RESTRICTED CIRCULATION

The Indian Engineer

NEWSLETTER OF THE ENGINEERING COUNCIL OF INDIA

Volume : 4 - Issue : 2 June, 2010

From the Chairman's Desk

I am grateful to the members of the new Board of Governors (BOG) of ECI for the term 2010-12, which took over on June 30, 2010 for nominating me at its meeting held on June 30, 2010 as the Chairman of ECI for one more term. I thank them as well as all the members of ECI for reposing full trust in me. I will like to assure you all that I will continue to work to the best of my ability to achieve the objectives of ECI. I look forward to your continued support and full cooperation for performing the tasks and realizing the objectives that we all have set for the ECI.

I am glad to inform that an MOU has been signed on May 8, 2010 with the Assam Central University, through the good offices of Dr. P R Swarup, Director General, CIDC- a Member Association of ECI which may lead to BE Degree from the Assam Central University for the students undergoing Associate Membership Examinations of some of our Member Associations after meeting the requirements of the university. Further action to implement the MOU will be taken in consultation and involvement of the Member Associations.

As regards the Engineers Bill, it is understood that the Ministry of HRD is processing the comments received on the draft Bill which was circulated by the Ministry with a draft cabinet note. Based on these comments, the draft Bill may undergo some revision before it is submitted for the cabinet for approval before being placed before the Parliament. ECI is constantly pursuing this matter.

As decided by the new BOG on June 30, 2010, the summary recommendations of the five National Conventions, a Workshop and the 6th National Conference, which were organized by the ECI on the reform of engineering education and training for better employability of engineers, will be compiled and circulated to the BOG Members and Member Associations for comments. After BOG's approval, these will be forwarded to the concerned government authorities for consideration.

The other forthcoming activities of ECI will include the 8th National Conference proposed to be held in November 2010, a Workshop and a few Executive Development Programmes (EDPs) to impart multi-skills to engineers which will of benefit to members of the Member Associations and other engineers.

ECI will be continuously working on activities from which the Member Associations may derive maximum benefits. I look forward to their continued involvement of and valuable suggestions from all which will help in shaping the future work of ECI.

(Uddesh Kohli)

Enhancing Competitiveness through Technology Management

A Three-Day Training Programme for Engineers is being held during September 28-30, 2010 at the India Habitat Centre, Lodhi Road, New Delhi-110003

For details write to : eci@ecindia.org, director@ecindia.org

National Proficiency Evaluation of Engineers

Construction Industry Development Council (CIDC) has evaluated and graded engineering degree and diploma holders in Civil, Electrical, and Mechanical branches through National Proficiency Evaluation Tests between 2009 and 2010. These candidates are now passing out and available for employment. Should you or your members require engaging any of them please communicate with the undersigned

Prof. Niranjan Swarup
Hon. Sr. Addl. Director
Construction Industry Development Council (CIDC)
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Think it over

The Absolute Value of Engineers in India is Low

There are great engineers in the west than in India, because they are driven by passion, we are driven by bucks.", Well, they are driven by passion because they don't have anything else to really worry about, so they can concentrate on doing what they really want to. In India, we still haven't reached that stage. Unless our education system moves away from crediting people with good memory power rather thinking ability, we will not improve!

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National Conventions organized by the Engineering Council of India.

★★★

Give me high school boys and girls and I shall convert them into practical engineers in two years at my shop floor.

– G.D. Naidu

From Editor's Desk

Make industry and R&D jobs very attractive for engineers

A unanimous view that came up at a number of conferences, conventions and workshops that the Engineering Council of India organized since its incorporation in 2002 was that our engineers pass out as engineers, but hop on to jobs not related to their engineering specializations because of better prospects that they find on the other side of the fence. This is limiting the scope of development of not only cutting-edge technologies but also competitive industrial production in the country. According to Dell's India country manager, "I think that the MNC software companies are here in India just for cheap labor. They have nothing to do with talent building. Also they provide little visibility to Indian engineers. Job switch is the only option left to engineers; forget about universities and quality education. As far as technology is concerned, all you need is a computer and broad band connection". We can learn from the west where there are very competent engineers and technologists because there people are driven by passion to a profession. Here in India, we are driven by bucks that we get in the market. This is why we are not producing advance technologies and competitive quality output in many areas of our industrial production. We are not producing PhDs of quality and in numbers. We produce so called software engineers and the country earns comparatively bigger sums and so do the MNCs here. According to Rick Steffens, Head of Hewlett Packard's Systems Technology and Software Division., "the job-hopping tendency of Indian engineers is coming in the way of gaining deeper technical knowledge, India should make it attractive for the engineers to stay within rather than shifting to tech - multinationals (Software MNCs) ". It is true that the quality of engineers that India produces is low, though the talent pool is large. "If you look at experienced talent, the people who have spent 15-25 years in product development, that bench is still thin in India," said Noshir Kaka, Director at McKinsey & Co, a global consultancy firm. However, some researchers say that the curriculum followed by most of the engineering colleges in the country is neither industry oriented nor made for R&D needs. The country's educational system does not support academic or research excellence and lacks good faculty and infrastructure. According to Guruduth Banavar, Head of IBM's India Research Laboratory "The total output of Ph.Ds in India is probably about the same as that of a single good university in the U.S; and the best folks who could potentially go on for Ph.Ds have ended up taking jobs because there have been many good jobs available with the MNC software companies. ".

