



# The Indian Engineer

*"When things are really dismal, you can laugh or you can cave in completely. ...  
If you can laugh, you're still alive. You haven't given up yet." — Margaret Atwood.*

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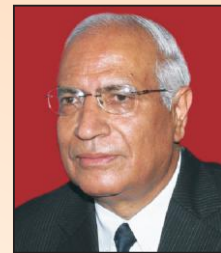
The Institute of Marine Engineers (India)

**P. N. Shali**

Director

## From the Chairman's Desk

During January-March quarter three important developments took place. First, there was some further progress in regard to Engineers' Bill for which ECI has been continuously following up with the Ministry of HRD. A meeting was held on February 23, 2011 in the Ministry, under the Chairmanship of Mr. Ashok Thakur, where representatives from concerned ministries/departments of Government of India and professional bodies such as ECI, IE(I) participated. The comments from these ministries/departments were discussed in order to arrive at an agreed draft. The draft bill is now expected to go soon for the approval of the Cabinet.



Second, a proposal to initiate a system to evaluate the proficiency of engineers which may help in determining their employability was circulated to all member organizations and discussed in a meeting held on March 16, 2011. Our member, Construction Industry Development Council (CIDC) is already operating such a system for the construction industry. The suggestion is to extend it to other sectors/disciplines, with the help of CIDC and other member organizations. It requires further consideration and interactions *which ECI will be undertaking in consultation with all its Member Associations.*

The third development was in regard to ECI's effort for skill development of engineers. A one-week programme on Project Management for Engineers was organised at New Delhi from February 21 - 25, 2011. With the participation of 64 engineers from leading public and private sector companies, it was a great success. *The next EDP programme for Engineers is on Effectiveness of Technology Management which is slated to be held on April 26-28, 2011 at New Delhi.*

ECI will continue its efforts in furtherance of its objectives and the growth of the engineering profession. I look for active support and participation by our member organizations in this task.

  
(Uddesh Kohli)

### 3rd Executive Development Programme for Engineers on Enhancing Competitiveness through Technology Management

The programme will be held during April 26-28 New Delhi. For details send your query to [eci@ecindia.org](mailto:eci@ecindia.org), [pnsjali@gmail.com](mailto:pnsjali@gmail.com) or visit [www.ecindia.org](http://www.ecindia.org)

### 17th "Asia Construct"

Construction Industry Development Council (CIDC) is organizing an international conference and expo during 13th-15th December, 2011 at New Delhi. The Theme of the Conference is "Asian Economic Overview 2011 and Outlook 2012". For details, visit [www.cidc.in](http://www.cidc.in) or email : [cide@cidc.in](mailto:cide@cidc.in)

### Breaking News

#### National Proficiency Evaluation Test (NPET)

NEPT, initiated by the Construction Industry Development Council for grading the young engineering professionals in the Mechanical/ Civil / Electrical disciplines on the basis of their proficiency and technical knowledge for the construction industry, is now proposed to be extended under the aegis of Engineering Council of India (ECI) to the young professionals of the other engineering disciplines jointly with the other Member Associations of ECI.

#### Seminar on Fiber Reinforced Concrete

Indian Concrete Institute (ICI), Nagpur Centre is organizing the above cited seminar during on 25-26 June 2011. For further details, contact : Er. Ish Jain, Org. Secretary, (M): +91-9423101454, Email: [fibcon2011@gmail.com](mailto:fibcon2011@gmail.com), [ishjain@gmail.com](mailto:ishjain@gmail.com).

*Group photo of the participants of the 2nd EDP-Project Management held during February-21-25, 2011 at New Delhi*



### Think it over

#### Vital Education

Of all education, vital education is perhaps the most important, the most indispensable; yet it is rarely taken up and pursued with discernment and method. There are several reasons for this: the foremost is that the human mind is in a state of great confusion about this particular subject; secondly, the undertaking is very difficult and to be successful in it one must have endless endurance and persistence and a will that no failure can weaken. - *Kabir Arora*

## From Editor's Desk

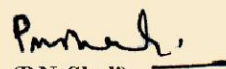


### Issues which need to be addressed for producing employable engineers

About 8,00,000 or so students graduate in various branches of engineering every year. Only around 25% of them are found employable. This is a well recognized fact of our life. There are many issues which need to be addressed for producing employable engineers. The first issue is that of the curricula, and its delivery. The second issue is that many engineering colleges are operating with poor quality infrastructure and faculty. The other issues include shortage of quality faculty, the entrance test to engineering courses, the current reservation policy - which demerits merit, training of the faculty and trainers, the adverse student faculty ratio, present visits only in-course industry training and no post-course internship with an industrial unit, etc. These issues were identified and considered in-depth at the national conventions, national conferences, and national workshops that the Engineering Council of India has organized since 2006 on the reform of engineering education for making engineers employable.

