Scenario of Groundwater Quality in Coastal Urban Areas, Adopting a circular economy to mitigate waste's environmental and health impacts while generating economic benefits, Life Cycle Assessment based approach for Sustainable Solid Waste Management, Enhancing Agricultural Sustainability: Dairy Sludge Upcycling Into Slow Release Fertilizers, Spatio-Temporal Variations In Satellite-Based Aerosol Optical Depth Over South India; Role of Mobile Ad Hoc Networks (MANET) in disaster management; Studies on ceramic water filters, coconut shell charcoal as an cost - effective adsorbent for removing iron from the drinking water etc.

A panel discussion on the 'Future of Environmental Engineering' was held before the valedictory function. Panelists of the session were Dr M P Sukumaran Nair, Director, Centre for Green Technology & Management, Kochi and Former Council Member of IEI, Prof Mohammad Jawed, Prof. S. Shrihari, Dr Susan Jacob, Former MD, Kerala Water Authority, Dr P K Chandravathi Former Chief Engineer, Kerala Water Authority, and Mr Anand S Kulkarni. Prof G Madhu, Convener, Technical Committee and Council Member, IEI moderated the session. The discussion focused on the challenges faced by India in achieving net zero emissions, access to safe and affordable drinking water and sanitation, engineered solid waste management systems, zero liquid discharge from manufacturing industries, sustainable sewage management system and ESG implementation and the role of the future environmental engineer in addressing these challenges.

In the valedictory function, Mr G Velayudahan Nair, Chairman, Kochi Local

Centre, IEI welcomed the guests, delegates, participants and the President of the function. Prof (Dr) M M Prabhakaran, the Convener of the National Convention presented a brief summary report and recommendations. Mr Sanjay Sen, Member, ENDB and Council Member, IEI in his valedictory address, advocated the need for adopting load based standards for waste water discharge from industries in place of the currently used concentration based standards.

The Chief Guest of the session, Mr A Chandrakumaran Nair, Kerala State Electricity Ombudsman, in his address, emphasized the need for reducing the fossil fuel consumption in aircrafts in order to reduce the carbon emissions. He also mentioned that the airports in the country should make concerted efforts to generate green power like solar energy for meeting the ground requirements as proved by Cochin International Airport which is the first fully solar powered airport in the world.

Recommendations emanated from the two-days deliberations were placed on the table, some of which are as follows:

*It is essential to implement initiatives and policies to reduce carbon emissions, invest in renewable energy, and promote green technologies so that our country will be able to achieve the goal of Net Zero well ahead of the 2070 target; Immediate steps may be initiated to adopt the concept of circular economy to mitigate the adverse impacts of plastic waste on the environment; Environmental audit may be made mandatory for industry in order to achieve a wide range of objectives, including pollution prevention and control, resource conservation, minimisation of health and safety risk, and enhancement of productivity; Integrated Water Resources Management (IWRM) and the use of the tools of the Industry 4.0 ecosystem are recommended to tide over the existing problems in the water sector and move on to face the future challenges, especially climate change; Urgent measures may be initiated to enforce stricter regulations, promote sustainable practices, and raise public awareness to mitigate the adverse effects of air pollution on health and the environment; It is recommended that the development and use of low cost indigenous household filters for treating rain-fed pond water in rural areas. These techniques have been proved efficient in removing water contaminants like turbidity, iron, fluoride and arsenic; It is essential to carry out a thorough examination of the challenges confronting major engineering and heritage structures in the country resulting from climate change and soil erosion in order to evolve conservation strategies; It is recommended that the concept of 'Environmental Citizenship' be included in the curriculum of primary and upper primary school classes to enhance the skills, knowledge, attitudes, values, and beliefs needed among children to address the environmental problems.*

### One Day Seminar under the aegis of Production Engineering Division Board

## Advances in Industrial Metrology

Coimbatore Local Centre, IEI, in collaboration with the Department of Production Engineering, PSG College of Technology (PSGCT), organized a One Day Seminar on the theme **Advances in Industrial Metrology** on 13 December, 2023 under the aegis of Production Engineering Division Board [PRDB], IEI. The seminar aimed to explore the latest developments in industrial metrology.

The seminar commenced with a welcome address delivered by Dr J Krishnamoorthi, presently Chairman, Coimbatore Local Centre, who greeted the attendees and emphasized the importance of metrology in modern engineering and manufacturing processes. Dr M Senthilkumar, Past Honorary Secretary, Coimbatore Local Centre and Professor and Head, Department of Production Engineering, PSGCT, in his address provided



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## A Transition towards Clean Energy: It's Impact on Indian Economy

**Salem Local Centre**, IEI, in association with Mahendra Engineering College, Namakkal District, organized an All India Seminar on the theme **A Transition towards Clean Energy: Its Impact on Indian Economy** during 29-30 May 2024, under the aegis of Electrical Engineering Division Board [ELDB], IEI at Salem. The Seminar gathered esteemed experts, professionals, and researchers in the fields of electrical engineering, clean energy, and economic impacts. The primary objective was to explore the evolution of clean energy in India and its implications on the nation's economy. Discussions centered on key themes such as Demand Side Management (DSM) systems, the role of critical minerals in low-carbon technologies, and India's influence in the clean energy transition.



The Seminar commenced with the inaugural session on May 29, 2024. Dr K Thangaraj, Chairman, Salem Local Centre, IEI delivered the welcome address. Dr Thangaraj emphasized the critical role of advancing etching technology in driving the clean energy transition. He highlighted the urgent need for scaled-up global efforts to address the climate change, given the limited carbon budget. He praised India's proactive approach in setting ambitious targets and initiating comprehensive policies and schemes across various sectors, including electricity, transport, and agriculture. Dr R V Mahendra Gowda, Principal, Mahendra Engineering College, Namakkal, delivered the inaugural address. Dr Gowda discussed India's progress in renewable energy adoption, noting that renewable sources now account for about 33% of the country's primary energy consumption. He highlighted the nation's significant achievements and future potential in renewable energy technologies, and underscored the importance of policy interventions to overcome barriers and enhance deployment. Dr S Umamaheswari, Organizing Secretary of the event and Professor, Department of EEE, Mahendra Engineering College, Namakkal, introduced the Seminar's theme, focusing on the synergy between green energy and economic sustainability. She emphasized the role of solar and

wind power in reducing reliance on non-renewable sources and fostering a cleaner, greener future. Her address laid the foundation for the discussions on sustainable practices and the reduction of carbon footprints.

The Keynote address was presented by Dr V Saravanan, Professor, Department of Electrical and Electronics Engineering, Thiagarajar College of Engineering, Madurai. Dr Saravanan provided an overview of India's impressive strides in renewable energy, noting that the country ranks highly in global renewable energy capacity. He discussed on the installed capacity of the renewables, which include wind power, solar power, biomass/cogeneration, small hydro power, waste to energy and large hydro power. He discussed the course of actions in renewable energy for trading carbon credits under bilateral/cooperative approaches as assigned under the National Designated Authority for the Implementation of the Paris Agreement (NDAIPA). He also touched on policy support and future plans for green hydrogen and carbon credit trading.

Several invited papers were presented during the technical sessions, exploring various aspects of clean energy and its economic impacts on the topic namely 'Clean Energy, The Green Energy - Global Energy Outlook; Clean Energy Transition: India's Influence; Demand Side Management; Clean Energy and Economic Opportunity; Net Zero Scenario -2070; Role of Critical Minerals on Low-Carbon Technologies;

Dr R Uthirasamy, Professor and Head, Department of EEE, Mahendra Engineering College, Namakkal, delivered the valedictory address. Dr Uthirasamy highlighted India's ambitious targets for renewable energy and net-zero emissions by 2070. He reflected on the country's rapid growth and the critical role of renewable energy in sustaining this progress while addressing climate change. He mentioned India's innovative approach in integrating clean energy for economic development and its potential as a model for other developing countries. Dr S Umamaheswari summarized the key takeaways and highlighting the seminar's success in fostering knowledge exchange and collaboration. She expressed optimism about the future of clean energy and its positive impact on India's economy and global climate goals. Dr C Dhavamani, Honorary Secretary of Salem Local Centre, proposed the vote of thanks. He expressed gratitude to the dignitaries, participants, and speakers for their contributions and engagement throughout the seminar. He also acknowledged the efforts of the organizing committee and participants for their valuable feedback and insights.

The seminar concluded with a sense of accomplishment, having successfully addressed critical issues and opportunities in the clean energy transition and its economic impacts. Participants left with enhanced understanding and new perspectives on how to contribute to a sustainable energy future.

## Advances in Industrial Metrology

*Contd. from page 6*

insights into the objectives and significance of the seminar. Dr M R Pratheesh Kumar, Associate Professor, Department of Production Engineering PSGCT, presented an overview of the Seminar. Dr R Rajamani, Assistant Professor, Department of Production Engineering, PSGCT, introduced the Chief Guest of the event, Mr K Sreenivas Naidu, General Manager R&D-IW at ZF Wind Power Private Limited, Coimbatore. Mr Naidu delivered a speech highlighting the critical role of metrology in various industries, particularly in ensuring the quality and performance of products.

Chief Guest, Mr Sreenivas Naidu, also delivered a lecture on the topic 'Metrology and Wind Power - An Insight'. He presented a case study on the importance of metrology in the quality and performance of windmill gearbox. Mr Sridhar Narasimhan, Head of Sales and Technical Services (India, Srilanka and Middle East), TESA Technology, Chennai, presented a lecture on 'Role of Metrology in Industry 4.0'. In his lecture, he pointed out the need for IoT based instruments and their benefits in modern digital

manufacturing era. Dr Anuradha M Ashok, Professor & Head, Department of Physics, PSG Institute of Advanced Studies, Coimbatore presented a lecture on 'Nano Metrology for MEMS and NEMS Applications' and explained the constructional features and applications of various advanced instruments used in micro-electromechanical system (MEMS) and nano-electromechanical system (NEMS) metrology. Mr N Paramaguru and Mr B Gopalsamy, Assistant Engineers at AQUASUB Engineering, Coimbatore, conducted a hands-on training session on 'Evaluation of Repeatability and Reproducibility (R&R) for Measuring Instruments'. All the participants actively took part in the hands-on session and clarified their doubts on R&R evaluation of measuring instruments with the resource persons. The seminar successfully concluded with the valedictory session, when Dr G Madhan Mohan, Honorary Secretary, Coimbatore Local Centre, proposed the vote of thanks.

## Latest Trends in Artificial Intelligence and Communication Technologies

**Punjab and Chandigarh State Centre, IEI**, organized an All India Seminar on the theme **Latest Trends in Artificial Intelligence and Communication Technologies** during 19-20 April 2024, under the aegis of Electronics and Telecommunication Engineering Division Board [ETDB], IEI at Chandigarh. This seminar aimed to enhance awareness of current technological advancements in Artificial Intelligence (AI) and Communication Technologies, foster discussions among researchers, and explore future trends in these fields. The event provided a platform for academics and



professionals to share insights, learn from each other, and collaborate on emerging research. The seminar began with the inaugural session on 19 April 2024. Dr Labh Singh Bhari, Chairman, Punjab & Chandigarh State Centre, IEI extended a warm welcome to all the attendees. He emphasized the significance of the seminar in providing valuable insights into the latest trends in AI and communication technologies.

Dr Jagtar Singh, Professor, Yadavindra Department of Engineering (YDOE) Talwandi Sabo and Convener of the Seminar, provided a comprehensive introduction to the seminar. He discussed the seminar's objectives, highlighted the relevance of the topics covered, and detailed the applications of AI from daily life to the medical field. The Chief Guest of the session, Dr Hardeep Singh, Former Dean of Academics, Guru Nanak Dev University, Amritsar, highlighted the importance of AI and communication technologies. He further elaborated on Cloud Computing, Big Data, and IoT applications. Guest of Honour, Prof Sandeep Singh Gill, Professor, NITTR Chandigarh, spoke about the value of interactive learning and collaboration facilitated by such seminars and illustrated how AI applications like ChatGPT and Google Maps have simplified various aspects of life. Prof (Dr) T S Kamal, Former Vice President, IEI shared motivational insights on the impact of AI across industries over the past decades. Er Sukhvinder Singh Mundi, Vice President, IEI, discussed the profound benefits of AI and communication technologies in modern life and encouraged participants to contribute to the engineering profession by joining the institution.

During the first technical session, one Invited Lecture and eight research papers were presented. Dr Manpreet Kaur, Assistant Professor, Electronics and Communication Engineering, Yadavindra College of Engineering, Punjabi University GKC Talwandi Sabo delivered Invited Lecture on the Topic 'Role of Antenna in Communication Sector and Artificial Intelligence'. Papers were presented on the topics, namely 'Optimizing Energy Efficiency in Large-Scale Data Centers: A SLA-Aware Machine Learning Approach for VM Consolidation'; 'Evolution from Cloud to Fog: Security & Privacy Concerns with Future Research Directions'; 'Forecasting the Stock Market Using Association Rules Mining'; 'Deep Learning for Medical Image Analysis'; 'Artificial Intelligence in Robotics'; 'Comprehensive Approach for the

Cardiovascular Heart Disease Diagnosis'; 'A Brief Review of Advancements in Metaheuristic Optimization Algorithms: Theory, Applications, and Future Directions' and 'Transformative Power of AI in Business Intelligence: Enhancing Decision Making and Performance'. Dr Amandeep Kaur Saro, Assistant Professor, YDOE Talwandi Sabo chaired the session and the session coordinator was Dr Sukhwinder Singh, Assistant Professor, CSE, GKC Talwandi Sabo.

In the second technical session, an Invited Lecture was delivered by Dr Jatinder Singh Saini, Assistant Professor, Computer Science and Engineering, Baba Banda Singh Bahadur College of Engineering and Technology [BBSBCET], Fatehgarh Sahib on the Topic 'Usage of Artificial Intelligence in Daily Life'. Further eight research papers were presented on the topics namely, 'Artificial Intelligence and Its Diverse Applications: A Comprehensive Review'; 'Innovations in Digital Image Processing: The Impact of Artificial Intelligence'; 'Optimizing Crop Planning in Haryana Using TLBO Algorithm: A Case Study'; 'Enhancing CRISPR-Cas Technology through AI Advancements: A State-of-art Review'; 'Leveraging of Artificial Intelligence for Human Well-being'; 'Gemini: Google's New Generation Multimodal LLM'; 'Object Detection With Deep Learning' and 'AI Revolutionizing e-Commerce: Opportunities, Challenges, and Future Directions'. Dr Jatinder Singh Saini chaired the session and the session coordinator was Er Gurpreet Bharti, Assistant Professor, Electronics and Communication Engineering, YDOE, PUGKC, Damdama Sahib.

In the third technical session, five research papers were presented on the topics namely, 'A Review on Role of Artificial Intelligence in Student's Evaluation'; 'The Future Emerging trends of Artificial Intelligence and Cloud Computing Integration Technology'; 'Artificial Intelligence and Computer Vision in Image Processing, Disease Detection, Weed and Smart Water Management, Development of Predictive Models and Energy Input Optimization-A Review'; 'Performance Analysis of a Slotted Microstrip Antenna for Wireless Applications' and 'Artificial Intelligence (AI) as Key to Success for Small Businesses'. Dr Baljit Singh Khehra, Professor, Jagat Guru Nanak Dev Punjab State Open University, Patiala chaired the session and he session coordinator was Dr Arjan Singh, Professor, Punjab University, Patiala.

The Chief Guest during the valedictory function was Dr Gurdeep Singh Hura, Professor, Department of Mathematics and Computer Science, UMES, Princess Anne, Maryland. Guest of Honour was Dr Arvind Kalia, Professor, Department of Computer Science, HP University, Shimla. Dr Jagtar Singh summarized the seminar proceedings and recommendations for future research directions. Er Sukhvinder Singh Mundi highlighted AI's transformative potential and emphasized the responsibility to ensure its benefits are widespread and equitable. Prof (Dr) T S Kamal, thanked the organizing committee, technical committee, and participants for their efforts in making the seminar a success. Er Swinder Singh, Honorary Secretary of Punjab & Chandigarh State Centre, expressed gratitude to all guests, authors, and attendees. The seminar was attended by number of engineers, faculty members, students, research scholars, and guests, marking a successful conclusion to the event.

The All India Seminar provided a comprehensive platform for knowledge sharing and discussion. With engaging presentations, insightful lectures, and valuable interactions, the seminar successfully highlighted the current trends and future prospects in AI and communication technologies.

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The Members who have not availed the Chartered Engineer Certificate [CEng(I)], are requested to apply through online:  
<https://www.ieindia.org/WebUI/iei-Memb.aspx#chartered-engineering>



## Re-Engineering the Diverse Indian Textile Industry for its Sustainable Growth

**Telangana State Centre, IEI**, organized an All India Seminar on the theme **Re-Engineering the Diverse Indian Textile Industry for its Sustainable Growth** on 16 – 17 February, 2024, under the aegis of Textile Engineering Division Board [TXDB], IEI. This seminar aimed to address the current challenges and opportunities in the Indian textile industry, focusing on sustainable practices and innovative re-engineering techniques to ensure the sector's long-term growth.



