

Emerging Research Areas in Mechanical Engineering

Role of Women in Engineering, Science & Technology: Creating Sustainable Career

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IEI DIARY

World Telecommunication and Information Society Day 2017

97 YEARS OF RELENTLESS JOURNEY TOWARDS ENGINEERING ADVANCEMENT FOR NATION-BUILDING

Volume 67 Number 3

Think-IoT 2017.VI - Booting IoT: An Introduction to the IoT Platform

urgapur Local Centre of the Institution organized a two-day All India Seminar on the theme Think-loT 2017.VI – Booting IoT: An Introduction to the IoT Platform" under the aegis of Computer Engineering Division, IEI during April 28-29, 2017 at Durgapur. Mr R K Roy, Chairman of the Centre welcomed the quests and dignitaries and elaborated the theme of the Seminar. The Chief Guest, Dr Sujoy Saha of NIT Durgapur in his keynote address, explained the definition of IoT and described a case study on 'Efficient Energy and Environment Management for Smart City: An Application of IoT'. He mentioned that a growing number of physical objects are getting connected to the Internet at an unprecedented rate realizing the idea of the Internet of Things (IoT). He was of the opinion that there are several domains and environments in which IoT can play a remarkable role and improve the quality of human life. Dr Saha suggested that as the average age is increasing both in developed and developing countries, activity recognition can be used for protecting aged people from accidental injuries. In this respect, he spoke about two kinds of sensor placement; wearable sensors and environment fitted sensors. He mentioned that in case of wearable sensors, the one's privacy is at risk as relevant data is always being used for decision making whereas in case of environment sensors, no such scope occurs. He also spoke about ultrasonic sensors which are widely used for distance measurement in many applications. The Guest-of-Honour, Dr D C Gandhi, Vice Principal, Dr B C Roy Engineering



College (BCREC), Durgapur, deliberated on basic ideas of internet of things and mentioned few of its applications. He said that as per IBM experts, there are five functional requirements for IoT platform and much of the infrastructure that underlies the internet is now firmly established. He suggested that to use IoT in any operations, one must choose an IoT platform. In this respect, he spoke about different types of IoT Platforms and explained their functionality. The other Guest-of-Honour, Dr Swapan Kumar Majumdar, Head, R&D, BCREC, Durgapur, deliberated on three major requirements of IoT Platforms, such as, IoT Platforms and Security, IoT Platforms and Scalability and IoT Platforms and Availability. He mentioned that these requirements are intended to help in setting the stage for evaluating IoT platforms. Depending on the specific plans, any particular function may be more important than the others. Dr Saikat Maity, Associate Professor, BCREC, Durgapur and the Guest Speaker, in his address said that the technology today is developing at a rapid pace. He mentioned that in this of globalization, the exchange of knowledge and skills has given a further fillip to the exponential growth in the field of technology. He was of the opinion that such phenomenal advancements have revolutionized almost every sphere of human life today. 'The emerging disciplines like Big Data, Artificial Intelligence (AI) and Internet of Things (IoT) have ushered many possibilities and opportunities to explore various ways in which technology can be developed and utilized for the well being of mankind', opined Dr Maity. The other Guest Speaker, Prof Biswaiit Mondal, Assistant Professor, BCREC, Durgapur, spoke on Traffic Routing which is a process of selecting a path for user using a network, distance from a point to a point as well as path description to that point. This presentation showed an android application (app) which helps for tracking a traffic route. Invited lectures were also delivered by the experts in the field. A large number of papers embracing the theme of the Seminar were presented and discussed during technical sessions.

From the President's Desk.....

IEI has recently celebrated the Telecommunication World Information Society Day on the theme 'Big Data for Big Impact' on May 17, 2017. The theme is in line with International Telecommunication Union's work highlighting technological



developments that have facilitated the emergence of Big Data, developing standards related to Big Data and identifying sources and uses of Big Data. Big data analytics is the process of examining large and varied data sets - i.e., Big Data - to uncover hidden patterns, unknown correlations, market trends, customer preferences and other useful information that can help organizations make more-informed business decisions. Emphasis has also been given regarding use of Big Data technologies for developing and monitoring improvements in information societies. IEI celebrated this day all over the country through its State/Local Centres. A brief report of the same has been incorporated in this issue.

It is a matter of pride that our Alumni are responding with enthusiasm to our Alumni Outreach Programme. As part of this initiative, the first Zonal Alumni Meet was held in March 19, 2017 in Chennai (South Zone) and the recent Meet was held in Ahmedabad (West Zone) on June 11, 2017. I consider the Alumni as our 'ambassadors' who are very important stakeholders in the growth of IEI and getting our Alumni together for the journey forward is a major focus of the leadership of IEI.

I am happy to share with you the news that one of our five journals, Journal of The Institution of Engineers (India) - Series C has been included under the SCOPUS indexing. Scopus owned by Elsevier, is a bibliographic database containing abstracts and citations for academic journal articles. It covers nearly 22,000 titles from over 5,000 publishers, of which 20,000 are peerreviewed journals in the scientific, technical, medical, and social sciences. With this, our Journal has become a part of the elite group of international journals.

Emerging Research Areas in Mechanical Engineering

Larnataka State Centre of the Institution in association with REVA University, Bengaluru organized a two-day All India Seminar on the theme 'Emerging Research Areas in Mechanical Engineering' under the aegis of Mechanical Engineering Division, IEI, during March 17-18, 2017

at Bengaluru. The Seminar was inaugurated by the Chief Guest, Dr Y Ramalinga Reddy, Associate Dean & Director, School of Mechanical Engineering and Civil Engineering, REVA University. The Chief Guestin his address, emphasized the need for organizing such types of events enlightening the young researchers on different materials used for aerospace applications. Mr Vijay Kumar, Sr. Software Engineer, HP, Bangalore, in his Keynote Address, stressed on the emerging research in mechanical engineering and spoke on the topic 'Advanced Materials and Technologies for Mechanical Applications'. Prof (Dr) N Chikkanna, Chairman of the Centre, suggested engineers to take up with stakeholders and institutes in governance of emerging research areas of engineering particularly in mechanical engineering. Earlier, Prof Anand S N, Organising Secretary of the Seminar, welcomed the august gathering. Dr

Narayana Swamy K S, Director, School of Mechanical Engineering REVA University Bangalore and organizing Committee Member of the Seminar, proposed the vote of thanks. A large number of papers embracing the theme of the Seminar were presented and discussed during technical sessions. Dr Ramesh Padule, Manager Education, Auto Desk, spoke on the topic 'Renewable Energy Resources Utilizations and its Applications in Material Process Industries'. He mentioned that emerging research on renewable energy with supporting technology, like usage of software for different

analysis, plays a very important role in the development of the nation. Mr Anand Geetha Govindan delivered his address on 'Materials for Nuclear and Solar Energy Applications'. He mentioned that mechanical engineering and basic science sector play a very crucial role in the development of emerging materials for nuclear and solar applications. He also stressed that cost of solar power should be reduced due to development of new technologies. Dr P Raghotham Rao, Former Scientist G, NAL, addressed the participants on the topic 'Composite Materials for Structural Applications'. Dr D Mallikarjuna Reddy, Associate Professor, School of Mechanical Engineering VIT University Vellore, delivered lecture on 'Computational Methods and FEM for Aerospace Applications Materials' and presented



a brief introduction about various methods for solving computational problems. Mr Guruprasad Rao, Director, Imaginarium, spoke on 'Future of Manufacturing Digital Fabrication in Changing Markets and Customer Driven Demand – 3D Printing Today'. He discussed on emergence of new superfast technologies, such as, Continuous Liquid Interface Production (CLIP) by Carbon3D; Animated printing at super speed by Gizmo 3D, Intelligent Liquid Interface (ILI) by NewPro3D; Multi Jet Fusion Technology by HP; Continuous Additive 3D Printing Technology by Carima, etc.

Recent Advances in Waste Water Treatment and Disposal

harwad Local Centre of the Institution in association with Chemical Engineering Department of SDM College of Engineering & Technology (SDMCET), Dharwad organized a Two-day All India Seminar on the theme 'Recent Advances in Waste Water Treatment and Disposal' under the aegis of Chemical Engineering Division of IEI during April 24-25 2017 at Dharwad. The Chief Guest Mr C D Kumar, Senior Environmental Officer, Karnataka State Pollution Control Board, Dharwad, in his inaugural address, opined that water is an essential commodity and water resources are highly seasonal dependent, hence, there is a need to overcome the water crisis by developing economical waste water treatment techniques. He also explained the current

scenario of waste water treatment, disposal and reuse schemes adopted by the industries/organizations and appealed to all to think of more effective innovative means for waste water treatment. The Guest-of-Honor, Mr K Jinendra Prasad, Secretary, SDME Society, was of the opinion that all the institutions and organizations should come forward in this regard by implementing water recycling process plants. The other Guestof-Honor, Dr S B Vanakudre, Principal, SDMCET emphasized on the fact that there must be mandatory guidelines from the government and enforcement for effective implementation of waste water treatment. Mr S M V Narayan, Chairman of the Centre, presided over the inaugural session and suggested to think about economic schemes at affordable cost and emphasized that appropriate technologies should be developed



for minimizing the operational cost. He further stressed on the need for installing such treatment plants with less space. Earlier, Prof Shivanand Adaganti welcomed the gathering and Prof Rashmi H introduced the Chief Guest. Dr R L Chakrasali, Honorary Secretary of the Centre, proposed the vote of thanks. Papers on various sub-themes were presented and discussed during technical sessions.

Mr Navinchandra B Vasoya, President IEI, visited Summer 2017 Examination Centre at Ahmedabad





Western Zone IEI Alumni Meet held at Ahmedabad on June 11, 2017





Role of Women in Engineering, Science & Technology: Creating Sustainable Career

College of Engineering, Hosur organized a two-day All India Seminar on the topic 'Role of Women in Engineering, Science & Technology: Creating Sustainable Career' under the aegis of Interdisciplinary Coordination Committee, IEI during March 7-8, 2017 at Hosur. The Chief Guest, Ms A

Santhakumari, Sr. Deputy General Manager, Bharat Heavy Electricals Limited, Tiruchirappalli, in her inaugural address informed that traditionally, women in India had shied away from engineering and related fields. She mentioned that the modern trends suggested more and more females participating in the growing technology sector in India, as the shift was skewing towards knowledge based rather than other considerations. She focused on the fact that balancing the family life and the career life for women was a real challenge and many of the women were

not able to cope up with the pressure from both ends and gave up in the middle, mostly their career. In this respect, Ms Santhakumari mentioned that changes happening in the demography and technology made the things little bit simple due to flexible working hours, flexible work places and smart appliances, which provides an encouraging environment for the women.

