



Chairman's Message



Friends,

We, human beings, are endowed with immense capabilities. The systems engineered by us are nowhere near our body's sensory capabilities. For example, in speech understanding, the human abilities of deciphering speech in environments degraded due to reverberation, far exceed those of computers.

However, as we grow, we depend more on man-made gadgets, in preference over the innate capabilities within us. Often this leads us to a state of total dependence on such devices and lands us in helpless situations when they fail. A case in point is our going blank, if the cell phone in which we have stored all phone numbers 'securely', is lost or doesn't work. We would have already done away with the habit of keeping pocket diaries and also our ability to remember numbers may not be sharp due to lack of regular use.

Intuition, gut feeling and our conscience are other important attributes we enjoy as human beings and to take advantage of them, we have to tune up our skills continuously, to be in better control of situations, using the resources within us.

Back to IEEE scene, the second star-event of IEEE India Council, All India Students Congress 2007, was well attended and well conducted under the able leaders, Mr. Deepak Mathur and Dr. Anil Roy from Gujarat who did an excellent job against all odds, making AISC-2007 a memorable one. From India Council, Dr Kasi Rajagopal, Vice Chair, and Dr. P. Suresh Chander Pal, Vice-Chair, Student activity, through their participation in the AISC events, added value to it. kudos to all.

IEEE Reg.10 Director Ms.Janina Mazierska will be visiting India during 22 Jan and 10 Feb 2008, in connection with R10 Students meet at Chennai and R10 committee meet at Gujarat. Dr. Richard Goven, IEEE Foundation President, may also join. Four sections have already conveyed their readiness to receive them as per the itinerary drawn up by IC.

The Sep.'07 issue of 'The Institute' has reported the activities of various IEEE regions and it is a matter of pride that Indian student branches are leading the list among all regions - A healthy sign of IEEE movement picking up momentum among the younger generation!

IEEE President election is around the corner and also it is membership renewal time. All members are urged to act.

With best wishes to all

N.T. Nair

Trivandrum
01 October '07

Chairman, IEEE India Council
ntnair@ieee.org

CASCOM '07

Theme: Advances on Communication Systems and Circuits

Saturday, 24 November 2007. 9.45 am to 5 pm

Venue: Indian Institute of Chemical Engineers Auditorium,
JU Campus, Kolkata.

Program Outline :

Morning Session - Technical Session (Tutorials)
Afternoon Session - Students Professional Awareness
Conference (SPAC)

Registration : Participation on Pre-Registration Basis only;
100 participants only on first come first serve basis
Pre-Registration Cut-off: Friday, 16 Nov. 2007
Confirm Pre-registration to pvwn@ieee.org

State your name, affiliation and contact details quoting
'CASCOM 07. IEEE members mention membership.

For Further Details, Contact: Prof. D. Saha, IIMC
(ds@iimcal.ac.in); Chair, ComSoc Calcutta, Prof. R. Nandi, ETCE
- JU (robnon@ieee.org); Chair, CASS Calcutta Chapter

IEEE GLOBE 2007

IEEE Kerala Section

National Conference on GIS

26, 27 Oct 2007

Venue: Institution of Engineers Hall, Vellayambalam, Trivandrum

Topics Covered : Geographical Information Systems (GIS),
Global Positioning Systems (GPS), Impact of Mobile
Revolution , Navigation Systems, Remote Sensing,
Cartography, Geospatial Web, Mashups, Pushin Apps, Open
Source initiatives, Standards,
Application Case Studies

Speakers are from Microsoft, Google, Open GIS, ISRO, RMSI,
ESRI, IIT, C-DAC, CESS, NeST

How To Register

By web: www.ieee.org/kerala
By e-mail: ieeek@vsnl.com
By Phone: 0471-2473515
By Post: PB No. 77, Trivandrum-1

Dr V P Kulkarni Passes Away

With profound grief, we report the sad demise on 19
Sep.'07 of Dr. V P Kulkarni, former Chairman of IEEE Kerala
Section. He was formerly with VSSC, Trivandrum and also
was Director of ER & DC, Trivandrum.

From India Council Secretary



The All India Student Congress (AISC) recently concluded in Gandhinagar, Gujarat has been a major success. Congratulations to the Gujarat Section. With this, the two major national level activities of IEEE, viz. INDICON and AISC, for 2007 have been successfully completed. As we approach the close of the year,

section-level conferences are being organised by various sections. The annual symposium for the Bangalore section coincided with the INDICON and that for the Kerala Section is scheduled for 26-27 Oct. Information about the annual seminars at other sections is currently not available with the India Council.

I would request all sections to use the India Council Newsletter for publicizing their annual events. This will not only help create wider publicity, but also provide an opportunity for others to learn about the activities organised by IEEE volunteers elsewhere in the country. Needless to say, this should be followed up as post-event reporting.

