The Indian Engineer

NEWSLETTER OF THE ENGINEERING COUNCIL OF INDIA

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The Indian Engineer

Message from the Chairman

Engineering Council of India had celebrated its 17th Foundation Day on 4th April, 2019, hence the Newsletter's March issue is being brought out now. Continuing the tradition, Eminent Engineers' Awards in 2 categories- Industry and Research & Consultancy were presented on 4th April, 2019. The high level Jury consisting of Dr. Kirit Parikh (Chairman), Dr. R. A. Mashelkar, Mr. B. Muthuraman, Mr. Mahendra Raj and Dr. D. V. Kapur had selected: Prof Devang Vipin Khakhar Director, Indian Institute of Technology, Mumbai, in the Research & Consultancy Category and Shri AnilKumar Manibhai Naik-



March, 2019

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Group Executive Chairman of Larsen & Toubro Limited, in the Industry Category. The Awards were presented by the Hon'able Lt. Governor of Delhi, Shri Anil Baijal. Shri Baijal commended the work of ECI. His address appears elsewhere in this Newsletter.

In addition to the Eminent Engineer's Awards, 3 Chairman (ECI) Commendation Awards were also presented to 1) Shri Anoop Kumar Mittal, CMD, NBCC Ltd, for outstanding achievement in the Infrastructure Sector, 2) Shri M.V. Gowtama-CMD, BEL in the Industry Sector, and 3) Shri S.N. Subrahmanyan, CEO and MD (Construction) Larsen and Toubro (ECC) in the Construction Sector.

We had organised a joint meeting of Board of Governors and representatives of MAs on February 28, 2019, where it was agreed that ECI and MAs, should work intensively on following three major initiatives, which would improve further the standing of the Engineering Profession:

Firstly, the Registration of Professional Engineers by ECI jointly with the Member Associations (MAs) needs to be accelerated. The maximum numbers of registrants have been from the Civil Engineering stream and from Southern Indian states. We have to make efforts to register more engineers from the other streams as well as from other Indian states. To ensure quality, rules & regulations have been developed for appraising the candidates in Civil and structural disciplines. MAs have been requested to develop similar rules for other disciplines. Also, it is necessary now to put emphasis on the next phase of the registration process that of the Continuous Professional Development Programs (CPD). For all these activities, MAs should not only establish National Committees but also make them functional. ECI will provide all information and help.

Secondly, following the MOU with AICTE, ECI and MAs are expected to work with the educational institutions and the industry, to develop and impart the internship, for which AICTE has issued Guidelines (copies were sent to all MAs). This would help in improving the employability of students after graduation. AICTE has also drafted a model Internship Policy, which is under discussions and is in the process of being finalised.

Thirdly, National Proficiency Evaluation Test (NEPT), which is a National level test to grade candidate's proficiency on the basis of written examination conducted under the auspices of National Proficiency Evaluation Board (NPEB) should be pursued by the MAs. A nationwide performance list of the candidates would be prepared periodically and provided to the prospective employer organizations in the Indian Engineering Sector. ECI will be happy to help the MAs in this regard.

(Uddesh Kohli)

Page 1

From the Editor's Desk



Today, everyone is talking about the exotic technologies like AI, IOT, Block Chain, 3D-Printing etc. These technologies no doubt would be of great asset for any economy. However most of these technologies are software / IT based technologies. All software related technologies are dependent on hard core electrical/ electronic technologies. A country which excel in these hard core technologies would dictate the type of software required.

Today, America leads in innovations, Japan in application, Germany in engineering and China in manufacturing. Further China is also fast picking up on the other three traits also. If India

wishes to become an advanced economy, we need to develop our own industrial base. India has to catch up on all the four traits and that too fast. That too in the traditional forms of technologies.

Prerequisite for any of the four traits is that we should have a cadre of engineers and scientists who are aware of the development taking place in their field of expertise. Then only these persons can think about developing or producing new products / processes which are not available elsewhere. Today technologies are continuously being upgraded. A technology which is in today morning, is out by evening. This implies that the upgradation process should also be on a continuous and on a sustained basis.