The inaugural function held on February 16, 2024, marked the commencement of the seminar. Dr P L Panda, Former Director of National Institute of Fashion Technology (NIFT), Hyderabad, graced the occasion as the Chief Guest. Sr Prof Chintha Sailu, Principal & Dean, University College of Technology, Osmania University, Hyderabad, graced the function as the Guest-of-Honour. Dr G Venkata Subbaiah, Chairman of Telangana State Centre, welcomed the Guests, dignitaries and attendees and presided over the function. Dr Ayodya Kavitha, Convener of the Organizing & Technical Committee, introduced the Chief Guest and the Guest-of-Honour, highlighting their significant contributions to the field. Dr K Seetha Ram Babu, Honorary Secretary of Telangana State Centre concluded the session with a vote of thanks.

The Seminar featured a series of technical sessions spread over the two days. The first technical session was chaired by Dr I Satyanarayana Raju, Council Member, IEI. Er K Sreenu, Faculty, University College of Technology (UCT), Osmania University (OU), was the Co-Chair. This session included one invited talk and four technical papers, focusing on the latest research and advancements in textile engineering. Dr Sasmita Panda, Associate Professor, Textile Design Department, NIFT Hyderabad delivered invited lecture on the topic 'Sustainability of Tribal Sarees of the State of Odisha'. Further, four Papers were presented on the topics, 'Super Critical CO<sub>2</sub> Dyeing – A Sustainable Innovation and Water Less Dyeing of Textile Materials'; 'Sustainable Supply Chains: Harmonising Commerce and Conservation'; 'Textile Handloom Artisan Empowerment'; and 'Revisiting Toda Embroidery Strategies and Innovation'.

The second technical session was chaired by Dr Sasmita Panda, Associate Professor, Textile Design Department, NIFT, Hyderabad and Dr D Arjun, Assistant Professor, UCT, OU, was the Co-Chair. The session featured one invited talk and three technical papers, discussing innovative design and production techniques. The Invited Talk was delivered by Dr K Srinivasulu, Assistant Professor, UCT, OU on the topic 'Enhancing Marker Efficiency through Optimization of Fabric Parameters using CAD'. Three Technical

Papers were presented on the topic 'Digital Innovation in Textile Design- Exploring Technology Evolution and Future Trends'; 'Enzymatic Solutions: Reducing Chemical Footprints in Textile Manufacturing'; and 'Digital Innovations in Textile Dyeing'.

The third technical session was chaired by Dr K Srinivasulu, Professor, University College of Technology, OU and Er Manoj Kalyani, UCT, OU, was the Co-Chair. The session comprised one Invited Talk and three Technical Papers, addressing sustainable practices and technological advancements in the industry. Dr Md Vaseem Chouhan, Assistant Professor, NIFT Hyderabad delivered Invited Lecture on 'An Overview of Bio-based Finishes for Sustainable Textiles'. Further, three Papers were presented on the topics 'Fashion Digitization for Sustainability: An approach for Transforming the Industry through Technology'; 'Innovation in Green Fibers and Materials for Sustainable Future'; and 'Threaded Tales: The Artistry of Khatwa Applique'.

The fourth technical session held on 17 February, 2024, chaired by Er P Surya Prakash, Council Member, IEI with Dr Shakeel Iqbal, Department of Fashion Technology, NIFT, Hyderabad, as the Co-Chair. It included one Invited Talk and four Technical Papers, focusing on advanced textile machinery and sustainability.

Dr D Arjun, Assistant Professor, Department of Textile Technology, UCT, OU delivered Invited Talk on 'Role of Green Fibers for Technical Textiles'. Further, four Papers were presented on the topics, 'FTIR and Colour Analysis of Cotton Fabrics Printed with Natural Dyes'; 'Textile Handloom Artisan Empowerment'; 'The Circular Fashion Revolution'; and 'Climate Responsive Textiles'.

Er B Brahma Reddy, Immediate Past Chairman of Telangana State Centre chaired the fifth technical session and Dr N Dheeraj Kumar, Faculty, UCT, OU, was the Co-Chair. This final session concluded with a series of insightful papers on innovative practices in the textile industry.

Dr Shakeel Iqbal, Department of Fashion Technology, National Institute of Fashion Technology, Hyderabad delivered Invited Talk on the topic 'Artificial Intelligence for Apparels'. Three Papers were presented on 'Green Fibers and Materials'; 'A Holistic Approach to Revitalizing Indian Handloom Industries'; and 'Digitization for Sustainability'.

The Valedictory Session, held on February 17, 2024, concluded the seminar on a high note. Dr Malini Divakala, Director, NIFT, was the Chief Guest, and Er Sombuddha Nandi, Head of Regional Operations – Spinning, Textile Machinery Division, was the Guest-of-Honour. Dr G Venkata Subbaiah, welcomed the attendees and presided over the function. Dr Ayodya Kavitha, presented the seminar recommendations, summarizing the key takeaways and proposed future directions. Dr K Seetha Ram Babu, delivered the vote of thanks, acknowledging the contributions of all participants and speakers.

The All India Seminar successfully provided a platform for exchanging knowledge and discussing innovative solutions to drive the sector forward. The valuable insights shared by distinguished speakers and the robust discussions during technical sessions underscored the seminar's role in shaping the future of the Indian textile industry.

### Upgradation of Membership

- ❖ Existing Associate Members are requested to upgrade their Membership to the grade of MIE and FIE as per the eligibility criteria
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## Advanced Instrumentation for Assessment of Soil Health Indicators, Pollution and Greenhouse Gas Emission from Soil

**Coimbatore Local Centre**, IEI, in association with the Department of Electronics and Communication Engineering, Hindustan Institute of Technology (HITECH), Coimbatore, organized an All India Seminar on the theme **Advanced Instrumentation for Assessment of Soil Health Indicators, Pollution and Greenhouse Gas Emission from Soil** during 16-17 November 2023, under the aegis of Environmental Engineering Division Board [ENDB], IEI at Coimbatore. The seminar began with the inaugural session on November 16, 2023. Dr G Madhan Mohan Gopalasamy,



Honorary Secretary, Coimbatore Local Centre, IEI presented the welcome address, outlining the activities of the Institution and the significance of the seminar. Dr C Natarajan, Principal, HITECH in his address, emphasizing the importance of advanced instrumentation in soil health and environmental monitoring. Dr B Paulchamy, Professor and Head, Department of Electronics and Communication Engineering at HITECH, offered an overview of the Seminar, detailing the objectives and expected outcomes. Dr T Arumuganathan, Principal Scientist, Indian Council of Agricultural Research (ICAR) - Sugarcane Breeding Institute, Coimbatore, graced the inaugural function as the Chief Guest. In his address, he elaborated on the critical role of sensors in monitoring soil and crop health, highlighting their application in precision agriculture and the benefits of real-time data collection for sustainable farming practices.

In the first technical session, Dr T Arumuganathan delivered a lecture on the topic 'Soil and Crop Health Monitoring Using Sensors'. He discussed the functionality of sensors in agriculture, focusing on their role in monitoring essential nutrients and their impact on crop growth.

In the second technical session, Dr N Sridhar, Associate Professor and Head, Department of Agricultural Engineering, Hindustan College of Engineering & Technology, Coimbatore, spoke on 'Soil Health and Soil Health Card: Its Importance and Potential for Better Crop in India'. He provided an in-depth analysis of soil composition and the significance of soil health cards in improving soil fertility and agricultural productivity.

In the third technical session, Dr Dhayalan Vaithiyanathan, Assistant Professor, Department of Agricultural Engineering, Hindustan College of Engineering & Technology, Coimbatore, presented delivered lecture on the topic 'Advanced Agricultural Strategies for Enhancing Bioavailability and Biofortification of Micronutrients in Economic Yield'. His presentation covered various approaches to biofortification and their potential benefits for addressing micronutrient deficiencies. The speaker explained Biofortification as the process of breeding nutrients into food crops, which is a cost-effective, feasible means of delivering micronutrients to populations who may have limited access to diverse diets, supplements, or commercially fortified foods.

In the fourth technical session, five technical papers were presented on the topics namely, 'A Review Article on Awareness and Challenges Faced by Farmers in Adopting Soil Health Card Scheme'; 'Soil Pollution: Various Causes and Their Remedy'; 'Elevated Atmospheric CO<sub>2</sub> and Temperature: Indirect Effects on Soil Processes'; 'Development of Cutting Technique Equipment for Agriculture Products' and 'Pollution and Greenhouse Gas Emission From Soil'.

In the fifth technical session, Mr F Durai Raj, Founder, STELCIS Engineering, Coimbatore, delivered a lecture on the topic 'Climate Change & Greenhouse Gases – Overview' and discussed the impact of climate change on global weather patterns and the role of greenhouse gases in global warming.

In the sixth technical session, Dr C Partheepan, Assistant Professor, Department of Crop Physiology, Ramakrishna Mission Vivekananda Educational and Research Institute, Coimbatore, deliberated on the topic 'Soil Organic Pollutants: Sources and Remediation in Soils'. His talk focused on the sources of soil pollution and various remediation strategies to address organic pollutants.

In the last technical session, four technical papers were presented on the topics namely, 'Soil Pollution: Source and Remedial Measures'; 'Review on Carbon Footprint as an Environmental Indicator in Agricultural Ecosystem'; 'Advanced Agriculture' and 'Review on Soil Nutrient Management by Soil Health Card for Sustainable Crop Production'.

The All India Seminar provided a comprehensive platform for discussing advanced techniques and strategies for monitoring soil and environmental health. The diverse range of presentations and discussions highlighted the critical role of advanced instrumentation in addressing soil health challenges and promoting sustainable agricultural practices. The successful organization of the seminar reflects the commitment of IEI Coimbatore Local Centre and HITECH in advancing knowledge and innovation in this vital field.

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## Empowering Renewable Energy: India as an Ice-Breaking Global Leader

**West Bengal State Centre**, IEI, in association with the India Society of Engineers, organized a One Day Seminar on the theme **Empowering Renewable Energy: India as an Ice-Breaking Global Leader** on 11 May, 2024 under the aegis of Mechanical Engineering Division Board [MCDB], IEI. The Seminar focused on India's growing role in the global transition to renewable energy, exploring pathways to achieving net-zero emissions by 2070 and meeting significant energy requirements through renewable sources by 2030.

The seminar commenced with a welcome address delivered by Er Sandip Kumar Deb, Council Member, IEI. Er Deb in his address gave a warm welcome to all and emphasized the importance of the discussions on renewable energy. Er Dipankar Adhya, President, India Society of Engineers elaborated on the theme of the Seminar. The Seminar witnessed the august presence of two distinguished Guests of Honour, Prof (Dr) Amitabha Datta, Pro Vice Chancellor of Jadavpur University and Er Dhiraj Mohan Chanda, an eminent Engineering Consultant in USA. In his Keynote address, Er Chanda focused on the role of nuclear energy in conjunction with renewable sources as a vital part of India's future energy transition. His address provided insights into the potential for nuclear energy to complement renewable energy efforts in achieving the country's energy goals. Prof Datta, in his Keynote address provided a comprehensive overview of the challenges and opportunities in the renewable energy sector, particularly in the context of India's ambitious targets and focused on the need of integration of renewable energy with conventional energy. He underscored the gradual phasing out of fossil fuels to achieve sustainable energy generation.

The first technical session was chaired by Er Anirban Datta, Honorary Secretary of West Bengal State Centre. Er Joy Chakraborty, Divisional Engineer at West Bengal Renewable Energy Development Agency (WBREDA),

delivered a speech emphasizing the importance of skill development for professionals in the renewable energy sector and the need for a regulatory framework for installing rooftop solar photovoltaic systems. Prof Asoke Kumar Paul, Associate Professor at Techno India University and Former General Manager of SAIL, presented innovative ideas on renewable energy generation and storage and highlighted opportunities for entrepreneurship in this field.

The second technical session was chaired by Dr Manas Pratim Das, Executive Officer of the Science Cell at All India Radio. Prof (Dr) Binoy Krishna Choudhury, Professor of Energy Management at Indian Institute of Social Welfare and Business Management (IISWBM), discussed India's achievements and future roles as a global leader in renewable energy transition. Swami Kamalasthananda, Principal of Vivekananda Centenary College, stressed the need for an integrated approach to achieving climate action goals and transitioning to renewable energy. Dr Sudipto Bhattacharya, Management and L&D Consultant, emphasized the necessity of training the next generation of engineers and technologists to prepare them for future challenges in the energy sector.

During the valedictory function, Er D K Banerjee, Vice President, India Society of Engineers addressed the august audience. Er Chandan Roy, Honorary General Secretary, India Society of Engineers and Er Chandan Sobhan Sasmal, Executive Secretary India Society of Engineers summed up the proceedings of deliberation, during the technical sessions. The seminar ended with a vote of thanks by Er Anirban Datta.

This seminar served as a significant platform for discussing India's role in the global renewable energy landscape, highlighting the country's potential to lead the way in sustainable energy transitions.



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For any query and assistance, please send email to: [pe@ieindia.org](mailto:pe@ieindia.org)

## Environment Protection by Recycling

**Ghaziabad Local Centre**, IEI, in collaboration with HR Institute of Technology Ghaziabad, organized a One Day Seminar on the theme **Environment Protection by Recycling** on 01 June, 2024 under the aegis of Environmental Engineering Division Board [ENDB], IEI. The Seminar aimed to address crucial issues related to recycling and its role in environmental protection and featured prominent speakers and experts who shared insights on various aspects of recycling and waste management.

The Seminar began with the welcome address delivered by Prof (Dr) S C Gupta, Chairman, Ghaziabad Local Centre, IEI. He presumed that the seminar would generate enthusiasm among participants about environmental conservation and inspire the initiation of start-ups focused on recycling.

Prof (Dr) V K Jain, Director General, HRIT Group of Institutes, graced the function as the Chief Guest. In his speech, Dr Jain highlighted the pressing issue of waste accumulation in urban areas and stressed the importance of effective waste disposal methods. He emphasized the need for innovative recycling solutions to manage the increasing waste volumes in cities.

The Guest of Honour, Prof (Dr) N K Sharma, Group Director, HR Institute of Technology, spoke about the critical role of recycling in waste management and its impact on reducing environmental pollution. He underlined the necessity of adopting sustainable practices to address waste disposal challenges.

The convener, Prof V N Grover, introduced the theme and objectives of the seminar. He outlined the focus areas, including the benefits of recycling, innovative recycling technologies, and the role of recycling in environmental protection. Er R R Tanwar, Council Member, IEI, provided an overview of The Institution of Engineers (India) and its initiatives in promoting environmental sustainability.

The technical session was chaired by Er S K Shukla, Former Director [Technical], THDC. The seminar featured various lectures from various speakers, each contributing their expertise on the subjects. Their lectures



covered a wide range of topics, namely 'Vast Recycle Opportunities', 'Uniting Next Gen for Waste to Wealth Mission', 'E-Waste Management', 'Recycling Cigarette Butts', 'Reusing Clean Kitchen Waste', 'Lean Manufacturing', 'Elements for Sustainable Environment' etc. The technical session focused on the importance of recycling, inquisitiveness and investment, Zero Dump Environment including recycling plastic waste, developing unused plots for farming instead of dumping rubbish, avoid burning plastic waste, articulation to convert waste into wealth and initiatives to create awareness about the safe and economic disposal of wastes. The Seminar highlighted on implementing social project of collecting kitchen waste and using it to feed the cattle and processing it for agricultural purposes etc.

During the valedictory session, Prof (Dr) S C Gupta summed up the proceedings of deliberation. The session concluded with a vote of thanks by Er Punit Goel, Honorary Secretary, Ghaziabad Local Centre, IEI. He expressed gratitude to the speakers, organizers, and participants for their contributions and engagement.

The seminar effectively highlighted the importance of recycling in environmental protection and provided valuable insights into innovative recycling practices. Participants left with a deeper understanding of how recycling can contribute to a sustainable future and were motivated to engage in environmental conservation efforts.

## Scientific and Social Outlook on YUMSHAROL

**Manipur State Centre**, IEI, organized a One Day Workshop on the theme **Scientific and Social Outlook on YUMSHAROL** on 25 May, 2024 under the aegis of Civil Engineering Division Board [CVDB], IEI. The event emphasized the significance of preserving traditional designs and construction methods while adapting to contemporary construction demands. Experts, scholars, architects, engineers, and participants engaged in discussions about sustainable housing systems and the importance of maintaining a balance between modern technology and traditional wisdom.

Er L Swamikanta Singh, Chairman, Manipur State Centre, IEI presided over the function and spoke at a length about the traditional building methods in the face of changing social dynamics and modern construction

concepts. He emphasized to promote this age-old practice alongside modern constructional practices. He mentioned that with the progress of contemporary technology and vertical expansion of buildings, the rigorous adherence to specific standards outlined in the ancient texts offered a challenge to Engineers, Architects, Masons, constructional practitioners and all segments of the society.