IEEE student members have emerged as the most important constituent of IEEE activities in recent years. Mr.H Kalyanasundaram and Mr. Anthony Lobo of Bombay Section have recently completed a comprehensive compilation of all the student branches in the country. Mr. HK will shortly be sending copies to all sections. The next challenge is updating this roster on a regular basis. Sections should, if they are not already doing it, maintain the details of the student branches with them, on their website, alongwith the names of office bearers and their contacts. This is essential for promoting national level interaction and networking.

Finally, as we approach the new year, we are looking forward to two R10-level events in India. The R10 student congress will be held in Chennai during 2008 Jan 28-30 and the R10 conference will be held in Gujarat during 2008 Feb 2-3 . The R10 Director Ms. Janina Mazierska will be visiting India and all the sections during this period. Let us look forward to a fruitful visit by the R10 director.

Cheers!

K G Satheesh Kumar

Secretary, India Council, IEEE

Congratulations

Sivaji Chakravorti !

The Indian National Academy of Engineering has elected Sivaji Chakravorti (SM 00244426) as a Fellow for the year 2008. Congrats Er. Sivaji for this recognition!

On Education

Senior Member IEEE, S. K. Soonee [Ph:+919899091115 e-mail: sksoonee@gmail.com] quotes IEEE Life Time Awardee Guru Charles Concordia from History and Reflections on the way things are (IEEE Power Engineering Review, January 1999) as follows:

"It has been said that a successful democracy depends on an informed citizenry. Thus, the state should have the responsibility of providing enough education to ensure the literacy and basic knowledge of history and politics and economics, and a spirit of consideration and discipline, to all those who aspire to become voting citizens..."

...The important principle is that everybody, rich as well as poor, brilliant as well as stupid, healthy as well as handicapped, should have equal opportunity provided by the State. In our zeal to aid those we regard as unfortunate, we should not neglect those who are the resources to the future"

"In a response to the question as to how much of their college education they themselves paid for, many graduates have answered 100 percent. This shows a basic lack of understanding that might even be regarded as shocking. It indicates an acceptance of subsidies as a legitimate way of life in the future"

"Several years ago, some educators discovered something that most other people already knew, namely that one learned most rapidly the things in which one was interested. This led them to the conclusion that students should be taught those things in which they were interested, and that much effort should be made to arouse interest. But this misses the point that one of the most important and useful assets that we can have is the ability and the will to be able to study diligently subjects in which we are not interested. Even learning by rote should not be so utterly despised ..."

Technology Snippets

New Hearing Mechanism

Researchers at MIT have discovered a hearing mechanism that fundamentally challenges our understanding of inner ear function. This new mechanism could help explain the ear's remarkable ability to sense and discriminate sounds. Its discovery could eventually lead to improved systems for restoring hearing.

The scientists found that the tectorial membrane, a gelatinous structure inside the cochlea of the ear, is much more important to hearing than previously thought.

For over fifty years, it is known that inside the cochlea, sound waves are translated into up-and-down waves that travel along a structure called the basilar membrane. But the team has now found that a different kind of wave, a traveling wave that moves from side to side, can also carry sound energy. This wave moves along the tectorial membrane, which is situated directly above the

(contd. to page 3...)

(from page 2....)

sensory hair cells that transmit sounds to the brain. This second wave mechanism is poised to play a crucial role in delivering sound signals to these hair cells.

In brief, the ear can mechanically translate sounds into two different kinds of wave motion at once. These waves can interact to excite the hair cells and enhance their sensitivity, may be an explanation for ability to hear whispers.

[Source: Science Daily]

Touch-sensitive backpanel

US researchers are developing a touch-sensitive gadget with the sensing panel on its back, instead of the screen. Using our fingers behind the device allows a firmer grip and more accurate performance without obscuring our view of the screen.

Multi-touch interface technology of Apple's iPhone is said to be having its own problems, like the hand when put on the touch sensitive display, obstructs the screen. The new technology will solve this problem.

e-Waste Handling in India

A challenging problem awaiting scientific solution

India is grappling with yet another waste management problem - handling of e-wastes! In Delhi alone, 10,000-20,000 tons of e-wastes are handled per year. Computers form 25% of them. In Mayapuri, Delhi, the E-waste scrap yard employs around 10,000 workers. In other such yards in Delhi, another 15,000 more work. There are similar scrap yards in Mumbai, Bangalore, Chennai, Ferozabad and Meerut too. Many other cities have not yet grappled with this problem. 2002 Basel Action Network Report states that "it

is a messy business that leaves poor people of the world with an untenable choice between poverty and poison". We extract electrical conductors like Gold and Platinum from microchips and mother boards, copper from connecting wires and internal circuitry and lead from circuit boards. For this, computer parts are broken apart by hand, dipped in acid baths to leach out precious metals. The unwanted stuff may contain toxins like Lead, Cadmium and Mercury and may be dumped in open land fills. Spent acid is also let off uncared for, and all these toxins find their way to water bodies. A scaring scenario! Apart from that the noxious fumes coming from burning of plastic coverings and parts are also very dangerous to the unsuspecting population living around. - Adapted from Down to Earth, Sept 30, 2007.

