



IEI NEWS

April 2024

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A CENTURY OF SERVICE TO THE NATION

Volume 31

Number 1

Thirty-eighth National Convention of Architectural Engineers and National Conference

Decarbonizing Cities – Harmonizing Building, Mobility and Infrastructure

Indore Local Centre of the Institution organized the 38th National Convention of Architectural Engineers at Brilliant Convention Centre, Indore during 19-20 November 2023 under the aegis of Architectural Engineering Division Board [ARDB], IEI at Indore. A National Conference was also organized concurrently on the theme **Decarbonizing Cities – Harmonizing Building, Mobility and Infrastructure**. During the inaugural function, Prof (Ar) Abhay Vinayak Purohit, President, Council of Architecture, New Delhi, graced the function as the Chief Guest and Er



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Thirty-eighth National Convention of Electrical Engineers and National Seminar

Systemic Electric Vehicle Adoption in India including EV Charging –Implementation Roadmap, Regulatory Framework, Infrastructure Development, Technical Challenges & Case Studies

The Thirty-eighth National Convention of Electrical Engineers was organized by **Himachal Pradesh State Centre** during December 15-16, 2023 under the aegis of Electrical Engineering Division Board [ELDB], IEI at Shimla. A National Seminar was also organized on the theme **Systemic Electric Vehicle Adoption in India including EV Charging - Implementation Roadmap, Regulatory Framework, Infrastructure Development, Technical Challenges & Case Studies**. The objective of the National Convention was to provide insights regarding



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From the President's Desk.....

In the dynamic realm of technology and innovation, we find ourselves on the brink of a transformative era. As engineers and forward-thinkers, it is our responsibility to harness the potential of technology for sustainable development and inclusive prosperity.



The annual observance of World Telecommunication and Information Society Day (WTISD) on May 17th serves as a poignant reminder of the pivotal role played by telecommunications and digital technologies in our interconnected world. This year's theme, "Digital Innovation for Sustainable Development," emphasizes the pressing need to utilize digital innovative technologies to bridge the gap between development and conservation of nature, paving the way for a more sustainable future.

Recent statistics underscore the profound impact of digital connectivity, with over half of the global population now having internet access. This unprecedented level of connectivity facilitates knowledge exchange and collaboration on an unmatched scale. Additionally, emerging technologies such as artificial intelligence, blockchain, and the Internet of Things (IoT) herald a new frontier of innovation, offering solutions to complex problems, driving economic growth, and improving countless lives worldwide in a more sustainable way.

However, amid these promises, the stark reality of the digital divide persists. Inadequate infrastructure, limited access to digital skills, and deficient policy frameworks hinder the realization of digital potential, leaving marginalized communities behind.

The Institution of Engineers (India) is well-positioned to confront these challenges and enact meaningful change. Our dedication to excellence, innovation, and societal impact enables us to leverage technology as a force for good, fostering inclusive growth and sustainable development in our communities and beyond. As we navigate the path forward, let us not merely observe but actively engage in the pursuit of a more prosperous, equitable and sustainable future. Let us advocate for policies that promote digital inclusion, invest in robust digital infrastructure, and empower individuals with the skills needed to thrive in the digital age.

Together, let us embark on this collective endeavor, ensuring that digital innovation serves as a catalyst for sustainable change, leaving no one behind.

Decarbonizing Cities – Harmonizing Building, Mobility and Infrastructure

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Ashutosh Kanungo, Chief Engineer, MP Industrial Development Corporation, Bhopal, was the Guest of Honour. Er Sandip Kumar Deb, Chairman, Architectural Engineering Division Board, IEI [Session 2022-23] presided over the inaugural session. The programme started with the welcome address delivered by Er Rajendra Prasad Gautam, Chairman, Indore Local Centre, IEI [Session 2021-23]. In his address, Er Gautam focused on the importance and outcome of decarbonizing cities. Prof (Dr) Ms Shilpa Tripathi, Council Member, IEI, spoke on the theme of the National Convention and the details of technical sessions. Prof Tripathi spoke on green building, sustainability and further stressed on promoting research and development to enhance the knowledge index. On the occasion, a technical proceeding was released on the dais in the august presence of the dignitaries. On the occasion, Ms Deepti J Vyas, Architect, Urban Planner & Government Registered Valuer, Chairperson, Indian Institute of Architects, Indore Centre (2021-23) and Chairperson, Women's Forum, Institute of Town Planners India. Er Avijit Banerjee, General Manager, ITD Cementation India Limited, New Delhi, were felicitated as eminent engineering personalities for their commendable contributions in the field of architectural engineering. Er Sandip Kumar Deb, Chairman, Architectural Engineering Division Board, IEI, in his Presidential Address, deliberated at length the scope, functioning and contribution of architectural engineering sector in nation building. He explained the scope of career advancement for the architectural engineers and the norms & regulations of Council of Architecture for the career advancements of architectural and civil engineering professionals. Guest of Honour, Er Ashutosh Kanungo, President, MP Industrial Development Corporation stressed on small segmental efforts in different levels and thus reduce carbon emission through collaborative efforts. He strongly advocated for recycling and reuse of sewage water by appropriate treatment that leads to energy savings too. He further focussed on the use of sustainable building materials compatible with the approved building norms.

Chief Guest of the session, Prof (Ar) Abhay Binayak Purohit, spoke on export of services by the architectural engineering fraternity. Ar Purohit discussed on the certificate of recognition for the Architectural Engineers based on their domain of expertise. He further explained the practicing norms and services of Council of Architecture. He further spoke on smart, intelligent and sustainable architecture, capacity building and the importance of accountability in all respect. The inaugural function ended with vote of thanks given by Er Ramesh Chauhan, Convener of the event and presently the Honorary Secretary of Indore Local Centre.

Er Hitendra Mehta, Mehta and Associates LLP, Indore delivered State of Art Lecture on the topic 'Decarbonizing Cities – Harmonizing Building Mobility and Infrastructure'. Er Mehta delivered an insightful presentation on urban

planning and infrastructural development and focussed on identification of the driving factors for CO₂ emission in preconstruction, during the construction and post construction. He further explained the role of public entities and the role of private developers during decarbonizing building sector. Er Avijit Banerjee delivered the T S Narayana Rao Memorial Lecture. He explained about the design, execution, operation and maintenance of projects and also discussed at length the application of passive design factors, shading devices, smart controls, daylight exposure etc. He expounded upon the traditional Indian courtyard design, tailored to thrive in hot and arid climates. He explained further about landscape design and utility of canopy trees, application of grass boards, AAC blocks, reusable shuttering, water saving features in the toilets that leads to sustainable housing. The Keynote Lecture was delivered by Er V Suresh, former CMD, HUDCO on the topic 'Harmonizing Building Mobility of Infrastructure'. He explained the urbanization scenario in India and spoke on climate emergency, effect of global deforestation, carbon neutrality, determination of embodied energy in building materials, resilience and sustainability aspects, pre-disaster mitigation etc.

Mr V P Kulshrestha, Secretary General, Institute of Town Planners, India, delivered Keynote Lecture on the topic 'Sustainable Cities: A Vision for the Future' and explained the environmental, social and economic sustainability. He discussed the key aspects of sustainable cities, urban sustainability, different aspects of futuristic cities etc. Mr Anil Kumar Pandit, Special Director General, CPWD, delivered Keynote Lecture on retrofitting of buildings. During the technical session, papers were presented on diversified topics relevant to the sub theme, which include; Design Analysis of balanced cantilever bridge, planning low carbon and carbon resilient cities in India, energy consumption of buildings and passive architecture, sustainable energy strategy in India etc. Ar Sarang Bhide, Associate Professor, School of Architecture, IPSA, Indore and Director, Bhide And Associates, Indore, delivered Keynote Lecture on the topic, 'Application of Sustainable & Passive Design Techniques in Landscape & Architecture'.

During the valedictory function, Shri Rajesh Rathore, Executive Director, MP Industrial development Corporation was the Chief Guest. In his address, Shri Rathore focussed on the credibility and credentials of our country to take the centre stage for net zero emission and environmental sustainability. He further stressed on crating the carbon free environment for the future generation. Er Sandip Kumar Deb was present on the occasion and addressed the gathering. Prof (Dr) Ms Shilpa Tripathy, proposed the vote of thanks.

The National Convention was well attended by the industry professionals, academicians, students and researchers. A technical posters and technical products exhibition was also organized during these two days.

Know-Your- Member (KYM)

The Institution of Engineers (India) is updating the database of all its Corporate Members along with their achievements for which a Know-Your-Member (KYM) form has been introduced.

Every Corporate Member is requested to kindly fill up the form and forward it along with the self-attested copy of photo ID proof to the address given below:-

Deputy Director (Membership)

The Institution of Engineers (India)

8 Gokhale Road, Kolkata 700020

Email: datamemb@ieindia.org

The form is available on IEI Website:

https://www.ieindia.org/WebUI/ajax/Downloads/WebUI_PDF/HIGHLIGHTS_DOCUMENT-3332.pdf

Innovation and Technology Inclusion Program in Manufacturing and Asset Management for Steel Industry

Jamshedpur Local Centre, IEL, organized All India Seminar on **Innovation and Technology Inclusion Program in Manufacturing and Asset Management for Steel Industry** during 27-28 November 2023, under the aegis of Interdisciplinary Coordination Committee [ICC], IEL, at Jamshedpur. Mr Avneesh Gupta, Vice President, TQM and E&P, Tata Steel Limited, graced the inaugural function as the Chief Guest. Dr S Venugopal, Director, National Institute of Technology Nagaland, delivered the Key note address on 'Artificial Intelligence', where he elaborated about Machine Learning, Robotic Process Automation, Internet of Things, Blockchain, Datafication, which converts activities into data-driven processes, Quantum computing etc. Er Shivanand Roy, the then President, IEL was present on the occasion and addressed the august audience. Earlier, Er Probal Ghosh, Chairman, Jamshedpur Local Centre [Session 2021-23] and Vice President, Shared Services, Tata Steel Limited, welcomed the Chief Guest, the then President IEL, Keynote speaker, dignitaries, Corporate members of IEL and participants.

During the technical sessions, papers were presented on diversified subthemes including Robotics, Artificial Intelligence (AI) & Internet of Things (IoT), Innovation & New Technology, Condition Monitoring & Asset Management etc. Invited lectures relevant to the theme and related subthemes were delivered by esteemed industry leaders. Mr David and

for TSM'. Er Mishra explained, how Industry 4.0 is reshaping the steel industry and digital technologies are enabling manufacturing industries to enhance operational efficiency and modernize asset management. Er Jaipal Kothakapu, Senior Officer, Artha Wear Tech, spoke on 'Artha Wear Tech and Red List Enterprise Asset Management Software'. The speaker focused on the prevalent challenge faced by the maintenance and reliability teams across various industries to manage intricate workflows that often lead to errors and critical data gaps, which can significantly undermine production efficiency, the lifespan of assets, and employee performance. He explained the function of specialized software to bridge these gaps and translate into tangible enhancements for both top and bottom-line revenues, positioning the organization at the forefront of the industry 4.0 era. Dr Naishadh Shivashankar Bhatt, Senior Officer, Parker Hannifin India Private Limited, spoke on 'Bearing Isolator: An Energy-Efficient Innovation towards Prolonging the Life of Rotary Equipment' and pointed out lubricant contamination as one of the prime cause of equipment failure. Er Narendra Kumar Kolla from IIT Bhubaneswar delivered lecture on 'Design Establishment of a Dual Arm Mobile Robotic Platform along with Mathematical Modelling for Warehouse Operations'. The speaker presented the design establishment, workspace estimations, and structural analysis of a 4-DOF articulated dual-arm spatial manipulator for object grasping and placing at desired locations. He mentioned that the dual arm manipulator carry out the task with the help of an Arduino Mega micro-controller board. Dr Edwin Vijay Kumar, Professor & in-Charge, Centre for Asset Management and Conditioning Monitoring, Gayatri Vidya Parishad College of Engineering, spoke on 'Asset Management through Predictive Maintenance in Process Industries' and discussed the function of turbo-machinery in steel and process industry. Shri Shivnath Ram, Head, Asset Reliability and Asset Management, Jindal Steel and Power, Angul, Odisha, delivered lecture on 'Role of Smart Sensors and IIoT enabled Gadgets for maximizing Asset Efficiency in Steel Industries - Few Case Studies'. Dr M R S Satyanarayana, Professor, Department of Mechanical Engineering, GITAM University, Visakhapatnam, on 'Design & Development of Magneto-rheological Elastomer (MRE) based Isolator for Effective Vibration Control: A Review'. The speaker discussed at a length the active and passive vibration isolation system. He explained the development of semi-active and active isolation systems by using magneto-rheological elastomers (MRE) whose stiffness and damping characteristics can be verified in real time by controlling the magnetic flux. Dr Mayuri Baruah, Assistant Professor, NIT Jamshedpur, spoke on 'A Perspective Review on Utilization of Machine Learning in Welding-its Advances and Constraints'. Er Gautam Halder, Senior Officer from ARB Bearing presented a case study on 'Solving Metal Application Challenges using Advanced Bearing and Vibration Analysis Technique' and discussed about metal industry applications and challenges.



Team, Senior Officer, DBM Steel (LMM Group of Company) and Business Partner of Grip Strapping Technology Private Limited deliberated on the topic 'Automatic Wire Rod Tagging Robot to Simplify for an Error Free Process of online Printing and Tagging of Labels on Wire Road Coils'. The speaker explained the functioning of High Line Automatic Listing Robot, based on image recognition technology and Industrial robot platform. The system is able to realize the functions of automatic transmission of signage data, automatic printing and cutting, automatic sorting, automatic picking of labels by robots etc. Er Rajkamal Mishra from Tata Steel Limited, Jamshedpur spoke on 'Digital Innovation in Paving the Way for Smart Asset Management

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 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.

Systemic Electric Vehicle Adoption in India including EV Charging –Implementation Roadmap, Regulatory Framework, Infrastructure Development, Technical Challenges & Case Studies

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the pervasive implementation of electric vehicle adoption in India. Capt Rameshwar Singh Thakur, Chairman of Himachal Pradesh Public Service Commission (HPPSC), graced the inaugural session as the Chief Guest. In his inaugural address, Capt Thakur highlighted the potential of Himachal Pradesh as an innovation and sustainability hub in electric vehicle adoption. He mentioned that the 38th National Convention of Electrical Engineers signified commitment to innovation, particularly in the realm of electric vehicle adoption. He explained that collaborative efforts to revolutionize transportation, aligning with the state's ethos of innovation for betterment of community and environmental well-being, are the need of the hour. He also stated that embracing technological advancements in Himachal Pradesh is pivotal to the vision for a progressive and sustainable future. Guest of Honour, Dr A J Singh, Director, University Institute of Technology (UIT), Himachal Pradesh University, Shimla, shared his insights on the imperative fusion of academic research and practical implementation in advancing electrical engineering paradigms. His visionary address underscored the need for collaborative efforts among academia, industry and policymakers in propelling the electric vehicle revolution forward. Prof (Dr) Sudhir



Kumar Calla, Chairman of Electrical Engineering Division Board (ELDB), IEI [Session 2022-23], presided over the function. In his address, Prof Calla said that electrical engineering sector is continuously shaping the very fabric of our society and embracing a future where technology is converging with sustainability. He stressed on the significance of electric vehicles as catalysts for a cleaner, greener and more sustainable tomorrow, marking a technological leap intertwined with sustainability. Earlier, Er Vishwa Mohan Joshi, Chairman, Himachal Pradesh State Centre, welcomed the august gathering and explained that the 38th National Convention of Electrical Engineers exemplified commitment to innovation and sustainable progress and has been convened to march towards the systematic adoption of electric vehicles in India. He emphasized that the theme, 'Systematic Electric Vehicle Adoption in India' is a clarion call to the engineering fraternity a seismic shift in how we envision transportation. It's an invitation to harness the prowess of electrical engineering to craft a future where mobility combines seamlessly with sustainability and efficiency, he opined. Dr Manish Sharma of UIT, Himachal Pradesh University, Shimla, elaborated on the theme of the National Convention, emphasizing that electric vehicles are a symbol of sustainability and efficiency, and said that the timely gathering called for collaboration to pave the way for a future, where roads are sustainably powered. A Souvenir was released on the dais in the august presence of the dignitaries.