Prof Dr Paonam Gunindro, Vice-Chancellor, Manipur University of Culture graced the function as the Chief Guest. In his address, he mentioned that the workshop aimed to preserve and promote traditional housing styles, which have been passed down for generations. Dr Gunindro emphasized that modern architecture should focus on environmental conservation and sustainability, echoing the practices of traditional Manipuri Yumjaos, which are eco-friendly and adaptable to various climate conditions.

Ar Aribam Joychandra Sharma, President, Manipur Architects Forum, was the Guest of Honour. He addressed the importance of blending traditional designs with modern construction practices. According to him, while modern architectural designs come with their benefits, traditional practices offer long-lasting, sustainable solutions. He emphasized that understanding and applying age-old construction methods can enhance modern construction in terms of stability and ecological friendliness.

Mr Maisnam Shivdutta Luwang, Member Secretary, Lainingthou Sanamahi Temple Board [LSTB], Imphal in his address, stated the importance of sharing knowledge about traditional architecture while fostering modern



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## Digital Transformation in Mining - Revolutionizing Efficiency, Safety and Sustainability

Manual and time-consuming processes define traditional surface mine planning and design workflows, leading to considerable inefficiencies that detrimentally affect mining projects and economic and operational outcomes. Changes in economic or technical parameters often force project teams to revisit and redesign their pit, phases and plans, thus initiating a repetitive cycle of reevaluation. This cycle often creates significant bottlenecks that delay project timelines and inflate costs, complicating project management and execution. Faced with resource scarcity and increasing volatility in commodity prices, the rising cost of initiating new mining projects makes business incredibly difficult for mining companies. At the same time, there are numerous occupational hazards associated with mining and the need to plan meticulously for greater worker safety is of paramount importance. The growing need for industries to adopt environmentally sustainable practices also places a lot of regulatory pressure on the mining industry in particular. It has become clear to many in the mining business that legacy systems and manual processes are no longer enough to help mining companies overcome all of these industry challenges. Many mining companies are beginning to see the importance in virtual solutions that leverage real-world data to help them plan and execute efficient, safe and sustainable mining operations that are resilient to disruption.

To overcome the inefficiencies of traditional mine planning, an integrated workflow methodology has been developed, that leverages advanced technology to parametrize design generation and economic evaluation. Central to this approach is the use of cloud-based data management, which guarantees that all stakeholders have access to the most current data, thereby eliminating the delays and inconsistencies associated with traditional methods like disk drives and emails. The workflow includes semi-automated design tools and generative and parametric capabilities that enable rapid design updates and adjustments. These tools significantly decrease the need for manual intervention, drastically shorten the design cycle, and ensure real-time economic evaluations for continuous optimization of NPV, thus enhancing the flexibility and responsiveness of mine planning.

**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 seminar attracted engineers and experts from across the mining sector, aimed to address emerging technological advancements in Mine Operations management, focusing on digital transformation to improve safety, operational efficiency, and sustainability in mining operations.

Dr Suresh Chandra Suman, Director (Mines), NLC India Limited graced the inaugural function as the Chief Guest. In his speech, Dr Suman highlighted the growing importance of digitalization in mining operations, particularly in Neyveli. He emphasized how digital transformation could mitigate risks and increase operational efficiency, thereby addressing the challenges of the mining industry in today's dynamic environment. Dr Suman appreciated the sincere efforts of Neyveli Local Centre for organizing this significant event and stressed the need for further advancements in digital mining practices. Mr Samir Swarup, Director (Human Resource), NLC India Limited, graced the event as the Guest of Honour and appreciated the initiative to organize such an important seminar focusing on the future of mining. He acknowledged the importance of nurturing young talent and enhancing skill sets in line with technological advancements in the mining sector. Er M Venkatachalam, Chairman, Neyveli Local Centre, IEI presided over the inaugural session. Earlier, Er Appavu Eraniyan, Honorary Secretary, Neyveli Local Centre, IEI delivered the welcome address. He expressed his gratitude to NLC India Limited for sponsoring the event and providing valuable support by deputing

engineers and industry experts to participate in the seminar. Er Eraniyan also recognized the participation of prominent figures in the mining sector, adding to the significance of the event.

During the technical session, Er S Kumaraswamy, Former Executive Director [Mines], NLC India Limited delivered Keynote Address on the topic 'Recent Technological Innovation in the Mining Industry' and elaborated on Mine Safety, Coal Mines Regulations, Coal India Vision 2030 including the roadmap for skill upgradation and technology development of UG mines, more R&D regarding automation and use of Digital Mining, use of digital technologies for Fleet management, inventory, maintenance and safety. Er T Malleswara Rao, Head of Mine Planning, GMMCO Technology Services Limited delivered Keynote Address on the topic 'Digital Transformation in Mining Industry'. He emphasized the crucial importance of understanding rock-geotechnical conditions, which play a key role in all operational stages and downstream processes up to the crushing / mineral processing plant. He highlighted the necessity of re-engineering processes, advocating for a shift from post-accident scientific investigations to pre-operational scientific analyses to help prevent accidents. He further briefed the role of numerical modelling in predicting slope stability, managing hydrological conditions and water, and improving blast predictions using advanced mine planning software. He also showcased how GTS Ltd excels in solving industry challenges through digital technologies such as Land Record Management System (LRMS), AI- ML algorithms, IoT sensors, and Augmented Reality-



Virtual Reality. Further, papers were presented on the topics 'Integrated Mine Planning, Short-term Scheduling and Operations Management', 'Mobility Platform and Solutions India: Digitizing the Mining Industry', 'Digital Mining - Prospects and Challenges' and 'Secured Connectivity and IT – OT Convergence'.

The one-day seminar was a remarkable event, bringing together experts, industry leaders, and engineers to discuss the impact of digital transformation in mining. The event provided valuable insights into how the mining industry can harness advanced technologies to improve safety, efficiency, and sustainability, making it a significant contribution to the ongoing transformation of the mining sector.

### Release of Compendium on R&D Projects



Compendium on R&D Projects released at the 726<sup>th</sup> Meeting of the Council held in Hyderabad on 21 September 2024.

Detail available in the following link

<https://tinyurl.com/3vb3zwjd>

## Latest trends in Transportation Engineering and Town Planning

Coimbatore Local Centre, IEI, in collaboration with Department of Civil Engineering, Coimbatore Institute of Technology (CIT), Coimbatore, organized a One Day Seminar on the theme **Latest trends in Transportation**



planning, underscoring the importance of staying abreast of the latest trends and technologies. Dr P Vinayagam, Professor, Department of Civil Engineering, CIT, in his address set a positive tone for the discussions to follow and acknowledged the contributions of all participants.

Er J Cyril Santhosh, Assistant Professor, Department of Civil Engineering, CIT, introduced the Chief Guest of the function, Er G Manuneethi, Divisional Engineer - Road Safety, Tamil Nadu Highways Department, Coimbatore. In his address, Er Manuneethi discussed the practical approaches to traffic management and safety implemented in Coimbatore city. He encouraged students to think innovatively, acquire relevant skills during their academic journey, and apply pragmatic approaches to their future careers. He further delivered presentation on the topic 'Importance of Road Safety in Current Scenario' and discussed the practical approaches towards road safety.

The Seminar witnessed thoughtful deliberations by the speakers on diversified topics, namely 'Importance of Road Safety in Current Scenario', 'Automation in Road Safety Engineering', 'Pavement Management System', and 'Test on Aggregates and Bitumen'.

The seminar concluded with a valedictory session where the proceedings of the day were summarized, and acknowledgments were made. Dr J Krishnamoorthi, Honorary Secretary, Coimbatore Local Centre, IEI [Session 2021-23] and presently Chairman of the host Centre delivered the vote of thanks, expressing gratitude to the speakers, organizers, and participants for their contributions to the seminar's success. The session highlighted the key takeaways from the seminar and the contributions of all speakers and participants.

The seminar effectively addressed the latest trends in transportation engineering and town planning, providing attendees with practical insights and knowledge to advance their understanding and careers in these fields.

**Engineering and Town Planning** on 13 October, 2023 under the aegis of Civil Engineering Division Board [CVDB] at Coimbatore. The seminar aimed to explore contemporary issues and advancements in transportation engineering and town planning, offering valuable insights into road safety, automation, and infrastructure management.

The inaugural session commenced with the welcome address, delivered by Dr Shanmugam S, Chairman, Coimbatore Local Centre, IEI [Session 2021-23]. Dr Shanmugam emphasized the significance of the seminar, outlining its objectives and the relevance of the topics to the current and future developments in transportation engineering and town planning.

Dr V G Srisanthi, Professor and Head, Department of Civil Engineering, CIT, presented an overview of the Seminar and highlighted the career opportunities within the field of transportation engineering and town

### Empanelment as Advocate/ Attorneys & Chartered Accountant for 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 made 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>.

## Scientific and Social Outlook on YUMSHAROL

*Contd. from page 12*

advancements in the construction industry. Mr Vidyapati Senjam, Vice President, Lainingthou Sanamahi Temple Board (LSTB) briefed about the ancient Manipuri Yamjos, those Manipuri houses believed to be sustainable, eco-friendly and affordable, that provides cooling effect during summer and warming effect during winter. He mentioned that the materials used in Yumjaos are good insulators for different temperature, humidity, capable to withstand storm and rainfall.

During the technical session, Dr Waikhom Romesh, HoD (Manipuri), G P Women's College, Dhanamanjuri University, Imphal delivered lecture on the topic 'YUM SHADRINGEIDA TOUGADABA THOURAM SING' and spoke on selection of land for house construction and other relevant aspects. Mr Mangangcha Keisham Ibomcha, Former Executive Engineer, PHED, Government of Manipur & Senior Executive Board Member, LSTB, Imphal delivered lecture on the topic 'MEETEI YUMSHA KANGLON'. He explained about 'LAIRAM', 'INGKHOL KARAN LAKPA' and construction of 'MAMANG SANGGOI'. Er Thingom Subhokumar Meitei, Committee Member of Manipur State Centre delivered lecture on the title 'MEITEI/MEETEI YUMSHAROL: MITYENG AMA'. He presented various case studies on floor plans and

layouts of constructed houses. He also gave examples of various floor plans with adequate spaces for fitting the traditional customs and practices. He concluded by appealing all the Engineers, Architects and all those engaged in constructional practices to discuss and construct high quality homes based on modern architecture, while maintaining traditional constructional practices and customs.

The valedictory session included an open discussion between the speakers and participants, facilitating an exchange of ideas and practical solutions for integrating traditional and modern construction methods. The workshop concluded with a vote of thanks by Er Huiem Bharat Meitei, Joint Honorary Secretary, Manipur State Centre, IEI, expressing gratitude to all participants, speakers, and organizers. The session ended with a traditional lunch, reinforcing the cultural ethos of the event.

The workshop attracted number of attendees, including corporate members of the Institution and participants. The workshop successfully fostered an understanding of the importance of preserving ancient architectural techniques while adapting them to modern-day construction practices.



IEI Celebrates

# World Environment Day 2024

Theme : Land Restoration, Desertification and Drought Resilience

World Environment Day was celebrated by the Centres/Forum of the Institution all over the country on 5 June, 2024. Brief accounts of the celebration as received from various Centres are reported hereunder.

## STATE CENTRES

### Andhra Pradesh



On 05 June 2024, Andhra Pradesh State Centre, IEI observed World Environment Day 2024 at Vijayawada. Speaker of the event, Mr Siva Prasad Mallela, Joint Commissioner, MGNREGS, Panchayat Raj & Rural Development, Government

of Andhra Pradesh deliberated on land restoration, desertification and drought resilience. He emphasized that restoring the earth's vital landscapes and confronting desertification world are not only environmental imperatives but also global necessities for sustaining life on our planet. He highlighted that degradation of fertile land and encroaching desertification threaten foundation of food security, biodiversity and community resilience. He urged that Government, organization and communities to be united in investing land restoration projects, reforestation efforts and sustainable land management practices to reverse the degradation and restoring the productivity of our ecosystems. He opined that droughts not only jeopardize agriculture and water resources but also increase the existing inequalities and poverty but through integrated water resource management, improved agricultural practices and community empowerment, we can strengthening our resilience against drought and ensure the sustainable development of societies. Earlier, Prof (Dr) Venkata Sriram Chinthamaneni, Chairman, Andhra Pradesh State Centre IEI welcomed all. Prof (Dr) M L S Deva Kumar, Honorary Secretary of Andhra Pradesh State Centre proposed the vote of thanks.

### Goa

Goa State Centre, IEI observed World Environment Day 2024 at Goa on



08 June 2024. A Field Visit at Salaulim Dam, a water treatment plant and a waste management plant at Kakoda was organised to familiarize about the dam's operations and its role in

water supply management, maintaining the dam and monitoring its impact on the surrounding environment and provides support to the local biodiversity, provided an overview of waste management plant including process of collecting waste from various sources and sorting it into recyclable and non-recyclable materials. The knowledge shared by the engineers at each site enhanced the understanding of water resources management, water treatment processes and waste management practices. These experiences underscored the importance of continued efforts in environmental education and conservation. Er Anwar Isaac Khan, Chairman of goa state Centre felicitated the resource persons on the occasion. At the end, Er Dubhashi

Siddhant Shravan, Honorary Secretary, Goa State Centre, IEI proposed the vote of thanks.

### Gujarat

On 05 June 2024, Gujarat State Centre, IEI, in association with I Hub observed World Environment Day 2024 at Ahmedabad. Er Subhash Jayantilal



Ghelani, Chairman, Gujarat State Centre, IEI welcomed the speakers and delegates and explained the theme of the event. Shri MahantaJi, Director of I Hub in his keynote address provided

an overview of the theme, stressed the urgent need for effective land restoration strategies and resilience against desertification and drought. He underscored the role of engineering and technological innovation in addressing these environmental challenges. The Panellists shared their valuable insights related to land restoration and drought resilience, productive dialogue on sustainable practices and innovative approaches. At the end, Er Niraj Anilbhai Shah, Honorary Secretary, Gujarat State Centre, IEI proposed the vote of thanks.

### Jharkhand

On 05 June 2024, Jharkhand State Centre, IEI observed World Environment Day 2024 at Ranchi. Chief Guest of the event, Er Arun Kumar Shukla, Advisor NMD, Ex. CMD, Hindustan Copper Limited presented the importance



of local community in preserving the environment. Guest of Honour of the event Er P K Behera, Chief General Manager (Metals), MECON India Ltd, Ranchi stressed

on the use of latest technologies on the importance of the topic. Keynote Speaker of the event, Dr Kaushik Kumar, Associate Professor, Department of Mechanical Engineering, BIT, Mesra explained the history of World Desertification endeavours. He stressed the need to save the environment for our future generations. Special Guest of the event, Er Sanjay Sen, Council Member and Member, Environmental Division Board, IEI in his address presented the various steps being implemented at various levels of society to curb desertification and reclamation of land. Earlier, Dr Mahesh Kumar Gupta, Chairman, Jharkhand State Centre, IEI delivered the welcome address and explained the history of World Environment Day. At the end, Er Harun Ansari, Honorary Secretary, Jharkhand State Centre, IEI proposed the vote of thanks.

### Karnataka

On 05 June 2024, Karnataka State Centre, IEI and Indian Water Works Association (IWWA), Bangalore in association with Department of Civil Engineering, Dayananda Sagar College of Engineering (DSCE), Bangalore observed World Environment Day 2024 through online mode. Er M Nagaraj, Chairman, Karnataka State Centre, IEI presided over the meeting



and welcomed all the participants. Er B Srinivasa Reddy, Chairman, IWWA, Bangalore explained the significance of World Environment Day. Dr B G Prasad, Principal, DSCE, Bangalore emphasized the imperative of environmental conservation and sustainable practice. Dr Mallikarjuna L, distinguished Scientist, Specializing in soil science from KVK, Mangalore shared his valuable insights into soil science and its crucial role in environmental sustainability. He urged for safeguarding the planet through collaborative efforts and decisive action in addressing the environmental challenges and pave the way for a more resilient and sustainable world for current and future generations. He emphasized that land restoration combating desertification and enhancing drought resilience emerged as pivotal strategies in combating environmental degradation and fostering sustainable degradation.

## Kerala

On 05 June 2024, Kerala State Centre, IEI observed World Environment Day 2024 at Thiruvananthapuram. Prof (Dr) M Jayaraju, Immediate Past Chairman, Kerala State Centre, IEI welcomed the participants and introduced the Theme Speaker of the event, Er Venugopal S, General Manager, HLL Lifecare Limited, Thiruvananthapuram. At the end, Er K R Suresh Kumar, Honorary Secretary, Kerala State Centre, IEI proposed the vote of thanks.



