



I.E.I NEWS

March 2021

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A CENTURY OF SERVICE TO THE NATION

Volume 27

Number 12

EGM, SGM and 101st AGM of the Institution held at Dehradun, Uttarakhand



The Extraordinary General Meeting (EGM), Special General Meeting (SGM) and 101st Annual General Meeting (AGM) of The Institution of Engineers (India) were held successfully on 28 Feb 2021 at the IEI Uttarakhand State Centre, Dehradun. All the meetings chaired by Er Narendra Singh, President IEI were attended by a number of Corporate Members / Council Members from States like Himachal Pradesh, Punjab & Chandigarh, Uttar Pradesh, Telangana, Madhya Pradesh, West Bengal and National Capital Region (NCR) of the country.

The meetings were followed by a series of programme including the launch of the Calendar of Training Programmes 2021-22 of the Engineering Staff College of India (ESCI), Hyderabad and felicitation of the Council Members who came from different parts of the country to attend the meetings.

Celebration of World Engineering Day for Sustainable Development

Engineering for A Healthy Planet: Celebrating the UNESCO Engineering Report

The Institution of Engineers (India) observed the World Engineering Day for Sustainable Development on the theme **Engineering for A Healthy Planet: Celebrating the UNESCO Engineering Report** on 4 March, 2021 through virtual mode. Er Narendra Singh, President, IEI graced the function with his august presence and presided over. Mr Suneel Grover, Chairman, Board of Governors, (BOG) National Skill Development Forum (NSDF), IEI was the Keynote speaker and Mr Ashwani Kumar Saxena, Chairman, BOG, Sustainable Development Forum (SDF), IEI was the Panelist during the function. Dr H R P Yadav, Secretary and Director General, IEI in his address briefed on the theme. Dr Nilanjan Sengupta, Director (Technical), IEI, the Moderator during the function in his welcome address, briefed about the significance of the World Engineering Day for Sustainable Development and welcomed the dignitaries present in the occasion.



Er Narendra Singh

Secretary and Director General, IEI in his opening remarks, elaborated about the theme of the day and the duties and responsibilities of the engineering community to achieve the UN Sustainable Development Goals. He mentioned that engineers have the pivotal role to play in environmental sustainability and preservation of planet earth.

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From the President's Desk.....

Out of the total water available on earth, only about 3% is in the form of fresh water. Further, if we leave out perma-frost regions and very deep fossil waters, a very small part of about 0.03% remains accessible for human use. It is available in the form of rain and snowfall, runoff of floodwaters



generated over a few storms sometimes spanning a few days in a year, enabling its use round the year running through the drainage systems into the oceans and through the natural hydrological recycling process of evaporation, transpiration and condensation. An appreciable part of it gets lodged in snowcaps and natural lakes and is utilisable subsequently in case of the former, through snowmelt reaching a river system. A sizeable part is retained in surface soils and used up for biomass generation. Another part seeps into the ground feeding natural aquifers. A major part appears in the river system downstream and is drained through streams and rivers into seas, unless captured in man-made storages or withdrawn for use. If runoff time for the surface water is few days, that of ground water appearing in river system and outflow in oceans is in months. Both together constitute the renewable or dynamic water resources of the world. They can't be put to beneficial uses unless they are developed. Development and management of water resources go hand in hand. Better management assists maximisation of realisation from the developed waters. Both call for intellectual, financial, economic, administrative, sociological, political, legalistic inputs from the society.

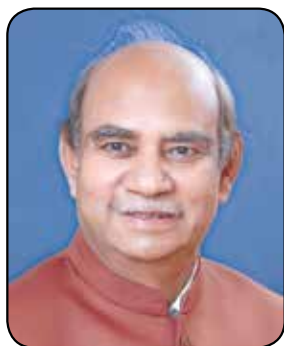
Human, animal and plant life, both need water for survival, growth and reproduction. Of all these uses, water that is used for growing food, supporting plant life and biomass is considered consumptive, because it is converted into water-vapour through evapo-transpiration processes; because it is no more useable unless it is condensed in the form of rain again. Water evaporates from snow-caps, glaciers, water bodies, reservoirs, and river systems continuously all through the year, which again is bracketed with 'consumptive' package. 'Consumed' water is that which is put back into the atmosphere, for productive purposes such as transpiration needs of crops for food production, (irrigation globally accounts for more than 70% of water

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Uttarakhand State Centre, IEI organized The Dehradun International Science & Technology Festival-2020

Uttarakhand State Centre of the Institution organised three-day Dehradun International Science & Technology Festival (DISTF-2020), in joint collaboration with Divya Himgiri, Dehradun and Uttarakhand State Council for Science & Technology (UCOST), Dehradun during 9-11 January, 2021 at UKSC auditorium, Dehradun. The DISTF-2020 was inaugurated by the Chief Guest during the function, Dr R Meenakshi Sundaram, IAS, Secretary, School Education, Government of Uttarakhand and Dr P D Rai, Chairman, IMI and Ex-Member of Parliament, Sikkim.

The festival started with Himalayan State Educator's Summit-2020 in which scientists and educationalists like Dr Rajendra Dobhal, Director General, UCOST, Dehradun, Prof (Dr) Avnish Kumar, Chairman, Commission for Scientific and Technical Terminology, MHRD, Government of India and Er Narendra Singh, President, The Institution of Engineers (India) deliberated on the theme "Innovation, Technology, Skill Development, Entrepreneurship & Startup in



Er Narendra Singh

purview of National Education Policy". The presidential speech was delivered by Dr Yogendra Narayan, Chancellor, HNB Garhwal Central University, Srinagar. The festival was concluded with the 3rd Divya Himgiri Himalayan State Education Excellence Award-2020. During the valedictory function of DISTF-2020, Mr Subodh Uniyal, Hon'ble State Minister of Agriculture, Government of Uttarakhand graced the function as Chief Guest. The other attractions of the DISTF-2020 was Agriculture & Technology Conclave on the themes "Aatma Nirbhar Bharat", "Future Agriculture in the Mountains: Prospects for Organic Hubs in the Asia Pacific Region with Traditional Farming", "Allied Agriculture activities in Mountain Region: A Cooperative Approach with New Technology" and "Protection of Bi-diversity in Himalayas: Issues, Challenges and Implications of Intellectual Property Rights". A seminar on "Magic of Maths" with the theme "133rd Birthday Ceremony Year of Srinivas Ramanujan - Life Sketch and work of Srinivas Ramanujan" was organised for the Class VI to PG Students. Besides, many other events like Science Poster Competition, Young Scientist Conclave, Women Scientist Entrepreneur's Conclave, Science Quiz, Himalayan Meet and Hydro & Green Energy Conclave were organized successfully. A National Conference on "Building Self Sustainable Smart Indian Cities: Idea and Approaches" was also organized during the festival.