On the occasion, Er Baldev Singh Sran, Chairman-cum-Managing Director, Punjab State Power Corporation Limited (PSPCL), Patiala, Punjab; Er Pankaj Dadwal, Former Managing Director, Himachal Pradesh State Electricity Board and Chairman, BoG, National Skill Development Forum, IEI [Session 2022-23]; Prof (Dr) M Jayaraju, Former Director, ANERT, Department of Power, Government of Kerala, Former Principal, Government Engineering College Munnar, Kerala and Dean, Academic, UKF College of Engineering

and Technology, Kerala; and Er Jotinder Singh, Former Engineer in Chief, Punjab State Electricity Board, Consultant to Power Finance Corporation, Gol and Consultant to set up Supercritical Thermal Power Project, were felicitated as eminent engineering personalities in recognition of their eminence and contribution to the profession of Electrical Engineering. The IEI Young Engineers Award in Electrical Engineering Division for the year 2023-24 were presented to Dr Thanikanti Sudhakar Babu, Associate Professor, Department of Electrical Engineering, Chaitanya Bharathi Institute of Technology, Hyderabad, Telangana; Dr Ritesh Dash, Associate Professor, School of Electrical and Electronics Engineering, REVA University, Bengaluru, Karnataka and Dr Meheboob Alam, Executive Engineer (E), Damodar Valley Corporation (DVC), Mejia Thermal Power Station (MTPS), Bankura, West Bengal, in recognition of their contributions in the field of Electrical Engineering.

Followed by the inaugural session, the M S Thacker Memorial Lecture was delivered by Prof (Dr) Yajvender Pal Verma, Professor and Registrar, Punjab University, Chandigarh, on the topic 'Challenges in Transition to Sustainable E-Mobility'. The two-day event witnessed vibrant technical sessions comprising of an intellectual symphony, resonating through the profound insights shared by esteemed speakers from various domains.

The State of Art Lectures were delivered by the experts and specialists as detailed. Dr S Dharamalingum, Council Member, IEI, and Visiting Faculty, NIT Tiruchirappalli delivered State of Art Lecture on 'Integration of Renewable Energy Sources in Charging Infrastructure - Two Macro Aspects to Enhance Sustainability'; Dr Rajesh Kumar, Assistant Professor, Department of Electrical Engineering, NIT Hamirpur on 'Smart Grid Solutions for EVs'; Dr Pooja Sharma, Expert EV & Ex System Integration & Testing Lead, Mumbai on 'Challenges for Next-generation Battery Management Systems in EVs'; Prof (Dr) Mukesh Singh, Thapar Institute of Technology Patiala on 'Acceleration Electric Mobility: Charging Infrastructure in India'; Dr Ashish Kumar Sharma, Consultant, IFC, World Bank Group on 'Policies of EVs and their Impact, A Case Study in Regards to Himachal Pradesh'; Dr Pratim Kundu, Assistant Professor, School of Computing and Electrical Engineering, Indian Institute of Technology Mandi on 'Electric Vehicle Charging: Challenges and Way forward in Hilly Terrains'.

Dr Vivek Sharma from National Institute of Technology Hamirpur, delivered invited lecture on 'Fundamentals of Electric Vehicles'; Prof (Dr) Amit Kaul from National Institute of Technology Hamirpur on 'Electrical Vehicle : Challenges and Opportunities'; Dr Rajesh Kumar, National Institute of Technology Hamirpur on 'Smart Grid Solutions for EVs'; Dr Mahesh Sharma, Dr Sanjay Sharma and Dr Manish Kumar, UIT, Himachal Pradesh University Shimla, also excelled in their presentations. Eminent engineer, Prof (Dr) M Jayaraju, on 'Electric Vehicles: Benefits and Challenges for Widespread Adaptation'. Er Jotinder Singh also shared his views and thoughts. The IEI Young Engineers Awardees also delivered presentation on the occasion. Er Suyash Pandey, Scientist B/Assistant Director, BIS Parwanoo Branch also delivered presentation during the technical session.

Also during the technical sessions, papers were presented on diversified topics, which include; Comparative Analysis of V2G/G2V Control Schemes for Frequency Regulation; Novel Hardware Design of Precise Measurement Smart Meter with application for Demand Response Management; Compressive Analysis of Electric Vehicle's Dynamics and its Essential parameters for E-mobility Applications; Managing Challenges and Enhancing Opportunities for Electric Vehicle Integration with Energy Storage Systems and Grid Optimization; Electric Vehicles induced Vulnerabilities in Cyber-Physical Grid Perspective etc.

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New Generation Composite Materials

Kanchepuram Local Centre, IEI, in association with the Department of Mechanical Engineering, IEI Students Chapter at Saveetha Engineering College (SEC), Chennai, organized All India Seminar on the theme **New Generation Composite Materials** during 19-20 October 2023, under the aegis of Metallurgical and Materials Engineering Division Board [MMDB], IEI at Kanchepuram. Dr S Balasivanandha Prabu, Professor and Head, Department of Mechanical Engineering, College of Engineering, Guindy,



Anna University, Chennai, graced the inaugural function as the Chief Guest and delivered a compelling and insightful address on the topic 'Development of Eco-friendly Sustainable Composite Materials'. Dr D Elango, Chairman of Kanchepuram Local Centre [Session 2021-23] delivered the Keynote address. Dr N Balaji, Professor & Head, Mechanical Engineering Department, SEC, Dr N Duraipandian, Principal, SEC, and Dr V Muthukumar, Professor, Mechanical Engineering Department SEC, also graced the inaugural function.

During the technical sessions, spread over two days, Invited Lectures were delivered by esteemed speakers on the theme and related topics.

Dr B Vijaya Ramnath, Professor and Head, Sri Sairam Engineering College, Chennai, delivered Invited Lecture on the topic 'New Trends in Composite Materials and their Processing'. Dr P Sabarinathan, Assistant Professor, Department of Biochemistry, Centre of Molecular Medicine and Diagnostics (COMManD), Saveetha Dental College and Hospitals, Chennai, delivered Invited Lecture on 'Additive Manufacturing of Composites, Dr T Aravind, Associate Professor, Department of ECE & Centre for Micro Nano Design and Fabrication (CMNDF), Saveetha Engineering College, Chennai delivered Invited Lecture on 'Nanocrystalline Cellulose Bio-composite - A Study'. Dr V Muthukumar, Professor, Mechanical Engineering Department, Saveetha Engineering College, Chennai delivered Invited Lecture on 'Cutting-Edge Approaches to Composite Material Recycling: Turning Waste into Novel Composites'. Dr M P Saravanan, Assistant Professor, Mechanical Engineering Department, Saveetha Engineering College, Chennai delivered Invited Lecture on 'Sustainable Simulation and Modeling of Composite Materials'. Dr G Venkatesan, Assistant Professor, Civil Engineering Department, Saveetha Engineering College, Chennai delivered Invited Lecture on the topic 'Sustainable Marine and Offshore Engineering with Eco-composites'. Dr P Sevel, Professor, Mechanical Engineering Department, S A Engineering College, Chennai delivered Invited Lecture on the topic 'Green Advancements in Composite Materials for Automotive Sustainability'.

In the Valedictory session, Dr R Senthil Kumar, Vice-Principal, SEC, delivered the valedictory address. Dr V Muthukumar, Organizing Secretary and Professor, Department of Mechanical Engineering, SEC, extended the vote of thanks, expressing gratitude and appreciation to all involved. The event was successfully concluded with the participants gaining insights and a comprehensive understanding on sustainable materials, additive manufacturing, nanocrystalline cellulose, recycling, simulation, eco-composites, and automotive applications.

Systemic Electric Vehicle Adoption in India including EV Charging –Implementation Roadmap, Regulatory Framework, Infrastructure Development, Technical Challenges & Case Studies

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During the valedictory function of the National Convention, Dr A J Singh, Director, UIT, Himachal Pradesh University, Shimla, graced the occasion. He applauded the efforts undertaken in reflecting upon the transformative discussions for future endeavors in the realm of electrical engineering and adoption of Electric Vehicles. The National Convention culminated with a 'Vote of Thanks' presented by Shri Jaswant Singh, Honorary Secretary, Himachal Pradesh State Centre.

Comprehensive recommendations obtained based on the deliberations during the National Convention on the systematic electric vehicle adoption in India including general and technical aspects are furnished.

Establishing a comprehensive and standardized national regulatory framework for electric vehicle (EV) adoption should be advocated, ensuring consistency and providing a supportive environment for manufacturers and consumers; The need for a well-defined and standardized EV charging implementation roadmap be emphasized, including the establishment of a widespread charging infrastructure network, to address the demand and encourage mass adoption of electric vehicles; The increased research and development investment in advanced battery technologies should be focussed more to enhance energy density, reduced charging times, and improved overall lifespan; Standardization of charging protocol should be implemented across the nation to ensure interoperability among different electric vehicle models and charging stations, promoting a seamless charging experience; Grid Integration and Load Management should be recommended for collaboration between power utilities and EV charging

infrastructure developers to integrate smart grid technologies, enabling efficient load management, peak demand handling, and grid stability; Fast Charging Infrastructure need to be focused for the deployment of fast-charging infrastructure along major highways and urban centers, enabling long-distance travel and reducing charging time, thereby addressing a critical concern for EV adoption; Implementation of Vehicle-to-Grid (V2G) Technology should be encouraged allowing bi-directional energy flow between electric vehicles and the grid, enabling EVs to serve as grid assets during peak demand periods; Cyber security in EV Ecosystem needs to be emphasized to safeguard against potential threats to vehicle control systems, charging infrastructure, and data privacy; Advanced Driver Assistance Systems (ADAS) Integration in electric vehicles should be advocated to enhance safety, providing features such as collision avoidance, lane-keeping assistance, and adaptive cruise control; Comprehensive lifecycle analysis studies and recycling are recommended to assess the environmental impact of electric vehicles and their components; The National Convention also recommended strategies for responsible recycling and disposal of batteries to minimize environmental consequences; It has been recommended to promote research and development in wireless charging technologies to eliminate the need for physical connectors, enhancing user convenience and reducing wear and tear on charging infrastructure; More provisions of skill development and training need to be explored by means of establishing more training programs and skill development initiatives for engineers and technicians involved in the electric vehicle industry to ensure a competent workforce, capable of handling evolving technologies.

Advanced Materials: Synthesis, Characterization and Applications

In the contemporary landscape of science and technology, the advent of advanced materials stands as a pivotal cornerstone in material science, offering a paradigm shift in material engineering and design. These materials, characterized by their extraordinary properties and meticulously engineered structures, have ushered in an era of unprecedented possibilities and innovation across multifaceted industries. **Puducherry State Centre, IEI** organized All India Seminar on the theme **Advanced Materials:**



Synthesis, Characterization and Applications during 06-07 October 2023 at Puducherry under the aegis of Metallurgical and Materials Engineering Division Board [MMDB], IEI. Dr V S K Venkatachalapathy, Director cum Principal, Sri Manakula Vinayagar Engineering College, Puducherry, graced the inaugural function as the Chief Guest. Dr Bhagyadhar Bhoi, Chairman, Metallurgical & Materials Engineering Division Board (MMDB), IEI [Session 2022-23] graced the function as the Guest of Honour and delivered the Keynote address. Dr S Malarkann, Principal, Manakula Vinayagar Institute of Technology, Kalitheerthalkuppam (MVIT), delivered the Keynote address and stressed on the needs of advanced materials in various domains. Earlier, Dr B Radjaram, Chairman, Puducherry State Centre, IEI [Session 2021-23] and Head, Department of Mechanical Engineering, MVIT welcomed the august audience and extended his wishes to all the dignitaries and participants. Dr S Thirougnaname, Honorary Secretary of Puducherry State Centre [Session 2021-23] and presently Chairman, Puducherry State Centre delivered the vote of thanks. A souvenir was also released on the occasion.

In the first technical session, Dr B Muthukumar, Assistant Professor, Department of Physics, Pondicherry University, delivered Invited Lecture on the intrinsic material properties of the metal and their influence on the nature of the observed current. Special Lecture was delivered by Dr Bhagyadhar Bhoi on Green steel. Dr Bhoi explained Green Steel as a revolutionary concept in the metallurgical industry, representing a promising shift towards

sustainability and reduced environmental impact.

In the second technical session, Invited Lecture was delivered by Dr S Pradeep Devaneyan, Principal, Sri Venkateshwara College of Engineering & Technology, Puducherry, on Electroplating, a versatile and vital industrial process, offering a wide range of advantages, while efforts continue to minimize its environmental impact. Papers were presented on different subtopics, which include; 'Advancements and Challenges in Solar PV and Energy Storage Materials: Prospects and Directions in The Indian Landscape'; 'Biocompatible Composite Material'; 'Advanced Materials in Robotics Structure and Design' and 'Piezoelectric Shoes'.

In the third technical session, Dr A Subramania, Professor, Centre for Nano Sciences & Technology, Pondicherry University, delivered Invited Lecture on Dye-sensitized solar cells (DSSCs), often referred to as Gratzel cells, which have emerged as a promising and innovative technology in the field of photovoltaics. The speaker mentioned that DSSCs represent a promising avenue in solar energy technology, combining efficiency, versatility, and sustainability, with ongoing research aimed at further enhancing their capabilities and affordability. Papers were presented on emerging topics, namely 'A Sol-Gel Synthesis Of TiO_2 : ZnO Film For Solar Photovoltaic Application'; 'DFT and Spectroscopic Analysis of 2-cyano-5-fluoropyridine and 3- cyano-2-fluoropyridine'; 'Spectroscopic Study of 4-oxo-4H-1-Benzopyran-2 Carboxylic Acid' and 'Spectroscopic Investigation on Alpha-Cyano-4-Hydroxycinnamic Acid using Quantum Computational Methods'.

During the fourth technical session, Dr T Senthilvelan, Professor, Department of Mechanical Engineering, Puducherry Technological University, delivered Invited Lecture on Aluminium nano composites. Dr Senthilvelan in his lecture mentioned that application of Aluminium nano composites have garnered significant attention due to their unique properties and diverse applications across various industries. These materials, which combine aluminium with nanoparticles or nano fillers, offer a broad range of possibilities for enhanced performance and functionality, he added. Technical papers were presented on related sub themes, namely 'Molecular Study of 4-cyano-4'-hydroxybiphenyl Pharmaceutical Active Compound using DFT Methods' and 'Spectroscopic Investigations on 4- chloro- 4'- Methyl Butyrophenone on using Quantum Computational Method'.

The seminar provided insights into the latest advancements in materials and metallurgical domain. It also promote collaborations and partnerships among researchers, scientists, policymakers, and stakeholders to develop innovative solutions for sustainable development.



The Institution of Engineers (India)

IEI

Industry Excellence Award

&

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Engineering Education Excellence Award

Ceremony

December 19, 2024

Hotel The Westin, Kolkata Rajarhat

Sustainable Production: Green Cement Initiative

West Bengal State Centre, IEI, organized Technical Webinar on the theme **Sustainable Production: Green Cement Initiative** on 09 November 2023 under the aegis of Mechanical Engineering Division Board [MCDB], IEI. This webinar aimed at showcasing the cement production process technology in the 'green' route.



