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National Building Code of India – 2016	Renewable Energy Technologies: Perspective and Challenges	Gateway to FEA in Mechanical Design	Reports of World Water Day 2019	IEI Diary		
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IEI Confers Honorary Fellowship to His Excellency Prof Ganeshi Lal, Hon'ble Governor of Odisha



The Institution of Engineers (India) conferred Honorary Fellowship to His Excellency Prof Ganeshi Lal, Hon'ble Governor of Odisha during the Sixtieth Annual Technical Session of Odisha State Centre, IEI on March 30, 2019 at Bhubaneswar. Dr T M Gunaraja, President, IEI handed over the Honorary Fellowship Certificate to the Hon'ble Governor of Odisha during the function. Hon'ble Governor in his brief speech apprised that he was overwhelmed to receive this prestigious Honour from such an august body like The Institution of Engineers (India) which would be celebrating its Centenary next year. Other dignitaries graced on this auspicious occasion with their august presence were Prof S C Naik and Mr Ashok Kumar Basha, Past Presidents of IEI; Dr N K Dash and Dr D K Tripathy, Council Members of IEI; Prof K K Rout, Chairman and Prof S S Dash, Honorary Secretary of the Centre; Dr S M Ali, Director (Membership) of IEI and many more Past Chairmen and Honorary Secretaries of the Centre.

Centenary Celebration of The Institution of Engineers (India) IEI-Indian Railways Knowledge Initiative

The Institution has observed "Indian Railways Knowledge Initiative" on the occasion of its Centenary Celebration (1920-2020) at various places of the country. The following Centres of IEI have organized the events:-

 Kharagpur Local Centre, March 8, 2019 Transformation at ICF in General on Environmental Improvements Making of Train 18 	Madhya Pradesh State Centre, Bhopal, February 28, 2019 Modern Furnishing Material In Indian Railways	
Maharashtra State Centre, Mumbai, February 20, 2019	Telangana State Centre, Hyderabad, February 25, 2019	
Powering India through Innovation and Technology in Railways	Industrial and Occupational Safety and Standards in Indian Railways	

From the **President's Desk.....**

The major changes in contemporary living is essentially due to intelligence being embedded in various systems towards enhancement of self-awareness, learning, reasoning, creativity and critical thinking across all forms of human endeavour. Over the past few decades, mankind has envisioned and dreamt of a



technology-enabled future. This has manifested in the form of 'Artificial Intelligence (AI)', which is simply described as the science and engineering of making machines intelligent. The term was first coined by John McCarthy, an American computer scientist in mid 50's where he described that every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to simulate it. In the ensuing decades, AI as a concept developed traction due to tremendous innovations in hardware and software technology which resulted in a huge increase in density of data storage and retrieval process. It is important to note that the twin revolutions of Biotechnology and Information Technology (IT) and their amalgamation would transform society and living in such a manner which can only be imagined at this stage. This calls for a renewed ability and inherent desire to upgrade skill levels in emerging technologies as part of an individual's skill sets. Therefore, engineers have to develop a skill set with a 'multi-technology mindset'. Hence, I would like to highlight that practicing engineers and researchers in all disciplines must think innovatively of concepts such as frugal engineering, value engineering, disruptive technologies and such like and their applications in all dimensions of design and implementation.

The Institution has always been in the forefront of bringing in, nurturing and creating awareness of technological developments in various engineering fields and provide meaningful learning platforms. Our Centres would be embarking upon new initiatives of learning and would also ensure that technical events such as workshops, seminars etc. focus on emerging technologies and their applications. I also request our Corporate Members to approach their respective Centres, to which they are attached, and offer

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National Building Code of India - 2016

Odisha State Centre of the Institution in collaboration with Bureau of Indian Standards (BIS), organized Workshop on 'National Building Code of India 2016' under the aegis of Civil Engineering Division Board of IEI during October 30-31, 2018 at Bhubaneswar. Mr Nalini Kanta Pradhan, Engineer-in-Chief-cum-Secretary, PWD, Government of Odisha, graced the occasion as the Chief Guest. Mr Pradhan, in his address emphasized on the importance of awareness of the additional features of National Building Code of India 2016 among the Engineers, Architects, Planners, Administrators and Promoters. He further highlighted on maintenance and asset management of the buildings. Dr T M Gunaraja, the then President-Elect, IEI, Mr Ashok Kumar Basa, Past President, IEI and Mr Sanjay Pant,



Director & Head (Civil Engineering), BIS, New Delhi graced the function as Guests-of-Honour and addressed the gathering. Prof P K Parhi, Immediate Past Chairman of the Centre, presided over the function. Vote of thanks was proposed by Prof K K Rout, Immediate Past Honorary Secretary of

the Centre. A large number of delegates from different Govt. as well as Private Organizations and Universities from all over the country attended the Workshop.

50th Foundation Day Celebration at Saurashtra Local Centre



Saurashtra Local Centre of the Institution celebrated 50th Foundation Day during February 19-21, 2019 at Saurashtra. Dr T M Gunaraja, President, IEI, graced the occasion as the Chief Guest. Mr Navinchandra B Vasoya, Past President, IEI, Mr Apurvamuni Swami, BAPS and Mr Bharat S Patel, Past Chairman, Gujarat State Centre & Council Member, IEI graced the occasion as Guests-of-Honour.

From the **President's Desk.....**

Contd. from page 1

suggestions and guidance on the conduct of meaningful and effective programs which will enrich the engineering community as a whole.

Recently, an International Conference on 'Role of Agricultural Engineering towards Global Food Security' was organized by our Karnataka State Centre

in Bengaluru where the application of AI in farm automation, robotic systems and sensors for livestock management etc. were deliberated upon.

I am sure that IEI's engineering fraternity would avail of the range of services that we offer in the quest for continued professional development.



Renewable Energy Technologies: Perspective and Challenges

Institution of Engineers (Inb Punjob & Chandigarh State Centre

BANDA SINCH BAHADUR FINGINEERING COLLEC FATENGARH SARI'S (PUNLAR)

Puniab & Chandigarh State Centre of the Institution in association with the Department of Electrical Engineering, Baba Banda Singh Bahadur Engineering College (BBSBEC), Fatehgarh Sahib organized All India Seminar on 'Renewable Energy Technologies: Perspective and Challenges' under the aegis of Electrical Engineering Division Board of IEI during November 16-17, 2018 at Chandigarh. The Chief Guest and Keynote Speaker of the Seminar, Dr (Ms) Lini Mathew, Associate Professor National Institute of Technical Teachers Training & Research, Chandigarh enlightened the delegates about the modern era of grids and its integration with the producers of renewable energy. She shared how IoT can help to collect a large amount of data generated by the smart grids. Earlier, Mr Janak Raj Garg, Chairman of the Centre welcomed the delegates and the participants. Maj Gen (Dr) G S Lamba, VSM (Retd.), Principal of BBSBEC also graced the

occasion and addressed the dignitaries and delegates. Dr Gursewak Singh Brar, Head, Department of Electrical Engineering, BBSBEC and Convener of the Seminar briefed about the Seminar. Dr T S Kamal, Member, Electronics & Telecommunication Engineering Division Board (ETDB), IEI shared his

views on the theme during the program. Mr S S Mundi, Honorary Secretary extended vote of thanks at the end of the programme. A large number of papers were presented and discussed by eminent personalities during the technical sessions of the Seminar.

Problem of Mechanization in Sand Mining and Methodologies to be Adopted for Environmentally Sustainable Mining of Sand from Rivers

Jharkhand State Centre of the Institution in association with Central Mine Planning and Design Institute, Ranchi, Central Coalfields Limited, Ranchi and MECON Ltd., Ranchi and ENV Developmental Assistance System (I) Pvt. Ltd. organized All India Seminar on 'Problem of Mechanization in Sand Mining and Methodologies to be Adopted for Environmentally Sustainable Mining of Sand from Rivers' under the aegis of Interdisciplinary Coordination Committee (ICC) of IEI during January 12-13, 2019 at Ranchi. Mr Avijit Ghosh, former Chairman & Managing Director, Heavy Engineering Corporation Ltd., Ranchi graced the occasion as the Chief Guest. Mr Aboobacker Siddique P, *IAS*, Secretary, Department of Mines and Geology, Govt. of Jharkhand and Mr Ranjan Sahai, former Controller General, Indian Bureau of Mines graced the occasion as Guests-of-Honour. Mr Ghosh, in his address shared his vast experience and explained the use of technology and governance required for sand mining. Mr Siddique, in his speech discussed about the present scenario of sand mining in the state of Jharkhand and actions to be taken to avoid illegal mining. Mr Sahai addressed the participants on the mining legislations and statutory requirements of the sand mining in India. Mr C D Goswami, General Manager, Environment & Sustainable Development, MECON Limited, Ranchi while delivering the Keynote Address during the Seminar, he enlightened the concept of e-Sand and Metallurgical Sand. He discussed about various alternatives of sand by utilization of the wastes of an Integrated Steel plant and other activities. Earlier, Mr S K Singh, Chairman of the Centre welcomed the dignitaries during the program.