IEI Technical Webinar under the aegis of Mining Engineering Division Board

Scopes and Opportunities of Transdisciplinary Research in Mining Sector

The Mining Engineering Division Board (MNDB) of the Institution organized Technical Webinar on the theme, **Scopes and Opportunities of Transdisciplinary Research in Mining Sector** on 29 January, 2021. Eminent Panelists, namely,



Prof Singam Jayanthu

Prof Singam Jayanthu, Department of Mining Engineering, National Institute of Technology, Rourkela; Prof Abhaya Kumar Samal, Department of Computer Science & Engineering, Trident Academy of Technology (TAT), Bhubaneswar; Mr Kallam Sridhar Reddy, Project Coordinator (Mining), SSC Dalmia Cements and Mr Surendra Kumar Dogra, Adjunct Professor, Department of Computer Science & Engineering, TAT, Bhubaneswar were present during the session and shared their views and expertise.

Moderator during the session, Mr Jitendra Pramanik, Assistant Professor, Centurion University of Technology & Management, Odisha introduced the eminent Panelists. Prof Jayanthu while delivering his lucid presentation on the theme, briefly explained the trans-disciplinary and translational research opportunity in mining sector. He also emphasized on further researches in mining industries in line with the National Education Policy 2020 involving different engineering sectors. Applications of numerical methods to solve the mining



Prof Abhaya Kumar Samal



Mr Kallam Sridhar Reddy

problems, various aspects of coal petrology, coastal placer mining etc were also briefly elaborated by Prof Jayanthu. He also focused on the adequate utilization of robotic technology in detection and mapping of old and unapproachable working areas in mines. The scope of further research in ground penetration radar to access the barriers in mining areas had also been highlighted by him. Prof Abhaya Kumar Samal in his deliberation highlighted the Through-The-Earth (TTE) wireless mine communication & warning system, where several other engineering professionals can be engaged. He focused on the application of Wireless



Mr Surendra Kumar Dogra

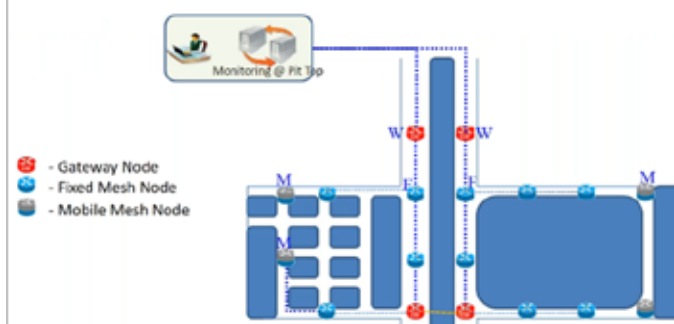
where extensive application of automation and robotics are essential for obtaining large volume of production. From the view of Mr Surendra Kumar Dogra, it was understood that application of various kinds of customized instruments in underground mining is essential to uphold the latest innovations. Earlier, Mr D V Pichamuthu, Chairman, Mining Engineering Division Board (MNDB), IEI welcomed the participants and Panelists on behalf of MNDB and briefly described the subject matter of the event. After completion of the presentations by the Panelists, an interactive session was held, where queries were placed by the participants from different zones of the countries on various issues related to trans-disciplinary research in mining. On successful completion of the session, Dr Nilanjan Sengupta, Director (Technical), IEI proposed the vote of thanks.

Mr Kallam Sridhar Reddy in his deliberation, discussed the details of scopes and opportunities of trans-disciplinary research in open pit mining sector and further emphasized on applying the next generation drilling technologies such as XRF analyzers. Mr Reddy also recommended implementation of cyber security in mining sectors to cope with changing business environment. He also expressed the futuristic view on mining customers



Mr Jitendra Pramanik

Wireless Sensor Network (WSN) in Underground Mine



Optimization of Cost and Time in Steel Structural Works using Parallel Flanged Sections

Jharkhand State Centre of the Institution organized an engaging and informative Technical Webinar on **Optimization of Cost and Time in Steel Structural Works using Parallel Flanged Sections** on 30 January 2021. The webinar offered opportunity for close to 200 participants to engage



Mr Goutam Mitra

and learn from leading structural consultants and gain insight from the noted Panelists namely, Mr Goutam Mitra, General Manager, C&S, CET, SAIL and Mr Deepak Ranga Rao, Senior Manager, C&S, CET, SAIL. The Panel was moderated by Mr Anurag Upadhyay, HOD, General Manager & I/c C&S, CET, SAIL. On this occasion, Mr Siyaranjan Kumar Singh, Chairman, Jharkhand State Centre, IEI delivered the welcome address. Mr V B Singh, Chairman, Civil Engineering Division Board, IEI, while deliberated on the theme, mentioned that the parallel flange sections find extensive usage in construction of multi-storied buildings, bridges, utility buildings, car parking lots, refineries, airports, flyovers, metro rail projects, cement, steel plants and stadiums and those parallel flange sections are economical, provide excellent durability and weld ability. Moderator of the session, Mr Anurag Upadhyay initiated the discussion by introducing the Panelists and the ongoing project of production of parallel flange sections (PFS) by SAIL. Mr Upadhyay strongly felt that the PFS should be very useful in modern day infrastructural development for timely and cost effective completion of projects. Mr Deepak Ranga Rao started the presentation providing an insight on major technological development in the rolling of structural steel, i.e. Universal Rolling Mills. He mentioned that the PFS produced from Universal Rolling Mills has many advantages for the industry like wider choice of structural sections, superior quality of finish products etc. He



Mr Deepak Ranga Rao

also mentioned that with the increase in availability of such sections, there will be increased scope for steel construction in the country. While comparing the percentage of steel framed construction in different countries, he added that there is an ample opportunity in our country to increase steel consumption on the account of greater availability of parallel flange sections. He went on to mention that SAIL has already taken up number of steps to facilitate the industry in this regard. Mr Goutam Mitra, in his presentation, compared PFS with the conventional sections and mentioned the advantages of PFS over conventional sections. Mr Mitra also discussed the same with a design example and has shown that there is 10% to 30% economy in using PFS in place of conventional sections. He concluded with a detailed case study wherein usage of PFS, instead of conventional sections, as electric poles and OHE Masts etc. helps in achieving considerable economy. In his closing remarks, Mr Mitra informed that SAIL is looking forward towards making higher grade steel (450 MPa), corrosion resistant, seismic resistant and fire resistant structural steel in the future. Mr Anurag Upadhyay concluded the session by proposing the vote of thanks wherein he thanked IEI, the Panelists and the attendees for keeping the session informative and interactive. The Technical Webinar provided an effective virtual platform for interaction between the Moderator, the Panelists and the attendees, wherein chat-based queries from the enthusiasts were answered.



