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A CENTURY OF SERVICE TO THE NATION

Volume 28

Number 8

IEI Technical Webinar under the aegis of Electrical Engineering Division Board

Indian Power Sector – Challenges and Opportunities for the Clean Energy Transition

Tiruchirappalli Local Centre of the Institution organized Technical Webinar on the theme **Indian Power Sector – Challenges and Opportunities for the Clean Energy Transition** under the aegis of Electrical Engineering Division Board [ELDB], IEI on 05 October 2021. Prof (Dr) Natarajan Kumaresan, Chairman, Tiruchirappalli Local Centre, Council Member, IEI and Moderator of the session extended his warm welcome to the Panelists, dignitaries, guests and attendees. Mr P Rajamani, Chairman, ELDB and Council Member, IEI addressed the audience. Mr S Gowrisankar, General Manager – R&D, WRI, Labs and NGA, BHEL, Trichy; Dr S Dharmalingam, Visiting Faculty, NIT Tiruchirappalli, & Former General Manager, BHEL, Trichy and Dr P Raja, Associate Professor, Department of Electrical and Electronics Engineering, NIT Tiruchirappalli graced the occasion as Panelists and shared their views.



Mr S Gowrisankar

Mr Gowrisankar during his deliberation discussed on thermal power generation by means of the option of Cleaner Energy Transition, which include switching over from Subcritical to Supercritical to Ultra Supercritical to Advanced Ultra Supercritical Boilers. In his lecture, Mr Gowrisankar highlighted the challenges for this option, namely cost of technology, cost of materials and cost of manufacturing. On coal utilization for cleaner energy transition, he explained in detail the challenges and opportunities for coal gasification. The speaker also deliberated on the challenges to develop hydro power projects, and highlighted that, hydro power projects should be site specific as the projects are located in far flung areas with very little pre-existing infrastructure and communication facilities. Moreover the seismological and geological impact assessment are very crucial and land acquisition,

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The Institution of Engineers (India)

8 Gokhale Road, Kolkata 700 020

01 November 2021

To

All Corporate Members of IEI

The 102nd Annual General Meeting of The Institution of Engineers (India) will be held at **Vigyan Bhawan, Maulana Azad Road, New Delhi 110003** on **27 December 2021** at **1700 hrs.**

AGENDA

1. To confirm the Minutes of the 101st Annual General Meeting held on 28 February 2021 at Dehradun, already circulated in March 2021 issue of IEI News, Vol. 27, No. 12.
2. To receive the Annual Report of the Council and the Audited Accounts of IEI for the year ended on 31 March 2021.
3. To receive the Report of the Council on election of the President and also the composition of the IEI Council for the Session 2021-2022.
4. To appoint the Auditors for the year 2021-2022 and to fix their remuneration.

Maj Gen M J S Syali, VSM (Retd)
Secretary and Director General

From the President's Desk.....



The energy and power sectors are undergoing a huge transformation globally with the objective to produce cleaner energy. From countries phasing out coal power to world leaders discussing the climate crisis at an unprecedented scale to the continued leadership on this issue from youth, and civil society demanding change and holding governments and companies accountable, it is undeniable that there is going to be a global shift unlike ever before. The Conference of the Parties (COP26) held at Glasgow on 31 October 2021 has discussed the issue very seriously. Different energy and power surveys show that, in near future, almost half of the global energy requirement will be fulfilled by renewable energy sources. This significant forecast leads to the formulation of a suitable strategy to bridge the energy demand and supply gap by the increased use of renewable energy.

Artificial Intelligence offers feasible solutions to cope up with these changes, which results in the synchronization of the consumers' needs. AI algorithms are capable to handle structured and unstructured data collected from wind or solar panels to recognize the patterns, make predictions and recommend suitable corrective actions. AI is applied to predict equipment failure and empowers consumers for both-way communication with the energy utility companies and service providers. Repetitive customer-side tasks like payments, basic inquiries related to billing, complaints, changes in customer details can be obtained through virtual agents and chatbots, which is cost-effective and precise too. In rural areas, handwritten invoices and other records can be digitized through Natural Language Processing. Users can also be instructed on how to install or activate products related to energy management via AI if they want to set them up in their homes. The power sector has a promising future with the application of AI-managed smart grids. These are electrical grids that provide two-way communication between utilities and consumers and are embedded with an information layer that allows communication between its various components so that precise monitoring of the changes in energy demand is obtained and needful actions initiated. This layer of information is usually created through the installation of smart meters and sensors, which allows

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Technological Advancements in Healthcare, Challenges – A Role of Medical Image Processing

Telangana state Centre of the Institution, jointly with IEEE Hyderabad section organized All India Seminar on the theme **Technological Advancements in Healthcare, Challenges – A Role of Medical Image Processing** during 17-18 September, 2021 under the aegis of Electronics and Telecommunication Engineering Division Board (ETDB), IEI through virtual mode.

Biomedical Image Processing plays a significant role in today's health care due to increased utilization of medical images in clinical investigation and disease diagnosis. It has become an interdisciplinary research field for experts in mathematics, engineering, biology, physics, statistics and medicine. With the discovery of X-ray, images are routinely acquired for medical diagnostics. Fostered by the increasing use of direct digital imaging systems, digital image processing has become increasingly important in health care. In addition to originally digital methods such as Computed Tomography (CT); Magnetic Resonance Imaging (MRI), initially analogue imaging modalities such as Endoscopy or Radiography have now been equipped with digital sensors. Digital images are composed of individual pixels, where discrete brightness or color values are assigned. They can be efficiently processed, objectively evaluated and made available on many places at the same time by means of appropriate communication networks and protocols, such as Picture Archiving and Communication Systems (PACS) and the Digital Imaging and Communications in Medicine (DICOM) protocol, respectively. Based on digital imaging techniques, the entire spectrum of digital image processing is now applicable to the study of medicine. During the last decades, the paradigms of medical image processing have changed. In the 1980s, generation of digital images, appropriate management of image data as well as image enhancement and visualization were in the focus of research, and acceleration of the processing speed was needed. Since the 1990s, interpretation of medical images regarding registration, segmentation, classification, and reliable measurements has been developed, and evaluation of the algorithms has been focused on more. In the future, integration of medical image processing into the physicians' workflow will be fostered. High-level image processing will become part of diagnosis, intervention planning, and treatment; and further standardization will be required. The objective of the Seminar is to explore different advents of medical image processing, which remains as an exciting field of research and applications for health care, medical education, and biomedical research.



Narendra Singh

Er Narendra Singh, President, IEI graced the inaugural function as Chief Guest and delivered the inaugural address. Mr A S Kiran Kumar, Former Chairman, ISRO and Prof (Dr) T S Kamal, Chairman, ETDB, IEI graced the function as Guest of Honours. President, IEI during his inaugural speech mentioned that during the pandemic, when the whole world came to a screeching halt and the normal activities came to stand still, IEI took the firm initiative to provide service to its members by organizing technical events on contemporary topics through online platform.

Guest of Honour of the function, Mr A S Kiran Kumar delivered the Keynote address and stated that the pandemic has changed the life style of every individual, but the unforeseen situation has created a major opportunity to move towards technological advancements in healthcare. He opined that, during the pandemic situation, the Indian scientific and technical community has shown the country intrinsic strength to face the situation during the pandemic. Mr Kiran Kumar mentioned that advancement in science and technology results application of the best diagnostic tools in healthcare system. He discussed



Mr A S Kiran Kumar

the applications of image processing, X-rays, Positron Emission Tomography (PET), Single Photon Emission Computed Tomography (SPECT) etc.

Guest of Honour of the function, Prof (Dr) T S Kamal in his address deliberated on the technological advancement in healthcare systems and the role of medical image processing and added that during pandemic, the healthcare system brought drastic improvements in all aspects of prevention, diagnosis, treatment and management of illness as well as the observation. The medical image processing technology plays important role not only in the diagnosis and treatment of diseases but also in disease prevention, health monitoring, mitigation of diseases, planning health management, diagnosis



Prof (Dr) T S Kamal

and the choice of the treatment methods, he added. Prof Kamal further mentioned that the correlation and revolution of medical image processing technology has improved continuously in health care applications; Moreover the diagnostic ability and treatment of disease in surgery and other medical lines are more timely, accurate and the medical image enhancement become a routine process. On the occasion, Mr B Brahma Reddy, Member, ETDB, IEI and Mr Sreenivas Jasti, Chairman, IEEE Hyderabad Section addressed the august audience. A e-Souvenir was released during the inaugural function. Earlier, Prof (Dr) Ramana Bhanothu, Chairman, Telangana State Centre, IEI delivered the welcome address. Dr K M M Rao, Chairman, Technical Committee explained about the theme of the Seminar. Mr K Subbi Reddy, Convener of the event explained about the Seminar details. Prof G Radhakrishna, Joint Honorary Secretary, Telangana State Centre, IEI proposed the vote of thanks.

Followed by the Inaugural session, three technical sessions were organized. Six speakers delivered invited talks on various topics of healthcare systems, challenges, multimodal medical image processing systems and their societal applications. Dr K M M Rao, Former Deputy Director, NRSC, ISRO, Hyderabad delivered his presentation on the topic 'Healthcare, Challenges and Image Processing'; Dr K Anitha Sheela, Professor & Head, Department of Electronics & Communication Engineering, JNTUH College of Engineering, Hyderabad on 'Neural Networks & Deep Learning Networks for HealthCare'; Dr B Sandhya, Professor, Department of Computer Science & Engineering, MVSR Engineering College, Hyderabad on 'Multimodal Medical Data Fusion using Deep Learning'; Prof Udit Satija, Department of Electronics & Communication Engineering, IIT Patna on 'Internet of Medical Things (IoMT)'; Mr B Brahma Reddy, Member, ETDB, IEI & Chairman, All India Technicians' Committee (AITC), IEI on 'Multimodal Medical Imaging Systems for Disease Analysis'; and Dr Lawrence O Hall, University of South Florida, Tampa, USA on the topic 'Deep Learned Models from Medical Images: Successes and Big Challenges'.

Next day, during three technical sessions, six papers were presented. Mr Victor Joseph, Group Director, PPEG, VSSC, ISRO presented his Paper on 'Applications of Space Science & Technology in Medical Arena: Our Initiatives'; Dr R Manjula Sri, Professor & Head, Department of EIE, VNR Vignana Jyothi Institute of Engineering & Technology (VNRVJIET), Hyderabad, on 'Image Processing for the Detection of Various Retinal Diseases'; Dr Spandana P, Associate Professor, Department of Electronics & Communication Engineering, Geethanjali College of Engineering and Technology, Hyderabad on 'Digital Image Processing and Machine Learning Techniques for Early Detection of Breast Cancer'; Dr Jabez Christopher, Department of Computer Science & Information Systems, BITS-Pilani, Hyderabad on 'Current Trends in Health Care Systems and Challenges in the Addressal of Healthcare Needs Among Rural Population'; Dr R S Anand, Professor, Department of Electrical Engineering, IIT Roorkee on 'Segmentation and Interpretation of

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Materials and Manufacturing

Meerut Local Centre, IEI organized Technical Webinar on the theme **Materials and Manufacturing** on 26 September, 2021 under the aegis of Mechanical Engineering Division Board [MCDB]. The purpose of the Technical Webinar is to explore the advancement in modern day materials and manufacturing processes. The Panelists, during their deliberations, discussed different aspects of composite materials, additive manufacturing, nanotechnology and smart materials. Panelists on the occasion, Dr Kunwar Laiq Ahmad Khan, Dean, IEC and Professor, Department of Mechanical Engineering, Krishna Institute of Engineering & Technology (KIET) Ghaziabad; Dr Ratnesh Kumar Raj Singh, Assistant Professor, Department of Mechanical Engineering, Thapar Institute of Engineering & Technology, Patiala and Dr Sanjeev Kumar, Assistant Manager (R&D), Star Wire (India) Limited, Faridabad addressed the audience and share their thoughts. Moderator of the Session, Prof (Dr) M K Sharma, Former Professor and Head, Department of Mechanical Engineering, IIT ISM Dhanbad, in his introductory remarks, stated about the selection of materials, product and process design, manufacturing processes and subsequent output of goods and services.

Dr Kunwar Laiq Ahmad Khan delivered his presentation on the topic 'Composite Fabrication' and discussed at a length the advancement in the field of composite materials. Dr Khan started his deliberation with the structure and application of different composite materials and its impact



**Dr Kunwar Laiq
Ahmad Khan**

on the performance of products and systems. He further explained the classification of the composites, comparison between conventional and composite materials by means of weight, thermal expansion, stiffness, strength and resistance to fatigue. He further explained the purpose and applications of dispersed and matrix phase of composites, Polymer Matrix Composites (PMC), Fiber Reinforced Polymers (FRP), different reinforcements used in FRP composites, which include jute fibre roving, banana fibre, milled glass fibre, chopped glass fibre mat, Aramid fiber etc. The speaker also explained the classification of thermoset and thermoplastic polymers, properties and applications of polyester resins, curing of resins, processing method of Polymeric Matrix Composites, open and closed mould processes, filament winding and Pultrusion, that converts reinforced fibres and liquid resins into fiber-reinforced plastics. He further explained Hands Lay Up and Spray Lay Up methods for polymer composite manufacturing processes, its advantages and limitations. He further explained the inputs, tool design and applications of Injection Moulding and Resin Transfer Moulding for manufacturing complex components with thermosetting and thermoplastic composites. He mentioned the advantages of the Filament Winding process, a widely applied automated open moulding process for producing tubular structure pipes, pressure vessels, chemical storage tanks etc. He also explained the Pultrusion process, a low cost, high volume manufacturing process with resin impregnated composite fibres, when fibres are pulled from a roving fiber creel through a resin bath and then through a heated die and thus create parts with constant cross sections and continuous length.

Dr Ratnesh Kumar Raj Singh delivered his presentation on Additive Manufacturing and 3D Printing. In his address, Dr Singh explained Additive manufacturing as the advanced manufacturing process with reduced lead time and enhanced productivity, when digital 3D design data is used to build up components in layer through metal deposition. Dr Singh mentioned the advantages of additive manufacturing, which include saving of energy cost, ability to handle different types of materials, ability to create components with complicated geometry etc and further deliberated on



**Dr Ratnesh Kumar
Raj Singh**

the associated challenges of the process. He further discussed the steps associated with additive manufacturing process, material classifications, properties and applications for additive manufacturing including load displacement characteristics, Functionally Graded Materials (FGMs), process planning in layered manufacturing, Direct Energy Deposition (DED) manufacturing process and so on. He discussed the derived benefit of DED and compared the process with Electron Beam, LASER beam and Arc Welding by means of energy source, energy density, power efficiency, material utilization, operational speed, cost and product quality.



Dr Sanjeev Kumar

Dr Sanjeev Kumar delivered his presentation on the topic 'Effect of Surface Nanostructure on Low Cycle Fatigue and Hot Corrosion Behaviour of the Alloy Ti-Al-4V, its Application in Aerospace Industries, Chemical Processing Plants and Medical Devices'. He explained the mechanical properties of the Titanium alloy including biocompatibility. He also deliberated on different categories of Titanium alloy including α , β , $\alpha + \beta$ and the applications of Titanium alloys in chemical industries. Dr Kumar then explained the technologies for developing surface nanostructure in metallic materials, applications of Ultrasonic Shot Peening (USP), effect of USP on material microstructure and residual stress, grain refinement of materials with nano-crystallization of Titanium alloys, etc. He also deliberated on the application of Low Cycle Fatigue (LCF) life, test matrix for LCF tests, cyclic test response of alloys, variation in the number of cycles for crack initiation and crack propagation, effect of surface nanostructure on hot corrosion, application of oxide scale morphology, XRD analysis of corroded samples etc. The speaker concluded his lecture with discussion on the properties of nanograins.



Prof (Dr) M K Sharma

At the beginning of the session, Mr Rajneesh Kumar, Chairman, Meerut Local Centre, IEI welcomed the Panelists, Moderator, attendees and dignitaries and briefed about the objective of the Webinar. Moderator of the session, Prof (Dr) M K Sharma summed up the Proceedings of the session. A brief question-answer session was organized at the end of the session. Mr Mohan Lal Jain, Honorary Secretary, Meerut Local Centre, IEI delivered the vote of thanks.

From the President's Desk.....

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data collection, storage, and analysis. Moreover, advancements in Information and Communications Technologies (ICT), Cloud Computing, Big Data Analytics further reinforce the proliferation of smart metering.

The Government of India has identified the power sector as one of the key sectors of focus to promote sustainable development through the integration of the grid through renewable energy and digital transformation. The digital transformation initiatives for Indian power sector utilities have shaped the Indian power distribution landscape with the applications of Advanced Metering Infrastructure (AMI), Advanced Distribution Management Solutions (ADMS), Advanced Analytics for better load forecasts, optimization of dispatch schedule thus reducing power procurement cost, etc.

