

CHAIRMAN SPEAKS

Prof. (Dr.) M. Jayaraju FIE



The rapid change, taking place in the world due to technological advancements, is awe-inspiring. It seems that what we see today becomes obsolete tomorrow. Just imagine the situation at least 75 years ago. At that time electricity was not available in many places in India and even in Kerala. It was such

a costly affair to have an electrified house, that many in the villages had just kerosene or oil lamps. Telephones were rare even in cities and it was considered a luxury. There were no TVs, refrigerators, air – conditioners and electric fans were yet another luxury. Radio was a costly commodity. Even sewage systems and septic tanks were not present. Manual scavenging was the order of the day in towns and cities. Railway lines connected important towns and cities only. The locomotives were steam locomotives and the loco-pilots had a tough time running trains. Air travel was not in the imagination of the common man. Even mobile phones became common only in the late 1990s.

Just imagine the situation now. What a tremendous change! If such changes can occur in the last 75 years, what would be the change in the next 75 years? What we see today would be a thing of the past. So let us all be prepared for technological changes and become tech-savvy.

Technological changes being the order of the day, it is proposed to conduct one day All India Seminar on Innovation, Implementation, and Industrialisation under the aegis of the Inter-disciplinary Co-ordination Committee, IEI on 23 August 2023 at IEI Kerala State Centre.

The GATE 2024 Coaching Classes will commence on 19 August 2023. In connection with Indian Independence Day 2023, the National Flag will be hoisted at 9.00 a.m. on 15th August 2023 at IEI KSC. Hope all Members and Staff will participate in the celebrations. Before concluding I wish all Members and Staff of all Centres a very happy Onam.

HONORARY SECRETARY'S DESK

Er.Roy Mathew, MIE



09.08.2023 Talk on 'വൈദ്യുതിഉപഭോക്താക്കളുടെ അവകാശങ്ങൾ' by Er. J. Sudhakaran Nair, FIE, Former Deputy Chief Engineer, Kerala State Electricity Board.

15.08.2023 Independence Day Celebrations. Hoisting of National Flag at 9 a.m. at Visvesvaraya Bhavan, The Institution of Engineers (India) Kerala State Centre, Thiruvananthapuram.

16.08.2023 Talk on 'Design Secret of the Universe using Hidden Mathematics as Numbers and Proportions' by Prof. Dr. V. Rajendra Babu, Former Professor & Head (Civil), Dean (P.G. Studies), College of Engineering, Thiruvananthapuram

23.08.2023 One-day Seminar on 'Innovation, Implementation and Industrialisation'. (The proposed seminar on 9th August 2023 is postponed to 23 August 2023)

30.08.2023 Being Onam Holidays there will be no technical talk.

06.09.2023 Being a holiday there will be no technical talk.

08-09-2023 IEI Kerala State Centre jointly with St.Thomas Institute of Science and Technology, Thiruvananthapuram organizing one day seminar on Remote Sensing & GIS Application in 'Flood Risk Management' under the aegis of Civil Engineering Division Board of IEI at St.Thomas Institute of Science and Technology.

10-09-2023 IEI Kerala State Centre jointly with Sanjeevani organising One Day Seminar on 'Creating Hope Through Action' under the aegis of Interdisciplinary Coordination Committee of IEI at Visvesvaray Bhavan.

GUIDANCE CLASSES FOR GATE 2024 EXAMINATION FOR THE FOLLOWING ENGINEERING BRANCHES

- Civil Engineering • Electronics & Communication Engineering
 - Electrical Engineering • Computer Science & Information Technology • Mechanical Engineering
- Classes will commence from August 2023, (Course Duration- 7 months)

The registration fee has to be paid in one installment by cash / Cheque / Demand Draft in favor of "The Institution of Engineers (India), Kerala State Centre" payable at Thiruvananthapuram along with the application.

04.07.2023 Webinar on Vande Bharat Trains

A game changer in semi High-speed Rail transport sector and a paradigm shift in the manufacture of Rolling stock in Indian Railways.



The webinar started with a welcome address by P A Salahudheen, Chairman, of IEI Kochi Local Centre. He welcomed Er Madan Mohan K FIE, IRSEE (Rtd), Former Dy Chief Electrical Engineer, ICF Chennai & Chairman, IEI Palakkad Local Centre along with other dignitaries. In the Inaugural speech, Chairman mentioned briefly the history of Indian Railways and the evolution of Coach Stocks in Indian Railway to present the modern Rolling stock of Vande Bharath Express under making Indian scheme.