She also suggested that motivation, passion and an opportunistic attitude would help women got forward in their engineering careers and women engineers should be enthusiastic and grab opportunities and they need to develop confidence and ditch the guilt. Dr G Ranganath, Chairman, Tamilnadu State Centre, IEI, presided over the inaugural sessions. He mentioned that Women Engineers were outnumbering the men in almost all fields of engineering and proving their ability in the career. A CD on the Proceedings of the Seminar was brought out and released on this occasion. Earlier, Prof (Dr) N S Bhadrinarayana, Chairman of the Centre, welcomed the dignitaries on the dais and the gathering. He highlighted the role of women in the contemporary world and their contributions to



the society. Ms P Kavitha, Convenor and Chairperson, Women Engineers Cell of the Centre elaborated the theme of the Seminar and spoke about the technical sessions. Dr J Arivudainambi, Honorary Secretary of the Centre, proposed the vote of thanks. Papers on various sub-themes of the Seminar were presented and discussed during technical sessions.

Automation in Mechanical Engineering

■aryana State Centre of the Institution in association with RPIIT Technical and Medical Campus, Karnal, organized an All India Seminar on the theme 'Automation in Mechanical Engineering' under the aegis of Mechanical Engineering Division, IEI, during April 28-29, 2017 at RPIIT Karnal. Dr Sorabh Gupta, Director, RPIIT, Karnal, welcomed the Chief Guest and other dignitaries, members, guests, delegates and students present

PIIT TECHNICAL & MEDICAL CAMPUS

in the Seminar. The Chief Guest, Dr Victor Gambhir, Vice-Chancellor, M M University, Mullana (Ambala) in his address, mentioned that automation in mechanical engineering is very important to enhance the quality and reduce the cost of the product. He appreciated the host Centre for organizing Seminar on such an important topic. Mr R K Chutani, Executive Engineer, Thermal Power Plant, Hisar, delivered Keynote Address on 'Automation in Mechanical Engineering'. In his address, Mr Chutani highlighted the importance of automation in current scenario. He stated that automation or automatic control is the use of various control systems for operating equipments such as machinery, processes in factories, boilers and heat treating ovens, switching on telephone networks, steering and stabilization of ships, aircraft and other applications and vehicles with minimum or reduced human intervention. 'The biggest benefit of automation is that it

> saves labour and cost of the product, however, it is also used to save energy and materials and to improve quality, accuracy and precision', added Mr Chutani. Mr T P Singh, Chairman the Centre, highlighted various activities of IEI. Mr K C Sethi, Council Member, IEI, proposed the vote of thanks and appreciated the efforts made by the Organizing Team of the Seminar and authorities of IEI & RPIIT, Karnal for making the Seminar a grand success. A large number of papers embracing the theme of the Seminar were presented and discussed during various technical sessions.











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The American Society of Civil Engineers (ASCE) is organizing a Conference on Urbanization Challenges in Emerging Economies in New Delhi, India from 12-14 December 2017. ASCE and the ASCE India Section in collaboration with IIT Delhi and Institution of Engineers (India) at IIT Delhi are organizing the event.

The conference theme: Moving Towards Resilient Sustainable Cities and Infrastructure. The conference will focus on infrastructure challenges being faced due to urban explosion of major metropolitan areas in emerging economies.

The conference will be divided into four major tracks:

- Planning and financing to meet the growing demand Transportation around & beneath existing cities Energy and water infrastructure needed to meet the demands of exploding population in
- Resilience and sustainability of infrastructure in a changing environment for the next 100

You are invited to submit an abstract of between 250 and 400 words by 8 June 2017. Additional information is available on the conference website: www.asceindiaconf

How To Submit Your Abstract

- Abstracts may only be submitted via the online Submission System:
- https://catalyst.omnipress.com/#collection/116/submission
 Create an account in CATALYST, by clicking on the Register tab.
- Enter your email address, password and confirm password. Click the Sign Up button.
- An email will be sent to you.
- Please add noreply@omnipress.com as an approved sender. If you do not see an
- email, you may need to check your email span filter.

 Click on the turquoise button in your email labeled, "Confirm Account."
- You will receive an email to log in.
- Once logged in, a turquoise box will pop up at the top of your screen indicating you have created a submission.
- Read the Information tab.
- Complete all the required fields on all the tabs.
- Click "Save," on the bottom right of your screen after you complete each tab.

 Click on the "Publish" button on the bottom right of your screen when you are ready to submit your abstract.

Dr. Udai P. Singh, D.Engr., BCEEM, PMP, M.ASCE - Conference Chair Er. Satish Kumar Vij, M.ASCE - Organizing Committee Chair







ASCE INDIA CONFERENCE Indian Institute of Technology, Delhi December 12 – 14, 2017

Topics Include:

- Planning and financing to meet the growing demand of habitat and
- infrastructure
- Affordable housing
- Innovative Financing Options
- Urban Renewal
- Subsidies and Consumer Pricing
- Public-private Partnerships Infrastructure planning for
- Climate Change Decision-making under
- Uncertainty Project and Program
 Management Challenges and
- Solutions
- Transportation around & beneath existing cities

 - Challenges in Mass
 Transportation
 Multi-modal Transport, including Bus Rapid Transport Intelligent Transport Systems Traffic Management
- Urban Tunnels for Transit Extensions Retrofitting Transportation in
- Existing Cities
- Autonomous Vehicles Construction Monitoring



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- Energy, environment and water infrastructure needed to meet the demands of exploding population in
- Non-Conventional Sources of Energy
- Energy Security for Infrastructure Development
- Urban Waste Management
- Management of Urban Pollution and Remedies
- Urban Drainage Management Potable Water for the Masses
- Air & Water Quality Improvements and Urban Water Systems Infrastructure
- 4. Resilience and sustainability of infrastructure in a changing environment for the next 100 years

 - Infrastructure Asset Management Disaster Resilient Communities
 - Sustainable Infrastructure Ratings and Tools
 - Innovative Technologies
 - Sustainable Materials, Tools and Methodologies
 - Lifecycle Assessments and
 - Reduction of Lifecycle Costs Climate Change Considerations in Infrastructure Design, Construction and Operation
 - Smart Cities, Cyber-physical Systems

Dr. Udai P. Singh, D.Engr., BCEEM, PMP, M.ASCE – Conference Chair Er. Satish Kumar Vij, M.ASCE - Organizing Committee Chair

The Institution of Engineers (India)

REVISED PROCEDURE FOR CONDUCT OF ELECTION

(Approved by the Council at its 689th meeting held at Ahmedabad, on 02-03 April, 2016 and amended at its 690th Meeting held at Durgapur on 26 Jun 2016 and at its 691st Meeting held on 24-25 Sep 2016 at Haridwar)

- 1. The procedure of appointment of BOS, election of Convener, issuance of election notice, seeking of nominations, obtaining consent of the nominees, finalization of the list of contestants for respective election and finalization of the Bio data of contesting candidates remains unchanged.
- 2. The proposer shall submit alongwith his nomination any of the acceptable identity proof document, i.e., PAN Card or Driving License or Photo ID Card issued by State / Central Govt. bearing signature or Photo ID Card of the IEI bearing signature or first page of passport bearing signature duly self attested.
- 3 The personalized ballots for the election shall be printed as Optical Readable with encrypted bar code. The ballot shall have pre-printed detachable identification slip with particulars of individual voter including address with space for signature, e-mail and mobile number of the voter. The ballot shall be sent in window envelope along with the following (specification of envelopes are placed at **Appendix 1A**). A sample of ballot is also attached at **Appendix 1B**.
- (i) Instruction to voters
- (ii) Ballot paper with identity slip
- (iii) One small envelope with the name of Division printed rubber stamped on it for return of ballot. (Name of Division is to be printed for Division elections only)
- (iv) One self-addressed large envelope identical for all Divisions, to accommodate the smaller one containing the ballot paper, detached identity slip of the voter and self-signed photocopy of specified document, (see 5 below) attached to the smaller envelope externally.
- (v) Bio data of candidates, if applicable [see (23) below].
- (vi) In case elections to the Council from State Centre under Regulation 26 is held along with elections to the Divisions, then the other envelope in which the ballot for Council seat is to be returned, should have COUNCIL prominently marked on the ballot envelope, in which the ballot for Council seat is to be returned. This envelope shall not be opened along with the envelopes containing ballot papers of the Division seats.
- 4. The Corporate members on the roll of the Institution as on 31 Mar of the year in which elections are due shall form the electorate college for the elections which will be prepared and supplied by the HQ IEI to the respective Centres. Those Corporate members can exercise their voting right in any of the following modes:
 - a) Either through paper Ballot which shall be issued to the Corporate members by speed post or registered post.

b) Or by electronic system in which the log in credentials for online voting shall be issued to the Voters who are electronically reachable by mobile / e-mail. However, log in credentials for online voting shall be sent through e-mail only to the Corporate Members residing abroad in addition to the paper Ballot.

A provision for test scanning of ballots based on standard random sampling method with sample size 3% of ballots to be printed needs to be adhered to. As such 3% of the ballots have to be mandatorily test scanned (for each Divisions / Council Seat separately) by BOS prior to despatch for ensuring accurate alignment of printed ballots. Software will not allow election window to open without this test scanning. The envelope containing ballot papers etc shall be despatched to eligible voters on their recorded address by speed post or registered post and record of all such despatch shall be maintained. In case of large number of such envelopes, posting be done from multiple post offices in the city.

- 5. The voter would be required to attach any of the identity proof document (PAN Card or Driving License or Photo ID Card issued by State / Central Govt. bearing signature or Photo ID Card of the IEI bearing signature or first page of passport bearing signature) and self attest it. In case the name in the specified document is written differently from the identity slip e.g (SURENDRA KUMAR BHAGAT Vis-a-Vis S K BHAGAT), a certificate that both names belong to same person is to be provided on the photocopy by the voter. The signature on the photocopy shall be compared with the signature on the identity slip during scrutiny.
- 6. The envelope containing closed ballot envelope, identity slip and signed photo copy of specified document shall be returned to the BOS by post in a pre-printed Business Reply Envelope issued to the Voters by the Headquarters/Centre as the case may be for which the postage shall be paid by the Headquarters/Centre.
- 7. The ballot shall be returnable in not less than 45 days from the last date of posting the ballot to voters. Duplicate ballots shall be issued against written request whenever received by convener of BOS and shall be sent on recorded addresses of the voter by speed post or registered post. Record of such issues shall be maintained. It should be duly marked as "DUPLICATE" on detachable identity slip.
- 8. The postal ballot shall be returnable by the Voters by post only to the designated post box or post bag or to the Centre's address printed on the reply envelope and not by any other mode. The BOS will make appropriate arrangement for proper receipt of the ballots received at the Centre's office. Use of stationery other than the stationery officially supplied by the BOS shall invalidate the same.

