



# News Magazine of The Institution of Engineers(India), Kerala State Centre

## Voice of Kerala Engineers

Vol. XIV No. 1

January 2018

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### CHAIRMAN'S MESSAGE

Er. N. Rajkumar FIE



We are ringing in yet another New Year 2018. (98<sup>th</sup> year of our existence). Our country has seen several changes including demonetisation and GST bill. The professionals in the country continue to be a neglected lot. Make in India programme has made voice in the country. We

have to put in our best efforts to make it a success.

On January 19<sup>th</sup> & 20<sup>th</sup>, 2018, an important Seminar of Mechanical Engineering Division is being scheduled in Thiruvananthapuram on Recent Developments in Mechanical Engineering: Computational Heat Transfer, Fluid Flow and Energy Systems.

Hope keeps us going. Let us hope for a bright and prosperous 2018.

### HONORARY SECRETARY'S DESK

Er. K. S. Udaya Kumar MIE

#### Kerala State Centre - Forthcoming Events

**03-01-2018** Talk on 'Complex Networks: A Networking Perspective' by Er. Abhishek Chakraborty, Senior Project Fellow, Department of Avionics, Indian Institute of Space Science and Technology, Thiruvananthapuram.



**10-01-2018** Talk by Er.Jithin Krishnan, Sree Chithira Thirunal Institute of Medical Sciences & Technology, Thiruvananthapuram.

**17 & 18-01-2018** Agricultural Programme.

**24-01-2018** will be announced later.

**26-01-2018** 68<sup>th</sup> Republic Day Celebrations. Flag hoisting at 9:00 am at Visvesvaraya Bhavan, Thiruvananthapuram.

**31-01-2018** Talk on 'Role of Clinical Engineers in Hospitals' by Er.Koruthu P.Varughese, Bio Medical Engineer.

### Two Day Workshop – A Platform where Young Minds meet 'Agricultural Technology – Innovation and Popularization'

17th & 18th January 2018, Thiruvananthapuram

Organized by The Institution of Engineers (India), Kerala State Centre under the aegis of Agricultural Engineering Division Board, IEI.

Venue: The Institution of Engineers (India), Kerala State Centre, Visvesvaraya Bhavan, Opposite Kanakakunna Palace, Thiruvananthapuram

Contact: Er. Udaya Kumar K.S., MIE, Honorary Secretary, The Institution of Engineers (India), Visvesvaraya Bhavan, Opposite Kanakakunna Palace, Thiruvananthapuram – 695033, Tel: 0471-2322991/ 2982102 Telefax:0471-2322992

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### Two Day All India Seminar

'Recent Developments in Mechanical Engineering : Computational Heat Transfer, Fluid Flow and Energy Systems'

19<sup>th</sup> & 20<sup>th</sup> January 2018, Thiruvananthapuram

Organised by :

The Institution of Engineers (India), Kerala State Centre under the aegis of Mechanical Engineering Division Board, IEI

In association with Department of Mechanical Engineering, Sree Chitra Thirunal College of Engineering, Tvpm.

Venue:

Sree Chitra Thirunal College of Engineering Auditorium, Pappanamcode, Thiruvananthapuram

Contact :

**Er. Udaya Kumar K.S., MIE**

Honorary Secretary (Organising Secretary)

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years of relentless journey towards engineering advancement for nation building

## Update of Membership details

All Corporate Members are requested to update ( if there is change) your Membership details in the format given below and forward it to IEI Kerala State Centre by Post/e-mail at the earliest, for updation by Headquarters.

- |                      |                          |
|----------------------|--------------------------|
| 1. Name of Member    | 5. Mobile Number         |
| 2. Membership Number | 6. e-mail Id             |
| 3. Division          | 7. Remarks, if any       |
| 4. Address           | e-mail: ieitvm@gmail.com |

## Energy Conservation Day

The Institution of Engineers (India), Kerala State Centre observed Energy Conservation Day (14 December) at Visvesvaraya Bhavan, Thiruvananthapuram on 20 December 2017. Er.Dinesh Kumar A.N., Energy Technologist, Energy Management Centre – Kerala, Thiruvananthapuram delivered a talk on the topic, 'Energy Conservation'. Er. N. Rajkumar, Chairman, IEI KSC welcomed the gathering and introduced the speaker. According to the speaker, Energy Conservation is more important than Energy Efficiency for

a sustainable environment. What we have to do is to respect Nature. By 2050, there would be 500 big cities all over the world requiring large amount of energy for all its needs. Hence the utmost need is for energy conservation. The function concluded with vote of thanks by Er. K.S.Udaya Kumar, Hon. Secretary, IEI KSC.



Er.Dinesh Kumar A.N.

## NEWS FROM LOCAL CENTRES

### Trichur Local Centre

### 17<sup>th</sup> Annual General Meeting

The Institution of Engineers (India), Trichur Local Centre conducted the 17<sup>th</sup> Annual General Meeting on 22<sup>nd</sup> October 2017. Er.V.Damodaran FIE, Chairman presided over the meeting and welcomed the members who attended the AGM.