Many engineer professionals and academicians are of the view-and I fully agree with them-that our present engineering education system is not producing multi-skilled engineers of quality which the industry needs today. A large number of engineering colleges do not have the quality infrastructure and faculty, exceptions apart. Obviously, these colleges have been accredited by the competent authority without ensuring that they meet these requirements. Our engineering curricula is not meeting the current and emerging needs of the industry. Engineers are hoping on to other jobs, which do not need an engineering background. There is a net shortage of the quality faculty in the country. It is recommended (Dr D.P. Misra and many others) that we need to have an engineering curriculum which will well balance both the theoretical and practical aspects. We should move out from the present engineering discipline-based engineering education to multidisciplinary engineering education. We should include in the engineering curriculum subjects such as, economics, statistics, communication, law, finance and some subjects from the management sciences as compulsory subjects Besides, we also need to include courses such as innovation management, technology management and project management. We need to delete from the curricula subjects which have become obsolete. We should move out of the present theoretical delivery mode to more practical delivery mode of engineering education. During-the-course industrial training should be a compulsory subject in the curricula; it should not remain confined to visits to the industry only, as at present, but should be related to some theoretical concepts taught in the course and conceptualized through projects undertaken during this industry training; it should also be assessed and the marks thus obtained by a student should be added to the marks that the student obtains from the written examination. Additionally, after the course is over, there should be a mandatory paid industrial internship for about six months which also should be assessed and credit added to the total score. Engineering degree should be awarded only after this is done. Our academicians should change their mind-set and welcome working engineers and consulting engineers, who have created a name for themselves, to the faculty. We should move towards having one common criteria, standard, and entrance test for admission to all the engineering institutions in the country. The test should also assess the aptitude for engineering profession. We need to reform, therefore, our engineering education system as a whole for producing multi-skilled engineers of a high ethical standards and professionalism. Perhaps, it will require a policy shift. The competent authority (authorities) in the country need to consider it with urgency that it demands.

The bottom line is that we need to address these issues; the action for which solely rests with the competent authority (authorities).It should be born in mind that we cannot afford to delay further the action that is required to be taken for tackling these issues.

  
(P.N. Shali)

## Eminent Indian Engineer : Dr. Malur Ramaswamy Srinivasan



Dr Srinivasan, a distinguished chemical & nuclear engineer, technologist and scientist of India, made a very significant contribution to the development of nuclear power in India in his capacity as the Chairman of the Atomic Energy Commission and the Secretary of the Department of Atomic Energy, Government of India by overseeing the overall programmes related to the nuclear energy; specifically, in the construction of Apsara, India's first research reactor, in setting up of a laboratory for studying the problems in the field of nuclear technology, in overcoming the challenges in designing and construction of nuclear power projects and manufacturing equipments for these power projects. Post 1974, after Pokharan-1 nuclear test, Dr Srinivasan led the effort in mobilizing Indian industry to indigenously build comprehensively equipments and materials for the construction of nuclear plants in India itself. In his capacity as the Director and Chairman of the Nuclear Power Board, he not only oversaw the design and execution of all the nuclear power projects in the country, but also had operating responsibility of these projects. It was at his initiative that the Nuclear Power Corporation Ltd. was started in 1987. During his tenure as the Chairman, Atomic Energy Commission, a number of nuclear power projects were taken up which included Narora, Kakrapara, Kiga, Rajasthan and Tarapur.

### Positions held

He joined the Department of Atomic Energy, Government of India in 1955 and was appointed as Principal Project Engineer in the first nuclear power project in the country in 1959 where he involved himself in the planning and execution of the project. He

rose to the position of Chief Engineer of the first nuclear power station in the country at Kalpakkam, Tamil Nadu in 1967. After that, he has held several senior positions which included Director, Power Projects Engineering Division (1973), Chairman, Nuclear Power Board (1984), Chairman, Atomic Energy Commission and Secretary, Department of Atomic Energy, Government of India (1987) and Chairman, Nuclear Power Corporation of India Ltd (1987), Post retirement (1990), Dr Srinivasan served as senior Adviser on Energy and Environment at the International Atomic Energy Agency, Vienna and Member, Planning Commission (1996-98). Since 2005, he has been involved with India re-entering in International Civil Nuclear Cooperation, especially with the US, Russia and France. He also served on the Council of Management of the Tata Institute of Fundamental Research (TIFR) as its member.

### Awards

Dr Srinivasan received many awards and recognitions during his distinguished career. While the list of these awards and recognitions is large, it will suffice here to cover from the list some very prestigious of these awards and recognitions. The president of India conferred on Dr. Srinivasan, in recognition of his pioneering work in the field of nuclear power in the country, Padma Shri in 1984 and Padma Bhushan in 1990. He also received Sir M. Visvesvaraya Award for Senior Scientists in 2008.

Dr. M. R. Srinivasan was born in 1930 at Bangalore. He obtained his BE degree from the Mysore University in 1950 and ME and PhD from the Mc Gill University, Montréal, Canada in 1952 and 1954 respectively.