Er Makarand Marathe

Panelists of the webinar session were Er Makarand Marathe, Business Advisor at Cement Division, ThyssenKrupp Industries India Private Limited and Er Bhaskar Dutta, Business Consultant. The session was moderated by Er Anirban Datta, Chief Technology Officer, MESCIA Engineers. The event started with welcome address delivered by Dr Nirmal Das, Chairman, West Bengal State Centre, IEI [Session 2021-23]. Er Bhaskar Dutta emphasised upon the need of mitigating the climatic change across the globe for ensuring sustenance of civilization and its linkage with manufacturing process of key infrastructure resource like cement, through the route of improving the air quality index by curbing the emission from cement production units.

Er Makarand Marathe in his address mentioned that the demand for cement as a construction material is ever increasing, especially, with rapid urbanization, whereas the cement industry accounts for 7% of the world's total CO₂ emissions. Today, one of the key challenges being faced



Er Bhaskar Dutta

by the cement industry is to reduce CO₂ emissions during cement manufacturing process. He opined that the remedy to the escalating demand for sustainable and eco-friendly cement lies in transitioning from conventional grey cement manufacturing to greener alternatives. In order to achieve this, technology needs to be more sustainable in cement production process, which calls for an inter-disciplinary. The processes to capture greenhouse gas emissions in manufacturing affect the cement industry in almost all areas of the production chain. An interactive session was organized at the end of deliberation, when the panelists and moderators shared their views, thoughts and expertise with the participants.



Er Anirban Datta

Moderator of the session, Er Anirban Datta, presently the Honorary Secretary, West Bengal State Centre, IEI, summed up the proceedings emphasizing that cement manufacturing constitutes an integrated and multidisciplinary process. As one of the largest emitters in the atmosphere, he underscored the pivotal role of this sector in climate action, urging the adoption of clean technologies. Prof (Dr) Raju Basak, Honorary Secretary, West Bengal State Centre [Session 2021-23] and presently Chairman of West Bengal State Centre proposed the vote of thanks.



The Institution of Engineers (India)

Notification for R&D Grant-in-Aid

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

Like every year, the Institution invites applications for the session 2024-2025 for funding industry-oriented R&D projects and research initiatives aimed at improving the life-style of common people from engineering students pursuing full time Diploma/UG/PG/PhD engineering program in AICTE/UGC/NAAC approved Institutions/Colleges/Universities. The application form and guidelines are available in our website <https://www.ieindia.org>. The projects should be carried out under the guidance of faculty members who are Corporate Members of IEI. Membership criteria for student(s), guide(s) and Institution(s) are as follows:

Project Category	Student/Applicant Membership	Guide(s) Membership	Institutional Membership	Quantum of Grant (INR)
1. Diploma	Exempted [Membership of Student Chapter is desirable]	AMIE/MIE/FIE	Not Mandatory	Not exceeding ₹20,000/- for a single project
2. UG (BE/BTech/AMIE/Equivalent)	SMIE	AMIE/MIE/FIE	Applicant's Institute should preferably be an Institutional Member with NBA / NAAC Accreditation or valid NIRF Rank	Not exceeding ₹50,000/- for a single project
3. PG (ME/MTech/Equivalent)	AMIE/MIE/FIE	MIE/FIE	Applicant's Institute should preferably be an Institutional Member with NBA / NAAC Accreditation or valid NIRF Rank	Not exceeding ₹1,00,000/- for a single project
4. PhD	AMIE/MIE/FIE	MIE/FIE	Applicant's Institute should preferably be an Institutional Member with NBA / NAAC Accreditation or valid NIRF Rank	Not exceeding ₹1,50,000/- for a single project

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

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

Applications received in format other than that available on our website will not be accepted. Application should be forwarded through the Guide, Head of the Department or Head of the Institution. Please note that preference will be given to project proposals received from Institutions who are members of The Institution of Engineers (India) and with NBA / NAAC Accreditation or valid NIRF Rank. Kindly go through the guidelines (visit link <https://www.ieindia.org/webui/IEI-Activities.aspx#RnD-Initiative>) carefully before filling up the application.

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

World Telecommunication and Information Society Day

17 May, 2024

Theme: Digital innovation for sustainable development

World Telecommunication and Information Society Day (WTISD) 2024 underscores the pivotal role of digital innovation in advancing sustainable development across the globe. In this era, technological advancements offer transformative solutions to pressing societal and environmental challenges, from IoT-enabled smart agriculture to blockchain-driven supply chain transparency, digital innovations are reshaping industries and promoting sustainable practices. These innovations contribute to the achievement of the UN Sustainable Development Goals (SDGs).

The convergence of Information and Communication Technologies (ICTs) with emerging technologies is revolutionizing various sectors towards more sustainable practices. Advancements in telemedicine, powered by AI algorithms and remote monitoring devices, are expanding access to healthcare services while reducing the carbon footprint associated with traditional healthcare delivery, thereby facilitating remote consultations, diagnosis, and treatment, overcoming geographical barriers and improving health outcomes, especially in underserved areas.

Furthermore, digital platforms are enhancing transparency and citizen participation in governance processes, promoting accountability and social equity. E-governance initiatives provide citizens with access to government services and decision-making processes, fostering trust and inclusivity. Additionally, data analytics and blockchain technologies are driving environmental conservation efforts by providing insights into natural resource management and supply chain sustainability. As we commemorate WTISD 2024, it is imperative for stakeholders to leverage digital innovation strategically to address global challenges and build a more sustainable and equitable future for all.

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

Professional Engineers (PE) Certification by IEI

ELIGIBILITY REQUIREMENT

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

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

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

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

International Professional Engineers (IntPE) Certification by IEI

ELIGIBILITY REQUIREMENT

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

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

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

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

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

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>.

IEI Celebrates World Engineering Day for Sustainable Development 2024

Theme
**Engineering Solutions for
a Sustainable World**

World Engineering Day for Sustainable Development was celebrated by the Centres of the Institution all over the country on March 04, 2024. Brief accounts of the celebration as received from various Centres are reported hereunder.

STATE CENTRES

Manipur



On 04 March 2024, Manipur State Centre, IEI, observed World Engineering Day for Sustainable Development 2024 at Imphal. Er Swamikanta Singh L, Chairman, Manipur State Centre, IEI, welcomed all

and explained the importance of the theme. Theme Speaker of the event, Dr Suresh Thochom, Associate Professor, Civil Engineering Department, Manipur Institute of Technology, Imphal, delivered lecture on the theme 'Engineering Solutions for a Sustainable World'. He further deliberated on the topic 'Alkali Activated Geopolymer – Excellent Alternative Sustainable Binder for Future' and stressed the need for sustainable development in construction and constructional materials. He introduced the concept of geopolymer, a sustainable alternate binder compared to traditional cement for durability, heat resistant and better mechanical strength. At the end, Er Thokchom Subhaschandra Singh, Honorary Secretary, Manipur State Centre, IEI, proposed the vote of thanks.

Prof Sadhan Kumar Ghosh, Director General, Sustainable Development & Circular Economy Research Centre, ISWMAW, delivered the Keynote Address and explained the significance of sustainable manufacturing practices, waste minimization & segregation

of wastes, use of renewable energy sources, water conservation and circular economy towards achieving the Sustainable Development Goals (SDGs). Prof Asoke Kumar Paul, Former GM, SAIL and Professor, Techno India University, discussed about various measures of energy conservation, climate change and mitigation action for iron and steel sector. He focused on reducing use of fossil fuels in industry and transport sector. He stressed on using solar power for water purification system, lighting and mobile phone charging. Mr Jayanta Chakraborty, Consultant, Indofil Industries Ltd and Chairperson, Agriculture & Rural Development Committee, Bengal Chamber of Commerce & Industry, discussed various aspects of sustainable agricultural practices, engineering in advancement agricultural machineries and focused on reducing water consumption for agricultural use. At the end, Er Anirban Datta, Honorary Secretary, West Bengal State Centre, IEI, proposed the vote of thanks.

Uttar Pradesh



On 04 March 2024, Uttar Pradesh State Centre, IEI, observed World Engineering Day for Sustainable Development 2024 at Lucknow. In the beginning, Er Masarat Noor Khan, Immediate Past Chairman,

Uttar Pradesh State Centre, IEI, welcomed the participants. Chief Guest and Keynote Speaker of the event, Mr Rakesh Goyal, Ex Academic Counsellor, MBA program of IGNOU explained the impact of thermal plants on the environment, affecting climatic change and stressed on importance of renewable energy of this solution. He highlighted on the significance of solar energy along with its advantages and disadvantages and emphasized that the problem mainly on grid management. He discussed the several initiatives taken by Government of India to encourage the installation of large and small systems, the future plans on achieving the target. He presented the models of solar systems and spoke about future of electrical energy. Er V B Singh, Former Vice President, IEI, launched the new website of Uttar Pradesh State Centre, IEI. At the end, Er Vijaya Pratap Singh, Honorary Secretary, Uttar Pradesh State Centre, IEI, proposed the vote of thanks.

West Bengal

On 04 March 2024, West Bengal State Centre, IEI, observed World Engineering Day for Sustainable Development 2024 at Kolkata. Prof (Dr) Raju Basak, Chairman, West Bengal State Centre, IEI, delivered the welcome address.

LOCAL CENTRES

Agra



On 04 March 2024, Agra Local Centre, IEI, in association with the Department of Computer Science and Engineering, Eshan College of Engineering, Farah, Mathura, Agra, observed World

Engineering Day for Sustainable Development 2024 at Agra. Er Anil Kumar Goyal, Chairman, Agra Local Centre, IEI, presided over the function and discussed about engineering for sustainable world, actionable solutions, driving progress in renewable energy, waste management, real and practical knowledge of engineering. Prof (Dr) Pankaj Sharma, Director, Eshan College of Engineering, Mathura, spoke about the sustainable development goals. Er Vyom Kulshrestha, HoD, Department of Computer Science, Eshan College of Engineering, Agra, also spoke on the occasion.

Ahmednagar

On 04 March 2024, Ahmednagar Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 at Ahmednagar. Er Manohar Mukund Anekar, Chairman, Ahmednagar Local Centre, IEI, highlighted the importance of the theme in the fast growing economy. Dr Y R Kharde, Principal, Shri Chhatrapati Shivaji Maharaj College of Engineering (SCSMCOE), Ahmednagar, was present on the dais and addressed the



audience. Er Dilip Adhav, Plant & Head, L&T Electrical and Automation, Ahmednagar delivered presentation on 'Engineering Solutions for a Sustainable World' and discussed the role of engineers in creating

ideas for environmental protection in achieving sustainable goals set by UN 2015 for collective well being. Mr Girish Mokade, Deputy General Manager, L&T Electrical and Automation, Ahmednagar, also graced the event. Er Abhay Krishnarao Raje, Honorary Secretary, Ahmednagar Local Centre, introduced the speakers.



Assistant Professor, Civil Engineering Department, IIT ISM Dhanbad, delivered lectures on 'Engineering Solutions for a Sustainable World'. The event witnessed the presence of Dr Jitu Kujur, HoD, Civil Engineering Department, BIT Sindri; Dr

B D Yadav, Associate Professor, Civil Engineering Department, BIT Sindri; Dr V Pandey, former Professor, Civil Engineering Department, BIT Sindri; Prof R Murmu, Electrical Engineering Department, BIT Sindri, Members of Dhanbad Local Centre, IEI and students from IIT ISM, Dhanbad.

Bareilly



On 04 March 2024, Bareilly Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 at Bareilly. Er Raj Goel, Chairman, Bareilly Local Centre, IEI, delivered the welcome speech and

emphasized collaboration, innovation and sustainability, for promoting a better future along with engineering solutions. Dr Sovan Mohanty, Assistant Professor, Department of Electronics and Communication Engineering, Shri Ram Murti Smarak College of Engineering & Technology (SRMSCET), Bareilly, delivered lecture on the topic 'Engineering Solutions for a Sustainable Future: A True Driving Force for a Change'. He underscored the pivotal role of engineering in combating climate and promoting sustainability. He mentioned that engineers are the pioneers of renewable energy, fostering sustainable economy, minimize environmental impact, enhancing social equity and ensuring a prosperous and harmonious future for generations to come. Prof (Dr) L S Maurya, Professor & Principal, SRMSCET, Bareilly, delivered lecture on the topic 'Role of Technical Institutions towards Digital Engineering Solutions for a Sustainable World' and explained that technical institutions spearhead digital engineering for sustainability, leveraging AI, big data, etc and equip future leaders with skills to innovate solutions, driving progress towards a greener and equitable future. Er Sudhir Kumar Gupta, Immediate Past Chairman, Bareilly Local Centre, IEI, said that sustainable engineering focus on minimizing waste, reducing pollution, creating efficient systems which can be enjoyed by future generations. At the end, Er Pradeep Kumar Madhwar, Honorary Secretary, Bareilly Local Centre, IEI, proposed the vote of thanks.

Bathinda

Bathinda Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 through online mode on 05 March 2024. Er Kartar Singh Brar, Chairman, Bathinda Local Centre, IEI, welcomed the speakers and the participants. Chief Guest of the event was Dr Savina Bansal, Dean (Planning and Development), Maharaja Ranjit Singh Punjab Technical University, Bathinda; Keynote Speaker of the event was Dr Labh Singh Bhari, Chairman, Punjab & Chandigarh State Centre, IEI and Former Advisor to DoT, Government of India. Dr Singh delved deeper into the achievements of engineers in developing innovative solutions to address the global challenges and striving for a world that is equitable for all. Dr Bansal discussed about the achievements and contributions of the engineers in different sectors. At the end, Prof (Dr) Jagtar Singh, Immediate Past Chairman, Bathinda Local Centre, IEI, proposed the vote of thanks.

Dhanbad

On 04 March 2024, Dhanbad Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 at Dhanbad. Prof (Dr) Biswajit Paul, Department of Environmental Engineering & Science, IIT ISM Dhanbad & Honorary Secretary, Dhanbad Local Centre and Dr Avinash Singh,

Durgapur



On 04 March 2024, Durgapur Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 at Durgapur. The event witnessed the presence of Chief Guest, Prof Nirmal Barun Hui, Professor,

Department of Mechanical Engineering and Dean (Academic), National Institute of Technology Durgapur and Guest of Honour, Mr Anil Kr Tiwari, General Manager (Safety), SAIL, Durgapur Steel Plant. Dr Jaya Sikder, Associate Professor and Head, Department of Chemical Engineering, National Institute of Technology Durgapur graced the occasion as Guest of Honour and Keynote speaker. Prof (Dr) Chandan Koner, Chairman, Durgapur Local Centre, IEI, in his welcome address stressed the need of collaboration among engineers, policymakers, etc to find innovative solutions for the global issues like climate change, infrastructure development, clean energy, water resources management and others. He emphasized on raising awareness about the role of engineering for sustainable development and improving the life of people around the world. Dr Bimal Das, Honorary Secretary, Durgapur Local Centre, IEI, explained the history of World Engineering Day. Prof Hui emphasized the need to raise awareness about the role of engineering for sustainable development and highlighted the contribution of engineers towards global challenges like climate change, infrastructure development, clean energy, etc. He explained UN SDGs and mentioned that these goals are interconnected and provide a framework for address the pressing global challenges like poverty, inequality, environmental degradation, etc and emphasized that implementation of SDGs requires collaborative efforts from Governments, business, and individuals. Dr Sikder delivered lecture on the topic 'The Sustainable Development in Membrane Technology' and explored the pivotal role of membrane synthesis in treating industrial wastewater and osmosis-membrane distillation (FO-MD) technology for wastewater treatment. At the end, Dr Bimal Das proposed the vote of thanks.

Faridabad



On 04 March 2024, Faridabad Local Centre, IEI, in association with Sheela Devi Institute of Management & Technology (SDIMT), Faridabad, observed World Engineering

Day for Sustainable Development 2024 in Faridabad. Er Inderdeep Singh, Honorary Secretary, Faridabad Local Centre, IEI, welcomed the Expert Speakers of the event, Dr Pradeep Pathak, Dean, Academic Affairs, SDIMT College, Faridabad and Dr Khushboo Manchanda, HoD, Management Department, SDIMT College, Faridabad and the audience. Dr Pathak, in his lecture stressed the need of global collaboration in engineering and addressing the challenges through cross-border partnerships and explained the benefits of global collaboration, tools and technologies for global

collaboration, the best practices for successful global collaboration and future trends. Dr Manchanda focused on technical advancement in different parts of economy, including renewable technologies, energy storage systems, smart grids, electric vehicles, sustainable agriculture, vertical farming, water purification technologies, green building materials, Internet of Things, sustainable urban planning, etc. At the end, Er Pradeep Mallah, Joint Honorary Secretary, Faridabad Local Centre, IEI, proposed the vote of thanks.