The State and Local Centres of IEI will observe Energy Conservation Day on 14 December 2021 as part of the national observance of Energy Conservation Week, starting from the same day. I request our members, professionals, academia, researchers, and students to attend these programmes and enrich the knowledge base.

Indian Power Sector – Challenges and Opportunities for the Clean Energy Transition

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environment, forest & wildlife clearances are the other significant factors. Mr Gowrisankar, in his address also highlighted the challenges in Indian nuclear power plants and the challenges, advantages & opportunities with Solar PV domain.



Dr S Dharmalingam

Dr Dharmalingam in his address highlighted the quick facts on Indian power sector and opined that in India, a much larger market of electricity prevails, which has its own set of challenges and market structure dynamics in dealing with large-scale variable renewable energy (VRE). However, there are opportunities for cross-learning, he felt. In his lecture, Dr Dharmalingam stressed on the importance of power system inertia & grid stability

and the variability and uncertainty of demand verses power system flexibility. He explained that inertia refers to the kinetic energy stored in spinning generators and is derived from hundreds of generators that are synchronized to the grid; In case of imbalance between supply and demand due to the drop in generation, inertial response provides time for the remaining online generators to detect changes in frequency and initiate Primary Frequency Response. He further mentioned that VRE sources typically connect to the grid through a power electronics interface – inverter, which converts DC to AC. He explained that electronic inverter does not contain any mechanical component or rotating mass; In case of imbalance between supply and demand it would bring forth large power swings in the system with frequency deviations that affect power system stability. He further indicated the possible solutions to mitigate these challenges.

Regarding power system flexibility, Dr Dharmalingam explained that traditional power systems did not have any VRE and were designed to deal with non-VRE related variability and uncertainty; Main source of variability in conventional power system is electricity demand, including both intra-day and seasonal variability. Main source of uncertainty is the loss of one or more of the largest in-feeds, which include generators or transmission lines. He stated that with increase in VRE integration, the shape of the net load curve changes and increasingly noticeable differences appear between the net load and the demand. This necessitates coal based power plants, originally designed to be base loaded, to operate on a load following cyclic basis and they need to cycle on and off and ramp up and down to part load more frequently, more rapidly and more cost-effectively. However, increased cycling, load following and ramping have various negative impacts on coal based power plants, he added. He highlighted different alternatives to address these challenges by means of scheduling, energy storage and coordinated generation.

He concluded his presentation with significant observations, which stated that; Ambitious global targets on decarbonization present the need for massive integration of VRE in power systems; Until large scale energy storage systems evolve, India will have a greater demand for thermal plant flexibility in the coming years and; Increasing the

share of electricity generation that comes from wind power and solar PV will require several major changes to the Indian power system in terms of the need for power system flexibility and flexibility resource deployment.

Dr P Raja, in his address, discussed on the impact of current energy mix in India, comprises principally of coal and the effect of renewable energy sources in the health of the power system. He has thrown light on this effect through the lens of asset utilization, cost and the social disruption caused by accelerating renewable energy into the Indian power system:

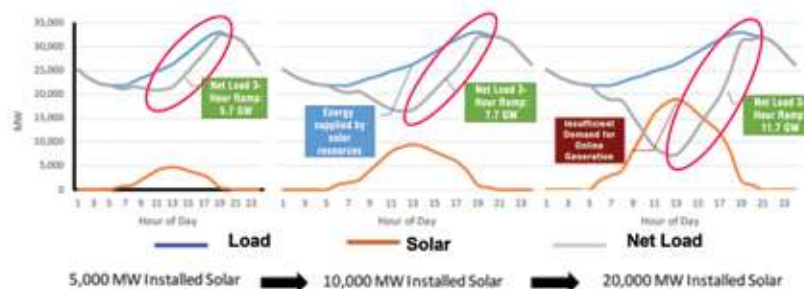


Dr P Raja

It revealed that increasing renewable energy generation is pushing the coal plants to operate in low-loading conditions, causing heightened wear and tear of the plant as they are not suitable for flexible operation. He mentioned that the transition from coal to renewable energy may have extended socio-political ramifications that can potentially disrupt the national economy at an unprecedented scale. It is also found that shut-down of coal plants and facilitating investments in battery storage technologies and cross-border electricity trade are focused more as renewable energy and conventional fuel reach market parity, he added. Dr Raja opined that India needed necessary reforms on pricing, regulation, risk allocation and market design, as due to the COVID 19 pandemic, there is shift in the behavioural pattern of the consumers at a large scale, like work-from-home, which affected the load curves and felt that the benefits accruing from these reforms shall improve the resilience of Indian electricity system.

Challenges and Opportunities for the Clean Energy Transition

FLEXIBILITY IN POWER SYSTEMS



Prof (Dr) N Kumaresan, Moderator of the event summarized the presentations and placed the recommendations emanated from the deliberations as follows.

With the advancements in technology, presently, it is envisaged to operate an electric power grid at lower cost in a stable and reliable manner with the renewable energy sources. Costs of producing electricity from wind and solar energy have dropped significantly in recent years. As per the RENEWABLES 2021 GLOBAL STATUS REPORT, in 2020, the global weighted average levelised cost of electricity from utility-scale solar photovoltaics (PV) declined 85% since 2010, while onshore wind power costs fell 56% during the same period. These declines mean that for most of the world's

Three Stage Nuclear Power Programme

World class performance	Globally Advanced Technology	Globally Unique
Stage - I PHWRs <ul style="list-style-type: none"> • 14 - Operating • 4 - Under construction • Several others planned • Scaling to 700 MWe • Gestation period has been reduced • POWER POTENTIAL = 10,000 MWe 	Stage - II Fast Breeder Reactors <ul style="list-style-type: none"> • 40 MWth FBTR - Operating since 1985 • Technology Objectives realised • 500 MWe PFBR - Under Construction • POWER POTENTIAL = 530,000 MWe 	Stage - III Thorium Based Reactors <ul style="list-style-type: none"> • 30 kWth KAMINI - Operating • 300 MWe AHWR - Under Development • POWER POTENTIAL IS VERY LARGE • Availability of ADS can enable early introduction of Thorium on a large scale
LWRs <ul style="list-style-type: none"> • 2 BWRs Operating • 2 VVERs under construction 		

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Enhancing Structural Performance of Precast Concrete Buildings in Seismic Zones

Civil Engineering Division Board, IEI organized Technical Webinar on the theme **Enhancing Structural Performance of Precast Concrete Buildings in Seismic Zones** on 06 August, 2021 in association with Seismic Academy India (A Hilti Initiative). Mr Ajit Bhate, Managing Director, Precast India Infrastructures Private Limited and Dr Shantharaju K, Structural Consultant, Precast India Infrastructures Private Limited graced the function as Panelists and addressed the audience. Mr Gaurav Kaushik, Head Codes and Approvals (Fastening Systems), Hilti India Private Limited moderated the event and introduced the Panelists. Er Narendra Singh, President, IEI graced the function with his august presence and briefed about the heritage and the current activities of the Institution. President also touched upon seismic performance, behaviour of precast concrete structures and various technical interventions in the structural system to enhance the performance of prefabricated structures. Mr V B Singh, Chairman, Civil Engineering Division Board, IEI delivered the welcome address. While giving a brief overview on the theme of the webinar, Mr Singh highlighted the advantages of high construction efficiency, low environmental pollution and flexible space arrangement, due to which precast concrete (PC) structures have received considerable attention and is being widely adopted in structural engineering. Mr Singh mentioned that a common cause of the deterioration of concrete structures is the corrosion of the reinforcements and it is important that they should be properly designed and embedded in the concrete. He emphasized on the sustainability analysis of these precast buildings built in the seismic zones which are basically the area where earthquakes tend to focus. He also cited some reports which indicated that the majority of failures of PC structures in large earthquakes mainly due to insufficient ductility and quick damage accumulation at the joints. Therefore, Mr Singh opined that the junctions/connections in PC structures require not only a convenient construction method but also good seismic performance with enough stiffness, strength and good ductility.

Mr Ajit Bhate, in his address stated that it is important to understand and anticipate the seismic behaviour of a particular place and to detail the concrete section and reinforcement especially the method of grouting at the connections/junctions of prefabricated concrete buildings for ensuring the maximum protection of life and the existing structures. In this context, he explained various connections of precast fabrication industry like column-beam connection, façade to façade connection, hollow-core connection, patent connection, wall-wall connection etc. At the onset Mr Bhate gave a quick idea of different stages of precast construction which involves architectural drawings, structural design, Design Basis Report (DBR), review, 3D modeling, production, quality control, transport and installation. He described moment resisting column-beam connection of single/double/triple height column beam junction and wet cast in situ column-beam moment resisting seismic column with single/double/triple floor height of precast columns with examples of construction sites. He touched upon column to column, spandrel to column, spandrel to façade connections etc. to describe different prefabricated structures. Mr Bhate mentioned about a special technique called base isolation technique using bearing and with/without damping devices, which aims to reduce the accelerations in building to below ground acceleration. This is an effective mechanism to isolate/ decouple/ separate superstructure from ground structure and elongate the period of the 'system' for avoiding the building to become 'flexible' or vulnerable to wind forces and minor earthquakes, further added by Mr Bhate. He compared fixed base



Mr Ajit Bhate

building with base isolated buildings pictorially and concluded that the second can more efficiently dissipate energy so as to reduce the subjected acceleration to the superstructure. While concluding Mr Bhate said that lot of research and development is going on in the field of precast fabrication for optimizing its utility and share their experience of site and study visit in Nissan Olympic Stadium, Tokyo, Japan.

Dr Shantharaju K, in his deliberation explained how performance of the joints of precast structure can be enhanced. While elaborating on the topic, he detailed the structural utility of moment resisting post tensioned (PT) connection and compared between rigid cast in place joints and elastic precast post tensioned (PT) connection. He indicated that the columns remain strong with the PT connection and damages are repairable as compared to monolithic structures even after a seismic event. Dr Shantharaju further clarified façade turncon connection and wall to wall connection. He said that the precast elements shall be prestressed or non-prestressed based on the structural requirement and the connection of precast elements shall be based on design requirements. He clarifies that the structural analysis and the design of any proposed building is based on Indian Standard Codes and analyzed for dead loads, live loads, switch gear panel loads, monorail, wind loads and seismic load. Dr Shantharaju demonstrated the design basis report for precast construction in detail with special emphasis on beam-column elements, load sharing and reinforcement/grouting. He also illustrated the test for dead load and live load for double T slabs and hollow core slabs and water load test for V-beam briefly before concluding his speech.



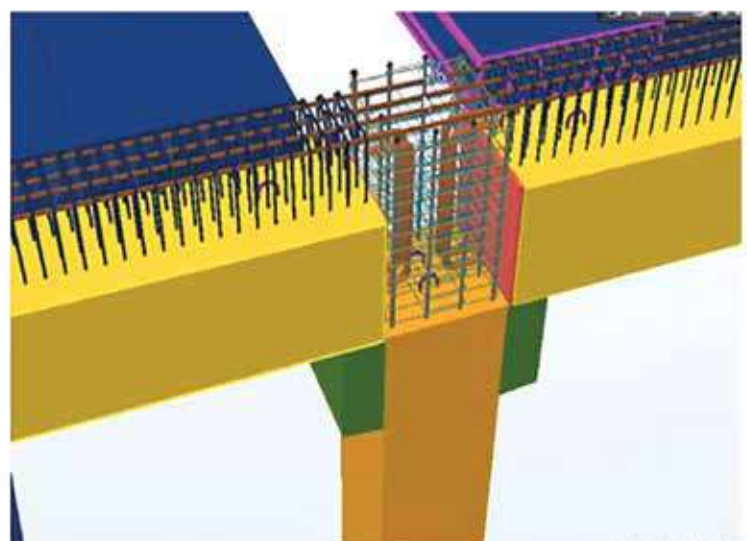
Dr Shantharaju K

Moderator of the event, Mr Gaurav Kaushik summarized the Proceedings of deliberation and coordinated the Q&A session which was very interactive one. The webinar fetched great response from the attendees and they have posted number of interesting queries on various aspects of precast construction. The webinar was concluded with the vote of thanks proposed by Mr Sudeep Chakraverty, Assistant Director (Technical), IEI.



Mr Gaurav Kaushik

Beam – Column Wet Connection details (before concreting the junction) – Tekla screenshot



Cyber Security & Personal Safety

West Bengal State Centre, IEI organized IEI Technical Webinar on the theme **Cyber Security & Personal Safety** on 08 October 2021 under the aegis of Electronics and Telecommunication Engineering Division Board [ETDB], IEI. Panelists on the occasion, Mr Anupam Chanda, Joint Director, ICT & Services Group, CDAC Kolkata and Mr Sourav Mitra, Principal Engineer, C-DAC Kolkata delivered presentations and shared their views with the virtual audience. Mr Ram Chandra Chakraborty, Managing Director, PSI Metals India Private Limited was the Moderator of the session and welcomed the Panelists.



Mr Anupam Chanda

Mr Anupam Chanda deliberated his lecture on the topic 'Financial Fraud and Cyber Security'. Mr Chanda started with 'How Internet works' and then moved to the 'Basic Concept of Cyber Security', 'Status of Cyber Crime' & 'Why Cyber Space is at Risk'. He then explained communication security issues, types of financial fraud including Skimming, Phishing, online banking fraud, UPI fraud, Cryptocurrency fraud, etc. He also discussed the

guidelines for countermeasures and basic investigation. He then explained different issues on digital certificates & public key infrastructure. He stated that the growth of e-commerce has made it easier for people to buy things online. With payments getting processed under a few seconds, now people prefer online payment over cash on delivery; The direct involvement of money has got everyone's eyeballs stuck on e-commerce organizations. At this context, cybercriminals are pivoting their methods to take advantage of the pandemic, rapidly adapting in response to changes in the current environment. He advised all of us to remain vigilant and have a safe and trustworthy online transaction experience.



Mr Sourav Mitra

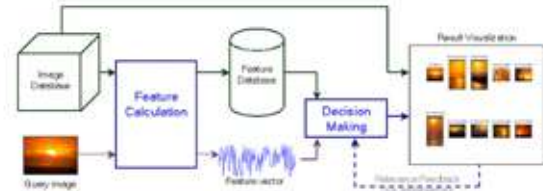
Mr Sourav Mitra delivered his lecture on the topic 'Overview of Social Media Security'. Mr Mitra started his deliberation on 'Concept of Online Privacy'. Then he discussed on different topics, namely, types of social media, power of social networking, business and social media, Social Media Data and Business Intelligence (BI) Model, BI Output and 'Post-truth', verification of social media account, basic investigation on social media,

identification of fake news. He further deliberated on methods, objectives of online data market, unstructured text processing, privacy policy in social media, mobile Apps and privacy, privacy settings, privacy and image pattern recognition, Content Based Image Retrieval (CBIR), online data market and cyber criminals, challenges in online data privacy, social media phishing and spam, Like-Jacking, verification of unauthorized log ins and IP addresses, social media malware, fake tweet and link to malware, Trojan Ad banners in social media, social media privacy breach, checking

CBIR: Content Based Image Retrieval



- ❑ CBIR was originally developed for digital forensics
- ❑ CBIR allows linking of location data through the recognition of common objects in images.
- ❑ CBIR opens up the possibility of deducing location data from apparently anonymous profiles containing images of users' homes/offices/work yards.
- ❑ This can lead to stalking, unwanted marketing, blackmail and all the other threats associated with unwanted.



Geotagging



- ❑ Process of adding geographical identification to various media such as photos, video, text messages, etc
- ❑ Data usually consists of latitude and longitude coordinates and location names.
- ❑ GPS enabled smart phones and digital cameras will geotag photos when taken



procedure of top trending hashtags etc. Mr Mitra elaborated on the process to check the origin of tweet, checking of Twitter-Bots, social networking behavior risks, share trading fraud through social networking, Geotagging, etc. He further cautioned that in spite of 'Proper Privacy Settings', personal information may get leaked and cybercriminals may steal our data directly, sell our data/ identity, trick our friends and family into revealing our/ their personal data, use our accounts to spread spam/ malware/ more data theft scams, sell organization's data/ sensitive information, blackmail individuals and organizations etc. He felt that we should, therefore, be very careful while sharing our details including photographs on social media.

Moderator of the session, Mr Ram Chandra Chakraborty summed up the Proceedings of deliberation. Prof Nitosh Kumar Brahma, Honorary Secretary, West Bengal State Centre, IEI extended the vote of thanks.

Technological Advancements in Healthcare, Challenges – A Role of Medical Image Processing

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Ultrasound Medical Images'; and Dr K Suneetha Reddy, Consultant Forensic Psychiatrist, UK on 'COVID Impact Mental Health: AI Strategies'. A Panel Discussion was organized on the occasion in the august presence of Prof (Dr) T S Kamal, Chairman, ETDB, IEI; Dr K M M Rao, Chairman, Technical Committee; Dr K Anitha Sheela, Professor and Head, Electronics and Communication Engineering Department, JNTUH College of Engineering, Hyderabad; Mr B Brahma Reddy, Member, ETDB, IEI & Chairman, AITC, IEI; Dr K Suneetha Reddy, Consultant Forensic Psychiatrist, UK and Dr K Harish, Managing Director, Andhra Hospitals, Vijayawada.