- 9. The BOS shall authorize two or more of themselves to collect envelopes containing ballots from the post office (if Post Box /Post Bag is used). The envelopes containing the ballots should be dated and numbered serially. The envelopes shall remain unopened as they are received and a record of the ballots collected each day shall be maintained. The envelopes containing voting papers returned as undelivered (collected from the Post Office, if applicable) shall also be numbered separately and a record kept. The final collection shall be made immediately after the last date and time specified for return of the ballots. The envelopes received at Centre or in the Post Box / Post Bag after closing date and the time would not be counted under any circumstances.
- 10. The envelope shall be lodged each day in a ballot drop box which shall be housed in a room under lock and key and shall not be accessible to any one other than the BOS and shall not be removed from the said room under any plea whatsoever and shall be in the custody of BOS. Before dropping any ballot in the ballot drop box, it shall be locked and sealed in presence of the BOS after ascertaining that it is empty. The envelopes containing the ballots should be dropped into the box through the drop slit which shall be sealed under the signature of member of BOS each time after envelopes are dropped.
- 11. The BOS shall, after expiry of the said 45 days and on the day designated for counting votes, open the ballot box and arrange to scrutinize the voting papers with the assistance of other Corporate Members and / or the employees as may be approved by them. Scrutiny of ballots and counting of votes shall be supervised by at least three members of BOS.

Scrutiny of Ballots:

- 12. The BOS shall inform the candidates about date of counting of votes and shall permit the candidate or a Corporate Member as his representative duly authorized in writing to be present during counting of votes. The counting time shall be suitably finalized so as to account for the manual scrutiny of documentary proofs of voters.
- 13. For scrutiny, outer envelope shall be opened and inner envelope together with the identity slip of the voter and signed photo copy of specified document as mentioned in paragraph 5 above shall be sorted division-wise, rejecting all such envelopes which are found to be irregular or defaced, tampered with or found to be interfered with unwarrantably or obliterated in any way or where the signature on the identity slip does not tally with signature on the photo copy of the specified document, or is illegible or correcting fluid has been used, to make corrections.
- 14. Total number of smaller envelopes shall be compared with the record of collection from the post office or received at the Centre. Any discrepancy shall be recorded and sorted out to the satisfaction of the BOS before opening smaller envelopes.
- 15. The identity slip and signed photocopy of the voter shall then be detached and separated out. Envelopes, containing the ballot paper would be opened division wise / council wise and the ballot papers scrutinized for any irregularity or tampering and only the valid ballots shall be scanned for counting.

Manual counting of votes is not permissible. Counting of the ballot division-wise shall be done through scanning. The computer connected to the scanner and loaded with the special software shall give count of votes secured by each contestant. In unlikely event of two or more ballots from the same voter, the system will reject all votes of such voter and the detail of such voter, without details of the votes cast, shall be available. During the process of mediation, the total number of ballots scanned should tally with total of number of counted ballots displayed on computer. In case of discrepancy, if any, all ballot papers should be checked by physical count and rescanned, if necessary. There is no provision of manual entry of votes in the scanned data. The result of paper ballot shall be uploaded by the BOS by using their individual log-in ID and password to the specified election site. A specified minimum number of members of BOS would needed to log-in through their individual password in succession to upload the data.

The BOS can access the BOS Control Panel software only after they log-in with their membership number as log-in ID and a password. This password shall be made available to them by the Administrator. Before the first log-in, they will be required to change their password. BOS members have to create their own password and have to keep it strictly confidential.

Electronic Voting:

- 17. (a) Computer auto generated log-in credentials for online voting shall be sent through the mobile / e-mail to the electronically reachable members as on 31 Mar of the year on the opening day of the election.
 - An eligible voter visiting the Institution website www.ieindia.org will be guided to the election portal. The voter can access the voting page of the relevant election by using log-in ID and password for voting online. A system generated One Time Password shall be sent to the registered Mobile / e-mail for casting of vote electronically. The One time Password shall have a validity of fifteen minutes. Separate One time Password shall be issued for all elections. The vote cast by a voter shall be encrypted and not available to anyone. The details of the voter by his membership number shall be available in the system. The electronic voting details cannot be downloaded and vote cast is encrypted. The bio data of the contestants will be available for voters reference in the election portal, as well. In case of voting by both Ballot and online, the voting by Ballot will be considered valid for counting.
 - (c) In case a voter misplaces his password or has not received it for any reasons, he can request for computer auto-generated log-in ID and password from the HOME page of the IEI election web site which can be accessed through www.ieindia.org, which shall be sent to his mobile / e-mail.

(d) In case of members residing abroad who have registered their e-mail id, they will be provided the log-in credentials through his e-mail only.

Security:

- 18. A voter can log in using his / her password issued to him in his / her registered mobile / e-mail on the starting day of the election. However, while casting the vote, a system generated One Time Password (OTP) shall be sent to his / her registered mobile / e-mail. Voter has to use that password for casting his / her vote. The validity of the OTP shall be for fifteen minutes only or till its first successful use whichever is earlier.
- 19. The election Web service provider is to provide the source code under sealed cover to the Secretary and Director General for the purpose of record and safe custody. The Source Code is not to be opened and is to be kept sealed. Also a provision is to be incorporated in the software which will allow any changes whatsoever, only after simultaneous logging of two persons out of the President / The immediate Past President / Past President (depending upon their availability) and additionally the Secretary and Director General. The software is to have provision for generating an audit trail of such changes. The software is to also have feature of automatic logging out if no activity takes place for 10 minutes. After automatic logging out, re-logging by all three to access the site is to be made mandatory.
- 20. Voting web site shall close at 1700 hours simultaneously with the date specified for return of ballot and no voting on web can be done thereafter.

Final Counting:

21. On uploading the count of paper ballot to voting site, the system shall integrate count of paper ballot votes and web-based votes and final result, after eliminating dual voting or duplicate paper voting by a voter, shall be available to BOS instantly. The system shall automatically invalidate all duplicate paper Ballots found. Also in case of duplicate of votes between paper Ballot and online vote, the paper Ballot will be considered for counting. The details of duplicate voting, shall be available to the BOS after mediation of the results without voting particulars. In the event of a tie, the BOS shall decide the result by toss of coin or by drawing lots, as per the existing provision.

Bio Data:

- 22. The Bio data of the contestant if furnished, as finalized by the BOS, shall be uploaded on the election site. This shall be available in public domain. It shall also be available for view to the voter while casting the vote on web.
- 23. The Bio data of the contestants shall also be published in the Centre's Newsletter. Additionally, the Bio-data as finalized by the BOS in printed sheet shall accompany the paper ballot. [Ref 3(v) above].

Result:

24. The BOS shall print the report on the result of the voting which shall be signed by the members of the BOS present and present the report along with connected papers to the Chairman

- of the Centre and forward a copy of the report to the Honorary Secretary of the Centre and also to the Secretary & Director General of the Institution for necessary action.
- 25. The Honorary Secretary shall immediately communicate official results of the election to the Secretary & Director General. The voting papers shall be sealed and kept by the Chairman of the Centre till 30 days after the ensuing AGM of the Centre whereafter they shall be destroyed, as per the existing proviso. The identity slips, with e-mail and mobile number written therein, shall be preserved separately and sent to HQ for updating the record of the members after expiry of the retention period of election papers before destruction.

For election to Council under Bye-law 4(a)(iii) the voting papers need to be preserved till 30 days of the Institution's AGM, whereafter they shall be destroyed. The identity slips with e-mail and mobile number written therein, preserved separately, shall be sent to HQ for updating the records of the members after expiry of the retention period of election papers, before destruction, similarly details of all the web voting shall be dealt with by the Administrator.

- 26. The BOS shall conduct all business of election from the premises of the Centre. In no case activities of election can be carried out from premises other than the Centre.
- 27. The Chairman and the Honorary Secretary in the office and the Chairman-elect and Honorary Secretary-elect shall not be members of the BOS.
- 28. No person shall be member of BOS for more than two consecutive elections.
- 29. The Chairman / Honorary Secretary of the Centre, without involving himself in operational activities of the BOS, shall oversee the functioning of the BOS to ensure that the procedure is not violated inadvertently.

In case the Chairman / Honorary Secretary himself is a candidate in any of the elections being conducted at the Centres of which he is the Chairman / Honorary Secretary and candidate(s) in the election to the Council from the Division Board, he should not be involved in any of the activities relating to the election process at the Centre. In such case, the State/Local Centre Committee may resolve to authorize an appropriate available non-candidate corporate member preferably past Chairman to oversee the functioning of the BOS without involving himself in operational activities of the BOS.

- 30. The Chairman of the Centre shall apply well in advance to the postal authority for allotting a Post Box / Post Bag, as applicable.
- 31. As decided by the Council at its 691st meeting held on 24-25 Sep 2016 at Haridwar, the candidate who desires to contest in the elections of IEI shall deposit the following earnest money:
- a) Election to the Council Seat Rs.10,000/-
- b) Election to the State Centre Committee Rs.5,000/-
- c) Election to the Local Centre Committee Rs.3,000/-

Appendix IA

Specification of Envelopes

The details of three envelopes for procurement/manufacture and printing for conduct of the election are as below. Please ensure that dimensions of the envelopes are not changed.

(a) **Dimensions:**

Outer Window Envelope (EV1) : 18 x 15 cm

Business Reply Envelope (EV2) : 17 x 14 cm

Ballot Envelope (EV3) : 16 x 13.5 cm

(b) **Printing on Envelopes:**

EV1: Window Envelope (craft / thick paper)

- 1. The address on the ballot identity slip visible from window shall act as address of addressees.
- 2. Senders Address on the left bottom

"Convener"

Board of Scrutineers

The Institution of Engineers (India)

EV2: Business Reply Envelope (White Paper)



EV3: Ballot Envelope (Blue Paper)

Print or Rubber Stamp, **Division Name** and "**BALLOT ONLY**", nothing else should be written / printed on this envelope. In case of election to the COUNCIL, print / rubber stamp word 'COUNCIL'.

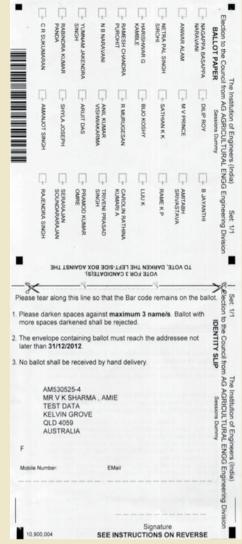
BALLOT ONLY
DIVISION NAME

Appendix IB

6.