Ghaziabad



On 04 March 2024, Ghaziabad Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 at Ghaziabad. Dr Satish Chandra Gupta, Chairman,

Ghaziabad Local Centre, IEI, welcomed all the attendees. Chief Guest of event was Er M K Singh, Chief Engineer, Ghaziabad Development Authority, Ghaziabad and Guest of Honour of the event was Er (Dr) Arindam Basu, Director General, NITRA. Dr Gupta explained the significance of sustainability and emphasized pivotal role of engineers in innovative and implementing engineering solutions for sustainable development. He underscored the key pillars of a sustainable world to meet SDG. Dr Basu mentioned that UNESCO recognizes the invaluable contribution of engineers worldwide to create a better and sustainable world and their commitment to a sustainable future. At the end, Er Punit Goel, Honorary Secretary, Ghaziabad Local Centre, IEI proposed the vote of thanks.

Gorakhpur



On 04 March 2024, Gorakhpur Local Centre, IEI, in association with Institute of Technology and Management (ITM), GIDA, Gorakhpur, observed World Engineering Day for

Sustainable Development 2024 at Gorakhpur. Chief Guest of the event was Er R N Singh, President, Chamber of Industries, Gorakhpur and Guest of Honour of the event was Er J B Rai, President, Malviya Alumni Association. Dr N K Singh, Director, ITM, GIDA, Gorakhpur was also present on the dais. Dr Pawan Kumar Mishra, Chairman, Gorakhpur Local Centre, IEI, delivered the welcome address and introduced the guests and dignitaries. He highlighted the importance of the day to raise awareness about the contributions of engineering to sustainable development goals and inspire the future engineers. Er J B Rai highlighted the role of engineers in responding to the challenges regarding climate change, rapid urbanization, technological disruption, etc and innovative solutions to safeguard communities, improve resilience and foster sustainable development. Er R N Singh, in his address highlighted the role of engineers in sustainable development and emphasized the need of interaction of technical institutions with industry to synchronize the learning of engineering students and working in the industry. At the end, Er Ramesh Chandra Pandey, Honorary Secretary, Gorakhpur Local Centre, IEI, proposed the vote of thanks.

Gwalior



On 04 March 2024, Gwalior Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 at Gwalior. Er Radha Kishan Khetan, Chairman, Gwalior Local Centre,

IEI, delivered the welcome address and explained the history of World Engineering Day for Sustainable Development (WED). Keynote Speaker of

the event, Er P K Singhal, Professor and HoD, Department of Electronics, MITS, Gwalior, opined that WED helps to accelerate the development and implementation of sustainable solutions. PE Vinay Kumar Shukla, Organizing Secretary, Gwalior Local Centre, IEI, spoke about the goals of WED to raise awareness about the importance of engineering in achieving sustainable development. Er A S Bais, Retired Colonel, Indian Navy, explained the significance of the day as a valuable opportunity to acknowledge engineers' contributions to society and advocate for engineering's role in fostering a sustainable future. Er C S Malvi, Professor & HoD Mechanical Engineering Department, MITS, Gwalior, stressed on raising public awareness about the critical role of engineers in sectors such as infrastructure, transportation, healthcare, technology, etc in everyday life. Er U S Pandey, Retired Civil Engineer, PWD Works underscored the crucial role of engineers in devising innovative solutions for pressing issues such as climate change, poverty, and inequality. Er Ranveer Singh, Retired Electrical Engineer, emphasized that WED motivates the engineers for creating solutions for a better future. Er Vivek Khandelwal, Digital Marketer, shed light on the pivotal role of engineering in sustainable development and emphasized the day as a platform to enhance awareness, appreciating contributions of engineering in creating solutions that harmonize societal progress with environmental and economic consideration.

Jodhpur

On 04 March 2024, Jodhpur Local Centre, IEI, in association with UltraTech Cement observed World Engineering Day for Sustainable Development



2024 at Jodhpur. Er M M Agarwal, Chairman, Jodhpur Local Centre, IEI, delivered the welcome address. Dr Dinesh Padiwal, Former Additional Chief Engineer, PHED, Jodhpur, graced the occasion

as Keynote speaker and shared his valuable insights. He mentioned the detailed measure that can be taken by the engineers to address the global challenges like climate change, poverty, inequality etc and provide innovative solutions. He stressed the need to work in the areas like green buildings, waste management, seamless transportation, smart education, social responsibility, water management, smart health, etc, that are essential for sustainable economic development and highlighted the importance of engineering education for sustainable development. At the end, Er Resham Ram Hooda, Honorary Secretary, Jodhpur Local Centre, IEI, proposed the vote of thanks.

Kadapa

On 04 March 2024, Kadapa Local Centre, IEI, in association with Global College of Engineering & Technology, Kadapa, observed World Engineering



Day for Sustainable Development 2024 at Kadapa and organized a Seminar on the occasion. Speaker of the event, Er Challa Prathyusha, Academic Consultant, Dr

YSR Architecture & Fine Arts University, Kadapa, delivered lecture on urban transportation systems and opined that increase of vehicles has led to a surge in fuel consumption, harmful emission, and posed challenges to environmental sustainability and public health. She emphasized the urgent necessity for innovative solutions to mitigate the environmental impact of urban transportation system, while ensuring the efficiency and accessibility of mobility services. Using a comprehensive case study, she illustrated how a decrease in vehicles on the roads led to a reduction in fuel consumption and emissions, while strategically enhancing public transportation and reducing reliance on private vehicles. Earlier, Er A Venkateswarlu, Honorary Secretary, Kadapa Local Centre, welcomed all.

Kalaburagi

Kalaburagi Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 in Kalaburagi on 05 March 2024. Dr Sridhar R Pande, Chairman, Kalaburagi Local Centre, IEI, presided over the function. Chief Guest of the event was Dr Ali Raza Moosvi, Vice Chancellor, Khaja Bandanawaz University, Kalaburagi and Guest of Honour of the event was Dr Md Azam, Dean, Faculty of Engineering & Technology, Khaja Bandanawaz University, Kalaburagi. Dr Sangamesh Rajole, Assistant Professor, Central University, Kalaburagi, delivered lecture on engineering solutions for sustainable development. At the end, Er Seetharam Munnur, Honorary Secretary, Kalaburagi Local Centre, IEI, proposed the vote of thanks.



Kanpur

Kanpur Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 in Kanpur on 06 March 2024. Dr Mukesh Kumar Singh, Chairman, Kanpur Local Centre, IEI, delivered the welcome address. Theme Speaker of the event, Dr Deepesh Singh, Professor, Department of Civil Engineering, HBTU, Kanpur delivered lecture on the theme and focused on the multifaceted contributions of engineering in fostering sustainability across diverse sectors and highlighted that engineers play a pivotal role in advancing renewable energy technologies like solar, wind, hydroelectric, geothermal power for reducing fossil fuels, mitigating climate change. He stressed on green building design and construction techniques supported by sustainable transportation solutions like electric vehicles, promoting cleaner and more efficient mobility, waste management strategies on recycling, composting, waste to energy conservation, minimizing landfill usage fostering a circular economy and sustainable farming practices. At the end, Er Rama Kant Yadav, Past Honorary Secretary, Kanpur Local Centre, IEI, proposed the vote of thanks.



Kozhikode

On 04 March 2024, Kozhikode Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 in Kozhikode. Dr Gireesan P, Chairman, Kozhikode Local Centre, IEI, presided over the function and explained the importance of the day and the theme. Er M Pramod Kumar, Honorary Secretary, Kozhikode Local Centre, IEI, welcomed the gathering. Speaker of the event, Prof (Dr) Abdul Gafur M, Principal, KMCT Institute of Emerging Technology and Management, Kerala, delivered lecture on the theme. He discussed about global environmental issues, role of engineering for sustainability and digital sobriety, etc. At the end, Er Vivek B, Committee Member, Kozhikode Local Centre, IEI, proposed the vote of thanks.



North Bengal

On 04 March 2024, North Bengal Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 in Jalpaiguri on the theme 'Engineering Solutions



for a Sustainable World'. Ms Shrayasi Datta, Honorary Secretary, North Bengal Local Centre, IEI, explained that sustainable engineering is designing systems that fulfils the current needs without relinquishing the future demands. Engineers should maintain sustainable development and strategic framework without hindering the environment, economy and society and to preserve for future generations. Er P K Saha, Member, North Bengal Local Centre, IEI, focused on role of engineers in minimizing waste by utilizing renewable energy sources, reducing pollution, and designing efficient systems that will benefit future generations. He highlighted that the importance of sustainable engineering comes from industry's aim to create a better world. Er G K Panda, Er Asim Mahapatra, Er Santanu Das, Er Subrata Bhattacharya, Er U K Mandal, Members, North Bengal Local Centre, IEI, shared their valuable insights about the event. At the end, Ms Shrayasi Datta proposed the vote of thanks at the end of the event.

Roorkee

On 04 March 2024, Roorkee Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 in Roorkee. Prof (Dr) Kamal Jain, Chairman, Roorkee Local Centre, IEI, explained the importance of World Engineering Day and the relevance of the theme. He highlighted the importance of sustainable development in every engineering field. Speaker of the event, Prof Akshay Divedi, Dean (SRIC), Mechanical & Industrial Engineering, IIT Roorkee, delivered lecture on the theme and highlighted the significance of sustainable development goals and care for mother nature. He stressed on saving the environment using 3R - reduce, reuse and recycle. He presented various case studies where engineering solutions have been designed in sustainable ways to achieve sustainable way of doing business. He spoke about Government of India's ERP policy, carbon credit, etc. At the end, Er Mickey Mecon Dalbehera, Honorary Secretary, Roorkee Local Centre, IEI, proposed the vote of thanks.



Rourkela

On 04 March 2024, Rourkela Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 at Rourkela. Er Santosh Kumar Polaki, Chairman, Rourkela Local Centre, IEI, welcomed the members and guests. Dr Ajit Behera, Honorary Secretary, Rourkela Local Centre, IEI, introduced the Speaker of the event, Dr Manoj K Patel, Principal Scientist, CSIR-Central Scientific Instruments Organization (CSIR-CSIO), Associate Professor, Academy of Scientific and Innovative Research (AcSIR-CSIO), Chandigarh. Dr Patel shared his valuable insights on electrostatic spraying, which is one of the most efficient and effective methods to spray the liquid based protective agents. He explained the application of advanced electrostatic spraying based technologies for agriculture & farmer's welfare, environment, health, energy, food safety and nutrition. At the end, Dr Ajit Behera proposed the vote of thanks.



South Gujarat

On 04 March 2024, South Gujarat Local Centre, IEI, in association with Vidyadeep University (VIDUNI), observed World Engineering Day for Sustainable Development 2024 in Surat. The event witnessed the presence of Guest of Honour, Dr Jignasaben Oza, Regional Officer, Gujarat Pollution



Contd. on page 17

IEI Celebrates World Water Day



Theme - Water for Peace

The World Water Day was celebrated by the Institution all over the country on March 22, 2024. Reports of celebration received from various Centres are reported here.

STATE CENTRES

Andhra Pradesh

On 22 March 2024, Andhra Pradesh State Centre, IEI, in association with Lakireddy Bali Reddy College of Engineering (LBRCE), observed World Water Day 2024 at Vijayawada.



Prof (Dr) Venkata Sriram Chintamaneni, Chairman, Andhra Pradesh State Centre, IEI, delivered the welcome address. Mr P L N Kartic, Superintending Engineer, Capital Region Development Authority,

Vijayawada, graced the occasion as Chief Guest and Keynote speaker. Mr Kartic discussed about various sources of water, their quality problems and stressed the need to purify the water, water conservation, ground water recharge and water minimization aspects to solve the water crisis. He presented few case studies of global water crisis, particularly in Bangalore and discussed the solutions to address the problems. The event witnessed the presence of Dr K Appa Rao, Principal, LBRCE, Andhra Pradesh; Dr J Venkateswara Rao, HoD, Civil Engineering Department, LBRCE, Andhra Pradesh; Dr D Ramesh Kumar, Committee Member, Civil Engineering Division, Andhra Pradesh State Centre and Faculty Members of Civil Engineering Department, LBRCE, Andhra Pradesh. At the end, Prof (Dr) M L S Deva Kumar, Honorary Secretary, Andhra Pradesh State Centre, IEI, proposed the vote of thanks.

Jammu & Kashmir



On 22 March 2024, Jammu & Kashmir State Centre, IEI observed World Water Day 2024 in Srinagar and a Seminar was organized on the theme. Er Iftikhar Ahmed Hakeem, Chairman, Jammu & Kashmir State Centre, IEI

welcomed all participants and Dr Jahangeer Ali, Honorary Secretary, Jammu & Kashmir State Centre, IEI, coordinated the program. The event witnessed the presence of Chief Guest Er Ajaz Rasool, Hydraulic Engineering Expert and Guest of Honour, Er Barsharat Jeelani Kawoosa, former Chief Engineer, Jal Shakti Department, Kashmir. They shared their valuable insights on various aspects of water management and its implications for fostering peace. Dr Khalid Muzamil Gani, Assistant Professor of Environmental Engineering, Department of Civil Engineering, NIT Srinagar, highlighted the importance of sustainable water practices in conflict resolution. Er Ferdous Ahad Bhat, Honorary Joint Secretary, Jammu and Kashmir State Centre, IEI, shared his views about water conservation and peace-building initiatives. This Seminar provided a platform for participants to exchange knowledge sharing, collaboration, achieving sustainable management practices and fostering peace in the region.

Manipur

On 22 March 2024, Manipur State Centre, IEI, observed World Water Day 2024 at Imphal. Er Swamikanta Singh L, Chairman, Manipur State Centre,

IEI, welcomed the audience and explained various projects taken up to review the water resources for adequate water supply in Manipur State. He appealed to all to implement rain water harvesting at their residences and



offices so that the demand of freshwater may be reduced. Chief Guest of the function, Mr Shangreiphaio Vashumwo, Chief Engineer, Public Health Engineering Department (PHED),

Government of Manipur, emphasized that water is an important medium to bring peace between communities and nations worldwide and the nations must share the natural resource among themselves. He appealed to all to store and conserve water by using modern technologies and techniques. At the end, Er Thokchom Subhaschandra Singh, Honorary Secretary, Manipur State Centre, IEI, proposed the vote of thanks.

Puducherry

On 22 March 2024, Puducherry State Centre, IEI, in association with IEI, Students Chapter of Sri Manakula Vinayagar Engineering College,



Department of Civil and Mechanical Engineering, observed World Water Day 2024 in Puducherry and a Seminar was organized on the topic 'Leveraging Water for Peace'. Chief Guests of the event were

Er R Sundaramoorthy, Executive Engineer, PWD, Puducherry and Er R Devadoss, Assistant Engineer, PWD, Puducherry. The seminar aimed to raise awareness among students about the pressing issues surrounding water conservation. It emphasized the necessity for global cooperation, presenting various means and strategies through case studies to underscore the importance of collective action. Earlier, Dr S Thirougnaname, Chairman of Puducherry State Centre delivered the welcome address. At the end, Dr Ganesan Subramanian G, Honorary Secretary, Puducherry State Centre, proposed the vote of thanks.

