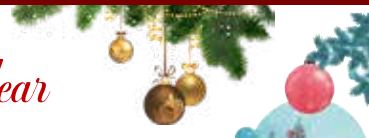




Merry Christmas and Happy New Year



CHAIRMAN SPEAKS

Prof. (Dr.) M. Jayaraju, FIE



This issue of Voice of Kerala Engineers is the last one of this year. With the Covid-19 pandemic taking a downward trend, the future beckons hope and happiness. In this scenario, we the Corporate Members must strive hard in our engineering excellence so that nation building becomes part and parcel of our life.

The 75th Anniversary celebrations of the formation of IEI Kerala State Centre will spill over to next year also. The major part of the celebrations will be in the coming year. There will be Seminars, special Wednesday Talks and Cultural events. The topics for the Seminars and Talks will be so tuned so that Corporate Members, youngsters and senior citizens among the general public will be benefitted and kept abreast of the latest digital technology developments like Digital Payments and Digital Rupee.

The highlight of last month was a Panel Discussion on 'An Overview of Vizhinjam Harbour Project', held on 16 November, 2022 at IEI KSC. The discussion stressed the economic and strategic importance of Vizhinjam Deepwater Port, being the one and only port in India with natural depth, without dredging, very close to the International Shipping Channel. The panelists were experts in their field and nearly 200 participants attended. A report was submitted to Hon. Minister for Ports, Museums and Archaeology, Government of Kerala, Sri. Ahammad Devarkovil. IEI KSC also took part in the Vizhinjam International Seaport Expert Summit at Thiruvananthapuram on 29th November, 2022 held by Govt. of Kerala.

Regarding lease issue, hearing was held at Collectorate, Tvm. Further details are awaited.

Before concluding, I wish all Corporate Members and Staff of all Centres, **'A MERRY CHRISTMAS AND HAPPY NEW YEAR.'**

HONORARY SECRETARY'S DESK

Er.Roy Mathew, MIE

07-12-2022 Talk on "Sustainable Transportation System" by Prof. Samson Mathew, Director, NATPAC

14-12-2022 Energy Conservation Day Celebrations 2022. Talk on theme 'Move towards Carbon Neutrality : Need to redefine Conservation' by Prof. V. K Damodaran, Fellow, IE (India); Life Senior Member, IEEE (NY) Founder Director, Energy Management Centre-Kerala

21-12-2022 will be announced.

28-12-2022 will be announced.

04-01-2023 will be announced.



Panel Discussion of Vizhinjam Harbour Project

On 16.11.2022 Panel Discussion on 'An Overview of Vizhinjam Harbour Project'. Moderator Er. Satheesh Gopi, MIE, Deputy Hydrographer (Rtd). Department of Port, Government of Kerala. Panellists Dr Anil Joseph, MIE, Council Member, IEI, Geo structural Engineer & Managing Director, Geo structurals (P) Ltd., Kochi. Er. G. Vijayaraghavan, Founder CEO, Technopark & Ex-Member Kerala State Planning Board and Dr K.V. Thomas, Former Scientist G & Group Head, NCESS & Former Dean, Kerala University of Fisheries and Ocean Studies, Kochi.

Prof. Dr M. Jayaraju, Chairman, IEI Kerala State Centre welcomed the gathering and Er. Roy Mathew, MIE, Honorary Secretary, IEI Kerala State proposed the vote of thanks.





REPORT FROM CENTRE

Kollam Local Centre



The Institution of Engineers (India), Kollam Local Centre and IEI KLC Students chapter, Department of Civil Engineering, MES Institute of Technology and Management jointly conducted World Students day celebrations on 17th October 2022, Monday 2.30 p.m. in the EEE Department Seminar hall, MES Institute of Technology and Management, Kollam. As part of the celebration, two events a photo collage contest and a Debate competition were conducted on the first week of October. The students' day celebrations were started with a two-minute silent prayer followed by a recitation of Dr A.P.J Abdul Kalam's poem "Songs of Youth" by Shihan Anver (Student member IEI). Prof. Abi Basheer B,



Head of the Department addressed the gathering. Dr Najee. M, Principal, MESITAM delivered the presidential address. Dr Sheeba. M, Honorary secretary, IEI Kollam Local Centre, inaugurated the function. Mr Ajoy Chandran, Secretary, of Kerala State Chalachithra Academy, was the day's chief guest. He did a motivational speech on the topic, "You have

to dream before your dreams can come true." The speaker urged the students to be ambitious and hardworking. The prize winners of the competitions were awarded certificates and gifts and the chief guests were honoured with Mementos. Nesna Haris, a Student member, of IEI, delivered the vote of thanks.