## Letter to the Editor

### Sub : Many companies and MBA colleges are not recognizing my AMIE degree

Dear Sir

I am Rani Ratna, AMIE ID ST-485350-5 & Membership no. A-548655-7. I persuaded AMIE in Electronics & Communication by 2009. I have CGPA of 7.87 & also I finished it in 2.5 years itself, every time I cleared four papers without any gap. I have also obtained Diploma in Mechatronics from NTTF. I have been working since August, 2006. I have worked for 4 years in the Timken. Presently, I am working in the TATA Robins Fraser Limited as an Assistant Engineer. Few days back, I had a call from the Infosys. I responded to this call; and I cleared all the rounds of interview. I was almost selected, but at the time of verifying the certificates that I was having, they rejected me because I was not having a regular engineering degree, but only an AMIE certificate - which is an equivalent engineering degree obtained through distant mode of education. I also appeared for the CAT exams this year and applied to many colleges. But, some of the colleges like IMT Ghaziabad, NIT Trichy, SDM IMD, etc, rejected my application because I was not holding a regular engineering degree, but only an AMIE certificate. Some of the government institutions / colleges like IIT's clearly write in their eligibility criteria that the students holding the Associate membership certificates of professional bodies (AMIE) are not eligible for applying to their colleges. Private colleges like Symbiosis also do not accept the application form from the students who have done their engineering graduation through correspondence. As stated above, I have faced it in the case of Infosys. I have information from my friends that many companies also do not accept the Associate Membership Certificates of professional bodies like AMIE - which mean doing engineering education through correspondence. Even reason for my leaving Timken was also

that I was having AMIE which they did not recognize as equivalent to an engineering degree. The new companies, which I have joined, have given me a lower designation to that of the full time fresh graduate engineers. While these graduate engineers are naive to the industry, I have four (4) years of experience. I am totally upset with the treatment that I have got from such big companies. I find my future in dark, as the door of most of the big companies is closed for me. But, by chance, I heard the news that there is some probability that the students holding Associate Membership certificates of the professional bodies, like AMIE, will get a regular degree from the Assam University. This message is like a light of hope for me. We all holding these certificates (AMIE) will be thankful to as much, as ....can't be explained in words. I have faced a lot of discrimination because of it. Kindly speed up the process.

Yours sincerely  
**Rani Ratna**

### Global Energy Concerns

Over the next half century global energy use is expected to double and global electricity demand is expected to triple. These increases will call for a significant increase in fossil fuel supplies; alternatively enormous changes in global energy infrastructure will be required. Security concerns are highlighted by the geographical and geopolitical realities of the locations of energy supplies and of the primary users of these resources. Carbon dioxide emissions associated with combustion of fossil fuels are increasingly of central concern in global climate change. This concern will drive decisions about the evolution of the global energy system.

## News Corner

### Get bold and ask for a larger pay hike

The Finance Minister may not have done too much in terms of boosting employment in the social sector; however, corporate India seems to be on a hiring spree. The boom in the job market is akin to the surge in 2007 prior to the global economy crash. In light of the global crisis in 2008-09, many firms had to resort to retrenching to cut costs and stay afloat to ride the crisis. But now with an expected economic growth of 9% in India, this piece of news hardly comes as a surprise. A Manpower Employment Outlook Survey conducted revealed that employers in India have the strongest hiring intentions for the second quarter of 2011. Tuesday March 15, 2011 02:35 am PDT

### Salary hikes on the cards

The corporate sector employees have even more reason to cheer as it's not only a spike in hiring but reports also suggest that the average salary across sectors could increase by a sumptuous 13%, higher than the 11.7% in 2010 and 6.6% in 2009. The biggest beneficiaries are likely to be those in the engineering services segment, with an average salary increase of 14.4%, followed by automotive and energy at 14%, and infrastructure at 13.9%. Maruti Suzuki is a perfect example of a company that's riding a boom. If these sectors are in a position to offer handsome hikes, it's because of the growth phase they are in, an Economic Times report said.

### Manipal Education gears up for bigger overseas play

Manipal Education is formulating plans to expand presence to become one of the top three global education providers. According to V. Sivaramakrishnan, President (Education Services), the group, which has universities such as Manipal University and Sikkim Manipal University, is aiming to become the "Infosys (Technologies) of the education world. The group, which currently caters to about 2,20,000 students in medicine, engineering, management, design, vocational and corporate education, already has its campuses in Antigua in Caribbean, Dubai, Malaysia and Nepal, which focus on the Caribbean,

Middle East & North Africa, and Southeast Asia, respectively. It is planning now to scale up its international presence by moving into Sri Lanka, Bangladesh and Bhutan for tapping the growing opportunities in South Asia. Sivaramakrishnan said Manipal is also planning to bid for taking over the employment exchanges in states such as Karnataka, Orissa, Jharkhand and Chhattisgarh for running them with greater efficiency. Indian education groups going overseas is a positive trend for the education sector, said Snehalata Deshmukh, former vice chancellor of Mumbai University.