Tripura



On 22 March 2024, Tripura State Centre, IEI, in association with Public Works Department (Drinking Water & Sanitation), Government of Tripura observed World

Water Day 2024 at Agartala and organized a Seminar on the theme. Dr Subhadeep Bhattacharjee, Chairman, Tripura State Centre, IEI, presided over the programme. Hon'ble Justice Shri Arindam Lodh, Hon'ble Judge, High Court, Tripura, graced the occasion as the Chief Guest. He focused on the necessity of clean drinking water, which is a fundamental right of every citizen as rules framed by the Supreme Court and stated that the state is duty-bound to provide it. He emphasized that the people have the basic rights to access to drinking water for their basic needs. Special Guest of the event, Er Shyam Lal Bhowmik, Chief Engineer, Public Works Department

(Drinking Water & Sanitation), Government of Tripura, explained the aims of Jal Jeevan Mission to provide tap water supply to the rural households in adequate quantity and quality. He highlighted the achievements made by Tripura in providing water connection to remote areas. Special Speakers of the event, Er Rajib Majumder, Director, WSSO, PWD (DWS), Government of Tripura, discussed the current scenario and challenges associated with water supply and Shri Mrinmoy Majumder, Associate Professor in Hydro Informatics, NIT Agartala, discussed about optimal management of water vulnerabilities, traditional methods for water conservation and different low-cost filtration techniques for water purification. At the end, Dr Mrinal Kanti Deb Barma, Honorary Secretary, Tripura State Centre, IEI, proposed the vote of thanks.

Uttar Pradesh



On 22 March 2024, Uttar Pradesh State Centre, IEI, observed World Water Day 2024 at Lucknow. Er Satya Prakash, Chairman, Uttar Pradesh State Centre, IEI, welcomed the participants. The event witnessed the presence of Er V B Singh, Former Vice President, IEI;

Er Masarrat Noor Khan, Immediate Past Chairman, Uttar Pradesh State Centre, IEI; Mr Sudhir Kumar Verma, SCC Member; Er Ashok Kumar Singh, Former Engineer-in-Chief, Irrigation Department; Er Ashok Agrawal, Engineer-in-Chief, PWD; Mr Ashish Kumar, General Secretary, UPPEA and Dr Ashish Srivastava, Former Chancellor, Dr Rajendra Prasad Agricultural University, Pusa. Keynote Speaker of the event, Dr Manish Rameshchandra Ranalkar, Scientist-F and Head, Meteorological Centre, Lucknow, discussed about climate crisis, disruptive weather pattern, jeopardizing water security on a global scale and impact on water resources like devastating floods to encroaching sea levels, vanishing ice fields to raging wildfires, droughts, etc. He emphasized on Sustainable Water Management for reducing carbon emissions, safeguarding ecosystems. He stressed the need of sustainable development, biodiversity, access to water, sanitation. He invited all to build up a future where water is cherished, protected and harnessed as a force for resilience and renewal in the face of climate crisis. At the end, Dr Jaswant Singh, Past Honorary Secretary, Uttar Pradesh State Centre, IEI, proposed the vote of thanks.

West Bengal



On 22 March 2024, West Bengal State Centre, IEI, observed World Water Day 2024 at Kolkata. The theme emphasizing the integral role water plays in encouragement of global peace and sustainable development, calls for a re-evaluation of our approach to water resources, recognize

water as a potential catalyst for peace building amongst nations and by working together to balance human rights and needs. Prof (Dr) Raju Basak, Chairman, West Bengal State Centre, IEI, delivered the welcome address. Prof (Dr) Heleena Sharma, Associate Professor and HOD, Department of Civil Engineering, Techno India University, delivered lecture on the significance of the theme. Prof (Dr) Anirban Gupta, Professor, Department of Civil Engineering, Indian Institute of Engineering Science and Technology Shibpur, explained the value of water, importance of conservation of water and its sources and challenges to mitigate global water crisis in future. At the end, Er Anirban Datta, Honorary Secretary, West Bengal State Centre, IEI, proposed the vote of thanks.

LOCAL CENTRES

Bareilly

On 22 March 2024, Bareilly Local Centre, IEI, observed World Water Day 2024 at Bareilly and a Seminar was organized on the theme. Er Pradeep



Kumar Madhwar, Honorary Secretary, Bareilly Local Centre, IEI, delivered the opening remarks and conducted the proceedings. Er Raj Goel, Chairman, Bareilly Local Centre, IEI welcomed all and emphasized the importance of the day. He mentioned

that clean water is not merely a basic human right, but also essential for sustainable development and conflict prevention. He underscored the importance of preserving this invaluable resource to ensure a peaceful and prosperous future for all. Speaker of the event, Er D N Yadav, GM, Vadilal Industries Limited, Bareilly, mentioned that water holds power to unite, it is a common thread, weaving through the fabric of global peace and collaborate to ensure equitable access, sustainable management, etc towards harmony, prosperity and resilience for present and future generations; Er Sudhir Kumar Gupta, Past Chairman, Bareilly Local Centre, IEI, and Er Suresh Chandra Sudnrani, Past Chairman, Bareilly Local Centre, IEI, also shared their views. At the end, Er Pradeep Kumar Madhwar proposed the vote of thanks.

Bhatinda

On 22 March 2024, Bathinda Local Centre, IEI, observed World Water Day 2024 through online mode. Er Kartar Singh Brar, Chairman, Bathinda Local Centre, IEI, welcomed the guest, speakers and all the participants. Speaker of the event, Dr Anil Mehta, Central Team Member, Paryavaran, Sanrakshan Gatividhi (PSG), National Co Head of Jal Upakaram focused on creating awareness about the importance of water and its conservation for life by adopting simple ways for each person. Chief Guest of the event was Dr Ranjit Kaur, Professor and Head, ECE and Dean, Director (International Affairs), Punjabi University, Patiala. The event witnessed the presence of Prof (Dr) Jagtar Singh, Former Chairman, Bathinda Local Centre, IEI. At the end, Dr Harsimran Singh, Honorary Secretary, Bathinda Local Centre, IEI, concluded the webinar by thanking all the participants.

Bhimavaram

On 22 March 2024, Bhimavaram Local Centre, IEI, in association with



Department of Computer Science and Design, S R K R Engineering College, Bhimavaram, observed World Water Day 2024 at Bhimavaram. Prof Karnam Suresh Babu, Chairman, Bhimavaram Local Centre,

IEI, welcomed the Chief Guest and theme speaker, Dr P A R K Raju, Professor-Dean-R&D, SRKR Engineering College, Bhimavaram Prof (Dr) K Brahma Raju, Council Member, IEI, delivered Keynote address on the occasion. At the end, Prof Nookala Gopala Krishna Murthy, Honorary Secretary, Bhimavaram Local Centre, IEI, proposed the vote of thanks.

Coimbatore



On 25 March 2024, Coimbatore Local Centre, IEI, in association with Agricultural Engineering College and Research Institute (AEC&RI), Tamilnadu Agricultural

University (TNAU), Coimbatore, observed World Water Day 2024 at Coimbatore. Prof (Dr) Krishnamoorthi J, Chairman, Coimbatore Local Centre, IEI, welcomed the Guest Speaker, Dr S Pazhanivelan, Director, Centre for Water and Geospatial Studies, Tamilnadu Agricultural University, Coimbatore. Dr Pazhanivelan discussed about the gaps and issues related to Indian water resources and its impact on climate changes on water resources. He explained water resource monitoring using satellites and drones, climate resilient water management practices, using of field water tubes for effective IWM under SRI and focused on surface water storage technologies; water spread analysis, impact of water spread on crop intensity and groundwater recharge by sediment filtering system through borewell. Dr A Raviraj, Dean (Agricultural Engineering), AEC&RI, TNAU and Dr Balaji Kannan, Professor (SWCE) and Head, Department of Physical Sciences and Information Technology, AEC&RI, TNAU, were present on the occasion and addressed the audience. At the end, Prof (Dr) Madhan Mohan Gopalasamy, Honorary Secretary, Coimbatore Local Centre, IEI, proposed the vote of thanks.

Faridabad

Faridabad Local Centre, IEI, in association with Manav Rachna International Institute of Research and Studies, Faridabad, observed World Water Day 2024 on 19 March 2024 at Faridabad. Er Kuldip Raj Gupta, Chairman, Faridabad Local Centre, IEI, delivered the welcome address and highlighted the importance of the day. Er Sushil Bajaj, Consulting Design Engineer & Management Consultant



and Dr Pradeep Kumar Dimri, Chairperson, Electronics Engineering Department, J C Bose University of Science & Technology (YMCA), Faridabad, graced the occasion as Expert Speakers. Er Bajaj explained the importance of water and the concept of 'Water of Peace'. Dr Dimri explained the challenges faced by the society with regard to water and stressed the need of water for future generation, gave a remarkable connection with sustainable water consumption. Er Inderdeep Singh, Honorary Secretary, Faridabad Local Centre, IEI, proposed the vote of thanks.

Ghaziabad

Ghaziabad Local Centre, IEI, observed World Water Day 2024 at Ghaziabad on 21 March 2024. Dr Satish Chandra Gupta, Chairman, Ghaziabad Local Centre, IEI, welcomed all and urged to create an awareness for judicious use of water in our daily life. Chief Guest of the event, Er Vijendra Vikramaditya, former Chief Engineer, UP Jal Nigam highlighted the policies of different countries for sharing rivers and water bodies and peaceful solution of water. Er R R Tanwar, Council Member, IEI, explained various activities of IEI. Dr B C Sharma, Director, Raj Kumar Goel Institute of Technology, Ghaziabad, shared his valuable insights about scarcity of water in hills and stressed the need of using of technology in water management. Dr Laxman Prasad, Group Advisor, Raj Kumar Goel Institute of Technology, Ghaziabad, emphasized the critical importance of water and advocated for its conservation in daily life, urging against wasteful practices. At the end, Er Punit Goel, Honorary Secretary, Ghaziabad Local Centre, IEI, proposed the vote of thanks.



Gorakhpur

On 22 March 2024, Gorakhpur Local Centre, IEI, observed World Water Day 2024 in Gorakhpur and a Seminar was organized on the theme. Er Pawan Kumar Mishra, Chairman, Gorakhpur Local Centre, IEI, welcomed the Chief Guest of the event, Er R P Tiwari, Former Engineer-in-Chief & HoD,

Department of Irrigation, Uttar Pradesh; Guests of Honour of the event, Er G N Pandey, Former Engineer-in-Chief (Mechanical), Department of Irrigation, Uttar Pradesh, Er Dinesh Singh, Superintending Engineer, Uttar Pradesh



Irrigation, Er Alok Kumar, Superintending Engineer, Uttar Pradesh Irrigation & Er J B Rai, President, Malviya Alumni Association, Gorakhpur and Keynote Speaker Er M P Kandoi,

Former Superintending Engineer, Irrigation Department, Uttar Pradesh. Er Kandoi suggested to re-evaluate our relationship with water and to work together in the spirit of partnership and solidarity to address the challenges of water systems. Er Pandey, Er Dinesh Singh, Er Alok Kumar, Er Dharendra Chaturvedi, Former, Chairman, Gorakhpur Local Centre, IEI and Er V K Srivastava, Former Honorary Secretary, Gorakhpur Local Centre, IEI, shared their valuable insights on the water and the planet. They called for collective responsibility in bringing about meaningful change towards a future where rivers of peace flow freely, nourishing the hearts and minds of all humanity. Er Tiwari urged the Governments, Civil Society Organizations, individuals, etc to prioritize water security and to invest in sustainable water practices. He emphasized the need in solving the water related conflicts and building resilient communities and creating a world where water is a source of unity and every individual enjoys the fundamental human right to access clean and safe water. At the end, Er Ramesh Chandra Pandey, Honorary Secretary, Gorakhpur Local Centre, IEI, proposed the vote of thanks.

Gwalior

On 22 March 2024, Gwalior Local Centre, IEI, observed World Water Day 2024 at Gwalior. Er Radha Kishan Khetan, Chairman, Gwalior Local Centre, IEI, welcomed the members and highlighted the importance of fresh water. He advocated for



the sustainable management of freshwater resources. Dr S K Agrawal, former Professor and HoD, Department of Mechanical Engineering, Jaypee University of Engineering and Technology (JUET), GUNA emphasized the importance of both water conservation and the prevention of its misuse. He opined that water can be a tool for peace, when communities and countries collaborate to manage this shared resource effectively. He spoke that water is not only a resource to be used but it is a human right, intrinsic to every aspect of life. Er Rajendra Singh, Consultant, World Bank emphasized the role of water in encouraging global peace and sustainable development. He advocated the day for sustainable management of freshwater resources. Er Naresh Nangariya, Section Coordinator, BPCL, explained the theme and stressed the need of cooperative efforts to manage and distribute resources equitably and that access to clean water is a fundamental human right by promoting fair and transparent water governance. Er K K Saraswat, former Civil Engineer of the Irrigation Department discussed about water scarcity, pollution, unequal access and opined that this theme calls for evaluation of our approach to water resources. Er U S Pandey, super annuated from PWD Works focused on water to create peace and stressed the need among the countries to united together for protecting and conserving this precious resource.

Jammu



On 22 March 2024, Jammu Local Centre, IEI, observed World Water Day 2024 at Jammu. Chief Guest of the event was Shri Ramesh Kumar, IAS, Divisional Commissioner, Jammu and Guest of Honour of the event was Er Hamesh

Manchanda, Chief Engineer, Jal Shakti (PHE) Department, Jammu. Prof (Dr) Ms Bhawna Sharma, Chairperson, Jammu Local Centre, IEI, in her welcome speech, opined that public health, prosperity, food systems, energy, economic productivity and environmental integrity are all hinged on a well-managed water cycle. She emphasized the urgent need for individuals for bringing about meaningful change by changing water consumption patterns and management practices. Chief Guest, Shri Ramesh Kumar appreciated the role of IEI in spreading awareness on water conservation and making all endeavours towards the society at large in Jammu & Kashmir towards sustainable development. Er Sachin Tickoo, Honorary Secretary, Jammu Local Centre, IEI, emphasized that water is not only to be used as a resource but can compete over as a human right, intrinsic to every aspect of life. He stressed the need to unite around water and use water for peace, laying the foundations for a prosperous tomorrow. At the end, Er Sachin Tickoo, proposed the vote of thanks.

Kanpur

On 22 March 2024, Kanpur Local Centre, IEI, in association with the Department of Civil Engineering, HBTU, Kanpur, observed World Water Day 2024 through online mode. Dr Mukesh Kumar Singh, Chairman, Kanpur Local Centre, IEI, welcomed the Theme Speaker of the event, Er Shivani Koshtha, Assistant Professor, Department of Civil Engineering, HBTU, Kanpur. Er Koshtha, in her lecture, focused on water scarcity, pollution and inequitable water access, which causes significant threats to global stability and security, disputes among nations over water sharing, resource scarcity etc. She recognized water as a fundamental human right, nations can foster cooperation, dialogue, trust building mechanisms that pave the way for peaceful co-existence. He stressed on adopt on of holistic water management approaches to balance the needs of ecosystems, communities and economies. Through sustainable practices, he envisioned a future where water becomes a symbol of peace, unity, prosperity, and sustainability for future generations. At the end, Er Ram Autar Dixit, Honorary Secretary, Kanpur Local Centre, IEI, proposed the vote of thanks.

Kollam

Kollam Local Centre, IEI, in association with Kerala State Council for Science, Technology and Environment; The Kerala Minerals & Metal Limited,



Chavara, Kollam; IRE (India) Limited; TKM College of Engineering, Kollam and TKM Institute of Technology, Karuvelil, Kollam, observed World Water Day 2024 on 23 March 2024 in Kollam. Er Shajahan A, Convenor of the event & Executive

Committee Member, Kollam Local Centre, IEI, delivered the welcome address. Dr Madusoodanan Pillai K, Chairman, Kollam Local Centre, IEI, presided over the event. Dr P K Gopan, President, Jilla Panchayath, Kollam, graced the occasion as the Chief Guest and delivered thought provoking lecture about the importance of water and how it could be conserved for future. During the technical session, Dr P Harinarayanan, Senior Principal Scientist, Kerala State Council for Science Technology and Environment (KSCSTE), Kerala, discussed briefly on leveraging water for peace and climate change scenario, water as a tool for peace, extreme impacts by natural disasters, Sustainable Development Goals, etc; Mrs Saritha S, Senior Scientist, Central Ground Water Board, described the ground water scenario in Kerala, ground water movement and Dr Sudheer Padikkal, GM, Kerala Irrigation Infrastructure Development Corporation, discussed about water conflicts, interstate river water sharing agreements, water conservation initiatives, etc. At the end, Prof (Dr) Ms Sudhi Mary Kurian, Honorary Secretary, Kollam Local Centre, IEI, proposed the vote of thanks.

