IEEE India Bulletin Vol. 11 No. 8 August 2001

INDEX

Features

CHAIRMAN'S MESSAGE

Dear Fellow Members

My predecessor, Dr. A.K.Aggarwal had last year constituted the Ethics Committee of India Council with Mr. Quraish Bakir (Mumbai) as Chairman and Kasi Rajagopalan (Bangalore), S. Gopakumar (Kerala) and R.K. Vir (Delhi) as Members. The formation of this committee was considered necessary because it was perhaps felt that certain actions at some places were not found conducive to IEEE Code of Ethics. In my view it is very important that all of us in IEEE should strictly adhere to the IEEE Code of Practice which is given to every member along with the membership renewal. However, if anybody observes that somewhere this code is being violated, it will be his/her responsibility to refer the matter to the Ethics Committee which will look into it and suggest remedial measures.

Though in Indian Sections as a whole the growth of IEEE membership has been tremendous, perhaps highest in the world and all the Sections deserve to be congratulated, the percentage of Senior Members is falling way behind in comparison to other countries. Mr. H. Kalyanasundaram, our Ombudsman and ever active volunteer, has carried out an analysis being published in this issue, how this percentage is falling continuously. You are aware that IEEE Headquarter gives cash incentive for up-gradation from Member to Senior Member and the subscription charges are the same for both these categories. Thus our experienced members by just filling some forms and getting three references can upgrade themselves to Senior Member grade without incurring any financial implications. I think this is one thing which can easily be done by our members and avail the opportunity of cash incentive. Mr. H. Kalyansundaram has given the qualifying requirements in his analysis.

Since last couple of years, the India Council has been laying stress on technical activities at places other than the section headquarter. This is necessary to spread IEEE activities to more areas which would also result in membership growth. But on this front, we could not so far progress much. India Council will provide financial support to the sections who organise such activities.

With best wishes,

Sincerely yours,

New Delhi   **P. K. Srivastava**
01August, 2001.   Chairman

E-mail : pksri@ieee.org

Go to TOP

EMBESY 2001

Conference on
Embedded Systems
Organised by
IEEE Kerala Section
Venue:
Technopark, Trivandrum
Date:
Saturday, 18th August 2001

Registration fee:

IEEE members - Rs 750
Non - members - Rs 1000
IEE student members - Rs 250
Other studentss - Rs 400

Payments to be made through local cheque / DD drawn in favour of 'IEE - EMBESY 2001' payable at Trivandrum

For on-line registration and conference updates, visit website:
www.ewh.ieee.org/r10/kerala

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Circle of Anger

Circle of Anger 'He alone can be said to have conquered anger, who is not angry even when there is a cause for anger. Conquest of anger does not mean that, while it is not outwardly manifest, the heart is full of it. Deliberately casting out anger, root and branch, constitutes real conquest'

Mahatma Gandhi

Go to TOP

IEEE ACE 2001

27th Annual Convention and Exhibition of IEEE India Council

CONVERGENCE

Semiconductors, Power, Information Technology, Communications and Entertainment
1 - 3 November 2001, New Delhi
Venue :
INDIA HABITAT CENTRE, New Delhi - 110 003

Industry Exhibition, Invited Talks and Panel Discussions

A three-day Industry Exhibition and Expo is also planned along with the Conference, besides Invited Talks from Industry, Seminars and Panel Discussions on themes related to SPICE Convergence. The Fees for display of Exhibits/Ideas/Products is Rs. 25,000 for three days. For participation and details please contact Mr. P.K. Srivastava at 91-4552570, (pks@ieee.org) or Mr. Harish Tejwani at 91-7221116, (htejwani@ieee.org).

ACE-2001 Sponsors

GOLD Sponsor Rs. 75,000 5 Full Complimentary Registrations, (or 2500 USD) Complimentary Exhibition Space along with due publicity at the Conference Venue.

SILVER Sponsor Rs. 50,000 3 Full Complimentary Registrations, Compli. (or 1500 USD) Exhibition Space along with due publicity at the Conference

BRONZE Sponsor Rs. 25,000 3 Full Complimentary Registrations along (or 750 USD) with due publicity at the Conference

Participation Fees

Category	Tutorial (Rs)	Overseas (USD)	Convention (Rs)	Overseas (USD)
IEEE Member	500	25	2000	65
Non Member	1000	50	3000	80
IEEE Student Member	Complimentary	10	500	15
Other students	250	15	1000	30

Cheques (in case of Delhi sponsors& delegates) and Demand Drafts (in case of sponsors & delegates from outside Delhi) should be in favour of "ACE-200" payable at Delhi.

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URL: http:// www.ewh.ieee.org/r10/delhi

Technology in brief

Recycling of Booster Rockets

A Russian company is planning to launch rocket boosters called Baikal, that can come back to earth on extendable wings so that they would then be ready for reuse. Unlike conventional boosters, Baikal won't simply fall to earth after fulfilling its purpose. After taking its payload to the destination, the booster will detach and deploy a pair of small wings to help it glide back through the earth's atmosphere. A rocket engine and on-board navigation system will allow Baikal to home in on the base.