### The Institution of Engineers (India), Maharashtra State Centre- IEI(I)MSC

IEI(I) MSC organized a technical lecture on March 12, 2011 "Systems Engineering. The lecture was delivered by Dr. P.H. Thyagaraju, Scientific Officer, Uranium Extraction Division, Bhabha Atomic Research Centre. The lecture was very well attended. Systems Engineering is the multidisciplinary activity of managing the engineering systems and procedures in a holistic manner. The concept of systems engineering had emerged during 1940s in order to create a methodology for coping up with growing complexities of the systems. Over a period of time several standards had evolved in order to implement the systems engineering. It also celebrated in association with the Rotary International District 3140 (R.C. of Mumbai Shivaji Park & Thane North End World Water Day on 22nd March, 2011 with the theme "Water for Cities - Responding to the Urban Challenges" The Key-Note Address was delivered by Shri Rakesh Kumar, Scientist & Head, Zonal Laboratory, NEERI, Mumbai. Hon'ble Shri Jayantraoji Patil, Minister for Rural Development, Government of Maharashtra was the Chief Guest.

IE(I), Belapur Local Centre organized a one day seminar with the active support from CIDCO and Navi Mumbai Municipal Corporation on "Navi Mumbai International Airport and Metro Railway Network in Navi Mumbai on March 12, 2011 at Mumbai. The seminar was very well attended by the industry, academia, students and others concerned.

## View Point



**We need to reform the regulatory mechanism of engineering so that it can deliver what is needed- quality engineering education says Dr D.P. Misra**

*Dr. D.P. Misra is Head of Marketing and Business Development of Tata Consulting Engineers Ltd., former Deputy MD, Jacobs H&G Pvt Ltd, Member BOG, ECI and Past President, IIChec Eng.*

Our engineering education should be such as would produce multidisciplinary engineers and technologists with knowledge and multi - skills. This is what our economy in general and industry in particular demands today. In other words it means that we need to have an innovative and practical engineering education for producing professionals who are capable and competent to develop the basic and high - end technologies. While we have many engineer designers and they have been doing an excellent work, particularly in the nuclear, space and defence sectors, we do not have much competence in the country in innovations and basic designs of high-end technologies. India still depends on imports for high-tech technologies. We still import basic designs. Our rate of innovations is very low when compared with the countries like Japan, US, Germany, France and so. This is because we are not producing engineers and technologists who are capable of designing technologies from the scratch; nor are we producing competitive innovators. The reason for this lies in the engineering education system itself that we

have today. We can catch up with the developed world in producing basic engineering designs, if we reform the engineering education both at the graduate and at the postgraduate levels and produce thinking engineers and technologists with commitment and zeal for their engineering profession and determination to be the best in the world in designing engineering projects, in developing high-tech technologies. We need to make engineering education more practical with a meaningful in - course practical training, a mandatory industrial internship for about six months. Both, these types of training should be assessed and the score should be added to the score obtained from the written examination. Engineering degree should be given only after that. We need to reform the regulatory mechanism of engineering so that it can deliver what is needed- quality engineering education.

## Obituary



Dr. P. Dayal, former Dy Director General, DGTD, Government of India and the Past Chairman of IIM-DC passed away on 2nd February 2011 at New Delhi. He contributed very significantly to the development of metallurgical industry during the early phase of India's development. ECI mourns his death and conveys its condolence to the bereaved family with prayer to the Almighty God for the eternal peace to the departed soul.

## News from the Member Associations

### Association of Consulting Civil Engineers (India)

ACCE(I) organised one-day workshop jointly with the Indian Concrete Institute (ICI), Tamil Nadu Chapter with the theme: Trends & Techniques in Concrete Pavement for 21st Century on February 12, 2011 at Chennai. The workshop was very well attended both by the industry and academia.

### Broadcast Engineering Society (India) - BES (I)

BES(I) organized a successful EXPO 2011 during February 24-26th, 2011 at the Pragati Maidan, New Delhi. The stakeholders namely, manufacturers, dealers, distributors and suppliers of products, equipment, systems and services related to terrestrial & satellite broadcasting for Radio and TV as well as studio, post-production, analog as well as digital equipment and technology participated in the expo.

### Consultancy Development Centre (CDC)

CDC has taken up under its plan activities programme schemes and projects which include a scheme for fellowship to students of academic institutions for carrying out consulting assignments, feasibility report on setting up Indian Institute of Consultancy Management, study on impact assessment of MS Programme, project on knowledge management through capturing consulting experiences of eminent consultants, scheme for exposure of consultants and clients to international practices, capacity building of entrepreneurship development consultants in North East/ J&K, study on strategies for enhancing quality in consulting, developing a pool of technology transfer consultants and scheme of enhancing MSME competitiveness. For more information on these plan activities of the CDC, visit : [www.cdc.org.in](http://www.cdc.org.in). Besides, CDC has also taken up many training and development related programmes for the capacity building of consultants.