We know now very well that most of our colleges and universities have turned marketing centres rather than learning centres. Students do not mind paying huge amount of fees that are charged by these marketing centres because they are very sure that they will get a placement in brand MNCs. Even the students are aiming only for that rather than being innovative. It's this mentality that we need to change. This can better be done by suggesting to the students to opt for their passion. If one goes with his / her passion, definitely they will not only get a best job, but also they will get job satisfaction. It has been experienced that when the MNC software market collapsed with the recent melt down, so called software engineers could not find themselves experience-wise competent to move back to jobs for which they were basically trained for. According to general perception, very few students who come out of engineering colleges know why they have done that particular course; and most of them who know, they know it for a wrong reason such as my parents suggested me to join that course, my uncles suggested that course for me, my brother has got a very good job doing that course, my friend had joined the same course, and he suggested me to do so. While as it should have been that I wanted to do that course because I loved doing that course as I had passion and liking for that course. This is missing in India. The hopping of engineers to other than engineering jobs is an issue which needs urgent attention. Fortunately, a change in the thinking of students is coming. Now it is the time for the regulators and policy makers of engineering education in general and engineering profession in particular to take steps that will make industry and R&D jobs very attractive for engineers.

(P.N. Shali)

Eminent Indian Engineer : Dr V. Krishnamurthy

Dr V. Krishnamurthy is a distinguished Engineer- Manager of the country who has contributed significantly not only to the industrial development of the country but also in facilitating policy reform which resulted in opening up of the Indian economy. His vision and excellent leadership as the Chairman of Bharat Heavy Electrical ltd, Maruti Udyog Ltd. and the Steel Authority of India Ltd. made these companies in the public sector what they are today.

Dr V. Krisnamurthy is the FIE: Chartered Engineer, Ph.D: Doctorate in Economics - Soviet Academy of Sciences, D.Sc: Doctor of Sciences (Honoria Causa) Banaras Hindu University and D.Litt.: Doctor of Letters (Honoria Causa) Central University, Pondicherry.

Presently, Dr V. Krishnamurthy is the Chairman, National Manufacturing Competitiveness Council (NMCC), holding the rank of a Cabinet Minister in the Government of India. NMCC is responsible for formulating the policies and initiatives to improve the competitiveness of the Indian industry. Presently he is also a member of the following Important Government bodies:-Member, Prime Minister's Council on Trade and Industry, Member, Prime Minister's Trade & Economic Relations Committee, Member, Prime Minister's Energy Coordination Committee, Member, Prime Minister's High Level Committee on Manufacturing and Member, Advisory Group on climate change.

Positions Held

Dr V. Krishnamurthy has held many distinguished and very important positions in the Public Sector and in the Government of India. They were: Chairman & CEO, Bharat Heavy Electricals Limited (BHEL) (1972-1977, one of the largest technology oriented company manufacturing heavy equipment for the power sector in India, Secretary to the Govt. of India in the Ministry of Industry (1977-1980), Chairman & CEO, Maruti Udyog Limited (1981-1990), the largest manufacturer of passenger cars in India which triggered the modernization of the Indian Automobile Industry, Chairman & CEO, Steel Authority of India Limted (SAIL) (1985-1990), the largest producer of Steel in India, Member, Planning Commission (1991-1992) and Member, National Advisory Council (2004-2008).

In addition to the above, Dr V. Krishnamurthy has been the Founding Chairman, Technology Information, Forecasting & Assessment Council, the Co-Chairman, Indo-Japan Study Committee. He represented India in various International forums and bilateral negotiations. He has also been associated with Public Enterprises Selection Board, Telecom restructuring Committee, Committee to determine the Policies of Disinvestment in Public enterprises, Chairman, Committee on "Synergy in Energy" etc.

Among others, Dr. V. Krishnamurthy has been associated with the following academic/professional institutions:-Member, Board of Governors, Administrative Staff College of India, Hyderabad (1973-1976 and from 1990 onwards), Chairman, Centre for Organization Development, Hyderabad (1980-2000), Chairman, Indian Institute of Management, Bangalore (1982-1984),Chairman, Indian Institute of Management, Ahmedabad (1985-1990),Chairman, Xavier Institute of Management, Bhubaneswar (1987-1992),Chairman, Indian Institute of Technology, New Delhi (1990-1993),Chairman, Indian Society for Quality. He initiated & sustained the Quality movement in India.