## Mizoram

On 05 June 2024, Mizoram State Centre, IEI observed World Environment Day 2024 at Mizoram. Prof (Dr) Saibal Chatterjee, Chairman, Mizoram State Centre, IEI welcomed the participants. Er Lalrinkima Hnamte, E-in C, PWD, Government of Mizoram explained the importance of World Environment Day. Panellist of the event, Dr Lalsangzela Sailo, Assistant Professor, Department of Civil Engineering, Mizoram University explained about land restoration life on earth, steps in land restoration for making agriculture sustainable, how to save the soils, land use and land cover, land restoration mechanisms, etc.



## Odisha

On 05 June 2024, Odisha State Centre, IEI observed World Environment Day 2024 at Bhubaneswar. Prof (Dr) Sudhansu Sekhar Dash, Chairman, Odisha State Centre, IEI presided over the function. Chief Guest of the event was Mr Rabi Narayan Prusty, Chief Environmental Engineer, State Pollution Control Board, Odisha and Chief Speaker of the event was Dr Jaya Krushna Panigrahi, Secretary, Odisha Environmental Society. Mr Prusty explained the importance of land restoration in environmental conservation efforts. He stressed the need on reversing the adverse impacts of human activities through reforestation, sustainable land management practices and rehabilitation of degraded lands and these efforts can mitigate soil erosion, enhance biodiversity, food security. Dr Panigrahi emphasized about the significance of promoting drought resistant agricultural practices and investing water conservation. He stressed the need of fostering international cooperation to tackle the challenges of desertification and drought for paving the way for a more resilient and sustainable future. At the end, Er Sangram Keshari Pattnayak, Honorary Secretary, Odisha State Centre, IEI proposed the vote of thanks.



## Punjab & Chandigarh

Punjab & Chandigarh State Centre, IEI observed World Environment Day 2024 at Chandigarh on 08 June 2024. Dr Labh Singh Bhari, Chairman, Punjab & Chandigarh State Centre, IEI welcomed the participants. Chief



Guest, Prof (Dr) Priyavrat Thareja, Former Principal, Program Coordinator (TQEM) & Head Metallurgical & Materials Engineering, Punjab Engineering College,

Chandigarh stressed the urgent need to accelerate land restoration, improve drought resilience and combat desertification by the private sectors, various stakeholders including Governments, other communities etc. Guest of Honour of the event, Mr Girish Jain, General Manager (Lubes), Indian Oil Corporation Limited discussed about environmental factors which play a major role in human health with direct and indirect impacts on the economy and society. He emphasized that degraded lands are more prone to dust storms, which can cause respiratory problems. Keynote Speaker of the event, Dr Harjinder Singh Cheema, Chairman, Cheema Broilers Limited, Punjab delivered lecture on the theme of the Day. Dr Cheema deliberated on land restoration techniques and said that land restoration involves rehabilitating degraded lands to improve biodiversity, soil fertility and water retention through appropriate methods, which can contribute to mitigating the impacts of drought and desertification. He highlighted that land restoration projects incorporate community involvement, ensuring the local populations benefit from agricultural productivity and enhanced resilience to climate changed. At the end, Er Swinder Singh, Honorary Secretary, Punjab & Chandigarh State Centre, IEI proposed the vote of thanks.

## Telangana

On 05 June 2024, Telangana State Centre, IEI observed World Environment Day 2024 through online mode. Dr G Venkata Subbaiah, Chairman, Telangana State Centre, IEI welcomed the gathering and presided over the function. Keynote Speaker of the event was Ms Sanchita Jindal, Former Adviser (Scientist G), GOI, Ministry of Environment, Forest & Climate Change, New Delhi. At the end, Dr K Seetha Ram Babu, Honorary Secretary, Telangana State Centre, IEI proposed the vote of thanks.

## Uttarakhand

On 05 June 2024, Uttarakhand State Centre, IEI observed World Environment Day 2024 at Dehradun. Er Narendra Kumar Yadav, Chairman, Uttarakhand State Centre, IEI delivered the welcome address and explained about



World Environmental Day. Chief Guest and Speaker of the event was Er D K Sharma, Chief Engineer, Regional Office, Ministry of Road Transport and Highways of India, Dehradun. Prof (Dr) Amit Srivastava, Civil Engineering Department, Graphic Era University (Deemed to be University), Dehradun discussed about sick building syndrome and emphasized on preventive maintenance. He further explained, how plumbing in buildings and windows polluted the indoor air quality. He presented a list of indoor plants and suggested to keep them in our houses to improve air quality. At the end, Er Satish Kumar, Honorary Secretary, Uttarakhand State Centre, IEI proposed the vote of thanks.

## West Bengal

On 05 June 2024, West Bengal State Centre, IEI observed World Environment Day 2024 at Kolkata on the topic 'Land Restoration, Desertification and Drought Resilience, Our Land, Our Future'. Dr Nirmal Das, Immediate Past Chairman, West Bengal State Centre, IEI delivered the welcome address.



Er Debasish Sengupta, Chief Engineer and Project Director (SPMU & WBMIFMP), Irrigation and Waterways Department, Government of West



Bengal in his lecture focused on seven ways to restore land, halt desertification and combat drought by making sustainable agriculture, saving the soil, protecting the pollinators, restoring freshwater ecosystems, renewing coastal and marine areas and to generate financing for restoration. He stressed the need for strengthening of regulatory framework and to highlight the Government initiatives. Mr Jayanta Chakraborty, Consultant, Indofil Industries Limited and Chairperson, Agriculture & Rural Development Committee, Bengal Chamber of Commerce & Industry discussed on socioeconomic implications of drought and its impact on agriculture and livelihoods in the way of vulnerability of small farmers, food insecurity, etc and stressed the need for adapting sustainable agricultural practices with involvement of global leadership and collaboration. Dr Manas Pratim Das, Programme Executive, Science Cell, All India Radio called for policy makers, corporate and consumers to develop a holistic approach and eco-system for land restoration and drought and the role of media to spread the message and awareness. Er Anirban Datta, Honorary Secretary, West Bengal State Centre, IEI proposed the vote of thanks.

## LOCAL CENTRES

### Amravati

On 05 June 2024, Amravati Local Centre, IEI observed World Environment



Day 2024 at Amravati. Er S S Gawhankar, Chief Engineer, MJP Amravati Division graced the function as the Chief Guest. Prof Rushikesh V Langhote, Department of Civil Engineering, PRMIT &

R,Badnera, Amravati graced the occasion as the Keynote Speaker. Er Anand Wamanrao Jawanjale, Chairman, Maharashtra State Centre also graced the occasion.

### Brahmapur

On 05 June 2024, Brahmapur Local Centre, IEI observed World Environment Day 2024 at Brahmapur. Er Bibhudatta Panda, Chairman, Brahmapur Local Centre, IEI presided over the function. Chief Guest of the event, Mr Sunny



Khokar, IFS explained the practical way of raising the underground water table and also how to check evaporation and absorption. Guest of Honour of the event Er Ratikanta Sabat, Former

Chief Engineer, DOWRR spoke on saving of trees and raising ground water table. Chief Speaker of the event, Er Rajat Kumar Panigrahi, Principal, Government ITI emphasized on waste control and waste to wealth conversion in our surroundings. Er Arun Kumar Padhi, Former Chief Engineer, DOWR and Dr Gunamani Jena, Director, Roland Institute of Technology, Brahmapur also present on the occasion. At the end, Er Pradeep Kumar Patra, Honorary Secretary, Brahmapur Local Centre, IEI proposed the vote of thanks.

### Chandrapur

On 05 June 2024, Chandrapur Local Centre, IEI observed World Environment Day 2024 at Chandrapur. Dr A Z Chitade, Principal, Rajiv Gandhi College of Engineering, Research and Technology, Chandrapur graced the occasion as the Chief Guest and Prof Suresh Chopane, President,



Green Planet Society, Sky Watch Group, Chandrapur graced the occasion as Keynote Speaker. Er Rajesh Eknathrao Thombre, Honorary Secretary, Chandrapur Local Centre,

IEI focused on the environment awareness and the present environmental condition.. Chief Guest, Dr Chitade addressed the audience by citing useful practical examples and everybody's role to save the environment. He stressed more on climate change, changes in biodiversity, industrialization. Keynote speaker, Prof Chopane spoke on environmental protection.

### Erode

On 05 June 2024, Erode Local Centre, IEI, in association with Velalar College of Engineering and Technology observed World Environment Day 2024 at Erode. A Seminar was organised on the topic 'Challenges and Issues in Urban water Conservation'. Prof (Dr) Kumaravelan Radhakrishnan, Chairman, Erode Local Centre, IEI welcomed the audience. Speaker of the



event, Dr K Ravichandran, Assistant Executive Engineer (Technical), Tamilnadu Water Supply and Drainage Board (TWAD Board), Erode delivered lecture on the topic 'Challenges and

Issues in Urban Water Conservation' and discussed about strategies for effective urban water conservation, adoption of water saving technologies, importance of water conservation, etc. He shared his valuable insights into the critical aspects of water management and focused on the role of Government policies including community participation and individual actions in achieving sustainable water management. At the end, Prof (Dr) C N Marimuthu, Honorary Secretary, Erode Local Centre, IEI thanked all the members attending the meeting and successful completion of the event.

### Kanchepuram

On 05 June 2024, Kanchepuram Local Centre, IEI, in association with Department of Computer Science & Engineering, St. Joseph's Institute of Technology, Chennai observed World Environment Day 2024 at Chennai. Dr Karthikeyan S,



Honorary Secretary, Kanchepuram Local Centre, IEI welcomed the gathering. Speaker of the event, Dr K Soundaranayagi, Centre for Environmental Studies and Deputy Director, Centre for Research, Anna University, Chennai delivered lecture on the theme.

### Kanyakumari

On 05 June 2024, Kanyakumari Local Centre, IEI observed World Environment Day 2024 at Kanyakumari. Dr S Arumuga Perumal, former Chairman, Kanyakumari Local Centre, IEI presided over and inspired with insights into the importance of collective action in preserving the planet for future generations. Chief



Guest of the event, Mrs Sony P, Assistant Professor, Department of Civil Engineering, Stella Mary's College of Engineering, Kanyakumari shed light on

environmental issues and the role of engineering in sustainable development. Er S Bright Selvin, Chairman, Kanyakumari Local Centre, IEI also graced the



occasion. Prof (Dr) Marsaline Beno M, Honorary Secretary, Kanyakumari Local Centre, IEI proposed the vote of thanks. The event nurtured meaningful discussion towards a greener and more sustainable future.

#### Kochi

On 05 June 2024, Kochi Local Centre, IEI observed World Environment Day 2024 through online mode. Er Velayudhan Nair G, Chairman, Kochi Local Centre, IEI delivered the welcome address. Dr G Madhu, Council Member, IEI introduced the Speaker of the session, Dr AnandMadhavan, Associate Professor, School of Environmental Studies, Cochin University of Science and Technology [CUSAT], who delivered lecture on the theme and explained various types of land degradation. He further focussed on the specific scenarios in India and Kerala. His presentation explores the impact of desertification on the Sustainable Development Goals and emphasized the importance of these practices and approaches adopted in India. At the end, Er T C Prasanth, Honorary Secretary, Kochi Local Centre, IEI proposed the vote of thanks.

#### Kollam

On 05 June 2024, Kollam Local Centre, IEI observed World Environment Day 2024 at Kollam. Guest Speaker of the event was Dr Simi M R, Associate Professor, Department of Civil Engineering, Mahaguru Institute of Technology, Kerala. Dr Santosh Simon, Principal, Providence College of Engineering, Chengannur in his address emphasized the importance of environmental conservation. Earlier, Dr Madhusoodanan Pillai K, Chairman, Kollam Local Centre, IEI delivered the welcome address. Prof (Dr) Ms Sudhi Mary Kurian, Honorary Secretary, Kollam Local Centre, IEI explained the importance of World Environment Day. Er Manjusha Manoj, Head, Department of Civil Engineering, Providence College of Engineering, Chengannur stressed in promoting eco-friendly practices.



#### Kota

On 05 June 2024, Kota Local Centre, IEI observed World Environment Day 2024 at Kota. Er Ashok Kumar Patni, Chairman, Kota Local Centre, IEI welcomed all and said that a healthy environment is the source of life for everyone for proper growth and development. Chief Guest of the event, Prof S K Singh, Honourable Vice Chancellor, Rajasthan Technical University, Kota explained the significance of the day in raising awareness and action for environmental protection by the global community. Guest of Honour of the event, Er Mahendra Kumar Chauhan, Chairman, Rajasthan State Centre, IEI stressed to enhance the environmental awareness and pledge to keep it safe for future. Guest Speakers of the event were Er Rajesh Kumar Sharma, Principal, Government Polytechnic College, Kota and Dr Prawal Athaiya, former Hydro Geologist, Ground Water Development, Government of Rajasthan. The speakers explained about environmental awareness and land degradation. At the end, Er Dharmendra Kumar Jain, Honorary Secretary, Kota Local Centre, IEI proposed the vote of thanks.



#### Kozhikode

Kozhikode Local Centre, IEI in association with Kerala Sastra Sahithya Parishad (KSSP) and Society for Protection of Environment, Kerala (SPEK) observed World Environment Day 2024 at Kozhikode on 19 June 2024. Mr Prabhakran Kayanattil, Chairman, Kerala Sastra Sahithya Parishad

(KSSP) briefed the audience about the theme. Dr Gireesan P, Chairman, Kozhikode Local Centre, IEI presided over the function. Dr Anulekshmi, Scientist, ICAR -Central Marine Fishers Research Institute (CMFRI), Kozhikode, spoke on the theme. At the end, Dr



Udayakumar V, Convenor, KSSP delivered the concluding remarks.

#### Mangalore

On 05 June 2024, Mangalore Local Centre, IEI observed World Environment Day 2024 at Mangalore. Er Umesh Bhat K V, Chairman, Mangalore Local Centre, IEI presided over the function and delivered the welcome address. Er Chinnagiri Gowda H C, Honorary Secretary, Mangalore Local Centre, IEI introduced the Speaker of the event, Er Vishnu Sharma Atikukke, Director, Aapaavani Environment Solutions Pvt Ltd, Mangalore. Er Atikukke said that while we seek independent lifestyle, nature



flourishes through interdependence. He further stressed on making homes resource positive for securing a sustainable future for all.

#### Nagpur

Nagpur Local Centre, IEI observed World Environment Day 2024 at Nagpur on 08 June 2024. Er Milind Anant Pathak, Immediate Past Chairman, Nagpur Local Centre, IEI welcomed the guests and stressed the importance of environment protection. Chief Guest of the event, Dr Atul Vaidya, Director, CSIR-NEERI in his Keynote address explained the role of hazardous waste in land degradation and the contribution NEERI in restoring the contaminated lands through different case studies in India. Dr Milind Chittawar, MD & CEO, Seetech Solutions, Nagpur explained the importance of energy efficiency in sustainability. He emphasized that sustainability and energy efficiency were analogues to each other. Er Mahesh Rajaram Shukla, Honorary Secretary, Nagpur Local Centre, IEI proposed the vote of thanks.



#### Navi Mumbai

On 05 June 2024, Navi Mumbai Local Centre, IEI in association with IEI FCRIT Mechanical Students' Chapter at FCRIT, Vashi, Navi Mumbai observed World Environment Day 2024 through virtual platform. A webinar was organised on the occasion on the topic 'Climate Science for our Sustainable Future', which provided the platform for the participants to gain knowledge about climate science and sustainable future in accordance with the theme 'Engineering Solutions for a Sustainable World'. The Speaker of the event was Dr Vishal Dixit, Assistant Professor, Interdisciplinary Program in Climate Studies, IIT Bombay, Mumbai. Earlier, Dr Nilajkumar Najukrao Deshmukh, Chairman, Navi Mumbai Local Centre, IEI delivered the welcome address and explained the significance of World Environment Day.

#### Neyveli

Neyveli Local Centre, IEI observed World Environment Day 2024 at Neyveli on 07 June 2024. The theme underscores the urgent need for collective actions to restore our lands, combat desertification and build resilience to drought and by working together; we can ensure a healthier, more sustainable future for our planet and for future generations. Er Appavu Eraniyan, Honorary Secretary, Neyveli Local Centre, IEI delivered Welcome Address. Chief Guest of the event was Er M Subba Rao, Chief General Manager (TA), NLC India Limited and the Speaker of the event was Er Kamal Basha Shaikh,



Nodal Officer, Thermal Environment, NLC India Limited. Er Shaik delivered lecture on 'Land Restoration, Desertification and Drought Resilience' and explained that desertification and land degradation is the process by which



deterioration of fertile land quality becomes desert due to human activities like deforestation, overgrazing, inappropriate agriculture, etc. He explained about various types of land

degradation like salinization, soil erosion due to wind and water, vegetation degradation, stubble burning, soil compaction, etc. He informed that India is committed to achieve land degradation neutrality status by 2030.