Sample Ballot:

- (i) A sample of the ballot is placed below. It contains the instructions to the voters on the reverse of the ballot.
- (ii) The Ballot paper has to be printed on perfect pre-cut stationery of the specified size (11.69" X 5"), on a paper to ensure proper/accurate scanning.
- (iii) The Ballot shall be pre-printed with instructions for voters and cut mark for the identity slip, in a press, before the ballots are printed by BOS in the laser printer.



INSTRUCTIONS FOR VOTERS

- 1. Tear the Identity Slip from the Ballot at the perforated mark provided.
- 2. Fill-in or correct the E-mail address and Mobile number and sign the Identity Slip.
- 3. Make a photocopy of any of the identity proof document (PAN Card bearing signature or Driving License bearing signature or Photo ID Card issued by State/Central Govt. bearing signature or Photo ID Card of the IEI bearing signature or first page of passport bearing signature) and self-attest it with your signature. In case your name on the relevant signature bearing Photo ID proof is written differently, please certify on the photocopy that names in the Identity Slip and relevant ID document are of the same person.
- 4. Darken properly the required number of square boxes by pencil, in blue ink or black ink on the Ballot. Place the Ballot in the small envelope **without folding it** and then seal the envelope.
- Place the Identity Slip, self attested photocopy of your signature bearing ID document and small sealed envelope containing the Ballot, all three in the Business Reply Envelope and post it. No postal stamps need to be affixed.
 - Please **DO NOT USE** pin or staple on the ballot.



Agricultural Engineering Division

One day Seminar on "Innovative Trend in Agriculture" Bhopal, June 24, 2017

The Honorary Secretary, IEI, Madhya Pradesh State Centre, Dr M Visvesvaraya Marg, P O Habibganj, Bhopal 462024 [2: (0755) 2505787; TeleFax: (0755)2474572; e-mail: mpsc@ieindia.org]

All India Seminar on "Technological Interventions in Total Value Chain of Farming to Double Farm Income"

Chennai, July 07-08, 2017

The Honorary Secretary, IEI, Tamilnadu State Centre, 19 Swami Sivananda Salai, Chepauk, Chennai 600005 [☎: (044) 25360614/64998729; Fax: (044) 25369433; e-mail: tnsc@ieindia.org]

One Day Seminar on "Increasing Mechanical Farm Power for Maximum Crop Productivity"

Coimbatore, July 19, 2017

The Honorary Secretary, IEI, Coimbatore Local Centre, PSG College of Technology Campus, Peelamedu, Coimbatore 641 004 [☎: (0422) 258 0733; e-mail: coimbatorelc@ieindia.org]

All India Seminar on "Role of Engineers for Sustainable Agriculture: Related to Modern India" Berhampur, July 28-29, 2017

The Honorary Secretary, IEI, Berhampur Local Centre, C/o The Executive Engineer, Quality Control Division, Courtpeta Dist Ganjam, Berhampur 760 004 [e-mail: berhampurlc@ieindia.org]

One Day Workshop on "Innovative Custom Hiring for Farm Machinery"

Kolkata, August 19, 2017

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

Architectural Engineering Division

All India Seminar on "Urban Planning and Architectural Design for Sustainable Development"

Hosur, August 25-26, 2017

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

International Conference on "Architectural Innovations: Technology and Materials"

Jaipur, October 6-8, 2017

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

Thirty-third National Convention of Architectural Engineers on "Architectural Engineering Aspect for Building Envelopes"

Hyderabad, November 10-11, 2017

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

Chemical Engineering Division

Thirty-third National Convention of Chemical Engineers on "Nano-technology and its Application for Sustainable Development in Chemical Industries" Pune, September 09-10, 2017

The Honorary Secretary, IEI, Pune Local Centre, Abhiyanta Bhavan, 1332, J M Road, Shivajinagar, Pune 411005, Maharashtra [2:020-25533376/25520239/25530150; email: punelc@ieindia.org]

International Conference on "Paradigm Shift in Chemical Engineering Education, Processes and Technology"

Ahmedabad, September 16-17, 2017

The Honorary Secretary, IEI Gujarat State Centre, Bhaikaka Bhavan, Law College Road, Ahmedabad 380006 [☎: (079) 26400811; Fax: (079) 26561825; e-mail: gujaratsc@ieindia.org]

All India Seminar on "Safety Management and Energy Conservation in Process Industries"

Hyderabad, September 22-23, 2017

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

Civil Engineering Division

One Day Workshop on "Non Destructive Testing of Civil Engineering Structures"

Solapur, June 03, 2017

The Honorary Secretary, IEI, Solapur Local Centre, Vastu Vaibhav, 3 North Kasaba, 4th Floor, Near Laxmi Bank, Shivaji Chowk, Solapur 413001 [☎: 0217-2727707; e-mail: solapurlc@ieindia.org]

One Day Seminar on **"Flood Control Management"** Salem, June 06, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

One Day Workshop on "Role of Engineers in Green Building for Sustainable Construction"

Salem, June 07, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

All India Seminar on "All Weather Roads for Chardham Yatra in Uttarkhand Himalaya Region"

Dehradun, June 16-17, 2017

The Honorary Secretary, IEI, Uttarakhand State Centre, PO: Clement Town, Delhi - Saharanpur Road, Near ISBT, Dehradun 248002 [TeleFax: (0135) 2641190; e-mail: uttarakhandsc@ieindia.org]

All India Seminar on "Urban Flood Management: Challenges and Strategies in India"

Delhi, June 16-17, 2017

The Honorary Secretary, IEI, Delhi State Centre, Engineers Bhawan, Bahadur Shah Zafar Marg, New Delhi 110002 [26: (011) 23379052/23379948; Fax: (011) 23370489; e-mail: delhisc@ieindia.org]

All India Seminar on "Road Safety: Challenges and Solutions"

Ranchi, June 24-25, 2017

The Honorary Secretary, IEI, Jharkhand State Centre, Engineer Bhawan, Nepal Kothi Campus, Ranchi 834002 [28: (0651) 2491344; web: ieijsc.org; e-mail: jharkhandsc@ieindia.org]

All India Seminar on "Application of Geospatial Technologies for Water Management in India"

Salem, August 03-04, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

All India Seminar on "Use of Admixtures and Construction Chemicals in Current Construction Industry"

Chennai, August 10-11, 2017

The Honorary Secretary, IEI, Tamilnadu State Centre, 19 Swami Sivananda Salai, Chepauk, Chennai 600005 [28: (044) 25360614/64998729; Fax: (044) 25369433; e-mail: tnsc@ieindia.org]

All India Seminar on "Development of Smart Cities for Better World"

Jaipur, August 18-19, 2017

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

All India Seminar on "Concrete and Steel Structures – Care for their Health and Longevity"

Bokaro, August 25-26, 2017

The Honorary Secretary, IEI, Bokaro Steel City Local Centre, Abhiyanta Bhavan, Sector 5A, Bokaro Steel City 827006 [2: (06542) 267227 / 288972; e-mail: bokarolc@ieindia.org]

All India Seminar on "New Trends and Innovations in Geotextile Reinforcement"

Thiruvananthapuram, September 01-02, 2017
The Honorary Secretary, IEI, Kerala State Centre, Visvesvaraya Bhavan, Opposite Kanakaunnu Palace, Thiruvananthapuram 695033 [2: (0471) 2322991, 2322993; TeleFax: (0471) 2322992; e-mail: keralasc@ieindia.org]

Thirty-third National Convention of Civil Engineers on "Recent Advances in Structural Engineering" Ahmedabad, September 02-03, 2017

The Honorary Secretary, IEI Gujarat State Centre, Bhaikaka Bhavan, Law College Road, Ahmedabad 380006 [28: (079) 26400811; Fax: (079) 26561825; e-mail: gujaratsc@ieindia.org]

Workshop on "National Building Code of India - 2016"

Salem, September 29-30, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

All India Seminar on "Innovations and Challenges in Materials and Construction"

Kanpur, October 14-15, 2017

The Honorary Secretary, IEI, Kanpur Local Centre, Engineers Bhawan, HBTI East Campus, Nawabganj, Kanpur 208002 [TeleFax: (0512) 256 0034; e-mail: kanpurlc@ieindia.org]



All India Seminar on "Sustainable Materials and **Technology for Better Future**"

Rourkela, November 11-12, 2017

The Honorary Secretary, IEI, Rourkela Local Centre, National Institute of Technology Campus, Rourkela 769 008 [Fax: (0661) 247 2709; e-mail: rourkelalc@ ieindia.org]

Computer Engineering Division

One Day Seminar on "Big Data Analytics" Salem, July 07, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [23: (0427) 2332544; e-mail: salemlc@ieindia.org]

One Day Seminar on "Internet of Things for Smart Cities"

Salem, July 14, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Maniyannan Street, Opp. to Salem New Bus Stand, Salem 636004, Tamilnadu [23: (0427) 2332544; e-mail: salemlc@ieindia.org]

One Day Seminar on "Ethical Hacking"

Kanchipuram, July 15, 2017

The Honorary Secretary, IEI, Kanchipuram Local Centre, Agni College of Technology - ACT, Old Mahabalipuram Road, Thalambur, Chennai 600130 [e-mail: kanchipuramlc@ieindia.org]

One Day Seminar on "Orchestration of Data Science. Big Data and Virtualization"

Salem, August 10, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

One Day Seminar on "Machine Learning"

Salem, August 17, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

One Day Seminar on "R Programming in Big Data Analytics"

Salem, August 24, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

One Day Seminar on "Recent Trends in IoT for Smart **Environment**"

Salem, September 08, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

All India Seminar on "Green Computing-Intelligent and Renewable Energy"

Kanchipuram, January 08-09, 2018

The Honorary Secretary, IEI, Kanchipuram Local Centre, Agni College of Technology - ACT, Old Mahabalipuram Road, Thalambur, Chennai 600130 [e-mail: kanchipuramlc@ieindia.org]

All India Seminar on "Impact of Data Analysis on **Business of Future through IoT & Social Media**"

Ahmedabad, January 19-20, 2018

The Honorary Secretary, IEI Gujarat State Centre, Bhaikaka Bhavan, Law College Road, Ahmedabad 380006 [262]: (079) 26400811; Fax: (079) 26561825; e-mail: gujaratsc@ieindia.org]

Electrical Engineering Division

One Day Seminar on "Smart Power Systems with R-APDRP"

Salem, June 21, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

One Day Seminar on "Resilient Electric Mobility with Sustainable Energy Sources"

Salem, June 23, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

One Day Seminar on "Smart Grid Technology & Renewable Energy"