Awards & Honours

Dr.V. Krishnamurthy has been conferred several awards & honours. He is one among the very few Indians to have received three of the four highest civilian awards conferred by the Government of India for outstanding services to the country. They are the "Padma Shri" in 1973 the "Padma Bhushan" in 1986 and the Padma Vibushan in 2007, "Business Leadership Award" in 1975, "Businessman of the Year" in 1987,"Steelman of the Year" in 1989. He was given "Lifetime Achievement Award in Management" by the All India Management Association in 2006 and "Nakajima Award for Quality Management from Japan. The Society of Indian Automobile Manufacturers honored him in recognition for his outstanding contribution to the Automobile Industry in 2009. The Automotive Component Manufactures Association of India honoured him with a "Lifetime Achievement Award" in 2009.He was Honoured by the Govt. of Japan with the highest award "Grand Cordon of the Order of the Rising Sun" in November, 2009

Award

UN Award to Dr Uddesh Kohli, Chairman, ECI

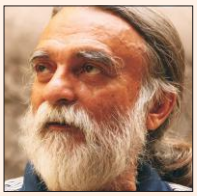
On the occasion of 10th anniversary of the UN Global Compact (GC), Dr Uddesh Kohli, Chairman, ECI was given an Award for Outstanding Contribution to Global Compact. Among the awardees included a total of 10 very high profile persons who have contributed to the success of GC since 2000.

Best CEO of 2009 award to Shri S Mahalingam

Shri S..Mahalingam, CEO, TCS and the Past President Computer Society of India has been chosen as the best CEO of 2009 by Business Today and YES bank, for his efforts at steering the IT services behemoth when growth declined, the rupee yo-yoed and customers disappeared. The selection for the award was done by a panel of reputed bankers and industry watchers. He received the award from Finance Minister, Shri Pranab Mukherjee at a function held on 14 April 2010 at New Delhi.

Our Congratulations

Surface Engineering : Dr. Max Babi



Advanced Surface Engineering' as a subject is a vast field, and unfortunately India is a late-comer to the rapidly proliferating worldwide acceptance of virtually hundreds of processes, techniques and technologies that have burgeoned in the last 30 years or so. Before that, Surface Engineering was limited to chrome and nickel plating, hard-chrome plating, gas metal spraying, weld overlay surfacing and even shot peening. The arrival of plasma-assisted thinfilm 'superhard' coating techniques like 'magnetron sputtering' lead to the quick development of variants like 'arc evaporation' and electron beam evaporation' of metallic materials. Today this entire group of processes are clumped under the generic ' PVD ' group of processes i.e. Physical Vapour Deposition. Originating in obscure Russian (pre-CIS era) laboratories, the generic PVD processes failed to be commercialized because of the political isolation and failure of marketing, an art perfected by the US-based companies. 'Multi-Arc Inc.' at New Jersey was the first ever, to buy off the technology from the Russian inventor somewhere in late 1980s, and poured huge investments into jobbing centres. Truly the 'arc evaporation' cathodic arc coating was a process unmatched by competing processes e.g. chrome plating, hard-chroming, anodizing, hard-anodizing, gas metal spray or wire arc spray etc. Its USP was an extra-ordinarily high bonding strength and incredible surface hardnesses not anywhere near 60-65 HRc (roughly 1000-1200 Hv) but in the region of 80-85 HRc (approximately 2800-3400 Hv). With more refinements, to overcome inherent limitations, many international companies like Balzers group, Hauser group, Tecvac group followed to make more and more advanced refinements and dig into the global pie with huge profits, and rapid expansion.

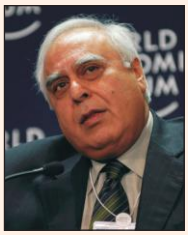
The 'benelux' countries have been at the forefront in applied research when it comes to all types of plasma-assisted surface modification treatments. Plasma nitriding or ion nitriding was invented by Dr. Berghaus in Germany circa 1939, developed in Switzerland due to the intervening World War II and then industrialized again in Germany when normalcy returned there. But till the death of this inventor, who was unsuccessful as an entrepreneur, not much popularity could be garnered by a deservingly versatile technique. Today China is the greatest user of plasma nitriding which has percolated down to surface treating of bicycle spokes and sprockets -and the greatest density of plasma nitriders is in Japan. India though familiar with the technology has lagged behind in usage of this workhorse surface treatment, only recently it has picked up. The scope for applications is vast. Duplex Treatments which combine two or more surface treatments e.g. plasma nitriding followed by PVD thinfilm superhard coating like Chromium Nitride etc., has been established as much more superior to plain PVD or plasma nitriding. The usage is increasing in India, now that 5 or 6 major players are there in PVD coating business and more could join the fray. Ion Implantation has been hardly used in India though Europe leads other continents in use, being able to justify the high capital cost. Laser beam surface transformation and surface coating, has been used sparingly in India due to high capital costs, but the usage is likely to go up in future. Any taker from the industry, IIT &,NIT or Engineering Colleges may contact Dr Max Babi on his e-mail maxbabi@gmail.com , www.maxbabi.com.

