



Chairman's Message



Dear Fellow Members,

Last issue brought out the recent notifications issued by Ministry of Urban Development dated September 07, 2006 granting exemption to some of the Professionals, excluding Engineers. It was possibly due to reasons that Engineers do not enjoy the benefit of an Act of Parliament. As already requested in case some of you came across with any individual / institutions facing such a problem, please pass on the full details to enable me take up through ECI / keep them informed.

I am sure you know that as far as IEEE is concerned, glory of IEEE Region 10 is mainly due to India's contribution on all fronts but IEEE members here are more concerned for their individual recognition / profession than that of the country. I may be excused for saying so and wish to be proved wrong. I am sure you know that Region 10 has 43 Sections, out of which 10 are in India. During last 3 years India's contribution to Region 10 in terms of Membership was 36% in 2003, 39.4% in 2004 and 35.4% in 2005 i.e. always more than 1/3rd. I distinctly remember that during 2006 R 10 Committee Meeting at Chiang Mai, Thailand, all of us felt elevated for our individual contributions to the R 10 because all the RAB & R 10 awards announced during the meeting were bagged by Indians. No doubt it was a great moment for all present there. Even all the Awards announced later on were also won by individuals, chapters, student branches in India. I wish to tell you that as on date India had more than 5500 + voting members, which is highest among any Region 10 country. As you are aware that in recently concluded Region 10 Director Elect. Elections Prof. Yong Jin Park, Seoul, Korea was winner with 2589 votes. Other 2 candidates, Mr. R. Muralidharan, India, who was unanimously selected by all the 10 Sections in India, could get only 1554 votes including votes from countries other than India and Mr. Y W Liu, Hong Kong, 1302. Total membership each of Korea & Hong Kong is much less than that of India. It should really be a matter of concern for all of us that in spite of largest membership in the R 10, we have been continuously failing to secure a win for our R 10 director Elect candidate for the last 10 years. Is it not surprising that when ever there is a candidate from Japan, Korea or Singapore, they always win even though IEEE membership in their country is no where near ours. What could be the reason? The reason is simple that voters in their country DO CAST their votes for the candidate of their country. In a similar situation in our country, we feel shy even to vote for our candidate. Voters here generally do not cast their vote at all even for their candidate also. After lot of persuasion / follow up, hardly 10-15% members are able to spare a few minutes out of their busy schedule to cast their vote, other 80-90% don't even find time to open envelope containing ballot papers / defer casting vote altogether. I am sure with our membership strength in R 10, even if 50-60% members cast their votes, no one can win against us. Like any other country at least 80-90% of IEEE members in India must vote for their candidate. I request all of you to take proud in ensuring that your candidate always wins.

I hope you will agree with me that considering our strength in R 10, logically it should be our privilege to lead R 10 team at Top level when ever our turn comes and we nominate a candidate from India. Once we are at the helm of affairs at the Regional level, we can serve our membership better based on specific needs of our country. Certainly, no one from other country can ever understand our needs better. I look forward to your valuable contribution during next elections and request each one of you to kindly spare a few minutes to cast your valuable vote

Editor Writes....

Friends,

'Did we live our year meaningfully or simply waded through the days?'

The year 2006 is coming to a close and an introspection at this time would be worth the effort. Out of the total of 8760 hours (24x 365 days), leaving aside one-third of it for sleep and rest, the remaining hours were readily available to us for work, family chores, professional activities, social work In the year end 'stock taking', let all these components be evaluated individually to see how meaningfully our time was spent. Of course, work and personal matters are most important. Here again, instead of living in the usual way, as an 'also ran', did we bring about any innovation in work place or in home front, to improve efficiency, save cost, reduce energy use and save the environment in our own small way? If it has not happened, the situation needs to be re-assessed, to evolve new strategies for 2007, which is sure to throw up many new challenges as well, for us to tackle.

For professionals, societies like IEEE, which act as conduits for knowledge delivery on a regular basis to keep the members updated on technology trends and new managerial practices, help us to stay tuned to the happenings. An introspection is needed here also to understand whether we have only been taking in benefits from it and not contributing to its growth through our services.

Finally, about our indebtedness to the society, which made us what we are. Society has definitely subsidised most of our studies, using tax-payers' money and we owe that debt to it. It has to be repaid to the society as selfless services, using professional skills or otherwise. Year end should be an occasion to think about this too.

I wish that the year ahead gives you ample opportunities to excel in your profession, and also presents a home front so refreshing and invigorating that you are refilled with renewed energy every day.