Salem, July 15, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Maniyannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

All India Seminar on "Renewable Energy Generation and its Challenges"

Bhubaneswar, July 22-23, 2017

The Honorary Secretary, IEI, Odisha State Centre, Sachivalaya Marg, Unit IV, Bhubaneswar 751001[TeleFax: (0674) 2390630; e-mail: odishasc@ ieindia.org]

All India Seminar on "Environmental Impact, Current Status of Fossil Fuels and Need for PV Power Generation"

Salem, July 27-28, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

One Day Seminar on "Recent Trends in Renewable **Energy Sources & Energy Conservation"**

Salem, July 29, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

One Day Seminar on "Energy Auditing and Energy **Conservation Techniques**"

Salem, August 07, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

All India Seminar on "Electric Mobility Mission 2020" Delhi, November 17-18, 2017

The Honorary Secretary, IEI, Delhi State Centre,

Engineers Bhawan, Bahadur Shah Zafar Marg, New Delhi 110002 [26: (011) 23379052/23379948; Fax: (011) 23370489; e-mail: delhisc@ieindia.org]

Thirty-third National Convention of Electrical Engineers on "Hybrid AC/DC Power Systems for Effective **Utilization of Renewable Energy**"

Tiruchirapalli, November 24-25, 2017

The Honorary Secretary, IEI, Tiruchirapalli Local Centre, BHEL Main Office Road, Tiruchirapalli 620014 [28: (0431) 255 4285; Fax: (0431) 252 0383 / 252 0775; e-mail: tiruchirapallilc@ieindia.org]

All India Seminar on "Energy, Power and Electrical Engineering"

Guwahati, November 24-25, 2017

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

All India Seminar on "Recent Trends in Renewable **Energy Application and Research**"

Ahmedabad, February 16-17, 2018

The Honorary Secretary, IEI Gujarat State Centre, Bhaikaka Bhavan, Law College Road, Ahmedabad 380006 [26: (079) 26400811; Fax: (079) 26561825; e-mail: gujaratsc@ieindia.org]

"National Power Engineering Conference - 2018"

Madurai, March 09-10, 2018

The Honorary Secretary, IEI, Madurai Local Centre, T M Jambulingam Bhavan, 1 Vivekananda Nagar, 100 Feet Road, Surveyor Colony, K Pudur, Madurai 625 007 [2: (0452) 256 1783; e-mail: madurailc@ieindia.org]

Electronics & Telecom. Engineering Division

One Day Workshop on "Recent Innovation in Electrical & Electronics Engineering"

Jamshedpur, June 20, 2017

The Honorary Secretary, IEI, Jamshedpur Local Centre, Pipe Line Road, Sakchi (Between Red Cross Society and TCE Building), Jamshedpur 831001 [28: (0657) 2234316; Fax: (0657) 2230159; e-mail: jamshedpurlc@ ieindia.org]

One Day Workshop on "Exploring Arduino Applications in the Field of Engineering"

Solapur, June 28, 2017

The Honorary Secretary, IEI, Solapur Local Centre, Vastu Vaibhav, 3 North Kasaba, 4th Floor, Near Laxmi Bank, Shivaji Chowk, Solapur 413001 [28: 0217-2727707; e-mail: solapurlc@ieindia.org]

India Seminar on "Futuristic Trend in **Telecommunication Engineering & Telecom Panorama** - Fundamentals and Evolving Technology with **Particular Reference to Smart Cities"**

Jabalpur, August 05-06, 2017

The Honorary Secretary, IEI, Jabalpur Local Centre, Visvesvaraya Marg, Civil Lines, Jabalpur 482 001 [TeleFax: (0761) 267 8929; Fax: (0761) 404 5625; e-mail: jabalpurlc@ieindia.org]

One Day Seminar on "5-G Technologies and Future Scenario"

Delhi, August 19, 2017

The Honorary Secretary, IEI, Delhi State Centre, Engineers Bhawan, Bahadur Shah Zafar Marg, New Delhi 110002 [28: (011) 23379052/23379948; Fax: (011) 23370489; e-mail: delhisc@ieindia.org]



All India Seminar on "Use of Nano-Technology in Medical Applications"

Bhubaneswar, August 19-20, 2017

The Honorary Secretary, IEI, Odisha State Centre, Sachivalaya Marg, Unit IV, Bhubaneswar 751001 [TeleFax: (0674) 2390630; e-mail: odishasc@ieindia.org]

Thirty-third National Convention of Electronics and Telecommunication Engineers and National Seminar on "Recent Advances in IoT"

Hyderabad, November 29-30, 2017

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

One Day Seminar on "Nanotechnology in Medical Applications"

Salem, December 09, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

Environmental Engineering Division

All India Seminar on "Innovative Approaches towards Solid Waste Management"

Thanjavur, July 13-14, 2017

The Honorary Secretary, IEI, Thanjavur Local Centre, Periyar Maniammal University, Periyar Nagar, Vallam, Thanjavur 613403 [e-mail: thanjavurlc@ieindia.org]

One day Seminar on "Potential of Green Energy in India and its Harnessing Plan"

Lucknow, July 23, 2017

The Honorary Secretary, IEI, Uttar Pradesh State Centre, Engineers Bhawan, River Bank Colony, Lucknow 226018 [TeleFax: (0522) 2625322; e-mail: upsc@ieindia.org]

All India Seminar on "Scientific Mining of River Bed Material and Environmental Impact"

Dehradun, August 04-05, 2017

The Honorary Secretary, IEI, Uttarakhand State Centre, PO: Clement Town, Delhi - Saharanpur Road, Near ISBT, Dehradun 248002 [TeleFax: (0135) 2641190; e-mail: uttarakhandsc@ieindia.org]

All India Seminar on "Environmental Impact Assessment in India"

Thanjavur, August 17-18, 2017

The Honorary Secretary, IEI, Thanjavur Local Centre, Periyar Maniammal University, Periyar Nagar, Vallam, Thanjavur 613403 [e-mail: thanjavurlc@ieindia.org]

Thirty-third National Convention of Environmental Engineers on "Status of Technological Advancement to Meet the Environmental Norms for Indian Mining & Allied Industries"

Dhanbad, August 24-25, 2017

The Honorary Secretary, IEI, Dhanbad Local Centre, Veena Engineers' Building, Golf Ground, Dhanbad 826 001 [2: (0326) 2311 020; e-mail: dhanbadlc@ieindia.org]

One Day Workshop on "Theory and Practice of Wastewater Management"

Thanjavur, September 09, 2017

The Honorary Secretary, IEI, Thanjavur Local Centre, Periyar Maniammal University, Periyar Nagar, Vallam, Thanjavur 613403 [e-mail: thanjavurlc@ieindia.org]

One Day Seminar on "Hygiene and Public Health" Thanjavur, September 28, 2017

The Honorary Secretary, IEI, Thanjavur Local Centre, Periyar Maniammal University, Periyar Nagar, Vallam, Thanjavur 613403 [e-mail: thanjavurlc@ieindia.org]

One day Workshop on "HVAC & R Industry"

Ranchi, November 25, 2017

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

All India Seminar on "Water Conservation through 3R's – Reduce. Recycle and Reuse"

Bokaro, December 02-03, 2017

The Honorary Secretary, IEI, Bokaro Steel City Local Centre, Abhiyanta Bhavan, Sector 5A, Bokaro Steel City 827006 [260: (06542) 267227 / 288972; e-mail: bokarolc@ieindia.org]

One Day Workshop on "Project Management Cost & Time Overrun"

Ranchi, January 14, 2018

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

One Day Workshop on "Environmental Management and Sustainable Development"

Thanjavur, January 24, 2018

The Honorary Secretary, IEI, Thanjavur Local Centre, Periyar Maniammal University, Periyar Nagar, Vallam, Thanjavur 613403 [e-mail: thanjavurlc@ieindia.org]

One Day Seminar on "Sewage Treatment and Disposal" Thanjavur, February 23, 2018

The Honorary Secretary, IEI, Thanjavur Local Centre, Periyar Maniammal University, Periyar Nagar, Vallam, Thanjavur 613403 [e-mail: thanjavurlc@ieindia.org]

Marine Engineering Division

Thirty-first National Convention of Marine Engineers on "Inland Water Transport - Technical Challenges & Opportunities"

Kolkata, October 15-16, 2017

The Honorary Secretary, IEI, Durgapur Local Centre, Nehru Avenue, 'B' Zone, Durgapur 713205, [Fax: (0343) 256 4770; e-mail: durgapurlc@ieindia.org]

Mechanical Engineering Division

All India Seminar on "Automation in Welding" Kolkata, June 16-17, 2017

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

All India Workshop on "Data Analytics for Engineers" Ranchi, July 08-09, 2017

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

All India Seminar on "Fundamentals and Trends in Additive Manufacturing"

Ahmedabad, July 21-22, 2017

All India Seminar on "Fuel Cells and Hybrid Vehicle Technology"

Hyderabad, August 18-19, 2017

The Honorary Secretary, IEI, Telangana State Centre, Visvesvaraya Bhavan, Khairatabad, Hyderabad, Telangana 500004 [\$\mathbf{x}\$: (040) 23314969; e-mail: telanganasc@ieindia.org]

Thirty-third National Convention of Mechanical Engineers on "Advances in MEMS and Robotics in Manufacturing Industries"

Udaipur, September 01-02, 2017

The Honorary Secretary, IEI, Udaipur Local Centre, 128, Hiran Magri, Sector 11, Near Seva Charitable Hospital, Udaipur 313002 [☎: (0294) 2583702; e-mail: udaipurlc@ieindia.org]

All India Seminar on "Energy Efficiency Intervention for Operational Cost Reduction in Manufacturing Industries"

Delhi, November 03-04, 2017

The Honorary Secretary, IEI, Delhi State Centre, Engineers Bhawan, Bahadur Shah Zafar Marg, New Delhi 110002 [☎: (011) 23379052/23379948; Fax: (011) 23370489; e-mail: delhisc@ieindia.org]

International Conference on "Future Material Handling Prospects – Opportunities and Challenges"

Ranchi, January 27-28, 2018

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

All India Seminar on "Recent Development in Mechanical Engineering — Computational Heat Transfer, Fluid Flow and Energy Systems"

Thiruvananthapuram, July 14-15, 2018

The Honorary Secretary, IEI, Kerala State Centre, Visvesvaraya Bhavan, Opposite Kanakaunnu Palace, Thiruvananthapuram 695033 [☎: (0471) 2322991, 2322993; TeleFax: (0471) 2322992; e-mail: keralasc@ieindia.org]

Thirty-fourth National Convention of Mechanical Engineers on "Mechanical Engineering and Engineering Challenges for Manufacturing" Delhi, September 01-02, 2018