Recycling boosters are expected to give a saving of 30% on the cost of a launch. The company hopes to conduct the first launch of the booster by 2004.

(Courtesy: Businessworld).

Prof. V.K. Damodaran invited to work in China

Prof. V.K. Damodaran, Executive Vice-Chairman of IEEE India Council, former Editor & currently a member of the Editorial Board of IEEE India Bulletin, has been invited to work as the Managing Director of the UNIDO-sponsored International Network on Small Hydro Power (IN-SHP) based in Hangzhou, China for a period of 2 years. He has relinquished his role as Director & Ex-officio Secretary to Govt., Energy Management Centre, Kerala on 30-6-'01 and is joining the new position on 1st August 01.

We hope that he would be our ambassador to the Beijing Section of IEEE and would consider briefing us on Electrical and Electronics Engineering activities in China.

IEEE India Council wish Prof. Damodaran all success in his new international assignment.

Membership Matters

LET US HAVE MORE SENIOR MEMBERS
(Contd from July issue)

Senior Membership reflects superior technical competence of the membership and projects the professionalism of its members to the Industry and public. Recognizing member accomplishments with SM grade encourages more young people to pursue electrical and computer engineering and science education and careers as personal rewarding.

Qualifications for IEEE Senior Member Grade

IEEE Bylaw 105.3 - Senior Member- reads:

"The grade of Senior Member is the highest for which application may be made and shall require experience reflecting professional maturity. For admission or transfer to

the grade of Senior Member, a candidate shall be an Engineer, scientist, educator, technical executive or originator in IEEE designated fields.

The candidate shall have been in professional practice for at least 10 years and shall have shown significant performance over a period of at least five of those years, such performance including one or more of the following:

(a) Substantial engineering responsibility or achievement, or

(b) Publication of Engineering or scientific papers, books or inventions, or

(c) Technical direction or management of important scientific or engineering work with evidence of accomplishment, or

(d) Recognized contributions to the welfare of the scientific or engineering profession, or

(e) Development or furtherance of important scientific or engineering course in a 'recognized educational program," or

(f) Contributions equivalent to those of (a) to (e) above in areas such as technical editing, patent prosecution or patent law, provided these contributions serve to advance progress substantially in IEEE designated fields"

Interpretations:

"Shall have shown significant performance" :

Necessary for the Senior Member grade, means performance significantly above the average or median of the profession. Such performance requires engineering or scientific papers, books or inventions, more than usual success in directing important work, or recognized contributions well above that normally expected of the average competent engineer or scientist.

Longevity alone does not qualify one for Senior Member grade.

"Shall have shown significant performance over at least five of those years":

Excludes the individual with but a few short intervals of truly professional engineering or scientific work, or with only a single successful item or two to his/her credit. The candidate's record should show the spread, over at least five years, of one or more of the items listed under section 105.3 (a) to (f).

"Technical executive" and "technical direction":

Excludes executives whose functions and abilities are primarily administrative without technical competence. Training in engineering, if not practiced beyond the undergraduate or graduate school, usually is not sufficient qualification.

" With evidence of accomplishment":

Means more than routine performance by the candidate. The work must have achieved commendable accomplishment and there should be some evidence of this and of the candidate's contribution in the candidate's record.

"Recognized contributions to the welfare of the scientific or engineering profession":

More than routine IEEE committee work or contributions. The record must show something creative, a worthwhile new idea, approach, process, organization, etc., was introduced by the candidate.

"Important scientific or engineering courses" :

Important scientific or engineering courses" : The emphasis is on "important" and on the plural, "courses". Minor revision of a single specialized course, no matter how

important the subject, may not be sufficient to qualify. However, introduction of an important new course of study or major revision of an established important course in conjunction with related changes in other courses may be considered to qualify.

"In professional practice for at least ten years":

Anyone 10 years in the profession (not 10 years of IEEE membership)
Years may also be credited for Degrees received in IEEE designated fields.

- BE/BS/ B Tech. Degree: 3 years credit for professional experience. o
- BE/ BS/ B Tech.+ Masters: 4 years credit for professional experience o
- Ph.D: 5 years total credit for professional experience.

For any further information , please contact your Section Chairman / Secretary or MDC Chairman.

H. Kalyanasundaram

Editorial Board

Er. N. T. Nair Editor
Prof. V. K. Damodaran Member
Er. J. Muraleemohan Lal Member

"We, the members of the IEEE … do hereby… agree to maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations"

- IEEE Code of Ethics

Go to TOP

News - Scan

Cost of Brain Drain

The United Nations Development Programme's (UNDP) Human Develop-ment Report 2001 estimates that India loses US$ 2 billion a year in resources because of the emigration of computer professionals to the US alone. The average total cost to India of educating each one of them was between US$ 15,000 to 20,000. But the report also noted that " diasporas" such as Indian computer professionals in Silicon Valley in the US, can enhance the country of origin's reputation.

