



### Chairman's Message



Dear Fellow Members,

Internet and World Wide Web are excellent knowledge repositories. Starting from its earliest form, Web 1.0, we are now in Web 2.0, which is more participatory, interactive, and user-friendly. Many, including some professionals, now carry an impression that Internet is more than enough to meet their knowledge needs. If this is totally true, there need not be libraries,

seminars, training sessions, class rooms, professional societies etc. It would appear that doctoral thesis could be done sitting in front of the monitor, without stirring out to libraries in search of in-depth knowledge; engineers and managers could all update their knowledge, depending solely on the Net. But, there is something beyond the peripheral knowledge freely provided in the Internet - the knowledge available only from association with professional societies like IEEE. Sharing of rich experiences in first person with its added advantages, fostering human relationships, mastering new professional skills emerging from time to time and a host of other possibilities are the benefits we get by being active volunteers in IEEE. In fact, professional societies, libraries, text books, journals and of course, Internet will have to co-exist, as each one has its definitive role in refining professionals and keeping them in touch with the latest.

The office bearers of IEEE Sections and members have now more responsible roles to play, in enhancing the 'value for membership in IEEE'. In this era, when ethical practices among professionals are in question, IEEE can re-emphasise through its 'Code of Ethics' how members could be more responsible to the society.

On the IEEE organisation front, we are happy and proud to announce the induction of Mr. Gopal Balakrishnan, Sardar Patel College of Engineering, Mumbai, as the Region 10 Student Representative. Congratulations, Gopal!

Two veteran IEEE Members, Mr. H. Kalayanasundaram and Mr. R. Muralidharan have graciously agreed to serve as 'Special Invitees' in IEEE India Council, to give the benefit of their immense wisdom in IEEE matters. We are thankful to them for their kind gesture.

We hope, office bearers for 2007 are in position in all Sections by this time. Let us now fill the days with vibrant and pathbreaking professional activities, to add value to our members.

**N.T. Nair**

01 Feb.'07  
Trivandrum

Chairman, IEEE India Council  
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### Empowering the Branch Counselors

A New Activity on the Horizon:  
**Branch Counselor's Congress**

Call for proposals. Deadline: 20 March 2007

#### Objectives:

To empower and motivate the Branch counselors who are the vital link between the changing student leadership of a branch.

#### Activity:

1. **Branch Counselor's Congress:** at section level & council level, one per year with all/partial expenses paid by R10.
2. **More outstanding Branch Counselor awards:** 3 new awards for Region 10 (The same format as the RAB award, deadline 30 May 2007 to be submitted to [mini@ieee.org](mailto:mini@ieee.org) )

#### Motivating the Branch Counselor:

1. Make the counselor aware of the possibilities in front of them
2. Make a Manual of Activities that can be planned (Technical, Professional, Social etc) for the branch
3. The importance of the branch counselor during the infancy of the student branch
4. Financial management of the branch
5. Liaison with the local section
6. Fund raising tips
7. Conduct of effective meetings
8. Resolving a crisis, election process of the branch
9. Calendar of events for the student branch
10. Awards and Recognition for the branches, students & counselors

The SAC committee of R10 is formulating the following new projects to empower the Branch Counselor: The branch counselor should feel that he/she is taken care by IEEE.

- **Branch Counselor's Congress:** at section level & council level - one per year with all/partial expenses paid by R10.

Two pilot projects are envisaged for accomplishing this task.

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### Editorial Board

Prof. V.K. Damodaran	Editor
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Visit

[http:// www.ewh.ieee.org/r10/india\\_council](http://www.ewh.ieee.org/r10/india_council)

**To me the very essence of education is concentration of the mind, not the collecting of facts.**

**- Vivekananda**

## From India Council Secretary



Dear IEEE Member,

One month down the new IEEE year, I hope you are already warming up to planning the activities for 2007.

At the India council, we are toying with a new idea of creating expert groups on various topics. These expert groups will tap the power of the internet to bring together IEEE members interested in specific areas for online interactions. The idea is still in a

very preliminary stage. We look forward to the valuable views of members in this regard.

