I.E.I NEWS

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Transforming Technologies – Reshaping India 3
Solar Energy 5
Exploring Innovations & Collaborations in HVAC 7
Reports of World Telecommunication and Information Society Day 10
Reports of World Engineering Day for Sustainable Development 14
Reports of World Water Day 18
News-in-Brief 22

A CENTURY OF SERVICE TO THE NATION

Volume 31 Number 3

IEI Delegation's Participation at the 32nd FEIAP General Assembly, Taipei, Taiwan

The official delegation from The Institution of Engineers (India) (IEI) attended the FEIAP 32nd General Assembly, Standing Committee Meetings, 7th Convention, and 1st Youth Talent Innovation Competition in Taipei, Taiwan, from May 1 to May 3, 2024. The delegation was led by Dr G Ranganath, President of IEI and Chair of FEIAP-ICT, and included Mr. Navinchandra Vasoya, Past President of IEI and member of FEIAP-ICT. This delegation was constituted by the Honorable President of IEI.

Opening Ceremony and Keynote Sessions

The opening ceremony on May 1, 2024, at 9:00 AM, was attended by IEI delegates which was also graced by distinguished dignitaries, including Dr. YANG Cheng Hong, President of

Contd. on page 4

Thirty-eighth National Convention of Production Engineers and National Conference

Green and Bio inspired Manufacturing – The Way Forward

Bareilly Local Centre, IEI, in association with MJP Rohilkhand University, Bareilly organized the 38th National Convention of Production Engineers at Bareilly during 02-03 May 2024 under the aegis of Production Engineering Division Board [PRDB], IEI. A National Conference was also organized concurrently with the Convention on the theme **Green and Bio inspired Manufacturing – The Way Forward**. The inaugural function commenced with lighting of the lamp on the dais in the august presence of all dignitaries. Er Raj Goel, Chairman, Bareilly

Contd. on page 2

From the President's Desk.....

Enhancing Rail Safety - Advocating Collective Responsibility

The Indian Railways, a lifeline for millions daily, stands proudly as one of the world's largest networks. Over the past two decades, we have made significant strides in passenger safety, with derailments decreasing remarkably. However, recent incidents remind us of ongoing challenges that demand continual innovation and collective effort.

Railway accidents primarily result from falls and track collisions, along with level crossing mishaps, fires, and collisions, highlighting critical areas needing immediate attention.

Initiatives such as the Rashtriya Rail Sanraksha Kosh, launched in 2017-18, focus on comprehensive track renewals, signalling enhancements, and the modernization of rolling stock to mitigate accidents. This initiative represents a concerted effort to upgrade infrastructure and safety protocols across the network. The introduction of the Kavach system, fortified by automated train protection mechanisms, has significantly bolstered safety standards, ensuring precise monitoring and control of train operations. Moreover, the adoption of modern track structures, reinforced by electrical interlocking systems, has provided a robust framework for safe train movements. Advanced safety devices such as Linke Hofmann Busch (LHB) coaches have also played a pivotal role in enhancing passenger safety, offering improved structural integrity and crashworthiness. Additionally, vigilance control systems, retro-reflective sigma boards, and GPS-based fog safety devices have been instrumental in mitigating human errors and operational risks, contributing to a safer operational environment.

Internationally, countries like Japan and the UK have set benchmarks with advanced systems like Automatic Train Control (ATC) and Train Protection Warning System (TPWS), underscoring the need for cutting-edge technologies and robust safety frameworks in India.

Contd. on page 6

Green and Bio inspired Manufacturing – The Way Forward

Contd. from page 1

Local Centre, IEI delivered the welcome address. Er Sudhir Kumar Gupta, Immediate Past Chairman of Bareilly Local Centre and Convener of the event briefed about the theme of the National Convention. He mentioned the basic objectives of the Convention, which focused on exploring bio inspired solutions, resource optimization, waste management, green manufacturing and sustainable industrial practices. Prof (Dr) S Ramesh, Chairman, Production Engineering Division Board, IEI presided over the inaugural session. In his address, Prof Ramesh discussed the drawbacks of traditional manufacturing systems, such as depletion of resources, ecological imbalance etc. He mentioned that these challenges have led to an increased focus on green and bio-inspired solutions in manufacturing. He said that bio inspired manufacturing always promote application of renewable energy resources, optimization of productivity and subsequent minimization of environmental impact on manufacturing process. He further discussed the bio inspired solutions in automobile engineering with application of light weight materials, results in improved fuel as well as overall vehicle efficiency. He opined that technological innovations and

feasible bio inspired solutions are continually advancing to overcome the challenges of traditional manufacturing process. Moreover, the rising environmental awareness and enhanced use of robotics and AI, with the advent of 4.0, lead to sustainable green manufacturing practices. Er Rakesh Puri, Senior Executive Director, IFFCO, Aonla graced the inaugural function as the Chief Guest. In his address, Er. Puri emphasized the importance of protecting natural resources and the environment through the increased application of bio-inspired manufacturing systems. He explained the production and functioning of nano liquid fertilizers, highlighting their eco-friendliness and precise nutrient delivery, which ultimately leads to improved soil health. A souvenir was released on the occasion in the august present of the dignitaries.

On the occasion, Dr Udai Shanker Awasthi, CEO & MD, Indian Farmers Fertiliser Cooperative Limited, New Delhi (in absentia), Prof (Dr) P K Saxena, Former Dean, Engineering and HoD, Dayalbagh Educational Institute, Agra and Prof Hari Babu Srivastava, Professor of Practice, IIT Delhi and Former Director General, DRDO were felicitated as eminent engineering personalities for their relentless contributions in the field of production engineering.

Following the inaugural session, the F W Taylor Memorial Lecture was delivered by Prof (Dr) Satish Chandra Gupta, Former Professor & Head, Department of Chemical Engineering, IIT Roorkee and Council Member, IEI on the topic 'Green and Bio inspired Manufacturing'. In his lecture, Prof Gupta discussed the synergistic approach for bio inspiration, bio inspired structures and the multifunctionality of bio inspired materials. The G C Sen Memorial Lecture was delivered by Er Prem Prakash Gupta, Chairman, Prem Prakash Gupta Institute of Engineering and Management, Bareilly. In his lecture, Er Gupta outlined the life sketch of Prof Gopal Chandra Sen and remembered his lifelong contribution for the development of manufacturing technology. Professor Hari Babu Srivastava delivered a state-of-the-art lecture, emphasizing the significant power consumption associated with Industry 4.0 implementation. He highlighted the need to reduce power usage stemming from data integration and analytics in various data centers. He emphasized on value added manufacturing of electronic components with green and bio inspired solutions, and enhanced applications of bio degradable materials in manufacturing. He further advocated use of nonhydrogen propellants to reduce space pollution, more manufacturing and use of bio toilets, etc. Er Pradeep Kumar Madhwar, Honorary Secretary proposed the vote of thanks at the end of the session.

During the technical sessions, Prof (Dr) P K Saxena delivered Invited Lecture on the topic 'Musculo-skeletal Disorders and Postural Evaluation of Industrial / Operational Workers suffering from Non-Communicable Diseases: A Multicriteria Futuristic Decision Making Model Approach', where by integrating innovative approaches and holistic assessments, the research advocates for proactive measures to safeguard the well-being of workers and enhance overall occupational health standards. Dr Madhuri Jain, Department of Mathematics and Statistics, Banasthali Vidyapith, Rajasthan delivered Invited Lecture on 'Nature based Solutions for Deep Decarbonization of Indian Road Transportation System by the Implementation of Strategies based on Intelligent Transportation System: A Step towards Carbon Neutrality using System Dynamics Model'. Dr Tauseef Siddiqui, Assistant Professor, Jamia Millia Islamia University, New Delhi delivered Invited Lecture on '3D Printing Technology for Fabrication of Battery Components of Electric Vehicles: A Review'.

Also, papers were presented on relevant sub theme, which include; Evolution and Innovation of Smart Textiles for Advanced Application; Effect of Tallow Source on Physiochemical properties of Tallow based Microemulsion Hybrid Biofuel; Development of Biodegradable Printed Circuit Boards for Information and Communication Technology; Synthesis and Characterization of Biodegradable Detergent from Castor Oil with Zinc Oxide Nanoparticle Additives: Towards Sustainable Cleaning Solutions; Computational Analysis of Evacuated Solar Tube Collector under Indian Climatic Condition; Production of Silica Gel Powder by Sol-Gel Process Investigation of Machining Behaviour of Al7075 Flyash Composite using Taguchi Approach etc. A panel discussion was also organised on the topic 'Future of Production Engineering'.

Recommendations emanating from the two-day deliberations are as follows.

Research and Development in Green Manufacturing

Collaborative research projects between academia and industry be encouraged and focused on sustainable manufacturing technologies.

Funding and grants for R&D initiatives that aim to reduce carbon footprints and resource consumption in manufacturing processes should be enhanced.

Integration of Bio-inspired Manufacturing Technologies

Fostering the adoption of bio mimicry and bio-inspired design principles in manufacturing be prioritized to improve productivity, efficiency and sustainability.

More educational programs and workshops should be developed to upskill the engineers and designers in bio-inspired manufacturing methodologies.

Adoption of Renewable Energy Sources

Incentivize the use of renewable energy sources such as solar, wind, and bioenergy in manufacturing operations is the need of the hour.

Policies should be implemented to support the installation of renewable energy systems in industrial settings.

Implementation of Circular Economy Practices

Circular economy models that emphasize recycling, reusing, and remanufacturing materials need to be explored and promoted.

Guidelines and standards for waste reduction, resource efficiency, and product life cycle management should be established.

Development of Sustainable Supply Chains

The transparency and sustainability in supply chain management through the use of digital technologies need to be encouraged.

Development of local and regional supply chains to reduce transportation

Contd. on page 3

Transforming Technologies – Reshaping India

Telangana State Centre, IEI, in association with Technology Alumni Association, IIT Kharagpur, Hyderabad Chapter, organized an All India Seminar on the theme **Transforming Technologies – Reshaping India** during 23-24 March 2024, under the aegis of Interdisciplinary Coordination Committee [ICC], IEI. Dr B Yegnanarayana, Adjunct Faculty, Indian Institute of Technology Tirupati, Honorary Emeritus Professor and INSA Honorary Scientist, The International Institute of Information Technology (IIIT), Hyderabad, graced the occasion as Chief Guest and Dr P J Narayanan, Director, IIIT Hyderabad, graced the function as the Guest-of-Honour. Dr G Raghavender Rao, Convener, Organizing & Technical Committee, introduced the Chief Guest and Guest-of-Honour. Dr Y V Satish Kumar, President, Technology Alumni Association (TAA), IIT Kharagpur, Hyderabad Chapter, addressed the gathering.

Dr G Venkata Subbaiah, Chairman of Telangana State Centre, welcomed the gathering and presided over the function. Er B Brahma Reddy, Immediate Past Chairman, Telangana State Centre chaired the first technical session on the topic 'AI/ML Driven Future'. The second technical session titled 'Space Technology – The Indian StartUp Ecosystem' was chaired by Prof V Balakista Reddy, Committee Member of Telangana State Centre. The third technical session on the topic 'Alternate Energy – National Commitment to Environmental Sustainability' was chaired by Dr G Raghvender Rao, Convener of the event. The session was co-chaired by Dr Mohd Mohinoddin, Committee Member of the host Centre. The last technical session was chaired by Dr I Satyanarayana Raju, Council Member, IEI.

An Invited Talk was presented by Dr P J Narayanan, Director, IIIT, Hyderabad on 'Transforming Technologies'. Dr N Kishorenath, Scientist G and Project Director, Virginia Economic Developers Association (VEDA), delivered Invited Lecture on 'Development of Satellite Launch Vehicle Technologies for Defence Applications'. Dr S C Bharghava, Faculty, Vasavi College of Engineering, mahatma Gandhi Institute of Technology and Sreenidhi Institute of Science and Technology, Hyderabad, delivered Invited Talk on 'Solar Energy – the Future Energy' and Dr V N Sastry, Professor, Institute for Development and Research in Banking Technology (IDRBT), Hyderabad, delivered Invited Talk on 'Developments in Indian Digital Public Infrastructure'.

Over the two days, number of technical sessions were organized. Prof Gundala Nagaraju, IT Business & Technology Leader spoke on 'Tech-Powered Fraud Predications – A Digital Transformation Case study in Auto Insurance"; Mr Arava Santosh Kumar from The Association of Data Scientists on 'Trends in Data Science for Machine Learning and Power Grid'; Dr Rajarshi Pal from the Institute for Development and Research in Banking Technology (IDRBT), Hyderabad on 'Use of Artificial Intelligence in Banking and Financial Sector'; Prof Krishnaiah Jallu from the Department of Mechanical Engineering, IIIT Design and Manufacturing, Kurnool on 'Importance of Artificial Intelligence in the Scenario of Fourth Industrial Revolution'; Dr G Raghavender Rao, Mr Pavitran Dynampally and Mr Naveen Kumar Mullpudi from Bharat Heavy Electricals Limited (BHEL) Corporate Research and Development Division, Hyderabad and Mr Sougat Mandal from BHEL Vishakhapatnam on 'Development of Compact High Speed Liquid Cooling Systems'; Mr P Sunil Kumar, Dr Swati Ghosh Acharyya from the School of Engineering Sciences and Technology, University of Hyderabad and Mr Kamal Mankari, Mr P Bhange, Mr Deepak Joshi, Dr Amit Acharyya from the Department of Electrical Engineering, IIT Hyderabad on 'Online Monitoring of Fatigue Crack Propagation and Corrosion in DMR 249A by AE Sensing and ML'; Mr Venkat Gajjala, Senior Vice President and COO from Engineering Service Tech Mahindra on 'Advancements in Aerospace Engineering'; Er J N Karamchetti, Solar Consultant on 'Alternative Energy is a Key to Sustainable Development'; Dr Y V Satish Kumar, Mr J V Harsha, Mr A Sivaram and Mr C Vamsi Krishna, from ASquare Infotech Consultancy Private Limited, Hyderabad on 'Generation of Hydrogen Using Seawater'; Colonel Girish Juneja, Chief Operations Officer, Freyr Energy, Hyderabad on 'Solar Penetration and its Impact on Energy Security in India'; Dr M V S S Giridhar, Professor of Water Resources and Vice Principal, JNTUH University College of Engineering, Rajanna Sircilla on 'Sustainable Development Goals – Achieving through Water Circularity and Infrastructure'; Er Vadde Venkat Reddy, Project Director, L&T Construction B& F IC, Hyderabad on 'Urban Infrastructure – Metro Network in India' and Colonel S Balachandrudu, SM (Retd), Corps of Engineers, The Indian Army deliberated on 'Road Safety Issues : Safe System Approach in Road Infrastructure'.

Dr K Seetha Ram Babu, Honorary Secretary, Telangana State Centre, presented the vote of thanks.

Green and Bio inspired Manufacturing – The Way Forward

Contd. from page 1

emissions and enhance economic resilience need to be strengthened.

Implementation of Advanced Manufacturing Technologies

More investment in advanced manufacturing technologies, namely 3D printing, Green manufacturing etc is required to optimize the resource utilization and reduce waste. Pilot projects be organised to demonstrate the benefits of these technologies in achieving sustainable manufacturing goals.

Regulatory and Policy Support

Advocating for government policies that support green manufacturing practices, including tax incentives and subsidies for sustainable initiatives need to be focussed.

Regulatory frameworks should be developed, that encourage industries to adopt eco-friendly technologies and processes.

Education and Skill Development

It is very much required to include sustainability and bio-inspired design principles into engineering curriculum. Continuous professional development programs focused on green and sustainable manufacturing practices need to be encouraged.

Public Awareness and Stakeholder Engagement

Public awareness campaigns should be launched to highlight the importance of sustainable manufacturing and its benefits to society.

All stakeholders, including industry leaders, policymakers, and the community, should be engaged in discussions and initiatives to promote green manufacturing.

National Collaboration

The national collaboration and knowledge exchange on best practices in green and bio-inspired manufacturing should be facilitated.

More participation in global forums and networks are required, that dedicated to advancing sustainable manufacturing practices.

IEI Delegation's Participation at the 32nd FEIAP General Assembly

Contd. from page 1

the Chinese Institute of Engineering (CIE), Prof. Aung Kyaw Myat, President of FEIAP, and Er. TAN Shen Chuan, President-Elect of WFEO. The theme of the Convention, **"Engineering Resilience and Education for a Net-Zero Future,"** emphasized the critical role of engineering and education in building a more sustainable and resilient future.

The Convention aimed to bring together professionals, researchers, educators, and advocates from various disciplines to explore and discuss ways to apply resilient engineering practices and the advancement of sustainable education for a net-zero future. Dr. Eugene CHIEN, Chairman of the Taiwan Net Zero Emissions Association, presented Taiwan's Net Zero Roadmap, detailing its progress and challenges. Eng. TAN Seng Chuan, President-Elect of WFEO, gave a presentation titled "Engineering Resilience and Education: Building Blocks for the Net-Zero Future." John T. YU, Group Chairman of CTCI Group, also presented on "CTCI: A Guardian on Sustainable Earth," highlighting how CTCI, Taiwan's leading Engineering, Procurement, and Construction (EPC) group, has become a global leader in sustainable engineering.

Technical Visits and Declarations

The post lunch session in the afternoon all delegates leave to visit CTCI Headquarter-2 for a technical tour. During this visit all delegates visited CTCI Headquarter-2 building which is constructed with the all aspects and criteria for Green Building Construction. During this visit, a very important event was also organized by CIE to sign the FEIAP NET ZERO DECLARATION under the witness of WFEO / CTCI and also hold a FEIAP NET ZERO TREE planting Ceremony, to declare and commemorate FEIAP's support to meet zero ambition.

The FEIAP NET ZERO DECLARATION was signed to express FEIAP member economies to

- Recognize the important role engineers play in the coordinated global efforts aimed at achieving the goals set in the Paris agreement;
- Declare its strongest support to limiting carbon emissions through the work performed by engineers;
- Make best efforts to address climate change through improved engineering practices and education

This declaration is signed by all FEIAP member economies including the Institution of Engineers (India).

Technical Sessions and Discussions

On May 2, delegates participated in various technical sessions and discussions where speakers shared state-of-the-art knowledge and solutions across diverse engineering topics. These sessions provided a platform for exchanging innovative ideas and best practices in engineering resilience and sustainability.