N.T.Nair

Editor

Trivandrum

01 December '06

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for success of our candidate. I hope you will share my anxiety and provide me with your valuable feedback on the subject so that India Council can plan its strategy for next Elections in 2008.

I shall be completing my tenure as Council Chair on 31st December 2006 and new team will take over from 1st of January 2007. I thank you all for the active support and confidence I enjoyed from all of you. Looking forward to your continued support to the incoming team led by Shri N. T. Nair, who is well known to all as Council News letter editor for so many years. I once again thank you for your participation in IEEE activities. I also take this opportunity of wishing you and your families a very happy, prosperous & eventful New Year 2007.

With warm regards,

Delhi

01 December '06

Rajendra K. Asthana

Chairman - IEEE India Council
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'A rich person should leave his kids enough to do something, but not enough to do nothing'

- Warren Buffet

IEEE NEWS & EVENTS

IEEE Women in Engineering – Kerala Activities

Excerpts from IEEE Women in Engineering December 2006 Newsletter:

A camp organized by the WIE Affinity Groups of the IEEE Kerala Section and IEEE Student Branch of the Federal Institute of Science and Technology (FISAT), was held on 6-7 Oct. '06 at FISAT campus in Angamaly, India. This camp was initiated by the WIE Student Branch Affinity Group to provide a venue for women from the different IEEE Student Branches in Kerala to interact. Women IEEE members from the following 10 student branches participated in the event:

AWH Engineering College, Calicut, College of Engineering, Chengannur, FISAT, Angamaly, Jyothi Engineering College, Trichur, MES Engineering College, Kuttipuram, RIT, Kottayam, SNGC, Cochin, Sreekrishnapuram Govt. Engg. College, Palakkad, ToCH Engineering College, Cochin, and Vidya Engineering College, Trichur.

In the camp inaugurated by Dr. K. S. M. Panickar, Principal of FISAT, a leadership workshop was conducted by Mr. Prijoe Philips Komattu of TCS on the FN of first day. In the afternoon, Mr. Visan Koshy Varghese of Accenture conducted a session on team management, which included an exercise where the teams were made to build a Taj Mahal using newspapers. The evening session began with an all-female discussion where all the attendees were allowed to share their problems. After the discussion, attendees were asked to solve the problems faced, and Mr. Prijoe and Mr. Visan helped by suggesting solutions.

On the second day, an IEEE awareness and WIE awareness survey was taken by Mr. Jaison Abey Sabu, Student Representative of IEEE Kerala Section. This was followed by a discussion along with the male student branch representatives to solve the issues discussed the previous day. In a final session, attendees decided that a WIE Affinity Group should be formed in every student branch, and also that a WIE forum should be formed to share ideas and build up awareness in the technical field. It was also decided that there will be an online meeting every Sunday at 22:00 for the WIE members.

The WIE Camp turned out to be a great success, with 55 girls participating in an event for the first time. The camp helped in understanding the problem faced by young women in engineering, and also opened a new path for them to come forward.

New IEEE Fellows from India

IEEE Board of Directors has named 268 IEEE Senior Members to Fellow Grade effective 1 January 2007. Prof. Bhargab B Bhattacharya and Prof. Sudhakar Sahasrabudhe, the two Senior Members from IEEE India are among them - Prof. Bhattacharya of Indian Statistical Institute, Calcutta, for contributions to testing and design of digital integrated circuits and Prof. Sudhakar Sahasrabudhe of Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar, Gujarat, for academic leadership in creating and managing an electrical engineering education system.

Congratulations !

Prof. R. Nandi Honoured

Prof. R. Nandi, (Ex-Chair, IEEE Calcutta Section), Dept. of Electronics & Tele-Communication Engg., Jadavpur University, Kolkata received the "**Appreciation Certificate**" from IEEE HQ in Sep. 2006 for the notable services and contributions towards the advancement of IEEE and the Engineering Professions.

Congratulations, Prof. Nandi!

Reported by:

P. Venkateswaran, Treasurer, IEEE ComSoc Calcutta Chapter

International Conference on MOBILE, UBIQUITOUS & PERVASIVE COMPUTING - ObCom2006

Organized by School of Computing Sciences, VIT University, Vellore, in association with Computer Society of India and sponsored by Tata Consultancy Services and Honeywell Technology Solutions. For details please visit <http://www.vit.ac.in/obcom2006/home.asp> or contact:

Prof. H.R. Vishwakarma, Technical Chair ObCom2006

e-mail: hrvishwa@ieee.org and

Mr. P. Venkat Krishna, Organizing Secretary ObCom2006

e-mail: obcom2006@vit.ac.in

International Symposium on Wireless Personal Multimedia Communications 2007- (WPMC '07)

December 3-6, 2007, Jaipur, India

Contact: Secretariat, WPMC'07

The LNM Institute of Information Technology Jaipur
Rupa-ki-Nangal, P.O. Sumel, Via. Kanota
Jaipur – 303 012

Phone (O): 0141-2170717/518 9213

FAX: 0141-5189216, e-Mail: vsinha@iitk.ac.in

Websites: <http://www.lnmiit.ac.in>

<http://www.wpmc2007.org>

(Contd. page - 3)

IEEE NEWS & EVENTS (Contd.)