### Construction Industry Development Council (CIDC)

CIDC is organizing 17th "Asia Construct International Conference and expo with the theme: "Asian Economic Overview 2011 and Outlook 2012" during December 13-15, 2011 at New Delhi. AsiaConstruct was founded as a network of apex organizations of construction Industry from Asian continent in the year 1995. The network includes several Ministries of construction, construction Industry Development Boards and Authorities, leading academic bodies, and other research organizations of the countries of Asian continent contributing to the growth and development of construction activities in their geopolitical region. Apart from these, there are observer organizations from Australia, Mongolia, Bhutan, Nepal, Maldives & several Asian & African Nations in the network. CIDC joined this network as a full member in 1996, representing India on the Managing Body of AsiaConstruct and has been actively participating in all the events for past decades. AsiaConstruct convenes an annual conference & exposition in Asian & Pacific Rim countries since inception, where the member organizations and Industry majors from the member as well as non member countries join to share their experiences and good practices for the benefit of Asian, Pacific Rim Countries and now also of the African Economies. CIDC along with Bhartiya Vidya Mandir (An educational Trust in collaboration and supported by M/s Simplex Infrastructures Limited (SIL) is conducting Six months specialized training in billing & quantity surveying, quality control, project planning and monitoring and construction health, safety and environment. For more information on 17th AsiaConstruct and programmes of the CIDC visit : [www.cidc.in](http://www.cidc.in).

### Consulting Engineers Association of India (CEAI)

CEAI organized refresher course on IS: 800-2007, Code of Practice for General Construction in Steel (third revision) during March 24-25, 2011 at New Delhi. The course was very well attended. Forth coming events include in-house FIDIC training seminars for the Asian Development Bank slated to be held during July 18-20, 2011 at New Delhi, July 21-23, 2011 at Bangalore, July 25-27, 2011 at Guwahati, July 29-30, 2011 and August 1, 2011 at Bhopal and August 4-5, 2011 at New Delhi. For details about these seminars visit [www.ceai.org](http://www.ceai.org) or e-mail your query to [ceai@gmail.com](mailto:ceai@gmail.com)

### Computer Society of India (CSI)

The new office of CSI corporate headquarter and the Mumbai Chapter was inaugurated on 25th March 2011 by Dr F C Kohli in the presence of CSI fellows Dr Vijay Bhatkar and Mr Hemant Sonawala at Samrudhi Venture Park, MIDC, Andheri (East), Mumbai. Shri M D Agrawal, the President, CSI has stated that with the kind of growth of CSI with its majority members being young engineers, its future plans and organization need a different focus for meeting their expectations. A new structure in the CSI, therefore, is inevitable. Reportedly, the first meeting of Executive Committee held on March 26, 2011 deliberated on many points, making new plans and identifying priority areas for the year 2011-12. Founder President of Nasscom and CSI Fellow Mr Harish Mehta, senior academicians & research scientists Dr Pankaj Jalote, Dr. Sasi Kumar (Director-R & D, CDAC) and Mr Mahalingam shared their ideas for the future plan. Dream of CSI founders to make CSI a technology society was once again reiterated, which involves defining of ICT standards and policies and making sure that these start forming key part in government and education sectors in the country. It is likely that the CSI will organize many more research oriented conferences, actively collaborating with the other institutions and professional societies. INDIACom-2011 was successfully organized during 10th-11th March, 2011 followed by NSC-11 on 12th March, 2011 at New Delhi in which the follow up actions of INDIACom -2010 organised in February, 2010 at New Delhi was also discussed.



### Indian Association of Structural Engineers (IAStructE)

IAStructE organized a technical lecture on planning, designing and construction of flyover at Lajpat Nagar, New Delhi on February 24, 2011 at New Delhi. The lecture was delivered by Dr. Jose Kurian, Chief Engineer, Delhi Tourism and Transportation Development Corporation and was very well attended.

### Indian Society for Trenchless Technology (INDSTT)

INDSTT has developed a programme called Trenchless Foundation-HDD for providing the founding knowledge of essential topics required for Horizontal Directional Drilling (HDD) Technique; and it is structured to assist the trainee in the successful execution of HDD project Design & Construction. Working experience backed with the knowledge acquired through this program shall be quite useful to the practicing trenchless professional in becoming self reliant in the selected sphere of technology application. This program will also provide the much required technical inputs to the new entrants and other engineering fraternity members interested in various issues related to HDD projects. For details, send an email to : [indstt@indstt.org](mailto:indstt@indstt.org), [indstt@indstt.com](mailto:indstt@indstt.com) or visit Website : [www.indstt.com](http://www.indstt.com), [www.indstt.org](http://www.indstt.org), [www.indianodrig.com](http://www.indianodrig.com), [www.indstt.in](http://www.indstt.in).

### Indian Concrete Institute (ICI)

ICI participated jointly with experts from the ICI, SINTEF, Norway and Committee for Organizing International Conferences, Canada in the Roving National Seminars on "Concrete



Sustainability through Innovative Materials and Techniques" held at Bengaluru, Jaipur, Nagpur and Kolkata during the second week of January 2011. Around more than 1500 delegates participated in these seminars. Coinciding with the seminar in Bengaluru, the local center of ICI organized a three-day Deminar, which attracted participation from different segments of the industry on the one hand and engineering fraternity on the other. It was an experiment in sharing knowledge on the latest developments in the use of innovative materials and techniques. ICI also organized a series of Round Table Meetings on February 21, 2011 at Mumbai, on February 22, 2011 at Bengaluru, on February 23, 2011 at Chennai, on February 24, 2011 at Hyderabad and on February 25, 2011 at Delhi on the theme "Concrete Pavements and White Topping" These round tables were confined to stakeholders. Experts from the US also participated in these round tables and shared their experience and highlighted the latest technological developments from their country.