The Honorary Secretary, IEI, Delhi State Centre, Engineers Bhawan, Bahadur Shah Zafar Marg, New Delhi 110002 [☎: (011) 23379052/23379948; Fax: (011) 23370489; e-mail: delhisc@ieindia.org]

Metallurgical & Materials Engg. Division

One Day Seminar on "New Generation Composite Materials"

Salem, July 15, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

All India Seminar on "Damage Assessment and Advanced NDE Techniques for Industrial Applications"

Durgapur, July 15-16, 2017

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

One Day Seminar on "Recent Developments in Nonferrous Alloys and their Applications" Salem, July 22, 2017



The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [32: (0427) 2332544; e-mail: salemlc@ieindia.org]

All India Seminar on "Indian Non-ferrous Metal Foundries: Opportunities and Challenges"

Kolkata, August 05, 2017

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

One Day Seminar on "Green Technologies for Iron and Steel Production"

Salem, August 19, 2017

The Honorary Secretary, IEI, Salem Local Centre, 3rd Floor, SPC Bhawan, No.104/7, Manivannan Street, Opp to Salem New Bus Stand, Salem 636004, Tamilnadu [2: (0427) 2332544; e-mail: salemlc@ieindia.org]

All India Seminar on "Advancement in Materials Processing and Characterization Techniques (AMCPT 2017)"

Ranchi, September 09-10, 2017

The Honorary Secretary, IEI, Jharkhand State Centre, Engineer Bhawan, Nepal Kothi Campus, Ranchi 834002 [28: (0651) 2491344; web: ieijsc.org; e-mail: jharkhandsc@ieindia.org]

Thirty-first National Convention of Metallurgical & Materials Engineers on "Role of Stakeholders in Development of Roadmap for Steel Vision"

Kolkata, January 16-17, 2018

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

Mining Engineering Division

All India Seminar on "Advancement in Mine Closure and Rehabilitation Techniques"

Ranchi, December 09-10, 2017

The Honorary Secretary, IEI, Jharkhand State Centre, Engineer Bhawan, Nepal Kothi Campus, Ranchi 834002 [28: (0651) 2491344; web: ieijsc.org; e-mail: jharkhandsc@ieindia.org]

Production Engineering Division

All India Seminar on "Major Advances and Sustainable Development in Production Engineering"

Jamshedpur, June 15-16, 2017

The Honorary Secretary, IEI, Jamshedpur Local Centre, Pipe Line Road, Sakchi (Between Red Cross Society and TCE Building), Jamshedpur 831001 [☎: (0657) 2234316; Fax: (0657) 2230159; e-mail: jamshedpurlc@ieindia.org]

All India Seminar on "Production Engineering – Digital and Automation Entry into the Future Factories"

Hyderabad, July 14-15, 2017

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

All India Seminar on "Productivity Management in Manufacturing and Service Organisations"

Kharagpur, August 18-19, 2017

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

All India Workshop on "Quality Improvement in Products and Processes; Principles, Methods and Applications" Kolkata, October 27-28, 2017

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

All India Workshop on "Six Sigma Fundamentals and Applications"

Kolkata, March 16-17, 2018

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

Interdisciplinary Coordination Committee

One Day Workshop on "Communication Skill for Engineers"

Ranchi, June 18, 2017

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

One Day Workshop on "Intellectual Property Rights (IPR), Trademarks & Patents for Engineers"

Ahmedabad, July 15, 2017

The Honorary Secretary, IEI Gujarat State Centre, Bhaikaka Bhavan, Law College Road, Ahmedabad 380006 [26: (079) 26400811; Fax: (079) 26561825; e-mail: gujaratsc@ieindia.org]

All India Seminar on "Industrial Waste Management in India"

Madurai, August 03-04, 2017

The Honorary Secretary, IEI, Madurai Local Centre, T M Jambulingam Bhavan, 1 Vivekananda Nagar, 100 Feet Road, Surveyor Colony, K Pudur, Madurai 625 007 [2: (0452) 256 1783; e-mail: madurailc@ieindia.org]

All India Seminar on "Power Sector: Recent Advancements, Opportunities and Challenges Ahead"

Ranchi, August 12-13, 2017

The Honorary Secretary, IEI, Jharkhand State Centre, Engineer Bhawan, Nepal Kothi Campus, Ranchi 834002 [☎: (0651) 2491344; web: ieijsc.org; e-mail: iharkhandsc@ieindia.org]

One Day Workshop on "Improving Quality of Engineering Education"

Udaipur, August 18, 2017

The Honorary Secretary, IEI, Udaipur Local Centre, 128, Hiran Magri, Sector 11, Near Seva Charitable Hospital, Udaipur 313002 [26: (0294) 2583702; e-mail: udaipurlc@ieindia.org]

All India Seminar on "Real Estate Industry and Agricultural Potential of India"

Delhi, October 06-07, 2017

The Honorary Secretary, IEI, Delhi State Centre, Engineers Bhawan, Bahadur Shah Zafar Marg, New Delhi 110002 [262: (011) 23379052/23379948; Fax: (011) 23370489; e-mail: delhisc@ieindia.org]

All India Seminar on "Engineering Projects: Contracts, Funding and Legal Aspects"

Jabalpur, December 09-10, 2017

The Honorary Secretary, IEI, Jabalpur Local Centre, Visvesvaraya Marg, Civil Lines, Jabalpur 482 001 [TeleFax: (0761) 267 8929; Fax: (0761) 404 5625; e-mail: jabalpurlc@ieindia.org]

One Day Workshop on 'Communication and Personality Development for Engineers'

Ahmedabad, February 10, 2018

The Honorary Secretary, IEI Gujarat State Centre, Bhaikaka Bhavan, Law College Road, Ahmedabad 380006 [☎: (079) 26400811; Fax: (079) 26561825; e-mail: gujaratsc@ieindia.org]

IEI Overseas Chapter

Energy Systems in Geobiology

Language Chapter of the Institution organized a Seminar on the topic 'Energy Systems in Geobiology' on May 24, 2017 at Fahaheel, Kuwait. Mr Ajay Sharma, Chairman of the Chapter, welcomed the dignitaries and participants. He invited the master of ceremony Mr Sam Ananth to introduce the speakers. Mr Sundararajan, former Chairman of the Chapter and former Head, Electrical Department of Pan Arab Consultants in Kuwait and Mr Ravi Shankar, former Executive Committee Member of the Chapter, delivered lectures embracing the theme of the Seminar. Both the speakers discussed various aspects of geobiology. Geobiology is the study of the effects of bio—electromagnetic—radiations emitted by various sources including Earth, Sun, Moon and the environment. The sick building syndrome which is recognised by WHO (World Health Organisation) highlights the fact that illness can be due to working or staying in sick building caused by geopathic

stresses resulting imbalance in the energy field. The members enjoyed the presentation which was followed by a question and answer session. Mr Thomas John, Honorary Secretary of the Chapter, highlighted various activities of the Kuwait Chapter including the system of IEI examinations which are conducted regularly by the Chapter for the diploma holders. Mr Jhon also proposed the vote of thanks. Engineers in large numbers attended the Seminar as a part of the Continuous Professional Development (CPD) programmes of the Kuwait Chapter.



World Telecommunication and Information Society Day 2017

Theme: Big Data for Big Impact

World Telecommunication and Information Society Day was celebrated by the Centres of the Institution all over the country on May 17, 2017. Brief reports as received from various Centres are given hereunder.



STATE CENTRES

Andhra Pradesh

The Guest Speaker, Mr Pammi Kalee Prasad, Senior Engineering Assistant, Doordarshan Kendra, Vijayawada, mentioned that a flood of data is created every day by the interactions of billions of people using computers, GPS devices, cell phones and medical devices. He felt that



concerted action is needed by the government, development organizations and companies to ensure that the data helps the individuals and communities who create it. The Chief Guest, Mr K Damodar Rao, Chief General Manager, Telecom, Andhra Pradesh Centre, Vijayawada, stated that future belongs to Big Data and he explained BSNL's contributions towards this revolution. He stressed on the importance of Big Data on Government Policy implementation including National Disaster Management, Aadhar UID etc. Dr M Kamaraju, Chairman of the Centre, presided over the function. Earlier, Mr Vijay Kumar, Faculty of Electronics and Communication Engineering Department, Gudlavalluru Engineering College, Gudlavalluru, Andhra Pradesh, welcomed the gathering. Mr G V Srinivasulu, Honorary Secretary of the Centre, proposed the vote of thanks.

Assam

The Chief Guest, Prof Dhiraj Bora, Vice-Chancellor, Assam Science and Technology University, Guwahati, highlighted the contemporary issues embracing the theme of the day. Mr Prabir Kumar Das, Director, Software Technology Parks of India, Guwahati Centre, in his Keynote Address elaborated various technical aspects of the theme. Dr R K Sharma,



Pro-Vice Chancellor, USTM delivered lecture on 'Big Data for Big Impact'. Earlier, Mr Amitava Nath, Organising Secretary of the event welcomed the gathering while Mr Satya Jyoti Nath of BSNL deliberated on the significance of celebrating World Telecommunication & Information Society Day and read out the message sent by

Secretary General, ITU on this occasion. Dr A K Baruwa, Chairman of the Centre, presided over the function and addressed the gathering. Dr P K Mahanta, Honorary Secretary of the Centre proposed the vote of thanks.

Bihar

 $\label{lem:marginal_state} \mbox{Mr Ashok Kumar Sinha, Chairman of the Centre, welcomed the dignitaries and participants}$

and highlighted the significance of observance of this important day. He also elaborated the theme. Mr Ramesh Kumar, Chairman, Beltron Telecom Green Energy System Ltd, in his Keynote Address, stated that Telecommunication and Computer Informatics together helped us to change completely from traditional letters and telegraphs to the present emails and social media. Dr J P Singh, Assistant Professor,



Computer Science & Engineering, NIT, Patna, also deliberated on the theme of the day. Dr A K Shrivastava, Council Member, IEI, presided over the function. The vote of thanks was proposed by Mr Sandeep Prakash, Honorary Secretary of the Centre.

Delhi

Mr Devendra Gill, Chairman of the Centre, welcomed the gathering and highlighted various activities of IEI to raise the awareness regarding use of internet and other information and communication technologies (ICT) that can bring revolutionary advantages to societies and economies. The Chief Guest, Prof A P Mittal, Member Secretary, AICTE, highlighted the growth of usage of ICTs in day to day life and its significance in Technical Education

Sector. He informed that AICTE is vigorously working towards the upliftment of Technical Institutions in the country by way of facilitating them to participate in innovative competition programme. The Keynote Speaker, Mr Shiv Kumar, Technical Director, National Informatics Centre (NIC) informed how NIC has been actively handling the vast data received from various sources in the society to assist



Government in handling critical and burning issues. Mr R N Rajpoot, Chairman, Institution of Engineering & Technology (UK), Delhi Local Network also addressed the gathering. Mr Praveen Kumar Singh, Honorary Secretary of the Centre, proposed the vote of thanks.