Er.Sugathan U.K., Honorary Secretary presented the Annual report for the year 2016-17 and the audited accounts for the year 2016-17. The Annual Report, accounts and minutes of the AGM of previous year were passed by the AGM. Er.T.R.Krishnan, FIE and Er.C.Achutha Menon felicitated the AGM. Er.Sugathan U.K., Honorary Secretary proposed vote of thanks.



Memento of IEI Kerala State Centre being presented to Dr. K. Raghavan Nambiar, FIE by Dr. M.K. Balakrishnan Nayar, FIE

### Kochi Local Centre

**The Institution of Engineers (India), Kerala State Centre honours Er.P.M.Chacko, Past President, IEI**

*Er.N.Paul George, Chairman, IEI Kochi LC and Er.T.P.Raveendran, Hon. Secretary, IEI Kochi LC presenting memento on behalf of IEI KSC to Er. P M Chacko (Middle).*



### Engineers' Day

IEI, Kochi Local Centre celebrated Engineers' Day on 15<sup>th</sup> September 2017. The programme was inaugurated by Er. Madhu S.Nair, CMD of Cochin Shipyard Ltd by garlanding photo of Sir M. Visvesvaraya. In his speech on the theme "Role of Engineers in Developing India", he emphasised the importance of dedication towards profession for coming out as successful Engineer and pointed out that



Er. Madhu S.Nair speaking

development of technology should be aimed at basically for benefitting the common man to make his life easy. IEI Kochi Local Centre Chairman Er. Paul George FIE welcomed the speaker. Er.N N Shaji, Chief Engineer, KSEB, Kalamassery made commemorative speech, explaining life and achievements

of Sir. M. Visvesvaraya as an Engineer and administrator. Er. Sureshkumar, Dy. Chief Engineer, KSEB made felicitations. Er.T P Raveendran FIE, Hon. Secretary, IEI ,Kochi Local Centre proposed vote of thanks.

### Kozhikode Local Centre

### “ALTERED GENES AND TWISTED TRUTH – THE STORY OF GM CROPS IN INDIA”.

A Technical Presentation was held on 22nd August 2017 at the Kozhikode Local Centre of the IE(I). Prof K.P.Prabhakaran Nair, Formerly Professor, National Science Foundation, The Royal Society, Belgium & Senior Fellow, Alexander von Humboldt Foundation, The Federal Republic of Germany delivered an expert lecture on “ALTERED GENES AND TWISTED TRUTH – THE STORY OF GM CROPS IN INDIA”.

Prof (Dr)K P Mohandas, FIE, Chairman IE(I), welcomed the Chief Guest. Er. C.Jithesh, MIE, Hon.Secretary introduced the speaker. Prof K.P.Prabhakaran Nair gave a comprehensive talk about Soil, Green revolution and Genetic Modification (GM) of agricultural crops. In BT Cotton, genes of certain bacterium are transposed with those of cotton and the worms are killed creating an insecticide property for the genetically modified cotton. The latest in the GM family is the GM mustard, where to

control weeds in the field herbicide is recommended, which will kill all the weeds, but not the mustard plant. The most dangerous aspect of this herbicide is that it has as its principal ingredient glufosinate, a neuro-toxin which is carcinogenic. The long term implications on the health of Indians, through GM crops, and its socio-economic impacts, were discussed in the lecture with examples. According to him, the green revolution though improved production, was definitely harmful to our native crops and human beings at large.

The function concluded with vote of thanks by Er.C.Jayaram MIE, Committee Member, Kozhikode Local Centre.



Prof K.P.Prabhakaran Nair

### Sustainable Water Management: Challenges And Possible Solutions

A Technical Presentation was held on 27th September 2017 at the Kozhikode Local Centre of the IE(I). Prof (Dr) Sudheer KP, Professor, Environmental & Water Resources Engineering, IIT Chennai gave a lecture on Sustainable Water Management: Challenges And Possible Solutions”

Er. C.Jithesh, MIE, Hon.Secretary Kozhikode Centre welcomed the Chief Guest. Prof (Dr)K P Mohandas, FIE, Chairman IE(I), introduced the speaker.

In his speech, he narrated the present scenario of too much water or too little water due to the frequent occurrence of natural hazards, like cyclone, draught, floods due to climate change. He stated that the great challenge for the coming

decades will be the task of increasing food production with less water (water use efficiency), particularly in countries with limited water and land resources. On his case studies, he presented his research teams findings on how to meet the challenges in rural water supply and avoid flood situations. Success in flood water mitigation in Chennai airport and suggestions for Kuttanad back waters were presented.

The function concluded with vote of thanks by Er.Abdul Hameed, MIE, Kozhikode Local Centre.