Standing Committee and Working Group Meetings

On May 3, from 8 AM, various standing committees and working groups of FEIAP held meetings. These included:

- Standing Committee on Engineering Education
- Standing Committee on Environmental Sustainability
- Standing Committee on Natural Disaster and Preparedness
- Standing Committee on Emerging Technologies for Professional Development
- Working Group on Youth Talent Development.

The IEI delegation actively participated in these sessions. Notably, The Institution of Engineers (India) hosted the FEIAP technical committee on "Information and Communication Technology" (FEIAP-ICT), with the

President of IEI serving as the Chair of the Committee. As the host chair of this standing committee, IEI held a position on the Executive Board of FEIAP.

In the previous General Assembly, the FEIAP ICT Standing Committee was abolished, leading to IEI losing its position on the Executive Board. This year, IEI was determined to restore its significant role. In the General Assembly, during agenda item no. 10, "Election of Office Bearer," IEI leveraged its relationships and contacts, including those with Engineers Australia,(who is holding this position) to campaign for the Executive Board position. Because of legacy established by the Institution of Engineers (India) in FEIAP and with relentless, successful, efforts made by delegates, IEI was unanimously elected by General Assembly of FEIAP as a EXCO member in Executive Board restoring its influential position within FEIAP.

General Assembly Participation and Awards

During the General Assembly, the IEI delegation engaged in discussions and highlighted the activities of its Disaster Awareness and Management Forum (DAMF), one of IEI's key forums. They expressed interest in hosting joint technical and training programs with other FEIAP member economies involving DAMF. The IEI delegation also highlighted the work of the Engineering Staff College of India (ESCI), Hyderabad, and proposed organizing collaborative technical and training initiatives with interested FEIAP member economies.

Additionally, during reports from various Standing Committees and Special Committees, IEI contributed to discussions within the Natural Disaster and Preparedness Committee, sharing information about DAMF's similar activities and demonstrating a keen interest in collaborative ventures.

IEI also provided valuable insights for the evaluation committee of the FEIAP Engineer of the Year Award 2025. Additionally, IEI nominated Prof. Dr. Raghupatruni Bhima Rao for the FEIAP Engineer of the Year Award 2024. Among five nominations, including those from the Institution of Engineers Malaysia, Engineers Australia, Institution of Engineers Singapore, and China Association of Science and Technology, Prof. Dr. Raghupatruni Bhima Rao was selected as one of a winner amongst three winners. (1) Dr. Tan Yean Chin (IEM), (2) Prof.Dr. Raghupatruni Bhima Rao (IEI) and (3) Mr. S. U. Quanke (CAST). The awards, presented by the President of FEIAP in the presence of other dignitaries.

The FEIAP Engineer of the Year Award celebrates exceptional engineers whose work has significantly impacted their fields and communities. Prof. Dr. Raghupatruni Bhima Rao's selection for this award underscores the high standards and excellence within The Institution of Engineers (India) and highlights the profound influence of Indian engineers on the global stage. Due to his inability to attend the ceremony, Dr. G. Ranganath, President, The Institution of Engineers (India), accepted the award on his behalf.

This comprehensive engagement and the resulting recognition underscore IEI's commitment to advancing engineering excellence on a global stage.

Nepal's Hydropower Potential : Opportunity and Challenges of Navigating Cross Borders Power Trade in South Asia

On conclusion of the 726th Council Meeting of IEI in Kathmandu Nepal, a One Day Symposium on the theme **Nepal's Hydropower potential : Opportunity and Challenges of Navigating Cross Borders Power Trade in South Asia** was organized by IEI **Nepal Overseas Chapter** on 16 June 2024. The inauguration session was chaired by Er Rameshwar Yadav, Chairman, IEI Nepal Overseas Chapter. Er Sushil Chandra Tiwari, Secretary, Government of Nepal, Dr G Ranganath, President, IEI and Er Kulman Ghising, MD, NEA, were the Chief Guest and Special Guests, respectively. Dr G Ranganath, President, IEI and Maj Gen (Dr) MJS Syali, VSM (Retd), Secretary and Director General, IEI highlighted the importance of the Symposium. Past President, Dr Hemant O Thakare, Vice Presidents, Dr Nutan Kumar Dash and Er Sukhvir Singh Mundi and Council Members of IEI participated in this event. Er Prabal Adhikari former GM NEA and IEI Council Members, Prof (Dr) Saibal Chatterjee, Er J C Singhal and Er R R Tanwar presented their papers in this Symposium.

Dr Hare Ram Shrestha, Past President of NEA, Er Dilip Kr Jha, Past Chairman, Er Arbind Gupta, Immediate Past Chairman, Er Sudip Paudel and Er Umashankar Shah, Past and Present Honorary Secretaries, Er Laxman Mandal, Er Basu Pokhrel and Er Dipendra Jha of IEI, Nepal Overseas Chapter were devoted in conducting the Symposium. Participation of Er Mahendra Nath Aryal, Er Hari Ram Koirala and Er Suman Sharma, Former Secretaries

of Government of Nepal, Prof (Dr) Jiba Raj Pokhrel, Former VC of NAST, Dr Rabindra Dhakal, Secretary of NAST, Er D B Singh, Former Chairman Electricity Regulatory Commission, Nepal, Er Shambhu Pd. Upadhyay, Former GM, NEA, Dr S N Mishra, Former Director, NEA, Er Kul P Shapkota, Founder Chairman of IEI Nepal Overseas Chapter, Er Kishor Shakya and Er Dhrub Thapa, Past Presidents of NEA, other senior officials of Nepal and Council Members of IEI were the utmost importance of symposium. Presentations by highly qualified and experienced Senior engineers from IEI engineers and Nepalese engineers generated good discussions on the important issues of Power Trade in this region and shared knowledge with each other.

All India Seminar under the aegis of Mechanical Engineering Division Board

Solar Energy

Bareilly Local Centre, IEI, in association with A N A College of Engineering & Management Studies, Bareilly, organized an All India Seminar on the theme **Solar Energy** during 29-30 November 2023, under the aegis of Mechanical Engineering Division Board [MCDB], IEI. The seminar commenced with the welcome address delivered by Er Raj Goel, Chairman, Bareilly Local Centre, IEI, who also presided over the inaugural session. Dr Pradeep Chandra Pant, Advisor, Solar Energy Society of India graced the function as the Chief Guest. Mr Abhilakh Singh, Former General Manager, IREDA and Advisor, Solar Society of India and Dr Vishal Saxena, Department of Mechanical Engineering, Sardar Vallabhbhai National Institute of Technology, Surat were the Guests of Honour and Keynote Speakers.

Chief Guest of the event, Dr Pradeep Chandra Pant delivered presentation on the topic 'Renewable Energy Development in India and Future Trend'. He explained that the first oil shock of 1993, spurred by an embargo of the Organization of the Petroleum Exporting Countries (OPEC) and a 400% oil price hike, prompted global governments to enact energy conservation measures. This led to intensified research into renewable energy sources like wind, solar, biomass and hydro, fostering innovation. He mentioned

that India established initiatives and institutions to promote indigenous technology development and renewable energy research, notably forming Department of Non-conventional Energy Sources (DNES) and Central Electronics Limited (CEL) under the Department of Scientific and Industrial Research (DSIR) to commercialize domestic technologies.

On this occasion, Mr Abhilakh Singh delivered a Keynote lecture on 'Policy Incentives and Support Mechanism for Renewable Energy', where he explained that the policy incentives and support mechanisms for renewable energy play a pivotal role for advancing promotion, adoption and application of renewable energy.

Dr Vishal Saxena delivered his keynote address on the topic 'Solar Energy: A Catalyst for Sustainable Development with emphasis on Photovoltaics (PV) and Solar Assisted Thermal Power Plants (SAPG)', and explained that model analysis indicates that the cycle and thermal efficiencies of power plants will be improved after hybridizing the power plant . Solar integration of power plant decreases the cost of power, while compared to a typical steam turbine, which can produce the similar intended power output over the life cycle. A souvenir was released on the occasion in the august presence of Chief Guest, Guests of Honours and other dignitaries on the dais.

Er Anshu Agrawal, Department of Mechanical Engineering, Sardar Vallabhbhai National Institute of Technology, Surat, presented his lecture on the topic 'Solar Driven Evacuated Tube Collector based Air Heating: An Experimental Investigation'.

Er Suneel Baboo, Assistant Professor, Department of Electrical Engineering, ANA College of Engineering & Management Studies, Bareilly, presented on the topic 'Enhancing Solar Energy Integration: Bidirectional DC-DC Converter for Grid-Connected V2G Systems' and explained that integration of renewable energy into the grid is vital for sustainability in achieving a sustainable and decarbonised energy system. It focused on the utilization of a bidirectional DC-DC converter in grid-connected vehicle-to-grid (V2G) systems to enhance the integration of renewable energy.

Guest Speaker, Dr Satpal Singh, Department of Mechanical Engineering, Giani Zail Singh Campus College of Engineering and Technology (GZSCCET), Maharaja Ranjit Singh Punjab Technical University, Bathinda, delivered lecture on 'Empowering Tomorrow: Energy Conservation and Solar Development in India's Building Sector', where he explained India's

Contd. on page 9

From the President's Desk.....

Contd. from page 1

Engineers play a pivotal role in ensuring the safety of our railways. They innovate solutions, design and implement advanced technologies, and oversee critical infrastructure upgrades. Continuous training and fostering a safety-first culture among engineers and railway staff are paramount. Looking ahead, sustained investment in infrastructure, adoption of advanced technologies, and rigorous safety audits are imperative. The establishment of a statutory Railway Safety Authority, as recommended by various committees, would provide an independent framework to enforce standards and impartially investigate accidents.

In conclusion, ensuring the safety of the Indian Railways is a collective responsibility. Let us prioritize safety through innovation, technology, and a robust safety culture. Together, we can make our rail network safer, ensuring its reliability and trustworthiness for millions of passengers who depend on it daily.

All India Seminar under the aegis of Computer Engineering Division Board

Protection of Data and Privacy within Distributed Systems

Jharkhand State Centre, IEI, organized an All India Seminar on the theme **Protection of Data and Privacy within Distributed Systems** during 16-17 December 2023, under the aegis of Computer Engineering Division Board [CPDB], IEI at Ranchi. The seminar focussed on various aspects of data protection, privacy of crucial data and Cyber Security and also encompassed case studies from the Artificial Intelligence (AI) and Machine Learning (ML) Technologies. Technology professionals from the industry and academia elucidated importance of Cyber Security and the emerging technologies. Different presentations and discussions flourished knowledge among the participants and audience on how the technology is becoming boon towards the upcoming tech-savvy world and its pros and cons with measures to safeguard and recovery of risks. Dr Bhuvnesh Pratap Singh,

IAS, CEO, Jharkhand Agency for Promotion of Information Technology (JAP-IT), Government of Jharkhand, Ranchi, graced the occasion as the Chief Guest. Mrs Mani Mekala Dasgupta, Senior General Manager (Technical Services), MECON Ranchi, graced the occasion as the Guest of Honour. Keynote Speaker of the event was Dr Bhaskar Karn, Associate Professor and Dean, Student Affairs, Birla Institute of Technology (BIT) Mesra, Ranchi. Dr Mahesh Kumar Gupta, Chairman, Jharkhand State Centre, Ranchi, extended a warm welcome to all delegates participating in the event. Er Vishal H Shah, Convener of the seminar, briefed about the theme of the seminar and explained why Cyber Security has become important in today's life and also on the importance of privacy and protection of data. Dr Manoj Kumar, Immediate Past Honorary Secretary, Jharkhand State Centre, IEI, invited the dignitaries on the dais.

Dr Bhuvnesh Pratap Singh, IAS, deliberated at a length on cyber security and its importance in today's technology-oriented life and focussed on the importance and strategies of data protection. Mrs Mani Mekala Dasgupta shared the pertinent issues faced by the organizations in cyber security while working in an e-environment and also discussed issues and technical steps to be implemented to overcome the difficulties as well as future strategies. Keynote Speaker, Dr Bhaskar Karn, thoroughly explained Cyber Security and Ethical Hacking. He elaborated the problems faced by industry, organizations, academia and individuals and explained the pros and cons of data protection, privacy and cyber security. The inaugural session concluded with a vote of thanks delivered by Dr Manoj Kumar, Immediate Past Honorary Secretary, Jharkhand State Centre, Ranchi.

The Keynote Lecture for the first technical session was delivered by Mr. Mohan Kumar Dehury, Assistant Professor, All India Institute of Technology (AIIT), AMITY University, Ranchi, who explained about the Cyber Security in Distributed System environments. The Keynote lecture for the second technical session was delivered by Dr Biresh Kumar, Assistant Professor, AIIT, AMITY University, Ranchi, who explained about the role of AI in Cyber Security. Ms Tannisha Kundu, Assistant Professor, AIIT, AMITY University, Ranchi and Er Kumari Vinita, Head of ECE, School of Engineering and Technology (SOET), YBN University, Ranchi, delivered the Keynote addresses of the third technical session.

The two day seminar witnessed paper presentations over a wide range of topics relevant to the theme, which include; Abstractive Text Summarization and Multilingual Translation; Utilization of Artificial Intelligence (AI) in Blast Furness; A Study on Privacy Preserving and Secure Communication Protocol; Securing Tomorrow: Navigating the Future with Post Quantum Cryptography etc. Mr D N Mishra, Founder Sonali Infotech, Ranchi, presented on "Upcoming and Latest Hardwares Related to IT Infrastructure Management and e-security". Papers were also presented on the topics, Disaster Recovery as a Service towards Infected Networks and Systems; Cyber Security Challenges and Opportunities in IoT: The Delicate Equilibrium of Risk and Reward; Disaster Recovery Strategies for Privacy-Preserving Distributed Systems; Enhancing User Interaction: A Comprehensive Study in Prompt Engineering; Enhancing Privacy via Technologies in Distributed Systems for Internet of Things (IoT); An Overview of Quality Metrics Used in Estimating Software Faults; Intelligent Guidance for Careers using Machine Learning; AI Based Discovery on Ethical Hacking and Hacking Attack Using Cyber Security;

During the valedictory session, Dr Mahesh Kumar Gupta addressed the august audience. Er M I Alam, Immediate Past Chairman, Jharkhand State Centre, spoke on the theme and summed-up the technical sessions. Vote of thanks was presented by Er Harun Ansari, Honorary Secretary, Jharkhand State Centre.

Exploring Innovations & Collaborations in HVAC

Jharkhand State Centre, IEI organized a One Day Seminar on the theme **Exploring Innovations & Collaborations in HVAC** on 09 December, 2023 in association with Indian Society of Heating, Refrigeration and Air Conditioning (ISHRAE) under the aegis of Mechanical Engineering Division Board [MCDB] at Ranchi with the objective to educate engineers on the latest developments in the field of HVAC. The program was aimed at understanding

and evaluating the importance of energy savings. The one-day seminar provided a platform for stakeholders to exchange knowledge on emerging technologies in Energy and Environment, focusing on Sustainable HVAC and Architecture, Green Buildings and Energy sustainability for healthcare and hospitality. Mr Supratim Chakraborty, Chief General Manager (Iron, Sinter and Coal, Coke & Chemical), Centre for Engineering and Technology (CET) - SAIL, Ranchi graced the function as the Chief Guest. Mr Shailesh Saxena, Senior General Manager In-charge (Electrical), MECON, Ranchi, was the Guest of Honour. The inaugural session was presided over by Dr Mahesh Kumar Gupta, Chairman, Jharkhand State Centre, IEI.

The event commenced with the welcome address delivered by Dr Mahesh Kumar Gupta which emphasized on industry growth alongside energy conservation in HVAC and building construction. He also advocated cultivating citizen awareness on energy-efficient practices and compliance with government policies for sustainable development. It was followed by a speech by Er Harun Ansari, Honorary Secretary, Jharkhand State Centre, who emphasized on the importance of the 'URJAVARAN' event and its impact. Er Fulender Kumar, Organising Secretary, ISHRAE Ranchi Chapter, also addressed the audience. In his speech, Mr Supratim Chakraborty provided insights about initiatives taken by SAIL for reducing carbon emissions in steel manufacturing. He also stressed on inculcating the habits to reduce the carbon footprint in every sphere of life. A panel discussion on De-carbonization was also organized on the occasion, which revealed that proper room insulation can significantly reduce the load on air conditioning systems, thereby positively impacting decarbonization efforts.

During the technical session, Er Sudhanshu Ashish, AGM, Arch. Section, MECON, Ranchi spoke on 'Sustainable Building Design', where he discussed at a length material conservation, water conservation, land conservation, design for waste, recycling building materials for sustainable living etc. Er J H Makki, CEO, MAC Engineering, Ranchi delivered lecture on 'Overview of Energy Efficient Industrial Hydraulics',where he discussed the advantages of hydraulics over the mechanical system, components and function of hydraulic system reservoir, hydraulic pumps, hydraulic accumulator, functions of hydraulic valves etc. Er Atilesh Gautam, Electrical Executive Engineer cum SDA In-charge, Jharkhand Renewable Energy Development Agency (JREDA), Ranchi discussed on 'Perform, Achieve & Trade Scheme (PAT)'. The speaker explained different components of National Action Plan on Climate Change (NAPCC) and explained PAT as a regulatory instrument to reduce specific energy consumption in energy intensive industries, with an associated market based mechanism to enhance the cost effectiveness through certification of excess energy saving which can be traded. Dr Somraj Chakravarty, Assistant General Manager, Department of Utilities, Centre for Engineering and Technology, Steel Authority of India Limited (SAIL) delivered lecture on the topic 'Decarbonisation Strategies in Steel Industry' and discussed at a length the growth prospects of steel industry in India, best decarbonization practices in steel industry, which include promotion of Renewable Energy, Energy efficient lighting system, creating carbon sink through plantation,promotion of circular economy etc. He also discussed on energy optimization and green steel production. An industrial presentation was also held on the occasion by Aerolam Insulations Private Limited, where the manufacturing of thermal insulation in Chemically Cross-linked Polyethylene Foam and Reflective Foil Insulation or Bubble Insulation, Underdeck insulations, Acoustic Lining for Ducts, function of protective shield namely Aero Comfort etc were discussed. The program concluded with a vote of thanks by Er Harun Ansari, Honorary Secretary of Jharkhand State Centre.