Prof (Dr) G Madhu introduced the speaker with details of the speaker's expertise in the field of electrical engineering in general and his experience in Indian Railways and ICF, the Indian Railway production units exporting Rolling stock from India, in Passenger coach manufacturer in India.

Chief guest Er Madan Mohan started his speech by explaining various categories of Train formations with one Train engine in the front as conventional Trains and multiple units with power-generating coaches intermittently called self-propelled train formations. Then the speaker introduced Vande Bharath Trains a game changer in the main line semi high-speed trains production and its specialty indigenous design and production with more than 80% of indigenous materials inputs in manufacturing the Train.

He explained various technical features of the Vande Bharath train sets and especially over conventional train formations. He briefly compared most of its advantages over the present Train formation used in Indian Railways

The speaker clearly explained the technical aspect of the train with the help of a circuit diagram which helped the participants to understand it clearly.

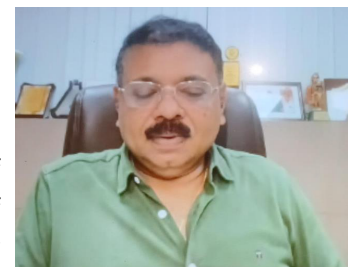
The speaker concluded with passenger-friendly features incorporated in the Vande Bharat Train formation in amenities and safety.

He continues his speech for about one Hour. The speaker answered all the queries raised by the participants.

After the discussion vote of thanks was expressed by the Hon Secretary of Kochi LC Er K S Babu. The webinar ended at 8.30 p. m.

19.07.2023 Webinar On Engineering Challenges behind Demolition of Super tech Twin Tower, Noida.

Before starting the webinar, the Gathering paid homage to the sad demise of Mr. Ommen Chandy, Former Chief Minister and then chief guest who formally inaugurated the new building of IEI Kochi Local Centre in 2011.



Dr. Madhu also remembered and talked a few words about his association with IEI.

The webinar started with a welcome address by P A Salahudheen, Chairman, of IEI Kochi Local Center. He welcomed Dr. ANIL JOSEPH FIE, MD, Geostructural Pvt Ltd Kochi, Council member IEI, and President, Indian Geotechnical Society. Chairman remarked about the subject as a rare opportunity to hear about the marvel of engineering activity of de-construction of a high-rise building in the middle of a thickly populated and surrounded by various high-rise buildings without harming any living creature and duly satisfying all the stipulated safety and environmental standards.

Prof (Dr) G Madhu introduced the speaker with details of the speaker's participation in various professional Bodies, His academic achievements in the field of Civil engineering and Geotech field. Dr Madhu also elaborate on his professional achievement both in structural engineering, Geotechnical as well as his national and international presence in various activities including the controlled implosion of high-rise building. Chief guest Dr. Anil Joseph started his speech with an explanation of various types of demolition methods that prevailed in the field then speaker

defined the demolition by implosion and its various steps. He clearly explained that the act of implosion is a comprehensive act of various engineering experts such as structural engineering, geotechnical experts, Explosive experts mining, and geological experts.

The speaker explained with the help of a PowerPoint presentation about the placement technique of explosives, velocity of implosion, etc.

He also explained the stages of demolition with the help of a presentation in 6 steps a survey, the study of the building plan, removal of toxic substances, Removal of non-load bearing members, drilling holes in columns, placement of explosives, and final detonation.

The speaker discussed the failures in demolition end up with the loss of human life and disaster and discussed the reason for such failures both at the national and international levels.

He narrated various success stories in demolition both in India and abroad directly undertaken by the speaker and his team.

He narrated the details of Noida's demolition as well as three high-rise apartments in Kerala.

The speaker concluded his speech with a brief explanation of timings in a sequence of explosions with an interval of microsecond duration with electrical controls.

He continues his speech for about one Hour. The speaker answered all the queries raised by the participants.

After the discussion vote of thanks was expressed by the Hon Secretary of Kochi LC Er K S Babu the webinar ended at 8.30 p.m.

31.07.2023 Webinar on Electricity Consumers Grievances and Redressal Mechanism in Kerala.

Before starting the webinar, the gathering paid homage to the sad demise of Er G Narayana Pillai on 27th July 2023 at the age of 87. He was a 1957 Batch Electrical engineer from the College of Engineering Trivandrum who has contributed a lot to the electrical engineering fraternity. Dr Madhu also remembered and said about him and his personal relations.