News Corner

Landmarks in Higher Education - Dr (Mrs) Vishiesh Verma

The Union Cabinet cleared the Foreign Educational Institutions (Regulation of Entry and Operation) Bill, 2010, for introduction in the Parliament. It seeks to allow foreign education providers to set up campuses in the country and offer degrees. Though 100 percent foreign direct investment (FDI) through automatic route is permitted in the education sector since 2000, the present legal structure doesn't allow granting of degrees by foreign educational institutions here. The proposed law will facilitate them to grant degrees also.

Foreign Universities would boost Indian economy by helping it save US $7.5 billion (about 34,500 crore annually) that Indian students spend abroad. The number of Indian students enrolling in Foreign Universities has increased sharply from 1,23,000 in 2006 to a little over five lakh in 2009. Students going abroad cost the country a foreign exchange outflow of US $10 billion annually. If foreign universities come here, three-fourth of students exodus would end. Shri Kapil Sibal, Minister of HRD, says, a larger



revolution than we had in 1991 waits us. What Dr Manmohan Singh, Prime Minister did to the economy is being done to education sector now in 2010. The entry of foreign universities will inevitably impact the performance of domestic education providers with global standards of teaching and infrastructure. Every local institute will need to compete to attract students with improved pedagogy, internationally accepted courses and upgraded facilities. There will be qualitative change in the faculty also. Why do so many dream of acquiring a degree from overseas universities of reputation? There are several reasons. Many wealthy and even middle class parents are sending their children for post secondary education to well established colleges and universities in UK, US and Australia because their children are unable to get admission into prestigious Indian Institutions due to strict entry norms. The bottom line is the quality of education that matters the most, students go overseas to chase it.

Obituary

ECI mourns the loss of Shri Satish Doshi a senior CSI professional, who served the computer society of India (CSI) in various capacities over the last 25 years. Shri Doshi died recently and his departure from this world is a great loss to the engineering profession. ECI conveys its condolence to his bereaved family and to the CSI and prays for the peace of the departed noble soul.

Breaking News

An MOU has been signed by the Engineering Council of India (ECI) on May 8, 2010 with the Assam Central University which may lead to BE Degree from the Assam Central University for the students undergoing Associate Membership Examinations of some of the Member Associations of ECI after meeting the requirements of the university. Further action to implement the MOU will be taken in consultation and involvement of the Member Associations.

A view Point

Norms for Aviation Education & Training - Air Cmde Raghubir Singh(Retd)

Aviation industry has truly come of age. There is, however, an urgent need to reframe norms for technical training programmes in aviation to align them to the present day needs. With the exponential growth of aviation during the last one decade and even anticipated higher growth in coming years in tandem with our economy-there would be need for large number of aviation trained personnel in various segments. Unfortunately, regulatory mechanism in aviation education and training is either totally missing or need much revamping. Steps needs to be taken to put all important aviation education on firm footings by stressing on quality and stipulating proper infrastructure in training institutions- which is sadly inadequate today. A time-bound action plan is needed to redraw norms for aviation education & training by institutions offering courses in aviation. Aviation leaves no space to accommodate technical, procedural or human errors-as every aircraft/space accident would reveal. Even a split second delay in touch down or a missed out split pin, slight compromised safety criteria eventually leads to disasters. Therefore, aviation education, training & practices must be conducted in an environment where culture of safety, thoroughness & professionalism of highest standards are imbibed from the very beginning. Aerospace is not limited to airplanes only-this also includes space programmes, satellites, avionics, missiles, drones, balloons and parachutes, etc. Unfortunately, major educational groups in our country have kept away from this fascinating, though highly demanding discipline. Mostly, small time operators- at times with inadequate infrastructure & very limited resources have been dominating aviation technical training & at least some of them have been causing much harm in the unregulated education domain. There is a need to have training institutions which can muster adequate resources to do justice to aviation training. This asymmetric situation needs to be corrected by putting proper regulatory mechanisms in the entire spectrum of aviation training. DGCA had rightly envisaged AICTE norms being prerequisite for the approval of AME schools as a first step. For degree courses in aeronautical engineering and even for degree equivalent courses at least some benchmarks need to be reworked out considering the specific needs of aviation.