Energy Efficiency in HVAC & R Industries and Air Pollution Control Equipment

Jharkhand State Centre of the Institution organized All India Seminar on 'Energy Efficiency in HVAC & R Industries and Air Pollution Control Equipment' under the aegis of Interdisciplinary Coordination Committee (ICC) of IEI during February 9-10, 2019 at Ranchi. Mr Kumud Jha, Chairman, MECON Construction & Industries Pvt. Ltd. and President, Confederation of Real Estate Developers Association of India (CREDAI), Jharkhand, graced the occasion as the Chief Guest. Mr Jha, in his address highlighted the role of Architects and Builders in optimization of energy usage at various fields. Mr S K Das, President, Indian Society of Heating, Refrigeration & Air Conditioning Engineers (ISHRAE), Ranchi Chapter and Deputy General Manager, Centre for Engineering & Technology, SAIL, Ranchi stressed upon the importance of the subject. Mr A K Saxena, former General Manager, MECON Ltd., Ranchi and Past Chairman of the Centre during his address highlighted the energy requirements in HVAC industry. During the Inaugural Session, Mr Anand

Trivedi, President-Elect, ISHRAE, Ranchi Chapter also graced the occasion. Earlier, Mr S K Singh, Chairman of the Centre welcomed the dignitaries and highlighted the importance of the Seminar. Mr Nikhil Ray, Past President,



Indian Road Congress highlighted the details of the technical sessions. Mr M R Kumar, Immediate Past Honorary Secretary of the Centre proposed the vote of thanks at the end of the Seminar.



Madurai Local Centre of the Institution in association with K L N College of Engineering (KLNCE), Madurai organized All India Seminar on 'Gateway to FEA in Mechanical Design' under the aegis of Mechanical Engineering Division Board of IEI during January 4-5, 2019 at Madurai. Mr M K Sundaresan, Head, (PMS / SDEG / STR), Vikram Sarabai Space Centre, Trivandrum graced the occasion as the Chief Guest. Mr Sundaresan, in

K N K Karthik, President, KLNCE, Madurai, in his address stated that the topic of the Seminar is quite relevant to the recent developments of FEA in Mechanical Design. During his address, Dr A V Ram Prasad, Principal, KLNCE highlighted about various activities of IEI in their premises with the guidance and assistance of Madurai Local Centre of IEI. Prof Udayakumar extended vote of thanks at the end of the function. A large number of papers

his address highlighted the importance of Finite Element Analysis (FEA) and its usages in various Industries including space sector. Mr J Dhanraj, Senior Technical Officer, Central Institute of Plastics Engineering and Technology (CIPET), Madurai, in his address stated that there is ample opportunity in Internship program for Engineering Graduates with better exposure in FEA. Earlier, Prof P Udayakumar, Head, Department of Mechanical



Engineering, KLNCE, Madurai welcomed the august gathering. Mr P Rajamani, Council Member, IEI in his address appreciated the efforts of KLNCE and its team for providing full support to conduct the program. Mr embracing the theme were presented and discussed during the two-day technical sessions of the Seminar which immensely benefitted all the participants.



IEI Celebrates **World Water Day**

Theme : Leaving no one behind

The World Water Day was celebrated by the Institution all over the country on March 22, 2019. Reports of celebration received from various Centres are highlighted here.

STATE CENTRES

Gujarat

The Chief Guest on the occasion, Padmashri Mr S S Rathor, Chairman, Sardar Sarovar Narmada Nigam Ltd., Gandhinagar and Past President, IEI delivered an expert lecture on 'Narmada - An Apt Example of Integrated Planning,



Development and Management of River Basin'. He further explained about the importance of Sardar Sarover Project & its benefits. The Guest-of-Honour of the function, Mr N B Vasoya, Past President, IEI also addressed the august gathering.

Earlier, Prof A K Singh, Director, Indus University, Ahmedabad welcomed the gathering. Mr H U Kalyani, Chairman of the Centre also graced the occasion. Mr M P Raval, Chairman, Water Management Forum (WMF), IEI and Chief Engineer & Additional Secretary, Govt. of Gujarat, while speaking on the occasion, discussed in depth about various activities of WMF. Dr M Muruganant, Executive President, Indus University also addressed the gathering. Mr Vijay Solanki, Coordinator of the function proposed the vote of thanks.

Jharkhand

Mr Ravi Sahay, Chief Engineer, Water Resource Department (WRD), Ranchi, graced the occasion as the Chief Guest. Mr Sahay, in his address, highlighted about the probable action for tackling the water crisis. Mr Shardendu Narayan,

former Engineer-in-Chief, Drinking Water and Sanitation Department, Govt. of Jharkhand, in his address, highlighted the importance of rain water harvesting and the several



initiatives taken by Govt. of Jharkhand in this field. Earlier, Mr N K Roy, former Engineer-in-Chief, WRD, in his welcome address, highlighted the relevant issues like water scarcity, water pollution, lack of sanitation and impact of climate change. Mr Jitendra Kumar, Honorary Secretary of the Centre proposed the vote of thanks.

Karnataka

Dr D Nagesh Kumar, Chairman, Centre for Earth Sciences, Indian Institute of Science, Bengaluru, stated that sustainable advanced wastewater treatment technologies towards reuse have become most essential. He further elaborated that the mitigation strategies for lifeline structures need to focus



on extreme conditions like floods and draught. Dr C P S Prakash, Dayananda Principal, Sagar College of Engineering, Bengaluru, in his address highlighted some innovative ideas in the field of water and wastewater treatment. Mr Ramakrishna, Director, Rural

Development Panchayat Raj Department, Govt. of Karnataka highlighted that this kind of event helps to encourage the students for taking up the research on innovative technologies. Earlier, Mr Jasmail Singh, Chairman of the Centre encouraged all participants to focus their research on innovative technologies for wastewater reuse.

Kerala

The speaker on the occasion, Mr V Kunhambu, Regional Director, Central Ground Water Board, Thiruvananthapuram deliberated the lecture on 'Ground



Water Resource Management'. Mr Kunhambu, in his address, highlighted the issues related to depletion of ground water and ways of replenishing it in different parts of Kerala. Subsequently, he explained various methods available for recharge of the aquifer, which are adopted in different parts of Palghat and Kozhikode districts. Earlier, Mr

K K Gopalakrishnan Nair, Chairman of the Centre welcomed the gathering. Mr Asok Kumar K, Honorary Secretary of the Centre proposed the vote of thanks.

Maharashtra

The Keynote Speaker, Mr R V Saraf, Chairman, Viraj Envirozing India Pvt.

Ltd., Pune in his lecture stated that access to water is the fundamental right of all leaving species existing on earth. 'Flora and fauna are decided by the availability of water, hence the ecosystem from desert to tropical rain forest exists on earth', he added. Mr Shantilal Jain, Past Chairman of the Centre also graced



the occasion and addressed the gathering. Mr V C Kamble, Convener, Environmental Engineering Division of the Centre conducted the function.

Punjab & Chandigarh

DrTSKamal and MrPSBhogal, Council Members, IEI, graced the occasion as the Chief Guest and Guest-of-Honour respectively. Maj Gen (Dr) G S Lamba, Principal, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib (BBSBEC) welcomed the guests and dignitaries. Dr Lamba, in his welcome address, highlighted the importance of sustainable management system for fresh water resources. Dr Baljit Singh Khehra, Head, Department of Computer Science & Engineering, BBSBEC explained the importance of this celebration. Other dignitaries graced the occasion included Mr Jasbir Singh, Executive Engineer, Water Supply and Sanitation Department, Rajpura, Dr



Social Welfare Society, Fatehgarh Sahib.

West Bengal

Prof Sarajit Basu, former Professor, IIT Bombay, Mumbai graced the occasion as the Chief Guest. Prof Basu, in his address, elaborated upon the global water requirements and the present day crisis aroused due to the misuse of water. He further stressed on the national & global water resources as well as the measures to sustain it for the





human development. Dr K K Satapathy, Chairman, Agricultural Engineering Committee of the Centre briefed about the theme. 'Judicial use of the available water across the sectors can only reduce the number of people suffering from water scarcity', Dr Satapathy added. Mr Kalipada Das, Honorary Secretary of the Center proposed the vote of thanks.

Ahmednagar

LOCAL CENTRES

The Chief Guest, Mr S Dadapatil Rajale, former Executive Engineer, Water Resources Department pointed out about the gap between demand and supply of water. 'Considering drought cycle after every three years,



water usage efficiency should be increased and new concept of water productivity like recycling of water; water treatment, etc. should be introduced and implemented in large scale', he added. Mr Jayprakash Sancheti, former Executive Engineer, Water Resources Department,

Govt. of Maharashtra, in his keynote address, stated that water is basic and essential commodity of all living species on the Earth. Earlier, Dr R S Deshpande, Principal, Shri Chhatrapati Shivaji Maharaj College of Engineering, Ahmednagar welcomed the gathering. Mr Avinash Kulkarni, Chairman of the Centre briefly introduced the theme. Mr R P Waykar, Honorary Secretary of the Centre proposed the vote of thanks.