During Valedictory Function, Mr N Sanjay, IPS, Additional DGP, Government of Andhra Pradesh graced the occasion as Chief Guest and Prof (Dr) T S

Kamal, Chairman, ETDB, IEI as Guest-of-Honour. Mr Sanjay, in his address mentioned that the Seminar provides the platform to interact between doctors and engineers, where different aspects of deep learning models, applications of space science & technology in the areas of Medical Image processing, Internet of Medical Things and Neural Networks, Deep Learning Networks, Ultrasound Medical Image Processing and subsequent data interpretation elaborately discussed. Mr B Brahma Reddy, Member, ETDB, IEI and Mr Sreenivas Jasti, Chairman, IEEE Hyderabad Section also addressed the gathering. Earlier, Prof (Dr) Ramana Banothu, Chairman, Telangana State Centre, IEI welcomed the audience. Dr K M M Rao, Chairman, Technical Committee presented the Seminar recommendations. Mr K Subbi Reddy, Convener of the event proposed the vote of thanks.

Cyber Security to Combat Cyber Crime

Jabalpur Local Centre of the Institution, in association with Oriental Group of Institutes, Jabalpur organized Technical Webinar on the theme **Cyber Security to Combat Cyber Crime** on 23 September 2021. During the event, Dr Dhruva Ghai, Pro Vice Chancellor, Oriental University, Indore; Mr Bhupesh Daheria, CEO, Aegis School of Business, Data Science, Cyber Security & Telecommunication; Mr Pramod Kumar Sharma, Group Leader, Centre for Development of Telematics; and Mr Sahil Madnani, Scholar delivered presentations as Panelists. Dr (Prof) Mukta Bhatele, Principal, Oriental Institute of Science and Technology, Jabalpur was the Moderator of the session.



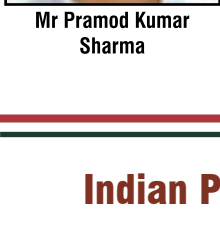
Dr Dhruva Ghai

Dr Dhruva Ghai, Pro Vice Chancellor, Oriental University, Indore delivered the Keynote address. Dr Ghai, in his address mentioned that the global cyber threat continues to evolve at a rapid pace, with a rising number of data breaches each year. He focused on the reasons behind cyber security and the targeted peoples in India. He also talked about the Government of India policies and laws for cyber-crime. He talked about the Cyber Laws in India, the Information Technology Act (IT Act) 2000, which deal with different under cyber law in India. He discussed about Identification of theft, Cyber terrorism, Cyber bullying, Hacking, Defamation etc.



Mr Bhupesh Daheria

Mr Bhupesh Daheria, CEO, Aegis School of Business, Data Science, Cyber Security & Telecommunication, in his address stated that the cyber crime is the greatest threat to every organization and advocated for reimagining India in the context of cyber security threats. Since the advent of the information age, technology has evolved at a lightning speed, permeating into all spheres of life and there has been incredible growth in the cyber world in terms of its prevalence and disruptive potential, he added. His talk highlighted on the cyber attack in India and the application of machine learning and artificial intelligence in cyber security.



Mr Pramod Kumar Sharma

Mr Pramod Kumar Sharma, Group Leader, Centre for Development of Telematics informed about the types

of cyber crime and their remedies to cope up with it. He stated that, with the involvement of using internet, the online crime rate is also increasing consequently, and there legal remedies are also available with the victims. However, he felt that the cyber-crime case files are increasing more than that of the solved cases, which is due to the ignorance of the people and lack of cyber experts who are able to handle these cases. Therefore, we need proper training as well as Cyber-security curriculum be developed for learning as a compulsory subject which will help in solving the cyber-cases and will raise the trust towards the security, Mr Sharma opined. He also stated that it is the need of hour to secure ourselves by taking number of measures, which include, minimize the provision for the loopholes to the attackers in the social media, avoid the traps in social engineering, securing data by providing the limit and restrictions, not using the unsecured websites, not disclosing log in password, smart-phone locks, ATM card's pin etc.



Mr Sahil Madnani

Mr Sahil Madnani, Scholar, in his lecture explained on cyber security of the business enterprises during the pandemic times and mentioned that organizations are increasingly willing to invest in IT and cyber security to mitigate the risk of digital threats, which continues to grow. He mentioned that the average expenditure on IT security systems was \$18.9 million in the year 2019, a massive increase from the North American average of \$8.9 million in 2018. The reason that big businesses are willing to devote this caliber of IT investment is because security breaches cost more than direct dollars and cents, which can also cause irreparable harm to business's reputations, he added.



Dr (Prof) Mukta Bhatele

Moderator of the session, Dr (Prof) Mukta Bhatele, Principal, Oriental Institute of Science and Technology, Jabalpur, while summed up the Proceedings of deliberations, briefed that cyber security is the practice of protecting critical systems and sensitive information from digital attacks: Cyber security measures are designed to combat threats against networked systems and applications, whether those threats originate from inside or outside of an organization: The principle line of actions to prevent cyber threats and sustain cyber security includes; Regulation upgradation of software and operating system; Using anti-virus software with renewal time to time; Using strong passwords: Ensure that the passwords are not easily guessable: Not to open email attachments or links from unknown senders.

An interactive session was held at the end of technical deliberations. Mr Prakash Chandra Dubey, Honorary Secretary, Jabalpur Local Centre proposed the vote of thanks.

Indian Power Sector – Challenges and Opportunities for the Clean Energy Transition

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population, electricity production from new renewable is more cost effective than from new coal fired power plants.

In a growing number of regions, including parts of China, the European Union (EU), India and the United States, it has already become cheaper to build new wind or solar PV plants than to operate existing coal-fired power plants. Renewables also are outcompeting new natural gas-fired power plants on cost in many locations, and are the cheapest sources of new electricity generation in countries across all major continents.

Distributed Renewables for Energy Access (DREA) systems proved invaluable in many rural and remote communities and other essential services through solar PV mini-grids during the early phases of the pandemic. However,

measures to contain the virus hindered companies, delayed projects and held back end-customers from purchasing new systems.

The developments during 2020 highlighted some of the key ongoing challenges impeding the widespread adoption of renewable energy. They include the slow increase of renewables in total final energy consumption (TFEC), the need for more innovation in some sectors, the need for infrastructure development and increased affordability in some markets, the lack of sufficient policy support and enforcement, and persistent support for fossil fuels.

A questionnaire session was held and the attendees interacted with the Panelists on various issues related to clean energy Transition. Dr S Dharmalingam, Past Chairman, Tiruchirappalli Local Centre, IEI proposed the vote of thanks at the end of the session.

IEI Celebrates

54th Engineers' Day

Engineers for Skill Development & Employment in Combating COVID

The 54th Engineers' Day was celebrated by the Institution all over the country on September 15, 2021 to commemorate the 161st birth anniversary of legendary Engineer-Statesman Bharat Ratna Sir M Visvesvaraya. Brief accounts of the celebration as received from various Centres are highlighted hereunder.

STATE CENTRES

Bihar

Bihar State Centre, IEI observed 54th Engineers' Day to commemorate the birth anniversary of Bharat Ratna Sir M Visvesvaraya on 15 September 2021 at Patna. On the occasion, Prof (Dr) Arbind Kumar, Director, Birla Institute of Technology Patna graced the occasion as Chief Guest. Guest of Honour of the function, Prof (Dr) S K Verma, Deputy Director, National Institute of Technology Patna delivered the Keynote address on the theme of the day. The speakers stated that, to compensate the financial and economic shortfalls, engineers and technocrats have a great role in kick starting economic activities by implementing and going with the mission of Skill India. Dr B K Sahay, Past Honorary Secretary, Bihar State Centre, IEI presented a brief like sketch of great engineer & statesman Sir M Visvesvaraya. Prof (Dr) Sanjeev Sinha, National Institute of Technology Patna and Dr Arun Kumar Shrivastava, Council Member, IEI were present on the occasion.

Haryana

Haryana State Centre, IEI observed 54th Engineers' Day on 15 September 2021 through online mode. Dr P K Khosla, Executive Director, Centre for Development of Advanced Computing, Mohali was the Chief Guest and Keynote Speaker of the session and delivered lecture on the theme of the day. On the occasion, Mr K C Sethi, Former Vice President, IEI presented the life sketch of Bharat Ratna Sir M Visvesvaraya. In the beginning, Dr (Ms) Vrinda Krishanlal Gupta, Chairman, Haryana State Centre and Council Member, IEI welcomed the Chief Guest and all the participants. At the end, Mr Ashwani Kumar Sharma, Council Member, IEI proposed the vote of thanks.

Himachal Pradesh

Himachal Pradesh State Centre, IEI observed 54th Engineers' Day on 15 September 2021 to commemorate the birthday of Bharat Ratna Sir M Visvesvaraya, the towering personality of the Indian engineering profession. A large numbers of Corporate Members and engineers from various organisations, industries and Institutions were participated the programme through online & offline. Dr Sanjay Sood, IFS, Additional Principal Chief Conservator of Forest (M&E) was the Keynote speaker of the day. Mr Pankaj Dadwal, Chairman, Himachal Pradesh State Centre and Council Member, IEI presided over the function and highlighted the life sketch of Sir M Visvesvaraya. Mr Suneel Grover, Chairman, NSDF, IEI Shimla enlightened the audience about the theme of the day. At the end, Ms Kusum Sharma, Honorary Secretary, Himachal Pradesh State Centre, proposed the vote of thanks.

Maharashtra

Maharashtra State Centre, IEI observed 54th Engineers' Day on 15 September 2021 by organising a technical webinar. On the occasion, Dr M B Dagaonkar, Council Member, IEI delivered the introductory speech, presented the glimpses about the life of Sir M Visvesvaraya and narrated the dignity of the Engineers' Day. Keynote Speaker of the function, Mr S P Jain, Managing Director, NetBiz Systems Private Limited highlighted the need for

rejuvenating engineering industries that have been worst affected due to COVID-19. Earlier, Dr Himanshu Madhukar Raje, Chairman, Maharashtra State Centre and Council Member, IEI delivered the welcome address. Mr V C Kamble, Maharashtra State Centre, IEI co-ordinated the programme and at the end, proposed the vote of thanks.

Puducherry

Puducherry State Centre, IEI observed 54th Engineers' Day through virtual mode and organised a Lecture programme. On the occasion, Dr K Sankaranarayanan, Director, National Institute of Technology Puducherry was the Chief Guest and delivered lecture on the theme. During lecture, he stressed the need for skill enhancement of engineers to face the challenges caused due to pandemic crisis. He highlighted the role played by engineers in solving the COVID issues and also about the hike in employment potential in post COVID situation. Earlier, Prof (Dr) Raman Saravanane, Chairman, Puducherry State Centre and Council Member, IEI welcomed the gathering. At the end, Dr R Nakkeeran, Past Chairman, Puducherry State Centre, IEI proposed the vote of thanks.

LOCAL CENTRES

Ahmednagar

Ahmednagar Local Centre, IEI observed 54th Engineers' Day on 21 September 2021 through virtual platform. On this occasion, Mr Pravin Kolhe, Superintending Engineer, Pune Irrigation Project Circle graced the function as Chief Guest and delivered Keynote address on the theme. In his keynote address while describing the role of engineers, he furnished the pre and post pandemic economic analysis along with statistics data. Earlier, Mr M M Anekar, Honorary Secretary, Ahmednagar Local Centre, IEI welcomed the audience and introduced the theme. Dr D A Vidhate, Ahmednagar Local Centre proposed the vote of thanks.

Alwar

Alwar Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 at Alwar. Mr Pankaj Dewan, Vice President & Unit Head, Daikin Airconditioning (India) Private Limited, Neemrana was the Chief Guest. In his address, he emphasized the need for skill development of engineers that leads to professional achievement. Special Guest of Honour, Mr Manoj Kanchan, President, Synergy Steels Limited, Alwar shared his experience for development of career in engineering profession. The Keynote speaker of the session, Mr Ajay Sharma, AVP & Unit Head, Havells India Limited, Alwar expressed his views about the employment of engineers in post COVID situation and explained the need for practical training for young engineers through skill development techniques. Earlier, Mr Subhash Chandra Joshi, Chairman, Alwar Local Centre, IEI delivered the welcome address. At the end, Mr Raj Deep Sharma, Honorary Secretary, Alwar Local Centre extended vote of thanks.

Bathinda

Bathinda Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 and organized a webinar on the theme. On the occasion, Prof (Dr) T S Kamal, Chairman, Electronics & Telecommunication Division Board

and Council Member, IEI was the Chief Guest and addressed the audience. Mr Sukhvir Singh Mundi, Chairman, Chandigarh State Centre and Council Member, IEI was also present on this occasion. Dr Ravinder Kumar, Assistant Professor, Department of Electronics Technology, Guru Nanak Dev University, Amritsar graced the function as Panellist. Ms Manpreet Kaur, Assistant Professor, Electronics and Communication Engineering Department, Yadavindra College of Engineering Talwandi Sabo was the Moderator during the session. Earlier, Prof (Dr) Jagtar Singh, Chairman, Bathinda Local Centre and Council Member, IEI welcomed the Chief Guest, Panellist, Moderator and other dignitaries. At the end, Mr J S Deol, Honorary Secretary, Bathinda Local Centre proposed the vote of thanks.

Belagavi

Belagavi Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 through virtual mode and a lecture programme was organized on the theme in online as well as offline mode. Dr Ashok Shettar, Hon'ble Vice Chancellor, KLE Technological University Hubli was the Chief Guest of the session and delivered Keynote address on the theme. Mr R T Jangal, Chairman, Belagavi Local Centre, IEI delivered the welcome address. At the end, Mr Mr Basavanneppa G Dharenni, Honorary Secretary, Belagavi Local Centre proposed the vote of thanks.

Belapur

Belapur Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 at Belapur. Mr Sanjay Desai, City Engineer, Navi Mumbai Municipal Corporation (NMMC) graced the occasion as Chief Guest. Mr Ramesh Giri, Superintending Engineer, City and Industrial Development Corporation (CIDCO) was the Keynote speaker of the programme. In his address, Mr Giri elaborated about the opportunities available for skilled workers for construction of jumbo covid centres. Dr Mohan B Dagaonkar, Council Member, IEI presented the biography of Sir M Visvesvaraya. Earlier, Mr Keshav K Verkhedkar, Chairman, Belapur Local Centre and Council Member, IEI delivered the welcome address and elaborated the theme of the programme. The programme was organized by Dr Samir Chandrakant Nimkar, Honorary Secretary, Belapur Local Centre, IEI.

Durgapur

Durgapur Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 at Durgapur. On the occasion, Prof (Dr) Harish Hirani, Director, CSIR-CMERI graced the function as Chief Guest. Mr Bimal Patwari, CEO, Pinnacle Infotech, Durgapur and Prof (Dr) Nirmal Baran Hui, Department of Mechanical Engineering & Associate Dean - Academic & Examination and Coordinator, NBA, National Institute of Technology Durgapur were the Guests of Honours. Addressing the gathering, the Chief Guest paid his tribute to Bharat Ratna Sir M Visvesvaraya and highlighted his contribution. Also he briefed about how COVID-19 crises helped new innovations and how engineering community, especially CSIR-CMERI supported the nation by developing applicable technologies in combating COVID. Earlier, Mr M K Biswal, Honorary Secretary, Durgapur Local Centre, IEI in his introductory address welcomed all the dignitaries present in the programme. Prof (Dr) K C Ghanta, Chairman, Durgapur Local Centre and Council Member, IEI welcomed the guests and audience and talked about the significance of the day.

Jamshedpur

Jamshedpur Local Centre, IEI observed 54th Engineers' Day through virtual mode on 15 September 2021. On the occasion, Mr Vishal Badshah, Plant Head, Tata Motors, Jamshedpur was the Chief Guest and Dr Mita Tarafder, Chief Scientist, CSIR-National Metallurgical Laboratory, Jamshedpur and Head of Knowledge Resource and Information Technology was the Keynote speaker. She spelt out the challenges posed by pandemic, which overturned the global economy, pushing millions into penury as the pandemic took centre stage. Reeling under an economic downturn, many industries have adopted conservative approaches like hiring freezes, pay-cuts and layoffs

to remain afloat, while others were forced to shut down, she mentioned. She further deliberated on the skill development programme under the CSIR Integrated Skill Initiative. The function was started with welcome address delivered by Mr Anurag Saxena, Chairman, Jamshedpur Local Centre, IEI. The programme was concluded with vote of thanks by Mr Pravesh Kumar Dhawan, Honorary Secretary, Jamshedpur Local Centre, IEI.