### Palghat

On 05 June 2024, Palghat Local Centre, IEI observed World Environment Day 2024 at Palakkad. Dr Rajesh Menon B, Honorary Secretary, Palghat Local Centre, IEI welcomed the dignitaries and the audience. Er A V Rajappan, Chairman, Palghat Local Centre, IEI presided over the function and emphasized the importance of preserving natural resources and



sustainable development to ensure a sustainable future for the future generation. Guest Speaker of the event, Dr N Sajikumar, Principal Consultant and Water Resources Specialist,

WRPM Consultants, Thrissur delivered Keynote lecture on the theme and highlighted the urgent need for land restoration, desertification and drought resilience due to climate change and stressed the need for global action to restore ecosystems and promote sustainable land management practices. The day served as a commitment to restoring health and resilience of the planet's landmasses, fostering a sustainable future for generations to come, he added. At the end, Dr Nisha A S, Joint Honorary Secretary, Palghat Local Centre, IEI proposed the vote of thanks.

### Pune

Pune Local Centre, IEI in association with Central Water and Power Research Station, National Water Academy, Pune; Indian Plumbing Association, Pune; Marathi Vidnyan Prarisad, Pune; D Y Patil College of Engineering, Akurdi; Eco-Logic Foundation and Rotary International District 3131 Supporting the Environment Avenue



Rotary Club of Pune Uptown observed World Environment Day 2024 at Pune on 21 June 2024. Prof (Dr) Girish Shrikisan Mundada, Chairman, Committee for Advancement of Technology

and Engineering, (CATE), Council Member and Past Chairman, Pune Local Centre, IEI extended warm welcome to the guests and the participants. The event witnessed the presence of Chief Guest, Mr Anand Chordia, Director, Technology & Innovation, Suhana Spices, The Eco Factory Foundation and Keynote Speaker Prof (Dr) T P Singh, Director, Symbiosis Institute of Geo-Informatics. Also, Mr S N Pandey, Director, National Water Academy; Dr V M Prabhakar, Scientist, Central Water and Power Research Station; Dr A B More, Head, Department of Civil Engineering, D Y Patil College of Engineering, Akurdi; Dr Sujata Kodak, Director, Eco-Logic Foundation; Rotarian AnupKarnik, President, Rotary Club of Pune Uptown were present in the function. Dr Singh delivered lecture on 'Our Land Our Future' and emphasized the need to develop the forests, review the water sources and restore the soil. Mr Chordia discussed on net zero and Sashwat Bharat Setu. At the end, Dr Uttam R Awari, Honorary Secretary, Pune Local Centre, IEI proposed the vote of thanks.

### South Gujarat

South Gujarat Local Centre, IEI observed World Environment Day 2024 at Surat on 14 June 2024. Speaker of the event, Dr Suryawanshi Shiwanand Rohidas, Chairman, South Gujarat Local Centre, IEI focused on land restoration, desertification and drought resilience. He stressed the need in reducing the effects of air pollution and dangerous chemicals, enhancing the climate change, resilience of healthcare facilities and emphasizing the need of clean, sufficient drinking water, basic sanitation and hygiene. He suggested to follow some creative and useful approaches for health sector in addressing community based health promotion, to empower communities



taking ownership of land restoration and conservation initiatives through participatory health promotion programs, implementing green building practices and sustainable

infrastructure to reduce their environmental footprint and contributes to land restoration efforts, etc. At the end, Er Sandeep Dangi, Honorary Secretary, South Gujarat Local Centre, IEI proposed the vote of thanks.

### Tirunelveli

Tirunelveli Local Centre, IEI observed World Environment Day 2024 through online mode on 21 June 2024. Prof (Dr) R Velayutham, Past Chairman, Tirunelveli Local Centre, IEI delivered the welcome address. Resource person of the session, Lt Dr A K Priya, Professor, Department of Chemical Engineering, KPR Institute of Engineering and Technology, Coimbatore delivered lecture on wastewater reuse and recycle. She highlighted the recycled wastewater in different applications including agricultural irrigation, industrial processes, groundwater recharge and potable reuse and provided examples of successful wastewater reuse projects from around the world. She explained the challenges associated with wastewater recycling and reuse like public perception, regulatory hurdles and the need for advanced infrastructure. She emphasized the importance of public education and robust regulatory frameworks to support the implementation of wastewater reuse projects. At the end, Er Avudaiappan S, Chairman, Tirunelveli Local Centre, IEI proposed the vote of thanks.

### Tuticorin

Tuticorin Local Centre, IEI observed World Environment Day 2024 at Tuticorin on 08 June 2024. Er S T Mathew, Past Chairman, Tuticorin Local Centre, IEI presided over the function and welcomed the participants. He



explained the history of World Environment Day and mentioned the day offers a global platform for debating on sustained growth without endangering the eco-system and urged for making the earth habitable.

He discussed the adverse effects of non-biodegradable plastics like bags, bottles, trays and food packaging, which are polluting the environment and need special attention at global level. Mr Arulselvam, an Environmental Management Expert emphasized the importance of restoring land, combating desertification and enhancing resilience to drought. He opined that three quarters of the world's population will be affected by drought in the year 2050. He emphasized that humans are making environmental damage like climate change, ecosystem loss and land desertification and urged the current generation to protect the environment and restore the land and nature for the survival of future generations. At the end, Er I Maria Michalel Raj, Committee Member, Tuticorin Local Centre, IEI proposed the vote of thanks.



# IEI Celebrates World Telecommunication and Information Society Day 2024

**Theme: Digital Innovation for Sustainable Development**

World Telecommunication and Information Society Day was celebrated by the Centres of the Institution all over the country on May 17, 2024. Brief Accounts of celebrations as received from various Centres are given hereunder.

## STATE CENTRES

### Andhra Pradesh

On 17 May 2024, Andhra Pradesh State Centre, IEI observed World Telecommunication & Information Society Day 2024 at Vijayawada. Prof (Dr) Venkata Sriram Chinthamaneni, Chairman, Andhra Pradesh State Centre, IEI delivered the welcome address. Speaker of the event, Prof (Dr) C Nagaraju, Professor of Computer Science and Engineering & Principal, YSR Engineering College of Yogi Vemana University spoke on the theme and highlighted the role of natural resources in fostering sustainable commerce in BRICS nations. Prof (Dr) M L S Deva Kumar, Honorary Secretary of the host Centre proposed the vote of thanks.

### Goa



Goa State Centre, IEI in association with Goa College of Engineering observed World Telecommunication & Information Society Day 2024 at Goa on 16 May 2024. Er Anwar Isaac Khan,

Chairman, Goa State Centre, IEI provided an overview of IEI's role in fostering engineering excellence and innovation. He explained the importance of telecommunication in driving sustainable development efforts. Chief Guest of the event, Dr M S Krupashankara, Principal, Goa College of Engineering shared his views on the pivotal role of telecommunication in addressing sustainable development challenges. He shared valuable insights about the applications of digital innovation in telecommunication for sustainable development and the strategies to leverage technology for addressing global challenges while promoting environmental sustainability. Guest Speakers on the occasion were Dr Kumara Swamy K, Director, CommScope and Mr Brosnan Gomes, Lead, Hardware Development, Spintly. At the end, Er Dubhashi Siddhant Shravan, Honorary Secretary, Goa State Centre, IEI expressed gratitude to all the Speakers, Guests, and participants for the success of the event and proposed the vote of thanks.

### Uttar Pradesh



On 17 May 2024, Uttar Pradesh State Centre, IEI observed World Telecommunication & Information Society Day 2024 at Lucknow. Er Satya Prakash, Chairman, Uttar Pradesh State Centre, IEI welcomed the guests

and shared his views on the theme of the event. Er V B Singh, Past Vice President and presently, President [Elect] IEI expressed his views. Chief Guest of the event, Prof (Dr) Neelam Srivastava, IET, Lucknow discussed on various innovation techniques pertaining to achieving UN Sustainable Development Goals and emphasized that digital innovations is transforming society in various dimensions like environmental friendly, corporate

social responsibility, telecom industries to promote digital innovation for reshaping industries and promoting sustainable practices to make every life comfortable and safe. World Telecommunication and Information Society Day 2024 underscores the pivotal role of digital innovation in advancing sustainable development across the globe and the technological advancements offer transformative solutions to pressing societal and environmental challenges from IoT enabled smart agriculture to blockchain-driven supply chain transparency. At the end, Er V B Singh proposed the vote of thanks.

## LOCAL CENTRES

### Anantapuram

On 17 May 2024, Anantapuram Local Centre, observed World Telecommunication & Information Society Day 2024 through virtual platform. Dr M Rama Krishna Reddy, Honorary Secretary, Anantapuram Local Centre, IEI welcomed the dignitaries. Keynote Speaker of the event, Prof P Ramana Reddy, Professor, Electronics and Communication Engineering Department, College of Engineering, Jawaharlal Nehru Technological University [JNTU], Anantapuram explained the importance of communication and information technology in the economic and social development of the country. He highlighted the role of a robot that could be important for physical assistance to the elderly for various physiotherapy exercises by training with artificial intelligence. He focused on the number of elderly people is increasing all over the country and stressed the need to develop new ways to protect the family and society through IoT. At the end, Dr M Rama Krishna Reddy proposed the vote of thanks.

### Bhilai

On 17 May 2024, Bhilai Local Centre, IEI, in collaboration with Telecom Department, Bhilai Steel Plant and Bharat Sanchar Nigam Limited, Chhattisgarh observed World Telecommunication & Information Society Day 2024 at Bhilai. Er Puneet



Choubey, Chairman, Bhilai Local Centre, IEI delivered the welcome address and said that the objective of the theme is to draw attention to the world community for the protection of the present resources on the earth by the use of information technology and digital innovation. Chief Guest of the event was Mr A K Chakravarty, Executive Director (Material Management), Bhilai Steel Plant and Guests of Honour of the event were: Mr V K Chhablani, Chief General Manager, Bharat Sanchar Nigam Ltd, Chhattisgarh and Mr Prakash, General Manager (Telecom), and acting Chief General Manager (Electrical), Bhilai Steel Plant. Mr Chakraborty in his address emphasized the development of information technology and digital technology which has brought qualitative changes in the functioning of organizations. He discussed the improvement in quality and efficiency in the current era through data integration and data analysis and appealed to the people to give special attention to cyber security. Mr Chhablani emphasized on the development of indigenous technology and informed about the efforts being



made by Bharat Sanchar Nigam Ltd to reduce the digital divide through (FTTH) Har Ghar Fiber Yojana in the rural areas of Chhattisgarh. Mr Prakash shared the work done jointly by Bhilai Steel Plant and BSNL in the field of communication and opined that both the organizations will work in the coming years to reduce the digital divide in Bhilai Steel Plant. Guest Speakers of the event were Dr Sankalp Rai, Inspector, Durg Police Range, Cyber Cell and Mr Harvinder Singh Kembo, Deputy Manager Telecom, Bhilai Steel Plant. At the end, Er Basant Kumar Sahu, Honorary Secretary, Bhilai Local Centre, IEI proposed the vote of thanks.

#### Dharwad



On 17 May 2024, Dharwad Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Dharwad. Chief Guest of the event, Dr S R Mahadev Prasanna, Director, Indian Institute of Information Technology, IIT

Dharwad emphasized that digital innovation is a key driving force behind economic progress and global development and innovation has become synonymous with opportunities for growth and solutions to pressing societal challenges. He opined that digital innovations should adopt in a sustainable ways and support environment in a long lasting green and organic way like production, usage of electronic gadgets in a friendly environment with zero/minimum emissions or carbon footprint, leading to zero e-waste. He stressed the need to design and develop of the future ecosystem of ICTs especially for mobile communication networks to support the sustainable goals. Er Veerappa Hawaldar, Chairman, Dharwad Local Centre, IEI presided over the function. At the end, Er Shrihari K H, Honorary Secretary, Dharwad Local Centre, IEI proposed the vote of thanks.

#### Jabalpur

Jabalpur Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Jabalpur on 26 May 2024. Brig Vipin Kumar Trivedi, Chairman, Jabalpur Local Centre, IEI and Dr Rajeev Jain, Honorary Secretary, Jabalpur Local Centre, IEI welcomed the guests and the participants. Chief Guest of the event was Mr Eknath Mohkar, Principal



Chief Signal & Telecom Engineer, West Central Railway, Jabalpur and Guest of the Honour of the event was Er Bharati Dass, Associate Professor, Instrument Development & Service Centre, Jawaharla Nehru Krishi Vishwa Vidyalaya [JNKVV], Jabalpur. The Keynote Address was delivered by Er Pratibha Gangwar, HoD, E&TC, Kalanuketan Polytechnic College, Jabalpur. Mr Mohkar spoke on the importance of digital innovation in pursuing sustainable development across the world. Er Bharati Dass emphasized that digital innovations are reshaping industries and promoting sustainable practices and focused on some of the innovative agricultural advancements include precision farming techniques using drone and satellite imagery, genetically modified crops for resistance to pests, vertical farming, etc. The Keynote speaker, Er Gangwar explained that digital innovations have accelerated progress towards sustainable development and explored ways to build on its success and proposes a framework for understanding the interrelationships between digital innovation and sustainable development, examines current and emerging practices, etc. At the end, Dr Rajeev Jain proposed the vote of thanks.

#### Jammu

On 17 May 2024, Jammu Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Jammu. Mr Vijay Kumar Surendra,



Additional Director General, Department of Telecom, Jammu & Kashmir, Jammu graced the function as the Chief Guest and Mr Prachish Khanna, Deputy Director General, Department of

Telecom, J&K, Jammu was the Guest of Honour and Keynote Speaker. Mr Ravi Chanyal, Past Chairman, Jammu Local Centre, IEI welcomed the guests and emphasized that World Telecommunication and Information Society Day 2024 underscores the pivotal role of digital innovation in advancing sustainable development across the globe and the technological advancements offer transformative solutions to societal and environmental challenges. Chief Guest, Mr Surendra opined that human mind has making innovative ideas obtaining sustainability like fighting climate change to eliminate hunger, poverty and digital technologies can help to achieve the target of UN Sustainable Development Goals and building a sustainable future through innovating thinking and action in the digital world. Mr Khanna emphasized the day to explore how digital innovation can help to connect everyone and sustainable prosperity for all. At the end, Er Sachin Tickoo, Honorary Secretary of Jammu Local Centre proposed the vote of thanks.

#### Kadapa



Kadapa Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Kadapa on 28 May, 2024. Speaker of the event, Dr S Farooq Anwar, Associate Professor & HoD, Electronics and

Communication Engineering, Global College of Engineering and Technology, Kadapa delivered lecture on the theme. His insights shed light on the transformative power of information and communication technologies (ICTs) in driving sustainable development and uplifting the socio-economic conditions of the least developed countries. He discussed on digital technologies for older persons and healthy ageing and the vital role of ICTs in supporting people to build smarter cities, green cities, combat age-based discrimination at workplace, ensure financial inclusion of older persons, completely stressed filled society and healthy living to every individual.

#### Kochi

On 17 May 2024, Kochi Local Centre, IEI in association with IEEE Communications Society, Bangalore Chapter observed World Telecommunication & Information Society Day 2024 through virtual platform. Er Velayudhan Nair G, Chairman, Kochi Local Centre, IEI delivered the welcome speech. Dr G Madhu, Council Member, IEI introduced the Speaker of the event, Dr Alok Nath De, Founder of Cyber-Physical Systems Initiative, CTO of XTrans Solutions and Executive Coach of the CTO Leadership Masterclass and Council Member, IEI. Dr De discussed the waves of innovation, emphasized the role of digital health and AI in transforming healthcare. He explored sustainable manufacturing practices, highlighted the latest digital innovations currently taking place and provided the attendees about how digital innovation is driving sustainable development across various sectors. At the end, Er T C Prasanth, Honorary Secretary, Kochi Local Centre, IEI expressed gratitude to Dr De for his enlightening lecture and proposed the vote of thanks.

#### Ludhiana

On 17 May 2024, Ludhiana Local Centre, IEI observed World Telecommunication & Information Society Day 2024 through online mode. Dr Arvind Dhingra, Chairman, Ludhiana Local Centre, IEI delivered the

*Contd. on page 25*

# News-in-Brief

The following are the brief account of Technical Activities organised by various Centres

## STATE CENTRES

### Telangana

Organized Er G Prabhakar 3<sup>rd</sup> Endowment Lecture through online mode on 15 April, 2024. Dr N V Umamahesh, Professor, Water & Environment Division, Department of Civil Engineering, National Institute of Technology Warangal, graced the occasion as the Chief Guest and delivered Lecture on the theme 'Sustainable Water Management under Climate Change'. Er A Krishna Murthy, Former Engineer-in-Chief, Irrigation and CAD Department, Hyderabad, was the Guest of Honour.