Alwar

The Chief Guest on this occasion, Mr O P Gupta, Regional Officer, Rajasthan Pollution Board, Alwar highlighted the importance of water and explained at length about various zones in the District classified on the basis of availability of water. Ms Kavita Yadav, Chairman and Managing Director,

Alwar Malt graced the occasion as Guest-of-Honour and stressed on the need of recycling of water. Mr R K Kajalla, HR Head of Havells India highlighted how to save water in the domestic place. Earlier, Mr M Lal Yadav, Chairman of the Centre



welcomed the distinguished gathering and presided over the function. Mr Shiv Singh, Honorary Secretary of the Centre briefed about the theme of the day. The vote of thanks was extended by Mr Ashok Gupta, Past Honorary Secretary of the Centre.

Bareilly

Mr Sovan Mohanty, Assistant Professor, Shri Ram Murti Smarak (SRMS) Institutions, Bareilly, delivered his lecture on 'The Changing Water Paradigm'. Mr S C Sundrani, Past Chairman of the Centre mentioned on the theme. Mr K B Agarwal, Founder Chairman of the Centre, while sharing his views, stated



Bokaro Steel City

entre, while sharing his views, stated that water is an essential building block of life. Earlier, Mr Subhash Mehra, Chairman of the Centre, in his welcome address suggested that access to water and sanitation is internationally recognized human right. Dr Pankaj Sharma, Honorary Secretary of the Centre proposed the vote of thanks.

The Chief Guest of the function, Mr M Bhujbal, General Manager (Maintenance), Bokaro Steel Plant in his address emphasized upon the sustainability of management of water resources. The Guest-of-Honour, Mr Rajeev Kumar, General Manager, Centre for Engineering & Technology (CET), in his speech mentioned about innovative practices and its implementation

in steel plant to save water. Mr L Upadhayay, Deputy General Manager (Water Supply), Bokaro Steel Plant and Mr N P Srivastava, Deputy General Manager & Environment Head, Bokaro Steel Plant graced the occasion.

The discussion was held on the water scenario at global level. Mr Srivastava further informed regarding successful execution of zero discharge schemes at Bokaro Steel Plant. Earlier, Mr Y N Singh,



Chairman of the Centre, in his welcome address elaborated each aspect of the theme. Mr D P Jha, Honorary Secretary of the Centre proposed the vote of thanks.

Coimbatore

MrNShanmugasundaram, Deputy General Manager–Business Development, Aquasub Engineering, Coimbatore graced the occasion as the Chief Guest.



Earlier, Dr H Rammohan, Honorary Secretary of the Centre welcomed the august gathering. Dr B Shridar, Dean (Engineering), Agricultural Engineering College and Research Institute, Tamilnadu Agricultural University, Coimbatore welcomed the address. Dr V V Senthilkumar,

Joint Honorary Secretary of the Centre proposed the vote of thanks.

Dhanbad

Dr P K Singh, Associate Professor, Department of Environmental Science & Engineering, IIT-Indian School of Mines, Dhanbad delivered the theme lecture. Dr T N Singh, Past Chairman of the Centre presided over the function. Dr K K Singh, Immediate Past Honorary Secretary of the Centre proposed the vote of the



of the Centre proposed the vote of thanks.

Dharwad

The Chief Guest of the function, Prof Aravind Galagali, former Advisor to Ministry of Water Resources, Govt. of Karnataka opined that water is very important for all the living beings. Further, he highlighted different projects taken up by both Central and State Govt. level. He also recited the contributions of Late S G Balekundry to the field of irrigation and other



water related projects. Dr Ramesh L Chakrasali, Chairman of the Centre in his address, mentioned that water is the root cause for civilization and the reasons such as, climatic change, environment and unbalance ecosystems are the reasons for water crises. Earlier, Dr K N Patil welcomed the august gathering. Mr

Vijaykumar H Totiger, Honorary Secretary of the Centre proposed the vote of thanks.

Durgapur

The Guest-of-Honour and Keynote Speaker, Dr Ashim Kumar Bhattacharya, Executive Director, Academy of Water Technology and Environ Management, Kolkata in his address covered the international and national issues related

to sustainable water for everyone. He further briefed about zero liquid discharge concept with case studies of Chennai Petroleum Corporation Ltd., Chennai, Pepsico, Saint-Gobain Glass etc. Dr Bhattacharya





discussed about systematic approach of identifying, measuring, monitoring and reducing the water consumption by means of some focused activities in an industry. The Guest Speaker on the occasion, Mr Sanjib Chakraborty, Scientist, Central Ground Water Board, Kolkata addressed the gathering covering the local water related issues and remedies. Earlier, Mr R K Roy, Immediate Past Chairman of the Centre in his welcome address briefed the importance and significance of the day. Mr M K Biswal, Honorary Secretary of the Centre proposed the vote of thanks.

Faridabad

Mr Sushil K Bajaj explained about the use of safe water in construction industry. He deliberated on the district wise historical fluctuation of water and the pollutants present in 50 samples of ground water lifted from random spots along 22 km stretch in and around NCR, Delhi. Prof Sanjay Gupta, Structural Engineering, Manav Rachna International Institute of Research



and Studies, Faridabad graced the occasion and highlighted on the remedial measure from global water crisis. Earlier, Mr Subhash Chander, Chairman of the Centre, in his welcome address mentioned about the Cape Town case of water

scarcity. Mr J P Malhotra, Past Chairman of the Centre concluded the session with the vote of thanks.

Gwalior

The Chief Guest, Mr Prabhat Bhargava, Technical Director, Bhargava Etlears Pvt.Ltd, Gwalior explained that Sustainable Development Goal 6

is set to improve the water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally. Mr R S Bhadhauriya, former CEO, Smart City Project, Gwalior explained how billions of people are



still living without safe water. Mr R K Batra, Superintendent Engineer, Public Health Engineering, Gwalior elaborated the main problems of drinking water at the local communities. Mr R K Khetan, Visiting Professor, Vikrant Institute of Technology & Management, Gwalior quoted that Water is life's matter and matrix, mother and medium.

Kanyakumari

Mr M R Mohan, former Deputy Superintending Engineer, PWD, Tamilnadu



graced the occasion as the Keynote Speaker. Mr Mohan, in his speech, stated global water crisis, which includes water scarcity, water pollution, inadequate water supply, lack of sanitations etc. He further explained that the day is celebrated for tackling water crisis and

addressing the reasons. Earlier, Mr V Muthum Perumal, Honorary Secretary of the Centre welcomed the august gathering. In his address, Mr V Sivathanu Pillai, Chairman of the Centre, briefed about the theme. He further stated that, for solving water crisis, international cooperation should be there to support the developing countries. Mr S Natarajan, former Chief Engineer, PWD, Tamilnadu proposed the vote of thanks.

Kota

The Chief Guest, Mr Kailash Bhargava, former Additional Director, Department of Watershed Development and Soil Conservation, Govt. of Rajasthan emphasized that every citizen has to save water, trees, environment for to be future crises. He further explained the various techniques to save the water. The Guest-of-Honour, Mr Deepak Shrivastav, Superintending Engineer,

Watershed Department, Banswara, Govt. of Rajasthan emphasized the need of religious use of water to save the water. He shared his experiences dedicated in the field of water conservation particularly on 'Four Water Concept' being adopted by Govt. of Rajasthan under 'Jal



Swavalamban Yojna'. The Keynote Speaker, Mr Shakti Raj Singh, Area Sales Manager, Jain Irrigation Systems Ltd. elaborated on the theme of the day. Earlier, Mr Anand Bardava, Chairman of the Centre welcomed the guests and dignitaries. Mr Sunil Bohra, Honorary Secretary of the Centre extended the vote of thanks at the end of the function.

Kozhikode

Mr Babu Mathew, Senior Principal Scientist & Head, Training Education



& Extension Division, Centre for Water Resources Development and Management, Calicut graced the occasion as the Guest Speaker. Earlier, Mr C Jayaram, Honorary Secretary of the Centre welcomed the gathering. Prof K P Mohandas,

Immediate Past Chairman of the Centre presided over the function. The programme concluded with the vote of thanks proposed by Mr M Sajan, Committee Member, Kozhikode Local Centre.

Ludhiana

The Speaker on the occasion, Dr Arvind Dhingra, Guru Nanak Dev Engineering College, Ludhiana in his lecture stated that water is an essential commodity without which it would be difficult to imagine life.



Dr Dhingra further advocated more crop per drop citing the differential in output of wheat and rice per hectare of Punjab vis-a-vis Madhya Pradesh. Earlier, Mr Surjit Singh, Honorary Secretary of the Centre, in his welcome address, said that water crisis was looming large on us and it is everyone's responsibility to conserve water.

Meerut

Mr Yatish Vatsa, Director – Personnel and Administration, Pashchimanchal



Vidyut Vitaran Nigam Ltd., Meerut graced the occasion as the Chief Guest and expressed his concern on the water problem and suggested ways to improve it. The Keynote Speaker, Mr V K Tyagi, former Engineer-in-Chief, Uttar Pradesh Irrigation, highlighted the deteriorating situation of water quality and quantity. Mr Tyagi urged

that the wastage of water in all sectors mainly in agriculture has to be controlled by using developed techniques of irrigation. Earlier, Mr Rajneesh Kumar, Chairman of the Centre welcomed the guests and dignitaries. Mr M L Jain, Honorary Sectary of the Centre presented the vote of thanks.