More from Less of Corn Stalk

Says, researchers at Purdue University: Pre-treating corn plant issue with hot water - an accepted practice that yields 3 to 4 times more ethanol - is due to exposing minute pores of the plant's cell walls to help them breakdown an this insight may help evolve a method for large scale production of ethanol from plant matter. Ethanol from corn is already under attack on the grounds that the cultivation needs large quantities of water and use of fertilizers and pesticides are polluting the soil and water around. Adapted from Biotechnology and Bioengineering, 26 April 07 Issue.

Traffic fumes endanger lungs of school children

Keck School of Medicine at the University of Southern California carried out a study on 3677 children of 10 year age and found out that the local traffic fumes are affecting their lung function seriously and irreversibly. The impact of this pollution is far reaching - in general health, sports and in all fields! This is reported in Lancet Vol. 369, says Down to Earth April 30, 2007.

2008 Joint International Conference on Power System Technology (POWERCON) and IEEE Power India Conference

(<http://ewh.ieee.org/r10/delhi/powercon.htm>)

An update

Due to overwhelming response received / continuing to be received along with queries too, please note the following points. Your best of cooperation is solicited.

1. Till now up to 60 (sixty) abstracts have been given identifier numbers and communicated to the corresponding author (and co-authors in some cases).
2. More than 150 (one hundred and fifty) are waiting in the mail box. Quite a good number are also under the web-based submission. For this the help of Conference & Incentives Management (I) Pvt. Ltd., our Professional Conference Associate, has been sought. Do not bother even if you haven't obtained the login and password for the conference. If you are not confident of the web-submission, alternatively you may send abstract as attachment to e-mail to be sent to my functional alias.
3. First identifier to the lot that arrived as attachment to e-mail is given and then the web-based ones (some of which of course may be duplicate submission).
4. If you do not get acknowledgement till 10-Oct-2007, then only you need send queries. 15-Oct-2007 is the REVISED DEADLINE FOR SUBMISSION OF ABSTRACT and 31-Oct-2007 for responding.

Dr. Subrata Mukhopadhyay, General Chair, Tel: +91-11-23383778 (H), Telefax: +91-11-26170541 (W), e-mail: pesrapp@ieee.org

We are what we repeatedly do. Excellence, then, is not an act, but a habit - Aristotle

Readers Write

Tax breaks denied

Er. S C Bhargava, Past Chair (1991 & 1992) IEEE Hyderabad Section is bringing to the notice of our members, an anomaly which he had pointed out way back in 1999 itself on Income Tax relief denied to professionals who are members of professional societies such as IE(I), IETE, CSI and IEEE to name a few.

Previously expenses on participation in activities such as Seminars and membership fees could be deducted from the taxable income. But, now this is merged with the standard deduction and this practice is a disincentive to those who spend on knowledge acquisition, which ultimately will benefit the nation.

Bhargava urges that all professional bodies in India should join hands and take up the matter with the Finance Minister and CBDT to bring some tangible benefit to their members. Perhaps India Council can take the lead and coordinate, including through the Eng. Council of India etc.

A Blog for EEs

Mr. Nagraj Rao, as a practicing electrical engineer has interacted with a number of colleagues who, during the course of commissioning, testing and servicing of electrical systems, encountered some interesting instances. On finding that no such website is around for a person to look for to learn from, Rao toyed with this idea and created a website/blog, where everyone could post such instances as anecdotes. This could be useful for all professionals.

<http://electricalanecdotes.blogspot.com>

This blog is meant to be by the electrical engineers, for the electrical engineers and of the electrical engineers !

Readers of IEEE India info are welcome to post their experiences! Suggestions are also welcome.

Nagraj Rao, Group Director (Energy), Foundation for Clean Energy and Environment, 2nd Floor, R&D Block, R. V. College of Engineering, Bangalore -560 059, Tel:080-28601089, e-mail : nagrajrao@ieee.org

Editorial

A time to meet and re-charge!



The last quarter of the year and the first two months of the next, are generally months for congregation. Scientific and Technical Seminars are around everywhere on topics and topics! IEEE also has its share of contribution to educate its members on what is current and relevant. The participants feel a sort of well being at work, having recharged well with the up-to-date. With around 35 Professional Societies under the Institute, tutorials and seminars directly catering to

ones own specialty or work niche are available for the members to choose. More than the knowledge content, it gives us an opportunity to place our contributions to the society in the vast canvas of technical progress and helps us to informally interact with professionals from other regions. This makes us proud when we know that what has been done by us or our group is timely and is around the best; and also gives us feeling an urge to get back and pursue an urgent course of action to catch up with the rest of the world, when we are wanting.

This is Progress!

Much of today's modern society and progress is as a result of continuous efforts from those who have worked hard, thought deeper and relayed knowledge, enriching it during the very short while when it was his turn or his time. Let us also make use of the opportunities to meet and discuss what we need to absorb and to give, the events of the like are notified through the pages of this Info every month.

Get you re-charged!!

Regards,

Trivandrum
01 October 2007

V. K. Damodaran, Editor
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Editorial Board

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