As mentioned in the last edition of the newsletter, the purpose of this column is to provide IEEE-related information to the members. Let me emphasise that all this information is available at [www.ieee.org](http://www.ieee.org) and I have a limited goal of creating an appetite.

Last time we had a look at membership elevation at IEEE. This edition is to introduce to the members, the IEEE service called IEEE Xplore.

IEEE Xplore is a digital library providing full text access to the world's highest quality technical literature in electrical engineering, computer science, and electronics. IEEE Xplore contains full text documents from IEEE journals, transactions, magazines, letters, conference proceedings, standards, and IET (Institution of Engineering and Technology) publications.

The content available in IEEE Xplore includes those from IEEE journals, transactions, letters, and magazines, IEEE conference proceedings, IEEE standards, IET (formerly IEE) journals, letters, and magazines and IET conference proceedings, all from 1988; IEEE educational courses from 2006 and IEEE books from 1974.

IEEE Xplore also includes ancillary material from the printed publication such as letters to the editor, editorial boards, and calls for papers.

To access IEEE Xplore, click on <http://www.ieee.org/ieeexplore> or <http://www.ieeexplore.ieee.org>. You will find this link near the top right corner of [www.ieee.org](http://www.ieee.org).

IEEE members can use their web account for logging in. If you do not have a web account yet, it can be created in less than 10 minutes.

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The IEEE Article Purchase service allows you to purchase full text PDF documents from IEEE and IET periodicals and conference proceedings directly from IEEE Xplore.

Full text HTML is available for IEEE Spectrum Magazine and Proceedings of the IEEE articles beginning with January 2002 issues.

IEEE Xplore also allows users to sign-up for receiving email alerts. This is a helpful feature to know about the updates. For instance, IEEE Xplore

## New Senior Members

*Congrats!*

During the last A & A Review Meeting held at Newark, NJ on 20th January 2007, 335 members have been elevated to Senior Members. Out of this 51 are from Region 10 including 10 from India.

IEEE India Council extends Congratulations to the following new Senior Members:

Kumar Pamela	Bangalore Section
Kulkarni Ganesh	Bombay
Kumar Satish	Delhi
Apparao Allam	Hyderabad
G. Muraleedharan	Kerala
Kollarayam Aju Thomas	Kerala
Atmanand M.	Madras
Narasimhalu G.	Madras
Shreni U. C.	Madras
Kumar Satish	U. P.

## Think it Over

We need to distinguish between data, information, knowledge and wisdom. Data are undigested observations. Information is organised data by others. Knowledge is information put to use in my mind and tested in practice. Wisdom is integrated knowledge.

-Herlon Cleveland

I long to accomplish a great and noble task but it is my chief duty to accomplish humble tasks as though they were great and noble. The world is moved along, not only by the aggregate of the tiny pushes of each honest worker.

-Helen Keller

posted new content in 298 publications in the latest update on 05 February 2007. This covers journals and magazines, conference proceedings and standards.

A tutorial is also available online for download in pdf format. It talks about the different features, tools, benefits and tips related to the use of IEEE Xplore.

If you have not yet tried IEEE Xplore, start accessing it right away at [www.ieee.org/ieeexplore](http://www.ieee.org/ieeexplore)

Cheers!

**K G Satheesh Kumar**  
Secretary, India Council, IEEE

**"We, the members of the IEEE... do hereby... agree to reject bribery in all its form" - IEEE Code of Ethics**

## Branch Counselors contd.....

### a. Pilot project for Sections

Sections with 10 or more student branches can apply for this project. Two or three sections can jointly host the congress as well. The proposal is to hold one/two day long meetings of the branch counselors of the new and sick branches once every year and the branch counselors of the active student branches will be invited to share their experiences.

#### Expected outcome:

- A **manual for activities, dos & don'ts** will be developed with the interaction between the branch counselors and student leaders in this meeting
- Branch counselors of **new and sick branches will be motivated** to do well and develop/revamp the branches to become more active in every way. They will be apprised of the 10 responsibilities as listed in motivating the branch counselor.
- Branch counselors will take more interest in the activities of the branch and learn from others who are successful as branch counselors
- **IEEE alumni group in each student branch will be formulated and activated within one year**, which will enhance membership retention and many other activities.