Madurai

On 22 March 2024, Madurai Local Centre, IEI observed World Water Day 2024 at Madurai and a seminar was organised on the theme. Er M



Dhanabalan, Former Chief Engineer, Tamilnadu Water Supply and Drainage Board (TWAD), Tamilnadu, graced the occasion as the Chief Guest. Prof (Dr) P Udhaya

Kumar, Chairman, Madurai Local Centre, IEI, delivered the welcome address. The day focused on the achievement of Sustainable Development Goal 6: water and sanitation for all by 2030 and highlighted the role of water for maintaining peace, pollution of water, impact of climate change, etc and to take active measures in conserving our precious water resources by working together as water is a fundamental human right and essential for sustainable development. At the end, Er A T Baskar, Honorary Secretary of Madurai Local Centre, proposed the vote of thanks.

Neyveli



Neyveli Local Centre, IEI, observed World Water Day 2024 on 30 March 2024 at Neyveli. Er Appavu Eraniyan, Honorary Secretary, Neyveli Local Centre, IEI and Chief General Manager,

NLC India Limited delivered the welcome address. Er Shaji Jose, Chief General Manager, Unit Head, NLC India Limited, was present on the dais. Er M Sudheer Kumar, Head of Operations, Water & Waste Water Industry, Tecton Engineering and Construction, Chennai, delivered lecture on the theme 'Water for Peace'. Guest of Honour of the event was Er Siva Shankar Ekambaram, Vice President, Environmental Engineering Division, Tecton Engineering and Construction, Chennai. The event highlighted on water cycle, recycle opportunities and applications, technologies to deploy, water shortage, etc. It was suggested in reduction on demand of fresh water and adoption of the strategy at the local level for sustainability through recycling and reuse.

North Bengal



On 22 March 2024, North Bengal Local Centre, IEI, observed World Water Day 2024 at Jalpaiguri. Er Shrayasi Datta, Honorary Secretary, North Bengal Local Centre, IEI, delivered

the welcome address. Speaker of the event, Er Subrata Das, Member, North Bengal Local Centre, IEI, focused on the water availability per person per capita and its reducing trend. He highlighted the directives from Ministry of Housing and Urban Affairs under Jal Jeevan Mission regarding water supply to the urban areas and rural areas. Er G K Panda, Er G Bairagi, Er Santanu Das, Er Subhas Barman, Er Sandipan Ganguly, Er Prithwish Roy from North Bengal Local Centre shared their views. At the end, Prof (Dr) Amitava Ray, Chairman, North Bengal Local Centre, IEI, proposed the vote of thanks.

Rourkela

On 22 March 2024, Rourkela Local Centre, IEI, observed World Water Day 2024 through hybrid mode. A seminar was organised on the topic 'Harmony in H₂O: Uniting Nations through Sustainable Water Management'.



Er Santosh Kumar Polaki, Chairman, Rourkela Local Centre, IEI, welcomed the members and guests. Dr Ajit Behera, Honorary

Secretary, Rourkela Local Centre, IEI, introduced the speaker of the session, Dr Ratnakar Swain, Assistant Professor, Civil Engineering Department, National Institute of Technology, Rourkela. Dr Swain explained that sustainable water management offers a pathway to unite nations through harmony and prosperity. He emphasized that water is essential for life and ecosystems, transcends political boundaries and underscored its significance as a shared responsibility among nations and communities. He opined on adopting sustainable practices and water management systems, addressing water challenges collectively, fostering unity and cooperation, mitigating conflicts over shared water resources, reducing tensions, promoting peaceful relations, benefitting industries reliant on water and ensuring stable water supply for economic activities. At the end, Dr Ajit Behera, Honorary Secretary, Rourkela Local Centre, IEI proposed the vote of thanks.

Tiruchirappalli

Tiruchirappalli Local Centre, IEI, in association with 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 observed World Water Day 2024 through virtual mode on 19 March 2024. Speaker of the event was Er Kirit B Trivedi, Former Deputy Executive Engineer, N W R W S & K Department, Government of Gujarat. On this occasion, the importance of water for the world, status of water in the world, Sustainable Development Goals, water related conflicts, Indian river system, recent water crises etc were discussed. Earlier, Er R Selvaraj, Past Chairman, Tiruchirappalli Local Centre, IEI, welcomed all. Dr S Karuppasamy, Past Chairman, Tiruchirappalli Local Centre, IEI, proposed the vote of thanks.

Upper Assam

On 22 March 2024, Upper Assam Local Centre, IEI, observed World Water Day 2024 through online mode. Er Bhairab Bhuyan, Chairman, Upper Assam Local Centre, IEI, delivered the welcome address. Chief Guest of the event, Er Nripendra Kumar Sarma, Chief Engineer, PHE, Government of Assam, delivered Keynote speech on 'Water for Peace'. On this occasion, two technical papers were presented by Mr Devanga Borah, Deputy Manager (Production), APL, Namrup on 'Water Crises – Near and Far' and Mr Rakesh Kalita, Manager (Excavation), NEC, Coal India Limited, Margherita on 'Desalination of Seawater'. Mr Biswajit Das, DGM (Electrical), OIL India Limited, Duliajan, also spoke on the occasion.

Vallabh Vidyanagar



On 22 March 2024, Vallabh Vidyanagar Local Centre, IEI, observed World Water Day 2024 in Vallabh Vidyanagar. Chief Guest and Expert Speaker of the event, Dr Narendra Jaydevbhai Shrimali,

Associate Professor, Civil Engineering Department, Faculty of Technology and Engineering, The M S University of Baroda, Vadodara, highlighted the importance of World Water Day and the theme. He emphasized the importance of water as a catalyst for peace building and sustainable development. He discussed the importance for resolving water related disputes, promoting cooperation among stakeholders and achieving water security for all. He highlighted unequal access to clean water and warned of conflicts over resources, linking them to stability and security concerns. Earlier, Prof (Dr) Sanjaykumar Kanubhai Dave, Chairman of the host Centre welcomed all. At the end of the function, Er Sunikumar Subhashchandra Shah, Honorary Secretary, proposed the vote of thanks.

IEI Celebrates

World Engineering Day for Sustainable Development 2024

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Control Board, Surat; Keynote Speaker, Dr Sudhanshu Jangir, Director, Indian Institute of Sustainability, Gujarat and Mr Hirenbbhai Patel, Vice President, Vidhyadeep University, Gandhinagar. The program started with the welcome speech delivered by Dr Suryawanshi Shivanand Rohidas, Chairman, South Gujarat Local Centre, IEI. Dr Oza shared her views on sustainability and explained, how the environment and economy are balanced by adopting sustainable development in our daily life. She opined that engineers are maintaining the balance between environment and economy like a bridge. Dr Jangir explained briefly about difference practices that one should comply while designing any product or project. He stressed the need of sustainable development by giving real life examples that he faced while starting the Bournvita plant in India. At the end, Er Sandeep Dangi, Honorary Secretary, South Gujarat Local Centre, IEI proposed the vote of thanks.

Trichur

On 04 March 2024, Trichur Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 at Trichur. Er Thomas John V, Chairman, Trichur Local Centre, IEI, delivered the welcome address. Er Saju Antony Pathadan, Construction Engineer and Former Lions Internationals, Kerala, explained the theme with reference to UN SDGs and four pillars



of sustainability like human, social, economic and environment. He further focused on 4C's of sustainability, namely consumption, conservation, community and cooperation.

He highlighted the role of engineers in translating UN SDGs into actionable solutions. Prof (Dr) C P Sunil Kumar, Past Chairman, Trichur Local Centre, IEI, also shared his views on the occasion. At the end, Prof (Dr) Kurien E K, Past Honorary Secretary, Trichur Local Centre, IEI, proposed the vote of thanks.

Upper Assam

On 04 March 2024, Upper Assam Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 through online mode. Er Bhairab Bhuyan, Chairman, Upper Assam Local Centre, IEI, delivered the welcome address. Chief Guest of the event was Mr Arnab Baruah, CGM (Frontier Basin), Oil India Limited, Duliajan and Keynote Speaker of the event was Mr Chhatrapal Somkuwar, Executive Director, Fortress Infracon Limited, Mumbai. At the end, Er Debajeet Sarma, Past Honorary Secretary, Upper Assam Local Centre, IEI, proposed the vote of thanks.

Visakhapatnam

On 04 March 2024, Visakhapatnam Local Centre, IEI, observed World Engineering Day for Sustainable Development 2024 through online mode. Er Venkata Satya G Pakki, Chairman, Visakhapatnam Local Centre, IEI, presided over the programme. Er Rapeti Nageswara Rao, Honorary Secretary, Visakhapatnam Local Centre, IEI, welcomed the gathering. Dr Ch Sambasiva Rao, Committee Member, Visakhapatnam Local Centre, IEI, introduced Chief Guest and theme speaker of the event, Mr Ravi Eswarapu, CEO, Andhra University Incubation Hub & President, TIE, Visakhapatnam. He focussed on traditional as well as sustainable engineering solutions in the context of resource utilization, environmental impact, social equity, innovation, renewable energy utilization, transportation, agriculture, waste management, etc.

News-in-Brief

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

STATE CENTRES

Assam

Observed National Science Day 2024 on the topic 'Indigenous Technologies for Viksit Bharat' on 28 February, 2024 at Guwahati. Er Monojit Mishra, Honorary Secretary, Assam State Centre, briefly explained the significance and importance of the National Science Day. Speaker of the event was Mr Amarendra Sarmah, former teacher, Rupnagar High School Guwahati.

Karnataka

Organised Prof B R Narayana Iyengar Memorial Lecture on the topic 'Challenges in 3D Printing of Metallic/MMC Components' on 30 January, 2024 at Bangaluru. Dr B V A Rao, Member, Karnataka State Centre, talked about his close association with Prof B R Narayana Iyengar, Past President, IEI, (1986-87) who rendered great service for the development of engineering education and profession in the country. Speaker of the session was Prof Ramesh C S, Dean, R&D, Presidency University, Bengaluru. Prof Ramesh spoke on Additive Manufacturing, which is currently the most sought-after production process for any complex shaped geometries. He explained Direct Metal Laser Sintering (DMLS), owing to its high versatility in terms of precision of geometries of components and guarantee of highest levels of reduction in production time. He also educated that metallic component of any complex shape, like gas turbine blades can also be developed by this technique.

Kerala

Organised Technical Talk on 'Public Private Partnerships - The Wonder Development Alternative and Corruption Deterrent' on 6 December 2023 at Thiruvananthapuram. Speaker of the session was Er Anil Kumar Pandala, Managing Director, Enterprise Computing Solutions Private Limited & Management Consultant, was the speaker, who delivered a technical talk on the subject theme.

Organised Technical Talk on 'Role of Renewable Energy Microgrids in Clean Energy Transition' on 20 December, 2023 at Thiruvananthapuram. Speaker of the session was Dr Ajith Gopi, Additional Chief Technical Manager, ANERT, Department of Power, Government of Kerala.

Organised Technical Talk on 'Demystifying Information Security, Cyber Security and Data Privacy - A Standards Approach' on 27 December, 2023 at Thiruvananthapuram. Speaker of the session was Er Pradeep Kumar Madhavan, Management Systems & Business Excellence Consultant, Auditor and International Tutor.

Organised Technical Talk on 'Efficient Engineering: Navigating Resource Savings with Safety at the Helm' on 03 January, 2024 at Thiruvananthapuram. Speaker of the event was Mr Manoj M, Junior Consultant, Kerala Infrastructure Investment Fund Board (KIIFB).

Organised Technical Talk on 'Making of WESAT-Women Engineered Satellite' on 17 January, 2024 at Thiruvananthapuram. Speaker of the event was Dr Lizy Abraham, WESAT Principal Investigator, Assistant Professor, LBS Institute of Technology for Women, Thiruvananthapuram.

Organised Technical Talk on 'Trends in Battery Technology' on 24 January, 2024 at Thiruvananthapuram. Speaker of the event was Dr K Surendran, former Professor, Department of Electrical Engineering, College of Engineering, Trivandrum.

Organised Technical Talk on 'Architecture and Urban Planning' on 31 January, 2024 at Thiruvananthapuram. Speaker of the event was Er Abhilash S S, Site Supervisor - PWD Kerala Road Fund Board.

Tripura

Celebrated National Tourism Day 2024 at Agartala, by organising a seminar, in association with Tripura Tourism Development Corporation Limited, and with the support of Tripura Tea Development Corporation Limited as a knowledge partner, on the topic 'Sustainable Tea Garden Ecotourism and Technology Interface' on 27 January, 2024 at Agartala. Shri Samir Ranjan Ghosh, Chairman, Tripura Tea Development Corporation Limited, graced the occasion as the Guest of Honour. Shri Manik Lal Das, Managing Director, Tripura Tea Development Corporation Limited, graced the occasion as Special Guest. The special speaker, Dr Tanoy Bandyopadhyay, In-Charge & Senior Scientist, Tripura Advisory Centre, Tea Research Association, discussed the promotion of tea cultivation, the sustainability of tea tourism, and the evolution of tea gardens in Tripura. Dr Sumita Deb, Assistant Professor, Electrical Engineering Department, NIT Agartala, discussed on enhancing energy efficiency in the tea processing industry through various energy equipment and systems. It was stressed that tea, as a global favourite beverage, contributes significantly to India's GDP but faces energy and environmental challenges. Tripura fosters Tea garden ecotourism, aiming to emerge as a sustainable model for promoting local culture and driving economic growth.

A seminar was organised on 'Water Resource Management and Envisaging Environment' on 23 February 23, 2024 at Agartala. Prof (Dr) Arunoday Saha, Former Vice Chancellor of Tripura Central University and Er Tapan Lodh, Former Chief Engineer, Public Works Department (Water Resources), Government of Tripura & Councillor of Agartala Municipal Corporation, graced the occasion as Chief Guest and Guest of Honour respectively. Dr Bishu Karmakar, Member Secretary, Tripura State Pollution Control Board and Dr Animesh Debnath, Department of Civil Engineering, NIT Agartala, were the Special Speakers. The discussion emphasized effective water resource management, optimizing freshwater use for drinking, industry, and agriculture amid climate change. Key topics included water economics, traditional conservation, recycling, and rainwater harvesting in India.

Organized a seminar in association with Tripura State Council for Science & Technology, DSTE, Government of Tripura, on the topic 'Indigenous Technologies for Viksit Bharat' on 28 February, 2024 in the context of National Science Day 2024 at Agartala. Dr K Sasikumar, IFS, Secretary, Department of Science, Technology and Environment, Government of Tripura and Dr H K Pratihari, Director, National Forensic Sciences University, Tripura Campus, graced the occasion as Chief Guest and Guest of Honour respectively. Dr Subhranil Ray, Scientist & Nodal Officer, Science Communication, Tripura State Council for Science & Technology, DSTE, Government of Tripura, and Dr Kalyan Gayen, Assistant Professor, Department of Chemical Engineering, NIT Agartala, spoke on the topic as Special Speakers. The topic of the event reflects a strategic focus on promoting public appreciation for science, technology and innovation and accomplishments of Indian scientists to address challenges through indigenous technologies for overall well being.