Goa

Mr G M N Parrikar, Chairman of the Centre, welcomed the august gathering. Mr Gerard D'Mello, Immediate Past Chairman of the Centre, spoke on the significance of observing



World Telecommunication and Information Society Day. He also elaborated the theme of the day. Prof Rakesh Shrivastava, Guest Speaker from Goa Institute of Management delivered a lecture on this occasion. While speaking on the importance of Data, Prof Shrivastava stressed the need for its use in

a positive way for the development of the nation. The revamped website (www.ieigoasc. org) of the Centre was launched on this occasion. Mr Austin Rodrigues deliberated on the importance of the revamped website.

Gujarat

Mr Navinchandra B Vasoya, President, IEI presided over the function and gave an insight about the role of IEI in the nation building activities. The Chief Guest, Dr Pradeep Kumar Hota, Chief General Manager, Gujarat Telecom Circle addressed the gathering with factual statistics which were interesting and noteworthy for professionals working in telecommunication areas. The theme speakers, Mr Manish Soota, Vice-President, Cignex

Datamatics and Mr Vijay Shah, Head Marketing India, Apttus, deliberated on the theme and discussed on the current trends, issues and challenges and the opportunities for computer professionals, students in the field of Big Data. Both the



speakers stressed on the content/data being generated through social media which is highly unstructured and transforming into meaningful information is a big challenge but at the same time it is an opportunity for lot of computer professionals. Mr Niraj Shah, Treasurer, CSI AC proposed a vote of thanks.

Haryana

Mr T P Singh, Chairman of the Centre in his address as Chief Guest pointed out that telecommunication has played a vital role in the development of the nation and life

has become comfortable due to fast communication methods. The keynote address on the theme was delivered by Dr Vrinda Gupta, Associate Professor, Department of Electronics & Communication Engineering, NIT, Kurukshetra. She highlighted that the theme "Big Data for Big Impact" focuses on the power of big data for development. She mentioned that it is a big challenge for



the researchers to realize the potential of these torrents of data in actionable form. Mr K C Sethi, Council Member, IEI, also addressed the gathering. Earlier, Mr Vipin Kumar, Convener, welcomed the august gathering.

LOCAL CENTRES

Angul

Mr Prasanta Moharana, Chairman of the Centre, welcomed the gathering and introduced the theme. The Chief Speaker, Mr Harish Cahndra Mohanty, Principal General Manager, BSNL, Dhenkanal Division, Odisha, gave an elaborate description about the importance of the day.



He stressed on the need of Big Data and mentioned how it is useful in our daily life and how BSNL is progressing and its vision for the next 20 years. The Chief Guest, Mr Yashobanto Pattanaik, Vice President, Nava Bharat Ventures Ltd, Dhenkanal, discussed various aspects embracing the theme. The vote of thanks was proposed by Mr S K Dogra.

Asansol

Mr K V Raju, Chairman of the Centre, presided over the function and enunciated the role of Big Data for development of the global community and its impact on the larger perspective. The Chief Guest, Mr Vivek Gupta, General Manager (Projects), SAIL-ISP, Burnpur, spoke about massive digitalization of India in all sphere of life generating huge quantity of data



and how data integrity finds immense importance in our social and corporate affairs. The Guest-of-Honour, Mr Barun Kumar, General Manager, MECON, Burnpur, explained about worldwide connectivity through internet and ease of access of Big

Data in industrial advancement and rapid decision making process in any situations be it developmental or war. Mr Sumanta Karmakar, Assistant Professor, Department of ECE, Asansol Engineering College, explained how the data is collected from various sources and then a Big Data is developed and linked which is again used and articulated by several agencies for various purposes. Mr T T Lahiri, Honorary Secretary of the Centre, proposed the vote of thanks.

Bareilly

Mr Prem Prakash Gupta, Chairman of the Centre, introduced the theme and presented various ideas to create jobs related to organizations working on telecommunication. Mr N N Agarwal, former Chief Engineer, Doordarshan, Bareilly, while speaking on the theme,

mentioned that Big Data gives developing economies and emerging markets to start economic development as well as being part of the global economy and trade. Mr K B Agarwal, Past Chairman of the Centre, explained that Big Data and associated analytics are beneficial in various areas, such as, solving traffic problems in cities;



targeting healthcare delivery; efficient supply chain management; preventive steps for environmental protection; providing a personalized educational experience for students; etc. Mr Sudhir Kumar Gupta, Honorary Secretary of the Centre, proposed the vote of thanks.

Dharwad

The Chief Guest, Prof (Dr) Sudheendra Hangal, Professor of Practice in Computer Science, Ashoka University, New Delhi, highlighted the analysis of Big Data classifying into useful data, critical data and worth archiving data to make decisions with certainty.



He further mentioned that the data created while issuing Aadhar is an unique identity in India and claimed that India is at par with other countries with information acquisition, processing and dissemination of information. He also spoke about the use of Big Data, problems in handling Big Data and challenges to have the secured data.

Mr S M V Narayan, Chairman of the Centre, highlighted the impact of Big Data and also cautioned about the recent ransomware threats and providing security to such intrusion on war footing basis to avoid disabling of ICT related services. Prof (Dr) Ramesh L Chakrasali, Honorary Secretary of the Centre, proposed the vote of thanks.

Durgapur

Mr R K Roy, Chairman of the Centre welcomed the gathering and briefed the significance of the celebration and touched upon the history and development of World Telecommunication Union. The Chief Guest, Dr Amitabha Sinha, Principal, Dr B C Roy Engineering College,

Durgapur, highlighted the challenges and opportunities of Big Data. Prof (Dr) Subrata Nandi, Computer Science & Engineering Department, NIT, Durgapur and Guest-of-Honour, spoke about some applications and challenges of Big Data and explained the concept of Big Data. Mr Swarup Das,



Vice President (Technology), Ensim and Guest-of-Honour, while discussing on Big Data stressed on new technologies, such as NOSQL, Hadoop, etc. Mr Diganta Sarkar, SED, NEB, BSNL, Durgapur and Guest-of-Honour, informed that it is expected that by 2020 the amount of digital information in existence will be from 3.2 zettabytes today to 40 zettabytes. The Guest Speaker, Mr T K Dutta, Former DGM, SAIL, RDCIS, spoke about 'Human Behaviour and Interactions' and explained that lots of data is being collected and warehoused every day, every moment like, web data, e-commerce data, purchases at department/ grocery stores data, credit/debit card transactions data, etc. Mr M N Bandyopadhyay, Honorary Secretary of the Centre, proposed the vote of thanks.

Gwalior

The Chief Guest, Mr S K Shukla, General Manager, NFL Unit In-Charge, elaborated that the purpose of World Telecommunication and Information Society Day (WTISD) is to create



awareness of the possibilities that the use of Internet and other Information and Communication Technologies (ICT) could bring to societies and economies as well as of ways to bridge with the digital era. The Special Guest, Mr V K Jain, AGM, BSNL, Guna, Madhya Pradesh, explained the significance of observance of this day. Mr

B K Khatri, Senior Manager, GAL, Vijapur, Guna, Madhya Pradesh, spoke about Big Data and how it creates Big Impact. Mr Abhishek Singh, Engineer, NFL, Vijapur, Guna, Madhya Pradesh, gave a value added presentation on the topic.

Jodhpur

Prof (Dr) G K Joshi, Chairman of the Centre, welcomed the guest and dignitaries present on the occasion. Prof Manish Kumar, Honorary Secretary of the Centre, introduced the theme. The Guest-of-Honor, Mr S L Meghvanshi. DGM Projects. BSNL. Jodhpur. explained

the social impact of ICT Entrepreneurship.
The Chief Guest, Prof V S Chouhan,
Head, Department of Electronics &
Communication, MBM Engineering
College, Jodhpur, described the relevance
of Big Data in detail. Prof K R Chowdhary,
Director, JIET-COE, Jodhpur, presided over
the programme and elaborated various



aspects related to the theme of the day. Prof Manish Kumar, proposed the vote of thanks.

Kozhikode

Dr K A Abdul Nazeer, Associate Professor & former Head, Department of Computer Science and Engineering, NIT, Calicut in his lecture on the theme described in detail the challenges



and problems associated with large volume of data generated at high velocity (speed) from a variety of sources where the reliability of the data itself may be poor. 'Conventional data analysis techniques fail in extracting useful information from this situation. New challenges are being attended to include

those by using artificial intelligence techniques', added Dr Nazeer. Prof (Dr) K P Mohandas, Chairman of the Centre, presided over the function. Earlier, Mr C Jithesh, Honorary Secretary of the Centre welcomed the gathering. The event was concluded with vote of thanks proposed by Mr C V Sudheendran, Member of the Centre.

Madurai

Dr P Rajamani, Council Memeber, IEI welcomed the gathering and presided over the function. Mr J Samuel, Honorary Secretary of the Centre, introduced the Chief Guest. The Chief Guest, Dr N Balaji, Principal, K L N College of Information Technology, Madurai, mentioned that the basic idea behind the phrase 'Big Data' is that everything we do is increasingly leaving a digital trace (or data), which we (and others) can use and analyse. He further explained that Big Data is the frontier of a firm's ability to store, process, and access (SPA)

all the data it needs to operate effectively, make decisions, reduce risks and serve customers. He clarified that our smart phones collect data on how we use it and our web browser collects information on what we are searching for. Similarly, credit card companies collect data on where we shop and shops collect data on what we are buying. He said that the Big Data are



characterised by their volume, velocity, variety and veracity and explained them. Analysing of Big Data is carried out by text analytics, sentiment analysis, face recognition, voice analytics, movement analytics etc', added Dr Balaji. Mr R Narayanasamy, Joint Honorary Secretary of proposed the vote of thanks.

To be continued......

NEWS-IN-BRIEF

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

STATE CENTRES

Andhra Pradesh

 Organized World Earth Day 2017 on the theme "Environmental and Climate Literacy" on April 22, 2017.

Bihar

- Lecture on "How to Lead a Disease Free Life" delivered by Mr Mathura Singh on March 5, 2017.
- Lecture on "Save Water" delivered by Prof [Dr.] Santosh Kumar on March 19, 2017.
- * Round Table Discussion on 'Waste Management in Rural Areas', on April 16, 2017.
- Lecture on "Urban Flood" delivered by Mr. Ashok Kumar Singh, Chairman of the Centre on May 7, 2017.