Munirabad

Mr Isaq, Administrator, TBP, Command Area Development Authority, Munirabad mentioned that water should be protected holistically. Dr Sham Chowdry,



I.E.I NEWS

April 2019

President, International Human Rights also graced the occasion. Dr H M P Vittal, President, Arogya Bharati, Karnataka explained the importance of the day. Earlier, Mr W Lalitha Prasad, Honorary Secretary of the Centre welcomed the august gathering. Mr Prahalada E, Chairman of the Centre presided over the function and proposed the vote of thanks.

Palghat

Mr Jayakumar P, Senior Principal Scientist & Head, Environmental



Scientist & Head, Environmental Studies Division, Centre for Water Resources Development and Management, Kozhikode graced the occasion as the Chief Guest. Mr Jayakumar, in his speech, pointed out that the main aim of celebrating this day is to inspire action to tackle the global water crisis. Earlier, Mr K Unnikrishnan, Chairman of the

Centre presided over the function. Mr A Ramesh, Honorary Secretary of the Centre proposed the vote of thanks.

Rourkela

The Speaker on the occasion, Mr Uday A Patel, Managing Director, Rourkela

Fabrication Pvt. Ltd., Rourkela, in his speech emphasized on the importance of water in day-today life. Stressing on the inclusive development of society's socio economic aspect, he presented an exhaustive study of Rourkela's Water Assets and Utilities and their projections to the year 2050. Prof H



M Jena, Honorary Secretary of the Centre proposed the vote of thanks at the end of the function.

Sunabeda



Mr R Chandra Sahoo, Deputy General Manager (Manufacturing), HAL graced the occasion as the Chief Guest and addressed the gathering. Mr N C Behera, Chairman of the Centre emphasized the importance of the occasion and provided simple

tips how to preserve water in day to day life. Mr Arabinda Swamy, Honorary Secretary of the Centre highlighted about the scarcity of fresh water in recent times and its need for current population.

Trichur



Prof V A Sudhakaran graced the occasion as the Chief Guest. Prof Sudhakaran, in his address, explained the main role of rain water to the soil in an effective way. Earlier, Mr V G Sankaranarayanan, Chairman of the Centre presided

over the function. Mr Sasidharan Achari M N, Honorary Secretary of the Centre proposed the vote of thanks.

Udaipur

The Guest Speaker of the function, Mr Sachin Samar, Associate General Manager (Environment), Hindustan Zinc Ltd., Udaipur shared his experience on the theme and explained about the use of water in various ways and emphasized on limited availability of potable water. Mr R K Agarwal, Superintending



Engineer, Watershed Department, Jila Parishad, Udaipur shared his views on conservation of water. Mr A S Choondawat, Past Chairman of the Centre spoke about the scarcity of water and appealed to save the water. Earlier, Mr Anurodh Prashant, Chairman of the Centre welcomed the gusts and dignitaries. Mr Y K Bolia, Honorary Secretary of the Centre proposed the vote of thanks at the end of the programme.

Upper Assam

The Chief Guest on the occasion, Mr H K Changmai, General Manager, Assam Gas Based Power Plant, North Eastern Electric Power Corporation Ltd., in his address, explained the significance of surface water, river water and underground water. He requested all Engineering fraternity to contribute



some way or other to address the drinking water problem. Earlier, Mr A K Baruah, Chairman of the Centre, in his welcome address explained about the significance of observing the day and highlighted the problems related to paucity of drinking water with special reference

to regional, national and international scenario. Mr M P Agarwal from All India Manufacturers' Organization and Mr B K Agarwal, Honorary Secretary, Assam Productivity Council also graced the occasion. Mr Diganta Goswami, Honorary Secretary of the Centre proposed the vote of thanks.

To be contd.

Mysore Local Centre Felicitates President, IEI



Mysore Local Centre of the Institution felicitated Dr T M Gunaraja, President, IEI, on February 5, 2019. Mr Jasmail Singh, Chairman, Karnataka State Centre, Dr R Suresh and Mr Dinesh Kumar D K, Chairman & Honorary Secretary respectively of the Cente; Mr M Lakshmana and Mr A S Sathish, Ex-Chairmen of the Centre were present on the occasion.

News-in-Brief

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

STATE CENTRES

Chhattisgarh

Technical Talk on 'Industrial Revolution 4.0' delivered by Mr A K Sharma, Retd. Director (Production), NALCO on February 16, 2019.

Observed 'National Science Day' on March 9, 2019.

Himachal Pradesh

Lecture on 'Leadership Skills for Professional Excellence' delivered by Mr Shiv Kumar Goel, Motivational Trainer on March 2, 2019.

Karnataka

Lecture on 'The Illustrious Life and Achievements of Sir C V Raman' on the occasion of National Science Day – 2019 delivered by Dr S P Basavaraju on February 28, 2019.

Lecture on 'Expansion of Suburban Railway Network' delivered by Mr Sanjeev V Dyamanavar, Civic Expert on Railway Networks on March 6, 2019.

Lecture on 'Climate Change and Global Warming Impacts & Mitigation' delivered by Mr K K Mahajan Industrial Consultant and Energy Management & Conservation Professional on March 13, 2019.

Kerala

Lecture on 'Rain Water Harvesting on Roads and Highways – An Innovative Approach' delivered by Mr Raghu Raghavan Pillai, Delser Management Solutions Pvt. Ltd., Thiruvananthapuram on March 6, 2019.

Lecture on 'Energy Conservation Building Code' delivered by Ms Ashiqua Sulthana, Indian Green Building Council Accredited Professional and a Sustainibility Consultant with the Energy Management Centre, Thiruvananthapuram on March 13, 2019.

Felicitation Meeting to Dr (Ms) Rajasree M S, the newly appointed Vice Chancellor of APJ Abdul Kalam Technological University (Kerala Technological University) on March 20, 2019.

Lecture on 'Transactional Analysis' delivered by Mr N Hariharan, Former Professor & Head, Department of Computer Science & Engineering and Former Head, Information Systems, Indian Oil Corporation Limited on March 27, 2019.

Rajasthan

Organized Fourth National Conference on 'Technology Enabling Modernization of Rural India (TMRI-2019)' on March 30, 2019.

Tamilnadu

Lecture Meeting on 'Advancements in Looms & Energy Efficient Innovative Methods in Loom Conversions' on March 27, 2019.

Telangana

Er M Thirpath Reddy Eighth Endowment Lecture on 'Sustainable Development: Learning from Nature' delivered by Dr P G Sastry, Director, Ramky Group, Former Chairman for Clearance of River Valley Projects, Government of India, Former Driector, National Institute of Technology, Warangal & Former Director General, WALAMTARI, Hyderabad on February 4, 2019. Lecture on 'Critical Points and Case Studies in Solar Power Plants' delivered by Mr C Venkateswarlu, Vice President, Solar Zenith Energy Services Pvt. Limited, Hyderabad on February 27, 2019.

Dr J Purushottam Fourteenth Endowment Lecture on 'High Value Concrete' delivered by Dr M V SeshagiriRao, Professor of Civil Engineering and Dean (Planning and Co-Ordination), C V R College of Engineering, Hyderabad and Former Professor of Civil Engineering, JNTUH, Hyderabad on March 1, 2019.

Lecture on 'Cultivate and Sustain a Safety Culture for Building Nation' on the eve of National Safety Day – 2019 delivered by Mr G K Anand, Advisor (Technical), IL & FS Environmental Infrastructure & Services Limited on March 4, 2019.

Lecture on 'ECMC for Industry' delivered by Prof G Radhakrishna, Joint Honorary Secretary of the Centre on March 26, 2019.

Tripura

Seminar on 'Science for the People and the People for Science' on the occasion of National Science Day on February 28, 2019.

LOCAL CENTRES

Ahmednagar

Organized Technical Visit to 'Shri Vriddheshwar Co-operative Sugar Factory, Ahmednagar' on March 23, 2019.

Seminar on 'Condition Monitoring of Industry Grade 3-Phase Induction Motor' on March 28, 2019.

Anpara

Observed 'Road Safety Week' on February 9, 2019.

Seminar on 'Advance NDT Technologies – A Cutting Edge Solution for Plant Health and Reliability' on March 8, 2019.

Belapur

Workshop on 'Technical Writing' on March 16, 2019.

Bokaro Steel City

Technical Paper Meeting on 'Coke Making in Steel Plant' presented by Mr S K Pradhan, Manager (Co & BP) Plant and Mr M K Senapati , Manager (Coke Oven & BPP) on March 26, 2019.

Workshop on 'e-Waste Management' on March 31, 2019.

Coimbatore

Lecture on 'Damages to the Barrage across River Kollidam at Mukombu' delivered by Er K Natarajan Former Superintending Engineer (PWD), Coimbatore on February 27, 2019.

Lecture on 'Innovation and Entrepreneurship' delivered by Mr Sundar Muruganandhan, Managing Director, Versa Drives Private Limited, Coimbatore on March 14, 2019.