Mr Anurag Upadhyay

Engineering for A Healthy Planet: Celebrating the UNESCO Engineering Report

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Mr Ashwani Kumar Saxena, Chairman, BOG, SDF in his address, elaborated the role of engineers to achieve Sustainable Development Goals (SDGs).



While deliberating on different aspects of SDGs, Mr Saxena explained the role of engineers in firm mechanization and food production, producing state of the art medical equipment and medical services during the pandemic situation and new normal, improvement in the quality of education, river cleaning management, clean water and sanitation, cost effective utilization of water, increased application of renewable energy in rural areas and so on. The speaker further emphasized more on development of MSMEs to supplement the requirement of major industries, cost effective development of transportation network, development of smart cities, disaster management to meet the resilience, reduction of marine pollution etc. The speaker concluded with the forthcoming engineering challenges, highlighting the need of significant engineering capabilities through more involvement of young engineering community to implement the underlying principles of sustainable development. Mr Suneel Grover, Chairman, BOG, NSDF, the Keynote speaker during the session, emphasized on preservation



Mr Suneel Grover

and proper utilization of natural resources to save the mother earth. Mr Grover in his address elaborated on the generation of clean and affordable energy, education, clean and healthy air for all. He explained the role of IEI in this context in dissemination of knowledge, upskilling, reskilling and capacity building in the post pandemic period and mentioned that engineering is the only key for all innovations and technological developments to eradicate poverty and providing clean air, water and other amenities of life. The speaker further embarked upon conservation of existing resources, more applications of eco friendly materials and education for all by sharing knowledge and expertise in a broader way. Chairman, BOG, NSDF recommended close coordination among innovations, technologies, academics, industry, end users and practicing engineers to work for the betterment of mankind. President, IEI in his Presidential Address, explained the significance and implication of UNESCO Engineering reports and mentioned the roles and responsibilities of the engineering community to achieve SDGs. Dr Nilanjan Sengupta, Director (Technical), IEI proposed the vote of thanks. The function was well attended by the participants from different walks of life all over the country.

Cyber Security for Sustainable Development

Faridabad Local Centre, IEI organised Technical Webinar on the topic **Cyber Security for Sustainable Development** on 13 February 2021 under the aegis of Computer Engineering Division Board of the Institution. Mr Sandeep Handa, Chairman Faridabad Local Centre, IEI delivered the welcome address and stated that ICTs and Technology play a key role in education, sustainable cities, clean energy, resilient infrastructure, promoting sustainable industrialization, fostering innovation and in achieving Sustainable Development Goals. Mr Handa mentioned that cyber security is the key component in realizing and maintaining the general ICT security objectives of availability, confidentiality and integrity. Four Eminent Panelists graced the event with their extremely enlightening and informative deliberations, namely Ms Charu Smita Malhotra, Founder CEO, Technology & Personality Development Center, Faridabad; Mr Samir Datt, Chairman, Cyber Security Council and Founder Chairman, Digital Investigators Association; Ms Surbhi Dewan, Blockchain Developer, McKinley & Rice, Noida and Mr Pradyumn Lavaniya, Director, Cloud Technology, Oracle India Private Limited, New Delhi. Mr Pankaj Kumar, Director- Technical and R&D, PURECSS, Faridabad was the Moderator during the session. Mr B S Patel, Chairman, Computer Engineering Division Board, IEI in his opening address explained the significance of cyber security.

Panelist, Ms Charu Smita Malhotra in her address deliberated about Blockchain and its role in cyber security. She stated that Blockchain is essentially a digital



Ms Charu Smita Malhotra

ledger of transactions that is duplicated and distributed across the entire network of computer systems on the Blockchain. She explained Blockchain technology as a decentralized, distributed ledger that records the provenance of a digital asset. Ms Malhotra further outlined that based on peer-to-peer (P2P) topology, Blockchain is a distributed ledger technology (DLT) that allows data to be stored globally on thousands of servers – while letting anyone on the network see everyone else's entries in near real-time, which makes it difficult for one user to gain control of the network. By spreading its operations across a network of computers, Blockchain allows Bitcoin and other cryptocurrencies to operate without the need for a central authority, which not only reduces risk but also eliminates many of the processing and transaction fees; the speaker added.

Panelist, Mr Samir Datt in his address explained about data theft, which can occur both inside and outside of an organization and is the most common cause of a data breach. Mr Datt mentioned that a commonly used insider data theft definition describes data theft as the act of stealing any sort of valuable information stored on corporate devices, servers, and databases. He further opined that while the word theft suggests the act of stealing confidential data, cyber criminals can utilize the organisational manpower to initiate a cyber attack, which is a weak spot in the cyber security perimeter of an organization. To decrease the risk of valuable data being stolen, Mr Datt recommended to; Evaluate and classify all data and systems; Deploy data loss prevention (DLP) tools;



Mr Samir Datt

Monitor user activities; Manage and limit privileged access and; Use enhanced data protection methods. Mr Datt felt that, employee monitoring, prevention of data loss, user and entity behavior analytics are the tools and methods that can help to detect insider threat.



Ms Surbhi Dewan

Panelist Ms Surbhi Dewan while explained on the topic 'Blockchain: A Sustainable Solution for Cyber Security', explained that Blockchain is a consensus-based secured decentralized public/private database which stores information immutably over a peer-to-peer network. Ms Dewan in her address outlined that a Block commonly consists of four pieces of metadata, namely, the reference to the previous Block, the proof of work, also known as a nonce, the timestamp and the Merkle tree root for the transactions included in this Block. She mentioned that the key feature of Blockchain technology is that it intrinsically bridges the trust gap in the business networks and societies by co-developing a shared copy of the truth. She also explained how Blockchain can be used for cyber security, when due to the decentralized nature of Blockchain technology, hackers have no longer a single point of entry, nor can they access entire repositories of data in the event that they do get in and this feature is one



Mr Pradyumn Lavaniya

of the main reasons why enterprises are now considering Blockchain as data privacy solution. Blockchain technology can also protect all the data exchanges happening between IoT devices, which can be used to attain near real-time secure data transmissions and ensure timely communication between devices located thousands of miles apart, the speaker added.