Delhi

- Seminar on "Overview of National Building Code of India-2016 and Insights to Fire & Life Safety [Part-4]" organized jointly with Bureau of India Standard on March 30, 2017.
- Lecture on "Innovation in High Speed Railway" delivered by Mr Pankaj Guleria, WoE Test Manager, Hitachi Rail Europe, IET Global Ambassador on April 6, 2017.
- Lecture on "Current Trends in Aerospace Engineering" delivered by Gp. Capt. Praveen Khanna, VSM [Retd] on April 17, 2017.

Goa

Two-day National Conference on 'Challenges in Environment Management: Mines & Industries' during April 20-21, 2017.

Maharashtra

Workshop on "Building Problems – Repairs, Fixing, Leakage, Waterproofing and Constructing New Buildings Durable" on April 15, 2017.

Tamilnadu

 Lecture on "Micro Turbines and Its Applications in India" delivered by Mr. Krishnamoorthy Sarma, Consulting Engineer, Chennai on April 1, 2017.

Telangana

- Twenty-seventh Kaka Krishna Mohan Rao Endowment Lecture on "Indian Road Sector Main Component of Economic Development" delivered by Mr. I Ganapathi ReddyEngineer-in-Chief, NH, CRF, PPP & Bldgs, Roads and Buildings Department, Government of Telangana, Hyderabad on April 24, 2017.
- Seminar on 'Smart Cities: Paradigm Shift in Development" on May 11, 2017.
- Seminar on "Sustainable Water Management" on the occasion of Birthday Celebrations of General Sir Arthur Thomas Cotton on May 15, 2017.

Uttar Pradesh

Seminar on "Jal, Ban, Dharti: Chunautian" (in Hindi) on April 23, 2017.

West Bengal

- Seminar on "Development of Technology: A Challenge to Biodiversity" on April 21, 2017.
- Fourteenth Professor J K Choudhury Memorial Lecture delivered by Mr. Biswajit Chatterji, Chief Manager, STUP Consultants Pvt. Ltd, Kolkata, on March 28, 2017.

LOCAL CENTRES

Amravati

Celebrated 'Earth Day' on April 18, 2017.

Berhampur

Celebrated 'Water Resources Day 2017' on April 28, 2017.

Dharwad

Conducted Training Programme on "PCB Design" jointly with Electronics & Communication Engineering Department, SDMCET, Dharwad, on April 22, 2017.

Coimbatore

Seminar on 'Innovations in Textiles: Processes and Products' on April 28, 2017.

Durgapu

- Seminar on 'Next Generation Cooperative Networking System' on April 13, 2017.
- Lecture on 'Thermal Power Plants of DVC' delivered by Dr D V Rajan, Superintending Engineer, DSTPS, DVC, Andal on May 9, 2017.

- Technical Visit at 'Durgapur Steel Thermal Power Station (DSTPS), DVC on May 9, 2017.
- Seminar on 'Alternative Source of Energy, its Utilization and Impact on Environment', on May 10, 2017.
- Celebrated 'National Technology Day' on May 11, 2017.

Indor

- 22nd T N Kulumbale Memorial Lecture on "Product Design for Environment" delivered by Prof. Girish Thakar, Professor & Head, IPE, SGSTS on March 15, 2017.
- Celebrated 'World Water Day' on March 22, 2017.
- 16th D G Dhawlikar Memorial Lecture on 'Civil Engineer's Earnest Efforts for Green Engineering', delivered by Dr S P Gautam, Ex-Chairman, M P Pollutions Control Board and Central Pollution Control Board, on April 12, 2017.

Kalaburagi

Celebrated 'World Earth Day' on May 5, 2017.

Kozhikode

- Lecture on "Renewable Energy [Solar Wind] in India" delivered by Dr. S Kumaravel, Assistant Professor, National Institute of Technology, Kozhikode on May 6, 2017.
- Celebrated Birth Anniversary of Sir Arthur Thomas Cotton on May 15, 2017.

Mangalore

Seminar on "Disaster Management" on March 13, 2017.

Meeru

Lecture on "Electric Power System Management" delivered by Mr. C P Gupta, Past Chairman of the Centre and Retired Chief Engineer, U P State Electricity Board on April 16, 2017.

Mysore

- Lecture on "Exciting Field of Oscillations of Mechanical Systems" delivered by Dr H R Srirangarajan, Retired Professor, IIT, Bombay on April 8, 2017.
- Lecture on "Open Cast Mining and TATA Steel" delivered by Mohammed Fashuddin, Ex-General Manager, [Ore Mines and Quarries], TATA Steel, Jamshedpur on April 11, 2017.
- Lecture on "Materials in Automobiles" delivered by Mr. S C Balawant, Consultant Metallurgist, Mysore on April 19, 2017.
- Lecture on "High Efficiency Chiller for Central Air Conditioning Plants" delivered by Mr. A Ramesh, Retired Deputy Director, CFTRI, Mysore on April 26, 2017.
- Lecture on "Digital India" delivered by Mr. D Srihari, Managing Director, GSS Project Consultants Ltd, Mysore on May 5, 2017.
- Lecture on "Bamboo-Construction Material of the Future" delivered by Mr. C Balachandran, Convenor, Bamboo-Dairies, Mysore on May 10, 2017.

Palghat

Lecture on "Big Data Challenges to Engineers and Managers" delivered by Dr. N C Balakrishnan, Past Chairman of the Centre and Professor, Guruvayappan Institute of Management, Coimbatore on April 19, 2017.

Roorkee

Workshop on "Safety in Material Handling and Environment" on April 25, 2017.

Salen

 Seminar on "Recent Advancement in Renewable Energy and Applications to Smart Cities" on March 30, 2017.

Saurashtra

❖ Technical Visit to 'INS-VALSURA' at Jamnagar on April 29, 2017.

Solapu

❖ Workshop on "Electrical Earthing, Safety and Power Quality Issues" on May 4, 2017.

Sunabeda

Celebrated 'World Water Day' on March 22, 2017.

Tiruchirapalli

Lecture on "Optimization of Milling Parameters for Aluminium Silicon Carbide Composite" delivered by Dr M Ganesan, Assistant Professor, Department of Mechanical Engineering, Saranathan College of Engineering on April 25, 2017.

Udaipu

Seminar on "Mechanical Maintenance Schedule" on April 29, 2017.

IEI Overseas Chapter

Kuwait Chapter

Seminar on "Creativity at Work Place" on May 10, 2017.

IEI AWARDS

The Steel Authority of India Ltd (SAIL) had instituted two Awards, namely, SAIL AWARD and DR M VISVESVARAYA AWARD to be given away every year during the Indian Engineering Congress to author/s of the articles adjudged best on selected topics. The topics for the year 2017 are given hereunder.

SAIL AWARD

'Growth of India's Steel Sector Amidst Global Overcapacity: Challenges for 300 MT Steel Vision '

DR M VISVESVARAYA AWARD

'Sustainability of Steel in the Transition to a Low Carbon Economy'

The Coal India Ltd (CIL) had instituted an Award to perpetuate the memory of Late J G Kumaramangalam, its first Chairman to be awarded every year during the Indian Engineering Congress to author/s of the articles adjudged best on a selected topic. The topic for the year 2017 is given below.

COAL INDIA (J G KUMARAMANGALAM MEMORIAL) AWARD

'Safety Culture Promotional Strategy for Large Coal Mining Company – Indian Perspective'

Intending contributors are requested to submit their articles (visit www.ieindia.org/jourtechdwnlds.aspx for guidelines) in quadruplicate to Director (Technical), The Institution of Engineers (India), 8 Gokhale Road, Kolkata 700 020 by **July 31, 2017**.



The Institution of Engineers (India)

Notification for IEI Industry Excellence Award 2017

The IEI Industry Excellence Award has been instituted to recognize industry leaders for their innovation, excellence in engineering operations and thereby, to lead their industry in competitive manner. The benchmarks created by the industries in India have included productivity, quality, safety and performance assurance thereby giving India the rightful place in the global markets. Realizing that such industries can provide the leadership to a large number of other industries in the country, it has been considered appropriate by the IEI Council to institute the IEI Industry Excellence Awards in the year 2008.

Applications in specified format (visit link https://www.ieindia.org/indexcel2017) are invited from prospective applicants for IEI Industry Excellence Award 2017. The last date of receipt of application for the Award 2017 is **July 31, 2017**. Interested applicants are requested to send their applications (5 hard copies & 1 soft copy in CD) to the below mentioned address.

The Director [Technical]

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

Student Membership (SMIE) – New Grade for Undergraduate B.Tech Students

The Council at its 689th meeting held at Ahmedabad approved a new grade of membership – Student Membership (SMIE) - meant for undergraduate students pursuing BE/B.Tech (AICTE approved) or equivalent qualification, completion of which will make them eligible for Corporate Membership. The salient points regarding this new membership grade are given below:

Benefits of Student Membership (SMIE):

- a. Student Members (SMIE) are entitled to enjoy following benefits regarding IEI journals:
 - i) Make free e-access by logging in through www.ieindia.org
 - ii) Can avail the journal hard copies at a concessional rate.
- Student Members (SMIE) may access the IEI Library (Sir R N Mookerjee Engineering Information Services Centre) at the headquarters as well as State and Local Centres of IEI.
- c. Student Members are entitled to receive the monthly colour tabloid 'IEI NEWS' free of cost.
- d. Opportunity to participate in technical events e.g. Seminars, Symposia, Conventions, Workshops etc. organized by various IEI centres at State, National and International levels at concessional rate.
- e. Student Members may avail the opportunity of staying in any of the IEI quest houses.
- f. Student groups consisting of SMIEs only will be given preference in release of grants for their final year project/thesis work.

Validity of Student Membership (SMIE):

Student Membership is a Non Corporate Membership and will be valid for six years w.e.f. the date of enrolment.

Student Membership fee:

Fee for Applicants from India/Nepal	Fee for Applicants from SAARC Countries	Fee for Applicants from any other Countries
Rs. 1500	US\$ 88	US\$ 150

The application proforma is already available at IEI website at the URL: https://ieindia.org/membership1.aspx.

In case of any further query regarding Student Membership (SMIE) please contact: (033)40106248 / (033)40106246 / (033)40106251 or email at : dibyendu.bhowmick@ieindia.org

Superannuation from IEI

Mr Abhijit Mukherjee, an employee of the Institution HQ will be superannuated from the services of IEI on June 30, 2017. He joined the Institution on October 1, 1985 and rendered his service to the Institution for a period of over 31 years.

IEI wishes Mr Abhijit Mukherjee and his family a happy and healthy life in future.





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