IEEE Indicon 2006 2006 ANNUAL INDIA CONFERENCE

A Brief Report

Theme: Emerging Trends in Information and Communications Technology (ICT)

Venue: AMALTAS, India Habitat Centre, Lodhi Road, New Delhi

Period: 15 - 17 Sep. '06

A journey of over 13 months came to conclusion with the start of IEEE Indicon 2006 conference on 15 Sep.2006. The conference opened with on the spot registration.

Day 1 (15/09) of the conference had four workshops covering some of the current topics i.e. RFID (speaker from industry), IT Security (speaker from industry), Machine Learning (Dr. Jayadeva and Prof. S Chandra of IIT Delhi) and Network Modelling (Dr. S Dharmaraja of IIT Delhi). All the workshops were well attended and appreciated.

The formal inauguration of the conference took place in the evening. Mr. Rajeeva Ratna Shah, Member Secretary, Planning Commission, Government of India, the chief guest, in his inaugural speech, gave an excellent view of the technology and its adoption by India - setting the correct tone for the conference theme. He also took the audience through India's plan for the next decade, where India would lead China (the closest competitor) not in terms of a higher ratio of young workforce but would have also advanced technologically. The India of 10 years from today would be a fully digital India!

Earlier, Mr. R K Asthana, Chair, IEEE India Council, Mr. P V Ekande, Chair, IEEE Delhi Section, and Dr. Shankar Prakriya had delivered Welcome and Thanks Giving speeches, and the Technical Snap Shot of the conference respectively.

Day 2 (16/09) of the conference began with two Invited Talks on topics 'Professional Ethics and Managing Risk to Reputation' (Anthony Lobo, Tata Consultancy Services) and 'Information LifeCycle Management (Daman Dev Sood, Xansa). This was followed by 9 sessions of paper presentations.

Day 3 (17/09) of the conference started with presentations of the first, second and third prize winners of the MV Chauhan Student Paper Contest. This contest was run by the IEEE India Council on All India Basis. This was followed by 9 sessions of paper presentations.

In all 172 people attended the conference out of which 49 were IEEE members and 123 were non-members.

The conference concluded with the 'Convener's Experiences' shared by Daman Dev Sood, Convener of the Conference. He elaborated on certain best practices, lessons

learned, and improvements noted. Delhi Section handed the baton to Bangalore Section sharing all knowledge with them. IEEE Indicon 2007 is to be held by IEEE Bangalore Section. Mr. K Ramakrishna, Vice Chair of Bangalore Section then presented a view of the Bangalore city, IEEE Bangalore Section and made 'first call for papers' for the next year's conference.

Mr. R K Asthana gave vote of thanks and Mr. P V Ekande announced the former conclusion of the conference.

Background

The Indicon efforts started with three committees (Organising Committee, Technical Program Committee, Publication, Publicity and Public Relations Committee) meeting around 20 times over a period of over one year for the planning. The call for papers fetched 320 extended abstracts by authors from various industries, universities and institutions from India and abroad, like various IITs - Delhi, Guwahati, Roorkee, Kharagpur, Kanpur-, Tata Consultancy Services; Madras Institute of Technology; ICT Bangladesh; DRDO Hyderabad; Chetronix India Pvt. Ltd.; Biomedical Engineering College, Iran; Ferdowsi University, Iran; ISI Calcutta; Multimedia University, Melaka Campus, Malaysia; Aligarh Muslim University; Accenture Pvt. Ltd.; Columbia University, USA etc. These were reviewed by a panel constituting the Technical Program Committee, and 151 abstracts were approved for full paper submission. The conference received 134 full paper submissions and 100% pre-registration of the authors

These 134 papers were scheduled in 18 sessions over 2 days. The sessions were classified as Signal Processing, Networks, Communications, Applied Signal Processing, Information Technology, Security & Encryption, Speech Processing, Biomedical Applications, and Image Processing, Electronics.