Shortcomings of Present System. Presently, the engineering programmes run by institutions say, for example, Aeronautical Society of India,etc, suffer from some infirmities. There is no check whatsoever on coaching institutions offering free for all AMAeSI course with regard to infrastructure, facilities, teaching staff, fees being charged or past results. If such courses can be offered in distance mode inspite of MHRD ruling to the contrary for engineering courses, some regulatory mechanism needs to be created. There is a wide disparity between the infrastructure available in AME Schools. It would be better to have re-inspection of all the AME Schools to weed out deficient ones. DGCA should consider having degree course instead of a license courses when technologies are acquiring much sharper cutting edges? In the degree course of aeronautical engineering, there is an urgent need to augment AICTE norms for ensuring safety culture and greater exposure to aviation.

Aviation education in our country has unfortunately been dominated by small institutes (Plane Misery, Jun 7). Without the resources to hire competent faculty or the infrastructural wherewithal to impart top-notch training, they freely offer degrees equivalent to that of the Aeronautical Society of India, passing which was very difficult, I remember likewise, aircraft maintenance engineering courses are being offered by schools with only a semblance of the required facilities: some are operating out of basements, others showcasing junk aircraft without operational engines and working instruments or just scraps of crashes. The DGCA had stipulated AICTE norms as a prerequisite for approval of AME schools some two years back, but nothing seems to have come out of it.

Expert group drawn from aviation field be constituted

I have been associated with aviation education, training and R&D for quite some time now. First, all India level regular B Tech (Aerospace Engineering) course was developed by me under the guidance of IGNOU. I have been working for the last 3-4 years to remove distortions in parallel education system. My views on this have been published in some of the newspapers after the recent ill-fated crash at Mangalore. It is felt that all stake holders should address the requirement of laying down norm for the aviation education & training jointly since there is much overlap between aerospace engineering & aircraft maintenance engineering. It is suggested that an expert group drawn from aviation field be constituted to recommend norms for technical education in aeronautical / aircraft engineering domain. Its recommendations can be submitted to the designated authorities like DGCA/AICTE/VC's for consideration.

News from the Member Associations

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

Association of Consulting Civil Engineers, an all India Organization, in its constant endeavour to serve the civil engineering fraternity, has come long way and has made a tremendous impact in disseminating the civil engineering knowledge across the country. ACCE(I) completed its 25 years of service in 2010 to the profession of civil engineering, particularly in consultancy. The journey over the past 25 years has been extremely impressive and filled with many achievements. On this momentous occasion and to commemorate its arrival at this nodal point, traversing through the ups & downs of the construction industry, ACCE(I) is organizing a two- day national convention with the theme "Civil Engineering In India - a Proud Journey in the past Quarter Century" during August 27-28, 2010 at Nimhans Convention Centre, Bangalore.

Broadcast Engineering Society (India) (BES)

Broadcast Engineering Society, India was established in 1987. It organizes one of the biggest trade fairs: BES Expo and Conference for Terrestrial & Satellite Broadcasting. The BES 17th EXPO & Conference 2011 will be held during February 24-26, 2011 at Pragati Maidan, New Delhi. The EXPO is open for participation by manufacturers, dealers, distributors and suppliers of products, equipment, systems & services related to terrestrial & satellite broadcasting for Radio, TV, studio & post-production. Equipment and technology, which can be displayed in the expo includes, among others, Cable, Video, Audio, Multimedia, Broadband, Networking, Automation, Video Streaming, Graphics & Animation, Production & Post Production, Archiving. The participating countries include Bhutan, Maldives, Nepal, Pakistan and Sri Lanka. For details visit:www.besindia.com/bes_expo.asp.

Consultancy Development Centre (CDC)

Consultancy Development Centre (CDC), an autonomous institution of Department of Scientific and Industrial Research (DSIR), Ministry of Science & Technology, Government of India has developed and is conducting certificate programmes in -(i) Technical Consultancy (ii) Management Consultancy with an objective to develop trained workforce in the consultancy sector. The programme duration is six months and comprises class room sessions followed by project work. CDC has invited expression of interest from reputed institutes engaged in education, training and consultancy for delivery of these certificate programmes on franchised model. The programme will be taken up in association with CDC. For details visit Website:www.cdc.org.in.

Computer Society of India

The newly renovated Mumbai chapter office of the CSI was inaugurated on May 4, 2010 by Shri Raj Saraf, Chairman Zenith Computers Ltd. CSI has declared their election results for the Years 2010-2011/2012 and the new team has taken over. For increasing its membership, CSI has announced Bring-A-Buddy-Along (BABA) Scheme. The details of the scheme are as follows: If any member gets 20 new members then that member will get 100% discount; with bring 15 new members- discount will be 75% , with 10 new members- discount will be 50% and with 5 new members it will be 25%. The member will also be allowed to attend any one event of CSI within that year.