Panelist, Mr Pradyumn Lavaniya in his address deliberated on Data Security and Cloud Adoption Trends and Analysis and stated that Cyber Security technology and the associated service providers are shifting their priorities to support current needs, business continuity, remote work and also planning for transition to the next normal. Mr Lavaniya mentioned that cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool



Mr Pankaj Kumar

of configurable computing resources including networks, servers, storage, applications and services, that can be rapidly provisioned and released with minimal management effort or service provider interaction. He explained five essential characteristics of cloud computing, which are; on-demand self-service; broad network access; resource pooling; rapid elasticity or expansion and; measured service and three 'service models', namely software, platform and infrastructure and four deployment models, namely private, community, public and hybrid, that together able to determine ways to deliver cloud services. The speaker felt that Cloud is even more relevant in current times to sustain growth and in the other hand, threat of cyber attack is universal. Mr Lavaniya added further that while factors such as digitization, greater use of online services and rapid rise in working from home have increased cyber risk, but at the same time, business firms formulate strategies to safeguard their

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Startup Training for Self-Reliant & Make in India



A five-day training program was launched by Er Narendra Singh, President IEI at his native village in district Haridwar, Uttarakhand for unemployed villagers.

The training program was very successfully started without financial help from Government/NGO. President IEI provided free training and distributed training

Now, India will not be dependent on China made LED related products i.e. LED bulb, Charger, LED torch, LED Jhallar, LED Tree, LED Gift Products, LED Down Light, Conceal Light etc.

certificates & tool kits to the trainees. Mr Vivek Kumar, CEO, M/s VS Energy, Plot-69, Utta, Udyog Vihar Extension, Ecotech-II, Greater Noida, UP provided training successfully to the villagers. Er Narendra Singh also declared to send the trainers to the villages after receiving their request letters. The training highlighted much participation of ladies which reflect women empowerment.



Energy Efficient Design of Buildings with Reference to Energy Conservation Building Code

Meerut Local Centre, IEI organized Technical Webinar on the theme **Energy Efficient Design of Buildings with Reference to Energy Conservation Building Code** on 21 February, 2021 under the aegis of Civil Engineering Division Board of the Institution. Mr Rajneesh Kumar, Chairman, Meerut Local Centre, delivered the welcome address. Mr V B Singh, Chairman, Civil Engineering Division Board, IEI brief the audience about the theme. Er Narendra Singh, President, IEI, delivered the Presidential address and mentioned that there has been rapid increase in energy consumption in residential as well as commercial buildings primarily for illumination and space conditioning. President IEI, in his address further stressed on thermal comfort as another important aspect for affordable housing to ensure health and well-being of the occupants and mentioned that energy efficient housing is certainly a way to avoid long term futile electricity consumption liabilities in residential and commercial buildings.



Mr Deepak Bansal

On this occasion, eminent Panelists enlightened the audience by sharing their views and expertise, namely Mr Deepak Bansal, Joint General Manager (Projects), Housing & Urban Development Corporation Limited, New Delhi, Mr Ram Kumar, Senior Project Officer, Uttar Pradesh New and Renewable Energy Development Agency (UPNEDA) and Mr Raj Verma, ECBC Consultant for UP. Mr P S Singhal, Retd S E, UP Irrigation, was the Moderator during the session.

Panelist, Mr Deepak Bansal started with sharing his experiences in Affordable Housing Scheme he has been associated with for last 27 years. These houses are sustainable and constructed according to the requirements of the people. In the process of designing such buildings, it has to be assured that it should be certified as per ECBC provisions, GRIHA provisions and most of the green building guidelines. A building with 50 to 75 years life and minimum water, lighting and air-conditioning requirements is said to be a good green building. Mr Bansal in his address explained that initially ECBC was mainly applicable for commercial buildings with lot of lighting and air-conditioning requirement and presently it is being applied to reduce the carbon foot print, and energy consumption and also focus more on the application of renewable energy. Mr Bansal recommended further the use of new materials for construction like hollow concrete blocks, stabilized mud blocks etc, as per requirement and availability. He discussed various factors in planning for building, which include site planning and land use planning with practical examples and explained the significance of Building Envelope. He mentioned that ECBC, GRIHA and all others provisions emphasize on Building Envelope as it controls the lighting and A/C requirements and building design should be most efficient to reduce cost and enhance performance.



Mr Ram Kumar

Panelist, Mr Ram Kumar provided an overview of ECBC by delivering his lecture in three parts, namely, back ground of Energy Efficiency programme, UP Energy Conservation Building Code and star rating and green initiatives of buildings. He mentioned that the concept of energy efficient buildings is already in use, but after UN intervention on climate change, it get prioritized. India is committed to reduce GHG emissions to 35% by 2030; So energy efficiency

has to be increased in all sectors particularly in building sector, as it consumes 33% of total energy consumption, he added. Mr Kumar stated that number of countries issued energy codes for design and construction of Energy Efficient Buildings, as per their climatic and geographical conditions. He further added that India brought ECBC in 2007 and modified it in 2017 and UP is the first state to notify ECBC-2018 based on GOI code. Moreover, he mentioned, during the last 20 years, UP and other states have designed rules and regulations for green building design & construction, which include rain water harvesting, solar water heating system, installation of photo voltaic power plants and incentives declared by the government from time to time. UP ECBC, based on central ECBC is applicable to buildings having connected load of 100 kW or more and plot area of 1000 m². The Code specifies three performance levels i.e,



Mr Raj Verma

ECBC, ECBC+ and super ECBC for minimum 30%, 45%, 55% energy savings respectively. State has to decide the administrative mechanism for implementing ECBC. Bureau of Energy Efficiency (BEE) is the authority to provide star rating for the commercial buildings, which is based on savings in energy consumption and specifies from one to five star. Other Green Building Ratings in India, are IGBC and GRIHA. These ratings are based not only on energy consumption but also other factors i.e. water conservation, rain water harvesting, air quality, renewable energy integration, environmental quality, water quality, waste disposal etc.

Panelist, Mr Raj Verma in his address stated that UP is a leading state for implementation of Energy Conservation Building Code (ECBC) and concerned government departments, architects and builders have been coordinated to construct energy efficient buildings. Mr Verma explained that ECBC is mandatory for construction of buildings, however ECBC+, Super ECBC and Net Zero buildings are coming up at the next stages. ECBC-2017 is the code applicable for commercial and government buildings and Eco-Niwas Samhita 2018 is the code applicable for residential buildings, he informed. Mr Verma, in his lecture mentioned that ECBC guidelines must be followed from the design level itself to save cost. Further, material must be selected accordingly and daylight simulation is to be taken up in the design. The speaker deliberated on



Mr P S Singhal

ECBC implementation in UP and stated that the developer has to submit a declaration with the plan of the building including ECBC compliance. He further mentioned that there are two levels in the process of construction-construction of envelope and electrical fittings. Envelope design considerations, the speaker explained, include appropriate orientation and shading, enhanced walls and roof insulation and efficient glazing. Mr Verma also stated that if envelope is designed well and low conductivity material is used for walls and roof, lesser amount of energy will be required to maintain comfort conditions. Further, the speaker added that insulation of roof must be more effective than walls and in comfort system Mr Verma presented several case studies of energy efficient commercial and residential buildings.