Renewable Energy Development in India

Madhya Pradesh State Centre, IEI, in collaboration with the Patel Group of Institutions, Bhopal and Madhyanchal Professional University Bhopal, organized a One Day Seminar on the theme **Renewable Energy Development in India** on 31 January, 2024 under the aegis of Mechanical Engineering Division Board [MCDB]at Bhopal with the objective to foster dialogue and action towards a renewable and sustainable energy future in India, reflecting a collective commitment to address the pressing challenges of energy security and environmental sustainability. The Seminar served as a dynamic platform for exchange of knowledge and expertise and collaboration among experts and enthusiasts. Er Mukul Dhariwal, Former Member, Madhya Pradesh Electricity Regulatory Commission (MPERC), Executive Director, Madhya Pradesh Power Management Company Limited, graced the occasion as the Chief Guest and delivered invited lecture on the topic 'Renewable Energy Development in India Policy & Regulatory Framework'. Dr V K Dwivedi, Pro Vice-Chancellor, Madhyanchal Professional University (MPU), Bhopal, shared his insights into the significance of academia-industry collaboration in fostering innovation and driving the renewable energy sector forward.

Eminent speakers from both industry and academia conducted expert sessions throughout the day on the wide range of subthemes covered, which

include advancement of solar power in India, wind energy advancements, hydropower and its sustainability, bioenergy and biomass utilization, waste-to-energy technologies and initiatives, energy storage solutions, policy and regulatory framework as well as Government initiatives and subsidies. Er Sunil Kumar Sood, Energy Consultant, delivered invited lecture on the topic 'Energy Conservation and Efficiency as Foundation of Sustainable Energy'. Dr Prashant Baredar, Professor and HoD, Energy Department, Maulana Azad National Institute of Technology (MANIT) Bhopal delivered invited lecture on 'Wind Turbine Tower Design under various Requirements'.

Contd. on page 8

Recent Trends in Lean Manufacturing

Coimbatore Local Centre, IEI, in association with Department of Production Engineering, PSG College of Technology (PSG Tech), Coimbatore, organized a One Day Seminar on the theme **Recent Trends in Lean Manufacturing** on 12 August, 2023 at Coimbatore under the aegis of Production Engineering Division Board [PRDB], IEI. In the inaugural function, Dr M Senthilkumar,

Past Honorary Secretary, Coimbatore Local Centre & Professor and Head, Department of Production Engineering., PSG Tech welcomed the gathering. Dr Brajesh Kumar Kanchan, Assistant Professor, Dept. of Production Engg., PSG Tech gave an overview of the Seminar. Mr C Vigneswaran, Assistant Professor, Department of Production Engineering, PSG Tech, introduced the Chief Guest of the session,Dr G M Ramachandran, Chief Operating Officer, Propel Industries Private Limited, Coimbatore. In his address, Dr Ramachandran insisted on the need for lean manufacturing in the modern industries. Dr Ramachandran also delivered a lecture on the topic 'Total Employee Involvement', where he addressed shared the insightful perspectives and real-world examples and highlighted the critical role of employee engagement in organizational success. Dr N Senthil Prabhu, Lean Six Sigma Consultant and Trainer from Coimbatore, delved on the topic of 'Opportunities for Lean Consultants', shared his extensive expertise and shedding light on the growing demand for lean methodologies in various industries. Dr Lokeswar Patnaik, from the Department of Aeronautical Engineering at Satyabhama University, Chennai, elucidated the concept of 'Lean Research in Academics'. He elaborated on the application of lean principles in the realm of research and innovation. Dr Kritesh Kumar Gupta, from the School of Artificial Intelligence at Amrita Vishwa Vidyapeetham, delved on the captivating topic of 'AI and ML Opportunities in Lean'. He shed light on the convergence of Artificial Intelligence and Machine Learning with lean methodologies. He also explained how these technologies revolutionize efficiency and problem-solving within lean practices.

The seminar provided a comprehensive overview of the opportunities awaiting professionals in the field of Lean manufacturing. Attendees gained valuable insights into fostering a culture of active participation and collaboration among employees, learned about the potential career avenues and the value that proficient lean consultants can bring to organizations striving for efficiency and continuous improvement and the methodology to optimize the research processes, reducing waste, and enhancing the overall efficiency of academic and industrial research endeavours. The program ended with the valedictory session, with the vote of thanks proposed by Dr J Krishnamoorthi, presently Chairman, Coimbatore Local Centre.

Renewable Energy Development in India

Contd. from page 7

Prof P N Ahirwar, Madhyanchal Professional University Bhopal delivered invited lecture on 'Overview on Renewable Energy Sources in India' and Dr Sheetal Sharma, Professor, Vellore Institute of Technology (VIT) Bhopal, on 'Correlating Master Plans and Water Availability in Urban Areas'.

Earlier, Er Rajesh Bisaria, Chairman, Madhya Pradesh State Centre, delivered the welcome address and emphasizing the importance of renewable energy in India's sustainable development. Dr Mukesh Mishra, Honorary Secretary, Madhya Pradesh State Centre, spoke on the theme, highlighting the crucial role of renewable energy in addressing energy security, environmental sustainability, and economic growth.

During the seminar, a detailed discussion was held on the policy and regulatory framework governing renewable energy development in India. Insights into government initiatives, incentives and challenges faced by stakeholders were discussed threadbare, providing a holistic view of the landscape. The pivotal role of energy conservation and efficiency in establishing sustainable energy systems was underscored. An overview of prevalent renewable energy sources in India, including solar, wind, hydro, and biomass, was presented. The seminar also delved into wind turbine tower design considerations under diverse operational and environmental conditions. Furthermore, the correlation between urban master plans and water availability was explored. Sustainable water management practices in urban development were emphasized to support renewable energy initiatives, indicating the interconnected nature of energy and water sustainability.

Green Chemistry in Bio-fuel Production for Sustainable Environment towards Energy Security and Environment Protection

Uttarakhand State Centre, IEI organized a One day Workshop on the theme **Green Chemistry in Bio-fuel Production for Sustainable Environment towards Energy Security and Environment Protection** on 27 April 2024 under the aegis of Chemical Engineering Division Board [CHDB], IEI. Er Narendra Singh, Past President, IEI graced the function as the Chief Guest. Er Dharm Chandra, Immediate Past Chairman, Uttarakhand State Centre and Er S C Goyel, Past Chairman, Disaster Awareness & Management Forum (DAMF) were the Guests of Honour. Dr A K Gupta, Former Scientist and Head, Fire Research Laboratory, Central Building Research Institute (CBRI) Roorkee, stressed on the significance of biofuels for energy security and environmental preservation. He highlighted algae as a promising source for biodiesel and biogas production, noting their ability to yield over 60% of their dry weight as oil. He explained that algae thrive in aqueous environments, optimizing access to water, carbon dioxide, and nutrients. This efficiency in biomass and oil production is achieved in high-rate algal ponds or photobioreactors. He also advocated for converting algae-derived oil into biodiesel, promoting sustainability in the fuel industry while emphasizing the importance of safety measures. Er Gaurav Tayal, Executive Committee Member, working at IBM Finland (Europe) in the field of Oil & Gas, discussed how oil and gas biofuel companies verify sustainability and achieve maximum greenhouse gas emissions savings when selling renewable diesel. He outlined the lifecycle of converting non-crude feedstocks into renewable diesel and highlighted the production of biodiesel from sources like Jatropha and Palm worldwide. Ethanol, derived from sugarcane and

biomass, is also used globally for blending in fuels, with innovations in blending ethanol-biodiesel to enhance diesel engine performance and reduce exhaust emissions. Er Narendra Kumar Yadav, Chairman, Uttarakhand State Centre, delivered a lecture on biogas, highlighting its production from organic matter through microbial breakdown without oxygen. He emphasized its purification for use in blending with Compressed Natural Gas (CNG) or internal combustion engines. Dr Prashant Agarwal, Director of IEI Civil Lab, discussed on carbon footprint and cloud seeding. He explained that the carbon footprint measures greenhouse gases produced by human activities. He also discussed strategies to achieve carbon balance. At the end of the event, Er Satish Chandra Chauhan, Honorary Secretary, Uttarakhand State Centre proposed the vote of thanks. The event was attended by the delegates from oil and gas industry, academicians and Executive Committee Members from the host Centre.

Solar Energy

Contd. from page 5

proactive approach to achieve a sustainable future by embracing energy conservation and solar advancement through energy efficient building design and widespread solar integration. He also mentioned that focus on efficient design, smart technologies, and eco-friendly practices signals a robust commitment to sustainability.

Guest Speaker Er Sanjay Srivastava, Mechanical Engineering Department, A.N.A College of Engineering and Management Studies, Bareilly, spoke on the topic 'Forging a Sustainable Future: The Diverse Applications of Solar Energy in the Metallurgy Industry', where he elucidated the pivotal role of solar energy in metallurgy, highlighting its sustainability drive. He explained that solar technologies reshape processes, meeting metal demands sustainably and it urges further solar adoption, securing metallurgy's eco-friendly stance.

Guest Speaker Dr K P S Chauhan, Head, Department of Mechanical Engineering, Future Institute of Mechanical Engineering, Bareilly, delivered lecture on 'Maximization of Efficiency of Solar Systems by Using Tandem Cells', where he explained that the solar cell, converting sunlight into electricity via photovoltaic silicon cells, faces challenges in efficiency due to limited spectrum absorption. He elaborated that manufacturers strive to enhance efficiency and reduce costs through ongoing innovation.

Further during the technical sessions, papers were presented by Er Aishwarya Pandey, Department of Electrical Engineering, A.N.A. College of Engineering and Management Studies, Bareilly, on the topic 'India's Solar Energy Future and Recent Advances - A Review'; Er Himanshu Agrawal, Assistant Professor, Department of Mechanical Engineering, Rakshpal Bahadur College of Engineering and Technology, Bareilly, on the topic 'Scheffler Solar Concentrator for different applications in the field of Solar Energy: A Review'; Dr Vineet Agarwal, Director, A.N.A College of Engineering & Management Studies, Bareilly, spoke on the topic 'Solar Energy in India: Critical Analysis on Current Trends and Future Prospects'; Er Shubham, Electrical & Electronics Engineering, A.N.A. College of Engineering and Management Studies, Bareilly on 'Appraisal on MPPT Based Hybrid Solar, wind and Diesel system for Micro Grid'; Er Vivek Pratap Singh, R D Engineering College Ghaziabad on 'Combined Parametric Analysis of Hybrid Solar still using Al_2O_3 Nanoparticles' and Er Amir Husain, Department of Civil Engineering, A.N.A College of Engineering & Management Studies, Bareilly, on 'Advancements in Building-Integrated Photovoltaic's: A Sustainable Approach for Energy-Efficient Structures.'

Er P K Madhwar, Honorary Secretary, Bareilly local centre, proposed the vote of thanks at the end of valedictory session.

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

IEI Celebrates
World Telecommunication and Information Society Day 2024

Theme: **Digital Innovation for Sustainable Development**

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

STATE CENTRES

Assam

On 17 May 2024, Assam State Centre, IEI observed World Telecommunication & Information Society Day 2024 at Guwahati. Er Amitava Nath, Organizing Secretary of the event delivered the welcome address. Er Mahesh Barkataki, Chairman, Assam State Centre, IEI presided over the function. Chief Guest of the event was Smt Rupa Paul Choudhury, Chief General Manager Telecom, Assam Telecom Circle (BSNL), Guwahati and Keynote Speaker of the event was Dr T V V L N Rao, Dean, Faculty of Engineering, Assam Down Town University, Guwahati. Dr Rao highlighted the impact of digital innovation on the impact of human society and the contribution of engineers in this matter. Smt Paul Choudhury explained the Sustainable Development Goals (SDGs) set by UN for speedy development of the world community and gave several examples of digital innovations, which are frequently being used in our daily activities of modern society. Technical papers were presented by engineering students from several engineering universities.

Bihar

On 17 May 2024, Bihar State Centre, IEI observed World Telecommunication & Information Society Day 2024 at Patna. Er Jai Prakash Narayan, Chairman, Bihar State Centre, IEI delivered the welcome address and explained the theme of the day. Chief Guest of the event was Prof K C Sinha, Vice Chancellor, Patna University, Patna and Keynote Speaker of the event was Mr R K Singh, ITS, General Manager, (BharatNet), BSNL, Bihar Telecom Circle, Patna. Prof Sinha highlighted the importance of digital innovation in achieving the Sustainable Development Goals. Mr Singh mentioned that BharatNet project in India provides broadband connectivity to rural areas across the country and its impact on sustainable development include digital inclusion, economic development, education, healthcare, agricultural advancement, environmental conservation and Government services. He emphasized that BharatNet is promoting sustainable development by leveraging digital technology to empower rural communities, enhance socio-economic opportunities, fostering the growth with minimizing environmental impact. At the end, Er Neel Mani Rangesh, Honorary Secretary, Bihar State Centre, IEI proposed the vote of thanks.

Jammu & Kashmir

On 17 May 2024, Jammu & Kashmir State Centre, IEI observed World Telecommunication & Information Society Day 2024 at Srinagar and a Seminar was organized on the theme 'Digital Innovation for Sustainable Development'. Er Eftikhar Ahmed Hakeem, Chairman, Jammu & Kashmir State Centre, IEI shared his heartfelt gratitude to all the attendees for their valuable presence and contributions. Dr Janib ul Bashir, Head of IT Department, NIT Srinagar underscored the significance of the theme of the event. Er Henna Khan, ITO, BSNL, highlighted the valuable perspectives on engineering within the telecom sector. The Seminar served as a platform for knowledge sharing, fostering collaboration between the institutions and inspired the students. The discussions underscored the critical importance of digital innovation in achieving sustainable development goals, promoting awareness and action in this vital area and emphasized that digital divide needs to be addressed.

Odisha

On 17 May 2024, Odisha State Centre, IEI observed World Telecommunication & Information Society Day 2024 at Bhubaneswar. Prof (Dr) Sudhanshu Sekhar Dash, Chairman, Odisha State Centre, IEI presided over the function. Mr Avinna Kumar Pahi, Technical Advisor (Telecom), OCAC and Former Chief General Manager, BSNL graced the occasion as the Chief Guest. Mr Pahi emphasized the critical role of telecommunications in advancing economic and social progress particularly in sustainable development goals. His insights shed light on valuable perspectives as how digital technologies can be leveraged to create inclusive and sustainable growth. At the end, Er Sangram Keshari Pattnayak, Honorary Secretary, Odisha State Centre, IEI proposed the vote of thanks.

Tripura

On 17 May 2024, Tripura State Centre, IEI observed World Telecommunication & Information Society Day 2024 at Agartala. Dr Subhadeep Bhattacharjee, Chairman, Tripura State Centre, IEI presided over the function. Dr Mrinal Kanti Deb Barma, Honorary Secretary, Tripura State Centre, IEI delivered the welcome address. Mr Ravi Prakash Saxena, ITS, General Manager (In-charge), Bharat Sanchar Nigam Limited (BSNL), Agartala focused on the initiatives of new technology adopted by BSNL in remote areas. Special Speakers of the event were Mr Piyush Goyal, Assistant Director & Zonal

Administrative Officer (North East Region), Inter State Police Wireless (IPSW) Station under Ministry of Home Affairs, Government of India and Dr Manas Rakshit, Assistant Professor, Department of Electronics & Communication Engineering, NIT, Agartala. Mr. Goyal discussed the role of communication technologies in enhancing public protection and disaster relief efforts carried out by the police. Dr Rakshit discussed the significance of digital technology in addressing the global challenges like poverty, inequality, climate change and access to quality education and healthcare.

LOCAL CENTRES

Agra

On 17 May 2024, Agra Local Centre, IEI, in association with Department of Electronics and Communication Engineering, Institute of Engineering and Technology (IET) Khandari Campus, Agra observed World Telecommunication & Information Society Day 2024 at Agra. Er Anil Kumar Goyal, Chairman, Agra Local Centre, IEI presided over the function and welcomed the speakers, guests and participants. Er Rajnesh Kumar Yadav, Honorary Secretary, explained the activities of Agra Local Centre, IEI. Chief Guest of the event, Er Bhagwan Das Rawat, Assistant General Manager, BSNL, Agra informed that information and communication technology (ICT) have been transforming the people to communicate, learn, do business and empowering nations to achieve sustainable development goals and improve their economies. He further added that in this era, technological advancements offer transformative solutions for societal and environmental challenges from IoT-enabled smart agriculture to block chain driven supply chain transparency, digital innovation for reshaping industries and promoting sustainable practices. Prof (Dr) Manu Pratap Singh, Director, IET, Khandari, Agra, Dr Rajesh Lavania, HoD, CS&E, IET, Dr Greesh Kumar Singh, HoD, Department of Electronics and Communication Engineering, IET, Khandari, Agra and other notable academicians were also present in the function.

Bareilly

On 17 May 2024, Bareilly Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Bareilly. Er Raj Goel, Chairman, Bareilly Local Centre, IEI delivered the welcome address. Er. Sudhir Kumar Gupta, Immediate Past Chairman, Bareilly Local Centre, IEI, emphasized the critical role of digital technologies in sustainable growth. He highlighted that advancements in telecommunications, data analytics, and digital platforms can address global challenges like climate change, poverty, and inequality. Additionally, he noted that these technologies enhance education, healthcare, and economic resilience, contributing to the United Nations Sustainable Development Goals. Er Suresh Chandra Sundrani, Past Chairman, Bareilly Local Centre, IEI highlighted, how Digital Innovation for Sustainable Development will be crucial in addressing global challenges and advanced technologies such as AI, IoT, Blockchain will drive sustainability by optimizing resource use, reducing emissions and fostering economic growth. Er Subhash Mehra, Past Chairman, Bareilly Local Centre, IEI stressed the need to achieve Sustainable Development Goals by recognized the region as a dynamic hub for digitally driven innovation fueld by pioneering technologies such as artificial intelligence, digital finance, etc. At the end, Er Pradeep Kumar Madhwar, Honorary Secretary, Bareilly Local Centre, IEI proposed the vote of thanks.