Kalaburagi

Kalaburagi Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 at Kalaburagi. On the occasion, Mr Snehal S Lokhande, IAS, Commissioner, Kalaburagi City Corporation was the Chief Guest and spoke about the contribution of engineering fraternity during the pandemic. Speaker of the day, Mr Vishal Datta Kohir, Assistant Professor, Department of Mechanical Engineering, K B N College of Engineering, Kalaburagi deliberated lecture on the theme. Mr Babu Sidramappa More, Chairman, Kalaburagi Local Centre, IEI welcomed all and briefed about the Engineers' Day. Dr Baburao Neelkantappa Sherikar, Honorary Secretary, Kalaburagi Local Centre proposed the vote of thanks.

Kharagpur

Kharagpur Local Centre, IEI observed 54th Engineers' Day on 15 September, 2021 and organised a webinar on this occasion. Speakers of the day were Dr Rajendra Manchavaram, Associate Professor, Department of Agricultural & Food Processing, IIT Kharagpur ; and Dr Aditya Bandopadhyay, Assistant Professor, Department of Mechanical Engineering, IIT Kharagpur. Dr Manchavaram spoke about the application of Artificial Intelligence and Machine Learning in agriculture. Dr Bandopadhyay discussed about the application of Frugal technologies. Prof (Dr) Pavuluri Srinivasa Rao, Honorary Secretary, Kharagpur Local Centre welcomed the audience and proposed the vote of thanks.

Kanpur

Kanpur Local Centre, IEI jointly with Chatrapati Sahu Ji Maharaj University, Kanpur; Institution of Electronics and Telecommunication Engineers (IETE), U P Section observed 54th Engineers' Day on 15 September 2021 at Kanpur. Prof Vinay Kumar Pathak, Hon'ble Vice Chancellor, Chatrapati Sahu Ji Maharaj University, Kanpur was the Chief Guest and theme speaker. Prof S N Singh, Former Vice-Chancellor, Madan Mohan Malviya University of Technology, Gorakhpur and Professor, Department of Electrical Engineering, Indian Institute of Technology Kanpur was the Guest of Honour. Prof Narendra Kohli, Chairman, IETE presented the life sketch of Bharat Ratna, Sir M Visvesvaraya. In the beginning, Prof (Dr) J Ramkumar, Chairman, Kanpur Local Centre, IEI welcomed the Chief Guest, Guest of Honour and other participants. The programme was ended with vote of thanks proposed by Dr Rajat Kumar Khare, Honorary Secretary, Kanpur Local Centre, IEI.

Madurai

Madurai Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 through online platform. Chief Guest of the function, Dr M P Sukumaran Nair, Council Member, IEI deliberated lecture on the theme of the day and discussed on the forthcoming challenges for engineers, adopting new skills for engineers, identification of new skillsets and reskilling. Earlier, Mr S Rajagopal, Chairman, Madurai Local Centre and Council Member, IEI delivered the welcome address. At the end, Mr R Narayanasamy, Honorary Secretary, Madurai Local Centre, IEI proposed the vote of thanks.

Munirabad

Munirabad Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 at Munirabad. Mr Krishnaji Chavan, Chief Engineer, Irrigation Central Zone, Munirabad, Mr L Basavraj, Superintending Engineer, TPC and Dr Sashidhar, Principal, Proudhadevaraya Institute of Technology Hosapete were the Chief Guests of the function. Mr W Lalitha Prasada, Honorary Secretary of Munirabad Local Centre, IEI shared his views on the theme of the day. Prof (Dr) Sadyojatha K M, Department of Electronics & Communication

Engineering, Ballary Institute of Technology & Management delivered technical talk on the theme. Mr E Prahalada, Chairman, Munirabad Local Centre, IEI delivered the welcome address and at the end of the session, proposed the vote of thanks.

Muzaffarpur

Muzaffarpur Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 and on this occasion a webinar was organised on the theme. Dr Ramesh Kumar, Professor, Department of Electrical & Electronics Engineering, National Institute of Technology Mizoram was the Chief Guest of the event. In his inaugural address, Dr Kumar stated that in the era of pandemic, skill development is a vital tool to empower people, to safeguard their future and for overall development of an individual. Engineers have contributed by working together with the doctors to make the facilities available in the shortest possible time for fighting COVID, he further added. Earlier, the function was started with welcome address delivered by Dr Anajani Kumar Mishra, Chairman, Muzaffarpur Local Centre, IEI. At the end, Mr Narendra Kumar Jha, Honorary Secretary, Muzaffarpur Local Centre proposed the vote of thanks.

Nagpur

Nagpur Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 at Nagpur. On the occasion, Dr M K Sharma, CEO & Full Time Director, Bajaj Steel Industries Limited, Nagpur was the Chief Guest and Keynote Speaker. Mr Prakash K Kulkarni, Former Technical Director, MSEB, Mumbai & Past Chairman, Nagpur Local Centre, IEI was present on the occasion and addressed the audience. Prof (Dr) Rakesh L Shrivastava, Chairman, Nagpur Local Centre, IEI and Council Member, IEI delivered the welcome address. At the end of the session, Dr Mahendra Shaligram Kadu, Honorary Secretary, Nagpur Local Centre proposed the vote of thanks.

Neyveli

Neyveli Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 in association with Engineers & Scientist Association, Neyveli both physically as well as online platform. Chief Guest of the function, Prof (Dr) R Velraj, Vice-Chancellor, Anna University, Chennai elaborately discussed the situation faced by the world during pandemic situation and the role of engineers to overcome the same. Earlier, Mr A Sekar, Honorary Secretary, Neyveli Local Centre, IEI delivered the welcome address and introduced the speaker. At the end, Mr M Senthilkumar proposed the vote of thanks.

Pantnagar

Pantnagar Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 at Pantnagar. Chief Guest of the day, Dr Alaknanda Ashok, Dean, College of Technology, GBPUA&T, Pantnagar started the programme with lighting the lamp and floral tributes to Bharat Ratna Sir M Visvesvaraya. She addressed the audience and remembered the Great Legendary Sir M Visvesvaraya and his contribution to the society. Special Guests of the event, Mr Nafees Ahmad, Plant Head, Lumax Auto Technologies Limited, Rudrapur, Udham Singh Nagar, Uttarakhand and Mr L M Tewari, AGM (Planning), BSNL, Haldwani, Nainital, Uttarakhand delivered lectures on the occasion. In the beginning, Dr H L Mandoria on behalf of Pantnagar Local Centre, IEI welcomed the Chief Guest, Special Guests, dignitaries, Corporate members and the participants. The programme was ended with vote of thanks proposed by Mr C S Negi, Joint Honorary Secretary of Pantnagar Local Centre, IEI.

Roorkee

Roorkee Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 at Roorkee. Lt Gen Vishwambhar Singh (Retd), AVSM, VSM was the Chief Guest of the programme. Earlier, Prof (Dr) Achal Kumar Mittal, Chairman, Roorkee Local Centre, IEI welcomed all presents in the

programme. At the end, Dr Mohd Ashraf Iqbal, Honorary Secretary, Roorkee Local Centre, IEI proposed the vote of thanks.

Rourkela

Rourkela Local Centre, IEI observed 54th Engineers' Day on hybrid mode on 15 September, 2021. Prof (Dr) Omkar Nath Mohanty, Former Vice-Chancellor, Biju Patnaik University of Technology Odisha graced the occasion as Chief Speaker. In his speech, he mentioned that in the context of confronting the devastating pandemic, the role of professional engineers was of paramount importance. Earlier, Mr Kumar Goswami, on behalf of Rourkela Local Centre delivered the welcome address. At the end, Dr Hara Mohan Jena, Honorary Secretary, Rourkela Local Centre IEI proposed the vote of thanks.

Saurashtra

Saurashtra Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 by organizing technical webinar. Prof Dhananjay Singh, AVP Learning & Development, Marwadi University, Rajkot was the speaker of the day. During lecture, he explained the role of engineers in providing medical instruments to hospitals during COVID situation. He also explained, how professional engineers need to think of technical intervention to design and implement sound labour market information systems including accurate market assessment. To start the webinar, Dr Ashit Sureshchandra Pandya, Chairman Saurashtra Local Centre, IEI welcomed the speaker and the participants of the webinar and outlined the life sketch of Bharat Ratna Sir M Visvesvaraya. Mr Ranchhod Kanjibhai Babaria, Honorary Secretary, Saurashtra Local Centre, IEI concluded the webinar. Prof (Dr) Sarang Pande, Member of the Executive Committee, Saurashtra Local Centre, IEI proposed the vote of thanks.

Silchar

Silchar Local Centre, IEI virtually observed 54th Engineers' Day on 15 September 2021. The Chief Guest of the programme was Mr Ashutosh Chakraverty, Past Chairman, Silchar Local Centre and the Guest of Honour was Prof Satyabrata Choudhury, Civil Engineering Department, National Institute of Technology Silchar. Prof Ashim Kanti Dey, Civil Engineering Department, National Institute of Technology Silchar was the Keynote speaker of the programme. Mr Gautam Dutta Choudhury, Chairman, Silchar Local Centre delivered the welcome address. At the end of the session, Dr Biswajit Purkayastha, Honorary Secretary, Silchar Local Centre, IEI proposed the vote of thanks.

Tiruchirappalli

Tiruchirappalli Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 through virtual mode. Chief Guest of the session, Dr K Sankaranarayanan, Director, National Institute of Technology Puducherry spoke about the significance of Engineers' Day and delivered the theme address. In his address, Dr Sankaranarayanan urged that as uncertainty persists, it is imperative to empower the workforce with the right skills through timely and relevant skilling, upskilling and reskilling efforts. Earlier, Prof (Dr) Natarajan Kumaresan, Chairman, Tiruchirappalli Local Centre and Council Member, IEI welcomed the gathering and presented the life sketch of Dr M Visvesvaraya. Prof Kumaresan paid rich tributes to the great engineer Dr M Visvesvaraya by highlighting his contributions, namely construction of Krishnarajasagar Dam, patented flood gates, water management, flood management, etc. Mr A Anand, Honorary Secretary, Tiruchirappalli Local Centre, IEI proposed the vote of thanks.

Tirunelveli

Tirunelveli Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 through online platform. Dr G Sankara Subramanian, Principal, Sankar Polytechnic College, Tirunelveli was the resource person on the occasion. Prof (Dr) S Baburengarajan, Chairman, Tirunelveli Local Centre, IEI welcomed the audience. Prof (Dr) R Velayutham, Honorary Secretary, Tirunelveli Local Centre, IEI delivered the vote of thanks.

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IEI Celebrates

Royal Charter Day

The Institution of Engineers (India) was incorporated by Royal Charter on September 9, 1935 by King and Emperor George V at the Court at Buckingham Palace, London and remains the only professional body in India to be accorded this Honour. This endowed the Corporate Members of the Institution with the right to use the title 'Chartered Engineer' after their names, implying that they are qualified engineers deemed worthy to hold a Charter. The 'Royal Charter Day' was celebrated by IEI all over the country on September 9, 2021. A brief accounts of celebration as received from various Centres are reported hereunder.

STATE CENTRE

Bihar

Bihar State Centre, IEI observed Royal Charter Day on 9 September 2021 at Patna. On the occasion, a lecture meeting was organised through webinar to commemorate the first anniversary of Late P Arundhati, the first lady Chief Engineer of Bihar State Electricity Board. The theme of late P Arundhati Memorial Lecture was 'Nature has become a Rebellion'. Keynote speaker-cum-Guest of Honour of the event, Mr S M Sahay, an eminent engineer delivered lecture on the topic. At the outset, Mr Nishi Kant Prasad Sinha, Chairman, Bihar State Centre and Council Member IEI welcomed the guests. Dr B K Sahay, Past Honorary Secretary, Bihar State Centre spoke about the significance of the Royal Charter Day and introduced the theme. Dr Arun Kumar Shrivastava, Council Member, IEI; Mr Kumar Abhay Pratap Singh, Honorary Secretary, Bihar State Centre; Mr Shakti Saurabh and Mr B K Singh, President of Patna Management Association also present on the day. At the end, Mr B N Singh, Past Honorary Secretary of Bihar State Centre proposed the vote of thanks.

LOCAL CENTRES

Agra

Agra Local Centre, IEI observed Royal Charter Day on 15 September 2021 at Agra. On the occasion, Mr Umesh Chand Sharma, Member, PARIVESH, State Environment Impact Assessment Authority, Government of Uttar Pradesh was the Guest of Honour. Mr Ajit Faujdar, Managing Director, CEMG Engineering & Consultant Private Limited also addressed the audience. Mr Ajay Kumar Sharma was the speaker on the day. Mr Devendra Singh Chaudhary, Honorary Secretary, Agra Local Centre also present on the occasion. Dr Ashok Yadav, Chairman, Agra Local Centre, IEI proposed the vote of thanks.

Belagavi

Belagavi Local Centre, IEI observed Royal Charter Day on 9 September 2021 through online platform. Mr C B Hiremath, SE (Retd) spoke on the background to observe Royal Charter Day. Dr Chandramohan T, National Institute of Hydrology Belagavi delivered lecture on 'Soil Erosion & Sedimentation'. Earlier, Mr R T Jangal, Chairman, Belagavi Local Centre, IEI welcomed the participants. Dr B Venkatesh introduced the speakers on the occasion. At the end, Mr Basavanneppa G Dharenni, Honorary Secretary, Belagavi Local Centre, IEI proposed the vote of thanks.

Belapur

Royal Charter Day was observed by Belapur Local Centre on 9 September, 2021 jointly with Maharashtra State Centre, IEI through online mode. On the occasion, Dr Mohan B Dagaonkar, Council Member, IEI delivered lecture. Opening speech was given by Mr V C Kamble, Maharashtra State Centre, IEI. Dr Himanshu Madhukar Raje, Chairman, Maharashtra State Centre and Council Member, IEI delivered the welcome address. Dr Samir Chandrakant

Nimkar, Honorary Secretary, Belapur Local Centre, IEI proposed the vote of thanks.

Coimbatore

Coimbatore Local Centre, IEI in association with the Indian Institute of Metals, Coimbatore Chapter observed Royal Charter Day on 10 September 2021 through online mode. Chief Guest of the event, Dr R Gopalan, Regional Director, International Advanced Research Centre for Powder Metallurgy and New Materials, Chennai delivered lecture on the topic 'Critical Materials Technology for EV and Automotive Applications'. Earlier, Mr P R Natarajan, Chairman, Coimbatore Local Centre and Council Member, IEI welcomed the Chief Guest and all participants of the programme. Dr J Krishnamoorthi, Professor and Head In-charge, Department of Metallurgical Engineering, PSG College of Technology, Coimbatore introduced the Chief Guest. The programme was concluded with vote of thanks proposed by Dr H Ram Mohan, Honorary Secretary, Coimbatore Local Centre, IEI.

Gorakhpur

Gorakhpur Local Centre, IEI observed Royal Charter Day on 9 September 2021 by organising a webinar. Prof (Dr) Bharat Raj Singh, Director General (Technical), School of Management Sciences, Technical Campus, Lucknow was the Keynote speaker of the function. Earlier, Mr Dharendra Chaturvedi, Chairman, Gorakhpur Local Centre welcomed the Keynote speaker, dignitaries and participants. Mr Ved Prakash Gupta, Honorary Secretary, Gorakhpur Local Centre introduced the speaker and at the end of the session, proposed the vote of thanks.

Gwalior

Gwalior Local Centre, IEI observed Royal Charter Day on 9 September 2021 at Gwalior. Dr Chhavi Singhal, Director, Global Education Consultant Services delivered lecture on the occasion. Mr R K Khetan, Visiting Faculty, Vikrant Technical & IPS Technical Institution, Gwalior spoke on the need of engineering qualities & management to enhance and meet target productivity on human aspects. Mr Rajender Singh spoke on engineering innovations that will ensure more cleaner, sustainable, smarter and liveable cities. Mr Rahul Khanvilkar, Chartered Engineer, HRM-Pyramid India Private Limited, Noida explained about the need for engineering capacity and the quality of engineers around the country to develop the best practices for implementation of engineering excellence. Earlier, Mr Prabhat Kumar Bhargava, Chairman, Gwalior Local Centre delivered the welcome address. At the end, Mr P Y Khanvilkar, Honorary Secretary, Gwalior Local Centre proposed the vote of thanks.

Madurai

Madurai Local Centre, IEI observed Royal Charter Day on 9 September 2021 through online platform. On the occasion, Dr Wooday P Krishna, Council Member, IEI was the Chief Guest. Mr S Rajagopal, Chairman, Madurai Local Centre & Council Member, IEI delivered welcome address and thanked the Chief Guest for accepting the invitation.

Muzaffarpur

Muzaffarpur Local Centre, IEI observed Royal Charter Day on 9 September 2021 via online platform on the topic 'Contribution of IEI in the Technological Development of the Country'. The function was started with welcome speech delivered by Dr Anjani Kumar Mishra, Chairman, Muzaffarpur Local centre, IEI. Dr Arun Kumar Srivastava, Council Member, IEI was present in the function and addressed the audience. The programme was concluded with vote of thanks proposed by Mr Narendra Kumar Jha, Honorary Secretary, Muzaffarpur Local Centre, IEI.