Organized Dr J Purushottam 19<sup>th</sup> Endowment Lecture on 12 March, 2024 through online mode. Keynote speaker, Dr Sanjay Kumar M Yadav, Professor, Department of Civil Engineering, Sardar Vallabhbhai National Institute of Technology, Surat, delivered Lecture on the topic 'Performance Evaluation of Irrigation Scheme: A Case Study of KELIA Irrigation Project, Gujarat'.

Organised World Earth Day on the topic 'Planet and Plastic' on 22 April, 2024 through online mode. Dr P Srinivas Rao, Former Chief Engineer, Irrigation & CAD Department, Government of Telangana, and Former Member, Telangana Pollution Control Board (TSPCB) delivered a Lecture on the topic.

## LOCAL CENTRES

### Amravati

In association with Prof Ram Meghe Institute of Technology & Research, Badnera celebrated National Science Day on the theme 'Indigenous Technologies for Viksit Bharat' on 28 February, 2024, to commemorate the invention of the 'Raman Effect' by Nobel Prize winner Dr C V Raman. The Keynote speaker, Prof N W Kale, Government Engineering College, Amravati, emphasized the critical importance of research, noting a concerning decline in recent times. He opined that motivating the younger generation is essential for the development of new technologies. The technical session aimed to inspire the audience to generate innovative ideas, recognize and appreciate the contributions of scientists and researchers and promote a scientific temperament. This event underscored the vital role of educational institutions in promoting science and technology, aligning with the broader goal of achieving a technologically advanced and self-reliant India.

### Ananthapuram

In association with the Chemical Engineering Department, JNTUA College of Engineering, Ananthapuram, organised a seminar on 'Vegetable Oil Processing & Value-Added Industrial Products (Paints)' on 25 February, 2024 at Ananthapuram. The seminar featured Prof P Venkateswar, Former Principal, Vijaya Engineering College, Vijayawada, as the Chief Guest. Prof Venkateswar discussed extracting oil from vegetable seeds, emphasizing how value addition and enhancing product features can attract more customers and provide competitive advantages. He highlighted the impact of value-added technologies on improving overall Gross domestic product (GDP) and stressed the significance of the four Ps of marketing: product, price, promotion and place.

### Coimbatore

In association with the Department of Computer Science and Engineering, PSG Institute of Technology and Applied Research (PSGTech), Coimbatore, organised a technical lecture on 'Impact of GPT on Industrial Applications' on 27 April 2024. Guest speaker, Mr Arul Mozhi Selvan, Software Engineer, Ongilai, Chennai highlighted the transformative impact of integrating GPT into industrial applications, emphasizing its ability to streamline processes and enhance productivity. His suggestion to optimize search engine utilization underscores the importance of harnessing AI technologies effectively for obtaining pertinent information swiftly and accurately.

### Faridabad

Organized a Technical Lecture Meeting on the topic '21st Century Teaching Techniques' on 27 April 2024. The session featured Dr T Senthil, Head, Civil Engineering Department, Manav Rachna International Institute of Research and Studies (MRIIRS), Faridabad, as the expert speaker. Dr Senthil, delivered a compelling lecture and discussed the evolving skillsets needed by today's students. He explored Bloom's Taxonomy and introduced Krathwohl and Dave Taxonomies. He outlined the dual domains of knowledge, the phases of creating a lesson plan and the value of project-based and skill-based learning. Emphasizing modern teaching strategies, he addressed the role of expert talks, smart labs, collaborative learning and mentorship in fostering holistic student development.

### Gorakhpur

In collaboration with Buddha Polytechnic College, Gorakhpur, organised a two-day National Conference on 'Recent Research & Development in Engineering' during 04-05 April 2024 at Gorakhpur. The conference aimed to serve as a dynamic platform for fostering innovation, creativity and knowledge exchange among engineering students, researchers and professionals from various disciplines. The conference was inaugurated by Er J B Rai, President of the Madan Mohan Malaviya University of Technology Alumni Association, Gorakhpur. He highlighted the critical need for the Indian industry to adopt new technologies and urged engineering students to integrate research findings into practical applications. The conference featured engaging keynote speeches, panel discussions, and technical presentations. Topics covered signal processing, structural mechanics, interface management, product design and scientific research. These presentations sparked in-depth discussions among participants, fostering a collaborative atmosphere for exchanging ideas and exploring the latest advancements in science, engineering and technology. The conference not only showcased the latest research and developments in engineering but also underscored the importance of nurturing a new generation of engineers who are equipped to tackle the technological challenges of the future.

### Kadapa

Organised a technical seminar on 'Recent Accident Scenario in India' on 21 April, 2024. Er G Krishna Kishore, Associate Professor and Head, Mechanical Engineering Department, Global College of Engineering & Technology, Kadapa, presented a detailed lecture on analyzing the severity of driver injury in highway crashes. His study utilized both parametric models [Heteroscedastic Ordered Logit (HOL)] and non-parametric models [Random Forest, Classification and Regression Tree (CART) and Boosted Regression Tree (BRT)] to evaluate factors affecting crash severity. The research revealed that while HOL models effectively account for variations among observations, BRT models offer superior accuracy in capturing the nonlinear effects of various variables such as vehicle age and driver characteristics on injury severity. The study also highlighted key determinants of injury outcomes, including drinking driving and seatbelt use, emphasizing the importance of using both HOL and BRT models for better prediction accuracy.

### Kanpur

In collaboration with the All India Valuers Association (AIVA), hosted an online lecture on 'Legal Aspects in Valuation' on 13 April 2024. The session featured Er Shyam Sundar Dash, Proprietor, S S Dash & Associates, Kanpur, as the guest speaker. Er Dash offered a comprehensive overview of the interplay between valuation and legal matters, emphasizing that valuation is a blend of both science and art, with significant legal implications. He highlighted the necessity of understanding building by-laws and regulations set by local, state and central authorities. The webinar thoroughly addressed these legal dimensions, providing valuable insights for all participants. The session saw robust participation from corporate and student members of the IEI as well as AIVA.



## Kollam

Organised a webinar on 01 March, 2024, titled 'Operational Excellence through Lean Management, Digital Technology, and Innovation in the Construction Industry'. Panelists of the session were Mr George Abraham, General Manager, Larsen & Toubro (L&T) Construction and Mr Ashish Kumar Saxena, Assistant Manager, L&T Construction. Mr George Abraham highlighted the diverse projects of L&T in India and abroad, discussing the technologies employed. Mr Ashish Kumar detailed the benefits of lean management in timely project completion and explored how digital technology drives innovation in construction. The speakers also addressed resource challenges and environmental impacts within the construction sector. The webinar offered valuable insights for construction professionals and aspiring engineers. The webinar was highly informative and beneficial, leaving participants with enhanced knowledge and practical insights into achieving operational excellence in the construction industry through modern management practices and technological advancements.

## Nagpur

In association with Suryodaya College of Engineering & Technology and Indian Society for Technical Education, organised a One-day International Conference on 'Tech-Trends in Science, Engineering, and Management' on 16 April, 2024 at Nagpur. The event was inaugurated by Dr Pramod M Padole, Director, Visvesvaraya National Institute of Technology (VNIT), Nagpur, in the presence of esteemed dignitaries like Kamlesh Paunikar, Director, System Architect, K P Solutions India; Ranjeet Chafle, Secretary, National Rare Diseases Registry System (NRDRS); Abhishek Belkhede, Director, Sarvajani College of Engineering & Technology (SCET), Dr V G Arajpure, Principal, SCET, Dr V G Parhate, CEO and Vice Principal, SCET and Dr Rasika Chafle, Managing Director, Centre For Skill & Entrepreneurship Development (CSED). The conference aimed to bring together researchers, academicians and industry professionals to discuss and explore the latest technological trends in science, engineering and management.

In collaboration with the Association of Consulting Civil Engineers (India), Nagpur Centre, organized a technical lecture on the topic 'Applications of Grouting in Civil Engineering'. Er Prashant N Kathale was the expert speaker, who delivered the lecture. Er Kathale explained the necessity of grouting in various structures and discussed various types of grouting based on method and material. He elaborated on the grouting process, key terms and equipment used. The audience was enthralled by the case studies presented, which illustrated the practical applications of grouting. The informative and engaging lecture provided valuable insights into the importance of grouting in civil engineering, covering its types, processes and equipment.

## North Bengal

Organized a Lecture Meeting on the topic 'Scope & Impact of Minor Irrigation in North Bengal' on 08 June, 2024 at Jalpaiguri. The theme speaker of the programme was Er Nirjhar Ghosh, Assistant Engineer, Water Resources Investigation & Development Department, Government of West Bengal. In his presentation, Er Ghosh addressed the challenges of India's unpredictable and uneven rainfall. He highlighted that despite the variability of monsoon rains, certain crops like rice, sugarcane, jute and cotton require consistent irrigation even in regions with heavy rainfall. He emphasized the critical role of minor irrigation systems in enhancing agriculture and supporting livelihoods, especially in drought-prone areas and regions not covered by major irrigation projects. He outlined the objectives of minor irrigation, which include restoring existing irrigation sources to their original condition, stabilizing irrigation potential, reducing water wastage through conservation and management and addressing the gap in irrigation coverage.

## Pune

Organised a Expert Talk on 'Emerging Opportunities in Valuation Sector in India' on 06 January, 2024 through hybrid mode. The event, was conducted in association with Maharashtra State Centre and garnered significant interest. The Keynote speaker, Mr Mohit Mehta, a distinguished expert in the field with credentials including Member of Royal Institute of Chartered

Surveyors (MRICS) and Fellow of the Institution of Valuers (FIV), delved into various aspects of valuation practices. During his address, Mr. Mehta highlighted the methodologies such as Income Capitalization and Discounted Cash Flow, underscoring their significance in ensuring accurate valuations across diverse sectors. His insights on market analysis and risk assessment captivated the audience and the event was lauded for its comprehensive coverage and practical insights into the evolving landscape of valuation practices in India.

In collaboration with Tech Forum, organized an online lecture on 14 January, 2024, on the topic 'Theory of Inventive Problem Solving'. Speaker, Mr Hemant Pardikar, an expert in strategic problem-solving methodologies, delivered a comprehensive talk on the topic, highlighting its origins and its significant advantages in fostering innovation.

In collaboration with the Tech Forum, Pune, organized a webinar titled 'Energy Efficiency & Carbon Neutral Bharat' on 28 January, 2024. The event featured Dr G Subramanyam, BEE certified Energy Auditor, Director, Siri Exergy & Carbon Advisory Services Private Limited, as the Keynote speaker. Dr G Subramanyam delivered a presentation on 'Energy Efficiency & Carbon Neutral Bharat' emphasizing the critical impact of human activities on climate change through the emission of greenhouse gases. He highlighted that climate change results in extreme weather events such as tsunamis, heavy rains, floods, and droughts. Dr Subramanyam underscored the importance of energy efficiency in reducing greenhouse gas emissions and noted that aligning climate change mitigation with sustainable development goals is a significant challenge. He praised government initiatives aimed at reducing energy intensity across various sectors and encouraged collective efforts to achieve a carbon-neutral India.

In association with Marathi Vidyan Parishad, Pune Division, conducted a webinar on 16 January, 2024, on the topic 'Focus on Research (Sanshodhana Kade Vala)' at Pune. Keynote speaker was Shri Sarang Tamhankar, an Mathematician.

In collaboration with Civil Engineering Department, Dr D Y Patil Institute of Technology, organized a National Level One Week Faculty Development Program on 'Research and Innovation in Civil Engineering' during 05-09 February, 2024 at Pune. The program aimed to equip participants with advanced skills in research methodology, proposal writing and innovative practices in civil engineering. Through various sessions the program focused on fostering research culture, promoting innovative practices and improving teaching methodologies. Participants gained valuable insights and tools to enhance their research and teaching capabilities, contributing to the advancement of civil engineering education and practice.

In association with the Tech Forum, organized a webinar on 'Protection from Lightning' on 04 February, 2024. Keynote speaker, Mr Nabaroon Goswami, Executive Director, Ampere Protection Services LLP, emphasized the importance of lightning protection systems in safeguarding structures and individuals and provided crucial insights into the imperative of safeguarding structures and individuals from lightning-related issues. He underscored the severe impact of lightning strikes, recounting cases where CCTV cameras, air conditioning units, laptops and other electronic devices were damaged or destroyed. Highlighting the effectiveness of lightning protection systems, Mr Goswami emphasized their role in preventing physical harm to people, structural damage to buildings and failures of internal systems. He stressed that the efficacy of these systems hinges on meticulous design, high-quality installation and regular inspection and certification. The overarching goal is to provide a safe environment, protect investments and minimize downtime caused by lightning strikes, a formidable force of nature, he added.

In collaboration with Tech Forum, Pune, organized a webinar on 'Hydrogen Production Technology' on 24 March 2024. Speaker for the session, Prof Sanjivani Apte, Managing Director, Pune Instrumentation Private Limited (PIPL) highlighted the importance of hydrogen as a fuel amidst growing environmental concerns. She underscored that industries worldwide are increasingly turning to hydrogen production, driven by its significant market potential. Currently, India alone consumes 1200 MT of hydrogen

per hour, reflecting a substantial demand in the global context. Discussing the methodologies for hydrogen production, Prof Apte emphasized two predominant techniques: steam methane reforming and electrolysis. She noted that electrolysis, particularly the process of splitting water using electricity, has gained traction due to its commercial availability and adaptability to intermittent renewable energy sources. In her address, Prof Apte also delved into 'New' hydrogen technologies, highlighting ongoing innovations aimed at enhancing efficiency, reducing costs and ensuring environmental sustainability across production, storage and utilization processes.

In collaboration with Association of Consulting Civil Engineers (India) [ACCE(I)], Pune and Indian Society of Earthquake Technology (ISET) Pune, hosted a Seminar on 15 March, 2024 on the topic 'Seismic Design of R C Buildings-Theory and Practice'. The Keynote speaker, Dr Suhasini Madhekar, Chairperson, ISET, Pune Chapter, delivered insights on seismic design challenges, particularly in the context of rising clusters of towers in Pune. She highlighted essential aspects of seismic-resistant building design, stressing on the importance of methodological approaches in establishing design philosophies and objectives. Dr Madhekar elucidated common strategies essential for designing structures to withstand seismic forces. These include adherence to seismic codes and standards for guidance in structural design and analysis, utilization of response spectrum or time history analysis to assess dynamic responses and implementation of base isolation or energy dissipation devices to mitigate seismic forces effectively. The seminar not only enriched understanding of seismic design principles among attendees but also underscored the importance of collaborative efforts in advancing engineering practices in Pune's evolving urban landscape.

In collaboration with Mechanical Engineering Department, Modern Education Society's Wadia College of Engineering, organized an International Symposium and Workshop on 'Sustainable Technology for a Sustainable Future' (STSF 2024) during 04-09 March, 2024 in virtual mode. This webinar aimed to bring together students, researchers, faculty and industry professionals from across the globe to discuss the importance and future of sustainable technology. Mr Kevin Murphy, Vice President, Specialist Services, LIC UAE graced the webinar as the Chief Guest and Mr Sushil K Sharma, Former GM, NTPC Ltd was the Guest of Honour. The symposium featured two keynote sessions and eleven technical sessions conducted by esteemed national and international speakers. Notable participants included speakers from the USA, UAE, Sweden, Malaysia, Thailand, IIT Roorkee, REVA University and Savitribai Phule Pune University (SPPU). In his opening address, Mr Murphy highlighted key initiatives to reduce emissions, including the installation of energy-efficient LED lighting, which cut lighting electricity consumption by 45% and relocating technician accommodations to reduce travel distances by 83%. He emphasized on the importance of active communication through Health, Safety & Environment (HSE) briefs and toolbox talks and the implementation of a reward system to encourage positive Environmental, Social and Governance (ESG) behaviours, illustrating how small, consistent efforts can significantly impact sustainability. Keynote speaker during the valedictory function, Dr Aditya Malik, Director, R&D Technologies at Dassault Systems Pune, provided valuable insights into sustainable technologies and their practical applications.

Organized B G Walimbe Memorial Lecture on 20 January, 2024. The event focused on the theme 'Effects of Climate Change on Water Resources of India'. Chief Guest, Dr Avinash Garudkar, Professor and Head, Faculty of Engineering, Water and Land management Institute [WALMI], Aurangabad discussed the significant impact of climate change on water resources, emphasizing concerns related to changes in snowpack, runoff, hydropower generation, irrigated agriculture, urban water supply, flood protection and fisheries. He noted that the timing of runoff could affect hydropower potential, leading to severe droughts and floods in various regions. Guest of Honour, Dr Shreenivas Londhe, Professor, Civil Engineering Department, Vishwakarma Institute of Information Technology (VIIT), Pune, addressed the effects of climate change on rainfall patterns and the General Circulation Model in Pune. He highlighted how rising temperatures have increased reliance on air conditioning, causing discomfort in natural environments. Additionally, he

pointed out the city's vulnerability to flooding, waterlogging and landslides due to changing rainfall patterns and topography. The lecture successfully raised awareness about the critical issue of climate change and its impact on water resources in India.