A building superstructure is strong if its foundation is strong. Since 1947, we have been creating centres of excellence examples being that of HEC, BHEL, ITI, SAIL etc. They were the so called centres of excellence, when they were created, with foreign tie-ups with the latest technologies available then. But what is their status today? All these centres are stressed today. There is an urgent need to change this trend.

The only way out is that being professed by ECI through its 'National Register of Professional Engineer' and the procedures set up under it.

ECI's definition of a Professional Engineer is one who has an approved engineering qualification, continuously updates his skills and knowledge in his chosen engineering specialization, follows and is bound by an Ethics Code formulated by his Peer Group.

To obtain more details, please visit the website www.ecindia.org.

(BR Jain)

Distinguished Engineer : Mr M V Gowtama

Mr M V Gowtama is the Chairman and Managing Director of Navratna Defence PSU Bharat Electronics Limited (BEL) since November 8, 2016. He is an expert in diverse domains – communication systems, radars,



electronic warfare systems, D&E, production, customer support and marketing. His career in BEL spans over 36 years. He steers the overall operations and business growth of the BEL across Business Verticals and Markets, it operates. He joined BEL in Jan 1983 and during his career progression; held various increasingly responsible management positions at BEL. This has gained him wide experience in multiple disciplines covering Electronic Warfare, Avionics, Network Centric Systems, Radars, and Missiles Systems. Mr Gowtama holds MTech in Advanced Electronics. He is vivid reader and well-travelled. His inherent ability to bring entirely new vectors of remediation for any complex business issues has won him accolades from all the Stakeholders.

Mr Gowtama was born on June 26, 1961, in Tenali, a small yet well-known town in Andhra Pradesh. He completed his B.Tech in Electronics and Communications from Sri Venkateshwara University College of Engineering, Tirupati, in 1983. He joined BEL at the Ghaziabad Unit as a Probationary Engineer. He was initially posted to the D&E-Radar Division, where he and his team designed, developed, manufactured, delivered and commissioned the first Cyclone Warning Radar at Paradip in Orissa in a record time of three-anda-half years. In recognition of this, he and his team received the R&D Award. Mr Gowtama was one of the founding members of the Hyderabad Unit, which was established in 1986 to cater to the highly specialized Electronic Warfare business segment. At Hyderabad Unit, he worked in all the functional areas like Development & Engineering, Testing, System Integration and Installation & Commissioning of various types of Electronic Warfare (EW) Systems. He was instrumental in the design, development, manufacture, installation and commissioning of the first major EW System manufactured in the country.

He has richly contributed to the success of all the projects he has handled by way of technical, functional and operational improvements. He handled everything from research to production to after sales support with ease. He built up his team, came up with many innovative techniques in Electronic Counter Measures and built up good rapport with the customers.

While he was heading the team for an integrated EW System with Electronic Support Measures (ESM) & Electronic Counter Measures (ECM) functions, the project team, under his able guidance, successfully developed high voltage power supplies for the system. This unique in-house development was highly commended by the then CMD.

Despite being extremely busy with work, Mr Gowtama zealously pursued his educational interests and obtained M.Tech in Advanced Electronics from Jawaharlal Nehru Technological University, Hyderabad.

In recognition of his technical and managerial prowess, he was tasked to head the first indigenous integrated Naval EW program, Sangraha. Sangraha, which was designed by DRDO, com- prised development of various types of ESM and ECM systems for use on helicopters, medium and long range maritime reconnaissance aircrafts, warships and submarines. From 1998 to 2006, under the able leadership of Mr Gowtama, Sangraha teams at BEL achieved many milestones and accomplished all the goals well ahead of time. Sangraha was a resounding success and it is pertinent to mention that the EW systems delivered under Sangraha are the mainstay of the Indian Navy till today

Forth Coming Event of ECI

Engineering Council of India is organising it's 10th Executive Development Programme on "Project Management for Engineers" from July 29, 2019 to August 02, 2019 at Lecture Hall-1, Annexe, India International Centre, 40, Max, Mueller Marg, New Delhi-110003. This is certificate course of five days. The engineers and managers can attend the programme from any Industry. For further details please visit at www.ecindia.org.