Nagpur

Nagpur Local Centre, IEI observed Royal Charter Day on 9 September 2021. It was marked by 1st Er R B Khanzode Memorial Oration on the theme 'Management in 21st Century Post Pandemic'. Mr Shrikant Dube, Plant Head, Mahindra & Mahindra Limited, Nagpur was invited as the Chief Guest and Keynote Speaker for the session. Mr Dube in his oration conveyed how the Indian auto sector got impacted during pandemic situation due to the

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IEI Celebrates World Standards Day

Theme Our Shared Vision for a Better World

The World Standards Day was celebrated by the Institution on October 14, 2021. Brief accounts of celebration as received from various Centres are reported hereunder.

STATE CENTRE

Jammu & Kashmir

Jammu & Kashmir State Centre, IEI observed World Standards Day on 14 October 2021 and organised a webinar in association with Divisional Administration Kashmir, the Bureau of Indian Standards, Department of Legal Metrology, National Institute of Technology Srinagar and SSM College of Engineering Parihaspora. Mr Pandurang K Pole, Divisional Commissioner of Kashmir inaugurated the webinar and deliberated lecture. Speaking on the occasion, he said that Standards play a very important part in our daily lives, and standardisation is a significant tool for measurement and also plays a vital role for infrastructural development of the nation. Those who spoke during the webinar included Mr Aamir Ali Mir, Chairman, Jammu & Kashmir State Centre & Council Member, IEI and Ms. M A S W Deva, Honorary Secretary, Jammu & Kashmir State Centre, IEI. Ms Nisha Bura, Scientist 'D', Head Bureau of Indian Standards, Branch Office for J&K; Md. Muzaffar Wani, Deputy Controller, Legal Metrology Department, Government of Jammu & Kashmir and Mr Kewal Krishnan, Deputy Controller, Legal Metrology Jammu also participated.

LOCAL CENTRES

Bareilly

Bareilly Local Centre, IEI observed World Standards Day on 14 October 2021 at Bareilly. Mr Sudhir Kumar Gupta, Chairman, Bareilly Local Centre, IEI delivered lecture on the occasion. Mr S C Sundrani, Past Chairman, Bareilly Local Centre, IEI also shared his views. Mr Mahendrakumar Agrawal, Honorary Secretary, Bareilly Local Centre proposed the vote of thanks.

Coimbatore

Coimbatore Local Centre, IEI in association with the Bureau of Indian Standards, Coimbatore, Ministry of Consumer Affairs, Food & Public Distribution, Government of India observed World Standards Day on 14 October 2021 virtually. The Chief Guest and speaker of the session, Ms Meenakshi Ganesan, Scientist F & Head, Bureau of Indian Standards, Coimbatore, Government of India delivered the theme address. Chief Guest & speaker, Mr S Arun Kumar, Scientist 'E' & Head, Civil Engineering Department, Bureau of Indian Standards, Government of India delivered lecture on the topic 'National Building Code (NBC) for Common Public'. Mr P R Natarajan, Chairman, Coimbatore Local Centre and Council Member, IEI delivered the welcome address. Dr K Ravichandran, Dean, Anna University, Regional Campus, Coimbatore delivered lecture on the occasion. Dr J Krishnamoorthi, Professor & Head In - charge, Department of Metallurgical

Engineering, PSG College of Technology, Coimbatore extended the vote of thanks on behalf of Coimbatore Local Centre, IEI.

Faridabad

Faridabad Local Centre, IEI observed World Standards Day on 14 October 2021 and organised a webinar on this occasion. Eminent Panellists deliberated lecture namely Mr Sanjay Pant, Deputy Director General (Standardization II), Bureau of Indian Standards, New Delhi; Dr Charu Virmani, Associate Professor, Department of Computer Science Engineering, Manav Rachna International Institute of Research and Studies (MRIIRS) and Mr Harpreet Singh, Founder-cum-CEO, UQC Global Certifications. Mr Inderdeep Singh Oberoi, Director, A D Global Synergies Private Limited was the moderator of the event. Mr Sanjay Pant in his address mentioned that World Standards Day 2021 showcases how the international standards are contributing to achieve the UN-SDGs. Dr Charu Vimani stated that Standards help to accelerate industrial revolution and advancement of technologies. Mr Harpreet Singh mentioned that Standards help to achieve a greener future. Mr I S Oberoi, while moderated the session, mentioned that beyond environmental sustainability, Standards promote safe, responsible and trusted use of technology to benefit humanity and society. In the beginning, Mr Sandeep Handa, Chairman, Faridabad Local Centre, IEI delivered the welcome address. The webinar was concluded with vote of thanks by Mr Kuldip Raj Gupta, Honorary Secretary, Faridabad Local Centre, IEI.

Kanpur

Kanpur Local Centre, IEI jointly with Uttar Pradesh Textile Technology Institute, Kanpur and The Textile Association (India), Uttar Pradesh Unit observed World Standards Day on 16 October 2021 at Kanpur. On the occasion, Dr G Nalankilli, Director, Uttar Pradesh Textile Technology Institute, Kanpur was the Chief Guest. Mr A K Bera, Scientist 'F' & Head (Textile), Bureau of Indian Standards, New Delhi, delivered the Keynote address on the theme and highlighted the details of World Standards Day, with reference to UN Sustainable Development Goals. Earlier, Prof Pradeep Kumar, Past Chairman of Kanpur Local Centre, IEI welcomed the Chief Guest, Keynote speakers and other participants.

Kanyakumari

Kanyakumari Local Centre, IEI observed World Standards Day through online mode on 14 October 2021. Chief Guest of the event, Mr G Harihara Iyer, Faculty, PCRA and Energy Auditor, and the President of Indian Association of Energy Management Professionals delivered lecture on the theme. Mr V Sivathanu Pillai, Chairman, Kanyakumari Local Centre delivered the welcome address and pointed out the significance to observe World Standards Day. At the end, Mr V Muthum Perumal, Honorary Secretary, Kanyakumari Local Centre proposed the vote of thanks.

Meerut

Meerut Local Centre, IEI observed World Standards Day on 14 October 2021 and organised a webinar. The Keynote Speaker of the session, Mr Ajay Maurya, Scientist 'C' and Deputy Director, Bureau of Indian Standards, Dehradun delivered lecture on the theme 'Our Shared Vision for a Better World Standards for Sustainable Development Goals'. During lecture, he discussed about the activities of BIS, that include standardization, conformity assessment, training, hall marking and consumer protection. He

IEI Celebrates 54th Engineers' Day

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Trichur

Trichur Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 through online platform. Chief Guest of the session, Prof V K Lakshman Nair deliberated lecture on the contribution of Bharat Ratna Sir M Visvesvaraya. On the occasion, Dr A Surendran, Principal, Sree Narayana Guru College of Advanced Studies, Thrissur; Mr Athul C K, Government Engineering College, Thrissur; Mr U R Arjun, Product Developer and Ms Rithika Rajith, Department of Biomedical Engineering, Sahridaya College of Engineering & Technology, Kodakara delivered lecture on the occasion. Earlier, Mr V G Sankaranarayanan, Chairman, Trichur Local Centre, IEI delivered the welcome address. At the end, Mr M N Sasidharan Achari, Honorary Secretary, Trichur Local Centre proposed the vote of thanks.

Udaipur

Udaipur Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 and organised a seminar on the theme. The programme began with lighting the lamp and garlanding the portrait of Bharat Ratna Sir M Visvesvaraya. Chief Guest & Keynote Speaker of the event, Prof Shrihari Prakash Honwad, Vice Chancellor, Sir Padampat Singhania University, Udaipur in his address, called upon the role of engineers as drivers of innovation, social and economic development. Dr B P Nandwana, Dean, Faculty of Engineering, Pacific Academy of Higher Education & Research University, Udaipur while explaining the theme, focussed on skill development and employability of engineers during pandemic. In the beginning, Mr Yawanti Kumar Bolia, Chairman, Udaipur Local Centre, IEI welcomed the Chief Guest, speakers and other participants. At the end, Mr Chandra Prakash Jain, Honorary Secretary, Udaipur Local Centre, IEI proposed the vote of thanks.

Upper Assam

Upper Assam Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 through online platform. On the occasion, Mr Ashit Kumar Baruah, Past Chairman of Upper Assam Local Centre, IEI and Ex Executive Director (L&D), Oil India Limited delivered speech as Chief Guest. Keynote Speaker, Mr Manoj Kumar Das, Managing Director, North-Eastern Regional Agricultural Marketing Corporation Limited and Head (A&C, BFC, MOVCDNER), North Eastern Development Finance Corporation Limited, Guwahati delivered Keynote address on the theme. In the beginning, Mr Sasanka Pratim Deka, Chairman, Upper Assam Local Centre, IEI welcomed the virtual audience. At the end, Mr Debajeet Sarma, Honorary Secretary, Upper Assam Local Centre, IEI proposed the vote of thanks.

Vallabh Vidyanagar

Vallabh Vidyanagar Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 at Vallabh Vidyanagar. On the occasion, Dr Rakesh Devjibhai Patel, Chairman and Prof Hiralkumar Chandulal Badrakia, Honorary Secretary, Vallabh Vidyanagar Local Centre, IEI and Executive Committee members, Corporate members of IEI were present.

Warrangal

Warangal Local Centre, IEI observed 54th Engineers' Day on 15 September 2021 at Warangal. Chief Guest of the event, Prof. N V Ramana Rao, Director, National Institute of Technology Warangal in his address motivated the students to acquire the new generation skills for enhancing their employability quotient. Prof K Prakash, Principal and Prof K Thirupathi Rao, Vice Principal, Vaagdevi College of Engineering, Warangal briefed the life sketch of Bharat Ratna Sir M Visvesvaraya. In the beginning, Dr Chintham Venkaiah, Chairman, Warangal Local Centre, IEI addressed the gathering and highlighted the theme of the Engineers' Day. The function was concluded with vote of thanks, delivered by Dr S Srinath, Honorary Secretary, Warangal Local Centre, IEI.

also discussed about United Nations identified 17 Sustainable Development Goals (UN SDGs), which project to address social imbalances, develop sustainable economy and slow the rate of climate change. In the beginning, Mr Rajneesh Kumar, Chairman, Meerut Local Centre, IEI welcomed the Keynote speaker, guests and members of IEI and spoke about the history and importance of World Standards Day. At the end, Mr Mohan Lal Jain, Honorary Secretary, Meerut Local Centre, IEI proposed the vote of thanks.

North Bengal

North Bengal Local Centre, IEI observed World Standards Day through online platform on 14 October 2021. Speaker, Mr Gautam Bairagi, HoD, Department of Civil Engineering, Jalpaiguri Government Engineering College in his address mentioned that the Sustainable Development Goals, which project to address social imbalances, develop a sustainable economy and slow the rate of climate change, are highly ambitious. To reach them will require public-private partnership and the use of all available tools, including international standards and conformity assessment. Mr Ujjal Dey, Assistant Professor, Department of Electrical Engineering, Jalpaiguri Government Engineering College in his address stated that the entire standards system is built on collaboration and collaborative working results empowering people with real world solutions to face sustainability challenges head-on. Mr Chinmoy Ghosh, North Bengal Local Centre, IEI delivered the welcome address and at the end of the session, proposed the vote of thanks.

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IEI Celebrates Royal Charter Day

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reduction in customer demand, which results decrease and provisional shut down of automobile production. The programme started with the welcome address and briefing about Royal Charter Day by Prof (Dr) Rakesh L Shrivastava, Chairman, Nagpur Local Centre and Council Member, IEI. Mr Mahendra Shaligram Kadu, Honorary Secretary, Nagpur Local Centre, IEI proposed the vote of thanks.

Neyveli

Neyveli Local Centre, IEI observed Royal Charter Day on 9 September 2021 via online platform. Chief Guest of the programme, Mr R Ramdoss, Chairman, Tamil Nadu State Centre and Council Member, IEI delivered lecture during the session. Earlier, Mr A Sekar, Honorary Secretary, Neyveli Local Centre, IEI welcomed the participants of the webinar and briefed about the Royal Charter Day. After summarizing the deliberation of the speaker, he also proposed the vote of thanks.

Roorkee

Roorkee Local Centre, IEI observed Royal Charter Day on 8 September 2021. The function was started with welcome address delivered by Prof (Dr) Achal Kumar Mittal, Chairman, Roorkee Local Centre, IEI. At the end of the session, Dr Mohd Ashraf Iqbal, Honorary Secretary, Roorkee Local Centre, IEI proposed the vote of thanks.

Varanasi

Varanasi Local Centre, IEI observed Royal Charter Day on 9 September 2021 via online platform. Prof (Dr) Dharmendra Kumar Mishra, Faculty of Law, Banaras Hindu University, Varanasi was the speaker of the day and deliberated lecture on the topic 'A Brief Memento Dedicated to the Royal Charter Day'. In the beginning, Prof (Dr) Siddh Nath Upadhyay, Chairman, Varanasi Local Centre, IEI welcomed the learned speaker, Council members, and dignitaries of IEI. Mr Santosh Kumar, Honorary Secretary, Varanasi Local Centre, IEI conducted the proceedings of the programme and proposed the vote of thanks.

IEI Celebrates World Habitat Day

Theme

Accelerating Urban Action for a Carbon-free World

The World Habitat Day was celebrated by the Institution on October 4, 2021. Brief accounts of celebration as received from various Centres are reported hereunder.

STATE CENTRES

Gujarat

Gujarat State Centre, IEI jointly with INDUS University, Ahmedabad observed World Habitat Day and organized webinar on the theme on 7 October 2021. On the occasion, Chief Guest, Prof (Dr) Vijay Kumar Srivastava, Vice Chancellor, INDUS University, Ahmedabad delivered lecture on reduction of thermal power generation and use step by step by using solar power, wind power, hydro power, etc. Guest of Honour of the function, Mr P M Chaudhary, Chief Engineer, Capital Project & Additional Secretary, Roads and Building Department, Government of Gujarat explained the theme of World Habitat Day. He discussed on Green Building concept and adoption of warm mix bitumen technology in road construction. Keynote Speaker of the event, Dr C R Patel, Assistant Professor, Civil Engineering Department, Sardar Vallabhbhai National Institute of Technology, Surat delivered presentation on the theme. Emission of carbon may minimize by adopting green building technology, use of electric vehicles in transportation and use of more public transport, etc, he opined. Ms Prandnya Salot, Assistant Professor, Department of Civil Engineering, IITE, INDUS University, Ahmedabad moderated the session. Earlier, Mr Hiro Udhavdas Kalyani, Chairman, Gujarat State Centre and Council Member, IEI welcomed the guests and participants of the webinar and briefly introduced the importance of celebration of World Habitat Day. Mr Vijay Solanki, Water Management Forum, IEI gave brief introduction and background on the theme of World Habitat Day. At the end, Mr Shyam Varghese, Honorary Secretary, Gujarat State Centre, IEI gave concluding remarks and proposed the vote of thanks.

West Bengal

West Bengal State Centre, IEI observed World Habitat Day on the theme on 4 October 2021 through online platform. Speaker of the day, Dr Saikat Paul, Associate Professor, Department of Architecture & Regional Planning, Indian Institute of Technology Kharagpur delivered lecture on the theme and mentioned that cities are responsible for some 70 percent of global CO₂ emissions with transport, buildings, energy and waste management accounting for the bulk of urban greenhouse gas emissions. The future of our planet depends on national, regional and local governments and organizations, communities, academic institutions, the private sector and all relevant stakeholders, who are working together to create sustainable, carbon-neutral, inclusive cities and towns, where more initiative of controlling pollution, green and sustainable environment are required, he mentioned. In the beginning, Mr Sandip Kumar Deb, Chairman, West Bengal State Centre and Council Member, IEI extended warm welcome to the dignitaries present. At the end, vote of thanks was proposed by Prof Nitosh Kumar Brahma, Honorary Secretary, West Bengal State Centre, IEI.

LOCAL CENTRES

Ahmednagar

Ahmednagar Local Centre, IEI observed World Habitat Day on 11 October 2021 via online platform. On the occasion, Dr Madhav Kumthekar, Professor & Head, Department of Civil Engineering, Government College of Engineering, Karad delivered lecture on the theme and highlighted the importance of habitat for all species for sustainable development. He stated

that rapid industrialisation and industrial products, urbanisation, mining logging, urban sprawl, climate change, water and noise pollution lead to loss of biodiversity. He professed that by the year 2030, above 50 percent population will live in cities and emphasized for systematic and properly planned development of cities for minimizing pollution. He also stated that engineers in all fields can play a vital role in creating a carbon-free world by using latest technology. Earlier, Mr M M Anekar, Honorary Secretary, Ahmednagar Local Centre, IEI delivered the welcome address. Dr D A Vidhate, Ahmednagar Local Centre proposed the vote of thanks.