West Bengal

Organised a one-day event on 15 December 2023 at Kolkata in association with Consulting Engineers Association of India (Eastern & North-Eastern Region) and Indian Association of Structural Engineers (Eastern Region), dedicated to the memory of Er Mahendra Raj, a doyen of the Engineering

profession, whose contribution went beyond carrying out structural analysis of unusual structures. A seminar was organised on the topic 'Multiple Facets of Cable Supported Infrastructure', which has gained significance after the completion of the Vidyasagar Setu in Kolkata and the Worli Bandra Sea Link in Mumbai. There has been a rapid increase in number of Cable Supported Bridges in different states of India, which are being built by city corporations and municipalities because of the aesthetic appeal of such structures. Emphasis was placed on the challenges faced in building such structures and the need for regular maintenance and inspection of the structure, considering the vulnerability of the cables to distress, due to the environmental exposure. The event also covered the increasing usage of Cable Cars and Ropeways in urban areas, to counter the problems of surface traffic in congested neighbourhoods. Topics like design challenges, construction aspects and sustainability issues of Cable Supported Bridges and the need for effective health monitoring of such structures were deliberated upon. Appurtenances for such bridges and methodology for continuous monitoring of the bridges to ensure safe design life and other cable-supported infrastructures like ropeways and cable cars and their increased use in urban transportation were also discussed. The programme started with welcome address delivered by Er Sandip Kumar Deb, Council Member, IEI. Er Sourav Daspatnaik, Chairman, Eastern & North Eastern Region, CEAI and Er Anirban Sengupta, Vice President, Eastern Region, IAStructE, addressed the august audience. Keynote address was delivered by Er Amitabha Ghoshal, Past President, CEAI and Former Director, STUP Consultants. In his lecture, Er Ghoshal paid the tribute to Er Mahendra Raj.

The first technical session was chaired by Er Amitabha Ghoshal. Er Anirban Sengupta delivered lecture on 'Cable Supported Bridges – Design and Engineering'. Ms Meghana Dayananda, Manager, Business Development, Freyssinet Operations and President, Lloyd Insulations (India) Limited, on 'Cable Supported Bridges – Construction and Rehabilitation'; Prof (Dr) Nirjhar Dhang, Civil Engineering Department, IIT Kharagpur spoke on 'Cable Supported Bridges - Sustainability & Inspection'; Er Partha Dutta, Senior General Manager, Usha Martin Limited, discussed 'Cable Supported Bridges - Material' and Er Ragounadin Datchanamooty, General Manager (Technical) / Er Sivakumar Balachandran, Technical Manager, VSL India Private Limited delivered online presentation on the topic, 'Cable Supported Bridges - Stay Cable System & Installation'. The second technical session was chaired by Er Syama Prasad Datta, Treasurer, Eastern & North Eastern Region, CEAI, and former Chief Engineer, PWD, Government of West Bengal. Er Arko Dasgupta, Mageba Bridge Products Private Limited delivered lecture on 'Cable Supported Infrastructure - Monitoring & Instrumentation'; Er Pratik Sen, Key Account Manager, Mageba Bridge Products Private Limited, discussed 'Cable Supported Infrastructure - Boundary Elements' and Er Shekhar Chakraborty, Managing Director, Conveyor & Ropeway Services Private Limited on 'Cable Supported Infrastructure - Cable Car & Ropeway'.

LOCAL CENTRES

Bareilly

Celebrated 'The Regional Languages Promotion Day' on 21 February, 2024 at Bareilly. Er Suresh Chandra Sundrani, Past Chairman, Bareilly Local Centre, explained the importance of linguistic inclusivity in education and administration, urging policymakers to integrate regional languages more prominently in official spheres. The event garnered widespread support from linguistic communities, scholars, and policymakers alike, reaffirming the commitment to preserving and promoting regional languages as integral components of our cultural tapestry. Dr Mansih Sharma, President, Rohilkhand Management Association (RMA), Bareilly explained celebration of The Regional Languages Promotion Day aim to raise awareness about the rich linguistic diversity of our nation and the significance of regional languages in preserving heritage and fostering unity.

Chandrapur

Celebrated Regional Language Promotion Day and a seminar was organised on the topic 'Journey of Thousand Years of Marathi Language' on 21 February, 2024 at Chandrapur. Prof Uttam Bapurao Vaidya, Chairman, Chandrapur Local centre, and Associate Professor, Rajiv Gandhi College of Engineering, Research and Technology, Chandrapur, stressed on the importance of regional language and mentioned the scope of education in regional language in National Education Policy (NEP) 2020. Keynote speaker, Prof Yogesh Yenarkar, Associate Professor, Rajiv Gandhi College of Engineering, Research and Technology, Chandrapur, explained the importance of regional language in everyday life and also provided an insightful overview of the thousand-year journey of the Marathi language.

Coimbatore

Celebrated Regional Language Promotion Day on the topic 'Tamil in the World of Computers' on 21 February, 2024 at Coimbatore, in association with the PSG College of Technology Tamil Mandram, Coimbatore. Guest Speaker, Dr S V Manisekaran, Assistant Professor, Department of Information Technology, Anna University Regional Campus, Coimbatore, elaborated on the application AI and IoT in different fields of engineering industry with case studies and urged the participants to use the opportunities of AI and IoT in their respective areas.

Durgapur

Organized a Technical Lecture on the topic 'Regeneration and Recovery of Plastics' on 12 February, 2024 at Durgapur. The event aimed to address the pressing issue of plastic waste management and explore innovative solutions for the regeneration and recovery of plastics. Dr Bimal Das, Honorary Secretary of Durgapur Local Centre welcomed the Keynote speaker, Prof G P Karmakar and all the participants to the technical lecture and emphasized on encapsulating the essence of exploring innovative solutions to address the pressing issue of plastic waste management. Prof G P Karmakar is a former Professor in the Mining Engineering Department at IIT Kharagpur and a distinguished expert in the field of petroleum engineering, particularly renowned for his contributions to plastic waste management and recycling. In his lecture, Prof Karmakar delved into various recycling technologies employed for the regeneration and recovery of plastics, including mechanical recycling, chemical recycling, and emerging advanced recycling methods like pyrolysis and depolymerization. He discussed the challenges encountered in plastic recycling, such as contamination, polymer complexity, and infrastructure limitations, while also emphasizing the immense opportunities for innovation and sustainable practices in the field, and also presented insightful case studies and best practices around the world. Prof. Karmakar concluded the session by outlining future directions in plastic waste management, stressing the need for continued research, technological advancements, and collaborative efforts to address the challenges effectively. After an interactive question and answer session facilitated by lively discussions and exchanges of ideas among attendees, the programme ended with vote of thanks proposed by Dr Bimal Das.

Observed National Safety Day on 04 March 2024 on the topic 'Focus on Safety Leadership for ESG Excellence at Durgapur. Dr Chandan Koner, Chairman, Durgapur Local Centre, welcomed the gathering and said that observation of National Safety Day aims to promote awareness and understanding of safety practices and procedures in various aspects of life including workplaces, communities, and personal environments. He mentioned that this day aims to instill a sense of responsibility and commitment towards safety among individuals, organizations, and society as a whole, leading to safer and healthier environment for everyone. The Chief Guest, Prof Nirmal Baran Hui, Professor, Mechanical Engineering Department and Dean

(Academic), National Institute of Technology Durgapur, in his address, stated that National Safety Day holds great significance as it serves as a reminder of the importance of safety in all aspects of life. He explained that the National Safety Day serves as a platform for raising awareness, fostering accountability, and promoting action towards creating safer and healthier environments for all.

Gwalior

Celebrated 'The Regional Languages Promotion Day' on 21 February, 2024 at Gwalior. Chief Guest, Col A S Bais , Retd., explained the significance of contact language. PE V K Shukla, Past Honorary Secretary, Gwalior Local Centre and former Manager, NFL, also shared his views. Er U S Pandey from PWD (Retd) mentioned that the significance of regional languages extends beyond the realm of cultural heritage and has profound implications on education and literacy. Er K K Saraswat from Irrigation Department (Retd) opined that recognizing and promoting regional languages is not only a cultural imperative but also a political necessity in nations like India, which has multiple linguistic groups.

Kadapa

Organized a seminar on the occasion of National Science Day on 28 February, 2024 at Kadapa in association with KSRRM College of Engineering, Kadapa. The Chief Guest and Speaker of the session was Shri Kompella Sastry, National Governing Council Member of Vignana Bharathi. He emphasized that the National Science Day celebrates India's rich scientific heritage, promoting scientific temper ingrained in our Constitution and commemorates Sir C V Raman's groundbreaking discovery of the phenomenon of the scattering of light, known as the 'Raman Effect'. He also informed that India, a global player in scientific publications, recognizes the pivotal role of Science in societal advancement. Highlighting the twofold importance of science, both as the pursuit of pure knowledge and as a driver of societal progress, he advocated for increased scientific involvement to address modern challenges and foster sustainable development.

Kanpur

Organized Prof C B Gupta Memorial Expert Lecture jointly with Old Boys Association GCTI, Kanpur and Textile Association of India, Uttar Pradesh Unit, on the topic 'Sustainable Textile Production and Importance of Chemical Management' on 6 February 2024 through online mode. Prof C B Gupta was the Past Chairman of Kanpur Local Centre and Member of State Executive Council, Uttar Pradesh for 18 years. He was president of the Textile Association of India, UP State Chapter and served Government Central Textile Institute, Kanpur, as a faculty member for 35 years. Guest Speaker, Er Sanjay Pathak, Managing Director, Reliance Industries, Textile Division, Naroda, Ahmedabad, while speaking on the occasion, mentioned the significance of sustainability in manufacturing. The speaker discussed at a length the economic, social and environmental attributes of sustainability and the importance of their convergence.

Organized lecture on 'Impact of Artificial Intelligence on Engineering System' on 18 February, 2024 at Kanpur. Guest Speaker of the session was Dr Amber Srivastava, Assistant Professor, Department of Mechanical Engineering, Indian Institute of Technology Delhi. His lecture highlighted the transformative impact of Artificial Intelligence (AI) on engineering, emphasizing on the parameters of optimized design, simulation, and maintenance. He also educated that machine learning models are able to analyze data from existing design patterns and thus help engineers to make informed decisions, enabling predictive maintenance and adaptive control systems. In autonomous driving, AI processes real-time data for perception, decision-making, and navigation, fostering safer and more efficient transportation, he added.

Kanyakumari

Celebrated 'The Regional Languages Promotion Day' on 21 February, 2024 at Kanyakumari. The Keynote Speaker, Dr U T S Pillai, Former Chief Scientist, Head - ESD, CSIR-NEIST, Thiruvananthapuram, delivered an insightful lecture on 'Advanced Research Materials'. Dr Pillai provided a comprehensive overview of advanced materials, focusing on their significance in various fields of research and development. He also delved into the role of CSIR (Council of Scientific and Industrial Research) Labs in spearheading research activities related to advanced materials. Dr Pillai elaborated on the diverse applications of advanced materials in industries such as aerospace, electronics, healthcare, energy, etc and discussed the unique properties and characteristics of these materials which make them indispensable for technological advancements and innovation.

Kota

Organised Lt. Abdul Matin Memorial Lecture on the topic 'Structural Control: An Avenue for Retrofitting of Historical Monuments' on 17 January 2024 at Kota. Key Speaker of the session was Prof (Dr) B P Suneja, former Professor, Civil Engineering Department, Rajasthan Technical University. Prof Suneja explained retrofitting as the modification process after construction and informed that retrofitting is the adjustment of existing structures to meet modern needs, crucial for historic buildings facing functional inadequacy. It involves alterations and additions while preserving heritage. He also informed that structural refurbishment ensures safety and stability and cited case studies like Hearst Greek Theatre, California, which shows how retrofitting can make historical sites sustainable for future use.

Kota Local Centre organized a Technical Lecture on the topic 'Single Turbine: Twin Generator' on 11 February 2024 at Kota. Chief Guest of the event was Er A K Gupta, former Energy Advisor, Government of Rajasthan and Er Mahendra K Chauhan, Chairman Rajasthan State Centre was the Guest of Honour. Key Speaker of the session was Shri S L Chhabra, Former Principal, Atomic Energy Society, who has introduced Single Turbine Twin Generator Type power plant structure, with the use of which, the current electricity production in the plants can be doubled. It has also been patented.

Palghat

Organized a technical seminar on 'Challenges and Recent Advances in Grinding' on 18 February, 2024 at Palghat. Guest speaker of the session was, Dr Dinesh Setti, Assistant Professor, Department of Mechanical Engineering, Indian Institute of Technology, Palakkad. Dr Setti highlighted grinding as a popular manufacturing process and the ideal finishing process for achieving precise dimensional accuracies in hard materials like automotive components. He informed that grinding is very efficient method for machining hard and brittle materials. He gave an overview of cooling and lubrication strategies in grinding process and explained the novel cooling strategy developed in IIT Palakkad that is able to cool the machining surface in a continuous manner by means of a refrigeration system.

Rourkela

Observed World Radio Day on 13 February, 2024 at Rourkela. A Seminar was organised on the topic 'Acoustic Analysis of 3D Printed Cellular Structures' through hybrid mode. Speaker of the session was Dr Dibya Prakash Jena, Assistant Professor, Department of Industrial Design, National Institute of Technology Rourkela. In his presentation Prof Jena discussed a novel method employing the transfer matrix (TM) approach. This method accurately calculates the acoustic impedance of multi-layered solid-acoustic-cellular materials. Each layer is represented using the Johnson-Champoux-Allard (JCA) impedance model. The proposed method can be reckoned to design and analyse any multi-layered solid cellular material and predict its acoustic impedance, which may also have unconventional properties, like a dual impedance surface behaviour.

Observed World Sustainable Energy Day on 27 February, 2024, in hybrid mode, on the topic 'Sustainable Energy and Tribology' at Rourkela. Dr Sanjeeb Patjoshi, IPS, Director General, Chairman & Managing Director, State Housing & Construction Corporation, Government of Kerala, was the Chief Guest and Keynote Speaker. Dr Samir Kumar Acharya, Professor, Department of Mechanical Engineering, National Institute of Technology Rourkela, presented a technical paper on the topic. Both the speakers opined that sustainable energy, including wind, solar and hydropower offers an infinite supply without depletion and meets energy demands while averting the risk of depletion. Geothermal and biomass are also viable alternatives.

Saurashtra

In association with Darshan University, Rajkot, organized One week Faculty Development Programme on 'New Trends & Innovation in Civil Engineering' during 05-09 February 2024 at Rajkot. The speakers were Er. Urvis C Kakkad, Chairman of Saurashtra Local Centre, Rajkot and former Superintending Engineer of Police Housing Corporation; Dr Vijay Sharma, Assistant Professor, GEC, Rajkot; Mr Jaimin Patel, PSP Ahmedabad; Mr Deepak Kumar, Assistant General Manager of International Airport, Hirasar, Rajkot; Mr Sachin Raval, Lecturer, CU Shah, Surendranagar; Dr Vasudeo Chaudhari, Lecturer, PDPU, Gandhinagar; Dr Dipesh Dalal, Lecturer of Government Polytechnic, Ahmedabad; Mr Bhagyesh Patel, Technical Director, Khodiyar CAD Center; Mr K.T. Vaghela, Team Leader, INI. Design Studio- MMCP; Dr Sushobhan Sen, IIT Gandhinagar, (11) Er. Babubhai V. Harsoda, Civil & Structural Consultant and Ex. Hon. Secretary, IEI Saurashtra Local Centre, Rajkot; Er Suresh Mistry & Er Jay Jivrajani, Rajkot; Er Sandip Garala, Landmark Surveyors & Engineers and Er Yagnik, Sikka Group, delivered technical presentations on Building Quality control, Performance assessment of steel structure, Application of AI and ML in Civil/Structural engineering, New admixture for Construction Industry etc.