The webinar started with a welcome address by P ASalahudheen, Chairman, of IEI Kochi Local Center. He

welcomed Er. A. Chandra Kumaran Nair, Kerala state Electricity Ombudsman Kochi & EC member IEI, Kochi LC. During the presidential address, Chairman mentioned the importance of the subject. And also mentioned the Chief guest's contribution to the development of IEI Local Centre. The chairman also welcomes all the participants including senior engineers, Council members, and committee members to the webinar. Prof (Dr) G Madhu introduced the speaker with details of the speaker's professional experience and expertise in the various field of Electrical engineering in various Airport and his involvement and contribution in developing Cochin Airport as one of the fully powered Green energy airports in India and also about his participation in various professional Bodies.

Chief guest Er A C K Nair started his speech with an explanation of various acts and rules that prevailed in India as well as in Kerala during 1910,1948,1998 on electricity generation distribution and consumer rights and responsibilities finally a comprehensive central act was enacted as the Electricity Act 2003.

He stated clearly the various terms used in the act and the consumer redressal mechanism available at various levels to redress any dispute between the electric power supplier and consumer on disconnection, reconnection tariff, and other issues. Chief Guest also explained the scenario in the early days before such act came into existence consumers were forced to go to legal remedy through the court of law which generally take a lengthy time. To avoid such a situation the present malty level CGRF- (Consumer Grievances Redressal Forum) - previous days and explained the evolution of the present system of Consumer redressal form and the formation of the Electricity Ombudsman.

The speaker further explained the procedure followed by the electricity ombudsman to redress the grievances and concluded his speech with an explanation of further redressal appeal mechanisms available at the national level. He continued his speech for about 45 minutes. The speaker answered all the queries raised by the participants.

After the discussion vote of thanks was expressed by the Hon Secretary of Kochi LC Er K S Babu. The webinar ended at 8.15 p. m.

CONDOLENCE MEETING



19.07.2023 A condolence meeting was held to pay homage to Late Oommen Chandy, Former Hon'ble Chief Minister of Kerala. Prof (Dr) M. Jayaraju, Chairman, Er.N.Rajkumar, Past Chairman, Er.S.Radhakrishnan, Past Chairman, Er.V.Vimal Prakash, Past Council Member and Er.Roy Mathew, Honorary Secretary were shared their memory of Departed Soul.

Kerala State Centre- WEDNESDAY TALKS - Glimpses

12.07.2023 Technical talk on applications of Composite Products in Engineering' by Dr Krishnadasan C K, Dy Director, VSSC, Structures Entity (Rtd)



26.07.2023 Technical talk on 'Light Weight Foamed Concrete Using Industrial Waste Materials' by Dr. Sajan K Jose, Associate Professor & Head, Department of Civil Engineering, LBS Institute of Technology for Women, Thiruvananthapuram



19.07.2023 Technical talk on 'Wealth Creation through Stock Markets' by Mr. Padmanabhan T.V., Senior Manager, Equity Research, Cap Stocks & Securities (India) Pvt. Ltd.



02.08.2023 Technical talk on 'Scientific Vasthu' by Mr. Sandil Kumar E. K. Assistant Section Officer, Finance Department, Government of Kerala



Voice of Kerala Engineers

August 2023

To

Date of Publication : 07-08-2023

If undelivered please return to:

The Institution of Engineers (India)
Kerala State Centre
Visvesvaraya Bhavan
Opposite Kanakakunnu Palace
Thiruvananthapuram - 695 033

Phone: 0471-2322991
E-mail: ieitvm@gmail.com, keralasc@ieindia.org
Web: www.ieitvm.org

Disclaimer: The Institution of Engineers (India) Kerala State Centre, as a body, accepts no responsibility for the statements made by individuals.

Editorial Board : Er.Sarat Kumar K, MIE, Editor, Er.Balakrishnan Nair P, FIE, Er.K.R.Suresh Kumar, MIE, Er. R.K.Subramoniam, MIE, Prof. (Dr.) M. Jayaraju, FIE, Chairman-KSC, Er.Roy Mathew, MIE, Honorary Secretary-KSC

Printed and published by Prof. (Dr.) M. Jayaraju, FIE, Chairman on behalf of The Institution of Engineers (India) Kerala State Centre. Printed at Akshara Offset, Kunnumpuram, Thiruvananthapuram (Ph: 0471-2471174). Published at IEL-KSC, Visvesvaraya Bhavan, Opposite Kanakakunnu Palace, Thiruvananthapuram. Editor: Er. Sarat Kumar K.