Dr. Sudheer KP

### Kollam Local Centre

### Energy Conservation & Renewable Energy

A seminar on ‘Energy Conservation & Renewable Energy’ was organized jointly by The Institution of Engineers (India), Kollam Local Centre and Quilon Management Association on 29.8.2017. Chief Guest was Dr.R.Harikumar, Director ANERT, Kerala and guest of honour was Prof.P.O.J.Lebba, Former Principal, TKM College of Engineering, Kollam.

Dr.Harikumar gave an overall picture of renewable energy potential. He expressed his displeasure on the slow growth of

solar projects. He explained the various incentives provided by state/central government. To speed up solar projects government relaxed the rules related to inspection and commissioning of renewable generating plants up to 10 kW. New regulation permits utilities to connect such plants to the power grid after inspection and satisfaction by the designated Utility Engineer.

### ‘Fourth Industrial Revolution: Role of Startups’.

IEI Kollam Local Centre held a joint programme with Quilon Management Association on 30.10.2017. Dr Saji Gopinath CEO, Kerala Start up Mission gave a presentation on the theme ‘Fourth Industrial Revolution: Role of Startups’.

He visualised a new world in the coming fourth industrial revolution. First industrial revolution was in textile and railways, second revolution was in automobiles and the third revolution was linked to computers. We are in the



path of a fourth revolution with different variables. Future management will be based on 'trust' and 'cooperation'. Present path is destructive but the future planning will be based on sustainability. Solar and electric vehicles are part of it. Driverless car will come soon. Large industries will give way to

productions at home, with 3 D printers. He explained various initiatives provided by Kerala Startup Mission to encourage entrepreneurs to take part in the fourth revolution. He explained the Incubation Centre and Fablab under Kerala Startup Mission.

## Kerala State Centre- WEDNESDAY TALKS - Glimpses

**06-12-2017** Talk on 'Numerical Modelling of Reinforced Soil' by Dr.Jayamohan J., Principal, LBS Institute of Technology for Women, Thiruvananthapuram.



**13-12-2017** Talk on 'A People Initiative for River Rejuvenation' by Dr.N.N.Panicker, Thettiar Sahajivan Swaraj.



**27-12-2017** Talk on 'Challenges of being an Innovator and Entrepreneur' by Er.Joy Prabhakaran, Professor, Department of Electronics and Communication Engineering, IIIT Bengaluru



## MEMBER IN THE NEWS

### Dr. Shaji P. James FIE



A book entitled "Mechanization in Rice Cultivation: Experiences from Kerala State of India" authored by Dr. Shaji P. James was released on the occasion of the inauguration of the Annual Review Meeting of All India Coordinated Research Project on Farm Implements and Machinery held at University of Agricultural Sciences, Raichur, Karnataka on 20-12-2017. Dr. Shaji P. James is Professor, Agricultural Engineering, Kelappaji College of Agricultural Engg. & Technology, Kerala Agricultural University, Tavanur. *Hearty Congratulations!*

## The Institution of Engineers (India) KERALA STATE CENTRE Skill Development for Engineering Graduates

### Second Batch- Three Day Training on Construction Management

Period of Training: Dates will be announced.

**Venue:** The Institution of Engineers (India) Hall, The Institution Engineers (India), Kerala State Centre, Visvesvaraya Bhavan, Opposite Kanakakunnu Palace, Thiruvananthapuram- 695033

IEI is providing an opportunity for engineering graduates who are looking for employment, self employment, or improvement in their career growth.

**Objectives:** • Provide awareness & basic skills for enabling engineers to get good jobs. • Provide awareness & basic skills for self employment / entrepreneurship. • Impart social awareness & basic skills for High performance by engineers.

#### Suitable for:

• Engineering Graduates seeking good Employment. • Engineering Graduates seeking self employment. • Engineering Graduates seeking High Performance in their career.

#### SYLLABUS - CONSTRUCTION MANAGEMENT

- |  |                           |
|--|---------------------------|
| 1. Managing Building Construction            | 4. Quality of Concrete    |
| 2. Contract and contract management          | 5. Art of Site Inspection |
| 3. Quality Aspects In Building Construction. |                           |

**Facilitators:** Experienced serving / retired experts from educational, industrial, and research institutions.

Timing: 09.00 am to 1.00 pm on all days

**How to Apply:** Workshop is open to all engineering graduates and those who have completed the course. Registration can be done by sending duly filled-up form in the prescribed format. Advance registration is necessary for reserving the seats. Forms can be downloaded from the website [www.ietvm.org](http://www.ietvm.org)

**Course Fee:** Rs. 3500 /-

**Mode of payment:** By Cheque or DD in favour of "The Institution of Engineers (India) Kerala State Centre", payable at Thiruvananthapuram.

**Course Coordinator:** Er.PA.Prabhakaran, (Retd. Chief Engineer), Department of Space- ISRO.

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