Construction Industry Development Council (CIDC)

CIDC has taken up Construction Project Professional Program to address problems of rising costs, shortage of skilled labour and difficulties in maintaining standards of workmanship, which are vitally affecting the construction industry at this point in time. Considerable gains in productivity and standards of achievement can be obtained from improved attention of supervisors in the above matters. The Programme deals with the functions of supervision for the identified competency capsule to enable trained candidates meet the professional demands efficiently. For a successful completion, construction projects require a cadre of execution persons those who can assist the constructor in the supervision activities. These persons should have the knowledge of the essentials of a specific activity or a group of activities and skills to supervise and control the execution activities effectively and efficiently. Additionally, while supervising a construction project, they should also be skilled to address the safety issues. Knowledge base of such persons should permit them to identify any incorrect technical decision or action or inappropriate material so that proper work could be executed in accordance with the specifications. At the initial level, the cadre of such supervising persons is termed as Construction Project Assistant (CPA). The programme aims to develop such a cadre with fifteen different specializations required for successful project supervision. Is has also been structured for vertical progression. The programme is designed for Industry entrants and working professionals desirous of enhancing their proficiencies through structured training. It is built on a modular system to be delivered through either contact classes or distance mode on a semester system. Each proficiency capsule comprises of three components. Having completed one capsule, the trainee shall have the option to pursue other capsules.

Consulting Engineers Association of India (CEAI)

CEAI is the apex body of consulting engineers in India. CEAI also represents the Indian engineering consultancy profession at the International Federation of Consulting Engineers (FIDIC). CEAI's Membership comprises of practicing consultants, private and public sector firms engaged in entire range of engineering consultancy services. CEAI looks after the interests and enhances the status of consulting engineering profession in India and is equally concerned with quality development, productivity enhancement and promotion of ethical practices. CEAI has established linkages and strong bonds with its counter parts in various countries and is a staunch advocate of global networking and co-operation. It organizes conferences, seminars, workshops and training programmes on various themes concerning engineering consultancy including jointly with the FIDIC.

Indian Association of Structural Engineers (IAStructE)

IAStructE organized a technical lecture on "Condition Survey of RCC Structures & Non Destructive Testing" on Thursday, 24th June 2010 at New Delhi. The lecture was delivered by Shri A K Sharma, Superintending Engineer, CPWD. It was well attended.

Indian Institute of Industrial Engineering (IIIE)

IIIE organised its 14th International CEOs Conference (on the Green Trail) with the theme: "Business Excellence Through Innovation during May 20-23, 2010 at Nainital & Corbett Hideaway Resort, Jim Corbett National Park. It was very well attended.

Indian Geotechnical Society (IGS)

The Mumbai Chapter of IGS is organizing IGC, 2010- the annual conference of IGS during December 16-18, 2010 at the IIT Bombay, Mumbai. For details visit: www.civil.iitb.ac.in. ISSMGE TC 302- an International Symposium on Forensic Approach to Analysis of Geohazard Problems - will be held during December 14 -15, 2010 at IITBombay, Mumbai. For detail write to gls@civil.iisc.ernet.in. The 14th ARC-2011 on Soil Mechanics and Geotechnical Engineering being jointly organized by the Hong Kong Geotechnical Society (HKGES), Dept. of Civil and Structural Engineering & the Hong Kong Polytechnic University (Poly U) will be held during May 23-27, 2011, in Hong Kong, China. For details visit www.cse.polyu.edu.lk/14arc

The Indian Institute of Metals (IIM)

IIM is organizing the 48th National Metallurgists Day and 64th Annual Technical Meeting, during November 14-16, 2010 at Bangalore. The National Council Meeting and the AGM of the Institute will be held on July 27, 2010 at Kolkata and prior to this, the next meeting of the Chapter Relations Committee will be held on July 26, 2010 at Kolkata at which the agenda that has been discussed earlier at a number of meetings of the committee will be taken forward for making functioning of the chapters more effective and efficient and as per the set rules and procedures and objectives of the National Council. The next edition of MMMM-2011 will be held at the Pragti Maidan in February, 2011. It was normally to be held in September, 2010 at the same venue, but it has been shifted to February 2011 due to the Commonwealth Games being held at New Delhi in October 2010. The Bangalore Chapter of IIM organized fourth diamond jubilee commemoration lecture on "Heavy Water Board- An Odyssey of Excellence" which was delivered by Shri A L N Rao on 19th April 2010 at Indian Institute of Science, Bangalore. An international seminar on Iron Making in Blast Furnaces will be held on September 6, 2010 at Kolkata. It is being organized by Steel Tech - a reputed technical journal.