### b. Pilot project for IEEE Councils:

Participation: 30 branch counselors from all over the IEEE council. 3-5 branch counselors from each section. Preferably, 3 branch counselors from each section, one counselor from a new branch, one from a very active branch and one from a sick branch.

**Expected outcome:** Same as above, however, this will give a broader spectrum to the Manuals as suggestions from all over the council will come

The proposal should include

1. Congress Theme
2. Reasons for Application
3. Desired Objectives, other than stated in this announcement
4. Proposed Venue & Dates (before Oct. 31, 2007)
5. Proposed Budget for Branch counselors' congress (the Branch may be charged a very small amount to make sure of adequate participation, otherwise no need for charging any registration amount. The R10 support to the section level event would be limited to US\$ 1000 and the council level event will be limited to US\$ 2000 only. The rest of the budget projection, if any, has to be raised through sponsorship and support by local section/chapter/student branches). The budget should include the travel allowance to Branch counselors, food and stay, if any, and other operational expenses.
6. Others, if any

All the proposals should be submitted by email to

1. **Dr. Mini S. Thomas, R10 Student Activities Coordinator [mini@ieee.org](mailto:mini@ieee.org) positively by 20 March 2007. The most innovative proposals will be selected.**

## Student Branches Steal the Show!

H Kalyanasundaram, veteran IEEEian of India Council writes with enviable pride:

Agreeably surprising and pleasant events are happening in membership strength of Student Branches. There are new faces challenging the old and Madras branches are now in the top. I am still awaiting the correct final picture of Top Branches from the Student Services, but in the meantime, I would like to share with you the data I have.

On 2007 Jan 1, I mailed to Dr. Suresh, the IC SAC, a "Summary Status Report of Student Branches as of Dec 1, 2006", mentioning therein that the Branch at Intl. Inst of Infotech, Pune, with a strength of 438 is in the lead, followed by Velammal of Madras with 429, Crescent Engg also of Madras with 342 & Thadomal of Bombay with 320 students and with the additions of 281 students in Dec.06, ISQIT will reach 719 ahead of Georgia Institute with 687 and claim world leadership. Further developments show that I have been miserably wrong in my assessment. In ISQIT, a number of students graduated in December and moved to higher grades and hence lost the lead; also the Dec. additions seems to have reached late for 2006 reckoning.

Crescent Engg has not been keeping quiet. They reached 694 on 31 Dec. and if Georgia Institute has not added to their 687 in Dec, Crescent will be the world leaders. (I can confirm this only after hearing from Piscataway). It is real great that Crescent which I and Sasi helped establish in Dec. 1987, with an annual intake of 450 students in IEEE disciplines, has been consistently having good strength over the years, and under the guidance of Counselor Dr. Ponnaivaikko, the present Chair of Madras, gathered momentum in strength - in 1998 they were 392, ranked #3 in strength in the world; 1999 - 578 ranked #4, and Year 2000 saw them at top of the world with 789; 2001 with 519 ranked #4, back in 2004 with 433 at the 4<sup>th</sup> place and now with 694, hopefully #1 in the world. What a great achievement!

Next to Crescent, we have Maharashtra Academy of Engg., Pune, a 2003 estd. Institution with 456 students at #2 place in R 10.

As of 31 Dec. 2006, the 3<sup>rd</sup>. place goes to the 1998 estd. Velammal Engg College, Branch, with an annual intake of 420 students in IEEE disciplines. This Branch had a modest existence. In the last 5 years ending in Dec 31, 2005 they had 26, 34, 48, 27 & 24 students in rolls but in 2006, they made a massive enrolment program - had 430 IEEE students in Feb. 2006 and kept this lead thru' 2006, ending with 429 as of 31-12-2006. In Jan. this year, they have excelled themselves and appear to have a fantastic 887 strength - more than their 2 year intake. If they maintain this lead thru' 2007, they have a chance of being world Leader in 2007. Incidentally, this Branch has been equally doing well in activities. Their "International Conference on Communication and Power Systems" reported full page in Jan. 2006 IEEE Info is a pointer.