ENGINEERING COUNCIL OF INDIA

ECI News

Address of the Chief Guest Shri Anil Baijal, Hon'ble Lt Governor, Delhi on ECI's 17th Foundation Day Function - April 4, 2019 at SCOPE Complex, Lodhi Road, New Delhi

Distinguished guests seated on the dais - Dr Uddesh Kohli Ji -Chairman, Engineering Council of India, Dr. Kirit Parikh - Chairman of the Jury, Mr. Mahendra Raj &



Dr. D V Kapur-Members of the Jury and guests seated in the audience, friends from the media and ladies and gentlemen, Good evening.



At the outset, I would like to thank Dr. Kohli and the Engineering Council of India for having given me this opportunity to be here this evening on the occasion of the Council's 17th Foundation Day and

Annual Awards Function, 2019. It is indeed very thoughtful of the ECI to have instituted the Eminent Engineers Awards, which have been presented to the nationally known eminent engineers in industry, research and consultancy every year, ever since 2012. I am sure such awards encourage engineers to seek excellence and take pride in their work.

I need hardly mention before this gathering that engineers play a major role in economic development. They not only prepare and implement projects on which major investments are made but also operate the industry and infrastructure.





Though India has become one of the fastest growing economies in the world, it is still a developing country. India's gross domestic product (GDP) or national income has grown

rapidly in the recent years. Engineering is by far the largest segment of Indian industry. India's engineering industry, I am sure you all know, accounts for close to 30% of the total GDP of the country. Of this, around 63% is earned through foreign collaborations. Apart from this, India has a



huge opportunity within the engineering services also. The Engineering Process Outsourcing (EPO) market is expected to grow by USD 40 billion by the year 2020.



With development in associated sectors such as automotive, industrial goods and infrastructure, coupled with a welldeveloped technical

human resources pool, engineering exports are growing day by day. Among developing countries, India offers the best combination of capable and skilled manpower at low costs for the engineering sector. Bulk of capital goods required for power projects, fertilizer, cement, steel, petrochemical plants and mining equipment are all made in India. Capital goods now account for 26% of the total engineering exports.



National development implies the ability of a country to improve and upgrade the basic infrastructure and welfare of the people. Engineers play a significant role in

the national development through the application of their knowledge of mathematical and applied sciences,

experience and practice in the provisioning of basic infrastructure and social amenities to the community. Engineers whether working in the public or private sector or even as entrepreneurs



have to play a critical role in developing India. And to play this role efficiently, they have to keep themselves updated with the latest technology and that too on a continuous basis.



I have been informed that the Engineering Council of India is taking several steps for promoting the engineering profession

in the country. These include registration of Professional Engineers, introducing code of ethics in their functioning and such other activities as would help their Continued Professional Development.





I am happy to note that for the budding engineers, the AICTE has made 6-month internship mandatory for engineering students before they can be awarded their degrees. AICTE and ECI together with its member

associations have entered into a MoU to provide internship training to engineers graduating from recognized engineering institutions. It is an important step towards encouraging interaction between the academia and industry and reducing un-employability of young engineering graduates by enabling them to acquire skills needed by the industry.

This is the age of technology. While technology facilitates ease of doing business, all round increased inefficiency in work and general empowerment of the people, it also has embedded in it enhanced negative and



damaging potential of harming community interest on a very large scale. Needless to say, therefore, engineers have to gain knowledge and proficiency in the latest and emerging technologies such as Robotics, Artificial Intelligence, Block Chain, usage of Drones in daily life



needs, cyber crimes and other such technological developments. I understand the last National Conference of Engineering Council of India had focused on some of these areas. Unfortunately for you all, obsolescence in modern technology is so fast that you have to continuously keep yourselves engaged with the latest products, processes, hardware and software, lest you be left far behind and become irrelevant.