Durgapur

Lecture on 'Behaviour Based Safety' on the eve of 48th National Safety Day delivered by Mr Atindra Nath Misra, Coordinator, National Institute of Fire and Safety Engineering, Nagpur Regional Center and Ex Safety Official - SAIL, Durgapur Steel Plant March 4, 2019.

Organized Technical Visit to 'Essar Oil & Gas Exploration & Production Ltd, Bamunara, Durgapur' on March 27, 2019.

Gorakhpur

Lecture Meeting on 'Safety in Chemical Processing Industry' on March 12, 2019.

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Gwalior

Celebrated National Science Day 2019 on the topic 'Science for the People and the People for Science' on February 28, 2019.

Kanyakumari

Conducted 'International Industry Academia Conference (IIAC 2019)' during March 22-23, 2019.

Kolhapur

Seminar on 'Applications of Renewable Energy in Agriculture Sector' during January 17-18, 2019.

Madurai

Lecture on 'Education and Innovation delivered by Prof (Dr) YSM P Ashok Kumar, COC, Manayakarasai Group of Educational Institutions, Madurai on January 29, 2019.

Lecture on 'In situ Bio Remediation of Sewage' delivered by Dr M P Raajaseharan, Founder & CEO, Sustainable Promoters, Tiruchirappalli on February 23, 2019.

Meerut

Lecture Meeting on 'Tall Buildings' on March 10, 2019.

Mysore

Lecture on 'Perspective Views (Computer Vision)' delivered by Dr S Murali, Professor, Department of Computer Science & Engineering, MIT Mysore, on January 2, 2019.

Lecture on 'Restoration of Degraded Forest Habitats and Sustainable Living' delivered by Mr Hanumanth, Jungle Scapes Charitable Trust on January 9, 2019.

Lecture on 'Experiences of Flyover Construction in Mysore' delivered by Mr B K Ashwath, Executive Engineer(Rtd), KPWD, Mysore on January 23, 2019.

Lecture on 'All India Radio's Network and Its Evolution in Changing World of Sound Broadcasting' delivered by Mr Sunil Bhatia, Director (Engineering), AIR, Mysuru on January 30, 2019.

Lecture on 'A Journey Towards Water Efficient Operations – A Systematic Approach' delivered by Mr C V Jagadish, CEO of System on Silicon Manufacturing Company (SSMC), Singapore and Chairman, PUB Water Network Panel, Singapore on February 4, 2019.

Lecture on 'River Rejuvenation in Peninsular India' delivered by Dr K Subramanya, Retired Professor, Civil Engineering Department, IIT Kanpur on February 6, 2019.

Lecture on 'Artificial Intelligence in Medicine' delivered by Dr B S Mahananda, Associate Professor, Department of Information Science & Engineering, JSS Science & Technical University, Mysore on February 13, 2019.

Lecture on 'Terrace Gardening and Plant Nutrition' delivered by Mr Gopalakrishna, Consultant, Mysore on February 20, 2019.

Lecture on 'Artificial Intelligence Application in Oil and Gas Industry' delivered by Dr Shailesh Gadad, Senior Principal, Infosys, Mysore on February 27, 2019.

Pune

Celebrated 'National Safety Day' on March 6, 2019.

Rourkela

Lecture on 'Introduction to Cybercrime and its Prevention' delivered by Dr Ramesh Kumar Mohapatra, Department of Computer Science and Engineering, NIT Rourkela on March 15, 2019.

Applications of Power Electronics in Electrical Systems

Punjab & Chandigarh State Centre of the Institution in association with the Department of Electrical Engineering, Baba Banda Singh Bahadur Engineering College (BBSBEC), Fatehgarh Sahib organized All India Workshop on 'Applications of Power Electronics in Electrical Systems' under the aegis of Electrical Engineering Division Board of IEI during January 15-16, 2019 at Chandigarh. Dr Kalaiselvi J, Assistant Professor, IIT Ropar graced the occasion as the Chief Guest. Dr Kalaiselvi, in his address enlightened

about the applications of power electronics, motion control of motors, energy conversion and the application of power converters in the field of electrical systems. Maj Gen (Dr) G S Lamba, VSM, Principal, BBSBEC while addressing the audience, stated that the students are required to have an innovative thinking to cater the needs of industry as well as to march along with the changing scenario of technical world. Mr P S Bhogal, Council Member, IEI welcomed the delegates and participants. Mr Sukhbir Singh Mundi, Honorary Secretary of the Centre offered the vote of thanks at the end of the programme. This Workshop provided a platform for the exchange of information and knowledge on the innovations in power electronics and their applications in different domains of electrical drives, smart grids and electrical vehicles. The main objective of this workshop was to explore the operational challenges and research opportunities in power electronics converters for applications in the field of Electric Drives, Smart Grids and Micro Grid technologies.



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IEI DIARY

Aerospace Engineering Division

All India Seminar on "Issues and Challenges in Aviation Industry"

Jaipur, September 21-22, 2019

The Honorary Secretary, IEI, Rajasthan State Centre, Gandhi Nagar, Tonk Road, Jaipur 302015 [27: (0141) 2706327; Telefax: (0141) 2700413; e-mail: rajasthansc@ieindia.org]

Thirty-third National Convention of Aerospace Engineers on **"Emerging Technologies in Aerospace Structures, Materials and Propulsion System**"

Pune, November 15-16, 2019

The Honorary Secretary, IEI, Pune Local Centre, Abhiyanta Bhavan, 1332, J M Road, Shivajinagar, Pune 411005, Maharashtra [2020-25533376 / 25520239 / 25530150; e-mail: punelc@ ieindia.org]

Thirty-fourth National Convention of Aerospace Engineers on **"Advances in Aerospace** Engineering"

Kanpur, November 9-10, 2020

The Honorary Secretary, IEI, Kanpur Local Centre, Engineers Bhawan, HBTI East Campus, Nawabganj, Kanpur 208002 [Telefax: (0512) 2560034; e-mail: kanpurlc@ieindia.org]

Agricultural Engineering Division

One Day Seminar on **"Roll of Engineer in Agriculture for Doubling the Farmers' Income"** Hyderabad, May 27, 2019

The Honorary Secretary, IEI, Telangana State Centre, Visvesvaraya Bhavan, Khairatabad, Hyderabad 500004 [2: 040-23314969; e-mail: telanganasc@ieindia.org; website:ieitsc.org]

All India Seminar on "Sustainable Agrifood Systems"

Hosur, July 26-27, 2019

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

Thirty-third National Convention of Agricultural Engineers on "Commercial Crops Processing and Value Addition"

Agartala, August 10-11, 2019

The Honorary Secretary, IEI, Tripura State Centre, Pandit Nehru Complex, Near Tripura Housing Board, P. O. Kunjaban, PB No 139, Agartala 799 006 [2010]: 0381-2304700; Fax: 0381-2304700; e-mail: tripurasc@ieindia.org]

National Conference on "Smart Village and Agriculture"

Bengaluru, February 07-08, 2020 The Honorary Secretary, IEI, Karnataka State Centre, No. 3, Dr. B R Ambedkar Veedhi, Bangalore 560001 [20:080-22264698; Telefax: 080-22256191; e-mail: karnatakasc@ieindia. org; www.ieiksc.org]

Architectural Engineering Division

All India Seminar on "Architectural Design Issues in Renovation and Rejuvenation of Old Structures"

Jaipur, June 15-16, 2019 The Honorary Secretary, IEI, Rajasthan State Centre, Gandhi Nagar, Tonk Road, Jaipur 302015

Centre, Gandhi Nagar, Tonk Road, Jaipur 302015 [27: (0141) 2706327; Telefax: (0141) 2700413; e-mail: rajasthansc@ieindia.org]

All India Seminar on "Structural Aspects of Architectural Engineering"

Jaipur, August 17-18, 2019 The Honorary Secretary, IEI, Rajasthan State Centre, Gandhi Nagar, Tonk Road, Jaipur 302015 [$\mathbf{\Xi}$: (0141) 2706327; Telefax: (0141) 2700413; e-mail: rajasthansc@ieindia.org]

All India Seminar on **"Architecture for Sustainable Development"**

Raipur, September 14-15, 2019 The Honorary Secretary, IEI, Chhattisgarh State

Centre, National Institute of Technology Campus, G E Road, Raipur 492010 [Ph: (0771) 2254625; e-mail: chattisgarhsc@ieindia.org; website: www.ieicg.org]

International Conference on **"Architectural** Innovations: Engineering, Technology and Materials"

Jaipur, November 27-29, 2019

The Honorary Secretary, IEI, Rajasthan State Centre, Gandhi Nagar, Tonk Road, Jaipur 302015 [2]: (0141) 2706327; Telefax: (0141) 2700413; e-mail: rajasthansc@ieindia.org]

Chemical Engineering Division

All India Seminar on "Natural Gas – Fuel for Future"

Ranchi, June 7-8, 2019

The Honorary Secretary, IEI, Jharkhand State Centre, Engineer Bhawan, Nepal Kothi Campus, Doranda, Ranchi 834002 [2012] (0651) 2491344; e-mail: jharkhandsc@ieindia.org; website: www.ieijsc.org]

Thirty-fifth National Convention of Chemical Engineers on **"The Food-Energy-Water (FEW) Nexus- Challenges for Chemical Engineers"** Guwahati, September 06-07, 2019