### Indian Institute of Chemical Engineers (IICheE)

IICheE has compiled from information available with the AICTE a list of the departments of chemical engineering in India. The information will be very useful to the industry, academia and research and development establishments in the country.

### Institution of Bridge Engineers (IBE)

A national seminar on "Steel Bridges" with the sub themes: Composition Construction/Design/Fabrication/Erection/Launching/Fabrication/Alloy Steel and Innovation in Technology, which was slated for April 28 - 29, 2011 at Delhi, stand postponed. The new dates will be announced shortly. The bridge engineering fraternity is requested to contribute technical papers on the above sub themes. For the latest information on the seminar and its new dates, send mail to: [iibe\\_dsc1@yahoo.co.in](mailto:iibe_dsc1@yahoo.co.in). IBE has become a permanent member of the Engineering Council of India.

### Indian Geotechnical Society (IGS)

IGS is organizing its annual conference jointly with Cochin University of Science and Technology (CUSAT), titled "Indian Geotechnical Conference (IGC 2011)" with the theme: "Soft Clay Engineering" during December 15-17, 2011 at Hotel Gokulam Park, Kaloor, Kochi, Kerala, which aims at bringing together several professional engineers, academicians, researchers, industrialists and others from all over the world with interest in geotechnical engineering and provides a forum to exchange experiences. It will provide an excellent opportunity for interaction amongst industry, consulting organisations, government agencies, suppliers, academic and research

institutions and decision makers. For more information on the conference, visit : [www.igs.in](http://www.igs.in). IGS, Delhi Chapter organized the 3rd Indian geotechnical engineers' conference during March 25-26, 2011 at New Delhi, which was very well attended.

### Institution of Mechanical Engineers (India)-IME(I)

IME (I) is collaborating with many prestigious institutions around the world for excellence in engineering education. It has signed Memorandum of Understanding with: the American Society of Mechanical Engineers (ASME), Institution of Mechanical Engineers (UK), Japan Society of Mechanical Engineers (JSME) and the Chinese Mechanical Engineering Society (CMES) for mutual co-operation and continuous interaction. Its technician engineers examinations are recognized by the Department of Education, Ministry of Human Resource Development, Government of India The Institution is thus helping thousands of younger members of community working in engineering, who have been unfortunate in securing admission in regular polytechnics and engineering colleges due to some genuine reasons, to obtain engineering qualification, advance their technical knowledge and enhance their engineering career through non formal system of education. The Institution awards prizes/medals for the best paper published or the best paper presented at its Annual Conventions as follows: Rai Bahadur G.M. Modi Gold Medal, Institution's Gold Medal, Khan Bahadur Framroze D, Mehta, Bronze Medal, Akola Centre Cash Prize and Ahmedabad Centre Cash prize. For more information about the IME(I), visit: [www.imeindia.in](http://www.imeindia.in).

### Indian National Group of the International Association for Bridge & Structural Engineering (IABSE)

The 35th international symposium on Bridge and Structural Engineering and concurrent commercial exhibition are being jointly organized by the International Association for Bridge and Structural Engineering (IABSE) and the International Association for Shell and Spatial Structures (IASS) - representing the worldwide community of civil and structural engineers, architects, researchers, clients, contractors and others involved in developing or studying the built environment - during September 20-23, 2011 at the Queen Elizabeth II Conference Centre, London, UK. The symposium will also incorporate the sixth international conference on space structures normally held at the Surrey University, UK. The event is getting a very good response even from the Indian engineers and others concerned. For more information about the event, visit: [www.iabse-iass-2011.com](http://www.iabse-iass-2011.com).

### Indian Institution of Plant Engineers (IPE)

Main objective of the Institution is to professionalize the plant engineering through its various activities. It lays emphasis on acquainting and disseminating knowledge about various problems experienced and finding their solutions with the new developments and emerging approaches/technologies by the plant engineering professionals. IPE is promoting maintenance consciousness among plant engineers and finding out ways and means for application of advance concepts and techniques leading to enhanced equipment availability and reliability with higher productivity and energy conservation. The Institution activities cover a wide range of areas for improving the overall performance of plants by constantly updating the professional competence and knowledge of the members. These include programmes for modernization of plant management, up-gradation of plant performance, plant engineering education and training, publication of technical journals and literature, plant certification, consultancy services etc.