Anpara

On 17 May 2024, Anpara Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Anpara. Er Vikas Kumar Srivastava, Past Honorary Secretary, Anpara Local Centre, IEI welcomed the gathering. Chief Guest of event was Er R C Srivastava, CGM, ATP, Anpara and Guest of Honours of the event were Er D N Yadav, Chief Engineer, Anpara 'A' Project; Er Santosh Kumar Dubey, O&M Head, MEIL, Anpara and Er Vivek Kumar Srivastava, C&I Head, MERI, Anpara. Er Srivastava explained how digital technology has become essential in our daily lives and is instrumental in helping us achieve Sustainable Development Goals in our country. At the end, Er Srivastava proposed the vote of thanks.

Dhanbad

On 17 May 2024, Dhanbad Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Dhanbad. Prof (Dr) Biswajit Paul, Honorary Secretary, Dhanbad Local Centre, IEI introduced the theme of the event. Dr Aman Sikri, Assistant Professor, Department of Electronics Engineering, IIT ISM Dhanbad delivered lecture on 'Reconfigurable Intelligent Surfaces for 6G Communications'. Prof (Dr) Kalyan Chatterjee, Electrical engineering Department, IIT ISM Dhanbad, Prof H B Mishra, Assistant Professor, Department of Electronics Engineering, IIT (ISM), Dhanbad and officials from BCCL were present in the function.

Durgapur

On 17 May 2024, Durgapur Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Durgapur. Dr Arup Kumar Mandal, Joint Honorary Secretary, Durgapur Local Centre, IEI welcomed Dr Sujoy Saha, Assistant Professor, Department of Computer Science and Engineering, National Institute of Technology, Durgapur and Mr Debjit Ghatak, Assistant General Manager, Bharat Sanchar Nigam Ltd as Guest of Honours of the event and the august audience. Dr Mandal underscored the efforts made by Durgapur Local Centre, IEI towards societal well being and sustainable development and emphasized the significance of engineering in shaping our world thus inspiring our future generations. Prof (Dr) Chandan Koner, Chairman, Durgapur Local Centre, IEI stressed the importance of fostering dialogue and collaboration among engineers, policymakers, etc in addressing global challenges, particularly in telecommunication services. He highlighted the crucial role of engineering in driving sustainable development and enhancing quality of life and emphasizing the need for innovative solutions in telecommunication. Dr Sujoy Saha highlighted the role of telecommunication in disaster management and discussed about the limitations of current crisis mapping solutions. He introduced 'SURAKSHIT, a smart phone-based mapping solution designed to operate even in the absence of conventional network infrastructure. Mr Debjit Ghatak focused on transformative impact of telecommunication and information technologies on society. He highlighted the role of BSNL in providing mobile and internet services across India and spoke about their future plans.

Faridabad

On 17 May 2024, Faridabad Local Centre, IEI observed World Telecommunication & Information Society Day 2024 through online. Er Kuldip Raj Gupta, Chairman, Faridabad Local Centre, IEI welcomed the Expert Speaker of the event Dr Pradeep Kumar, Chairperson, Electronics Department, J C Bose University of Science & Technology (YMCA), Faridabad. Dr Kumar emphasized the significance of "Digital Innovation for Sustainable Development" and highlighted the urgent need to focus on this critical area. He explained about the scope of digital innovation like AI, ML, IoT, Data Analytics, etc which are relevant for efficient and timely achievement of all the SDGs. At the end, Er Inderdeep Singh, Honorary Secretary, Faridabad Local Centre, IEI expressed his gratitude to Expert Speaker, participants and proposed the vote of thanks.

Ghaziabad

On 17 May 2024, Ghaziabad Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Ghaziabad. Dr Satish Chandra Gupta, Chairman, Ghaziabad Local Centre, IEI welcomed the Chief Guest of the event, Sanchar Ratan Dr M K Seth, ITS, Former Chief General Manager, ALTTC, BSNL, Ghaziabad and the dignitaries present on the occasion. Dr Seth explained briefly the history of digitization from the time of invention of internet and its uses in various sectors and focused on AI, IoT, block chain technologies and their role in agriculture, education, transport, healthcare, communication, etc by enhancing transparency, accountability, etc. At the end, Er Punit Goel, Honorary Secretary, Ghaziabad Local Centre, IEI proposed the vote of thanks.

Gorakhpur

On 17 May 2024, Gorakhpur Local Centre, IEI, in association with Department of Signal & Telecommunication, N E Railway, Gorakhpur, observed World Telecommunication & Information Society Day 2024 at Gorakhpur and a Seminar was organized on 'Digital Innovation for Sustainable Development'. Er Pawan Kumar Mishra, Chairman, Gorakhpur Local Centre, IEI welcomed the Chief Guest, Er Rajesh Kumar Pandey, Principal Chief Signal & Telecom Engineer, N E Railway, Gorakhpur; Guest of Honours, Er P K Rai, Chief Signal engineer, N E Railway, Gorakhpur; Er Gyan Prakash Shiv Narayan, Chief Communication Engineer, N E Railway, Gorakhpur; Er J B Rai, President, Malaviya Alumni Association (MAA) and Dr Rakesh Kumar, Professor & Head, Department of Computer Science & Engineering, M M M University of Technology, Gorakhpur. Er Mishra explained the significance of telecommunications and highlighted how digital innovation provides the advancements to solve the world problems and digital development transforming the industry, enhancing the efficiency and capabilities of communication networks. Prof Kumar discussed on the key areas where digital innovation intersects with sustainable development like eradicating poverty and hunger, quality education, healthcare access and environmental sustainability. He emphasized that digital innovation brings opportunities, challenges and addressed for digital divide, data privacy, security, etc. Er Narayan explained the historical development of signalling and telecommunication in Indian Railway and the impacts of modernization in signalling in train operation. Er. Rai emphasized the importance of digital innovation for sustainable development. He underscored the necessity for collaboration among governments, the private sector, and civil society to create policies and frameworks that promote innovation. Er Pandey covered the area of technologies driving the evolution of sign alling and telecommunication, enabling faster, more reliable, secure communication, etc that support a wide range of applications and services. At the end, Er Ramesh Chandra Pandey expressed gratitude to all the participants and proposed the vote of thanks.

Gwalior

On 17 May 2024, Gwalior Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Gwalior. Er Radha Kishan Khetan, Chairman, Gwalior Local Centre, IEI delivered the welcome address. He emphasized the convergence of Information and Communication Technologies (ICTs) with emerging technologies revolutionizing various sectors towards more sustainable practices and explained the historical importance of HAM Radio. Dr P K Singhal, Past Chairman, Gwalior Local Centre, IEI mentioned that World Telecommunication and Information Society Day (WTISD) 2024, which underscores the pivotal role of digital innovation in advancing sustainable development across the globe, offers transformative solutions to pressing environmental challenges from IoT enabled smart agriculture to block chain driven supply, digital innovations for reshaping industries and promoting sustainable practices, etc and these innovations contribute towards achieving UN Sustainable Development Goals (SDGs). The event featured esteemed speakers, including the Chief Guest, Col A S Bais, Retired Colonel, Indian Army; Er V K Shukla, Past Honorary Secretary, Gwalior Local Centre, IEI; Er U S Pandey (Retired), PWD Works and Er Anuj Pratap Singh, Director, AZAKYTI Energy. Col Bais urged all the stakeholders to leverage digital innovation to build a more sustainable and equitable future for all and explained the importance of radio communication and controls in warfare activities, VHF and UHF frequency, etc. Er Shukla highlighted that e-governance provide citizens with access to government services, decision making processes, fostering trust and inclusivity. Er Pandey urged investment in building resilient urban economies to promote social equity and environmental sustainability. This approach aims to create cities that are not only economically robust but also inclusive, green, and capable of meeting the challenges of a constantly changing world. Er Singh explained the advancements in telemedicine, powered by AI algorithms in traditional healthcare systems.

Jodhpur

On 17 May 2024, Jodhpur Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Jodhpur. Er M M Agarwal, Chairman, Jodhpur Local Centre, IEI delivered the welcome address. Er N Ram, ITS, General Manager, BSNL, Jodhpur graced the occasion as the Keynote Speaker. Er Ram emphasized in his address that the world is advancing towards sustainable development using new technologies such as artificial intelligence, Internet of Things (IoT), blockchain, and renewable energy. He mentioned that Bharat Sanchar Nigam Ltd, a leading telecommunications company in the country, is expanding mobile services nationwide using 4G and 5G technology. This initiative involves cooperation with TCS, CDOT, and Tejas to provide customers with faster internet speeds than traditional 4G networks, facilitating secure online shopping and remote work from home. At the end, Er Resham Ram Hooda, Honorary Secretary, Jodhpur Local Centre, IEI proposed the vote of thanks.

Kanchepuram

On 17 May 2024, Kanchepuram Local Centre, IEI, in association with Electronics and Communication Engineering, Jerusalem College of Engineering, Chennai, observed World Telecommunication & Information Society Day 2024 at Chennai. Prof (Dr) S Ramesh, Chairman, Kanchepuram Local Centre, IEI explained the significance of World Telecommunication Day. Dr Karthikeyan S, Honorary Secretary, Kanchepuram Local Centre, IEI elaborated the benefits of student membership of IEI. The Keynote address was delivered by the Guest Speaker, Mr B Kesavakumar, Scientist-E, NIOT, Ministry of Earth Sciences on the theme. He explained the role of telecommunication and information in enabling global communication and connectivity. He also mentioned that in today's ocean technology, telecommunication systems are used for sharing data in real time and satellites are the key technology that allows to communicate from anywhere on the ocean surface, providing data from remote regions with improved bandwith and speed.

Kanpur

On 17 May 2024, Kanpur Local Centre, in association with Institution of Electronics and Telecommunication Engineers, Kanpur Centre, The Institution of Electrical and Electronics Engineers (IEEE), UP Section and MedTech, IIT Kanpur observed World Telecommunication & Information Society Day 2024 through virtual platform. Dr Mukesh Kumar Singh, Chairman, Kanpur Local Centre, IEI welcomed the Chief Guest of the event, Dr Raghvendra Kumar Chaudhary, Associate Professor, Department of Electrical Engineering, IIT Kanpur, Theme Speaker of the event, Er Abhinav Sharma, Researcher, Department of Design, IIT Kanpur and Members of Kanpur Local Centre, IEI, IEEE UP Section , IETE Kanpur Centre and MedTech, IIT, Kanpur. Chief Guest, Dr Chaudhary focused on the infrastructure development in recent years that has widely expanded the internet coverage in comparison to previous years. He stressed that Governments should facilitate the development of digital innovation platform that allows users to easily gain access to a combination of tools and resources for the development of new applications. Er Sharma discussed innovation in cognitive digital technologies, digital finance, government technology and Internet of Things to accelerate the region's progress towards the 2030 Agenda for Sustainable Development. He emphasized that digital technologies are improving diagnostic capabilities aiding in the development of new drugs, supporting good health and well-being, mitigating the impact of natural disasters and environmental hazards by finding the rapid analysis and integration of a wealth of data derived from satellite, meteorological and ground sources. At the end, Er Ram Autar Dixit, Honorary Secretary, Kanpur Local Centre, IEI proposed the vote of thanks.

Kollam

On 17 May 2024, Kollam Local Centre, IEI observed World Telecommunication & Information Society Day 2024 through online mode. Dr Madhusoodanan Pillai K, Chairman, Kollam Local Centre, IEI presided over the function and welcomed all. Er Vinod P Abraham, Special Director General (Retd), Department of Telecom, GoI, Karnataka graced the occasion as the Theme Speaker and explained the trends and innovation in the field of telecom and mentioned the understandings of digital innovation, telecom network components including 5G network, status of 5G network in India and roll of emerging technologies in telecom. At the end, Prof (Dr) Ms Sudhi Mary Kurian, Honorary Secretary, Kollam Local Centre, IEI proposed the vote of thanks.

Kozhikode

On 17 May 2024, Kozhikode Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Kozhikode. Er M Pramod Kumar, Honorary Secretary, Kozhikode Local Centre, IEI welcomed the gathering. Dr Gireesan P, Chairman, Kozhikode Local Centre, IEI presided over the function and explained the importance of the day. Er Surendranathan K, Past Chairman, Kozhikode Local Centre, IEI introduced the Speaker of the event, Er Rajesh M, Scientist/Engineer 'D', National Institute of Electronics and Information Technology (NIELIT), Calicut. Er Rajesh delivered lecture on 'Digital innovation for Sustainable Development' and explained, how digital transformation can improve sustainability, the importance of digital twin strategy for sustainable development, lifecycle analysis for improvement of product sustainability and digital transformation.

North Bengal

On 17 May 2024, North Bengal Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Jalpaiguri on the theme 'Digital Innovation for Sustainable Development'. Er Shrayasi Datta, Honorary Secretary, North Bengal Local Centre, IEI explained that sustainable digitalization involves encouraging the development and the use of technologies with sustainability considerations in mind, which ensures that technological advancements prioritize ethical considerations and environmental sustainability throughout their lifecycle. Er Gautam Bairagi, Member, North Bengal Local Centre, IEI explained that digital sustainability can reduce energy consumption, greenhouse gas emissions and electronic waste generation helping companies to combat climate change and reduce resource depletion. Er G K Panda, Er P K Saha, Er Sudip Mukherjee , Er Jhuma Dutta, Er Subrata Bhattacharya, Er Asim Mahapatra, Members, North Bengal Local Centre, IEI shared their views on the topic. At the end, Er Shrayasi Datta proposed the vote of thanks.

Rourkela

On 17 May 2024, Rourkela Local Centre, IEI observed World Telecommunication & Information Society Day 2024 through hybrid mode. Er Santosh Kumar Polaki, Chairman, Rourkela Local Centre, IEI welcomed the guests, dignitaries and participants. Dr Nutan Kumar Das, Vice President, IEI explained the significance of the day. Dr Ajit Behera, Honorary Secretary, Rourkela Local Centre, IEI introduced the Speaker of the event, Dr Santos Kumar Das, Associate Professor, Department of Electronics and Communication Engineering, National Institute of Technology Rourkela. Dr Das spoke on the application of Internet of Things (IoT) technology in telecommunication industry, that has brought a revolutionary change in communication networks. He emphasized that telecom companies can enhance operational efficiency, reduce downtime and provide better services to the customers by leveraging IoT devices and sensors. At the end, Dr Ajit Behera proposed the vote of thanks.

Tiruchirappalli

Tiruchirappalli Local Centre, IEI in association Indian Institute of Welding, Tiruchirappali 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 observed World Telecommunication &

Contd. on page 17

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

Delhi

On 04 March 2024, Delhi State Centre, IEI observed World Engineering Day for Sustainable Development 2024 at New Delhi. Dr Santosh Kumar Singh, Chairman, Delhi State Centre, IEI welcomed the Chief Guest of the function, Shri Ashok Kumar Gupta, Engineer Member, Delhi Development Authority and Guests of Honour, Ms Tarini Baswal, Director, REMCL, RE Head, Rites Limited and Shri Dinesh Kumar, Immediate Past Chairman, Delhi State Centre. Chief Guest, Mr Ashok Kumar Gupta, Engineer Member, Delhi Development Authority in his address focused on Sustainable Development which aims to meet human development goals in enabling natural systems to provide necessary natural resources and ecosystem services to humans. Ms Tarini Baswal explained that Engineers for a Sustainable World (ESW) is an International non-profit network of students and professionals united by their shared passion for technical sustainability. Dr S M Goel, Council Member, IEI explained the basic characteristics of sustainable development which can be observed like commitment to SDGs, technological advancements, inclusivity and diversity, global collaboration and environmental stewardship. At the end, Er Rajesh Sharma, Honorary Secretary, Delhi State Centre, IEI proposed the vote of thanks.

Gujarat

On 04 March 2024, Gujarat State Centre, IEI observed World Engineering Day for Sustainable Development 2024 at Ahmedabad. Chief Guest of the function, Mr R D Bharat, Joint Commissioner of Industry emphasized the importance of sustainable development initiatives in the engineering sector and highlighted the role of engineers in driving positive change. Dr Bhasker Iyer, Principal, Government Polytechnic, Ahmedabad also spoke on the occasion. Theme Speaker of the event, Mr M R Pandya, a distinguished industry expert shared his valuable insights about the latest developments and challenges in sustainable engineering practices and focused on various aspects of sustainable development, the innovative solutions engineered to address global challenges. At the end, Er Niraj Anilbhai Shah, Honorary Secretary, Gujarat State Centre, IEI proposed the vote of thanks.

Himachal Pradesh

Himachal Pradesh State Centre, IEI observed World Engineering Day for Sustainable Development on 13 March 2024 through hybrid mode. This webinar aimed to explore the innovative application of High Velocity Oxygen Fuel (HVOF) coating technology to enhance the performance and longevity of hydro turbines. Er Vishwa Mohan Joshi, Chairman, Himachal Pradesh State Centre, IEI presided over the function and presented an overview of the importance of technological advancements in engineering, particularly in the field of hydroelectric power generation. He emphasized the role of hydro-turbines in converting water flow energy into electrical power and stressed the need for protective coatings to mitigate wear, erosion and corrosion challenges faced by turbine components. Keynote Speaker, Er Vinod Kumar, Manager, SVJN, Jhakri, Shimla delivered lecture on the theme 'Advancements in Engineering: HVOF Coating of Hydro Turbines'. Key Topics covered in the webinar were: fundamentals of HVOF coating, application of HVOF coating in hydro turbines, process optimization and quality control, etc. It was recommended that further research and development to be made towards optimizing HVOF coating processes for hydro turbine applications, exploring new materials and techniques to address evolving operations challenges and promoting industry wide adoption of best practices to ensure the advancement of engineering solutions in the field of renewable energy. At the end, Er Jaswant Singh, Honorary Secretary, Himachal Pradesh State Centre, IEI proposed the vote of thanks.

Kerala

On 04 March 2024, Kerala State Centre, IEI in association with Marian Engineering, Thiruvananthapuram observed World Engineering Day for Sustainable Development 2024 at Thiruvananthapuram. Er P Balakrishnan Nair, Chairman, Kerala State Centre, IEI explained the theme of the event. Dr Abdul Nizar M, Principal, Marian Engineering College, Thiruvananthapuram welcomed the audience and also spoke on the occasion. Dr Samson Mathew, Director, National Transportation Planning and Research Centre (NATPAC) & Professor of Civil Engineering, NIT, Tiruchirappalli delivered lecture on the theme 'Engineering Solutions for a Sustainable World'. Er K R Suresh Kumar, Honorary Secretary, Kerala State Centre, IEI also addressed the audience.