Kozhikode Local Centre

On 03.11.2022 A Technical Presentation was held by The Institution of Engineers (India)Kozhikode Local



Centre, jointly with The Institution of Electronics and Telecommunication Engineers (IETE), Kozhikode Sub Centre and Institution of Electrical and Electronics Engineers (IEEE), Malabar Subsection, IEI, Kozhikode Local Centre Office.

Dr Sabiq P V, Chairman, IEEE, Malabar Subsection, welcomed the gathering and introduced the Speaker. Dr Rakesh R Warriar (Faculty in the Department of Electrical Engineering, NIT, Calicut) delivered an excellent presentation on the topic "The Coming Drone Age: Opportunities, Challenges and Risks". He touched upon all aspects of the topic and recent development in the Drone age. The function concluded with a vote of thanks by Er Surendranathan K, FIE, Chairman, IE(I)

Trichur Local Centre

On 19-11-2022 Webinar on "Satyan King-Pin-Drive for Electric Vehicle" was delivered by Dr T. N. Sathyanesan, FIE, Former Professor, Dept. of Mechanical Engg.) Govt. Engineering, College, Thrissur.

The speaker narrated that electric vehicles are getting introduced at a rapid rate all over the world a new method of power transmission from the electric motor to the front wheel is discussed. The transmission is through a kingpin. The kingpin is almost normal to road terrain but for the king-pin angles and is given the shape of a frame called an Inner frame, which accommodates a bevel gear reduction unit connecting the motor shaft and front-wheel driving shaft. The Inner frame can turn inside and the Outer frame is attached to the vehicle body through a leaf spring, shock absorber, wishbone leavers and a compression spring. The other front wheel also is kept in a similar arrangement. The two motors are energized by an onboard battery pack in the vehicle and controlled by a common Control module. The steering and brake systems are similar to the existing ones at present. The method makes power transmission simpler and more efficient and the replacement of parts easier.

Prof. Dr C. P. Sunil Kumar, FIE, Chairman, IE(I) made Welcome Note & Presidential Address. He said that, in EVs (electric vehicles), electric motors run by battery are used for propulsion and Front wheel drive is used in cars as it has several advantages. Dr C. P. Sunil Kumar pointed out that King Pin is a mechanical element connecting the stub-axle and front axle beam. He added that steering movements

to stub-axles holding the front-wheel transmission shafts are facilitated because of King Pins. Hence King Pins in a steering system serve the primary purpose of providing the stub axles with an axis to rotate (or steer) on.

Er. U. R. Narayanan, Committee Member, IEI TLC introduced the Chief Guest formally highlighting his qualifications and experience.

Prof. Dr. Kurien E. K., FIE, Hon. Secretary, The Institution of Engineers (India) Trichur Local Centre proposed the Vote of thanks.



Best student project competition of B Tech and Diploma

The Institution of Engineers (India) Kerala State Centre is planning to conduct an exhibition of final year student projects carried out at various Engineering colleges in and near Trivandrum and Kollam district.

As such we request colleges to depute completed B Tech projects with two students to be presented on this exhibition tentatively fixed during the Christmas vacation. Certificate of participation and cash money will be given for selected meritorious projects. We request you send workable projects to participate in this exhibition. Also request colleges to send a list of projects and students name to us at the earliest.

For details Please contact: Phone: 0471-2322991/2322992 Mob: 8078027563



Prof (Dr) M. Jayaraju and Er.PSreekumaran Nair handed over the report of Panel Discussion on 'An Overview of Vizhinjam Harbour Project' held on 16-11-2022 to Hon'ble Minister for Ports, Museum, Archaeology & Archives Shri.Ahammad Devarkovil on 29th November 2022 at Symphony Hall, Mascot Hotel, Thiruvananthapuram.

WEDNESDAY TALKS - Glimpses

09-11-2022 Talk on 'Innovation through Biomimicry' by Er. Depalan S., Naturalist Cum Biomimic, Biomimetic Solution, Mysore



23-11-2022 Talk on 'Renewable Energy Prospects for the State of Kerala' by Dr. Ajith Gopi, Joint Chief Technical Manager, (Technical Consultancy in Solar Projects & Wind Energy Programme), ANERT



30-11-2022 Talk on "The Science Behind PIXAR" by Mr. Rajit Karunakaran, CEO, Pro BIZ Knowledge Centre, (Corporate Trainer, Mentor and Business Advisory Consultant).



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