Chief Guest with some of the Organising Committee Members

TECHNOLOGY SNIPPETS

Forensic Watermarks to Protect Videos

For video content makers, piracy is a perennial problem. Researchers are now working on a new watermarking scheme to deter people from illegally sharing videos.

Scientists at Cinea, a subsidiary of Dolby, are working on a system that embeds a unique digital signature called a forensic watermark into a video after it's downloaded, say, into a mobile phone. According to Roger Schumann, GM of Cinea and board member of the Digital Watermarking Alliance, the watermark contains bits of data, hidden from view, that allow content providers to trace a video back to the phone or device on which it was downloaded. The goals are to deter people from widely distributing a downloaded video and to have a method of finding individuals who illegally share video.

Currently, the popular way to deter illegal distribution of music and movies is through digital rights management technology (DRM), that uses instructions embedded in the files that limit their use. Embedding a forensic watermark is typically a computationally intense task. Pixels of the video need to be altered to create the watermark, and ideally, those alterations are invisible. Each scene must be analyzed to determine which pixels to alter. Cinea wants to create a system that can embed these watermarks using the limited processing power of devices such as mobile phones.

Cinea believes the solution lies in doing some of the computer processing before the video is downloaded. Then, when the video is sent to a mobile phone, Schumann says, the file contains a few extra kilobits of data that essentially point to the pixels that need to be changed in order to embed a watermark.

"It's conceptually easy," Schumann says, "but hard to do in practice." The researchers are trying to tweak the algorithm so that the watermarking data added to the file isn't excessive. "Bandwidth is precious," he says.

Securing forensic watermarks is still an active area of research. Perfecting the technology is still a few years away, with the first field tests for forensic watermarking on mobiles expected in 2007 / 2008. Within the next decade, technology is sure to change the way content providers protect their digital goods and the way people share and use them.

Tesla Roadster – Revolutionary Electric Car

At the beginning of the 20th century, electric cars were running neck and neck with fossil fuel cars, giving the impression that they may win over. However, along the way, the electric car trend lost its steam and almost died off. Once again, the attention has fallen on them, with many new initiatives seen in electric vehicle arena – both four and two wheelers around the world, including India.

Tesla Roadster is a new sensation in electric car field, the fully electric automobile to be produced by electric car firm Tesla Motors of US. Tesla claims prototypes have been able to accelerate from 0- 100 km/h in about 4 seconds, and reach a top speed of 210 km/h. On a single charge of its lithium ion batteries, the car will be able to travel 250 miles (400 km). While the Roadster does not actually use gasoline, an equivalent fuel efficiency of 135 mpg (57 km/l, or 1.75 l/100 km) is reported.

NEWS SNIPPETS

Solar-powered Catamaran

A team of Swiss people are on a mission to cross the Atlantic ocean with a solar boat. The ship, named "sun21," is about 14 m long and 6.5 m wide. It can accommodate 5 to 6 persons for the long journey across the Atlantic. A large deck roofed with photovoltaic modules has been installed between the hulls. The boat is equipped with solar modules, batteries and motors allowing a constant speed of 5–6 knots (10–12 km/h) 24 hours a day, equivalent to the average speed of sailing yachts. This solar-powered boat will achieve its 7,000 miles trip without spending a single gallon of fuel. The consortium behind project, Transatlantic 21, wants to show that time has come for solar boats because they can easily "convert photovoltaic energy into mobility".

After completing 7000 nautical miles, the \$556,000 sun21 is expected to arrive in New York at 6:00 pm on 8 May 2007.

Renewable Energy Initiatives

World over, only 1% of the power generated today comes from renewable sources including wind. But the future growth rates of renewables, led by wind power, are impressive, as per investment figures. Nearly 40% of the total annual investment in power generation is in wind and other renewable methods. Germany has around 16% power from wind and Denmark, 20%. US is planning to generate 20% from wind. Europe aims at 12% generation from renewables.

In 2005, worldwide 11,407 MW of wind generators were installed, bringing the cumulative wind power capacity to almost 60,000 MW. The Americas installed 2671 MW accounting for 23% of global installations. Other figures for 2005 are: Germany installed 1808 MW, Spain 1764 MW, UK 447 MW, India 1253 MW, and China, 498 MW.

Food for Thought

- Worry does not empty tomorrow of its sorrows, it empties today of its strength. -Corrie ten Boom
- When it comes to getting things done, we need fewer architects and more bricklayers. -Collen C. Barrett
- Work must come first, and then, if possible, wage commensurate with the amount of work done. To work in this spirit is to serve god. But if the wages are demanded first, then that would be serving the Mammon. -Mahathma Gandhi

Editorial Board

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