



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

## Voice of Kerala Engineers

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### CHAIRMAN'S MESSAGE

Er. N. Rajkumar FIE



Fellow Engineers,

Changes are taking place all over the world. The professionals have to equip themselves to cope with changes. Our Institution also has to be better equipped for meeting the challenges ahead. Our State Centre Committee has also been exploring new avenues for Engineering professionals in the State. We have been discussing with senior Engineers on how best their experience and exposure can be extended to the new generations. I would request our experienced fellow Engineers to communicate to State Chairman/Honorary Secretary regarding any innovative schemes that can be implemented through IEL.

### SUMMER VACATION CLASSES

As in previous years The Institution of Engineers (India), Kerala State Centre proposes to conduct Summer Vacation Classes with Practicals in Electronics, Energy Conservation, Road, Fire, Electrical Safety and High Tech Agriculture etc. from April 3<sup>rd</sup> to May 6<sup>th</sup> 2017, for 7<sup>th</sup>, 8<sup>th</sup> & 9<sup>th</sup> Standard students.

For Registration Contact:

CERCON, The Institution of Engineers (India), Kerala State Centre, Visvesvaraya Bhavan, Opposite Kanakakunnu Palace, Thiruvananthapuram-695033. Phone: 0471-2322991, 2982102 Mobile: 9447450870

### HONORARY SECRETARY'S DESK

Er. K. S. Udaya Kumar MIE

#### Kerala State Centre Diary

**01-02-2017** Talk on 'Towards Effective Project Management' by Er. P.A. Prabhakaran, Retd. Chief Engineer, ISRO, Advisor to Chairman, ISRO, Dept of Space.

**08-02-2017** Talk on 'Relax... Oh Mind' by Dr. M Manohar, FIE, Scientist, VSSC – ISRO, Trivandrum.

**15-02-2017** Twentieth Er. C.S. Padmanabha Iyer Memorial Lecture by Dr. Jayakumar CEO, Vizhinjam International Seaport Limited.

**22-02-2017** Talk by Er.Salim Gangadharan.



### 68<sup>th</sup> REPUBLIC DAY CELEBRATION



The Institution of Engineers (India), Kerala State Centre celebrated the 68th Republic Day on 26 January 2017. Er.N.Rajkumar, Chairman, IEL, KSC hoisted the National Flag at Visvesvaraya Bhavan, Thiruvananthapuram in the presence of Er.Udaya Kumar K.S, Honorary Secretary, IEL KSC, Committee Members, IEL, KSC, Corporate Members and staff.

### TWO DAY ALL INDIA SEMINAR ON “EMERGING TRENDS IN SMART GRID”

The Institution of Engineers (India), Kerala State Centre organized a Two Day All India Seminar on “Emerging Trends in Smart Grid” in Electrical Engineering under the aegis of Electrical Engineering Division Board of IEL on December 20 and 21, 2016. The seminar was held in association with Department of Electrical Engineering, Sarabhai Institute of Science & Technology (SIST), Vellanad, Thiruvananthapuram at APJ Abdul Kalam Memorial Hall of SIST.

The inaugural ceremony started with a prayer. The welcome address was made by Mr.Prasanth S., Associate Professor,



Er. N. Rajkumar, Chairman IEL, KSC lighting the lamp

97

years of relentless journey towards engineering advancement for nation building



Inaugural speech by Dr. M.C Dathan

Department of EEE, SIST.

The seminar was inaugurated by Padmashri M.C.Dathan, Former Director of VSSC and Scientific Advisor to Hon.Chief Minister, Government of Kerala. Dr. Dathan described desert land as the fertile land for solar energy. The excess solar energy can be converted to Hydrogen and water and transmitted to pipe line. There are so many factors in the smart grid scenario and Dr.Dathan stressed that there will be new ideas emerging in the scenario about the smart grid. Dr.K.R.Kaimal, Director, SIST delivered the Presidential address. The Keynote address was delivered by Dr.S.Rominus Valsalam, Associate Director, Head CIG, C-DAC, Thiruvananthapuram. Mr.N.Rajkumar, Chairman IEI delivered a special address and informed that The Institution of Engineers has started SMIE (Student membership of Institution of Engineers) for the Engineering college students and requested students to take the membership and start student chapter.

The function was felicitated by Mr.Koshy Mammen, Vice President, SIST, Dr.K.Ravi Nambiar, Professor Emeritus and Director, MG College of Engineering, Thiruvananthapuram, Mr.Somanandan, HoD, EEE Department, SIST. Er.Sarat Kumar K., Past Honorary Secretary, IEI Kerala State Centre proposed vote of thanks.



Prof.Koshy Mammen

After inauguration Dr.Rominus Valsalam, Associate Director, Head CIG, CDAC, Thiruvananthapuram, Dr.T.Ruben



Dr.K.R.Nambiar

Deva Prakash, Principal, Heera College of Engineering, Thiruvananthapuram, Dr.M.Jayaraju, Former Director, ANERT, Principal, MES College of Science & Technology and Mr.V.K.Joseph, Chief Engineer (Commerce), Vidyuthi Bhavan, Pattom, Thiruvananthapuram presented the invited technical talks about the smart grid. .

The valedictory function was held on 21-12-2016.

The valedictory function was presided over by Mr.V.Vijayakumar, Past Chairman, KSC, IEI who distributed certificates to the students. Mr.V.Vijayakumar requested the students to use the maximum facility available at the Institution of Engineers so as to develop the technical and research activities.



Prof.Somanandan

Dr. K.R. Kaima, Director, SIST also distributed the certificates to the participants. Mr. K. Sarat Kumar, Past Honorary Secretary, KSC, IEI proposed the vote of thanks.