Bathinda

Bathinda Local Centre, IEI observed World Habitat Day on 4 October 2021 and organised a webinar on the occasion. Dr Devinder Singh Sidhu, Former Professor & Registrar, Punjabi University, Patiala graced the function as Chief Guest and addressed the audience. Prof (Dr) T S Kamal, Chairman, Electronics & Telecommunication Engineering Division Board and Council Member, IEI graced the function as Guest of Honour. Prof (Dr) Harjinder Singh Rose, Former Pro-Chancellor, Guru Kashi University, Talwandi Sabo graced the occasion as Keynote Speaker and stated the basic definition and importance of human habitat conditions. Ms. Manpreet Kaur, Assistant Professor, Electronics and Communication Engineering Department, Yadavindra College of Engineering, Talwandi Sabo was the Moderator of the programme. At the outset, Prof (Dr) Jagtar Singh, Chairman, Bathinda Local Centre and Council Member, IEI welcomed the Chief Guest, Guest of Honour, Speaker and other dignitaries. The event was concluded with vote of thanks, delivered by Mr J S Deol, Honorary Secretary, Bathinda Local Centre, IEI.

Belapur

World Habitat Day was observed by Belapur Local Centre, IEI on 4 October 2021 in association with Indian Green Building Council, Mumbai Chapter through online mode. Mr Rakesh Bhatia, Senior Vice President, Ecofirst Services Limited, Mumbai delivered Keynote address on the theme. He explained the theme by giving examples of the live projects in our country. Earlier, Mr Keshav K Verkhedkar, Chairman, Belapur Local Centre, IEI delivered the welcome address and elaborated the theme of the World Habitat Day. At the end, Dr Samir Chandrakant Nimkar, Honorary Secretary, Belapur Local Centre proposed the vote of thanks.

Bokaro Steel City

Bokaro Steel City Local Centre, IEI observed World Habitat Day on 4 October 2021 at Bokaro. Chief Guest of the event, Mr K A P Singh, Ex-Deputy General Manager (Design Bureau), Bokaro Steel Plant inaugurated the programme. During lecture he enlightened the audience about the concept of green building by introducing vertical garden at individual residence. Guest of Honour, Dr T Pachal, General Manager (OHS), Bokaro Steel Plant deliberated about the issue of increased pressure on urban infrastructure due to the increase in population causing impact on environment and health. Two technical papers were presented by Mr C P Sahay, Ex-Deputy General Manager (Traffic), SAIL, Bokaro Steel Plant and Mr Akhilesh Bumb, Manager B P S C L. Earlier, Mr N P Srivastava, Bokaro Steel City Local Centre, IEI welcomed the dignitaries and participants and spoke about the importance of World Habitat Day and deliberated ways and means to

achieve low carbon economy by individual initiative. At the end, Vote of Thanks was proposed by Mr Sunil Kumar, Bokaro Steel City Local Centre, IEI.

Coimbatore

Coimbatore Local Centre, IEI, in association with Department of Civil Engineering, Hindusthan College of Engineering & Technology, Coimbatore observed World Habitat Day on 4 October 2021 through online platform. On the occasion, Dr R Ilangoan, Former Special Chief Engineer, Public Works Department, Tamilnadu & Former Vice Chairman, Tamilnadu Water Resources Development Cell, PWD, WRD, Chennai was the Chief Guest and delivered lecture on 'Urban Environment Management for Carbon Reduction'. Dr P N Magudeswaran, Dean – Academics, Hindusthan College of Engineering and Technology, Coimbatore delivered address on the occasion. Earlier, Mr P R Natarajan, Chairman, Coimbatore Local Centre, IEI welcomed the Chief Guest and other participants of the webinar. At the end, Dr H Ram Mohan, Honorary Secretary, Coimbatore Local Centre, IEI proposed the vote of thanks.

Dhanbad

Dhanbad Local Centre, IEI observed World Habitat Day in association with Bharat Coking Coal Limited, Sijua Area on 4 October 2021 at Dhanbad and organised a technical deliberation on the theme. On the occasion, Mr P K Dubey, General Manager, Sijua Area, BCCL, Dhanbad was the Chief Guest. Mr Anant Vijay Kumar, Assistant Manager (Environment), Sijua Area, BCCL, Dhanbad delivered technical lecture on the theme. Mr Sanjay Kumar Singh, Chief Mining Engineer, Sijua Area, BCCL, Dhanbad delivered address on the occasion and stressed the relevancy of the theme. Dr Satyendra Kumar Singh, Honorary Secretary, Dhanbad Local Centre introduced the theme of the day with the participants.

Faridabad

Faridabad Local Centre, IEI observed World Habitat Day on 2 October 2021 through online platform. Three eminent Panellists graced the event with their extremely enlightening and informative deliberations. Mr Ashok Bansal, Vice President, Galaxy Magnum Limited, Gurgaon; Ms Sonal Bhugra, Assistant Professor, Department of Civil Engineering, MRIIRS, Faridabad and Mr I S Chauhan, Architectural & Structural Consultant deliberated lecture on the occasion. Mr Inderdeep Singh Oberoi, Director, A D Global Synergies Private Limited was the moderator of the session. While summed up the deliberations, he stated that there is no option but to harness ideas for a better solution to combat climate change; We need climate-friendly planning and initiatives that can contribute towards a carbon-free society. In the beginning, Mr Sandeep Handa, Chairman, Faridabad Local Centre, IEI welcomed the audience and stated that focuses on the state of human settlements and on the basic right of all to adequate shelter. The programme was concluded with vote of thanks by Mr Kuldip Raj Gupta, Honorary Secretary, Faridabad Local Centre, IEI.

Ghaziabad

Ghaziabad Local Centre, in association with Delhi State Centre, IEI observed World Habitat Day on 4 October 2021 via digital platform as well as physically at Ghaziabad. On the occasion, Dr A K Jain, Former Commissioner (Planning), Delhi Development Authority was the Chief Guest and delivered the Keynote address on the theme. He explained about the Smart Cities Mission and Vision to develop Smart Cities in India. The function started with opening remarks of Mr Chitra Kumar Tyagi, Honorary Secretary, Ghaziabad Local Centre. Mr Dinesh Kumar, Chairman, Delhi State Centre and Council Member, IEI welcomed the Chief Guest and all participants. Mr Jai Pal Singh, Chairman, Ghaziabad Local Centre and Council Member, IEI delivered the welcome address and discussed about the significance of World Habitat Day. At the end, Mr Jitendra Kumar Sharma, Honorary Secretary, Delhi State Centre, IEI proposed the vote of thanks.

Gorakhpur

Gorakhpur Local Centre, IEI observed World Habitat Day on 4 October 2021 by organising a webinar. On the occasion, Mr Farooq Azam, Structure Design Engineer delivered his presentation on the topic 'What is Green Building' Technology and highlighted the advantage of Green Building technology. Earlier, Mr Dharendra Chaturvedi, Chairman, Gorakhpur Local Centre welcomed the speaker and other participants. Mr Ved Prakash Gupta, Honorary Secretary, Gorakhpur Local Centre introduced the speaker and at the end proposed the vote of thanks.

Jammu

Jammu Local Centre, IEI observed World Habitat Day on 4 October 2021 at Jammu and a seminar was organised on the theme. On the occasion, Mr Vinod Malhotra, Former Development Commissioner, Town Planning Organization, Jammu was the Chief Guest. Technical papers were presented on the theme by Mr P K Nanda, Mr B L Rawal, Mr Anil Verma, Mr Sunil Seth, Mr Sumil Goyal, Mr Ranjeev Sawhney, Mr Vijay Kumar Sharma, Mr Tej Kumar Sharma and Mr Joy Ganjoo. Dr (Prof) Sanjay Khar, Chairman, Jammu Local Centre delivered welcome address and Mr Chanchal Paul Sharma, Honorary Secretary, Jammu Local Centre, IEI proposed the vote of thanks at the end of the session.

Kanpur

Kanpur Local Centre, IEI, jointly with Dr Ambedkar Institute of Technology for Handicapped observed World Habitat Day on 4 October 2021 at Kanpur. Prof Rachna Asthana, Director, Dr Ambedkar Institute of Technology for Handicapped, Kanpur was the Chief Guest on the occasion. Guest Speaker of the session, Prof (Dr) J Ramkumar, Chairman, Kanpur Local Centre, IEI delivered lecture on the topic 'Creativity required in Engineers for Future Sustainable World'. The theme speaker was Mr Vivek Asthana, Superintending Engineer, UPPCL, Kanpur Zone. Dr Rajat Kumar Khare, Honorary Secretary, Kanpur Local Centre gave the introduction of Chief Guest and at the end of the session, proposed the vote of thanks.

Mangalore

Mangalore Local Centre, IEI observed World Habitat Day on 4 October 2021 at Mangalore. Chief Guest of the session, Mr Vijaya Vishnu Mayya, Chartered Engineer stated that most of the carbon emissions in cities come from buildings. He mentioned that the towns and cities need to build energy-efficient infrastructure and housing designed for local conditions. At the same time, existing buildings must be retrofitted by implementing measures or technologies to make them more efficient so they use far less energy, he added. At the beginning, Prof (Dr) K Venkataramana, Chairman, Mangalore Local Centre, IEI welcomed the gathering and at the end, Dr K S Babu Narayan, Honorary Secretary, Mangalore Local Centre proposed the vote of thanks.

Meerut

Meerut Local Centre, IEI observed World Habitat Day in collaboration with Radha Govind Engineering College (RGEC), Meerut on 4 October 2021 at Meerut. Dr P K Singh, Director, RGEC was the Chief Guest and Mr S K Kumar, Chairman, Indian Water Resources Society, Meerut Chapter was the Keynote speaker on this occasion. Mr Kumar stressed on the action to develop carbon emission reduction strategy and emphasized on the need of corporate social responsibility for infrastructural development in carbon free cities. Earlier, Mr Rajneesh Kumar, Chairman, Meerut Local Centre, IEI welcomed the guests, faculties and students and introduced the theme. Mr Mohan Lal Jain, Honorary Secretary, Meerut Local Centre proposed the vote of thanks.

North Bengal

North Bengal Local Centre, IEI observed World Habitat Day on 4 October 2021 at Jalpaiguri. Mr Chinmoy Ghosh briefed the audience about the theme and stated that the city leadership in using green materials and

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Hundred-and-first Annual General Meeting of The Institution of Engineers (India)

PROCEEDINGS

The 101st Annual General Meeting (AGM) of The Institution of Engineers (India) was held at 1130 hrs on 28 Feb 2021 at IEI Uttarakhand State Centre, Engineers Bhawan, Near ISBT Flyover, Saharanpur Road, Dehradun 248002.

The meeting was chaired by Er Narendra Singh, FIE, President, IEI and was attended by 139 Corporate Members including Council Members from States like Himachal Pradesh, Punjab & Chandigarh, Uttar Pradesh, Telangana, Madhya Pradesh, West Bengal and the National Capital Region (NCR). The President welcomed the Corporate members of IEI present at the meeting.

The President announced that Telangana State Centre and Coimbatore Local Centre of The Institution of Engineers (India) had been adjudged the best State Centre and best Local Centre respectively for their all-round performance during the year 2019-2020. Telangana State Centre won the Best Centre Award for two times consecutively. Dr G Rameshwar Rao, Chairman, Telangana State Centre received the award and was felicitated on the occasion.

The President, before taking up the Agenda items, highlighted that the year 2020 witnessed unprecedented hardship due to pandemic COVID-19 all over the world. During the lockdown, neither the Council nor many of the State/ Local Centres of the Institution could hold their meetings as mandated under the Bye-Laws and Regulations. Owing to such constraint, the regular functioning of the Institution suffered a setback and the 101st AGM of the Institution had to be postponed under provision of Bye-Law 32(a)(i).

The President also thanked the Corporate Members for approving the amendments of the Bye-Laws and Regulations with retrospective effect from 01 October 2020 vide the Extraordinary General Meeting (EGM) & Special General Meeting (SGM) held on the same day before the AGM.

Thereafter, on being invited by the President, the Secretary and Director General read out the Notice of the meeting published in January 2021 issue of IEI News.

ITEM 1 Confirmation of Minutes of the 100th Annual General Meeting held on 29 December 2019 at Hyderabad

The Minutes of the 100th Annual General Meeting held on 29 December 2019 at Hyderabad were circulated to all Corporate Members through March 2020 issue [Vol. 26, No.12] of IEI News. President invited comments on the Minutes from the members present.

The Corporate Members present unanimously Resolved that the Minutes of the 100th Annual General Meeting of The Institution of Engineers (India) held on 29 December 2019 at Hyderabad be confirmed.

ITEM 2 To receive the Annual Report of the Council and the Audited Accounts of The Institution of Engineers (India) for the year ended on 31 March 2020

(a) Annual Report

President invited comments from the members present on the Annual Report of the Council for the year 2019-2020 as circulated.

The Corporate Members present unanimously Resolved that the Annual Report of the Council for the year 2019-2020 be received.

(b) Audited Accounts

President then invited comments on the Audited Accounts of The Institution of Engineers (India) for the year ended on 31 March 2020.

The Corporate Members present unanimously Resolved that the Audited Accounts of The Institution of Engineers (India) for the year ended on 31 March 2020 be received.

ITEM 3 To receive the report on the composition of the Council for the Session 2020-2021

On being requested by the President, the Secretary and Director General reported the following composition of the Council for the Session 2020-2021:

Mr Narendra Singh, President

(1) Under provisions of Bye-Law 4(a)(ii) (02)

The following, by virtue of their being the two Immediate Past Presidents, shall become Members of the Council for the Session 2020-2021:

Dr T M Gunaraja

Mr Sisir Kumar Banerjee

(2) Under provisions of Bye-Law 4(a)(iii) (17)

The Corporate Members elected to the Council from the following State Centres shall continue as Members of the Council for the Session 2020-2021:

Elected for the Sessions 2019-2020 to 2022-2023 and with term extended upto 2023-2024:

Haryana :: Mr Ashwani Kumar Sharma

Punjab & Chandigarh :: Mr Sukhvir Singh Mundi

Elected for the Sessions 2018-2019 to 2021-2022 and with term extended upto 2022-2023:

Bihar :: Dr Arun Kumar Shrivastava

Jharkhand :: Mr Shivanand Roy

Madhya Pradesh :: Mr Rakesh Kumar Rathore

Rajasthan :: Prof (Dr) S K Calla

West Bengal :: Mr S K Banerji

Elected for the Sessions 2017-2018 to 2020-2021 and with term extended upto 2021-2022:

Kerala :: Mr V Vijayachandran Nair

Elected for the Sessions 2016-2017 to 2019-2020 and with term extended upto 2020-2021:

Andhra Pradesh :: Prof (Dr) K Brahma Raju

Delhi :: Mr Pradeep Chaturvedi

Gujarat :: Mr Sandeep B Vasava

Karnataka	::	Dr M Chowde Gowda
Maharashtra	::	Dr M B Dagaonkar
Odisha	::	Dr Nutan Kumar Dash
Tamilnadu	::	Dr T M Gunaraja
Telangana	::	Mr G Sudhakar
Uttar Pradesh	::	Mr V B Singh

(3) Under provisions of Bye-Law 4(a)(iv) (31)

The following elected members from 15 Engineering Divisions for the Sessions 2016-2017 to 2019-2020 and with term extended upto 2020-2021 shall become members of the Council for the Session 2020-2021:

Aerospace (1)	::	Prof R Manickavasagam
Agricultural (1)	::	Mr D V Nagabhushan
Architectural (1)	::	Mr H K Mittal
Chemical (2)	::	Mr Navinchandra B Vasoya Dr M P Sukumaran Nair
Civil (5)	::	Mr Sisir Kumar Banerjee Mr P S Bhogal Dr H O Thakare Mr O P Saxena Mr Narendra Singh
Computer (2)	::	Mr B S Patel Mr K Rajanikanth
Electrical (4)	::	Prof H B Goswami Mr M R Kothari Mr P Rajamani Mr R R Tanwar
Electronics & Telecommunication (4)	::	Dr T S Kamal Dr (Ms) G Padmavathi Mr B Brahma Reddy Mr S C Rudra
Environmental (1)	::	Dr M Velan
Marine (1)	::	Dr K Gopalakrishnan
Mechanical (5)	::	Prof (Dr) Swapan Bhaumik Dr Wooday P Krishna Dr Enti Ranga Reddy Mr Jagroop Singh Prof (Dr) K Venkatasubbaiah
Metallurgical & Materials (1)	::	Mr K K Mehrotra
Mining (1)	::	Mr D V Pichamuthu
Production (1)	::	Dr Deb Kumar Tripathy
Textile (1)	::	Prof (Dr) Ms G Thilagavathi

(4) Under provisions of Bye-Law 4(b)(i) (32)

By virtue of being Chairmen of the following State Centres for the Sessions 2019-2020 and 2020-2021, following persons whose term stand extended upto 2021-2022 shall continue as members of the Council for its Session 2020-2021:

Andhra Pradesh	::	Dr K H Reddy
Haryana	::	Dr (Ms) V K Gupta
Himachal Pradesh	::	Mr Pankaj Dadwal
Madhya Pradesh	::	Mr R S Yadav
Nagaland	::	Mr D A Shishak

Tripura	::	Mr Chinmay Debnath
Punjab & Chandigarh	::	Mr Sukhvir Singh Mundi
Sikkim	::	Mr G P Sharma

By virtue of being Chairmen of the following State Centres for the Sessions 2018-2019 and 2019-2020, following persons whose term stands extended upto 2020-2021 shall continue as members of the Council for its Session 2020-2021:

Andaman & Nicobar	::	Mr John Immanuel Koilraj
Arunachal Pradesh	::	Prof (Dr) Ram Kailash Prasad
Assam	::	Dr Sashindra Kumar Kakoty
Bihar	::	Mr N K P Sinha
Chhattisgarh	::	Mr Anil Kumar Sharma
Delhi	::	Mr Dinesh Kumar
Goa	::	Mr Chandrashekar G P Dessai
Gujarat	::	Mr H U Kalyani
Jammu & Kashmir	::	Mr Aamir Ali Mir
Jharkhand	::	Mr S K Singh
Karnataka	::	Mr Jasmail Singh
Kerala	::	Mr K K G Nair
Manipur	::	Mr T Joykumar Singh
Maharashtra	::	Dr H M Raje
Meghalaya	::	Mr M Marbaniang
Mizoram	::	Prof (Dr) Rajat Gupta
Odisha	::	Prof (Dr) K K Rout
Puducherry	::	Prof (Dr) Raman Saravanane
Rajasthan	::	Mr S S Yadav
Tamilnadu	::	Mr R Ramdoss
Telangana	::	Dr G Rameshwar Rao
Uttarakhand	::	Mr Aditya Kumar Dinkar
Uttar Pradesh	::	Mr Rajesh Kumar Trivedi
West Bengal	::	Mr Sandip Kumar Deb

(5) Under provisions of Bye-Law 4(b)(ii) (17)

By virtue of being Chairmen of the following Local Centres for the Sessions 2019-2020 and 2020-2021, the following persons whose term stands extended upto 2021-2022 shall continue as member of the Council for its Session 2020-2021:

Nashik	::	Mr S K Khinvasara
Visakhapatnam	::	Dr B Venkataramana

By virtue of being Chairmen of the following Local Centres for the Sessions 2018-2019 and 2019-2020, the following persons whose term stands extended upto 2020-2021 shall continue as members of the Council for its Session 2020-2021:

Belapur	::	Mr Keshav K Verkhedkar
Coimbatore	::	Mr P R Natarajan
Durgapur	::	Prof (Dr) K C Ghanta
Ghaziabad	::	Mr Jai Pal Singh
Kancheipuram	::	Prof (Dr) K Palani Kumar
Kochi	::	Mr T P Raveendran
Ludhiana	::	Mr Rup Lal Mahajan
Madurai	::	Mr S Rajagopal

Mysore	::	Prof (Dr) Suresh R
Nagpur	::	Prof (Dr) R L Shrivastava
Neyveli	::	Mr N M Rao Nadella
Pune	::	Mr K K Ghosh
South Gujarat	::	Mr K H Shethna
Tiruchirappalli	::	Prof (Dr) N Kumaresan

Chairman, Vadodara Local Centre will become an ex-officio member of the Council under provision of Bye-Law 4(b)(ii) after taking office in the AGM of the Centre as per Regulation 7(a).

(6) Under provisions of Bye-Law 4(c) (04)

Following four outstanding engineering personalities have been nominated as members of the Council for its Session 2020-2021:

1. Mr Manhar Kurjibhai Jadav
2. Dr L Karunamoorthy
3. Mr Indresh Kumar Pandey
4. Padmashree Prof (Dr) Ajoy Kumar Ray

Further, Corporate Members shall be co-opted in the Council for the Session 2020-2021 under provisions of Bye-Law 12(a), 12(b) and 13.

ITEM 4 To appoint Auditors for the year 2020-2021 and to fix their remuneration

President proposed that Auditors M/s G Basu & Co., Chartered Accountants be appointed as Auditors of The Institution of Engineers (India) for the year 2020-2021 at a remuneration of Rs.3,00,000 + Taxes as applicable.

It was then Resolved that M/s G Basu & Co., Chartered Accountants, be appointed as Auditors of The Institution of Engineers (India) for the year 2020-2021 at a remuneration of Rs.3,00,000 + Taxes as applicable.

The meeting was declared closed at 1215 hrs.

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

**Proceedings of the Special General Meeting
of Corporate Members of The Institution of Engineers (India)
held on 28 February 2021 at Dehradun**

A Special General Meeting of the Corporate Members of The Institution of Engineers (India) under Bye-Law 32(b)(i) was held on 28 February 2021 at the premises of The Institution of Engineers (India), Uttarakhand State Centre, Engineers Bhawan, Near ISBT Flyover, Saharanpur Road, Dehradun 248002 at 1030 hrs.

139 Corporate Members were present.

Er Narendra Singh, President IEI, was in the Chair.

The President called the Meeting to order.

On being asked by the President, Dr H R P Yadav, Secretary and Director General, read out the Notice dated 29 January 2021 sent to all Corporate Members of The Institution of Engineers (India) published and circulated through IEI News, Volume 27, Number 10, January 2021 issue, IEI Website and by email to all the Corporate Members of IEI.

The Secretary and Director General then informed that he had received a total of 760 number of proxies as per provision under Bye-Law 41.

No comments were received from the Corporate Members present at the meeting and the President sought approval of the General Body on the

proposed amendments of Regulations as mentioned in the said notification with retrospective effect from 01 October 2020. The President also informed that the proposed amendments had been duly vetted by the Institution's Solicitors.

The Corporate Members present then unanimously approved the proposed amendments of Regulations as mentioned in the said notification and RESOLVED that –

1. **The proposed amendments in the Regulations of The Institution contained in the Notice dated 29 January 2021 published and circulated through IEI News, Volume 27, Number 10, January 2021 issue, IEI Website and by email to all the Corporate Members of IEI be approved and adopted to come into force with retrospective effect from 01 October 2020.**
2. **Appropriate numbering of the clauses and references thereof may be taken care of by the Solicitors of the Institution.**

The President then declared the Special General Meeting (SGM) of the Corporate Members of IEI as closed at 1040 hrs.

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

**Proceedings of the Extraordinary General Meeting
of Corporate Members of The Institution of Engineers (India)
held on 28 February 2021 at Dehradun**

An Extraordinary General Meeting of the Corporate Members of The Institution of Engineers (India) under Bye-Law 32(c)(i) was held on 28 February 2021 at the premises of The Institution of Engineers (India), Uttarakhand State Centre, Engineers Bhawan, Near ISBT Flyover, Saharanpur Road, Dehradun 248002 immediately after the Special General Meeting.

139 Corporate Members were present.

Er Narendra Singh, President IEI, was in the Chair.

The President called the Meeting to order.

On being asked by the President, Dr H R P Yadav, Secretary and Director General, read out the Notice dated 29 January 2021 sent to all Corporate Members of The Institution of Engineers (India) published and circulated through IEI News, Volume 27, Number 10, January 2021 issue, IEI Website and by email to all the Corporate Members of IEI.

The Secretary and Director General then informed that he had received a total of 761 number of proxies as per provision under Bye-Law 41.

No comments were received from the Corporate Members present at the meeting and the President sought approval of the General Body on the proposed amendments of Bye-Laws as mentioned in the said notification with retrospective effect from 01 October 2020. The President also informed that the proposed amendments had been duly vetted by the Institution's Solicitors.

The Corporate Members present then unanimously approved the proposed amendments of Bye-Laws as mentioned in the said notification and RESOLVED that –

1. **The proposed amendments in the Bye-Laws of The Institution contained in the Notice dated 29 January 2021 published and circulated through IEI News, Volume 27, Number 10, January 2021 issue, IEI Website and by email to all the Corporate Members of IEI be approved and adopted to come into force with retrospective effect from 01 October 2020.**
2. **Appropriate numbering of the clauses and references thereof may be taken care of by the Solicitors of the Institution.**

The President then declared the Extraordinary General Meeting (EGM) of the Corporate Members of IEI as closed at 1050 hrs.



Engineering Staff College of India

Autonomous Organ of The Institution of Engineers (India)
(An ISO 9001: 2015 Certified Institution)
Old Bombay Road, Gachi Bowli, Hyderabad – 500 032

Continuing Professional Development Programmes (CPDPs) for the Month of December 2021

Sl. No.	Name of the Course	Scheduled Dates
1.	Advances in Rubber Technology	06 - 08 Dec, 21
2.	Network Monitoring & Performance Optimization	06 - 08 Dec, 21
3.	Power Cables Selection, Testing, Laying and Commissioning	06 - 09 Dec, 21
4.	Non-Destructive Testing & Failure Analysis of Castings, Forging, Weldments & Tubes	06 - 10 Dec, 21
5.	ISO 9001 : 2015 QMS – Lead Auditor Training	06 - 10 Dec, 21
6.	Attaining Service Level benchmarks for Water Supply & Sewerage. Solid Waste & Storm Water Drainage.	07 - 09 Dec, 21
7.	Industry 4.0 Quality Aspects	07 - 09 Dec, 21
8.	Outcome Based Education	07 - 09 Dec, 21
9.	Resource Estimation & Mineral Economics	13 - 15 Dec, 21
10.	Vibrations, Balancing, Alignment & Condition Monitoring of Rotating Equipment	13 - 16 Dec, 21
11.	Cyber Security & Digital Forensic Tools	13 - 17 Dec, 21
12.	Software Testing & Quality Assurance	13 - 17 Dec, 21
13.	Modernization of Irrigation Systems using Latest Technologies	13 - 17 Dec, 21
14.	Process Excellence & People Excellence	14 - 15 Dec, 21
15.	Principles and Practices of Sustainable Mining & Climate Adaptive Approaches.	14 - 16 Dec, 21
16.	Safety Management in Construction & Occupational Civil Structures	14 - 16 Dec, 21
17.	Latest Maintenance Technologies, HR SG Overhauling, Life Assessment, Source Management, Supply Change Management & Effective Utilization SAP MM	14 - 17 Dec, 21
18.	Enhancing Managerial Excellence for Scientists, Engineers, Managers & Executives	20 - 22 Dec, 21
19.	Pumps Operation, Maintenance & Performance Monitoring for Power Plant Applications	20 - 22 Dec, 21
20.	Web Development using Angular 8	20 - 25 Dec, 21
21.	Underground Sewerage Systems- Good Practices, Innovative models and Continual Improvement in Technologies	21 - 23 Dec, 21
22.	Centrifugal Casting - Concepts, Operations and Maintenance	26 - 28 Dec, 21
23.	Testing, Commissioning and Protection of Distribution Substations	27 - 30 Dec, 21
24.	Business Process Re-Engineering	27 - 30 Dec, 21
25.	Strategies for More Crop for Drop of Water	27 - 30 Dec, 21

For detail information please contact:

Engineering Staff College of India, Old Bombay Road, Gachibowli, Hyderabad – 500 032
Land line: 040-66304100 & Mobile: +91 7337319038 / Email : mis@escihyd.org / URL : <https://escihyd.org>

INDEPENDENT AUDITOR'S REPORT

The reports on the technical activities held under the auspices of various State/Local Centres of the Institution during the year 2020-2021 have been circulated through these pages from time to time. The abridged versions of the Institution's Balance Sheet as at 31st March, 2021 along with the Auditor's Report to the Corporate Members of IEI are given hereunder. The detailed text of the above and also the Annual Report of the Council are available on demand at all State/Local Centres/Fora of IEI including the Overseas Chapters and IEI Headquarters.

ABRIDGED BALANCE SHEET AS AT 31st MARCH 2021

31.03.2020		31.03.2021	
[Figures in ₹]			
SOURCES OF FUND			
	1,090,364,084	Permanent Reserve	1,113,432,795
	371,895,998	Capital Reserve	379,418,494
	23,267,976	Revenue Reserve	23,267,976
	1,399,036,008	Surplus from Income and Expenditure Account	1,180,673,999
	308,764,131	Earmarked Fund	254,061,271
3,193,328,197			2,950,854,535
APPLICATION OF FUND			
Fixed Assets			
	895,575,222	Gross Block	925,252,873
	316,307,768	Less : Depreciation	358,341,991
579,267,454		Net Block	566,910,882
	1,090,364,084	Investment of P R Fund	1,113,432,795
	908,374,838	Other Investments	872,245,128
1,998,738,922			1,985,677,923
	897,354,690	Current Assets, Loans and Advances	681,208,780
	282,032,869	Less : Current Liabilities	282,943,050
615,321,821		Net Current Assets/Liabilities	398,265,730
3,193,328,197			2,950,854,535

ABRIDGED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2021

31.03.2020		31.03.2021		Total	
[Figures in ₹]					
R&D	Education	INCOME	R&D	Education	
65,080,034	16,270,009	Registration Fees	52,806,858	13,201,714	66,008,572
6,720	1,680	Subscription	-	-	-
	178,265,650	Examination Fees	-	66,027,297	66,027,297
	13,750,353	Advertisement	-	338,024	338,024
160,394,810	37,118,756	Income from Investments	138,924,507	30,451,915	169,376,422
17,515,075	4,377,106	E-Learning solution etc.	1,757,878	437,629	2,195,507
54,940,964		National Conventions/ Seminars, Technical Activities etc.	24,393,274		24,393,274
46,813,339		Hal/Retiring Room Rent etc.	21,554,613	5,388,653	26,943,266
12,247,822	14,552,596	Other Income	16,928,461	3,828,377	20,756,838
356,998,764	264,336,150		256,365,591	119,673,609	
	621,334,914	Sub-Total			376,039,200
	621,334,914	Total Income			376,039,200
EXPENDITURE					
164,258,071	86,226,201	Salaries and Staff Expenses	127,117,676	74,163,531	201,281,207
5,297,662	1,324,416	Printing and Stationery	2,676,844	669,211	3,346,055
	36,638,882	Direct Expenses for Exam.		15,421,032	15,421,032
1,337,481		Technical Publications	624,012		624,012
66,854,880		Expenses on National Conventions, Seminars, Technical Activities etc.	9,562,000		9,562,000
3,809,313		Prize Awarded & Lectures	631,142		631,142
5,024,286	1,256,073	Postage, Telephone & Telex	3,719,752	929,938	4,649,690
10,941,517	2,735,379	Electricity	7,233,850	1,808,463	9,042,313
22,812,077	5,703,019	Rent, Rates & Taxes	13,591,158	3,397,790	16,988,948
2,315,654	578,914	Legal Expenses	4,689,111	1,172,278	5,861,389
1,479,642		Election Expenses	40,205		40,205
2,008,983	502,246	Audit Fee	1,868,949	467,237	2,336,186
370,780	92,695	Internal Audit Fee	369,196	92,299	461,495
25,798,500	6,449,625	Repairs and Maintenance	13,116,991	3,279,248	16,396,239
36,929,456	137,771	Meeting Expenses	1,833,900	5,258	1,839,158
		Travelling Expenses			
7,263,093	2,690,690	i) Council Members	296,093	165,635	461,728
4,672,029	1,168,007	ii) Others	1,079,330	269,832	1,349,162
4,353,136	1,088,284	Delegation Expenses			
907,344	226,836	Subscription to Other Institutions	598,316	149,579	747,895
2,617,975	654,494	Computer Expenses	1,555,462	388,866	1,944,328
13,842,602	15,019,147	Miscellaneous Expenses	11,313,898	2,828,473	14,142,371
685,282	1,968,270	Expenses for Libraries	228,850	618,441	847,291
2,300,000		Grant to Peripheral Bodies	1,776,276		1,776,276
66,258,224		Depreciation	42,273,683		42,273,683
506,210		Bad Debts written off	1,748,126		1,748,126
452,644,197	164,460,949	Sub-Total	247,944,820	105,827,111	353,771,931
		Prior Period Expenses, Appropriation to Capital			240,629,278
	(60,556,587)	Expenditure Fund & exceptional items			240,629,278
	556,548,559	Total Expenditure			594,401,209
	621,334,914	Total Income			376,039,200
	556,548,559	Total Expenditure			594,401,209
	64,786,355	Surplus (+)/ Deficit (-)			(218,362,009)
	1,334,249,653	Balance brought forward from previous year			1,399,036,008
	1,399,036,008	Balance carried to Balance Sheet			1,180,673,999

To
The Members
The Institution of Engineers (India)

Report on the Financial Statements

Opinion

We have audited the accompanying financial statements of **The Institution of Engineers (India)** ("the Institution"), which comprise the Balance Sheet as at 31st March, 2021 signed by us under reference to this report and the related Income and Expenditure Account and the Cash Flow Statement for the year then ended, including a summary of the significant accounting policies and other explanatory information (hereinafter referred to as 'financial statements'), in which have been incorporated the returns / accounts received from the various State Centres and Local Centres (also collectively referred to as Centres) of the Institution for the year ended 31st March, 2021 as audited by other auditors and which have been relied upon by us, as mentioned in paragraph 6 of the Note to Accounts (Schedule 13).