We have other surprises. Sree Gajanan Maharaj College of Engg Branch of Shegaon, Bombay is #4 with 367 strength and then ISQIT with 323 as #5 and Thadomal Shahani of Bombay with 306 as #6, Korea Advanced - 302 #7 & Yonsei Univ.- 276 is #8, followed by SJCE, Mysore, with 261 as #9 and Manipal Inst. with 257 as #10. **It is of interest to note that in the Top 10 Branches, 8 are from India.**

Delhi Coll. of Engg (239); Kongu Engg (230), Pune Inst of Comp. Tech (202) and Wattumul Coll (200) also have over 200 strength.

2007 promises to be better. We have Velammal with a Benchmark of 887. We have in Jan 2007 Sri Sivasubramanya Nadar (284); MMM Engg, Gorakpur (236); Chengannur college (223) and NIT (REC) Karnataka (204) - four of them all with over 200 students.

**When whales fight, shrimps are eaten - Korean Proverb**

## Technology News

### Digital Programmable Hearing Aid

India has a large population of hearing-deprived people, of the order of around some 30 million. A Digital Programmable Hearing Aid (DPHA) has been developed by Centre for Development of Advanced Computing (C-DAC) of Trivandrum, which is expected to give a relief to these hapless people on account of its low cost. It is designed to give stable amplification characteristics over a wide dynamic range. Unlike conventional hearing aids which are analogue in technology, DPHAs can be tailored to improve clarity of speech, reduce background noise, and help control unwanted loudness. The design has all the advantages such as reprogrammability, stability, and fidelity, but at a lower cost of ownership. CDAC's DPHA-1 features a digital volume control to eliminate the crackling –noise characteristic of conventional hearing aids and incorporates frequency-dependent filtering to match its output to the audiogram of the user.

"Currently no other manufacturer in India offers a DPHA in the body-worn format," according to R. Ravindrakumar, Project Head at CDAC. According to Biju C. Oommen, deputy head of the project, DPHA-1 is a multidisciplinary effort that makes use of diverse electromagnetic design technologies and is implemented using CMOS-ASIC.

DPHA meets standards like ANSI S 3.22 and IEC 60118 and is expected to be sold at an affordable price of around Rs. 900.

[Source: EDN ASIA, January 2007]

### Removing Poisonous Lead Paint

Once widely used in housing, lead based paints are now in the list of banned items in many countries on account of their health hazards. A new paint remover that combines the principles of a vacuum cleaner and a pulsed lamp shows promise as a much-needed new technology for removing dangerous lead-based paint from older housing. Developed by Raymond B. Schaefer and team from Massachusetts, it uses a modified xenon arc lamp which produces a highly localized, high-energy flash of a duration and intensity that has been tuned for effective paint removal.

## Editorial

### Professionals Must Measure!



Civil Engineers are very familiar with the M-Book for recording measurements related to field works. But, I speak of something different. The professional sphere is currently a highly challenging environment. The scientific background and professional acumen acquired from the Colleges and Universities soon become outdated in the face of the fast changing technologies. Students have been keenly observing this obsolescence phenomenon affecting their professional prowess, and are trying to bridge the gap through what can be called 'current learning'. However, engineers by and large have been a little insensitive to the need for updating professional knowledge. They tend to believe that their experience can substitute for expertise. While vice versa is also untrue for success in work, getting to know of newer developments is a must these days.

Though, professional societies such as IEEE, Computer Society and the like have been very selective and active in organizing professional lectures, tutorials, and training programs on the much needed current topics in our field, the participation in them of our members have been miniscule in proportion to our membership strength.

While, even with such a low level of participation, we Indian professionals have been well respected in all the countries of the world – developed nations included. The members under IEEE and other professional societies have been only a small percentage of the technical manpower that we have, and the fact remains that the majority who form the rest are to participate in professional activities as part of their career, with much more knowledge than they now command. This is where, I think, Professionals must Measure up to the needs from the society or needs of the time.

This can probably best be done through extended tutorial and professional study activities that can be organized by our Sections in even smaller towns under their reach – not definitely limited to the bigger cities where our Sections are stationed.

It is a challenge, worth facing.

Trivandrum  
2007 Feb. 01

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