Mr. K. Sarat Kumar speaking

The meeting concluded with National Anthem. The seminar was attended by 190 participants including students, faculties and IEI members.

## The veterans of IEI Kerala State Centre Honoured

Honouring Corporate member of IEI Kerala State Centre of the age of 80 years and above, who could not attend the ceremony on 49<sup>th</sup> Engineers' day- (Eminent Agricultural Engineer) Dr. A.M. Michael, FIE, Former Vice Chancellor, Kerala Agricultural University and former Director, Indian Agricultural Research Institute, New Delhi at his residence Edappally, Kochi on 23.01.2017.



Front (L-R) Dr. A.M. Michael, His wife, Rear (L-R) Honorary Secretary Er.K.S.Udaya Kumar, Er.Kingsling Das, Agricultural Engineer.

## NEWS FROM LOCAL CENTRES

### Kozhikode Local Centre

### “National Energy Conservation Day”

The Institution of Engineers (India), Kozhikode Local Centre observed “National Energy Conservation Day-2016 on December 14<sup>th</sup> 2016, with a technical talk. Er. C.Jithesh MIE, Hon.Secretary Kozhikode Centre introduced the speaker and gave a brief introduction of the importance of the day. Prof K P Mohandas, FIE, Chairman IE(I), Kozhikode Local Centre presided



Er. Vijayakumar, the speaker

over the function. Er. Vijayakumaran, Vice Chair, Energy Conservation Society made a detailed presentation on the theme “Energy Conservation in Process Industries”. The talk was much informative and useful and was followed by active discussion.

An additional feature this year was the preparation of a

leaflet indicating how to save energy in houses kitchen and while driving vehicles. This leaflet in Malayalam printed in colour was distributed in the schools in the city and among the public.

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

### Trichur Local Centre

### ‘Modern Trends in CNC Technology’.

The Institution of Engineers (India), Trichur Local Centre conducted a Technical meeting on 12-11-2016. Er.V.Damodaran, Chairman, IEI Trichur Local Centre presided over the meeting.

Er.V.Damodaran, FIE presented the theme ‘Modern Trends in CNC Technology’. Er.U.K.Sugathan, Honorary Secretary, IEI, Trichur Local Centre proposed the vote of thanks.



Er.V.Damodaran speaking

### “Digital Cash Transactions and Related Subjects”



Sri Ramachandran.V.R speaks

The Institution of Engineers (India) Trichur Local Centre conducted a Technical Meeting on Saturday 07th January 2017. Er.Damodaran.V FIE, Chairman presided over the meeting.

Dr. Surendran A FIE introduced the Chief Guest Sri Ramachandran.V.R, Financial Literacy Counsellor and Team, Canara Bank, Thrissur who presented the Theme paper “Digital Cash Transactions and Related Subjects”. Er.Sugathan U.K. , Hon. Secretary proposed vote of thanks.

### Palghat Local Centre

### Energy Conservation Day

The Local Centre celebrated Energy Conservation Day 2016 on 20th December 2016. Prof.C.Pradip, Associate Professor, Dept of EEE, NSS College of Engineering, Palakkad was the guest speaker who delivered a speech on the topic “Solar Energy – A support for Increasing Energy Demand”. Er A.Kesavan, Chairman of the Local Centre presided over the function.

The electricity sector in India had an installed capacity of 308,834 M.W. in which state sector contributes 101,472 M.W.( 33.1% ), central sector contributes 76,182 M.W.( 24.7% ) and private sector contributes 130,559 M.W.( 42.3%). Even so the forecasted deficit in power supply of the country during the year 2016-17 is 4,753 M.W.

Kerala’s power consumption is predominantly domestic, which accounts for 49% of the total consumption, which is only 22% nationwide. At the same time revenue from domestic consumers is only 30% of the total revenue. Industrial consumption is only 30% in Kerala, while it is 45% at the national level. Exploiting solar energy at the domestic level is an easiest solution to solve energy crisis in Kerala, he added. Prof Pradip explained the process of converting

light (photons) to electricity (voltage) in solar panel, and three main types of solar panel, currently in commercial production, viz. monocrystalline panels, polycrystalline panels and thin film panels. He also explained a case study of 1.KW solar power plant installed at his own home with its cost and benefit analysis. He advised all audience gathered there to install at least 1KW solar panel at their home to solve the future energy crisis, without considering the cost aspect. The session concluded with a vote of thanks by Hon. Secretary, Dr E.K.K.Nambiar



Prof. C.Pradip speaking

## 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 [www.ieindia.org](http://www.ieindia.org)
  - ii) Can avail the journal hard copies at a concessional rate.
- b. Student Members (SMIE) may access the IEI Library (Sir RN 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 guest 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)40106268 / (033)40106251 or email at : [dibyendu.bhowmick@ieindia.org](mailto:dibyendu.bhowmick@ieindia.org)

## Kerala State Centre- WEDNESDAY TALKS - Glimpses

**04-01-2017** Talk on 'Why We are Dishonest?' by Mr.M.Hari Kumar, Retired Engineer-G, VSSC, ISRO.



**11-01-2017** Talk on 'Management System Auditing' by Mr.Dinesh K.Menon, UNFAO, Consultant



**18-01-2017** Talk on 'Energy Conservation in Daily Life' by Er. Aneesh Rajendran, Assistant Executive Engineer (Electrical), Kerala Tourism Development Corporation.



**25-01-2017** Talk on 'Digital Banking' by Mr. N.Satheesh Chandran Technical Officer, Canara Bank, Thiruvananthapuram and Team.



Editorial Board: Er. V. Vijayakumar, Er. K. Sarat Kumar, Er. K. Ramanarayanan-Editor

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To



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