An interactive question-answer session was held at the end of the event. Mr Mohan Lal Jain, Honorary Secretary, Meerut Local Centre proposed the vote of thanks.

Cyber Security for Sustainable Development

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organizations, manage security breaches, increase cyber resilience and improve operational stability, which are; assessing the vulnerabilities through detailed quantitative risk analysis, reviewing cloud architecture and security capabilities, muscle up incident response and recovery capabilities, prioritize cyber security budget and build a skilled talent pool with the objective to optimize resources through automation.

Moderator, Mr Pankaj Kumar summed up the Proceedings of the webinar and

mentioned the significance of cyber security due to the amount of sensitive information stored on different computer systems, when the hackers are constantly trying to find an easy way to make money it is important to safeguard information that is stored on servers around the world.

Fruitful deliberations were obtained during the question-answer Sessions when the panelists interacted with the participants. Mr Kuldip Raj Gupta, Honorary Secretary, Faridabad Local Centre, IEI proposed vote of thanks. The program was well attended by a large number of participants.

News-in-Brief

STATE CENTRES

Chhattisgarh

Organized webinar on 5 June 2020 on the topic 'Role of Engineers in preserving Biodiversity'. Panelists, Mr Tapes Jha, Additional Principal Conservator of Forest, Development & Planning, Government of Chhattisgarh; Dr Shamsh Pervez, Professor, Department of Chemical Engineering, Pandit Ravi Shankar Shukla University, Raipur and Prof Samir Bajpai were deliberated lectures on the topic and shared their experiences.

Jammu & Kashmir

Observed 53rd Engineers' Day on 15 September, 2020.

Organised webinar on International Day for Disaster Risk Reduction jointly organised with National Institute of Disaster Management, Ministry of Home Affairs, Government of India, New Delhi in collaboration with Divisional Administration, Kashmir, J&K Forest Department and Indian Red Cross Society, J&K Branch, Srinagar on 13 October 2020. Er Narendra Singh, President, IEI graced the function with his virtual presence.

Celebrated World Soil Day by organising webinar on 5 December 2020 jointly with Directorate of Agriculture and Farmers Welfare, Kashmir on the theme 'Keep Soil Alive, Protect Soil Biodiversity'. The webinar was inaugurated by Mr. Manzoor Ahmed Qadri, Director, Agriculture and Farmers Welfare, Kashmir. Other speakers were Syed Altaf Aijaz Andrabi, Former Director Agriculture, Ms. Bilquees Dar and Mohammed Suhain Wani, Consultants, Disaster Management, Choudhary Mohammed Iqbal, Joint Director Agriculture and Farmers Welfare, Kashmir, Mr Arjimand Hussain Talib, Founder Editor, Ziraat Times.

Organised webinar on the topic 'Discover Lavender : Empowering Hill and Mountain Farmers through Sustainable Production of Lavender in Jammu & Kashmir' in collaboration with CSIR-Indian Institute of Integrative Medicine (IIIM) on 12 December, 2020. The webinar was inaugurated by Dr D Srinivasa Reddy, Director, CSIR-IIIM. The speakers of the programme were Dr Sanjeev Chauhan, Professor & Head, Department of Forestry & Natural Resource Management, Punjab Agricultural University; Mr Rajneesh Anand, Chief Scientist CSIR-IIIM; Mr Ramakant Harlalka, Managing Director, Nishant Aromas; Ms. Rubeena Tabassum, Managing Director, United Floritech and Mr Aamir Ali, Chairman, Jammu & Kashmir State Centre, IEI.

Jharkhand

Organized webinar on 25 July 2020 on the topic 'Steel Demand Post Covid 19' under the aegis Metallurgical & Materials Engineering Division. Panelists – Dr Subir Bhattacharya, General Manager (Economist), MECON Limited Ranchi and Mr Kumud Ranjan, General Manager-I/C (Metallurgical Wing), MECON Limited, Ranchi deliberated lecture on the topic and they emphasized on the steel demand post covid. Mr U K Vishwakarma, Chief General Manager (Marketing), MECON Ltd was the moderator.

Organised webinar on the topic 'Future of Coal' on 8 August 2020. Mr Alok Kumar Singh and Mr Rajiv Singh were the Panellists in the session.

Organized webinar on 12 September 2020 on the topic 'Management of Solid Waste Generated from Integrated Steel Plant'. Speaker during the session, Mr Sunny Budharaja, Deputy Manager (Environmental Engineering), MECON Limited, Ranchi deliberated on different types of wastes and their classification including industrial wastes, by-products and hazardous wastes, etc. Dr B Santosh Ramesh, Deputy Manager (SC), Environment Engineering, MECON Limited, Ranchi also shared his experience.

Observed 53rd Engineers' Day on 15 September, 2020 and organised a webinar on the occasion. Panellists, Mr Satish Chandra Choudhary, IAS, Joint Secretary, Government of Jharkhand and Mr N C Mishra, Retired Chief Engineer, Government of Jharkhand deliberated lecture on the occasion.

Organised webinar on the topic 'Black Spot in Jharkhand Highways' on 26 September 2020. Speakers during the session, Mr Prashant Deva, Road Safety Auditor, NHAI and Mr Surendra Kumar, Superintending Engineer, Road

The following is a brief account of Technical Activities organised by various Centres and Fora of the Institution.

Construction Department, Government of Jharkhand presented their views on the topic.

Organized webinar on 29 December 2020 on the topic 'Design Aspects of Dust Collection Equipment'. The invited speakers were Mr Madan Kumar, General Manager, CET(U&S), SAIL, Ranchi and Dr Somraj Chakravarty, AGM, CET (U&S), SAIL Ranchi.

Kerala

Organised lecture meeting through online platform on 27 January, 2021. Speaker of the session, Prof (Dr) K N Ninan, Deputy Director, Vikram Sarabhai Space Centre deliberated lecture on the topic 'Mars Orbiter Mission – An Unparalleled Accomplishment of India' and explained the achievement of ISRO, India made through the Mars Mission. The speaker further mentioned that India is the only country to reach Martian orbit in the very first attempt and the only Asian country to have a successful Mars mission with its own resources.

Maharashtra

Organised webinar on 9 January 2021 on the topic 'Know your Biases for Better Decision Making' under the aegis of Interdisciplinary Division. Panellists Mr Narendra Karbhari Birar, Honorary Secretary, Maharashtra State Centre and Dr Prabir Kumar Bandyopadhyay, Former Professor, Symbiosis Institute of Business Management, Pune deliberated lectures on the topic.