In our opinion and to the best of our information and according to the explanations given to us, the aforesaid financial statements of the Institution give the information in accordance with the generally accepted accounting principles and the applicable Accounting Standards issued by the Institute of Chartered Accountants of India and read with the Other Matters paragraph below, give a true and fair view of the state of affairs of the Institution as at March 31, 2021 its surplus and its cash flows for the year ended on that date.

Basis for Opinion

We conducted our audit of the financial statements in accordance with the Standards on Auditing (SA) issued by the Institute of Chartered Accountants of India. Our responsibilities under those Standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Institution in accordance with the Code of Ethics issued by the Institute of Chartered Accountants of India (ICAI) together with the independence requirements that are relevant to our audit of the financial statements and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ICAI's Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion on the financial statements.

Management's Responsibility for the Financial Statements

The Management is responsible for the preparation of these financial statements that give a true and fair view of the state of affairs and result of operation of the Institution in accordance with the accounting principles generally accepted in India, including the applicable Accounting Standards. This responsibility also includes maintenance of adequate accounting records for safeguarding the assets of the Institution and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the financial statement that give a true and fair view and are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Institution's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Institution or to cease operations, or has no realistic alternative but to do so.

The management of the Institution is responsible for overseeing the Institution's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal financial controls relevant to the audit in order to design audit procedures that are appropriate in the circumstances.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Institution's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Institution to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the Institution to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the audit of the financial statements of the Institution of which we are the independent auditors. For the financial statements of the branches incorporated in these financial statements which has been audited by other auditors, such other auditors remain responsible for the direction, supervision and performance of the audit carried out by them. We remain solely responsible for our audit opinion.

Materiality is the magnitude of misstatements in the financial statements that, individually or in aggregate, makes it probable that the economic decisions of a reasonably knowledgeable user of the financial statements may be influenced. We consider quantitative materiality and qualitative factors in (i) planning the scope of our audit work and in evaluating the result of our work; and (ii) to evaluate the effect of any identified misstatements in the financial statements.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

Other Matters

- a) We did not audit the financial statements of 124 centres that are included in the financial statements of the Institution, whose financial statements reflect total assets of Rs.1,17,02,52,018/- as at 31st March, 2021 and total revenues of Rs 8,87,38,201/- for the year ended on that date. The financial statements / information of these centres have been audited by the other auditors whose reports have been furnished to us and our opinion, in so far as it relates to the amounts and disclosures included in respect of these centres, is based solely on the report of such centre auditors. Attention is also drawn to the following matters;
- b) Note 1.10 in Schedule 13 regarding accounting of certain income on cash basis, Note 1.11 in Schedule 13 regarding accounting of certain expense on cash basis, Note 1.13 in Schedule 13 regarding coverage of certain funds by investments.
- c) Report of other auditors of the various Centres who have reported, inter-alia, on certain matters as mentioned in Schedule 12.
- d) Exceptional items relates to fraud elucidated in Note No. 12 in Schedule-13 which is unprecedented hitting around 10% of Net Worth on the institution.
- e) Attention is invited to Note No. 11 in Schedule – 13 asserting no fresh admission w.e.f 11.02.2020, pending pronouncement of judgment by Delhi High Court. It may be pointed out herein that adverse pronouncement by Hon'ble Court may prejudicially impact the revenues of the Institution for which contemplation of strategic measures is warranted on the part of management of the Institution.

Our opinion is not modified in respect of these matters.

Report on Other Legal and Regulatory Requirements

This report does not contain a statement on the matters specified by the Companies (Auditor's Report) Order 2016 ('the Order') issued by the Central Government of India in terms of sub section (11) of section 143 of the Companies Act 2013 as the said Order is not applicable to the Institution.

We further report that:

- a. We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of the audit;
- b. In our opinion proper books of accounts as required by law have been kept by the Institution so far as appears from our examination of those books;
- c. The Balance Sheet, the Statement of Income and Expenditure and the Cash Flow Statement dealt with in this Report are in agreement with the books of account and with the returns received from the Centres not visited by us.
- d. The reports on the accounts of the Centres audited by the various centre auditors have been sent to us and have been properly dealt with by us in preparing this report.

- e. We further report that according to the information and explanation given to us:
- The Institution has disclosed the impact of pending litigations on its financial position in its financial statements – Refer Note 2 of Schedule 13 to the Financial Statements.
 - The Institution did not have any long-term contracts including derivative contracts for which there may be any material foreseeable losses.

For G.BASU & CO

Chartered Accountants

R. No. - 301174E

Sd/-

(P. Bagchi)

Partner

(M. No. 051524)

Kolkata

2nd November, 2021

UDIN: 21051524AAAABL1185

ANNEXURE TO AUDITORS REPORT REFERRED TO IN PARAGRAPH (C) OF OTHER MATTERS OF OUR REPORT TO THE MEMBERS OF THE INSTITUTION OF ENGINEERS (INDIA) ON THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31-03-2021 (BASED ON THE REPORT OF OTHER AUDITORS)

SCHEDULE-12

- ALWAR LOCAL CENTRE:**
Fixed assets register not maintained properly.
- ANGUL LOCAL CENTRE:**
 - Outward/ Inward register is not maintained properly.
 - Centre is not submitting monthly/annual return.
- ASSAM STATE CENTRE:**
Fixed assets register not maintained properly.
- BATHINDA LOCAL CENTRE:**
GST on Engineering Day advertisement has not been deducted.
- BHILAI LOCAL CENTRE:**
 - Cash balance has not been physically verified.
 - Not charged GST on RCM for Target Security Services @ 18% during the period 01/04/2020 – 01/10/2020.
- CHHATTISGARH STATE CENTRE:**
GSTIN of the State Centre has been cancelled w.e.f. 01/01/2021.
- GHAZIABAD LOCAL CENTRE:**
Physical Verification of Fixed Deposit certificates No. 596698 and No. 983741 of Canara Bank (erstwhile as Syndicate Bank) respectively which is given as security to ALT centre (Landlord) could not be verified.
- GOA STATE CENTRE:**
Cash balance could not be physically verified.
- HIMACHAL PRADESH STATE CENTRE:**
 - Fixed Assets register does not contain the value of assets.
 - Rs. 76,210 has been shown as Advance Rent Received whereas this amount pertains to Rent Received from UCO Bank but due to dispute on amount of rent this has not been taken into Rent Received but Advance Rent Received and also GST pertaining to Advance Rent has been deposited on 26/07/2021.
 - Stock of Stationary Register has not been maintained.

10) JABALPUR LOCAL CENTRE:

- Sale of Scrap of Rs. 5,795 which attracts TCS Liability as well as GST Liability is neither found to be collected or deposited.
- Contingent Liability towards 50% of back wages of ex-temporary worker (Mr. Kailash Sen) is not yet ascertained.
- The Bye-Laws of Royal Charter, in respect of Cash-in-hand has not been followed.
- Expenditure in respect of Capital nature of Rs. 41,949 has been made in Cash.
- Investment has not been made in respect of Rs. 32,058.39 which pertains to Prize Fund.
- Advance of Rs. 23,700 remains unutilized / adjusted for a significant period of time.

11) JODHPUR LOCAL CENTRE:

Rs. 29,449.19 in respect of advance is lying unutilized / adjusted for a significant period of time.

12) KARNATAKA STATE CENTRE:

Physical Verification of Fixed Assets not done.

13) KOLHAPUR LOCAL CENTRE:

Whether the centre has adhered to the Royal Charter, Bye-Laws, Regulations and Code of Ethics and Financial Norms and Rules, has not been verified.

14) LUDHIANA LOCAL CENTRE:

No records produced for physical verification of Fixed Assets.

15) MADHYA PRADESH STATE CENTRE:

Due to non-compliance of the Provisions of GST Act, Registration of the State Centre got suo-motto cancelled.

16) NEYVELI LOCAL CENTRE:

Cost of assets is not available in Fixed Assets Register and hence could not be agreed with balance as per General Ledger.

17) ODISHA STATE CENTRE:

Balance lying in Advances remains unadjusted since old bills has not been submitted for adjustment.

18) TIRUPATI LOCAL CENTRE:

- Fixed Assets Register needs to be updated.
- Outward/Inward register of GST is not being maintained properly.
- An advance of Rs. 18,612 needs to be adjusted.

19) UPPER ASSAM LOCAL CENTRE:

The provision of depositing GST under RCM has been withheld during the FY 2020-21.

20) SIKKIM STATE CENTRE:

- Management has not physically verified the Fixed Assets.
- Outward/Inward Register of GST has not been maintained properly.
- GST Returns are filed only up to January 2019.

21) SOLAPUR LOCAL CENTRE:

There is an IT TDS lying unadjusted for quite some time due to pendency of appeals with the CIT (Appeals) at Headquarter level.

22) TIRUNELVELI LOCAL CENTRE:

No external confirmation has been obtained for verification of bank balances.

23) FOLLOWING CENTERS HAVE NOT ATTACHED ANNEXURE III TO THEIR AUDIT REPORTS:

Kalpakkam Local Centre, Pilani Local Centre, Thanjavur Local Centre, Manipur State Centre, Meghalaya State Centre.

IEI Celebrates World Habitat Day

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constructing energy-efficient, resilient buildings powered by renewable energy, is essential to achieve net-zero emissions by the year 2050. Dr Santanu Das, Honorary Secretary, North Bengal Local Centre, IEI spoke on the theme.

Rourkela

Rourkela Local Centre, IEI observed World Habitat Day on 4 October 2021 in hybrid mode. Mr Santosh Kumar Polaki, General Manager-I/c, Heavy Maintenance (Electrical), Rourkela Steel Plant was the speaker of the session. Speaking on the theme, he explained that the global urban population has spiralled upwards since the mid-twentieth century ; Over the same time, the concentration of atmospheric carbon dioxide, a key indicator of global warming, has risen by over a third almost entirely due to human activity. He suggested steps towards achieving carbon neutrality and effective way to tackle waste emission. In the beginning, Dr Hara Mohan Jena, Honorary Secretary, Rourkela Local Centre, IEI welcomed the guests and briefly spoke about the importance of World Habitat Day. At the end of the session, he also proposed the vote of thanks.

Saurashtra

Saurashtra Local Centre, IEI observed World Habitat Day on 4 October 2021 by organising webinar through online mode. Dr Jitesh B Oza, Senior Lecturer, Applied Mechanics Department, Government Polytechnic, Rajkot delivered presentation on the theme as speaker of the day. In the beginning, Dr Ashit Sureshchandra Pandya, Chairman, Saurashtra Local Centre, IEI welcomed all. At the end, Mr Ranchhod Kanjibhai Babaria, Honorary Secretary, Saurashtra Local Centre proposed the vote of thanks.

Tirunelveli

Tirunelveli Local Centre, IEI observed World Habitat Day on 8 October

2021 through virtual mode. Dr G Sokkanathan, Civil and Environmental Consultant, Green Enviro Consultancy, Tirunelveli was the resource person of the event. Prof (Dr) S Baburengarajan, Chairman, Tirunelveli Local Centre delivered the welcome address. Prof (Dr) R Velayutham, Honorary Secretary, Tirunelveli Local Centre proposed the vote of thanks.

Udaipur

Udaipur Local Centre, IEI observed World Habitat Day on 4 October 2021 at Udaipur. On the occasion, Keynote speaker, Dr G Sorel, National President, Indian Accounting Association and Former Professor, HoD & Dean, Mohanlal Sukhadia University Udaipur deliberated lecture on the theme and mentioned that the polar ice melts as a result of excessive carbon emissions and increasing sea water levels, heavy fires in the forest, drought, floods, storms, air pollution and smog, etc are disturbing the natural habitats. He explained that by using technically and practically available mitigation measures, the contribution of greenhouse gas emissions in urban areas can be reduced in building sector, transport sector, in waste disposal etc. Earlier, Mr Yawanti Kumar Bolia, Chairman, Udaipur Local Centre, IEI welcomed the guests and other participants. At the end, Mr Chandra Prakash Jain, Honorary Secretary of the centre, IEI proposed the vote of thanks.

Upper Assam

Upper Assam Local Centre observed World Habitat Day on 4 October 2021 through online platform. The programme was started with the welcome address delivered by Mr Sasanka Pratim Deka, Chairman, Upper Assam Local Centre, IEI. Technical papers were presented by Ms Mayuri Deka, Safety Officer, Assam Petrochemicals Limited on the topic 'End of Coal Power' and Mr Devanga Gaurav Borah, Assistant Manager (Production), Assam Petrochemicals Limited on the topic 'Electric Vehicles'. The programme was concluded with vote of thanks by Mr Debajeet Sarma, Honorary Secretary, Upper Assam Local Centre, IEI.

Superannuation from IEI



Mr Ashok Bhattacharyya, an employee of the West Bengal State Centre of the Institution will be superannuated from the services of IEI on November 30, 2021. He joined the Institution on September 01, 1990 and rendered his services to the Institution over a period of 31 years.

IEI wishes Mr Ashok Bhattacharyya and his family a happy and healthy life in the future.

IEI Celebrates World Standards Day

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Saurashtra

Saurashtra Local Centre, IEI observed World Standards Day on 14 October, 2021 and a webinar was organised on this occasion. Mr Manish Kumar, Scientist C, BIS Rajkot and Mr Raj Mudliar, Scientist B, BIS Rajkot delivered lecture. Dr Ashit Sureshchandra Pandya, Chairman, Saurashtra Local Centre, IEI delivered the welcome speech. Mr Ranchhod Kanjibhai Babaria, Honorary Secretary, Saurashtra Local Centre, IEI delivered the vote of thanks.

Tirunelveli

Tirunelveli Local Centre, IEI observed World Standards Day on 20 October 2021 via online mode. Dr M Caroline Viola Stella Marry, Professor & ERP Head, Department of Information Technology, Francis Xavier Engineering

College Tirunelveli delivered lecture on this occasion as the resource person. Prof (Dr) S Baburengarajan, Chairman, Tirunelveli Local Centre delivered the welcome address. Prof (Dr) R Velayutham, Honorary Secretary, Tirunelveli Local Centre proposed the vote of thanks..

Trichur

Trichur Local Centre, IEI observed World Standards Day through online platform on 19 October 2021. Speaker, Dr Manu Melwin Joy, Assistant Professor, School of Management Studies, CUSAT deliberated lecture on the occasion and explained the use of Gamification technique in developing solution for various issues in different fields. Earlier, Mr V G Sankaranarayanan, Chairman, Trichur Local Centre, IEI delivered the welcome address and elaborated the relevance of standards in fighting common enemies of mankind. At the end, Mr M N Sasidharan Achari, Honorary Secretary, Trichur Local Centre, IEI proposed the vote of thanks.

36th

INDIAN ENGINEERING CONGRESS

Delhi, December 26-28, 2021

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The Institution of Engineers (India)

IEI YOUNG ENGINEERS AWARD 2021-22

Notification

The Institution of Engineers (India) is a multi-disciplinary professional body of engineers with 15 engineering disciplines and over 8,00,000 members in India and abroad. The Institution was established in 1920 and was incorporated by Royal Charter in 1935. It has been in the forefront of engineering profession addressing the socio engineering problems for progress of the country. IEI functions among professional engineers, academicians, research workers to update their professional knowledge through continuous professional development. With its large international linkages and a network of 125 Centres in India and Six Overseas Chapters, the Institution has built up wide reach and large infrastructure to meet its objectives of promoting engineering in all aspects.

With a view to promote the pursuit of excellence in the field of engineering, IEI has instituted 'IEI Young Engineers Award'. The Award consists of a Plaque and a Certificate. The purpose of the Award is to recognize outstanding achievements/contributions made by young engineers in engineering research, excellence in engineering technology development, technology transfer, etc. Any engineer citizen of India not older than 35 years of age as on March 31, 2021 is eligible for the Award. The IEI Young Engineers Award is presented to awardees for all the 15 Engineering Divisions of the IEI during the respective National Conventions. The awardees attending the National Convention will be provided with free accommodation & their travelling expenses (AC-3 Tier train fare by shortest route) will be reimbursed on production of original documents.

The Application Proforma may be downloaded from IEI website (<https://www.ieindia.org>). Soft copy of the filled-in application proforma should be forwarded to award@ieindia.org by November 15, 2021. Further, six copies of the duly filled application form, along with all supporting documents, endorsed by appropriate authority should be sent to the below mentioned address so as to reach us latest by **December 15, 2021**:

Director (Technical)

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

The envelope containing the application should be superscribed at the top as 'IEI Young Engineers Award 2021-2022' and name of the Engineering Division under which the applicant desires to be considered for the Award.

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