### **Institute of Urban Transport (India)**

The 2nd National Consultation Workshop for Working Group on Urban Transport, which was scheduled to be held at Bangalore on April 2, 2011 has been postponed due to certain unavoidable reasons. New dates for the workshop will be intimated in due course. Visit <http://www.iutindia.com>

### **Indian Society for Non Destructive Testing (ISNDT)**

ISNDT has set up three working groups namely: neutron radiography, acoustic emission and digital radiography. The 18th world conference on Non Destructive Testing (NDT) (18th WCNDT) is slated for April 16-20, 2012 at the International Convention Centre Durban, South Africa. The work on the conference is proceeding at a rapid pace; and all indications are that it is going to be a roaring success. The broad theme of 18thWCNDT is "NDT in the service of society, in safety assurance, quality control and condition monitoring". In specific terms, it translates into the following subject areas: general topics such as training and certification, regulation and standardization, NDT applications in transport, civil structures, mining, power generation and the chemical, steel and wood pulp industries. The Indian NDT experts and others concerned are expected to participate in the conference. Visit: <http://www.isnt.org.in> and send mail to [isntho@eth.net](mailto:isntho@eth.net) for more information on the working groups and the 18th world conference.

### **The Institution of Civil Engineers (India) - ICE(I)**

ICE(I) is a member of the Asian Civil Engineering Coordinating Council (ACECC). The 20th Executive Committee Meeting (ECM) of the ACECC was held in Jakarta, Indonesia on 10th and 11th February 2011. Er. S L Swamy, Chairman and Shri Prithipal Singh, Secretary, ICE(I) attended the meeting where representatives from the various countries were also present. It was during this meeting that the ICE(I) proposed that the next ECM of the ACECC will be held in New Delhi, which was accepted by the ACECC. ICE(I) will be celebrating the "Engineers Day" on 15th September 2011. On this occasion ICE(I) is also organizing an International Seminar. This will be followed by the 21st ECM of the ACECC on the 16th and 17th September 2011.



### **The Institution of Electronics and Telecommunication Engineers (IETE)**

The Institution of Electronics and Telecommunication Engineers recognises, through its coveted annual / biennial awards, the outstanding contributions made by scientists and engineers in various fields. These awards are presented during the IETE Annual Technical Convention (ATC) held every year in September. The process for IETE Awards 2011 commences with the "Call for Nominations". For the purpose of these awards, the nominators and nominees need not be members of IETE i.e. it is open to all except for the nominees for IETE - B R Batra Memorial Award. For complete details of IETE awards and the nomination performa, visit IETE website: <http://www.iete.org>.

### **The Indian Institution of Industrial Engineering (IIIE)**

IIIE observes 27th January annually as the Foundation Day - when eminent speakers and distinguished practitioners of the profession are invited to share their knowledge, experience and their

perceptions on subjects of topical interest. IIIE Delhi) observed the Foundation Day on the 27th January, 2011 at New Delhi. The function was presided over by Shri RK Tyagi, CMD, Pawan Hans Helicopters Ltd. and the President of IIIE (Delhi Chapter). Dr. Reena Ramachandran, Director General, JK Business School and former CMD, Hindustan Organic Chemicals Ltd. shared her perceptions on Innovations - A Way of Life. The function was very well attended both from the industry and academia. Students also participated in the function.

### **The Institute of Marine Engineers (India) (IMEI)**

The International Maritime-Port Technology and Development Conference 2011 or MTEC 2011 is the 3rd of the MTEC series of conferences held alternately in Singapore and Rotterdam. MTEC2011 is jointly organised by MPA, NTU and NUS, and co-organised by the Port of Rotterdam. In conjunction with MTEC 2011, an exhibition featuring the latest R&D and technological products, systems and services in the port, maritime and offshore industries will be organised. IWCEM 2011 - International Workshop on Engineering, Metallurgy & Corrosion In Military & Marine Applications is slated to be held during June 8-10, 2011 at Marriott Hotel & Convention Center, Pune.

### **The Indian Institute of Metals (IIM)**

The MMM-2011 Expo and concurrent international conference with the theme Indian Metals Industry - Shaping the next decade was organized very successfully during February 12-13, 2011 at the Pragati Maidan, New Delhi. Many countries participated in the event along with the corporate bodies from India. IIM, Jamshedpur Chapter organized jointly with the Tata Steel and National Metallurgical Laboratory (NML), a students' seminar on Metallurgical Engineering during 25-26th March 2011. It aimed at developing interactive interchange between students, scientists and engineers working in the industry and academic institutions and to "learn from learners" as students are the active learners and they have mindset for innovation and creativity. The IIM, Jamshedpur Chapter takes profound interest in nurturing young minds and help them to get exposure to the Industry and Research organizations.

### **The Indian Institute of Electrical and Electronics Engineers (IEEE)**

IEEE is the world's premier body of technology professionals - with the Indian out fit incorporated namely the Indian Institute of Electrical and Electronics Engineers (IEEE), is looking to significantly increase the Indian contribution to the development of global standards for various industries under its focused east-looking initiative taken in 2008 with the visit of the four-member delegation from the IEEE to the key Indian cities, including Delhi, Mumbai, Bangalore, Hyderabad and Chennai to stimulate Indian participation in its core mission of "fostering technological innovation and excellence for the benefit of humanity." The idea is to raise IEEE's impact in India as well as to scale up the networking of Indian technology professionals with various global initiatives such as the evolvement of global standards. Indian technologists are likely to play a huge role in the global economy of the future. IEEE has commissioned about 900 global standards for various sectors, ranging from lithium batteries to safety code for buildings. Some of these standards, such as the newly developed 802.11 wireless standard, have gained widespread acceptance. The IEEE is also looking at continuing education initiatives in India that include credentialing and certification in software development, corporate partnerships and developing inputs for curriculum improvement and accreditation.