The Honorary Secretary, IEI, Assam State Centre, Panbazar Overbridge, East Lane, Guwahati 781001 [262]: 0361-2548742; Fax: (0361) 2630368; e-mail: assamsc@ieindia.org; website: ieiasc. org]

Civil Engineering Division

All India Seminar on "Sustainable Solutions for Road Safety"

Lucknow, May 04-05, 2019

The Honorary Secretary, IEI, Uttar Pradesh State Centre, Engineers' Bhawan, River Bank Colony, Lucknow 226018 [Telefax: (0522) 2526322; e-mail: upsc@ieindia.org; website: www.ieiup. org.in]

One Day Workshop on "**Pile Foundation**" Imphal, May 21, 2019

The Honorary Secretary, IEI, Manipur State Centre, Government Polytechnic Campus, Takyel, Imphal, Manipur 795001 [e-mail: manipursc@ ieindia.org]

All India Seminar on **"Safety Aspects at Construction Sites"**

Panaji, June 14-15, 2019

The Honorary Secretary, IEI, Goa State Centre, D Type Quarters, D-8-1, Government Polytechnic Campus, Altinho, Panaji, Goa 403001 [22: 0832-2434686; e-mail: goasc@ieindia.org; website: wwwieigoasc.org]

All India Seminar on "Structural Design Special Reference to Seismic Effect on High Rise Building"

Gorakhpur, July 06-07, 2019

The Honorary Secretary, IEI, Gorakhpur Local Centre, 176 Siddharth Nagar Colony, Opp GDA Centre, Bharwaliya Buzurg, Taramandal, Gorakhpur 273017 [e-mail: gorakhpurlc@ ieindia.org]

All India Seminar on "Energy Efficient Design of Buildings with Special Reference to Energy Conservation Building Code (ECBC)"

Lucknow, July 13-14, 2019 The Honorary Secretary, IEI, Uttar Pradesh State Centre, Engineers' Bhawan, River Bank Colony, Lucknow 226018 [Telefax: (0522) 2526322; e-mail: upsc@ieindia.org; website: www.ieiup. org.in]

All India Seminar on **"Evolving Trends in Structural Monitoring and Rehabilitation"** Coimbatore, August 09-10, 2019

The Honorary Secretary, IEI, Coimbatore Local Centre, PSG College of Technology Campus, Peelamedu, Coimbatore 641004 [28: 0422-2580733; e-mail: coimbatorelc@ieindia.org]

Thirty-fifth National Convention of Civil Engineers on **"Restoration and Maintenance of Structures and Water Bodies for Sustainability"**, Ahmedabad, September 01-02, 2019

The Honorary Secretary, IEI, Gurarat State Centre, Bhaikaka Bhavan, Near Law Garden, Law College Road, Ahmedabad 380006 [22: (079) 2640 0811; Telefax: (079) 2656 1825; e-mail: gujaratsc@ ieindia.org; website: www.ieigujarat.org]



International Conference on "Building the Disaster Resilient Society in S-E Asia: Roll of Nations"

Agartala, November 22-24, 2019

The Honorary Secretary, IEI, Tripura State Centre, Pandit Nehru Complex, Near Tripura Housing Board, P.O.: Kunjaban, PB No. 139, Agartala 799006, Telefax: 0381-2304700; e-mail: tripurasc@ieindia.org]

Thirty-sixth National Convention of Civil Engineers on "Innovation, Mechanisation and Modern Techniques in Civil Engineering", Ranchi, September 8-9, 2020

The Honorary Secretary, IEI, Jharkhand State Centre, Engineer Bhawan, Nepal Kothi Campus, Doranda, Ranchi 834002 [26: (0651) 2491344; e-mail: jharkhandsc@ieindia.org; website: www. ieijsc.org]

Computer Engineering Division

All India Workshop on "Practical Approach towards Deep Learning"

Chandigarh, July 11-12, 2019

The Honorary Secretary, IEI, Punjab & Chandigarh State Centre, Madhya Marg, Sector 19-A, Chandigarh 160019 [2775418; Fax: (0172) 2540133; e-mail: pcsc@ieindia.org]

International Conference on "Opportunities and **Challenges of Blockchain Technology**"

Chennai, September 13-15, 2019

The Honorary Secretary, IEI, Tamilnadu State Centre, 19, Swami, Sivananda Salai, Chepauk, Chennai 600005 [22: (044) 25360614 25369433; e-mail: tnsc@ieindia.org; website: www.ieitamilnadu.org]

All India Workshop on "Software Testing, Audit and Quality Assurance using Open Source Tools"

Chandigarh, November 21-22, 2019 The Honorary Secretary, IEI, Punjab & Chandigarh State Centre, Madhya Marg, Sector 19-A, Chandigarh 160019 [2775418; Fax: (0172) 2540133; e-mail: pcsc@ieindia.org]

Thirty-third National Convention of Computer **"Applied** Engineers on Computational Intelligence and Informatics"

Jaipur, February 15-16, 2020

The Honorary Secretary, IEI, Rajasthan State Centre, Gandhi Nagar, Tonk Road, Jaipur 302015 [2700413] [2706327; Telefax: (0141) 2700413; e-mail: raiasthansc@ieindia.org]

Electrical Engineering Division

National Workshop on "Renewable Integration with Grid, Power Quality Scenario and Active **Distribution Networks**"

Surat, May 06-11, 2019

The Honorary Secretary, IEI, South Gujarat Local Centre, Mahida Bhavan, Ichchhanath, Surat 395 007, Gujarat [22: 0261-2227340; e-mail: sglc@ieindia.org]

All India Seminar on "Power Quality **Enhancement in Distributed Generation**" Tiruchirappalli, July 19-20, 2019 The Honorary Secretary, IEI, Tiruchirapalli Local Centre, BHEL Main Office Road, Tiruchirapalli 620014 [2: 0431-2554285; Fax: 0431-2520383/2520775; e-mail: tiruchirapallilc@ ieindia.org1

Thirty-fifth National Convention of Electrical Engineers on "Storing Energy for a Sustainable Future: Future Energy in any Isolated World" Chennai, November 8-9, 2019

The Honorary Secretary, IEI, Tamilnadu State Centre, 19, Swami, Sivananda Salai, Chepauk, Chennai 600005 [2: (044) 25360614 / 25369433; e-mail: tnsc@ieindia.org; website: www.ieitamilnadu.org]

International Conference on "Grid Integration for Variable Energy Resources (GIVER)" Kolkata, November 23-24, 2019 The Honorary Secretary, IEI, West Bengal State Centre, 8 Gokhale Road, Kolkata 700020 [28: (033)22238914; Fax: (033) 22233140; e-mail: wbsc@ieindia.org]

Electronics & Telecom. Engineering Division

One Dav Seminar on "Communication **Engineering: Future Scope and Challenges"** Durgapur, May 07, 2019

The Honorary Secretary, IEI, Durgapur Local Centre, Nehru Avenue, 'B' Zone, Durgapur 713205 [Telefax: 0343-2564770; e-mail: durgapurlc@ieindia.org; web: ieidurgapurlc.org]

All India Workshop on "Optical Fibre Technology Photonic Integrated Devices for and **Communication and Industrial Applications**" Tiruchirappalli, June 10-11, 2019

The Honorary Secretary, IEI, Tiruchirapalli Local Centre, BHEL Main Office Road, Tiruchirapalli 620014 [26: 0431-2554285; Fax: 0431-2520383/2520775; e-mail: tiruchirapallilc@ ieindia.org]

National Workshop on "Single Board Computer for Real-Time Applications"

South Gujarat, July 5-6, 2019

The Honorary Secretary, IEI, South Gujarat Local Centre, Mahida Bhavan, Ichchhanath, Surat 395 007, Gujarat [20: 0261-2227340; e-mail: salc@ieindia.ora]

All India Seminar on "Signal Processing, Statistics and Analysis"

Hosur, July 08-09, 2019

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

All India Seminar on "Internet of Things for Smart Applications"

Madurai, July 18-19, 2019

The Honorary Secretary, IEI, Madurai Local Centre, Er T M Jambulingam Bhavan, No. 1, Vivekananda Nagar, 120 Feet Road, Surveyor Colony, K Pudur, Madurai 625007 [2: 0452-4373067; e-mail: preet 408@vahoo.co.in]

All India Seminar on "Overview on Image **Processing and Cyber Security**"

Hyderabad, August 10-11, 2019

The Honorary Secretary, IEI, Telangana State Centre, Visvesvarya Bhavan, Khairatabad, Hyderabad 500004 [2: 040-23314969; e-mail: telanganasc@ieindia.org; website: www.ieitsc. org]

International Conference on "Electronics & Communications, Renewable Energy and IOT-Vision 2040"

Chandigarh, September 07-08, 2019

The Honorary Secretary, IEI, Punjab & Chandigarh State Centre, Madhya Marg, Sector 19-A, Chandigarh 160019 [2775418; Fax: (0172) 2540133; e-mail: pcsc@ieindia.org]

Thirty-fifth National Convention of Electronics & Telecommunication Engineers on "Intelligent Electronics Systems for State-of-the-Art Healthcare System"