Tamil Nadu

Organized webinar on 13 December, 2020 on the topic 'Innovation in Engineering Happens only through Mother Tongue or Global Language'. Guest Speakers of the programme were Ms M Ezhilarasi, Mr Parandhaman, Mr S Manivannan from BHEL, Mr V Arivazhagi, Dr M Saravanan, Vice Principal & Sr. Professor, Ponjesly College of Engineering, Nagercoil and Ms R K Manimozhi Bharathi.

Telangana

Organized Er V Subba Rao Fourth Endowment Lecture meeting on 26 January 2021 on the topic 'Drinking Water Quality and Environmental Pollution'. Dr G Rameshwar Rao, Chairman, Telangana State Centre and Council Member, IEI welcomed the audience. Mr T Anjaiah, Honorary Secretary, Telangana State Centre proposed the vote of thanks.

Organized Mr M Thirpath Reddy 10th Endowment Lecture meeting on 4 February 2021 on the topic 'Framework for Disaster Risk Reduction with Special Focus on Preparedness' through online mode. Dr R Pradeep Kumar, Professor, Civil Engineering & Head, Earthquake Engineering Research Centre, IIT Hyderabad graced the occasion as Chief Guest and deliberated lecture on the topic.

Uttar Pradesh

In collaboration with UPNEDA organized webinar on the topic 'Eco Niwas Samhita' (Energy Conservation Building Code-Residential) on 27 January 2021. Mr Ram Kumar, Senior Project Officer, UPNEDA was the Chief Guest of the programme. Keynote Speaker, Ms Glory Srivastava, Architect, ECBC Expert during her lecture mentioned that about 33 percent energy has been saved from the buildings constructed so far under the ECBC code. Mr V B Singh, Chairman, Civil Engineering Division Board, IEI in his lecture mentioned that by adopting the code, there will be a considerable reduction in energy consumption.

LOCAL CENTRES

Aurangabad

Organised International Conference on 'Smart Innovations in Design, Environment, Management and Planning' through online platform during 30-31 October, 2020. Speaker, Er Narendra Singh, President, IEI graced the function and deliberated lecture on the topic. In his address, President, IEI mentioned that concept of smart cities has spurred research and development in the domain of smart innovation i.e. sensor technology, data analytics, energy efficient planning and development and decision making. He further explained that Sensor technology is applicable in several domains of engineering, and are applicable in and for environmental audit and pollution monitoring as well as to understand the structural health of bridges, dams etc.

Bareilly

Organised technical talk on 16 January 2021 on the topic 'Various Structural Design Parameters'. Speaker, Mr Dinesh Arora, 'Mangalam' Architects & Engineers, Bareilly during his lecture emphasized on the development of construction plan, which should be very much analogous to the development of a good facility design..

Bokaro Steel City

Organised lecture meeting on 10 January 2021. Mr Yogendra Nath Singh, Chairman, Bokaro Steel City Local Centre deliberated lecture on the topic 'Recognition of Vigilance as a Management tool for improved production and profitability in Public Sector Undertakings'.

Coimbatore

In association with Department of Civil Engineering, KPR Institute of Engineering and Technology, Coimbatore organised webinar on the topic 'Climate Change Impact on the Environment' on 6 January 2021. Dr K Elangovan, Professor, Department of Civil Engineering, PSG College of Technology, Coimbatore was the speaker during the session. Dr G Anusha, Professor and Head, Department of Civil Engineering, KPR Institute of Engineering and Technology, Coimbatore also addressed the audience.

In association with Department of Civil Engineering, Dr N G P Institute of Technology, Coimbatore organised webinar on the topic 'Taste the Failures' on 23 January 2021. Mr M Ravikumar, Deputy General Manager, Structural Division, Roads & Bridge Development, L&T Infrastructures Development Projects Limited, Chennai was the Chief Guest during the session. Dr K Porkumaran, Principal, Dr P Muthupriya, Professor and Head, Department of Civil Engineering and Mr C Chinnaraj, Assistant Professor, Department of Civil Engineering, Dr NGP Institute of Technology, Coimbatore were present during the session and addressed the audience.

Organised webinar on 8 February, 2021 in association with Department of Production Engineering, PSG College of Technology, Coimbatore. Dr Damera Vijayalakshmi, Psychologist, Strategies, Kakinada, AP delivered lecture on the topic 'Strategies for Professional Development as an Engineer'.

Faridabad

Observed 53rd Engineers' Day on 15 September 2020. Mr Sandeep Handa, Chairman, Faridabad Local Centre and other committee members of the centre were present in the occasion and delivered speech.

Gorakhpur

Organised Seminar on the topic 'Flood Management : Challenges & Solutions' on 23 January 2021 at Buddha Polytechnic College GIDA, Gorakhpur. Mr Dhirendra Chaturvedi, Chairman, Gorakhpur Local Centre delivered Keynote lecture on the topic.

A webinar was organized on 30 January 2021 on the topic 'Heritage Structure in India: An Overview and Advances'. Speaker, Dr A K Mittal, Head, Structural Engineering, CSIR-CBRI Roorkee deliberated lecture on the topic.

Jamshedpur

Organized webinar on 25 August 2020 on the topic 'Use of Electronics in Medical Field'. Speaker in the session, Dr Shalini Kumari, Lecturer, RVS College of Engineering, Jamshedpur emphasized on the application of Medical Electronics and its use in diagnostics and medical treatment.

Organised webinar on 9 September 2020 on the topic 'Success Journey of Zero Incidence due to Electrical Flash in Tata Steel'. Speaker, Mr Arindam Ghosh, Head of Electrical Maintenance and Steel Making, Tata Steel Limited, Jamshedpur deliberated lecture on the topic.

Organised webinar on 9 September 2020 on the topic 'Journey of Digital Initiatives in Tata Steel – Need and Future of Predictive Maintenance' under the aegis Electrical Engineering Division. Speaker, Mr Prasenjit Sinha, Head of Predictive Maintenance, Tata Steel Limited, Jamshedpur deliberated lecture on the topic.

Organized webinar on 15 September 2020 on the topic 'Guidelines for Profibus Communication and its Maintenance Practices'. Mr Nirbhay Gupta, Tata Steel Limited, Jamshedpur was the speaker in the session.

Organised webinar on 15 September 2020 on the topic 'Maintenance Practices of

Gas Analyzers in Steel Industry'. Speaker, Mr Souvik Ghosh, Tata Steel Limited, Jamshedpur spoke about the gas analyzers problem occurred in the steel company and mentioned the solution to overcome the problem.