I was deeply impressed to read from your brochure that ECI has so far conducted close to 40 National Conferences, Workshops, Conventions and Executive Development Programmes, besides giving

Annual Eminent Engineers Awards every year since 2012. I urge all those present in the hall to rise, take a bow and applaud the yeomen service being rendered by the Engineering Council of India.

I hope, the organisation will continue to work in these areas without any let or hindrance in the years to come also.

I cannot but help myself in sharing with you what I read sometime back, when I was Secretary, in the then Ministry of Urban Development. It was



an extremely relevant piece written by Late Herbert Hoover, the former President of the U.S, which would be of interest for this august gathering of engineers. It says and I quote-

"Engineering is a great profession. There is the fascination of watching a figment of imagination emerge through the aid of science to a plan on paper. Then it moves to a realisation in stone or metal or energy. Then it brings jobs and homes to men. Then it elevates the standards of living and adds to the comforts of life. This is the engineers high privilege."

With these words, I conclude but before that let me once again congratulate ECI for the yeomen service that's being rendered by the organisation in the interest of the engineering fraternity. I also congratulate the winners of the Eminent Engineers Awards and Chairman's Commendation Awards, 2019.

Thank you all once again for inviting me to this function.

Jai Hind.

News from Member Associations

Association of Consulting Civil Engineers (India) (ACCE(I))

ACCE(I) is organising a National Seminar & Exhibition on GLOBAL TRENDS IN CONCRETE-STEEL COMPOSITE STRUCTURES DESIGN AND CONSTRUCTION as a part of Foundation / Awards Day Celebrations on 10th - 11th May 2019 at NIMHANS Convention Centre, Bengaluru. For further details please visit http://www.acce.in/

Broadcast Engineering Society (BES)

BES organised its 25th International Conference & Exhibition on Terrestrial & Satellite Broadcasting - BES 2019 on 17th, 18th and 19th January 2019 at Pragati Maidan, New Delhi. BES EXPO is approved by Ministry of Information and Broadcasting, Govt of India, India Trade Promotion Organisation supported by Prasar Bharati, Asia Pacific Broadcasting Union, Society of Broadcast Engineers, USA, Ministry of Communication and Ministry of Electronics and Information Technology, Govt of India and endorsed by DRM, U.K.

The BES EXPO 2019 Conference had the theme "Next-Gen Broadcasting in the IT World. It was attended by eminent broadcasters, media industry professionals and speakers from India and abroad.

Computer Society of India (CSI)

CSI had organised Student Quiz "Alan Turing CSI National Student Quiz 2019" in March. For further details, please visit http://www.csi-india.org/

Construction Industry Development Council (CIDC)

CIDC had organised it's 23rd foundation day on March 07, 2019 as "Vishwakarma Award -2019" at India Habitat Centre, New Delhi. For Further details please visit http://www.cidc.in/



visit http://www.cidc.in/new/

The **11th CIDC Vishwakarma Awards** were held at a Glittering Ceremony on 7th March at Stein Auditorium, India Habitat Center, New Delhi.

The CIDC Vishwakarma awards are inspired by the spirit of construction and creation patronized by Lord Vishwakarma the ruling deity of the Construction practices in India. The objective of the awards are to recognize and honor the valuable contributions and work of Indian Construction Fraternity that has significantly enriched the construction domain and has helped bring about a change in our construction practices.



Shri Vijay Goel, Hon'ble Minister of State, Ministry of Statistics and Programme Implementation, lauded the efforts of CIDC for its role towards improvement &

betterment of the Construction Industry. He made a special mention of CIDC's efforts for training of grass root construction workers and for its encouragement to small construction companies and individual entrepreneurial firms and focusing on skill development. "With awards comes more responsibilities" - addressing the gathering Shri Goel cited the redevelopment of Heritage Havelis in Chandni Chowk and were he has been actively involved in the redevelopment of the historical area. He encouraged the awardees to work towards achieving higher benchmarks.