Kurukshetra, October 19-20, 2019

The Honorary Secretary, IEI, Haryana State Centre. E-13. Ashoka Nursery, Kunjpura Road, Karnal 132001 [22: (0184) 2266176, e-mail: haryanasc@ieindia.org]

Environmental Engineering Division

All India Seminar on "Waste to Wealth" Raipur, June 8-9, 2019

The Honorary Secretary, IEI, Chhattisgarh State Centre, National Institute of Technology Campus, G E Road, Raipur 492010 [Ph: (0771) 2254625; chattisgarhsc@ieindia.org; website: e-mail: www.ieicg.org]

Seminar on "Environmental All India Sustainability of the Iron and Steel Industry through New Technologies" Ranchi, June 29-30, 2019

The Honorary Secretary, IEI, Jharkhand State Centre, Engineer Bhawan, Nepal Kothi Campus, Doranda, Ranchi 834002 [22: (0651) 2491344; e-mail: jharkhandsc@ieindia.org; website: www.ieijsc. org]

All India Seminar on "Environmental Pollution **Issues in Urban Areas**"

Jaipur, July 06-07, 2019

The Honorary Secretary, IEI, Rajasthan State Centre, Gandhi Nagar, Tonk Road, Jaipur 302015 [2706327; Telefax: (0141) 2700413; e-mail: rajasthansc@ieindia.org]

Thirty-fifth National Convention of Environmental Engineers on "Green Technology for Clean & **Green India**"

Bangalore, August 17-18, 2019

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The Honorary Secretary, IEI, Karnataka State Centre, No. 3, Dr. B R Ambedkar Veedhi, Bangalore 560001 [20:080-22264698; Telefax: 080-22256191; e-mail: karnatakasc@ieindia. org; www.ieiksc.org]

All India Seminar on **"Solid Waste Management:** An Industrial Perspective"

Bokaro Steel City, September 21-22, 2019 The Honorary Secretary, IEI, Bokaro Steel City Local Centre, Abhiyanta Bhawan, Sector V-A, Bokaro Steel City 827006 [20: 06542-267227/288972; e-mail: bokarolc@ieindia.org]

International Conference on "Influx of Environmental Damages on Sustainable Living"

Hyderabad, November 22-24, 2019

The Honorary Secretary, IEI, Telangana State Centre, Visvesvaraya Bhavan, Khairatabad, Hyderabad 500004 [22:040-23314969; e-mail: telanganasc@ieindia.org; website:ieitsc.org]

Thirty-sixth National Convention of Environmental Engineers on "**Waste Recycling and Reuse**" Kochi, August 07-08, 2020

The Honorary Secretary, IEI, Kochi Local Centre, Govt. Homeo Hospital Road, Near Pullepady Railway Over Bridge (East Side), P.O. Kaloor, Kochi 682017 [22: 0484-2403838 /3993; e-mail: kochilc@ieindia.org; website: www. ieikochi.org]

Marine Engineering Division

All India Seminar on "Dredging Technology in Remediation and Environmental Protection Application"

Jaipur, August 03-04, 2019

The Honorary Secretary, IEI, Rajasthan State Centre, Gandhi Nagar, Tonk Road, Jaipur 302015 [2]: (0141) 2706327; Telefax: (0141) 2700413; e-mail: rajasthansc@ieindia.org]

Thirty-third National Convention of Marine Engineers on the theme **"A Safe and Environment Friendly Maritime Sector: Vision for Future"** Kochi, August 30-31, 2019

The Honorary Secretary, IEI, Kochi Local Centre, Govt. Homeo Hospital Road, Near Pullepady Railway Over Bridge (East Side), P.O. Kaloor, Kochi 682017 [22: 0484-2403838 /3993; e-mail: kochilc@ieindia.org; website: www. ieikochi.org]

Mechanical Engineering Division

All India Seminar on **'Efficiency Enhancement through Green Technology in Manufacturing'**, Durgapur, May 10-11, 2019

The Honorary Secretary, IEI, Durgapur Local Centre, Nehru Avenue, 'B' Zone, Durgapur 713205 [Telefax: 0343-2564770; e-mail: durgapurlc@ieindia.org; web: ieidurgapurlc.org]

All India Workshop on **'Nano Technology and Smart Materials'**

Chandigarh, May 15-16, 2019 The Honorary Secretary, IEI, Punjab & Chandigarh State Centre, IEI, Madhya Marg, Sector 19-A, Chandigarh 160019 [2775418; Fax: (0172) 2540133; e-mail: pcsc@ ieindia.org]

All India Seminar on '**Rural Industrialization through Innovative Process Mechanization**' Guwahati, June 08-09, 2019

The Honorary Secretary, IEI, Assam State Centre, Panbazar Overbridge, East Lane, Guwahati 781001 [26]: 0361-2548742; Fax: (0361) 2630368; e-mail: assamsc@ieindia.org; website: ieiasc. org]

All India Seminar on **"Application of** Computational Fluid Dynamics in Heat Transfer and Energy Systems"

Tiruchirapalli, June 28-29, 2019 The Honorary Secretary, IEI, Tiruchirapalli Local Centre, BHEL Main Office Road, Tiruchirapalli 620014 [2014] (2014)

All India Seminar on 'Advances in Manufacturing Systems and Composites Fabrication'

Jaipur, July 13-14, 2019 The Honorary Secretary, IEI, Rajasthan State Centre, Gandhi Nagar, Tonk Road, Jaipur 302015 [2]: (0141) 2706327; Telefax: (0141) 2700413; e-mail: rajasthansc@ieindia.org]

All India Workshop on 'Additive and Advanced Manufacturing'

Bengaluru, July 29-30, 2019

The Honorary Secretary, IEI, Karnataka State Centre, 3, Dr B R Ambedkar Veedhi, Bangalore 560001 [22264698; Telefax: (080) 22256191; e-mail: karnatakasc@ieindia.org; website: www.ieiksc.org]

All India Seminar on **"Scope and Opportunity of** Hydropower and Wind Power in NER" Mizoram, August 02-03, 2019

The Honorary Secretary, IEI, Mizoram State Centre, National Institute of Technology, Chaltlang (Dawrkawn), Aizawl 796012, Mizoram [e-mail: mizoramsc@ieindia.org]

All India Seminar on **"Tribology as Energy Saver** for Mining & Heavy Industries"

Ranchi, August 24-25, 2019

The Honorary Secretary, IEI, Jharkhand State Centre, Engineer Bhawan, Nepal Kothi Campus, Doranda, Ranchi 834002 [201344; e-mail: jharkhandsc@ieindia.org; website: www.ieijsc.org]

Thirty-fifth National Convention of Mechanical Engineers, on "Trends and Developments in Automotive Industry"

Hosur, September 13-14, 2019 The Honorary Secretary, IEI, Hosur Local Centre, No.69, Kamaraj Nagar, Kumudepall, Near Adhiyamaan College of Engineering, Tamilnadu, Hosur 635109 [e-mail: hosurlc@ieindia.org]

Thirty-sixth National Convention of Mechanical Engineers, on "Innovations in Thermal Science and Engineering"

Agartala, September 05-06, 2020

The Honorary Secretary, IEI, Tripura State Centre, Pandit Nehru Complex, Near Tripura Housing Board, P. O. Kunjaban, PB No 139, Agartala 799 006 [2013]: 0381-2304700; Fax: 0381-2304700; e-mail: tripurasc@ieindia.org]

Thirty-seventh National Convention of Mechanical Engineers on **"Application of IoT and Big Data in Manufacturing and Associated Field"** Delhi, September 10-11, 2021

The Honorary Secretary, IEI, Delhi State Centre, Engineers Bhawan, 2 Bahadurshah Zafar Marg, New Delhi 110002 [2011-23379052 / 23379948; e-mail: delhisc@ieindia.org; website: www.ieidsc.in]

Metallurgical & Materials Engg. Division

International Conference of Metallurgical & Materials Engineers on **"Synthesis, Characterization and Application of Nanomaterials (SCAN)"** Kolkata, November 01-03, 2019

The Honorary Secretary, IEI, West Bengal State Centre, 8 Gokhale Road, Kolkata 700020 [26: (033)22238914; Fax: (033) 22233140; e-mail: wbsc@ieindia.org]

Production Engineering Division

Thirty-fourth National Convention of Production Engineers on "Emerging Technologies in Power Sector Equipment Manufacturing"

Tiruchirappalli, May 25-26, 2019

The Honorary Secretary, IEI, Tiruchirappalli Local Centre, BHEL Main Office Road, Tiruchirappalli 620014 [26: 0431-2554285; Fax: 0431-2520383/2520775; e-mail: tiruchirappallilc@ ieindia.org]

Interdisciplinary

One Day Seminar on "Cool, Green and Power Roofs"

Hyderabad, May 20, 2019

The Honorary Secretary, IEI, Telangana State Centre, Visvesvaraya Bhavan, Khairatabad, Hyderabad 500004 [22: 040-23314969; e-mail: telanganasc@ieindia.org; website:ieitsc.org]

All India Seminar on "Green Energy Technologies for Sustainable Environment"