In association with Tech Forum, organized an online lecture on 11 February, 2024, on the topic 'Opportunities in Electronics and Semiconductor Industry in India'. The session featured Keynote speaker, Mr Sanjeev Keskar, CEO, Arvind Consultancy. Mr Keskar delivered an insightful talk on the rapid growth and future prospects of India's electronics and semiconductor industry. Mr Keskar emphasized India's strong semiconductor design talent pool, which comprises up to 20% of the world's semiconductor design engineers. He pointed out the unique opportunity presented to India in the current decade as companies seek to diversify their supply chains away from China. Establishing a robust semiconductor value chain in India could have a multiplier effect on the entire economy. He also discussed the challenges of low local value addition, and highlighted various government initiatives such as the Production Linked Incentive (PLI) scheme, Electronics Manufacturing Cluster (EMC 2.0), and Scheme for Promotion of Manufacturing of Electronics Components and Semiconductors (SPECES), which aim to boost domestic manufacturing. The webinar effectively underscored the significant opportunities and strategic initiatives in India's burgeoning electronics and semiconductor industry.

In collaboration with the Marathi Vidyan Parishad, Pune Division, organized a workshop on robotics titled 'Robotics Karyshala' on 20 February 2024 at Pune. The event aimed to explore the latest developments and opportunities in robotics and mechatronics. Keynote speaker, Mr Satyajit Jagtap, CEO, Insculpt Technologies, explained that the goal of robotics is to create intelligent machines that can assist humans in various ways. He highlighted the significant role of robotics and mechatronics in modern industrial sectors, noting their contribution to improved and faster production with low error rates and advanced monitoring capabilities. Mr Jagtap also stressed on the growing demand for research and expertise in robotics and mechatronics, underscoring the need to develop skilled manpower in these fields. The workshop provided a platform for participants to explore various research opportunities and advancements in robotics and mechatronics, fostering a deeper understanding and potential career paths in these interdisciplinary areas.

### South Gujarat

Organised the Mega Textile Series TANA BANA, a pioneering program designed to bolster Surat's textile industry from the grassroots level on 20 April 2024. Dignitaries present on the occasion include; Mr Ajay Ajmera, Founder, Ajmera Fashions; Mr Amitava Banerjee, Chief Operating Officer, Garden Silk Mills Private Limited; Mr Deepak Sheta, Director, Apple Lifestyle Industries; Mr Rajnikant Bachkaniwala, Chairman, Himson Group of Industries; Er Nitin Oza, President, Surat Mercantile Association; Dr Pankaj Gandhi, Director, Man-Made Textiles Research Association (MANTRA); Mr Sajay Sharma, Vice President (Marketing), Garden Silk Mills Private Limited. etc. Keynote speakers, Mr Ajay Ajmera, discussed branding strategies for sustainable growth; Mr Amitava Banerjee, provided insights into the polyester value chain and India's market potential; Mr Deepak Sheta projected Surat's future as a global textile hub; and Mr Rajnikant Bachkaniwala emphasized the need for modernization and equipment upgrades. The event featured a panel discussion led by Er Sandeep Dangi, Honorary Secretary of South Gujarat Local Centre, focusing on SWOT analysis of Surat's textile industry. The session marked a significant step forward for Surat's textile sector, promising enhanced industry collaboration and growth.

### Tiruchirappalli

In association 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 Arivial Peravai Kanyakumari and Indian Society for Non-destructive Testing (Trichy Chapter):



Organised a technical lecture on 'Nanofluid and its' Application in Various Fields' on 02 May 2024 through virtual mode. Dr M Muruganandam, Professor and Head, Department of Mechanical Engineering, Mohamed Sathak Engineering College, delivered the lecture, which highlighted the innovative applications of nanofluids in engineering and technology.

Organised a technical lecture on 'Possible Defects, Causes, and Remedies in Heat Treatment of Steels' on 07 May 2024 in hybrid mode. Speaker of the session was Dr Vinothkumar G, Assistant Professor, Department of Metallurgical and Materials Engineering, National Institute of Technology Tiruchirappalli.

#### Visakhapatnam

Observed National Survey Day with a technical activity held at Visakhapatnam. The event, commemorating the historical significance of the Great Trigonometrical Survey initiated on 10 April, 1802, featured a lecture by Dr Monangi Murali, Head & Dean (R&D), and Professor & HOD of the Civil Engineering, Department at Raghu Engineering College, Visakhapatnam. Dr Murali delivered an insightful lecture on the advancements and significance of surveying in modern engineering practices. His talk emphasized the historical context of Survey Day, tracing its roots back to Major William Lambton's measurement of the Great Arc from Cape Comorin to Bangalore. The event highlighted various aspects of surveying, including the use of cadastral and engineering maps and the integration of drone technology in modern surveying practices. It underscored the importance of surveying in engineering and its evolution with technological advancements.

Observed World Earth Day on 22 April, 2024, via virtual mode on the theme 'Planet vs Plastic'. Speaker of the session was Dr V S R K Prasad, Emeritus Professor, Department of Environment Engineering, Science and Management, Andhra University, Visakhapatnam. Dr Prasad delivered a lecture emphasizing the critical issue of plastic pollution and its detrimental impact on the environment. He highlighted that plastics are a significant threat to aquatic life, animals, and human existence. He provided alarming statistics, such as the production of 500 billion plastic bottles annually and the projection that by 2050, plastics in the oceans could outweigh fish. Dr Prasad discussed various methods for controlling plastic pollution, including changing raw materials, modifying processing technologies and utilizing nano-technology for better efficiency. He stressed on the importance of recycling, reusing and recovery of plastic materials. He also highlighted innovative solutions, such as using waste plastic in road construction and as an alternative fuel in cement kilns, which can make roads more durable and reduce fuel cost. The technical activity was part of a broader initiative to raise awareness and promote sustainable practices to protect the environment from the hazards of plastic waste.

Observed the 222<sup>nd</sup> Birthday of Sir Arthur Thomas Cotton on 15 May, 2024, at Visakhapatnam. The event honoured Sir Arthur Cotton's remarkable contributions in the field of civil engineering, particularly in irrigation and water management in India. His legacy, characterized by innovation and dedication to improving local lives through sustainable water management, was highlighted during the event.

## World Telecommunication and Information Society Day 2024

Contd. from page 21

welcome address. Speaker of the event was Dr Charanjit Singh, Associate Professor, Electronics and Communication Engineering Department, Punjabi University, Patiala. He explained the pivotal role of digital innovation in advancing sustainable development across the globe. He emphasized that technological advancements offer transformative solutions to pressing societal and environmental challenges from IoT-enabled smart agriculture to blockchain-driven supply chain transparency and digital innovations are reshaping industries and promoting sustainable practices. Er Surinder Singh, Honorary Secretary, Ludhiana Local Centre, IEI proposed the vote of thanks.

#### Mangalore



Mangalore Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Mangalore on 21 May 2024. Er Chinnagiri Gowda H C, Honorary

Secretary, Mangalore Local Centre, IEI welcomed the gathering. Er Umesh Bhat K V, Chairman, Mangalore Local Centre, IEI presided over the function and addressed the audience. Speaker of the event, Dr Prasanna Kumar C, Professor and HoD, ECE Department, Yenepoya Institute of Technology, Modabidri emphasized that digital sustainability promotes equitable

access to technologies which means creating opportunities for everyone through digital advances without widening the digital divide or perpetuating inequalities. He stressed the need to explore as how we can utilize these facilities for the benefits of individuals and society. At the end, Er Chinnagiri Gowda H C, Honorary Secretary, Mangalore Local Centre, IEI proposed the vote of thanks.

#### Nagpur



Nagpur Local Centre of the Institution, in association with Institution of Electronics and Telecommunication Engineers (IETE), Nagpur Local Centre observed World Telecommunication

& Information Society Day 2024 at Nagpur on 18 May 2024. Er Satish Sambhaji Raipure, Chairman, Nagpur Local Centre, IEI delivered the welcome address. Dr Salim Chavan, Chairman, IETE NLC, Nagpur explained the significance of World Telecommunication and Information Society Day. The event witnessed the presence of Chief Guest and Theme Speaker Dr Jitendra Tembhurne, Department of Computer Science and Engineering, IIIT Nagpur; Dr Tembhurne shared his valuable insight on the theme and emphasized the importance of digital innovation in achieving Sustainable Development Goals. At the end, Dr Mahesh Rajaram Shukla, Honorary Secretary, Nagpur Local Centre proposed the vote of thanks.

## Superannuation from IEI

Mr Biplab Sinha, an employee of the Institution HQ was superannuated from the services of IEI on September 30, 2024. He joined the Institution on August 01, 1994 and rendered his services to the Institution over a period of 30 years.

IEI wishes Biplab Sinha and his family a happy and healthy life in the future.





# The Institution of Engineers (India) IEI Industry Excellence Award 2024

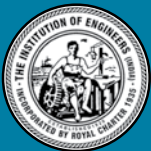
## Request for Participation

The IEI Industry Excellence Award has been instituted to recognize industry leaders for their innovation, excellence in engineering operations and thereby, to lead their industry in competitive manner. The benchmarks created by the industries in India have included productivity, quality, safety and performance assurance thereby giving India the rightful place in the global markets. Realizing that such industries can provide the leadership to a large number of other industries in the country, it has been considered appropriate by the IEI Council to institute the IEI Industry Excellence Awards in the year 2008.

Applications in specified format (visit link: <https://www.ieindia.org/webui/IEI-Activities.aspx#industry-excellence-award>) are invited from prospective applicants for IEI Industry Excellence Award 2024. The last date of receipt of application for the Award 2024 is **31 October 2024**. Interested applicants are requested to send their applications (Two hard copies & One soft copy in Pendrive/CD) to the below mentioned address.

**Deputy Director (Technical)**

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



# The Institution of Engineers (India) IEI Engineering Education Excellence Award 2024

## Request for Participation

The IEI Engineering Education Excellence Award has been instituted to recognize leading Engineering Educational Institutions and encourage for better and more effective engineering education across the country. The engineering education sector has witnessed significant development, setting benchmarks for others to follow. Universities and institutions have expanded their scope beyond pedagogy and now engage in R&D activities, consultancy, patents, publications, skill development programs, industry interface, and the implementation of the New Education Policy (NEP), contributing to India's global prominence. Recognizing that such institutions can lead and inspire numerous others in the country, the IEI Council has decided to establish the IEI Engineering Education Excellence Awards.

Prospective applicants are invited to submit their applications in the specified format (visit link: <https://www.ieindia.org/webui/IEI-Activities.aspx#engineering-education-excellence-award>) for the IEI Engineering Education Excellence Award 2024. The deadline for submitting of applications for the Award 2024 is **31 October 2024**. Interested applicants are requested to submit their applications (Four hard copies & One soft copy in Pendrive/CD) to the below mentioned address.

**Deputy Director (Technical)**

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

## WORLD STANDARDS DAY 2024

### Theme:

### SHARED VISION FOR A BETTER WORLD: SPOTLIGHT ON SDG 9

### Industry, Innovation, and Infrastructure in the Age of AI

**14 October 2024**

Aligned with the Sustainable Development Goals (SDGs) for peace, prosperity, and the welfare of both people and the planet, each SDG presents an urgent call to action, and achieving them requires our collective effort.

International Standards offer practical solutions we can all stand behind. By using international standards, you become a part of the solution.

SDG 9 focuses on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation.

International Standards are the backbone of global progress. They ensure interoperability, security, and sustainability, fostering global collaboration to accelerate innovation through AI.

Together, we can build a world where resilient infrastructure, sustainable industrial growth, and cutting-edge innovation – powered by artificial intelligence and supported by international standards – drive economic transformation, today and for future generations.

For further details please visit <https://www.worldstandardsday.org/about.html>.





# 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 October 2024

Sl. No.	Name of the Course	Scheduled Dates
1.	Engineering Simulation using Solid Works	07 - 11 Oct 24
2.	Attaining & encountering the challenges in water supply & sewerage system	08 - 11 Oct 24
3.	Advances in Supply Chain and Logistics Management	08 - 11 Oct 24
4.	Application of IoT, Machine Learning, and Artificial Intelligence	09 - 11 Oct 24
5.	Power cable selection, testing, Laying and Commissioning	09 - 11 Oct 24
6.	Interlab Comparison & Proficiency Testing	09 - 11 Oct 24
7.	Information Security Management System (ISMS - ISO 27001) Lead Implementer	14 - 17 Oct 24
8.	Effective Utilization of MS office Applications	14 - 18 Oct 24
9.	Strategies for More Crop for Drop of Water	14 - 17 Oct 24
10.	Advances in the Industrial Heat-treatment of metals and alloys	15 - 18 Oct 24
11.	Climate Change Impact on Public Health	16 - 18 Oct 24
12.	Pumps Operation, Maintenance, and Performance Monitoring for Power Plant Applications	16 - 18 Oct 24
13.	Quality Control and Engineering Inspection	16 - 18 Oct 24
14.	Rehabilitation of Bridges Using Latest Techniques & Risk Criteria	21 - 25 Oct 24
15.	Ferrous and nonferrous castings: Defects & Rectifications	21 - 23 Oct 24
16.	Machine Learning & Artificial Intelligence	21 - 25 Oct 24
17.	Smart City Solution and Environmental Aspects	22 - 24 Oct 24
18.	Executive Development Programme on Leadership and Change Management.	22 - 24 Oct 24
19.	Smart Meter Integration - PMU Asset Management in T&D Utilities	22 - 25 Oct 24
20.	TQM Practices and Tools for Organizational Excellence	23 - 25 Oct 24
21.	Failure of Gates & Dams and Preventions	23 - 25 Oct 24
22.	Crisis Management Skills for Engineering Managers and Scientists	28 - 30 Oct 24

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

## World Habitat Day 2024

**Theme: Engaging Youth to Create a Better Urban Future**

**7 October 2024**

World Habitat Day is held on the first Monday of October every year on a specific theme as decided by UN-HABITAT with an objective to raise awareness about urbanization trends, challenges, and sustainable solutions for betterment of quality of life in cities and towns by developing and improving human settlements focusing on shelter provision and highlighting the plight of the homeless. With the above objectives in place the first World Habitat Day was celebrated in 1986 at Nairobi, Kenya on the theme “Shelter is my Right”. World Habitat Day 2024 will be observed this year on 07 October 2024 in the City of Querétaro, Mexico on the theme “Engaging youth to create a better urban future”.

World Habitat day aims to address the challenges and opportunities of rapid urbanization by focussing on the active involvement of young people in shaping sustainable cities and communities; it presents a distinctive opportunity to celebrate the contribution of youth to sustainable urbanization while addressing the challenges of rapid urban growth. This and other issues pose significant obstacles to the equitable development and resilience of urban region world wide. Channelizing support from all segments of society is vital, with a particular emphasis on engaging the youth. Despite global efforts, the United Nations acknowledges unrelenting challenges in advancing the SDG's, especially in the areas of poverty, inequality, and the alarming danger of climate change. Empowering youth and involving them in urban decision-making is indispensable for developing resilient cities. By harnessing the energy, creativity, and perspective of youth, cities can work towards more sustainable and equitable development, ensuring a brighter future for all.

All stake holders are requested to celebrate this day in a benefitting manner.