Kanpur

In association with National Design and Research Forum (NDRF), IEI, launched 'Online Mini Project Scheme' on 27 December, 2020. The programme was inaugurated by Padmashri Dr Kota Harinarayana, Former Programme Director, Light Combat Aircraft. Padmashri Dr M Annadurai, Chairman, NDRF, IEI, Prof (Dr) J Ramkumar, Chairman, Kanpur Local Centre, Padmashri Prof R M Vasagam, Chairman, ASDB, IEI and Dr K Ramachandra, Former Director, NDRF also participated in the programme.

Kanyakumari

Organised webinar on 3 January 2021 through online platform on the topic 'Interlinking of Rivers'. Speaker, Mr S Ramesh, Executive Engineer, Public Works Department, Tamil Nadu in his address explained the significance of linking of rivers to save wastage of large quantity of water during rainy seasons. He also explained the line of actions for linking of rivers and the derived benefit from the project, when two or more river linking results creation of reservoirs and canals, leads to better access of water for irrigation, housing etc.

Organized webinar on the topic 'Artificial Intelligence Now and the Future' on 28 February, 2021. Keynote speaker, Dr S M Swamy, Griantek Limited, Nagercoil deliberated lecture on the topic.

Kharagpur

Organized webinar on 17 October, 2020 on the topic 'Principles of X-ray Computed Tomography'. Speaker, Dr Ramesh R Galigekere, Professor, Department of Biomedical Engineering, Manipal Institute of Technology deliberated lecture on the topic and spoke about different aspects of X-ray Computed Tomography and briefly explained on it.

Kota

Organised 9th session of Regular Technical Series on 'Oil & Gas Industry – An Introduction Upstream – Midstream - Downstream' on 7 February 2021. Keynote Speaker, Mr Hemant Gautam, Mechanical Superintendent (Gas Division), Cairn Oil & Gas - Barmer, Rajasthan presented lecture on Oil and Gas Sector comprising upstream, midstream and downstream.

Madurai

Organised lecture meeting on the topic 'IoT using Raspberry PI for Beginners' on 8 January 2021 through online mode. Mr S Valai Ganesh, Department of Mechanical, Engineering, Ramco Institute of Technology, Rajapalayam was the Chief Guest and deliver lecture on the theme.

Organised lecture meeting on the topic 'Additive Manufacturing Technology' on 13 January 2021 through online mode. Mr R Karthikeyan, HoD, Department of Mechanical Engineering, PAC Ramasamy Raja Polytechnic College, Rajapalayam was the Chief Guest and delivered lecture on the topic.

Neyveli

Observed World Standards Day on 21 October, 2020 and organised programme through online platform. Speaker, Dr S P Subramaniyan, Deputy Controller, Patent Office, Intellectual Property of India, Chennai deliberated lecture on the theme 'Protecting the Planet with Standards'.

Mr T D Natraj, General Manager (CARD), Retired, NLC India Limited & President, Engineers & Scientists Association, Neyveli delivered Lecture through virtual presence on the topic 'Surface Gasification of Coal and Lignite' on 2 January, 2021.

Saurashtra

In association with School of Engineering, Faculty of Technology, R K University Rajkot organised webinar on the theme 'Mechanism Design Using AutoCAD' through online platform on 11 January, 2021. Dr Chetankumar M Patel, Professor & Head, Mechanical Engineering Department, School of Engineering, R K University, Rajkot, was the theme speaker during the session.

In association with Automobile Engineering Department, Marwadi University, Rajkot organized webinar on the topic 'Mechanical Properties of Rubber and It's Application in Automotive' on 16 January 2021. Prof (Dr) Sarang Pande, Principal,

Faculty of PG Studies & Research, Marwadi University Rajkot inaugurated the function. Mr Sandip Hazra, Deputy General Manager, Chassis Engineering, Tata Motors Limited, Pune was the speaker of the topic.

Tiruchirappalli

Jointly with Tamil Nadu State Centre, IEI organized Technical Lecture on 5 January, 2021 through virtual platform. Mr S Rengaraju, Senior Faculty Member, GKM Institute of Marine Science & Technology, Chennai delivered Lecture on the topic 'Pandemic and Maritime Industry'.

Jointly with Tamil Nadu State Centre, IEI organized lecture meeting through virtual mode on 27 January 2021. Dr Kishore Kumar Pedapenki, Associate Professor, Department of Electrical and Electronics Engineering, JAIN (Deemed-to-be University), Bangalore delivered lecture on 'Power Quality in Distribution System'.

Jointly with Tamil Nadu State Centre, IEI organized lecture meeting through virtual mode on 2 February 2021. Mr R K Muthuraman, Assistant Professor & Head, Aerospace Engineering, PMIST, Tanjore delivered a lecture on 'Flow Visualization Techniques' and mentioned that the qualitative and quantities analysis of fluid flow patterns over an object can be obtained through flow visualization techniques.

Jointly with NIT Tiruchirappalli, Computer Society of India, Tiruchirappalli Chapter, Indian Institute of Welding, Tiruchirappalli Branch, Indian Institute of Metals, Tiruchirappalli Chapter and Indian Welding Society, Southern Zone organized lecture meeting through virtual mode on 9 February, 2021. Dr Parasuram Balasubramanian, Founder & CEO, Theme Work Analytics Private Limited, Bangalore delivered lecture on 'Supply Chain Management & the Smart Factory Strategies'.

Organized lecture meeting through virtual mode on 16 February 2021. Mr M R Ranganathan, Chairman, ABK AOTS DOSOKAI, Tamilnadu Centre, Chennai delivered the lecture on the topic 'Manufacturing Creativity – Japanese Way'.

Jointly with Computer Society of India, Tiruchirappalli Chapter, Indian Institute of Welding, Tiruchirappalli Branch, Indian Institute of Metals, Tiruchirappalli Chapter and Indian Welding Society, Southern Zone organized a lecture meeting through virtual mode on 23 February, 2021. Dr K Mohaideen Abdul Kadhar, Assistant Professor (SG), Electronics and Communication Engineering Department, Dr Mahalingam College of Engineering and Technology, Pollachi, Tamil Nadu delivered lecture on the topic 'Machine Vision in Manufacturing'.

Tirunelveli

In association with Wilma Communication Group organized 5-day Faculty Development Programme on the topic 'Recent Trend Antenna Design and Analysis Using EM Solver' during 26-30 May, 2020 through online platform.

Organized online lecture on 'Cyber Security' on the occasion of 40th Anniversary of Madurai Local Centre, IEI on 26 July 2020. Mr Vijay Krishnan, SDE EB, BSNL delivered lecture on the topic.

Organized webinar on the topic 'Recent Trends in Cyber Security Operations' on 6 January 2021. The resource person during the session, Prof. (Dr) G Aravind Swaminathan, Department of Computer Science and Engineering, Francis Xavier Engineering College, Tirunelveli discussed about application of various cyber security tools.