Late Dr. Edward Mark Gajanayake de Zylva were posthumously awarded the Sir Mokshagundam Visvesvaraya Trophy for Life Time Achievement Award.



Dr. Eddie de Zylva was

known by all the sectors of the construction industry as 'Godfather of the Construction Industry'. Dr. de Zylva pioneered the formation of the National Contractors' Association of Sri Lanka (NCASL), now known as the Construction Association of Sri Lanka.



To further broad base the awards, the Jury this year decided to award "Indian Association of Muscular Dystrophy (IAMD)" for their utmost commitment in

undertaking self-less and inspiring work which has enriched the lives of numerous people suffering from Muscular Dystrophy. This has been well appreciated by the entire fraternity.

The Indian Engineer

It was attended by more than 900 people this year, the 11th edition of the awards saw enthusiastic participation in 16



categories. This year, a total of 198 awardees were chosen and distributed 49 trophies, 90 medals and 59 certificates in Sixteen categories

The impact created by the awards is evident in the testimony of organizations which have taken active steps on the recommendations of the visiting evaluators to raise their performance bars and inculcate best practices in their process.



This year a total of 38 CIDC Partners in Progress Trophies were also given away as a token of appreciation to honor organizations

that who have displayed their utmost commitment and drive to create a vibrant work environment for the construction fraternity especially for achieving targets of "Mission Skilling India".

CIDC recognizes the role of a national award for motivation and improved performance of Individual Workers, Artisans, Field Supervisors, Project Owners, Project Implementers and has conceived the CIDC Vishwakarma Awards as an award of Excellence.

Consulting Engineers Association of India (CEAI)

CEAI is organizing an International Conference "FIDIC ASPAC 2019" on the theme "Quality Infrastructure for Clean and Sustainable Development" from July 07 - 09, 2019 at Hotel Le-Meridian, New Delhi. For further details, please visit www.ceai.org.in.

Indian Association of Structural Engineers (IAStructE)

IAStructE is organizing Refresher Course on "Wind Induced Forces and Effects on Buildings & Structures" starting from 02 February 2019, which will be concluded on 23rd March 2019. For further details, please visit https://www.iastructe.co.in/ or for any clarification please contact Mr. Vikas Verma, Manager IAStructE, Tel: 011-45794829, Email: iastructe@gmail.com.

Indian Concrete Institute (ICI)

ICI is organising AWARDS 2019 in June 2019.

ICI and Amaljyothi College of Engineering, Kanjirappally, Civil Engineering Department is planning to conduct a National Conference on 25th & 26th of April 2019. For further details please visit http://www.indianconcreteinstitute.org/

ICI Kochi Centre is organising a International Conference, SECON19, on May 15 & 16, 2019. For further details please visit http:// www.indianconcreteinstitute.org/.

ICI is organising a Symposium on behalf of Asian Concrete Federation (ACF) on Assessment and Intervention of Existing Structures, which will be held in Sapporo, Japan, on September 10 and 11, 2019, under the auspices of Japan Concrete Institute (JCI). For further details, please visit http://www.eng.hokudai.ac.jp/ acf2019/index.htm

Indian Geotechnical Society (IGS)

A three-day Symposium on Geotechnical Aspects of Heritage Structures (SGHS 2019) is being organised by National Centre for Safety of Heritage Structure of IIT Madras (NCSHS-IITM) and IGS-Chennai Chapter in collaboration with IGS-Trichy Chapter and Anna University under the aegis of Technical Committee (TC301) of International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) during September 16-18, 2019, Chennai.

Indian Institute of Chemical Engineers (IIChE)

IIChE is organising a conference "SCHEMCON 2019" which will be held on 17 and 18 October 2019 at Ankleshwar, to be Organised by the IIChE Students Chapter, Dept. of Chemical Engineering, Shroff S.R. Rotary Institute of Chemical Technology. For any clarification please write to schemcon2019@gmail.com

IIChE is organising "CHEMCON 2019" which will be held during 16 to 19 December 2019 in New Delhi, to be organised by Northern Regional Centre, IIChE.