Indian Institute of Chemical Engineers (IIChE)

The Trivandrum Regional Centre of IIChE and KSPCB Conference, Trivandrum, Kerala organised a National Conference on "Chemical and Biological Waste Treatment Processes For Green Environment" Jointly with Kerala State Pollution Control Board during June 25-26, 2010 June 2010 at Trivandrum, Kerela. ACHEMASIA 2010 - Asia's leading trade fair on Chemical Engineering and Biotechnology Industries - was held during June 1-4, 2010 at

Beijing, China. IIChE invites nominations for IIChE Awards/ Prizes for 2010, which are given in recognition of meritorious work in the field of Chemical Engineering in India. For details visit Website of the Institute: http://www.iiche.org.in/ awards.htm.

Institute of Marine Engineers (India) (IMEI)

The Dubai. ShipTek 2010, International Conference on Shipping, Marine and Offshore Industry. was held during Apr18 – 19, 2010 at Dubai. The 6th International Conference on Marine Pollution and Ecotoxicology was held during May 31- Jun 3, 2010 in Hong Kong. The Warship 2010: Advanced Technologies in Naval Design and Construction event was held during June 09 -10, 2010 at London, UK.. The AGM of the IMEI, Visakhapatnam Branch was held on Apr04, 2010 at Visakhapatnam, Andhra Pradesh.

Institute of Electrical & Electronics Engineers (IEEE). Inc.

The 75th ARFTG - 2010 Microwave Measurement Conference was organized on May 3-7, 2010 at Anchorage, AK, USA. The conference reflected on the achievements of the field and the broad impact of robotics and automation research, development, and education. The IEEE Vehicular Technology Conference (VTC 2010-Spring) on mobile, wireless, and vehicular technology was organized during May 16-19, 2010 at Taipei, Taiwan .The conference was attended by delegates from academia, industry and government. A symposium on Photonics and Optoelectronics was organized on topics and issues related to laser technology and applications, optical sensors, optical storage and technologies, optoelectronic devices and integration, and medical and biological applications during June 24-26, 2010 at Chengdu, China. It was very well attended. Apart from these, IEEE provides its members and volunteers with networking and interaction opportunities through local meetings and events hosted by the local sections, chapters and other regional governing bodies.

Institute of Urban Transport

The 2nd World Urban Transport Leaders Summit with the theme: "Transforming Urban Transport for Livable and Sustainable Cities" was held during June 30-July1, 2010. It was build on the success of the inaugural event held in November 2008, which had attracted top policy makers and leading professionals from some 30 countries across the world. It discussed and exchanged solutions and best practices by eminent international speakers. They also shared insights, latest initiatives and stimulated discussions on policy and strategic issues from a practitioner's perspective, which covered governance, sustainable urban solutions, green and eco-friendly transport and innovations.

The Institution of Electronics and Telecommunication Engineers (IETE)

IETE launched its Consultancy & Development Centre (ICDC) on June 29, 2010 at IETE Building , Sector 30-B, Chandigarh. The next AGM of IETE will be held on September 24, 2010 in Delton Hall, IETE, HQs, Institutional Area, Lodhi Road , New Delhi. The annual technical convention "Making IT & Telecom Green Challenges and Road Ahead" will be held during September 25-26, 2010 at Stein Auditorium, Indian Habitat Centre, Lodhi Road, New Delhi. The next International Conference on Mobile Internet Devices (ICMID-2010) will be held during December 17-18, 2010, ISF GRIET, Hyderabad. For details visit: www.iete.org.

The Indian Building Congress (IBC)

Since its inception, IBC has been organising seminars on subjects of topical interests, one to coincide with the annual convention and the other on the occasion of mid-term session. It publishes quarterly magazine "IBC News" and a monthly bulletin "IBC Samachar".It has also instituted awards for the best papers presented in the seminars and items relating to excellence in built environment. The first seminar on the theme `Buildings in National Development' was held at New Delhi on October 4-5, 1994. Since then, fifteen more annual conventions along with national seminars at Delhi and fifteen mid-term seminars were organized at Jaipur, Roorkee, Chandigarh, Pune, Chennai Bangalore, Bhubaneswar, Ranchi, Raipur & Pondicherry. All these seminars had topical themes. IBC has set up a number of technical committees to deal with different aspects of built environment and construction industry and to make recommendations on related subjects.

Engineering Books

A book entitled" Theory and Applications of Transport Economics in Highway and Transport Planning written Dr. Vinay Maitri and one other author and has been published by the Standard Publishers, Delhi. This has been written with view to making it as a text book for students in engineering, planning and management level at postgraduate level as well as for providing opportunities to the highway and transport engineering professionals to be familiar with conduct of economic and financial studies in highway and transport projects. Hope the book will be extremely useful.