For further details please visit <https://urbanoctober.unhabitat.org/whd>



## Aerospace Engineering Division

Thirty-seventh National Convention of Aerospace Engineers on **"Innovation in Aerospace Engineering"**

Ranchi, November 23-24, 2024

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

## Agricultural Engineering Division

All India Seminar on **"Green Technologies for Sustainable Food Production and Processing"**

Coimbatore, October 24-25, 2024

The Honorary Secretary, IEI, Coimbatore Local Centre, PSG College of Technology Campus, Peelamedu, Coimbatore 641 004 [(☎: 0422-2580733; Email: coimbatorelc@ieindia.org; Website: https://www.ieicoimbatore.org]

One Day Seminar on **"Potential and Effectiveness of Micro irrigation System for raising Productivity"**

Bhubaneswar, December 08, 2024

The Honorary Secretary, IEI, Odisha State Centre, Engineers Bhawan, Institution of Engineers Square, Sachivalaya Marg, Unit-4, Bhubaneswar 751001, [☎: 0674-2390291, E-mail: odishasc@ieindia.org, Website: www.ieiorissa.org]

## Architectural Engineering Division

All India Seminar on **"Architectural Engineering Innovations For Tall Buildings Archeitab"**

Hyderabad, October 18-19, 2024

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

All India Seminar on **"Bio Mimicry in Architectural Engineering"**

Chennai, December 27-28, 2024

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

Thirty-ninth National Convention of Architectural Engineers on **"Smart & Intelligent Building Architecture"**

Jodhpur, November 16-17, 2024

The Honorary Secretary, IEI, Jodhpur Local Centre, Gaurav Path, Jodhpur 342011, Rajasthan [☎: 0291-2432708, E-mail: jodhpurcl@ieindia.org]

All India Seminar on **"Trends In Advanced Building Construction And Innovative Building Materials"**

Rourkela, March 01-02, 2025

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

## Chemical Engineering Division

One Day Seminar on **"Chemical Recycling of Plastic Wastes via Homogeneous Catalysis CRPWHC2024"**

Rourkela, November 16, 2024

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

Thirty-ninth National Convention of Chemical Engineers on **"R&D Activities in Minerals and Metallurgical Industries for Today's Society"**

Bhubaneswar, November 09-10, 2024

The Honorary Secretary, IEI, Odisha State Centre, Engineers Bhawan, Institution of Engineers Square, Sachivalaya Marg, Unit-4, Bhubaneswar 751001, [☎: 0674-2390291, E-mail: odishasc@ieindia.org, Website: www.ieiorissa.org]

One Day Workshop on **"Innovative Small Scale Startup on Petroleum Processing and Petro Chemicals"**

Bhubaneswar, January 12, 2024

The Honorary Secretary, IEI, Odisha State Centre, Engineers Bhawan, Institution of Engineers Square, Sachivalaya Marg, Unit-4, Bhubaneswar 751001, [☎: 0674-2390291, E-mail: odishasc@ieindia.org, Website: www.ieiorissa.org]

## Computer Engineering Division

Thirty-seventh National Convention of Computer Engineers **"Applications of AI and Machine Learning"**

Chandigarh, November 22-23, 2024

The Honorary Secretary, IEI, Punjab and Chandigarh State Centre, Sector 19A Madhya Marg, Chandigarh 160 019 [☎: 0172-2775418, Fax: 0172-2540133, Email: pcsc@ieindia.org]

## Civil Engineering Division

Thirty-ninth National Convention of Civil Engineers on **"Exploring Emerging Trends in Civil Engineering"**

Kochi, October 17-18, 2024

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

All India Seminar on **"Integrating Risk Informed Planning for Sustainable Development"**

Srinagar, October 19-20, 2024

The Honorary Secretary, IEI, Jammu & Kashmir State Centre, Church Lane, Near Amar Singh Club, Sonwarbagh, Srinagar 190001 [Telefax: 0194-2501156, E-mail: jksc@ieindia.org, Website: www.ieijksc.org]

One Day Seminar on **"Latest Developments in The Field of Civil Engineering"**

Jamshedpur, October 19, 2024

The Honorary Secretary, IEI, Jamshedpur

Local Centre, Subarnarekha Link Road, Sakchi, In between (Red Cross Society and TCE Building), Jamshedpur 831001 [☎: 0657-2980316, E-mail: jamshedpurcl@ieindia.org]

All India Workshop on **"Ancient Technique of Building Planning and Construction Vastu Shastra"**

Indore, October 24-25, 2024

The Honorary Secretary, IEI, Indore Local Centre, SGSITS Campus, 23, Sir M Visvesvaraya Marg (Park Road), Indore 452003 [E-mail: indorelc@ieindia.org]

All India Seminar on **"Advanced Civil Engineering Approach Towards Geo-Environmental Problems"**

Jaipaliguri, December 02-03, 2024

The Honorary Secretary, IEI, North Bengal Local Centre, Engineers' House, Jaipaliguri Government, Engineering College Campus, PO Jaipaliguri, Government Engineering College, Dist. Jaipaliguri, Pin 735102 [☎: 03561-255468 [E-mail : nbcl@ieindia.org]

International Conference on **"Focusing on Global Partnership for Sustainable Development and Circular Economy through Technology"**

Kollam, December 05-06, 2024

The Honorary Secretary, IEI, Kollam Local Centre, 3rd Floor, Chemical Engineering Block, TKM College of Engineering, Kricode, Kollam 691005, Kerala [E-mail: kollamlc@ieindia.org, Website: www.ieikollamlc.org]

One Day Workshop on **"Sustainable Water Harvesting and Waste Water Treatment"**

Rourkela, December 21, 2024

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

One Day Workshop on **"Utilisation of Construction Demolition and Industrial Waste in Construction Industry"**

Neyveli, February 15, 2025

The Honorary Secretary, IEI, Neyveli Local Centre, Block 17, Neyveli 607801, Dist Cuddalore, Tamilnadu [Ph: 04142-210510; E-mail: neyvelilc@ieindia.org, Website: www.ieineyveli.org]

## Electrical Engineering Division

All India Seminar on **"Fuzzy Logic Control, Control of Grid Integrated and WEC System"**

Bhubaneswar, October 07-08, 2024

The Honorary Secretary, IEI, Odisha State Centre, Engineers Bhawan, Institution of Engineers Square, Sachivalaya Marg, Unit-4, Bhubaneswar 751001, [☎: 0674-2390291, E-mail: odishasc@ieindia.org, Website: www.ieiorissa.org]

All India Seminar on **"Cyber Physical Security of Energy Management System Automated Electric Vehicles"**

Hosur, October 08-09, 2024

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



**One Day Workshop on "IoT in Electrical Engineering"**

Agra, October 18, 2024

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

**Thirty-ninth National Convention of Electrical Engineers on "Green Hydrogen, Electric Vehicle and Energy Storage System"**

Chennai, October 25-26, 2024

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

**All India Seminar on "Exploring Sensors In Electric Vehicle Applications"**

Kattankulathur, October 28-29, 2024

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 "An Overview of The Present and Future Outlook of Electric Vehicles in India Approaches and Perspective"**

Kancheपुरam, November 05-06, 2024

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

**All India Seminar on "Advancing Digital Innovations for Sustainability in Energy Environment Health and Agriculture"**

Durgapur, November 23-24, 2024

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]

**Electronics & Telecom Engg Division**

**All India Seminar on "Emerging Technologies for 5G/6G Wireless Communication using AI/ML"**

Bhubaneswar, November 16-17, 2024

The Honorary Secretary, IEI, Odisha State Centre, Engineers Bhawan, Institution of Engineers Square, Sachivalaya Marg, Unit-4, Bhubaneswar 751001, [☎: 0674-2390291, E-mail: odishasc@ieindia.org, Website: www.ieiorissa.org]

**Environmental Engineering Division**

**One Day Seminar on "Utilization of E-waste as an Alternative Construction Materials"**

Coimbatore, October 18, 2024

The Honorary Secretary, IEI, Coimbatore Local Centre, PSG College of Technology Campus, Peelamedu, Coimbatore 641 004 [☎: 0422-2580733; Email: coimbatorelc@ieindia.org; Website: https://www.ieicoimbatore.org]

**One Day Seminar on "Novel Strategies and Bio Degradation of Polymers by Microorganism for Plastic Waste Management"**

Tiruchirappalli, October 18-19, 2024

The Honorary Secretary, IEI, Tiruchirappalli Local Centre, Einstein College of Engineering, Sir C V Raman Nagar, Seethaparanallur, Tirunelveli 627012 [☎: 0462-2487111, Fax: 0462-2487112, Mobile : 9489903804, E-mail :tirunelvelilc@ieindia.org, Web: www.ieitylc.com]

**One Day Seminar on "Energy Environment URJAVARAN"**

Ranchi, November 17, 2024

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

**One Day Seminar on "Industrialization and Mission LiFE IML 2024"**

Rourkela, December 07, 2024

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

**All India Seminar on "The Global and Local Dimensions of Climate Change Mitigation and Adaptation in Practice"**

Coimbatore, January 23-24, 2025

The Honorary Secretary, IEI, Coimbatore Local Centre, PSG College of Technology Campus, Peelamedu, Coimbatore 641 004 [☎: 0422-2580733; Email: coimbatorelc@ieindia.org; Website: https://www.ieicoimbatore.org]

**All India Seminar on "EEHVACR"**

Ranchi, February 08-09, 2025

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

**Marine Engineering Division**

**One Day Seminar on "Empowering Maritime Workforce Through Enhanced Training and Effective Regulation"**

Bhuaneswar, January 04, 2024

The Honorary Secretary, IEI, Odisha State Centre, Engineers Bhawan, Institution of Engineers Square, Sachivalaya Marg, Unit-4, Bhubaneswar 751001, [☎: 0674-2390291, E-mail: odishasc@ieindia.org, Website: www.ieiorissa.org]

**Mechanical Engineering Division**

**All India Seminar on "Driving Hydrogen Fuel Cells Into The Mainstream and Its Application"**

Hosur, October 09-10, 2024

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

**All India Seminar on "Material Efficiency in Clean Energy Transition"**

Thiruvananthapuram, October 17-18, 2024

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 "Exploring Innovations in Additive Manufacturing"**

Itanagar, October 2024

The Honorary Secretary, IEI, Arunachal Pradesh State Centre, North Eastern Regional Institute of Science and Technology (NERIST), NH-15A, Nirjuli, Dist Papum Pare, Itanagar, Arunachal Pradesh 791109 [E-mail: arsc@ieindia.org]

**All India Seminar on 'Integrating Industry 4.0 and Circular Economy: A Path to Sustainable Industrial Transformation in India'**

Jaipur, November 09-10, 2024

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

**International Conference on "Advances in Foundry and Forming Technology"**

Ranchi, November 18-19, 2024

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

**All India Seminar on "Heat Transfer and Fluid Flow Analysis in Mechanical System"**

Madurai, January 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]

**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: durgapurlc@ieindia.org, Website: http://www.ieidurgapurlc.org]

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

Thiruvananthapuram, September 23-24, 2026

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

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

Belapur, September 17-18, 2027

The Honorary Secretary, IEI, Navi Mumbai Local Centre, Plot No.106, Sector 15, C.B.D Belapur, Navi Mumbai 400614 [☎: 022-49706724,

E-mail:navimumbailc@ieindia.org,Website: www.ieinmlc.org]

#### Metallurgical & Materials Engg. Division

##### All India Workshop on "Recent Trend In Materials and Manufacturing Processes"

Tiruchirappalli, October 18-19, 2024

The Honorary Secretary, IEI, Tiruchirappalli Local Centre, Einstein College of Engineering, Sir C V Raman Nagar, Seetharparanallur, Tirunelveli 627012 [☎: 0462-2487111, Fax: 0462-2487112, Mobile : 9489903804, E-mail :tirunelvelilc@ieindia.org, Web: www.ieitylc.com]

##### One Day Seminar on "Surface Modification of Traditional Structural Steel by Plasma Spraying Using Shape Memory Alloys"

Rourkela, October 26, 2024

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

##### One Day Seminar on " Present future scenario of Nano Technology in field of Engineering Materials Agricultural Medical Sc"

Patna, November 10, 2024

The Honorary Secretary, IEI, Bihar State Centre, 1942, Kranti Marg (Hardinge Road), R-Block, Chauraha (near Petrol Pump), Patna 800001 [☎: 0612-2222639 / 2330544, E-mail: biharsc@ieindia.org, Website: www.ieibihar.org]

##### Thirty-seventh National Convention of Metallurgical & Materials Engineers on "Modern Steel Manufacturing Process"

Chennai, December 06-07, 2024

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

##### All India Seminar on "Iron and Steel Industry Enhancing Efficiency Sustainability"

Ranchi, December 15-16, 2024

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

#### Mining Engineering Division

##### All India Seminar on "Mining 4.0 Technology Vision for Safe Smart and Sustainable 3S Mining"

Ranchi, October 26-27, 2024

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

##### Thirty-fourth National Convention of Mining Engineers on "Mining of Fossil Fuels Challenges and Prospects"

Neyveli, November 29-30, 2024

The Honorary Secretary, IEI, Neyveli Local Centre, Block 17, Neyveli 607801, Dist Cuddalore, Tamilnadu [☎: 04142-210510, E-mail: neyvelilc@ieindia.org, Website: www.ieineyveli.org]

##### One Day Seminar on "Slop Stability of Particulate Dump Yard and Industrial Focus of Interest"

Rourkela, January 11, 2025

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

#### Production Engineering Division

##### All India Seminar on "Digital Manufacturing"

Chennai, February 21-22, 2025

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

##### All India Seminar on "Innovations in Green Sustainable Production Practices for Futuristic Industries"

Hyderabad, November 22-23 2024

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

##### 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]

#### Textile Engineering Division

##### All India Seminar on "Cutting Edge Fashion Blending Innovation Functionality Sustainability and AI Integration"

Salem, October 18-19, 2024

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: salemilc@ieindia.org; Website: www.ieislcl.com]

##### One Day Seminar on "The Role of Textiles in Future Space Travel"

Chennai, November 16, 2024

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

##### One Day Seminar on "The Role of Textiles in Future Space Travel"

Chennai, December 13, 2025

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

##### One Day Seminar on "Textile Machinery and Equipment Design"

Rourkela, December 15, 2024

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

#### Interdisciplinary Coordination Committee

##### All India Seminar on "Emerging Trends in Artificial Intelligence and its Social Impacts"

Thiruvananthapuram, November 14-15, 2024

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 "Advanced Machining Processes for manufacturing Bio-Medical Devices"

Coimbatore, November 29, 2024

The Honorary Secretary, IEI, Coimbatore Local Centre, PSG College of Technology Campus, Peelamedu, Coimbatore 641 004 [☎: 0422-2580733; Email: coimbatorelc@ieindia.org; Website: https://www.ieicoimbatore.org]

##### All India Seminar on "Transforming Industry and Infrastructure: The Role of Automation and AI"

Coimbatore, December 19-20, 2024

The Honorary Secretary, IEI, Coimbatore Local Centre, PSG College of Technology Campus, Peelamedu, Coimbatore 641 004 [☎: 0422-2580733; Email: coimbatorelc@ieindia.org; Website: https://www.ieicoimbatore.org]

#### National Languages Promotional Committee

##### One Day Workshop on "Solid Waste"

Kochi, November 23, 2024

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

##### One Day Seminar on "Opportunities and Applications of Artificial Intelligence in Electronics Sector"

Coimbatore, December 12, 2024

The Honorary Secretary, IEI, Coimbatore Local Centre, PSG College of Technology Campus, Peelamedu, Coimbatore 641 004 [☎: 0422-2580733; Email: coimbatorelc@ieindia.org; Website: https://www.ieicoimbatore.org]



# IEI AWARDS

## CALL FOR PAPERS

The Steel Authority of India Ltd (SAIL) had instituted two Awards, namely, **SAIL AWARD** and **DR M VISVESVARAYA AWARD** to be given away every year during the Indian Engineering Congress to author/s of the articles adjudged best on selected topics.

The topics for the year 2024 are given hereunder.

### SAIL AWARD

**Decarbonizing Indian Steel Industry,  
Opportunities and Challenges**

### DR M VISVESVARAYA AWARD

**Use of Technology and processes in  
systematic contractual safety management  
in Steel Industry**

The Coal India Ltd (CIL) had instituted an Award to perpetuate the memory of **Late J G Kumaramangalam**, its first Chairman to be awarded every year during the Indian Engineering Congress to author/s of the articles adjudged best on a selected topic. The topic for the year 2024 is given below.

### COAL INDIA (J G KUMARAMANGALAM MEMORIAL) AWARD

**Energy Transition: Challenges & Opportunities for Coal Sector**

The articles preferably restricting to 3000 words along with good quality photographs may be submitted along with a Declaration Form to [award@ieindia.org](mailto:award@ieindia.org) within **October 30, 2024**.

The template of the paper and the Declaration Form are enclosed, which are also available under the following link:  
[https://www.ieindia.org/webui/IEI-Activities.aspx#Call\\_Papers](https://www.ieindia.org/webui/IEI-Activities.aspx#Call_Papers)

Intending contributors are requested to send the soft copy of the paper by email to [award@ieindia.org](mailto:award@ieindia.org) (with subject heading Paper for SAIL/Dr M Visvesvaraya Award) and submit four nos. printed copies of their articles to :

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



The banner features a blue background with a starry pattern and a yellow banner at the top. On the left is the I.E.I. logo. The text 'The Institution of Engineers (India)' is in a stylized font. Below it, 'IEI' is written in large red letters, followed by 'Industry Excellence Award' in yellow. To the right, 'IEI' is written in large red letters, followed by 'Engineering Education Excellence Award' in yellow. A large white ampersand is between the two award titles. Below the titles are two URLs for further details. At the bottom, 'Ceremony' is written in a large, white, stylized font. The date '19 December 2024' and the venue 'Novotel Kolkata Hotel & Residences' are at the very bottom.

**The Institution of Engineers (India)**

**IEI Industry Excellence Award**

For further details: <https://tinyurl.com/y74b2c27>

**IEI Engineering Education Excellence Award**

For further details: <https://tinyurl.com/ywrse4n2>

**Ceremony**

**19 December 2024**  
**Novotel Kolkata Hotel & Residences**



# IRRESISTIBLE INDIA<sup>7</sup>

## A GLOBAL ENGINEERING POWERHOUSE



### 39<sup>TH</sup> INDIAN ENGINEERING CONGRESS

DECEMBER 20-22, 2024 | NOVOTEL, KOLKATA

ORGANISED BY

*The Institution of Engineers (India)*

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For further details: <https://www.39iec.org>

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