Indian Institution of Plant Engineers (IIPE)

IIPE is organising a one day Workshop on ISO/IS for Cable Manufacturers on 29-02-2020 at A-1, Chanakya CHS Ltd, Lok Bharati Complex, Marol Maroshi Road, Andheri East, Mumbai - 400059

Indian Society of Agricultural Engineers (ISAE)

ISAE is organising 8th Asian Conference on Precision Agriculture" PAUa, Punjab in 2019. For details please visit: https://www.isae.in/upcomingevent/events#

The Indian Engineer

Mining Engineers' Association of India (MEAI)

MEAI Inaugurated Mumbai Chapter on 17th March 2019.





Glimpses from Delhi-NCR Conference on 8th March 2019.

The Institute of Marine Engineers (India) (IME(I))

The Institute of Marine Engineers (India), Delhi Branch, is having its contributory Annual Dinner on 4th May, 2019 at Hotel Taj, Vivanta Ambassador, Sujan Singh Park, Subramania Bharti Marg Khan Market, New Delhi-110003. For details, please visit https://imare.in/ news/annual-contributory-dinner,-ime(i)-delhibranch.aspx.

Excerpts from an interview with Mr. Brede Olsen, Project Engineer for the Kongsberg make K- Sim®Full Mission Engine Room Simulator installed at IMEI House, Nerul, Navi Mumbai.

56th National Maritime Week -2019. "100 years since SS Loyalty" on 30 March 2019 - 05 April 2019. For details, please visit "https://imare.in/news/56th-nationalmaritime-day-celebrations.aspx".

Full Mission Engine Room Simulator installed at IMEI(I)'s Training Centre at Nerul, Navi Mumbai was installed and commissioned at IMEI House, Nerul, Navi Mumbai, on 07 March 2019. For details, please visit https://imare.in/news/new-full-mission-er-simulator-installed-at-ime(i).aspx.

IME(I) organised a Technical seminar and mariners nite 2019 on February 16, 2019 at Chennai. For further details, please visit https://imare.in/news/technical-seminar-and-mariners-nite-2019.aspx.

Indian Society for Non Destructive Testing (ISNT)

ISNT is organising a Conference and Exhibition on Non-

destructive Evaluation "NDE-2019" on the theme "eNDEvours from Detection of Prediction" on December 05 - -6, 2019 at Bengaluru. For further details, please visit www.nde2019.in.

International Council of Consultants (ICC)

The Drone Industry is expanding rapidly. We at CIDC are committed to bringing the best of the professional applications of Drones to improve project management with particular emphasis to infrastructure industries. Keeping in line with this aim so far we have already executed following projects:

- (a) Drone Technology survey of under construction railway track including road over bridges of Dedicated Freight Corridor Corporation of India Limited (DFCCIL) between Mugalsarai and Son Nagar.
- (b) Drone Technology survey of Head Race Tunnel (HRT) area of Parbati - III Hydro Electric Power Plant of NHPC Limited located at Kullu in Himachal Pradesh.

Indian Institute of Metals (IIM)

IIM is organising Award 2019. For details please visit http://www.iim-india.net/userfiles/Fellow% 20Honorary%202019%20final.docx.

IIM, Mumbai chapter is organising a Symposium on "Critical Non-Ferrous Metals: Establishing the Value Chain" on April 15 - 16, 2019 at Powai, Mumbai. For further details, please visit https://www.me.iitb.ac.in/ ~cnfm2019/.

The Aeronautical Society of India (AeSI)

The Aeronautical Society of India, Kolkata Branch in collaboration with Indian Institute of Technology conducting a International conference on "Use of Modern Technology for Aeronautics and Aerospace Fields" on 9th Feb. 2019 at IIT, Kharagpur. For details, please visit http://aerosocietyindia.in/Portal1/ Event_Display.aspx?EventKey=CCU11.

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