The Institution of Engineers (I), Maharashtra State Centre

The Institution of Engineers (India), Maharashtra State Centre organized a technical lecture at Mumbai on "Clean Water for a Healthy World" on the Occasion of World Water Day on April 17, 2010. It was delivered by Ms.Suprabha Marathe, Executive Engineer, Rain Water Harvesting and Water Conservation Cell, MCGM. The IE(I), Maharashtra State Centre also organized two technical lectures on Know Your Liabilities in Construction Business - by Dr. Kirty Dave and How Indian Building Congress Can Help You by Shri Pradeep Mittal which were delivered on 19th April 2010 at Mumbai. These lectures were well attended both by the industry and academia.

Glimpses

8thAGM of ECI held on June 30, 2010 at New Delhi

EDP Programme on Project Management for Engineers held during February 22-26, 2010 at New Delhi

Summary of the Recommendations of the 5th National Convention on Seamless Engineering Education for Better Employability of Engineers held at New Delhi

Presently, the engineering profession in India has no legal recognition as such because it is not regulated as the other professions such as Lawyers, Doctors, Architects, Dentists, Chartered Accountants, etc, are regulated. The engineering profession also needs to be regulated and legally recognized. For this, Engineers Act should be brought on the statute with a mandatory provision for registration of practising engineers and the Statutory Council of Engineers set up at the earliest. There is a need to legally define as to who is an engineer and lay down its globally compatible competency standards. This work can be better facilitated by the professional engineers associations / societies / institutions and academic institutions working together. The current engineering curricula need to be reformed for producing multi-skilled engineers needed by the industry with a full consensus of academics, industry and practising engineers. The practical case studies need to be included in the curricula and in the technical books and other reference materials meant for engineering students. The industrial training during the course should be made mandatory. It should be in the format of small projects on industrial problems assigned individually or collectively to a group of students, It should also be assessed and marks obtained thereof should be included in the marks obtained from the written examination. After the theoretical course and during the course training is over, a paid internship of six months or one year with an industrial unit should be made mandatory as a matter of regulation of engineering education. It should also be assessed and marks obtained thereof should be added to the total score. It should be made mandatory by way of regulation of engineering education that the students will get engineering degree only after successfully completing the training done during the course and internship with an industrial unit. The industry should be compensated, as a matter of policy, for any expenditure that it may incur during internship training via the tax route.

It should be made mandatory as a matter of regulation of engineering education to upgrade the engineering curricula once in every four years for keeping it in pace with the market trend. For this, the institutions delivering engineering education in the country should have the freedom for setting and revising the curricula keeping in view the changes in the perspective of industry, R&D, etc. An effective interaction between academia and industry is required as a matter of regulation of engineering education for producing quality engineers. This mechanism needs to be created. It will also facilitate curricula revision objectively. Before sanctioning new engineering colleges, demand of engineers should be assessed. Then, before deciding about the curricula, the requirements of the industry should be assessed. These exercises should be a regular feature of the work of the regulatory body. This will check proliferation of engineering colleges with poor quality infrastructure and of poor quality faculty in the country. Faculty shortage is producing engineers not found employable by the Indian industry. This needs to be bridged. One of the options for this would be permitting, practicing engineers & engineer consultants to teach engineering. This also needs a change in the mind set of our academic establishments. For monitoring the academic performances, reputed faculty members from IIT and NIIT may be nominated in their respective region to be a part of the monitoring team of AICT and UGC. The practice of delivery of engineering education should be reformed from its present form by placing more emphasis on self-learning and problem-solving. There is a clear requirement for a regular training of the faculty so as to cope with the ever emerging challenges from the industry. It should be regularly monitored and corrective steps taken under a laid down action plan and time frame. A working mechanism for facilitating the exchange of professionals for short periods between the academic institutions and the industry needs to be developed for providing an opportunity to them to have a hands-on experience of the "other side of the fence". Evaluation of the faculty by the students should be made mandatory, as a matter of policy, for all the engineering colleges in the country. It is recognized that the fresh engineering graduates lack a strong ethical foundation. Introduction of ethics as a subject in engineering education in universities needs a serious consideration. Reform of the engineering education should also include reform of the present CAT system and procedure for selecting students to the engineering courses for ensuring the selection of only those candidates for these courses who have not only the knowledge of physics, chemistry, mathematics and general knowledge but also aptitude for engineering. Controls by the regulatory bodies such as UGC & AICTE have not proved as effective as were envisaged. The present regulatory mechanism for the higher technical education in the country, therefore, needs to be reformed and made seamless and more effective and efficient. The continuing professional development (CPD) should form an important element of the regulatory mechanism of engineering education. The curricula and training format of the Polytechnics and Industrial Training Institutes (ITIs) training diploma engineers and engineer technicians respectively need to be re-engineered for imparting required knowledge and skills to diploma engineers and engineer technicians. Their English language skills also need to be made better by including the language in their curricula.

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Published by Shri P.N. Shali, Director, Engineering Council of India for restricted circulation from Jawahar Dhatu Bhawan, New Delhi-110062
Printed by : Maansee Printers, E-mail : maanseeprinters@yahoo.co.in