Karnataka

Karnataka State Centre, IEI observed World Engineering Day for Sustainable Development on 14 March, 2024 and National Safety Day through hybrid mode. Er M Nagaraj, Chairman, Karnataka State Centre, IEI presided over and welcomed the participants. Speaker of the event, Mr S Ramamoorthy, Chief Executive Officer, M Projects Group delivered lecture on 'Safety for Sustainable Future'. He explained that safety can be referred to the control of recognized hazards in order to achieve an acceptable level of risk. He focused

about the importance of safety at work place to save lives and ensure that no one will be injured or killed while doing their duties. Speaker of the event, Prof S H Jangamshetti, Vice Chancellor, Haveri University, Haveri delivered lecture on 'Engineering Solutions for Sustainable World'. He emphasized that the day serves as a platform to provide an opportunity for interaction among engineers, decision-makers, industry leaders, scientists, NGOs, and the public. This platform aims to address the world's most vital issues and discuss the course of action. The day also highlights recent achievements in engineering and emphasizes how engineering and technology are crucial to modern and sustainable development. He said that the day is an opportunity to engage with government and industry for developing strategic frameworks and best practices for implementation of engineering solutions for sustainable development.

Mizoram

On 04 March 2024, Mizoram State Centre, IEI observed World Engineering Day for Sustainable Development 2024 at Aizawl. Prof (Dr) Saibal Chatterjee, Chairman, Mizoram State Centre, IEI welcomed the participants and explained about World Engineering Day for Sustainable Development. Speaker of the event, Prof Chithirai Pon Selvan, Director of Research, Head of School-Science and Engineering, Curtin University, Duba,i delivered lecture on water resources, energy resources, hydrocarbons resources, materials resources, industrial symbiosis, etc. He highlighted about four major contributors to enhanced greenhouse effect like CO_2 , NO, CH_4 and CFCs; the resources of hydrocarbons like coal, oil, natural gas and biomass and the material resources such as aluminium, iron, steel and other alloys, etc.

Punjab & Chandigarh

On 04 March 2024, Punjab & Chandigarh State Centre, IEI observed World Engineering Day for Sustainable Development 2024 online. Dr Labh Singh Bhari, Chairman, Punjab & Chandigarh State Centre, IEI welcomed the members and the guests. Prof (Dr) T S Kamal, Former Vice President, IEI graced the occasion as the Chief Guest. Keynote Speaker of the event, Prof (Dr) Manpreet Kaur, Department of E& IE & IE, SLIET, Longowal, Punjab highlighted the achievements of engineers and engineering in this era. She described how the engineering and technology is central to modern life for sustainable development. She mentioned that sustainable engineering focus on minimizing waste, using renewable energy sources, reducing pollution, creating long lasting, efficient systems, etc for future generations. Er Sukhvir Singh Mundi, Vice President, IEI addressed the participants and explained the essential role of engineering in development and human welfare. At the end, Er Swinder Singh, Honorary Secretary, Punjab & Chandigarh State Centre, IEI proposed the vote of thanks.

Rajasthan

On 04 March 2024, Rajasthan State Centre, IEI observed World Engineering Day for Sustainable Development 2024 at Jaipur. Er Mahendra K Chauhan, Chairman, Rajasthan State Centre & Council Member, IEI; Dr Hemant Kumar Garg, Honorary Secretary, Rajasthan State Centre, IEI and Er Sajjan Singh Yadav, Council Member, IEI welcomed the Chief Guest, Er Antar Singh Nehar, IAS (Retd), Rajasthan and Special Guests of the event, Er Satish Raj Mendiratta, Former Chief, Water and Environment Sanitation, Government of Rajasthan and Er Manoj Gupta, Chief Engineer, Rajasthan Housing Board, Government of Rajasthan. Er Chauhan welcomed the Executive Members, Corporate Members, Past Chairman & Honorary Secretaries of Rajasthan State Centre, IEI, students and distinguished guests and explained the theme of the event. Er Nehar stressed the need to educate senior citizen about new technologies and digital technology with proper use of device and correct feed of data, to encourage the senior citizen about the use of digital and new technology. Keynote Speaker Dr Menka Yadav, Assistant Professor, ECE Department, MNIT Jaipur, shared her valuable insight about digital health platforms and telemedicine platforms. Keynote speaker, Er Gireesh Bhardwaj, Regional Head, TCS, Ultratech Cement Limited shared his views and thoughts with the participants. At the end, Dr Hemant Kumar Garg, Honorary Secretary, Rajasthan State Centre, IEI, proposed the vote of thanks.

Telangana

On 04 March 2024, Telangana State Centre, IEI observed World Engineering Day for Sustainable Development 2024 through webinar. Dr G Venkata Subbaiah, Chairman, Telangana State Centre, IEI welcomed the gathering and presided over the function. Keynote Speaker, Er V N Heggade, Former Executive Director, Gammon and Former CEO, STUP, Founder of DEC on Complete Solution, Mumbai delivered lecture on 'Achieving Net Zero Carbon in Concrete & Steel Structures'. At the end, Dr K Seetha Ram Babu, Honorary Secretary, Telangana State Centre, IEI proposed the vote of thanks.

LOCAL CENTRES

Alwar

On 04 March 2024, Alwar Local Centre, IEI observed World Engineering Day for Sustainable Development 2024 at Alwar. Er Ashok Kumar Gupta, Chairman, Alwar Local Centre, IEI welcomed the guests and shared his views about World Engineering Day. Chief Guest of the event, Er Sudhir Kumar Pandey, Superintendent Engineer, JVVNL, Alwar shared his views about World Engineering Day. Special Guests of Honour, Er Gireesh Bhardwaj, Regional Head, TCS, Ultratech Cement Limited and Er Manohar Lal Yadav, Executive Committee Member, Rajasthan State Centre, IEI shared their valuable insights about the day. Keynote Speaker Er S C Joshi, Immediate Past Chairman, Alwar Local Centre, IEI, delivered a lecture on National Safety Day. He emphasized that even slight carelessness in factories, on roads, or in buildings under construction can lead to fatal accidents. He stressed the importance of using safety equipment to prevent such incidents. Speaker of the event, Er Chetan Prakash Gupta, Senior Lecturer (Civil), Government Polytechnic College, Alwar, shared his views on the solution to the problems of construction related dampness. At the end, Er R C Sharma, Honorary Secretary, Alwar Local Centre, IEI proposed the vote of thanks.

Dharwad

On 04 March 2024, Dharwad Local Centre, IEI observed World Engineering Day for Sustainable Development 2024 at Dharwad. Er Veerappa Hawladar, Chairman of the Dharwad Local Centre, IEI, emphasized in his address the importance of Sustainable Development Goals (SDGs) and highlighted the necessity for collective contributions from engineers across different disciplines to achieve these goals effectively. Chief Guest of the event, Dr Ramesh L Chakrasali, Principal, SDMCET, Dharwad appealed to all engineers to promote responsibility through sustainable, innovative technologies and practices. He highlighted the role of 4D's (decarbonization, decentralization, digitization and democratization or deregulation) in energy sector to address the global warming and green house gas emissions. At the end, Er Srihari K H, Honorary Secretary, Dharwad Local Centre, IEI proposed the vote of thanks.

Erode

On 05 March 2024, Erode Local Centre, IEI observed World Engineering Day for Sustainable Development 2024 online. Prof (Dr) Kumaravelan Radhakrishnan, Chairman, Erode Local Centre, IEI welcomed the members and explained the importance of the event. Speaker of the event, Dr M

Srinivasan, Professor & Head, Department of Electrical and Electronics Engineering, Navodaya Institute of Technology, Raichur, Karnataka, emphasized the need of engineering solutions to consider the environmental impact in equal measures. At the end, Prof (Dr) C N Marimuthu, Honorary Secretary, Erode Local Centre, IEI proposed the vote of thanks.

Indore

Indore Local Centre, IEI observed World Engineering Day for Sustainable Development on 12 March, 2024 and organized an Industrial Visit to NATRAX, A Government of India Undertaking at Pithampur. Dr Manish Jaiswal, Director, NATRAX and Dr Sudhir Gupte, Principal Associate, L&D explained various tests carried out at NATRAX for newly manufactured 2/3/4 wheelers vehicles and the facilities and activities undertaken there. Students, faculties and staff from various universities/colleges from Indore like SGSITS, Symbiosis, Prestige, Medicaps, etc including IEI member have participated in this visit.

Kollam

Kollam Local Centre, IEI, in association with IEI Mechanical Students' Chapter, Baselios Mathews II College of Engineering, Sasthamcotta, observed World Engineering Day for Sustainable Development on 08 March, 2024 at Kollam and a Seminar was organized on the topic 'Indian Space Programs'. Dr Padmasuresh, Principal, Baselios Mathews II College of Engineering, Kollam also addressed the audience. Prof (Dr) Ms Sudhi Mary Kurian, Honorary Secretary, Kollam Local Centre, IEI in her address spoke about sustainable development to meet the needs of the society. Keynote Speaker of the event, Er Sreehari M, Scientist/ Engineer SF and Project Manager, PSLV, VSSC and ISRO discussed about the Space Programs like Gaganyan and Chandrayan missions and highlighted the launch vehicles of ISRO and various satellites. He stressed the need of sustainable developments in the field of science and technology.

Ludhiana

Ludhiana Local Centre, IEI observed World Engineering Day for Sustainable Development 2024 online on 28 May 2024. Dr Arvind Dhingra, Chairman, Ludhiana Local Centre, IEI briefly explained the activities of IEI. Dr Munish Rattan, Associate Professor, GNDEC, Ludhiana discussed about applications of AI and IoT for Smart Cities.

Meerut

On 04 March 2024, Meerut Local Centre, IEI observed World Engineering Day for Sustainable Development 2024 through online mode. Keynote Speakers of the event were: Ms Nidhi Bhatia, Assistant Professor, Sir Chhotu Ram Institute of Engineering and Technology (SCRIET), Meerut; Er Ashutosh Mishra, Assistant Professor, SCRIET, Meerut and Er Subhash Chandra Mittal, Honorary Secretary, Meerut Local Centre, IEI. In her keynote address, Ms. Bhatia stressed the need for sustainable development, emphasizing the promotion of renewable energy, waste reduction, conservation, sustainable agriculture, and eco-friendly transportation. She highlighted the state-of-the-art engineering solutions such as solar panels, green buildings, wind turbines, LED lighting, electric vehicles and desalination technology and focused on Indian Government policies towards sustainable development. Er. Mittal stressed the need for collaboration among engineers and all sectors of society. Engineers play a central role in driving innovation, implementing solutions, and shaping the future of our planet. He focused on the potential of renewable energy, embracing principles of sustainable design and leveraging technology to address the environmental challenges towards a more sustainable and equitable future for all. Er Mishra discussed the necessity of transformation from traditional energy sources to non-conventional ones like solar, wind, water and biogas. He stressed on promoting more applications on non-renewables and suggested innovative measures such as Artificial Intelligence-based Irrigation Systems and Solar Operated Agricultural Equipment. At the end, Er Mittal proposed the vote of thanks.

Munirabad

On 04 March 2024, Munirabad Local Centre, IEI observed World Engineering Day for Sustainable Development 2024 at Hospete. Er P Sharath Kumar, Honorary Secretary, Munirabad Local Centre, IEI welcomed the Speakers and the Guests. He introduced the theme of the event emphasizing the pivotal role of engineers in shaping the world. Prof (Dr) M Shashdhar, Chairman, Munirabad Local Centre, IEI presided over and underscored the significance of celebrating World Engineering Day. He further emphasized the commitment of IEI towards promoting excellence in the engineering profession. Keynote Speaker of the event, Mr T Nazizuruddin, Vice Principal, TMAE's Polytechnic (Aided) College, Hospete shed light on the importance of sustainable practices in energy consumption and highlighted the contribution of engineering to explore innovative solutions for addressing global energy challenges. Dr Shivaraj B H, HoD Science, TMAE's Polytechnic (Aided) College, Hospete, highlighted the crucial role of communication in engineering and emphasized how communication skills enhance collaboration, problem solving and project management within engineering teams.

Tiruvallur

Tiruvallur Local Centre, IEI observed World Engineering Day for Sustainable Development on 03 April 2024 at Tiruvallur. Dr J Balamurugan, Chairman, Tiruvallur Local Centre, IEI emphasized the importance of adaptation and resilience in the face of global changes. Dr P Rajasekhar, Environmental Advisor & Founder Chairman of Sustainable Environment Promoters, in his Keynote address focused on the development of life-saving medical technologies and mentioned that engineers have continuously pushed the boundaries of innovation, transforming ideas into reality for the betterment of the society. He highlighted the contributions of engineers towards global challenges like climate change, socio-economic inequalities, health care disparities, etc. At the end, Er V Cyril Raj, Honorary Secretary, Tiruvallur Local Centre, IEI proposed the vote of thanks.

Tuticorin

On 14 March 2024, Tuticorin Local Centre, IEI observed World Engineering Day for Sustainable Development on 14 March 2024 at Tuticorin. Er I Maria Michael Raj, Former Scientific Officer/G, Heavy Water Board and Past Chairman, Tuticorin Local Centre, IEI presided over the function and welcomed the participants. He emphasized the day as an opportunity to promote engineering as a career and highlighted that engineering removes inequalities in standard of living. In his Keynote Address, Er. M. Nagarajan, Executive Engineer at Tuticorin Thermal Power Station, emphasized the day as a platform for bringing together government, engineering, and business. He highlighted the importance of reviewing engineering capacity and quality worldwide, developing strategic frameworks, and implementing best practices for engineering solutions and sustainable development. He focused on several

Contd. on page 17

IEI Celebrates
World Telecommunication and Information Society Day 2024

Contd. from page 13

Information Society Day 2024 online on 15 May 2024. Chief Guest of the event was Dr M A Maluk Mohamed, Co-Founder-Twin, Global Vice President (Research), Head, India Business, IITM Research Park, Taramani, Chennai. Er S Lakshmanan, Past Honorary Secretary of Tiruchirappalli Local Centre proposed the vote of thanks.

Udaipur

On 17 May 2024, Udaipur Local Centre, IEI, observed World Telecommunication & Information Society Day 2024 at Udaipur. Er Chandra Prakash Jain, Chairman, and Er Purushottam Paliwal welcomed the Keynote Speaker, Dr Meenakshi Tripathi, Associate Professor, Department of Computer Science and Engineering, Malaviya National Institute of Technology, Jaipur and the Speaker, Er Ajit Kumar Jain, General Manager (Services), Secure Meters Limited, Udaipur. Er Chandra Prakash Jain presided over the function and emphasized the need to raise awareness about the possibilities of using Internet and ICT for the betterment of the society and the economy of the country. Er Paliwal highlighted the role of digital innovation in promoting sustainable development around the world. Dr Tripathi emphasized that there are three pillars of sustainable development namely environment, social and economic. She shared her views on technical developments in Machine Learning, Artificial Intelligence, Deep Learning, IoT Applications, Smart Metering, Environment Monitoring, Precision Agriculture, etc and shared her valuable insights on the challenges in achieving the SDG goals like energy consumption, carbon emissions, e-waste pollution, job displacement and insecurity, privacy and data security, etc. Er. Ajit Kumar Jain advocated for the eradication of poverty, ending hunger, achieving food security, improving nutrition, promoting sustainable agriculture for healthy lives, ensuring equal quality education, and creating lifelong opportunities for all. He emphasized the importance of achieving the 17 Sustainable Development Goals (SDGs), including sustainable management of resources and economic development. At the end, Er Paliwal proposed the vote of thanks.

Upper Assam

On 17 May 2024, Upper Assam Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Duliajan. The event witnessed the presence of Er Bhairab Bhuyan, Chairman, Upper Assam Local Centre, IEI; Chief Guest Mr U N Jena, RCE, Oil India Ltd, Duliajan; Guest of Honour Mr Vikas Vijay Lacca, AGM, BSNL, Tinsukia; Keynote Speaker Dr Haraprsad Mondal, Assistant Professor, Department of Electronics and Communication Engineering, Dibrugarh University, Dibrugarh and Er Kishore Kumar Das, Honorary Secretary, Upper Assam Local Centre, IEI. Er Bhuyan delivered the welcome address. Dr Mondal delivered the Keynote address on the topic 'Fiber Optics and PIC: Recent Trends and Future Demans'. During the technical session, papers were presented on 'History, Evolution, Role of Telecom and Its Impact and Emerging Technologies of Telecommunications' by Mr Chinmay Kumar Sarma, CGM (FS), Oil India Ltd, Duliajan and 'Cyber Security: The Superhero to Safeguard Digital Transformation' by Mr Abhishek Daga, Chief Engineer (Information Security), Oil India Ltd. At the end, Er Kishore Kumar Das proposed the vote of thanks.

Visakhapatnam

On 17 May 2024, Visakhapatnam Local Centre, IEI observed World Telecommunication & Information Society Day 2024 at Visakhapatnam. Dr K V Rama Mohana Rao, Past Honorary Secretary, Visakhapatnam Local Centre, IEI welcomed the gathering. Er Venkata Satya G Pakki, Chairman, Visakhapatnam Local Centre, IEI presided over the function. Dr (Ms) Gunnu Padmavathi, Council Member, IEI introduced the Guest Speaker of the event, Dr M Satya Prasad, Deputy General Manager, BSNL. Dr Prasad delivered lecture on the theme of the day and explained Synchronous Digital Hierarchy, Dense Wavelength Division Multiplexing (DWDM), Optical Fibre Communication, Fiber to the Home (FTTH) services, 5G Network Architecture etc. At the end, Er D Bhujanga Rao, Committee Member, Visakhapatnam Local Centre, IEI proposed the vote of thanks.

IEI Celebrates
World Engineering Day for Sustainable Development 2024

Contd. from page 16

burning issues like inequality in income distribution, aggravated levels of property, climate change to global warming, etc, which need to be addressed to sustain the growth. He stressed the need to ensure everyone gets access to clean water, sanitation, reliable energy and other basic human needs.