## Summary of the Recommendations of the 7th National Conference organized by the Engineering Council of India



In India, engineering profession is not yet regulated. India should also regulate its engineering profession as the developed countries and other countries are. For this, the government should bring on the statute the Engineers Act and set up the statutory Council of Engineers

without further delay, which will meet the requirements of accountability, professional conduct, ethics and those that will ensure the mobility of Indian engineers for providing the professional services abroad. The industry, academia and the government should work together for re engineering the engineering education for achieving the vision 2020. The engineering curricula and its delivery mechanism need to be reformed for producing multi-skilled engineers of quality which the industry needs. There should be one standard curricula for engineering education in all the institutions across the country- IITs, NITs and the other engineering colleges. There should be common admission test for engineering education which should also include assessment of the aptitude for engineering profession. The current quota policy for admission to engineering colleges is proving counter productive. This policy should be changed and the merit alone should be the core principle of the policy for admission to engineering courses. The in-course industrial training should not be confined to mere visits to industrial units as is the case at present, but, it should be on industry problems or projects. The training should also be assessed and the credit should be added to the total score. There should be a mandatory paid industrial internship for about six months after the course is over. It should also be assessed and the credit of this assessment should be added to the total score-written exam+in-course training+internship. The engineering degree should be given after this. The industry should be compensated for any expenditure that it may incur on this internship via the tax route. The regulatory authority should assess demand for engineers-discipline-wise and sector-wise from time-to-time as deemed appropriate and accordingly decide sanctioning of new engineering institutions

There is no synergy in the various efforts that are being made by the various agencies in training the technical workforce. This issue needs to be addressed. Subsidy for developing sustainable technologies including for the energy sector should continue to be available to the R&D sector as a matter of policy till such time it is required. We need to collaborate with the world class foreign universities for the faculty exchange, establishing the research centres, apart from developing the curricula. The industry-faculty exchange should be made a mandatory feature of our engineering education system. Under this system, working engineers and technologists from the industry should go and teach in engineering colleges for some years; and like-wise, the faculty should go and work in the industry for the same period. There is a net shortage in the availability of quality faculty, which is further growing with the accreditation of new engineering colleges. The competent authorities should take suitable measures, as required, to address this issue. This may also include allowing those

working engineers and engineer consultants who have created a name for themselves to teach engineering. A working institutional mechanism needs to be set up in the country for training the faculty and also training the trainers and monitor it regularly. The suitability of the current engineering education and training to sustainable development of industries, particularly the energy sector needs to be assessed and if found not suitable, measures should be taken to reform it, as required. The Industrial Training Institutions (ITIs) should be modernised and brought at par in quality with that of similar institutions in the developed countries. This should include the infrastructure, the faculty, the curricula and its delivery mechanism. The present regulatory mechanism of engineering education (AICTE) needs to be made more effective and efficient so that it can deliver what is needed of it - the quality engineering education. We need to create a standing institutional interactive mechanism of the engineering institutions and the industry for making engineering education industry-specific. India should have some national standards for both the basic education and higher technical education, particularly engineering education which should also include concerns for sustainability. There should be a standing mechanism for monitoring whether the standards are being maintained by the engineering institutions across the country; if not, remedial measures should be taken as the earliest, as required. The professional bodies of engineers can jolly well be entrusted with this task.



### Appointments

Dr. K.S. Rao has taken over as the President, and Dr. Chandan Ghosh as the Honorary Secretary of the Indian Geotechnical Society (IGS). Shri R.K. Tyagi, CMD, Pawan Hans Helicopters Ltd. has taken over as the President of IIIE (Delhi Chapter). Shri M.D. Agrawal has taken over as the President of the Computer Society of India. Shri S.R. Aggarwal has taken over as the Secretary General of the IETE.

**Our congratulations**

### Geotechnical Awards Announced

Over twenty awards have been instituted by the Indian Geotechnical Society (IGS) for outstanding technical papers published through the society. Besides, Prof. G.A. Leonards of Purdue University has instituted an award for the best Ph. D. thesis in geotechnical engineering. The prestigious IGS - Kueckelmann Award is presented once in two years to an eminent geotechnical engineer who has made a significant contribution to the profession in India. So far 16 eminent geotechnical engineers have thus been honoured. To encourage chapter oriented activities, a prestigious award designated IGS-Ferroco Terzaghi Oration is being instituted for outstanding contribution to geotechnical engineering. The award carries an amount of Rs. one Lakh plus expenses. For details visit <http://www.igs.org.in/awards.php>.

### ENGINEERING COUNCIL OF INDIA

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