Pune, October 12-13, 2019

The Honorary Secretary, IEI, Pune Local Centre, Abhiyanta Bhavan, 1332, J M Road, Shivajinagar, Pune 411005, Maharashtra [26: 020-25533376 / 25520239 / 25530150; e-mail: punelc@ieindia. org]

International Conference on "Innovative Engineering for Smart Cities, High Speed Transport and Infrastructure"

Chennai, November 18-20, 2019

The Honorary Secretary, IEI, Tamilnadu State Centre, 19, Swami, Sivananda Salai, Chepauk, Chennai 600005 [26: (044) 25360614 / 25369433; e-mail: tnsc@ieindia.org; website: www.ieitamilnadu.org]

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One Day Seminars/Workshops Conducted by Various Centres of IEI

STATE CENTRES

Punjab & Chandigarh

Punjab & Chandigarh State Centre of the Institution in association with Department of Mechanical Engineering, BBSB Engineering College (BBSBEC), Fatehgarh Sahib organized One day Workshop on 'Mechanical



Engineering in Mining Industry' under the aegis of Mechanical Engineering Division Board of IEI on March 29, 2019 at Fatehgarh Sahib. Mr Jaswant Singh Gill, former Chief Mining Engineer graced the occasion as the Chief Guest. Other dignitaries present on the occasion included, Maj Gen (Dr) G S Lamba, Principal, BBSBEC; Dr T S Kamal, Council Member, IEI; Prof Lakhvir Singh, Head, Department of Mechanical Engineering, BBSBEC; Dr D K Goyal, Assistant Professor, I K Gujral Punjab Technical University, Jalandhar; Dr Dheeraj Gupta, Associate Professor, Thapar University, Patiala.

Uttar Pradesh

Uttar Pradesh State Centre of the Institution jointly with Institution of Valuers,



Lucknow Branch organized One-day Seminar on the topic 'Effect of Insolvency and Bankruptcy Code 2016 and IBBI' under the aegis of Civil Engineering Division of IEI on March 31, 2019 at

Lucknow. Many eminent personalities graced the occasion and delivered lectures embracing the theme of the Seminar.

LOCAL CENTRES

Bareilly

Bareilly Local Centre of the Institution in association with Shri Ram Murti Smarak (SRMS) College of Engineering & Technology, Bareilly organized One day



Seminar on 'Microwave and Millimeter Wave Technology' under the aegis of Electronics & Telecommunication Engineering Division Board of IEI on March 30, 2019 at Bareilly. Dr A K Gautam, G B Pant Institute of Engineering and Technology, Uttarakhand graced the occasion as the Guest-of-Honour. Other dignitaries present on the occasion included, Prof Prabhakar Gupta, Dean, Academics, Mr Suresh Sundrani, Members, Board of Governors, SRMS Trust, Prof Amalendu Patnaik, IIT Roorkee.

Coimbatore



Coimbatore Local Centre of the Institution in association with the Department of Electronics & Communication Engineering, Dr N G P Institute of Technology (NGPIT), Coimbatore organized One day Seminar on 'Wearable & Implantable Body Sensor Networks' under the aegis of Interdisciplinary Coordination Committee of IEI on March 15, 2019 at Coimbatore. Mr Appaji Abhishek, Co-Founder, Glucotek Inc., QLD, Australia, Incubate, Centre for Innovation in Medical Electronics (CIME), BMS College of Engineering, Bangalore graced the occasion as the Chief Guest. Other dignitaries on the occasion included, Dr K Porkumaran, Principal, NGPIT; Prof K Gayathri Devi, Head, Department of Electronics & Communication Engineering, NGPIT, Dr I S Akila, Assistant Professor, Department of Electronics & Communication Engineering, Coimbatore Institute of Technology, Coimbatore.

Durgapur

Durgapur Local Centre of the Institution organized One day Seminar on 'Scope and Applicability of Science in Engineering Fields and it's Connection to Environmental Issues' under the aegis of Interdisciplinary Coordination Committee of



IEI on March 16, 2019 at Durgapur. Prof P K Sinha, Principal, Durgapur Institute of Advanced Technology and Management (DIATM), Durgapur graced the occasion as the Special Guest and addressed the gathering.

Durgapur Local Centre of the Institution organized One day Seminar on 'Power Electronics Technology Adopted for Drives and Electrical System Design' under the aegis of Electrical Engineering Division Board of IEI on March 30, 2019 at Durgapur. Prof Sujit Biswas, Past Chairman, IEEE



Kolkata Section and former Head, Department of Electrical Engineering, Jadavpur University, Kolkata graced the occasion as the Chief Guest. Prof P K Sinha, Principal, DIATM, Mr Arijit Basuroy, Managing Director,

NEO-TELE-TRONIX Pvt. Ltd. and Dr Arindam Biswas, Kazi Nazrul University, Asansol, West Bengal participated as Guests-of-Honour. Prof C T Bhunia, Director, Rahul Foundation spoke on the occasion as Special Guest.

Gwalior

Gwalior Local Centre of the Institution organized One day Workshop on 'Robotics in Utilities' under the aegis of Computer Engineering Division Board of IEI on February 17, 2019 at Gwalior. Mr Anurag Tiwari,



Manager - Technical Solutions, Center of Digital Excellence Pvt. Ltd., Gwalior graced the occasion as the Keynote Speaker and spoke about Robotics and its Utilities.

Kanchepuram



Kanchepuram Local Centre of the Institution in collaboration with the Department of Computer Science & Engineering, St. Joseph's Institute of Technology (SJIT) organized One day Seminar

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on 'BLOCKCHAIN and Cryptocurrencies' under the aegis of Computer Engineering Division Board of IEI on March 13, 2019 at Kanchepuram. Mr Kishore Abishek, Managing Director, Zion Robotics and Advanced Engineering, graced the occasion as the Chief Guest. Dr J Dafni Rose, Head, Department of Computer Science & Engineering, SJIT addressed the august gathering.

Kanchepuram Local Centre of the Institution in association with Sri Sairam Institute of Technology (SIT), Chennai organized One day Seminar on

'Provision of SCADA in Transmission and Distribution' under the aegis of Electrical Engineering Division Board of IEI on March 18, 2019 at Chennai. Dr J Balamurugan, Assistant Engineer (Electrical), Tamilnadu Electricity Board, Chennai, graced the occasion as the Chief Guest. Other



dignitaries present on the occasion included, Mr A Anbazhagan, Head,

Department, Electrical and Electronics Engineering, SIT, Chennai and Ms G Ezhilarasi, Assistant Professor, Department of Electrical and Electronics Engineering, SIT, Chennai.

Visakhapatnam

Visakhapatnam Local Centre of the Institution in association with RINL, Vizag Steel Plant, Visakhapatnam, organized One day Workshop on 'Power

Generation & Distribution System in Steel Industry' under the aegis of Electrical Engineering Division Board of IEI on March 12, 2019 at Visakhapatnam. Mr B B R Vardhanam, General Manager (Training), RINL, Vizag Steel Plant graced the



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occasion as the Chief Guest and addressed the gathering.



The Institution of Angineers (India)

Notification for

R&D Grant-in-Aid (2019-20)

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

Like every year, the Institution invites applications for the session 2019-2020 for funding R&D projects and research initiatives aimed at improving the life-style of common people from engineering students pursuing full time Diploma/UG/PG/PhD engineering program in AICTE/UGC/NAAC approved Institutions/Colleges/Universities. The application form and guidelines are available in our website https://www.ieindia.org. The projects should be carried out under the guidance of faculty members who are Corporate Members of IEI. Membership criteria for student(s), guide(s) and Institution(s) are as follows:

Project Category	Student/Applicant Membership	Guide(s) Membership	Institutional Membership
1. Diploma	Exempted [Membership of Student Chapter is desirable]	AMIE/MIE/FIE	Not Mandatory
	Preferably 'Student Member' (SMIE)	AMIE/MIE/FIE	Applicant's Institute should preferably be an Institutional Member with valid NIRF Rank
2. UG (BE/BTech/AMIE/Equivalent)	'Student Member' (SMIE)	AMIE/MIE/FIE	Applicant's Institute should preferably be an Institutional Member with NBA / NAAC Accreditation or valid NIRF Rank
3. PG (ME/MTech/Equivalent)	AMIE/MIE/FIE	MIE/FIE	Applicant's Institute should preferably be an Institutional Member with NBA / NAAC Accreditation or valid NIRF Rank
4. PhD	AMIE/MIE/FIE	MIE/FIE	Applicant's Institute should preferably be an Institutional Member with NBA / NAAC Accreditation or valid NIRF Rank

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

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

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

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

Kerala State Centre Felicitates President, IEI



Kerala State Centre of the Institution felicitated Dr T M Gunaraja, President, IEI, on March 9, 2019. Mr K K Gopalakrishnan Nair, Chairman of the Centre welcomed the august gathering and presided over the function. Mr Asok Kumar K, Honorary Secretary of the Centre extended the vote of thanks to the dignitaries.



International Federation of Consulting Engineers (FIDIC), Asia Pacific body of FIDIC (ASPAC) [FIDIC – ASPAC 2019] Conference will be held at New Delhi during July 7-9, 2019 where IEI is the Knowledge Partner

IEI NEWS

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