Varanasi

Varanasi Local Centre, IEI observed World Engineering Day for Sustainable Development on 11 March, 2024 at Varanasi. Prof (Dr) Birendra Nath Rai, Chairman, Varanasi Local Centre, IEI welcomed the Invited Speaker Prof S N Upadhyay, Past Chairman, Varanasi Local Centre, IEI and Ex-Director, India Institute of Technology, Banaras Hindu University, Varanasi and all Committee Members of Varanasi Local Centre, IEI. Prof Upadhayay delivered lecture on 'Engineering Solutions for a Sustainable World'. Er Rahul Maurya, Honorary Secretary, Varanasi Local Centre, IEI proposed the vote of thanks.

Warangal

On 04 March 2024, Warangal Local Centre, IEI observed World Engineering Day for Sustainable Development 2024 at Warangal and a Seminar was organized on the theme 'Engineering Solutions for a Sustainable World'. Dr Anumula Rama Chandra Reddy, Chairman, Warangal Local Centre, IEI presided over the function and explained the importance of the Seminar. Dr A V Giridhar, Honorary Secretary of Warangal Local Centre, IEI, introduced the Chief Guest of the event, Dr. Karthik Balasubramanian, Associate Professor in the Department of Mechanical Engineering at NIT Warangal, who shared his views on what constitutes natural and sustainable development. At the end, Dr Giridhar proposed the vote of thanks.

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

Assam

On 22 March 2024, Assam State Centre, IEI, in association with water related Department/Organizations of Central & State Government observed World Water Day 2024 at Guwahati. Er Mahesh Barkataki, Chairman, Assam State Centre, IEI presided over the function. Er Monojit Misra, Honorary Secretary, Assam State Centre, IEI delivered the welcome address. Keynote Speaker of the event, Dr Bibhab Kr Talukdar, Secretary General & CEO, Aranyak, Assam, spoke about the role of water as a peace maker. He emphasized that water is an important medium to bring global peace, sustain human wellbeing and can also be a cause of dispute. He appealed for judicious use of water, to conserve water sources and to create awareness. Chief Guest of the event, Dr Reep Hazarika, State Information Commissioner and Former Managing Director, BCPL appealed to take necessary steps for conservation of water. On this occasion, technical papers were presented as 'Water for Peace – A Northeast India Perspective on Transboundary Rivers' by Mr Partha Jyoti Das, North East India Forum & Head, Water Climate & Hazard Division, Aranyak, Assam; 'Assessment of Water Content and Changing Patter in Guwahati City' by Ms Labhita Sahariah & Ms Lilawati Rabha, Mahapurusha Srimanta Sankardeva Viswavidyalaya, Nagaon; and 'Use of GIS and Modeling Tools in Hydrological Studies: Jal Jeevan Mission, Assam' by Dr Bijoy Krishna Chetia, Hydrologist, JJM, Assam and Shri C Debasish, GIS Expert, JJM, Assam.

Bihar

On 22 March 2024, Bihar State Centre, IEI observed World Water Day 2024 at Patna. Er Jai Prakash Narayan, Chairman, Bihar State Centre, IEI and Prof (Dr) Santosh Kumar, Chairman, Indian Water Resources Society (IWRS), Patna welcomed the Chief Guest, Prof (Dr) Girish Kumar Choudhary, Chairman, Bihar State University Service Commission. Prof Choudhary focused on importance of freshwater, discussed how to tackle the global water crisis and leveraging water for peace. Keynote Speaker of the event, Dr Rakesh Tiwary, Faculty at Centre of Social Geography, A N Sinha Institute of Social Studies, Patna highlighted the increase of world population, which has put huge pressures over environmental resources like fresh water resources for food production, energy, drinking water, urbanization, and environmental services. He emphasized that huge disparities in economic development, technology, economic growth have put resources under pressure. He stressed the need in collaborative manner for the development sectors such as energy, flood management, irrigation, ecological health, navigation and to meet national and international requirements incorporating national issues of domestic water budget, national water policy, people's awareness, regional co-operation and environmental sustainability of the whole basin. At the end, Er Neel Mani Rangesh, Honorary Secretary, Bihar State Centre, IEI proposed the vote of thanks.

Delhi

On 22 March 2024, Delhi State Centre, observed World Water Day 2024 online. Dr Santosh Kumar Singh, Chairman, Delhi State Centre, IEI welcomed the Chief Guest of the event, Mr R S Tyagi, Former Member, Delhi Jal Board, Guest of Honour, Dr S M Goel, Council Member, IEI and the participants. Dr Singh explained the theme of the event and emphasized the role of water in bringing global peace and sustainable development. He stressed the need to unite together to balance the human rights and to distribute water resources equitably. Dr S M Goel, Council Member, IEI explained the day as a platform to inspire individuals, communities and Governments to prioritize water as a tool for peace and focused on the role of water in ensuring stability and prosperity of the world. He urged all in fostering water management and cooperation, ensuring water as a catalyst for peace. Mr R S Tyagi emphasized the importance of awareness programs in local communities, schools, NGOs, etc., to promote water education, including rainwater harvesting, water resource protection, and environmental law compliance, with a focus on government involvement. At the end, Er Rajesh Sharma, Honorary Secretary, Delhi State Centre, IEI proposed the vote of thanks.

Goa

Goa State Centre, IEI, in association with Goa State Pollution Control Board, observed World Water Day on 26 March, 2024 at Goa. Er Anwar Isaac Khan, Chairman, Goa Local Centre, IEI shed light about the crucial role of engineering in finding sustainable solutions to environmental challenges, particularly to water management. Dr Sharmila Monteiro, Member Secretary, Goa State Pollution Control Board underscored the Board's commitment in addressing water pollution issues in the State and emphasized the importance of collaborative efforts in safeguarding water resources for future generations. Chief Guest and Keynote Speaker of the event, Er Subrai Nadkarni, Consulting Engineer, Valuer & Hydrologist, shared his valuable insights about sustainable water practices and appealed to the audience for water conservation in their daily lives. At the end, Er Dubhashi Siddhant Shravan, Honorary Secretary, Goa State Centre, IEI highlighted the importance of collective action in addressing water related challenges and urged everyone in preserving this invaluable resource. On this occasion, participants and dignitaries stressed the need to raise awareness about water conservation, reducing water consumption, promoting water saving technologies, advocating for policies ensuring access to clear water, protecting freshwater ecosystem, etc.

Gujarat

On 22 March 2024, Gujarat State Centre, IEI, in association with Indian Plumbing Association, Ahmedabad and Civil Engineering Department, Applied Mechanics Department of L D College of Engineering, observed World Water Day 2024 in Ahmedabad. Dr Niraj

Anilbhai Shah, Honorary Secretary, Gujarat State Centre, IEI welcomed all the participants. Mr Vivek Kapadiya, Secretary of Government of Gujarat and Director of Sardar Sarovar Narmada Nigam Limited, Government of Gujarat, graced the occasion as Chief Guest. He emphasized the significance of water for peace and its role for life. Dr Nilay Bhupatani, Principal, L D College of Engineering, Ahmedabad delivered the theme lecture and focused on water scarcity faced by Bangalore City and South Africa due to rapid urbanization, population growth, pollution and climate change impacts. He highlighted the innovative solutions and initiatives undertaken to address these challenges and emphasized the importance of sustainable water management practices. Mr Minesh Shah, Chairman of Plumbing Association, Ahmedabad shared his valuable insights on career opportunities within the water industry. Mr Tejash Joshi, Managing Director, Space Elements delivered lecture on rainwater harvesting and highlighted its importance in sustainable water management practices.

Himachal Pradesh

Himachal Pradesh State Centre, IEI observed World Water Day on 23 March,2024 through hybrid mode and a webinar was organized on the theme. The event aimed to raise awareness about the critical role of water in fostering peace and sustainable development. Er Vishwa Mohan Joshi, Chairman, Himachal Pradesh State Centre, IEI, emphasized the critical role of water, water for peace and sustainable development. He underscored the urgency of addressing water-related challenges and the role of engineers in finding innovative solutions. Keynote Speaker, Dr Daljeet Kumar, Assistant Professor, Department of Civil Engineering, HPU, Shimla in his Keynote Address explored the relationship between water resources, peace and sustainable development. He gave an overview of global water crisis, highlighted its multifaceted impact on social, economic and environmental dimensions. He emphasized that equitable access to water is not only a fundamental human right but also promotes social harmony and stability. He discussed the root causes of water related conflicts including competition over scarce resources, unequal distribution, geopolitical tensions and emphasized the role of engineering in implementing sustainable solutions. He stressed the importance of collaboration among Governments, NGOs, academia and local communities to achieve SDGs related to water and sanitation. At the end, Er Jaswant Singh, Honorary Secretary, Himachal Pradesh State Centre, IEI shared heartfelt gratitude to the Chairman, Speaker, Professionals, etc for their valuable contributions throughout the event.

Jharkhand

On 22 March 2024, Jharkhand State Centre, IEI observed World Water Day 2024 at Ranchi. Dr Mahesh Kumar Gupta, Chairman, Jharkhand State Centre, IEI welcomed the Chief Guest of the event, Er Nagesh Mishra, Engineer-in-Chief, Water Resources Department; Guest of Honour of the event, Er Vijay Shankar, Chief Engineer, Design Master Planning and Hydrology, Government of Jharkhand; Keynote Speakers of the event Dr D K Singh, Professor & HOD, Cambridge Institute of Technology (CIT), Ranchi and Dr P N Singh, former S.E. WRD, Government of Jharkhand. Dr D K Singh in his Keynote address stressed the need on coordination between all water sector departments, educational institutions and all stake holders to change the water scenario. Dr P N Singh explained the theme 'Water for Peace' and stressed on using water with care. Er Nagesh Mishra and Dr D K Singh shared their valuable insights and motivated the participants to inspire individuals, communities and Governments to prioritize water as a tool for peace and focused on the critical role water plays in ensuring stability and prosperity of the world. At the end, Dr Manoj Kumar, Past Honorary Secretary, Jharkhand State Centre, IEI proposed the vote of thanks.

Kerala

On 22 March 2024, Kerala State Centre, IEI in association with St Thomas Institute for Science & Technology, Kattaikonam, Kazhakuttam, Thiruvananthapuram observed World Water Day 2024 at Thiruvananthapuram. Er P Balakrishnan Nair, Chairman, Kerala State Centre, IEI explained the theme of the event and introduced the Chief Guest of the event, Dr Shibu Krishnan, Associate Professor, College Engineering, Thiruvananthapuram to the audience. Dr Mathew A G, Principal, St Thomas Institute of Science and Technology, Thiruvananthapuram also addressed the audience. Er Nair delivered lecture on the theme 'Water for Peace'. At the end, Er K R Suresh Kumar, Honorary Secretary, Kerala State Centre, IEI proposed the vote of thanks.

Mizoram

On 22 March 2024, Mizoram State Centre, IEI observed World Water Day 2024 at Mizoram and a Seminar was organized on 'Water for Peace'. Dr Lal Sangzela Sailo, Honorary Secretary, Mizoram State Centre, IEI welcomed the participants, explained briefly about World Water Day 2024 and introduced the Expert Panellists of the event, Dr Bhaskar Jyoti Deka, Assistant Professor, Department of Hydrology, IIT Roorkee and Er K Hamlet, Sr EE (Works), Irrigation and Water Resources Department, Government of Mizoram. Dr Deka explained the need for water treatment, water treatment systems (conventional), disinfection/advanced oxidation process, advanced oxidation technology, membrane processes and general concept of emerging Membrane Distillation (MD). Er Hamlet discussed about water resources of Mizoram, drainage map of Mizoram, way forward, etc. At the end, Prof (Dr) Saibal Chatterjee, Chairman, Mizoram State Centre, IEI proposed the vote of thanks.

Punjab & Chandigrh

On 22 March 2024, Punjab & Chandigarh State Centre, IEI in association with SLIET, Longowal, observed World Water Day 2024 at Chandigarh. Dr Labh Singh Bhari, Chairman, Punjab and Chandigarh State Centre, IEI welcomed the dignitaries, guests, students and highlighted the role of telecommunication applications in achieving sustainability in water technology for world peace. Chief Guest of the event, Prof (Dr) Tara Singh Kamal, Former Vice President, IEI stressed on adopting new technologies for the welfare of humanity and nature. He emphasizing the collaborative efforts of Government agencies, NGOs, private sectors, technical institutions and society at large. Er Sukhvir Singh Mundi, Vice President, IEI highlighted the efforts of Punjab Irrigation Department in managing canal waters for agricultural purposes, which contributed the Green Revolution in India. Keynote Speakers of the event were: Prof (Dr) Dhiraj Sud, Scientist, Department of Chemistry, SLIET, Longowal and Prof (Dr) Amar Pratap Singh, Professor (ECE), SLIET, Longowal. Prof Sud spoke on water availability, scarcity, industrial and agricultural related water issues as well as emerging pollutants and associated health concerns. Dr Pharwaha emphasized the use of Artificial Intelligence in Water Management and its practical applications including Internet of Things technology. Prof (Dr) Rajesh Kumar, Dean (Students Welfare), SLIET, Longowal highlighted the efforts of SLIET Longowal in addressing water related issues and for conservation of water at Institute and in the surrounding villages. At the end, Er Swinder Singh, Honorary Secretary, Punjab & Chandigarh State Centre, IEI proposed the vote of thanks.

LOCAL CENTRES

Amravati

On 22 March 2024, Amravati Local Centre, IEI, in association Indian Water Works Association, Amravati Centre, observed World Water Day 2024 at Amravati and a One Day Seminar was organized on 'Recent Trends in Water and Waste Water Management'.

Er Anand Wamanro Jawanjal, Chairman, Maharashtra State Centre, IEI welcomed the guests and attendees. The event Jaldindi procession was inaugurated by Mr Devidas Pawar, Commissioner, Municipal Corporation, Amravati. Keynote Speaker of the event, Dr Sudhir Bhongade, Water Expert & Freelance Journalist, Pune, delivered lecture on the theme 'Water for Peace'. During the technical session, there were technical presentations on 'Shape of Future Drinking Water Treatment' by Dr Vasant Mhaisalkar, former Professor, Environment Engineering, VNIT, Nagpur; 'Tools and Techniques for Water Quality Monitoring' by Dr G K Khadse, Senior Principal Scientist, CSIR, NEERI, Nagpur; 'Sustainable Waste Water Treatment System for Urban Set up' by Dr Girish Pophali, Chief Scientist, NEERI, Nagpur and 'Current Technological Trends and Road Ahead for Urban Water Supply and Waste Water Management' by Er Vikrant Joshi, AVP, Ceinsys Tech Limited, Nagpur.

Dharwad

On 22 March 2024, Dharwad Local Centre, IEI observed World Water Day 2024 and 30th Belekundary Memorial Lecture in Dharwad. Dr Veerappa Hawaldar, Chairman, Dharwad Local Centre, IEI presided over the function. He emphasised on the service level benchmarks, regarding quality, quantity, reuse, recycle and conservation of water bodies. Er Ramesh D Kashinkunti, Technical Director, WaterFirst Consulting Firm, Bangalore Private Limited and Former Chief Engineer, Water District Northwest, Ohio, graced the occasion as the Chief Guest. He appealed to the audience to conserve, optimize and reuse the water and prepare for extreme weather conditions. He emphasised on capacity building, eliminating the cycle of building, neglect and rebuild and stressed that water can be a catalyst for peace if managed wisely. At the end, Er Srihari K H, Honorary Secretary, Dharwad Local Centre, IEI propose the vote of thanks.

Erode

On 22 March 2024, Erode Local Centre, IEI, in association with Velalar College of Engineering and Technology, observed World Water Day 2024 at Erode. Prof (Dr) Kumaravelan Radhakrishnan, Chairman, Erode Local Centre, IEI welcomed the attendees. Speaker of the event Dr E S Karthy, Founder and Managing Director, AWE CARE Analytical & Research Laboratories, Erode delivered lecture on 'Wastewater Reclamation, Reuse and Regulations'.

He discussed briefly about technological innovation in wastewater reclamation, promoting wastewater reuse, key components of wastewater regulations. He shared his valuable insights about the wastewater management and emphasized the importance of collaborative efforts in addressing water scarcity and achieving Sustainable Development Goals (SDGs). At the end, Prof (Dr) C N Marimuthu, Honorary Secretary, Erode Local Centre, IEI proposed the vote of thanks.

Jabalpur

On 22 March 2024, Jabalpur Local Centre, IEI observed World Water Day 2024 at Jabalpur. Brig Vipin Kumar Trivedi, Chairman, Jabalpur Local Centre, IEI and Dr Rajeev Jain, Honorary Secretary, Jabalpur Local Centre, IEI welcomed the guests. Prof (Dr) Narendra Kumar Gontia, Former Vice Chancellor, Agriculture University, Junagarh, Gujarat graced the occasion as Chief Guest and Mr Vinod Sharma, Founder President, Jal Sanrakshan Manch, Jabalpur graced the occasion as Guest Speaker. Prof Gontia highlighted the continuous decreasing level in underground water and stressed the need to increase the groundwater level to make the country self-reliant. He emphasized on making Jal – Jeevan Mission by Government of India meaningful to solve the problems of water by providing water to every household. Mr Vinod Sharma stressed the need to stop water pollution on a priority basis so that benefit of water resources can be obtained. He emphasized the need to accelerate change to ensure sustainable development and the wise use of natural resources. At the end, Dr Rajeev Jain proposed the vote of thanks.

Kakinada

On 22 March 2024, Kakinada Local Centre, IEI observed World Water Day 2024 at Kakinada and organized a lecture on the theme 'Water for Peace'.

Speaker of the event, Prof (Dr) Malothu Ramesh, Chairman, Kakinada Local Centre delivered lecture on the theme and stressed the need of Sustainable Development Goals (SDGs), which ensures availability and sustainable management of water for all by 2030. He further explained the importance of safe water and human rights to water.

Kalaburagi

Kalaburagi Local Centre, IEI observed World Water Day on 04 April 2024 at Kalaburagi. Dr Sridhar R Pande, Chairman, Kalaburagi Local Centre, IEI presided over the function. Er Shashil G Namoshi, MLC, Government of Karnataka and President of HKE Society graced the occasion as the Chief Guest.

Speaker of the event, Prof Manjunath D, Assistant Professor, Faculty of Engineering and Technology, KBN University, Kalaburagi delivered lecture on the theme. At the end, Er Seetharam Munnur, Honorary Secretary, Kalaburagi Local Centre, IEI proposed the vote of thanks.