Organized Seminar on the topic 'Information Technology for Industry 4.0' on 20 January 2021 through virtual mode. Dr J Jesu, Vedha Nayahi, Department of Computer Science & Engineering, Anna University Regional Campus, Tirunelveli was the resource person and delivered lecture on the said topic.

Organized webinar on the topic 'Water Issues and Solutions' on 22 January 2021. Dr J Glory Selvamano, Department of Civil Engineering, Einstein College of Engineering, Tirunelveli was the resource person in this occasion and delivered lecture on the said topic.

Organized technical seminar on 'Network Intrusion Detection for SCADA Systems' on 6 February, 2021 through online platform. Dr R B Benisha, Associate Professor, Department of Electronics and Communication Engineering, Rohini College of Engineering and Technology, Kanyakumari was the resource person on the occasion.

Organized technical seminar on the topic 'Aircraft Engine Repair and Maintenance' on 13 February 2021 through virtual mode. Mr A Siva Kumar, Freelance Education

Consultant, Research and Development Effort Group of India, Bangalore acted as resource person and delivered the lecture.

Tiruvallur

Organised technical lecture on the topic 'Rock Mechanics Investigations in Mining' through online platform on 12 January, 2021. Chief Guest & Speaker, Mr A Y Bharath Kumar, Scientist, National Institute of Rock Mechanics, Ministry of Mines, Government of India deliberated lecture on the topic and explained about the Rock Mechanism for sustainable developmental ideas in future and also explained about the opportunities in rock mechanics mining in future India.

Organised technical lecture through online on the topic 'Quality Management in Thermal Power Plant Execution' held on 9 February 2021. Mr R Magesh Kumar, Manager, BHEL Power Sector Southern Region was the Chief Guest & speaker on the occasion.

Udaipur

In association with Samta Power organized webinar on 20 August 2020 on the topic 'Solar Energy'. Panelists, Mr Sunit Mathur, Additional Director, Rajasthan Renewable Energy Corporation Limited, Jaipur ; Mr M M Bhardwaj, Ex-CMD, Rajasthan Electronics and Instruments Limited (REIL) and Mr Gopal Somani, Ex-Chief Engineer, RSEB & Ex-Director, Rajasthan Renewable Energy Corporation Limited (RRECL) presented lecture on the topic.

In association with Ultratech Cement organized webinar on 28 September 2020 on the topic 'Solar Module Mounting Structures: Importance and Design'. Keynote Speaker, Ms. Ketaki Moondra, Head-Design, Mundra Energies deliberated lecture on the topic and discussed briefly regarding application of solar energy and its' benefit for climate change.

Organized Webinar on 30 December, 2020 on the topic 'Role of Engineers in Energy Conservation, Climate Change & Global Warming'. Keynote speaker, Mr K K Mahajan, Ex-Senior Executive, Tata Chemicals Limited, Gujarat deliberated speech on the topic and expressed his views on energy conservation and its impact on climate change as well as global warming.

From the President's Desk.....

Contd. from page 1

withdrawals) and ecosystems which provide goods and services for sustenance of life. Evaporation from waste and fallow land is also consumptive use but remains non-productive. That from reservoirs is considered as unavoidable loss but is accounted under productive use. Most of the human demands are non-consumptive. They comprise major parts of domestic, industrial, power generation, navigation and recreation needs. Water flow and its drop from a height is used to run turbines to generate hydropower. Water is simply used as a dilutant, solvent or facilitator in manufacturing processes or as a carrier of goods like coal slurry, or human waste, or materials and goods as in navigation. A little component of water gets built in human products and is lost for reuse. Most of it appears as 'water', albeit in degraded quality. The other uses therefore pose a challenge, of a different sort, that of making the used wastewater fit for reuse. We have worldwide, either failed miserably or not reacted timely, to the problem.

To address the issue, on 22 March every year, people and organizations mark World Water Day by taking action to tackle the water crisis. World Water Day is celebrated to signify the importance of water and raises awareness of the 2.2 billion people living without access to safe water. It is about taking action to tackle the global water crisis and achieving Sustainable Development Goal 6: water and sanitation for all by 2030. The theme of World Water Day 2021 is Valuing Water. The Centres and Fora of The Institution of Engineers (India) have already observed this day by organising seminars/webinars all over the country.

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 Chandrashekhar 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
Kancheपुरam	::	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.

Er Narendra Singh President, IEI Honoured as Chief Guest in Uttarakhand Masters Athletics Championship



Er Narendra Singh, President, The Institution of Engineers (India) was honoured as Chief Guest by Devbhoomi Masters Athletics and Sports Development Association, Uttarakhand during 3rd Uttarakhand Masters Athletics Championship held on 21 February 2021 at International Maharana Pratap Sports Stadium, Dehradun. On this occasion, he floated the balloons and awarded the winners with medals and merit certificates.



President IEI also honoured Mr Satish Chand Chauhan, FIE, Executive Member in Executive Body of Uttarakhand State Centre, IEI. Mr Chauhan won the Gold medal in 400 meter race in the age group of 60+ years. While garlanding the medal to Mr Chauhan, President, IEI, was very happy to mentioned the event as a proud moment for The Institution of Engineers (India). The Masters Athletics Competition is organised for the male and female athletes of 35 years and above, in the age group of 35+, 40+, 45+, 50+, 55+, 60+.....and so on and goes to state, national and international level. Mr Chauhan is a well known master athlete of Uttarakhand. In the recent past, he has won 25 medals at national level and 11 medals at international level. Presently he is the General Secretary of Devbhoomi Masters Athletics and Sports Development Association, Uttarakhand.

FORM IV

(See Rule 8 of The Registration of Newspapers (Central) Rules, 1956)

Statement about ownership and other particulars about IEI News of The Institution of Engineers (India) to be published in the first issue every year after the last day of February

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8 Gokhale Road, Kolkata 700 020 |

I, Dr H R P Yadav, Secretary and Director General of The Institution of Engineers (India), hereby declare that the particulars given above are true to the best of my knowledge and belief.

Dated : March 01, 2021

Sd/-
Dr H R P Yadav
Signature of Publisher

Important Notice

It has been observed that there are many Corporate Members of IEI whose mobile number/email id is not registered with IEI till date. Non availability of the mobile numbers and email ids precludes us not only from providing our full range of services but also from participation in the Online Election Process.

The Corporate Members whose mobile number/email id is not registered with IEI are therefore requested to kindly communicate their mobile no. and email id along with membership number to datamemb@ieindia.org by 10 April 2021.

For any further clarification, one may feel free to speak to us at (033)40106248/ 246/ 269/ 299.

Dr H R P Yadav
Secretary and Director General

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

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