Indian nationality for a software programmer sends a signal of quality just as a 'Made in Japan' label signals first-class consumer electronics, the report says.

VESIT, Bombay bags top honours in Website Contest

The IEEE Student Branch at Vivekanand Education Society's Institute of Technology (VESIT) in Bombay Section has again won the Region 10 IEEE Student Branch Website Contest. They will receive a prize for US $ 500 for this. VESIT has also been placed 3rd in the world-wide IEEE Student Branch Website Contest, and will receive another $ 500 plus a citation for this. Congratulations, VESIT! The website can be visited at http://www.vesit.edu/ieee

VESIT, Bombay wins AT&T Labs Student Enterprise Award

The IEEE Student Branch at VESIT is one of 8 branches world-wide to get the AT&T Labs Student Enterprise Award. The award of $ 850 will be used by VESIT's Student Branch to implement their proposal on "Young Engineers' Web Centre"

IIT Bombay receives Microsoft Innovation Award

The finals for Second Annual IEEE Computer Society's International Design Competition 2001 (CSIDC 2001) were held at Washington DC on the 24th and 25th of June. The goal of CSIDC is to advance excellence in education by having student teams design and implement computer-based solutions to real-world problems. This year's CSIDC was focused on Bluetooth wireless technology. The competition was conducted in two stages. In the first stage, seventy-five teams from world over were selected for participation and project kits were provided to design any useful and innovative products they could think of. In the second stage, ten of these teams were selected for the finals. Further, an Innovation award was started this year to promote new and original ideas, through support from Microsoft. The IIT Bombay team won the Innovation award.

An abstract of IIT Bombay's project:

Air passengers are required by law to switch off their mobile phones on board any flight. This requirement has been imposed due to two reasons. First, signals emitted by the mobile phone interfere with Air Traffic Control (ATC) signals, undermining the safety of the flight. Second, a mobile at such an altitude connects to multiple base stations simultaneously, clogging the resources of the ground network. The IIT-B team developed a novel solution based on the integration of diverse communication links: Bluetooth, Cellular Network (GSM/IS-95), PSTN and Air-to-ground connection. The solution enables the user to remain connected in-flight, while solving the above two critical issues. The switch over from the cellular network to the in-flight Bluetooth network does not require any user initiation or change of the mobile handset. Bluetooth, due to its low power, short range and fast frequency hopping presents negligible interference to ATC signals. The team implemented a Bluetooth enabled GSM phone, (on a laptop using a GSM modem and a Bluetooth kit), a Bluetooth Airplane Gateway and a Ground Switching Centre (using a phone modem for connecting to the PSTN) required to demonstrate the prototype. The automatic set up of various communication hops, call routing and transmission of voice over these links has been demonstrated. The system provides a unique and useful service and is perceived to be highly beneficial to the society.

The IIT-Bombay team consisted of Aditya Dua, Aman Kansal, Arjunan R, Sumitra Ganesh, and Vivek Raghunathan. Their mentor was Prof. U.B Desai.

(Reported by: Prof. Juzer M. Vasi, IIT, Bombay)

'If the 20th century taught us anything, it is to be cautious about the word impossible'

-Charles Platt

Go to TOP

This issue is sponsored by

IEEE BANGALORE SECTION

Organizational Arthritis

'Some organizations suffer from hardening of the arteries and stiffening of the joints. Some of these victims are still young when this creeping disease of organizational arthritis hits them. They gradually become rigid and inflexible. This disease is self-inflicted'

'It is not the hours you put in your work that counts, it's the work you put in the hours'

-Sam Swing

Go to TOP

EDITOR'S DESK

Convert adversity to opportunity

Engineers associate with professional societies primarily to keep abreast of the technological advancements taking place in their fields of activity. Obsolescence is the biggest threat facing every practicing engineer, especially in this era of globalisation, when new technologies percolate swiftly into every market in the new borderless environment. The continuing education programmes of professional societies assume greater significance in this context.

There is yet another important aspect warranting special attention of our members. We have to identify more and more with the society we live in, by passing on the benefit of our knowledge and expertise in engineering fields to solve societal problems. Our rural industries, enjoying protected markets in the pre-liberalization era, are now facing the threat from competitors around the globe. To remain cost effective and best in quality, they do require more technological inputs, especially from IT and related areas. IEEE members can play supportive roles here by suggesting solutions which may help our small and medium enterprises to stay afloat, braving the onslaught from competitors. IEEE Sections can be the catalysts in this process, working through the members to provide techno-logy support. We will then be meshing more with our societies, which is one of the aims of IEEE.

Trivandrum
01 August 2001

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Trivandrum Editor
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Go to TOP

Your feedback is important!

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Go to TOP

This electronic version of the IEEE India Bulletin is an adaptation of the official, printed newsletter. This adaptation has required some minor modifications and restructuring of the original text, to suit its viewing as a webpage.

Thank you for visiting this webpage.

Administrivia:

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