Solapur

In collaboration with the Textile Department, Government Polytechnic Solapur, organised a two-day National Level Online Faculty Development Program on the topic 'Teacher & Learner Engagement in Project Based and Problem Based Learning' during 28-29 November 2023 at Solapur. The event was inaugurated by Mr S A Patil, Secretary of Shanti Education Society; The Keynote speaker, Ms Annapurna Madhuri, Team leader, Sandur Manganese and Iron Ores Limited, Karnataka, spoke on 'Learner Engagement in Project Based Learning (PBL)' and how PBL could be used as a powerful means during remote and hybrid learning. Mrs Saroja Ganapathy, Faculty, Srishti Manipal Institute, Bengaluru spoke on 'Teacher Engagement in Project Based Learning', in which she explained how to improve learning method and also how to motivate students in Project Based Learning. Dr Ajita Deshmukh, Program Leader, M.Sc. e-Learning, Assistant Professor, School of Education and Research, MIT-ADT University, Pune conducted session on 'Teacher & Learner Engagement in Problem Based Learning', and provided information on how to assign problems for study and also on how to think critically. The final session of FDP was conducted by Prof. Krishna Kanta Roy, Assistant Professor, Symbiosis International University, Pune, on the topic 'AI in Education', where he elaborated on ChatGPT & AI and its uses.

South Gujarat

Organized a seminar on 'Finite Element Analysis' (FEA) on 24 February, 2024 at Surat. Mr Rajendra Kanetkar, Director, Esquire Ideation Private Limited, was the Keynote speaker. It was deliberated that Finite Element Analysis (FEA) is a specialized engineering discipline that examines the structural and behavioural responses of intricate geometries under diverse loads. Mr Kanetkar elucidated the fundamentals of FEA, showcasing its application in real-world scenarios. He elaborated that FEA uses the finite element method (FEM) to break down the structure of an object into multiple elements and manageable portions, which are later reconnected through points called nodes. He also informed that FEA simulations are conducted via specialized software with results being displayed on a computer-generated 'color scale' for the visualization of data.

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) organized a lecture on 13 February 2024 through virtual mode on the topic 'Autonomous Weed Controller ROBOT'. Mr R Saravana Kumar, Former Director, CTS, Vice chairman of CSI, Coimbatore chapter, introduced the speaker to the audience, Dr A Sathish, Associate Professor, Department of Computer Science Engineering, M/s Roever Engineering College, Perambalur, who elaborated on how Weed Robots can be used for the removal of weed-related challenges that affect agricultural lands. He further informed about the key features and benefits of Weed Robots.

Tirunelveli

Organized a technical seminar on 'Embedded Systems using IoT' on 13 February, 2024 at the Einstein College of Engineering, Tirunelveli. Chief Guest and Keynote speaker of the event was Mrs V Niranjanadevi, Project Manager at MAXVY Technologies, Bangalore. During her presentation, she discussed the integration of physical objects with embedded systems. She also cited examples of embedded systems and IoT-related applications.

Vallabh Vidyanagar

Organized a Workshop, on 'Engineering Excellence: A Step by Step Guide to Accreditation' during 05-10 February 2024 at Vallabh Vidyanagar. The event witnessed the presence of esteemed Speakers, namely Dr S H Sundarani, HoD, Mechanical Engineering Department, Government Polytechnic, Ahmadabad; Prof Shailesh Kumar Gandhi, Lecturer, Mechanical Engineering Department, Government Polytechnic, Godhara ; Prof Anas Sujela, Lecturer, Mechanical Engineering Department, Government Polytechnic, Godhara; Dr Jani Dilip Batukray, Associate Professor (Class I), Government Engineering College, Dahod ; Prof Kumar K Bhatt, Assistant Professor, Mechanical Engineering Department, Government Engineering College, Dahod; Prof Altaf Hanifbhai Nalbandh, Lecturer, Government Polytechnic, Porbandar; Dr Rakesh Bumataria, Lecturer, GES-Class-II, Mechanical Engineering Department, Government Polytechnic, Porbandar; Dr Ketan P Badgujar, Professor and Head of the Electrical Engineering Department at L D College of Engineering, Ahmedabad; Prof S R Rathava, Lecturer, Mechanical Engineering Department, Government Polytechnic, Godhara; Prof Mohsin S Ismailwala, Lecturer, Mechanical Engineering Department, Government Polytechnic, Godhara and Prof Krishna Mehta, I/C Principal, Government Polytechnic, Dahod. Dr Mihir Patel, Lecturer and Dr Rakesh Patel, Head, Mechanical Engineering Department from BBIT, V V Nagar co-ordinated the programme. The speakers gave comprehensive insights on the accreditation process for educational Institutions.

Visakhapatnam

Celebrated National Science Day on the topic 'Indigenous Technology for Viksit Bharat' on 28 February, 2024 at Visakhapatnam. Dr A Srinivas Kumar, former Outstanding Scientist & Technology Director, Naval Science & Technological Laboratory (NSTL), Visakhapatnam, was the Guest Speaker. He mentioned that E-mobility is gaining traction globally as a sustainable substitute for traditional internal combustion engine vehicles lessen reliance due to its potential to reduce greenhouse gas emissions and lessen reliance on fossil fuels. He further elaborated the environmental benefits from E-mobility, energy efficiency aspects of electric vehicles, infrastructure requirement for E-mobility, technological advancements in battery technology, government policies and incentives to promote e-mobility and challenges and barriers related to it. He elaborated on how E-mobility can be integrated with renewable energy sources and how urban planning can be developed to enhance sustainable E-mobility solutions.

IEI DIARY



Aerospace Engineering Division

All India Seminar on "Trends in Indian Aviation Civil and Defense"

Chennai, May 17-18 2024

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

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 "Advanced Technologies in Agriculture for Sustainable Development and its Applications"

Chennai, July 25-26, 2024

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

Thirty-sixth National Convention of Agricultural Engineers on "Conservation and Management of Engineering inputs Farm Mechanization Agro Processing"

Raipur, August 29-30, 2024

The Honorary Secretary, IEI, Chhattisgarh State Centre, National Institute of Technology Campus, G E Road, Raipur 492010 [☎: 0771-2254625, E-mail: chhattisgarhsc@ieindia.org, Website : www.ieicg.org]

Architectural Engineering Division

Thirty-ninth National Convention of Architectural Engineers on "Disaster Mitigative Architecture and Construction"

Shimla, October 26-27, 2024

The Honorary Secretary, IEI, Himachal Pradesh State Centre, Victoria Place, Opposite Nigam Vihar, Shimla 171 002 [☎: 0177-2623736; E-mail: hpssc@ieindia.org; Website: http://hppei.org/home.html]

Chemical Engineering Division

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

Bhubaneswar, October 19-20, 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]

Civil Engineering Division

All India Workshop on "Construction Management and Building Information Modelling"

Tiruchirappalli, June 20-21, 2024

The Honorary Secretary, IEI, Tiruchirappalli Local Centre, Near Ganesa Bus Stop, BHEL Main Office Road, Opposite to 79 Building, Tiruchirappalli 620014 [☎: 0431-2554285 / 2574022, E-mail: tiruchirappallilc@ieindia.org]

All India Workshop on "Perspectives of Microbial Concrete & Other Sustainable Construction Materials"

Kattankulathur, July 30-31, 2024

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

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

Kochi, October 25-26, 2024

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

Electrical Engineering Division

All India Seminar on "A Transition Towards Clean Energy Its Impact on Indian Economy"

Salem, May 25-26, 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: salemic@ieindia.org; Website: www.ieisl.com]

All India Workshop on "Role of Artificial Intelligence in Hybrid Electric Vehicle and Battery Management System"

Tiruchirappalli, June 07-08, 2024

The Honorary Secretary, IEI, Tiruchirappalli Local Centre, Near Ganesa Bus Stop, BHEL Main Office Road, Opposite to 79 Building, Tiruchirappalli 620014 [☎: 0431-2554285 / 2574022, E-mail: tiruchirappallilc@ieindia.org]

All India Seminar on "Applications of Smart Grid Technology For Sustainable Green Solutions and Enhanced Cyber Security"

Kanchipuram, June 20-21, 2024

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

All India Seminar on "Electric Mobilities Recent Trends And Advancements"

Coimbatore, July 05-06, 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 Workshop on "Hydrogen Fuel Cell Technologies Towards Green Transportation"

Kattankulathur, August 22-23, 2024

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

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]

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 : tns@ieindia.org, Website : www.ieitnsc.org]

Electronics & Telecommunication Engg Division

All India Seminar on "Design of Advanced 5G Antenna and Prototype Technologies"

Coimbatore, May 02-03, 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]

Thirty-ninth National Convention of Electronics & Telecommunication Engineers on "Internet of Things (IoT)"

Delhi, October 05-06, 2024

The Honorary Secretary, IEI, Delhi State Centre, Bahadur Shah Zafar Marg, New Delhi 110 002, [☎: 011-23379948/23370489; Fax: 011-23370489; Email: delhisc@ieindia.org; Website: https://www.ieidsc.in/]

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

All India Seminar on "Sources of Planet Energy Environment and Disaster Science SPEEDS24 Climate Justice and Equity"

Lucknow, June 22-23, 2024

The Honorary Secretary, IEI, Uttar Pradesh State Centre, Engineers Bhawan, River Bank Colony, Lucknow 226 018 [☎: 0522-2625322, Fax: 0522-

2625322, Email: upsc@ieindia.org, Website: <http://www.ieiup.org.in>

One Day Seminar on **"Waste to Energy Technology"**
Chennai, July 05, 2024

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

Thirty-eighth National Convention of Environmental Engineers on **"Change Yourself Not the Nature"**
Kochi, August 23-24, 2024

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

All India Seminar on **"Green Technology for Environmental Management"**
Guwahati, September 21-22, 2024

The Honorary Secretary, IEI, Assam State Centre, East Lane, Panbazar Overbridge, Panbazar, Guwahati 781001 [☎: 0361-2548742, Mobile: 6026461095, E-mail: assams@ieindia.org, Website: www.ieiasc.org]

Mechanical Engineering Division

All India Seminar on **"Sustainability through Green Vehicles: Powered by Hydrogen, Fuel Cell, CNG and Flexi Fuel Vehicles"**

Coimbatore, May 15-16 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 **"Additive Manufacturing and 3D Printing"**

Agra, 20 June 2024

The Honorary Secretary, IEI, Agra Local Centre, Room No-G3, Faculty of Engineering & Technology Agra College, Agra 282002 [☎: 812689221; E-mail: agralc@ieindia.org]

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

Durgapur, June 23, 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>]

All India Workshop on **"Occupational Noise and Workplace Acoustics"**

Rourkela, June 25-26, 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 **"Role of AI and ML in Mechanical Engineering Field and Challenges"**
Belapur, July 05-06, 2024

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]

All India Seminar on **"Green Manufacturing"**

Chennai, July 26-27, 2024

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

All India Seminar on **"Alternative Energy Systems"**
Bhubaneswar, July 27-28, 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]

Thirty-ninth National Convention of Mechanical Engineers on **"Innovations in Mechanical Engineering, Sustainable Manufacturing Technologies, Design and Energy Systems"**

Chandigarh, September 13-14, 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]

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>]

Metallurgical & Materials Engg. Division

One Day Workshop on **"Powder Metallurgy and Smart Materials"**

Rourkela, August 02, 2024

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

Mining Engineering Division

All India Seminar on **"Recent Advances In Smart Mining Technologies And Resources"**,
July 19-20, 2024, Kolkata

The Honorary Secretary, IEI, West Bengal State Centre, 8 Gokhale Road, Kolkata 700020 [☎:033-22238914, E-mail: wbsc@ieindia.org, Website: www.ieiwbsc.in]

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]

Production Engineering Division

Thirty-eighth National Convention of Production Engineers on **"Green and Bio-inspired Manufacturing – The Way Forward"**

Bareilly, May 02-03, 2024

The Honorary Secretary, IEI, Bareilly Local Centre, 44, Camphor Estate Colony, Near Champhor Hospital, Rampur Road, C B Ganj, Bareilly 243502, Uttar Pradesh [Mobile: 9634953691, Email: bareillylc@ieindia.org]

Textile Engineering Division

All India Seminar on **"Technical Textiles: A Transformative Force for the Challenges in Agricultural Health Care and Construction Sector"**

Bhubaneswar, August 24-25, 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 Seminar on **"Novel Technical Textiles Products-Technology, Production & Applications"**

Coimbatore, June 19, 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 **"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 : tns@ieindia.org, Website : www.ieitnsc.org]

Interdisciplinary Co-ordination Committee

All India Seminar on **"Sustainable Developments and Technologies"**

Gorakhpur, May 24-25, 2024

The Honorary Secretary, IEI, Gorakhpur Local Centre, 176, Siddharthnagar Colony (Opposite GDA Office), Bharwalia Buzurg, Taramandal, Gorakhpur 273017, [Mobile : 8707269768, Email: gorakhpurc@ieindia.org, Website: www.ieigorakhpur.org]

All India Seminar on **"Artificial Intelligence and Machine Learning in Materials Engineering for Environment"**

Rourkela, May 18-19, 2024

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

International Conference on **"Frontiers of Progress and Developments in Technology, Management and Healthcare"**

Jabalpur, September 27-28, 2024

The Honorary Secretary, IEI, Vishvesvaraya Marg, South Civil Lines, In front of Old RTO Office, Jabalpur 482001 [☎: 0761-2678929, E-mail: jabalpurlc@ieindia.org]



Engineering Staff College of India

Autonomous Organ of The Institution of Engineers (India)
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Continuing Professional Development Programmes (CPDPs) for the Month of May 2024

Sl. No.	Name of the Course	Scheduled Dates
1.	Advances in Design & Optimization of UAV's for Industrial Applications (Defence, Mining & Construction)	06-09 May 24
2.	Geometric dimensioning and tolerancing	06-08 May 24
3.	Conducting EIA Study and Preparation of EIA reports – Case study & Group Discussion.	07 - 09 May 24
4.	Occupational Health and Safety (OH&S) Management System	07 - 10 May 24
5.	Electrical Safety Procedures & Accident Prevention	07 - 10 May 24
6.	Trends in Mechanization & Technology in Underground and Opencast Mining for Improved Productivity and Safety	8 - 10 May 24
7.	Concepts on Design, Construction & Maintenance of Culverts	13 - 17 May 24
8.	Applications of Python for Mechanical Systems	13-15 May 24
9.	Smart Irrigation Technology for Better Water Use Efficiency	13 - 15 May 24
10.	Big Data Analytics Using MS Excel & Power BI	14 - 17 May 24
11.	Power Plant Chemistry for Chemists and Operation Engineers	14 - 16 May 24
12.	Nature based Solutions for Sustainable Development	15 - 17 May 24
13.	Executive Development Programme in Digital Transformation Strategies: For Future Ready Organisations.	15 - 17 May 24
14.	Sustainable Practices in Mining: Environmental Laws & Policies, Land Acquisition, Social Impact Assessment, Rehabilitation & Resettlement, District Mineral Foundation, Application of Geographic Information System and Remote Sensing for Monitoring	15 - 17 May 24
15.	Sustainable Storm Water Drainage System	20 - 22 May 24
16.	Effective Utilization of Organizational Resources in Opencast Mining Projects: Total Productive Maintenance of Machinery, OITDS, Machine Utilization, Standard Operating Procedures, Design of Haul Roads, Tyre-Care, Conservation of Fuels & Energy, Mine Wastes to Resources ISO-50001:2018	22 - 24 May 24
17.	Good Laboratory Practices	22 - 24 May 24
18.	Network & Security Administration	27 - 31 May 24
19.	Vibrations, Balancing, Alignment and Condition Monitoring of Rotating Equipment (Theory and Practical Orientation with Technical Visit)	27 - 31 May 24
20.	Flood Analysis Using Advanced Software Techniques	27 - 31 May 24
21.	Integrated Scientific Project Management	28 - 30 May 24
22.	Rooftop Solar PV Grid - Design, Erection, Commissioning & Maintenance	28 - 31 May 24

For detail information please contact:

Engineering Staff College of India

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

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