Kanyakumari

On 22 March 2024, Kanyakumari Local Centre, IEI observed World Water Day 2024 at Kanyakumari and a Seminar was organized on the theme 'Water for Peace'. Er S Bright Selvin, Chairman, Kanyakumari Local Centre, IEI welcomed all the participants and delivered Presidential Address and explained the importance of water conservation. He called for collective responsibility in bringing meaningful change and for achieving water conservation. Keynote Speakers of the event, Er S Natarajan, Former Chief Engineer, PWD and Dr J Prakash Arul Jose, Principal, Annai Engineering College, Kambakonam shared their valuable insights in fostering harmony and sustainability through water conservation. Er Natarajan, discussed the significance of water conservation, various techniques for rainwater harvesting and its pivotal role in societal harmony.

Mangalore

On 26 March 2024, Mangalore Local Centre, IEI observed World Water Day 2024 at Mangalore.

Er Umesh Bhat K V, Chairman, Mangalore Local Centre, IEI presided over the function. Er Chinnagiri Gowda H C, Honorary Secretary, Mangalore Local Centre, IEI welcomed the gathering and

introduced the Chief Guest and Theme speaker, Er Dr Rajesh Gratian D'Souza, Principal, Yenepoya Institute of Technology, Moodbidri.

Nagpur

Nagpur Local Centre, IEI in association with Association of Consulting Civil Engineers, Nagpur Centre and Paryavaran Pratham (NGO) observed World Water Day on 21 March 2024 in Nagpur and 4th Dr A G Bhole Memorial Lecture was delivered by Dr Gajanan Khadse, Senior Principal Scientist, CSIR-NEERI, Nagpur on the topic 'Water Quality and Present Challenges'. Er Satish Sambhaji Raipure, Chairman, Nagpur Local Centre, IEI welcomed the guests, dignitaries, invitees and senior members and acknowledged the contributions of Dr A G Bhole for the development of Nagpur Local Centre, IEI. Dr Apurup Adawadkar, President, Paryavaran Pratham shed light on various aspects of water and the importance of the theme of the event. Dr Gajanan Khadse, while delivering the memorial lecture, emphasized on water quality aspect in order to address the conflicts arising from water and shared details of water quality related projects being taken up by CSIR-NEERI. At the end, Er Mahesh Rajaram Shukla, Honorary Secretary, Nagpur Local Centre, IEI proposed the vote of thanks.

Roorkee

On 22 March 2024, Roorkee Local Centre, IEI in association with National Institute of Hydrology (NIH) Roorkee and Indian Institute of Technology Roorkee, observed World Water Day 2024 at Roorkee. Dr R P Pandey, Scientist G & Head, Environmental Hydrology Division, NIH welcomed the august gathering and explained the importance of World Water Day. Dr Sharad Kumar Jain, Ex-Director, NIH & Visiting Faculty, Civil Engineering, IITR; Prof Somdev Shantanshu, Vice Chancellor, Gurukul Kangri, Hardwar and Dr Roopam Shukla, Assistant Professor, Centre for Disaster Management, IITR delivered lectures on various topics and exhorted the audience to save water. At the end, Er Mickey Mecon Dalbehera, Honorary Secretary, Roorkee Local Centre, IEI proposed the vote of thanks.

Thanjavur

Thanjavur Local Centre, IEI observed World Water Day on 28 March 2024 at Thanjavur and a Guest Lecture was organized on Water Conservation and Rain Water Harvesting. Prof (Dr) N Venkatachalapathy, Chairman, Thanjavur Local Centre, IEI welcomed the gathering and explained the role of IEI in technology developments. Er Senthamil Kumar S, Honorary Secretary, Thanjavur Local Centre, IEI introduced the Guest Speaker Er M Sekar, former Executive Engineer, PWD, Tamilnadu Government. Er Sekar discussed about the importance of potable and clean water, wastage of water, water pollution, preservation techniques, and rain water harvesting technology and working model at Thanjavur. At the end, Er Senthamil Kumar proposed the vote of thanks.

Udaipur

Udaipur Local Centre, IEI observed World Water Day on 30 March 2024 at Udaipur. Er Chandra Prakash Jain, Chairman, Udaipur Local Centre, IEI welcomed the Chief Guest and Keynote Speaker of the event, Acharya (Er) Daria Singh, Former Chairman, The Board of Technical Education, Rajasthan. Acharya Singh urged the participants for saving the environment including water and its resources. He focused on water disputes between the countries and opined that this could lead to the third world war. Er Jain emphasized that access to clean water is a fundamental human right and the people have to think seriously about saving water and mentioned that proper drainage can contribute towards saving water. Er Purushottam Paliwal, Honorary Secretary, Udaipur Local Centre, IEI explained about water scarcity, pollution, unequal access and emphasized for re-evaluation of water resources. At the end, Er Paliwal proposed the vote of thanks.

Vadodara

On 22 March 2024, Vadodara Local Centre, IEI observed World Water Day 2024 at Vadodara. Prof (Dr) Satishkumar Kantilal Joshi, Chairman, Vadodara Local Centre, IEI delivered the welcome address. Speaker of the event, Mr Naresh Gor, Hydrologist (P H Mechanical Circle), G W S S B, Vadodara delivered lecture on the topic 'Leveraging Water for Peace'. At the end, Er Ambikesh Natvarlal Padhya, Immediate Past Chairman, Vadodara Local Centre, IEI, proposed the vote of thanks.

Varanasi

On 22 March 2024, Varanasi Local Centre, IEI, in association with Department of Agricultural Engineering, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, observed World Water Day 2024 online and a webinar was organized on the theme 'Water for Peace'. Prof S N Upadhyay, Past Chairman, Varanasi Local Centre, IEI welcomed the speakers, namely, Prof V K Chandola, Professor, Department of Agricultural Engineering, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi and Prof K K Pathak, Department of Civil Engineering, IIT BHU. In his welcome address, Prof Upadhyay emphasized that all engineers are expected to carry out their professional activities in an eco-friendly and sustainable manner to avoid adverse environmental impacts. Prof Chandola delivered his lecture on 'Water Management in Agriculture'. He emphasized that water management is essential not only for human survival but also for reducing poverty, ensuring food security, promoting peace, upholding human rights, preserving ecosystems, and maintaining health. Prof Pathak explained the importance of water for maintaining peace among the nations and highlighted that large part of the world are suffering from water crisis and suggested an effort of water management is needed which will be of great help for them. At the end, Er Rahul Mourya, Honorary Secretary, Varanasi Local Centre, IEI explained the history of IEI and the activities of Varanasi Local Centre, IEI.

Warangal

On 22 March 2024, Warangal Local Centre, IEI observed World Water Day 2024 at Warangal. Dr K Venumadhav, Dean (Academics), Kakatiya Institute of Technology & Science (KITS), Warangal graced the occasion and addressed the audience. Dr Anumula Rama Chandra Reddy, Chairman, Warangal Local Centre, IEI addressed the gathering and explained the importance of the event by highlighting the developmental activities of IEI. Chief Guest of the event, Prof N V Umamahesh, Professor (HAG), Department of Civil Engineering, NIT Warrngal emphasized the significance of Sustainable Development Goals (SDGs) and integrated river management in ensuring the availability of water for future generations. He stressed the need for a collective effort from society to adopt environmentally friendly practices to protect water resources, safeguard the environment, and manage increasing water consumption. At the end, Dr A V Giridhar, Honorary Secretary, Warangal Local Centre, IEI proposed the vote of thanks.

News-in-Brief

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

STATE CENTRES

Punjab & Chandigarh

Organized a webinar on 'Revolutionizing Orthotics and Prosthetics: Empowering Mobility and Quality of Life' on 6 April, 2024. Chief Guest, Prof Shankar Sehgal, Coordinator, Punjab University, Chandigarh, highlighted the remarkable advancements in prosthetics and orthotics driven by emerging technologies. He emphasized the integration of advanced sensors and actuators in prosthetic limbs, enabling intuitive control and enhanced functionality, such as touch-sensitive prosthetic hands with adaptive grip strength, revolutionizing user experience. The Keynote speaker, Prof (Dr) Rajesh Sharma, Mechanical Engineering Department, University Institute of Engineering and Technology (UIET), Chandigarh, in his presentation, elaborated that Mechatronics is the fusion of mechanics and electronics, which revolutionizes the design and functionality of prosthetic and orthotic devices. He said that in prosthetics, mechatronics enables the creation of artificial limbs that seamlessly integrate with the body's movements, restoring mobility and enhancing quality of life for individuals with limb loss. Similarly, in orthotics, mechatronics plays a pivotal role in developing supportive devices that not only stabilize but also provide real-time feedback to users, promoting proper movement patterns and reducing the risk of injury.

Odisha

Observed National Technology Day, along with the 13th Prof Nityananda Patnaik Memorial Lecture, on 11 May 2024, with an objective to foster a spirit of innovation and remembrance of Prof Nityananda Patnaik's significant contributions in the field of engineering and technology. Chief Guest, Shri Sashi S Mohanty, CEO and Managing Director, Essar Minmet Limited, Bhubaneswar, emphasized the significance of technological advancements in driving economic growth and the role of engineers in shaping a sustainable future. Prof Bibhuti Bhusan Biswal, Vice Chancellor, Odisha University of Technology and Research, Bhubaneswar, spoke on the theme of technological advancements and their impacts on modern society, drawing upon the legacy of Prof. Nityananda Patnaik. The function was presided over by Prof (Dr) Sudhansu Sekhar Dash, Chairman Odisha State Centre who highlighted the importance of commemorating National Technology Day and reflecting on the contributions of esteemed engineers like Prof Patnaik. Er Sangram Keshari Pattnayak, Honorary Secretary Odisha State Centre, narrated the life sketch of Prof Nityananda Patnaik.

Tamul Nadu

Organized a webinar on 'Beyond the Visible: A Journey into Nanotechnology and Photonics' on 08 April, 2024. Guest Speaker, Dr M Silambarasan, Assistant Professor, (Senior Grade) of Physics, Head, Centre of Excellence in Photonics and Nanotechnology, Saveetha Engineering College, provided a captivating exploration of the synergies between nanotechnology and photonics, illuminating pathways towards groundbreaking discoveries and technological innovations. He delved into nanotechnology and photonics, offering a comprehensive view of their interdisciplinary significance. Beginning with nanotechnology, he spoke about its principles and diverse applications in fields like healthcare and electronics, highlighting the manipulation of matter at the nanoscale. Moving to photonics, he emphasized the role of photons in information and energy transfer, exploring applications in telecommunications, energy harvesting and biomedical imaging. The focal point of the lecture was nanophotonics, where nanotechnology intersects with photonics, unlocking novel capabilities. Current trends like Plasmonics and quantum dots were discussed, showcasing their transformative potential. Future directions in nanophotonics, including ultra-compact photonic circuits and quantum information processing were envisioned, encouraging the audience to visualize a future where nanophotonics drives innovation in computing, communication and sensing, leading to paradigm shifts across industries.

Tripura

Organised a Seminar on 'Energy Technologies: Strategies for Efficient Use and Conversion' on 03 May, 2024, in connection with the International Energy Day. Chief Guest, Shri Abhishek Singh, IAS, Secretary, Power Department, Govt. of Tripura and Chairman of Tripura State Electricity Corporation Ltd. (TSECL), highlighted that India is actively transitioning its energy landscape across sectors like electricity, industry, transport and agriculture. Increasing deployment of renewable energy, energy efficiency and demand side management, tightening environmental pollution norms and responsible use of fuel in thermal power plants are the key pillars of the electricity sector transition in the country, which focuses on stricter environmental regulations and optimizing thermal power plant fuel usage. India aims to efficiently integrate a significant share of renewables into the grid, with solar and wind power now being cheaper than coal-based power. Energy storage, particularly renewable-plus-storage solutions, is crucial for reliable renewable energy supply. He also informed that accelerated development of storage options is imperative based on resource potential, technology maturity and cost-effectiveness for seamless renewable energy integration. Technical presentations were made on diversified topics, namely; 'Energy Scenario of North-East India and Possibilities of Tapping Wind Energy through an Air Activated Hybrid Vertical Axis Wind Turbine' by Er Dhriti Rudrapal of ICFAI University, Tripura; 'Environmental Impact Analysis of Wind Farm Life Cycle' by Er Uttara Das of Tripura Central University, 'PV Integrated Sewing Machine with Pedal Speed Control' by Er Saiful Islam of NIT Agartala; 'Load Frequency Control of Power System based on Distributive Sources using Optimised Controller' by Er Sanghita Chakraborty of Tripura Institute of Technology; and 'Energy Management using Dynamic Load Distribution System' by Akash Chowhan of Techno College of Engineering Agartala.

LOCAL CENTRES

Ahmednagar

In association with the Department of Mechanical Engineering, Dr Vithalrao Vikhe Patil College of Engineering Ahmednagar, organized a three-day workshop on 'Additives Manufacturing: Basics, Modelling and Manufacturing' during 03-05 April 2024 at Ahmednagar. The event was inaugurated on 03 April 2024. Prof S K Kalhapure, Deputy Director, Dr Vithalrao Vikhe Patil Foundation; Dr U P Naik, Principal, Vithalrao Vikhe Patil College of Engineering and Dr Ravindra Navthar, HOD and Coordinator of the workshop shared the dais with Dr K M Markad, Convenor. Er B P Bhagwat, Past Honorary Secretary, Ahmednagar Local Centre elaborated the difference between subtractive manufacturing and additive manufacturing and added that there is vast scope for additive manufacturing in technology development.

Erode

In association with Velalar College of Engineering and Technology, organised an online Seminar on 'Nook and Cranny : Hackathon Signup' on 29 January 2024. Using her experience in hackathon competitions and extensive contribution towards innovative VLSI designs, Dr M Parimala Devi, Associate Professor, Department of ECE, Velalar College of Engineering and Technology, Erode delivered the lecture on the topic.

In association with Nandha College of Engineering, organised a webinar on 'NexGen Innovative Applications - Drone Technology' on 9 February 2024. Mr Hari Janarthanan, Manager - UAV Technology, Birdscale Technologies, Coimbatore, delivered presentation on 'NexGen Innovation Application – Drone Technology', highlighting its applications across industries, particularly in land surveying and data communication. He discussed AI integration over this technology which benefitted engineering faculties, students and researchers.

In association with Nandha College of Engineering, organised a webinar on 'Awareness on Energy Conservation' on 13 February 2024. Er A Sivaraman, Assistant Executive Engineer, Electrical, TNEB/TANGEDCO, Namakkal Electricity Distribution Circle, Namakkal delivered presentation, where he gave detailed explanation on steps to be taken and various methods to be implemented to conserve energy.

In association with Kongu Engineering College Erode, organised an online programme on 'Patenting of Chemical, Food and Bio-processes : Aspects and Opportunities' on 29 March 2024. Resource person of the session was Mr N Prabhu, an Expert on Intellectual Property Rights, Chennai. The session commenced with an overview of trademarks, copyrights, and patents. Key points included reasons for patent filing, the filing process, India's patent scenario, patentability of products, processes and equipment, practical considerations, post-grant laws, rejection factors, royalties, technology transfer, micro-organism patents, traditional knowledge and recommended patent search resources. Examples in chemical engineering, food technology, and biotechnology were also discussed.

In association with Nandha College of Engineering, Erode, organised an online lecture meeting on 'Durability Tests on Concrete Structures' on 19 March 2024. Speaker of the session, Dr G S Rampradheep, Associate Professor, Department of Civil Engineering, Kongu Engineering College, explained the importance of concrete

in structures. He said that prioritizing long-term performance over strength of the structure is crucial and environmental conditions need to be considered in design for sustainability. He elaborated that long-term concrete examination is based on ASTM standards and that material properties and rheological characteristics determine infrastructure lifespan. Finally, he expressed that it can be assured that the concrete which passes the life-time analysis, as per standards, would surely satisfy the desired strength.

In association with Nandha College of Engineering, Erode, organised an online Seminar on 'Role of Electrical Engineers in Software Industry' on 22 March 2024 at Erode. Speaker of the session, Er N Vaneeswaran, Senior Software Engineer, Dell Technologies, Bangalore, focussed on career opportunities for electrical and electronics engineering students in the software industry and spoke on operating engineering software, conferring on projects and maintaining electrical equipment.

Ghaziabad

Organized a technical lecture on the topic 'Power Sector Scenario In Coming Decades and Its Future Upcoming Technologies' on 17 May 2024 at Ghaziabad. Speaker of the session, Er Sabha Kant Shukla, Former Director (Technical), THDC India Limited, (under the ownership of National Thermal Power Corporation Limited, Ministry of Power, Government of India) recounted India's journey in hydroelectric power since independence in 1947, tracing the evolution of electrification. He said that statistical data illustrated the shift from reliance on thermal to hydro power, driven by environmental concerns and the rise of renewables like solar and wind. He laid emphasis on the burgeoning potential of Green Hydrogen, its generation, transportation, storage and safety protocols, marking it as tomorrow's fuel.

Organised a technical lecture on the topic 'Management of Safe Work in Drivages of Hydro-Electric Tunnel (Dangers from Underground Gasses in Tunneling) on 8 June 2024 at Ghaziabad. Speaker of the session, Er R R Tanwar, Council Member, IEI narrated the working conditions in drivages, occurrence of incidences and the possible solutions to the problems. With reference to his own work experience, he explained relevant details and the necessary precautions to be taken with respect to the dangers from underground gases in tunnelling.

Kochi

Organised a technical presentation on 23 January, 2024 on the topic 'Total Productive Maintenance (TPM)' online. The distinguished speaker, Dr V R Pramod, Professor, Department of Mechanical Engineering, NSS College of Engineering, Palakkad, delivered an insightful presentation in which he highlighted the objectives of maintenance, types of maintenance, the core ideas of Total Productive Maintenance (TPM) as well as the strategic planning and implementation of TPM techniques.

Organised a technical lecture on 12 February, 2024 on the topic 'Rights of Consumers'. Shri Vaikom Ramachandran, Member, Consumer Commission Ernakulam, provided a brief introduction on the topic and also introduced the distinguished speaker, Adv D Binu, President, Consumer Commission, Ernakulam. Adv Binu's presentation was captivating as he delved into various aspects of consumer rights, emphasizing the significance of consumer protection laws and sharing insightful examples.

Munirabad

Observed World Earth Day on 22 April, 2024, in association with the Department of Mineral Processing, Nandihalli Postgraduate Center, Vijayanagar Sri Krishnadevaraya University. Dr H S M Prakash, a renowned Geologist of the Geological Survey of India, graced the occasion as Chief Guest. In his speech, Dr Prakash discussed the relevance between volcanic activities and precipitation patterns. Mr Pramod Ritti, General manager (Geology) of BKG Mines emphasized the symbolic importance of Earth as a mother figure and called for gratitude and stewardship towards nature.

Nagpur

Organised a technical Lecture on the topic 'Fundamentals of UPS System and Industrial Battery' on 03 February 2024 at Nagpur. The lecture was delivered by Er Matthew George Thoduka, Proprietor, SIMI Electronics, Nagpur, also a distributor of M/s VERTIV UPS system (LIEBERT) for Vidarbha region and has a vast experience of 35 years in the field of marketing and servicing of various capacity of UPS and associated Industrial Battery. Er Matthew highlighted the significance of Uninterruptible Power Supplies (UPS) as compact, portable equipment ensuring uninterrupted power backup during mains supply interruptions. He elaborated that UPS enhances power quality in bypass mode, combating issues caused by LED lamps, fluorescent lights, appliances, and power conversion and that the present-day UPS systems employ static bypass mode to filter harmonics, correct power factors and stabilize voltage, ensuring high-quality power delivery. He also discussed various battery types, including Flooded Lead Acid, VRLA, Nickel-Cadmium and Lithium-Ion, emphasizing their characteristics and selection criteria.

Organised an International Conference on the topic 'Green Hydrogen and Clean Energy' during 10-11 February, 2024 at Nagpur. Renowned scientist, Hon. Padmashree Dr Ganapati D Yadav was the Chief Guest. Dr V K Khare, Ex. Executive Director, Power Grid Corporation, Western Region graced the function. Guest of Honour, Er Akhilesh Rai, General Manager, MOIL Nagpur, spoke on the importance of Hydrogen in the present scenario. Dr Ganapati D Yadav emphasized on the role of Green Hydrogen in reducing emissions and achieving net zero and highlighted the need for 840 million tonnes of hydrogen to safeguard the environment. In his speech, Dr V K Khare emphasized that using electric vehicles did not guarantee environmental friendliness as coal is burnt to generate electricity needed to charge electric vehicles, which resulted in carbon emission; hence carbon-free wind, solar and hydrogen are the future options for fuel. Dr Atul Vaidya, Director, CSIR-National Environmental Engineering Research Institute (CSIR NEERI) in his addrerss during the valedictory function on the second day highlighted the shift from economic reforms to addressing global warming, emphasizing the need for sustainable green energy sources.

Jointly with Sinchan Sahayog, Nagpur, celebrated Irrigation Day, in the memory of Late Shri Shankarrao Chavan, former Chief Minister of Maharashtra, on 26 February, 2024 at Nagpur. Shri Shrikant Doifode, President, Sinchan Sahayog, Nagpur gave an introductory speech on the efforts undertaken by Late Shankarrao Chavan, for the development of irrigation works in Maharashtra. Chief Guest and Keynote Speaker, Smt Sonali Chopade, Superintending Engineer, Command Area Development Authority, Nagpur, in her speech, addressed the challenges of maintaining aging irrigation systems, citing reduced involvement of urbanized staff with farmers. She highlighted the need of government schemes for network renovation, due to funding shortages and stressed on the importance of water user associations in effective implementation of Irrigation Network System.

Rourkela

Observed World Earth Day on 22 April, 2024, in hybrid mode, on the topic 'Air Quality Management vis-a-vis Mission Life Initiatives'. Speaker of the session, Er Dillip Kumar Dash, Senior Environmental Engineer, State Pollution Control Board, Odisha, highlighted the constitutional right to clean air in India, enforced by the Air (PCP) Act, 1981, focusing on air pollution control. He informed that the Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs) have long worked on industrial emission reduction. Simultaneously, Mission LIFE activities have started in India, which fosters public involvement in pollution control and traditional practices to combat climate change.

Observed National Technology Day on 11 May 2024, on the topic 'Impact of Artificial Intelligence on Healthcare: Current Scenario and Future Trends" in hybrid mode. Dr Mirza Khalid Baig, Assistant Professor, Department of Biotechnology and Medical Engineering, NIT Rourkela, discussed the transformative impact of semiconductor technology and Artificial Intelligence (AI) in healthcare. He highlighted how AI accelerates the transition of healthcare innovations from labs to patient care, spanning diagnostics, therapeutics and telemedicine. He stated that AI models are being increasingly deployed in clinical settings for disease severity assessment and therapeutic interventions, such as in diabetic retinopathy and artificial pancreas technologies. Dr Baig emphasized recent advancements in Generative AI and Large Language Models (LLMs) like Generative Pre-trained Transformers (GPTs), which simplify complex clinical information and enhance patient communication through natural language processing. However, he cautioned about understanding the ethical implications and risks associated with the integration of AI into healthcare, ensuring responsible adoption and user acceptance. Overall, Dr Baig underscored the potential of AI to revolutionize healthcare delivery while advocating for careful consideration of ethical concerns to facilitate its effective implementation and positive impact on patient outcomes.

Tiruchirapalli

Celebrated the International Women's Day 2024 on 25 March 2024 at Tiruchirappalli. Chief Guest, Dr P K Srividhya, Registrar & Professor, Mechanical Engineering Department, Periyar Maniammai Institute of Science & Technology, Thanjavur delivered the Special Address on International Women's Day 2024.

Organized a lecture on 09 April, 2024 through virtual mode 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) on the topic 'Why there is a Mystery around Manufacturing ERP Projects?". Er S Vijay Venkatesh, Co-founder and Managing Director, M/s Syscon Solutions Private Limited, delivered the lecture and elaborated on Enterprise Resource Planning (ERP) and the uses of ERP system in business models.

organized a lecture on 16 April 2024 at 06.00 pm through hybrid mode on the topic 'Universe Formation (Physical and Dynamics of Galaxies, Comets, Planets and Stars 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). Speaker of the session was Er Leelavinothan A, Former Additional General Manager, Bharat Heavy Electricals Limited.

Organized a lecture on 23 April 2024 through virtual mode on the topic Integration of Additive Manufacturing into Conventional Manufacturing Processes' 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) Dr Vishvesh J Badheka, Professor, Department of Mechanical Engineering and Dean Academic Affairs, Pandit Deendayal Energy University, Gandhinagar delivered the lecture on the topic.

Tiruvallur

In association with St. Peter's Institute of Higher Education and Research, organised a workshop on 12 February, 2024 on the topic 'Prototype Process Design and Development' at Tiruvallur. Dr V Subbiah Bharathi, Director, St. Peter's Institute of Higher Education and Research, delivered the inaugural address, emphasizing the importance of innovation in the field of electronics and telecommunication. Dr N R Shanker, CEO of CHASE Technologies also graced the occasion. Dr S Gunasekaran, Dean of Research and Development, Schneider Electric, highlighted the significance of collaborative innovation. The workshop provided a platform for participants to delve into design thinking principles and various prototyping methods and empowered entrepreneurs, product designers and innovators to transform creative ideas into tangible prototypes with confidence and proficiency.

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The Institution of Engineers (India)
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Management is doing things right, Leadership is doing the right things

- Peter Drucker

Superannuation from IEI

Mr Khaire Baban Dagadu, an employee of the Ahmednagar Local Centre of the Institution has been superannuated from the services of IEI on June 30, 2024. He joined the Institution on September 21, 2017 and rendered his services to the Institution over a period of 6 years.

IEI wishes Mr Khaire Baban Dagadu and his family a happy and healthy life in the future.

IEI DIARY

Aerospace Engineering Division

Thirty-seventh National Convention of Aerospace Engineers on **"Innovation in Aerospace Engineering"**
Ranchi, November 23-24, 2024
The Honorary Secretary, IEI, Jharkhand State Centre, Engineer Bhawan, Nepal Kothi Campus, PO Doranda, Ranchi 834002 [☎: 0651-3510412, E-mail: jharkhandsc@ieindia.org; Website: ieijscjharkhand.org]

Agricultural Engineering Division

All India Seminar on **"Advanced Technologies in Agriculture for Sustainable Development and its Applications"**
Chennai, August 01-02, 2024
The Honorary Secretary, IEI, Tamil Nadu State Centre, No. 19, Swami Sivananda Salai, Chepauk, Chennai 600005 [☎: 044-25360614 /9962950333, E-mail : tnsc@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: hpsc@ieindia.org; Website: http://hpiei.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"**
Bhunaneswar, 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 **"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 : tnsc@ieindia.org, Website : www.ieitnsc.org]

Thirty-ninth National Convention of Civil Engineers on **"Exploring Emerging Trends in Civil Engineering"**
Kochi, October 17-18, 2024
The Honorary Secretary, IEI, Kochi Local Centre, IEI Bhavan, Government Homeo Hospital Road, Pullepady, PO: Kaloor, Kochi 682017 [☎: 0484-2403838 / 2403993, E-mail : kochilc@ieindia.org; Website : www.ieikochi.org]

Electrical Engineering Division

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, Coimbatoree 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, Kattankulathur Local Centre, SRM Institute of Science and Technology, Mahatma Gandhi Road, Potheri, SRM Nagar, Dist Chengalpattu, Kattankulathur, Tamil Nadu 603203 [Email: kattankulathurlc@ieindia.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 : tnsc@ieindia.org, Website : www.ieitnsc.org]

Electronics & Telecommunication Engg Division

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

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

All India Seminar on **" Environment and E-Vehicle"**
Kattankulathur, July 05-06, 2024
The Honorary Secretary, IEI, Kattankulathur Local Centre, SRM Institute of Science and Technology, Mahatma Gandhi Road, Potheri, SRM Nagar, Dist Chengalpattu, Kattankulathur, Tamil Nadu 603203 [Email: kattankulathurlc@ieindia.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: Kaloor, 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: assamsc@ieindia.org, Website: www.ieiasc.org]

All India Seminar on **" Augmentation of Bio Ethanol & Bio-hydrogen from Organic Wastes"**
Chennai, October 05-06, 2024
The Honorary Secretary, IEI, Tamil Nadu State Centre, No. 19, Swami Sivananda Salai, Chepauk, Chennai 600005 [☎: 044-25360614 /9962950333, E-mail : tnsc@ieindia.org, Website : www.ieitnsc.org]

One Day Seminar on **" Industrialization and Mission LiFE IML 2024"**
Rourkela, December 07, 2024
The Honorary Secretary, IEI, Rourkela Local Centre, National Institute of Technology Campus, Roukela 769008, Odisha [☎: 0661-2472709, E-mail: rourkelalc@ieindia.org]

Mechanical Engineering Division

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]

One Day Seminar on **'Calibration of Measuring Instruments and Form Measurements'**, Coimbatore, July 19, 2024
The Honorary Secretary, IEI, Coimbatore Local Centre, PSG College of Technology Campus, Peelamedu, Coimbatoree 641 004 [☎: 0422-2580733; Email: coimbatorelc@ieindia.org; Website: https://www.ieicoimbatore.org]

All India Seminar on **"AI Powered 3D Printing: Bridging Innovation and Automation"**
Coimbatore, July 25-26, 2024
The Honorary Secretary, IEI, Coimbatore Local Centre, PSG College of Technology Campus, Peelamedu, Coimbatoree 641 004 [☎: 0422-2580733; Email: coimbatorelc@ieindia.org; Website: https://www.ieicoimbatore.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 : tnsc@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]

All India Seminar on **"Emerging Trends in Digital Manufacturing using 3D Printing and Flexible Manufacturing System"**
Ranchi, August 10-11, 2024
The Honorary Secretary, IEI, Jharkhand State Centre, Engineer Bhawan, Nepal Kothi Campus, PO Doranda, Ranchi 834002 [☎: 0651-3510412, E-mail: jharkhandsc@ieindia.org; Website: ieijscjharkhand.org]

Thirty-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]

One Day Seminar on **"CNC Based Composite Structure and their Nonlinear Dynamic Analysis"**
Rourkela, September 14, 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 **"Material Efficiency in Clean Energy Transition"**
Thiruvananthapuram, October 22-23, 2024
The Honorary Secretary, IEI, Kerala State Centre, Visvesvaraya Bhavan, Opposite Kanakakunnu Palace, Thiruvananthapuram 605033 [☎: 0471-2322991, 8078027563; E-mail: keralasc@ieindia.org; Website: www.ieitvm.org]

International Conference on **"Advances in Foundry and Forming Technology"**
Ranchi, November 21-22, 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]

Fortieth National Convention of Mechanical Engineers on **"Recent Advances in Mechanical Engineering"**
Durgapur, August 23-24, 2025
The Honorary Secretary, IEI, Durgapur Local Centre, Nehru Avenue, B Zone, Durgapur 713 205 [Fax: 0343-2564770, Email: durgapurlc@ieindia.org, Website: http://www.ieidurgapurlc.org]

Forty-first National Convention of Mechanical Engineers on **"Emerging Domains in Robotics and AI"**
Thiruvananthapuram, September 23-24, 2026
The Honorary Secretary, IEI, Kerala State Centre, Visvesvaraya Bhavan, Opposite Kanakakunnu Palace, Thiruvananthapuram 605033 [☎: 0471-2322991, 8078027563; E-mail: keralasc@ieindia.org; Website: www.ieitvm.org]

Forty-second National Convention of Mechanical Engineers on **"AI and ML: Bridging Innovation & Shaping Tomorrow's Industries"**
Belapur, September 17-18, 2027
The Honorary Secretary, IEI, Navi Mumbai Local Centre, Plot No.106, Sector 15, C.B.D Belapur, Navi Mumbai 400614 [☎: 022-49706724, E-mail:navimumbailc@ieindia.org,Website: www.ieinmlc.org]

Metallurgical & Materials Engg. Division

All India Seminar on **" Advances in Methods, Materials and Characterization Techniques for Laser Material Processing"**
Coimbatore, July 12-13, 2024
The Honorary Secretary, IEI, Coimbatore Local Centre, PSG College of Technology Campus, Peelamedu, Coimbatoree 641 004 [☎: 0422-2580733; Email: coimbatorelc@ieindia.org; Website: https://www.ieicoimbatore.org]

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]

All India Workshop on "**Recent Trend In Materials and Manufacturing Processes"**
Tiruchirappalli, October 18-19, 2024
The Honorary Secretary, IEI, Tiruchirappalli Local Centre, Einstein College of Engineering, Sir C V Raman Nagar, Seethaparpanallur, Tirunelveli 627012 [☎: 0462-2487111, Fax: 0462-2487112, Mobile : 9489903804, E-mail :tirunelvelilc@ieindia.org, Web: www.ieitylc.com]

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

One Day Seminar on " **Present future scenario of Nano Technology in field of Engineering Materials Agricultural Medical Sc"**
Patna, November 10, 2024
The Honorary Secretary, IEI, Bihar State Centre, 1942, Kranti Marg (Hardinge Road), R-Block, Chauraha (near Petrol Pump), Patna 800001 [☎: 0612-2222639 / 2330544, E-mail: biharsc@ieindia.org, Website: www.ieibihar.org]

Mining Engineering Division

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

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 **"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 : tnsc@ieindia.org, Website : www.ieitnsc.org]

Interdisciplinary Co-ordination Committee

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]

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Continuing Professional Development Programmes (CPDPs) for the Month of July 2024

Sl. No.	Name of the Course	Scheduled Dates
1.	O&M of Sewerage network System and treatment plants	01 - 05 Jul 24
2.	Certification on Microsoft Power BI Data Analyst	02 - 05 Jul 24
3.	Cost reduction by Energy Auditing, Management & Design of Solar Energy Systems	02 - 05 Jul 24
4.	Smart Mining with Digital Technologies - Application of Internet of Things (IoT), Smart Sensors and Artificial Intelligence, Robotics, Remote Operations, Men-Tracking	03 - 05 Jul 24
5.	Safety Management in Construction and Civil Structures	08 - 12 Jul 24
6.	Design & Optimization of UAV's for Industrial Applications (Defense, Mining & Construction)	08 - 11 Jul 24
7.	NDT Level II Certification in Dye Penetrant Inspection (DPI) and Magnetic Particle Inspection (MPI) (in Accordance with ASNT Document No. SNT-TC-1A 2011)	08 - 12 Jul 24
8.	Assessment of Irrigation Demand and Irrigation Scheduling using Latest Software Applications	08 - 11 Jul 24
9.	Capacity Building Programme for Technical Personnel of Defense, Government and PSU's	09 - 11 Jul 24
10.	Smart Grid & Smart Metering Technologies & Applications	09 - 12 Jul 24
11.	Carbon Markets post COP28 - Renewable Energy Transition	10 - 12 Jul 24
12.	MS Azure Cloud Administration	15 - 18 Jul 24
13.	Occupational Safety & Health Challenges in Coal & Iron Ore Mining	15 - 19 Jul 24
14.	Best Practices in O&M of Industrial Valves & Actuators for Heavy Industries & Power Plants	17 - 19 Jul 24
15.	Calibration in Engineering Industry	17 - 19 Jul 24
16.	Advanced Intelligent Transportation System Applications for Highways	22 - 26 Jul 24
17.	Developing Cost-Effective Humanoid Robots	22 - 24 Jul 24
18,	Web Development using MERN Stack	22 - 26 Jul 24
19.	Operation, Maintenance and Performance Monitoring of Centrifugal Pumps, Blowers and Compressors (including Reciprocating and Screw Compressors)	22 - 26 Jul 24
20.	ISO 9001:2015 QMS - Lead Auditor Training (CQI - IRCA - UK Certified)	22 - 26 Jul 24
21.	Networking and use of sensors for on farm Irrigation Water Management	22 - 24 Jul 24
22.	Faecal Sludge and Septage Management	23 - 25 Jul 24
23.	Training on Risk Management for Engineers, Scientists and Managers.	23 - 25 Jul 24
24.	Gas Insulated Substations - Design features, Construction, Testing, Operation and Maintenance	23 - 26 Jul 24
25.	Energy Security – Exploration & Mining of Critical Minerals & Elements	24 - 26 Jul 24
26.	Leadership Styles and Teambuilding Skills for Organizational Development.	29 - 31 Jul 24
27	Conflict Management, Decision Making and Problem-Solving Skills	29 Jul - 01 Aug 24

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