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.

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CHAIRMAN'S MESSAGE

BOMBAY SECTION : CREDITABLE ACHIEVEMENT

India Council is proud of the 1998 Section Membership Growth Award presented to the Bombay Section by IEEE Regional Activities Board. The voluntary Office bearers and the other Active Members have shown outstanding Leadership and Results in IEEE Membership Development Activities. On behalf of the entire IEEE family in India, I convey CONGRATULATIONS to the Bombay Section for having achieved this honour.

The Bombay Section in Feb.98 had a strength of 1084. In Feb.99, the membership surged forward to 2757. The growth of membership from 31 Dec.98 to 31 Dec.99 is 1474, which is 28% of the total growth in the entire Asia Pacific region. In fact 1998 has been a good year for India Council, as a whole. The growth of membership for IC has been as high as 65%.

SUSTAINING THE GROWTH RATE

To sustain this growth rate for a few years is possible provided all the members give a helping hand. It is because new members are brought into IEEE fold by existing members only.

NEED FOR IEEE MEMBERSHIP

IEEE is the world's largest professional society. In its fields of interest, its publications are the best on the earth.

Everyone today agrees that a nation can hope to provide a good standard of living for all its citizens only on the strength of high competence of its citizens. Whereas it is only the hardwork and intelligence of the whole nation that can push the country out of poverty into prosperity, the major contribution of competent engineers to create wealth for a nation is accepted by all.

Thus last year the Education Minister of China declared at an International Seminar in Beijing that within a decade, the quality of the engineering education in the Universities of China must compare favourably with that in the most developed countries of the world.

The developed world on the one hand has created excellent facilities for their young men to develop into top-notch engineers. On the other hand it attracts the meritorious young from the under-developed world so that their capability can also be translated into wealth for them.

If India is to develop under such adverse circumstances, the only way is to improve the quality of our engineering education to bring it to the highest levels. And it will have to make a provision
for Continuing Education of engineers so that the engineering community can be kept informed about state-of-the art in its field.

Membership of IEEE is one sure way for professionals in the field of Electrical & Electronics Engg. and Computer Applications & Engg. to acquire hard information at the frontiers of technology. Incomplete or out-of-date information is the way through which companies in the under-developed world lose profits, market-share and even the capability to survive. IEEE Office-bearers in India are trying to ensure that all the informational resources of IEEE are optimally utilized so that the members in India come to acquire as complete a picture of developments in their field as possible. The excellent publication and the technical programs are designed so that IEEE members become an invaluable resource for their organisations.

APPEAL TO ALL IEEE MEMBERS IN INDIA

Let us jointly decide that we shall sustain, or even exceed the high growth rate achieved in 1998. For this purpose I call upon each one of our members to try to enrol at least two new members in 1999.

By bringing your friends into IEEE, you will not only be strengthening IEEE in India, you will also be helping them acquire the powerful tool of IEEE Membership for keeping abreast of the development of technologies in their field of interest.

The information regarding IEEE and how to enrol as a Member can be obtained from the Membership Development Chair in every Section. It is also available on the India Council Website at http://www.ewh.ieee.org/r10/india-council P.S. The statistical data regarding membership has been obtained from Shri H. Kalyanasundaram, IC’s Ombudsman.

Ahmedabad Dr. A. K. Aggarwal
20 April 1999 Chairman

Go to TOP

To remember

TO REMEMBER

If you tell me ........ I may forget

If you show me ........ I may remember

If you involve me ........ I will remember.

(A Chinese proverb)

Go to TOP

Letter to the Editor

IEEE REGION 10 MEETINGS: A FEW REFLECTIONS

With the increasing number of sections in the Region and other general rising expenses of all kinds the overall expenditure on the Region 10 meetings has been escalating drastically. This should be a cause of major concern to all sincere, like-minded IEEE members in the Region and
they should do their level best to cut down this expenditure considerably, say by 50%. It is no use saying that since Regions 1 to 9 are happily going about it why should we bother about these expenses. Well, perhaps, they can afford the huge expenses, but can we justify it with the Region 10 comprising 50% sections from poor, developing countries. So, whilst attending Region 10 meetings has its own ‘charm’, it is now imperative to initiate all possible steps to come down heavily on the Region 10 meeting expenditure. There can be no doubt that a good proportion of this expenditure, if saved judiciously, can be put to better use to serve members of the Region by way of more visits of Distinguished Lecturers, for continuing education and improving communication facilities in sections.

The following points may be considered in all sincerity:

1. The meetings should be held once in two years only, i.e., once in two years, tenure of every Region 10 Director. Sections can follow by electing their chairmen for a term of two years by amending the bylaws, so that the section chairs’ terms run concurrently with the Director’s term and every chairman could attend a Region 10 meeting during his term.

(This important point, as well as a suggestion that the Section Chairs’ Congress presently held once in three years could be organised once in five years only to effect some appreciable economy in the global working of the IEEE, was brought to the notice of Mr. Wallace Reed, 1996 President of the IEEE when he visited Hyderabad Section in December 1996. His promised reaction on this important issue never received in the section).

2. Representation in the meetings should be based on members strength, say one delegate for 2000 members, unless there is only one section in a country. For example, from India, with an approximate membership of 8000, not more than four delegates should be participating, the delegates having been chosen based on suitable/appropriate criteria.

3. Most of the ‘unimportant’ meetings of various unnecessarily appointed committees, (largely to serve vested interests of Region 10 VIPs), and attendance of corresponding chairman of these committees can be omitted from the meeting; many problems related to these committees can be omitted from the meeting; many problems related to these committees can be dispensed with or better discussed in Region Executive Committee meetings.

4. Much of the Region 10 meetings’ expenditure is towards

   a) travel, and
   b) accommodation of delegates
The first can be controlled by

I. Regions 10 restricting reimbursement of air-travel fare to Excursion class only for ALL participants, irrespective of their positions/portfolios

II. Reimbursing only one way fare; the other half, or the return fare, to be borne by the section or the section chair himself/herself.

The expense on accommodation can be minimized by

I. accommodating delegates essentially in University guest houses in the city of the venue; in 99% cases a university exists in the city.

II. by strictly sticking to room sharing ( two participants per room), atleast for delegates from the same country, or otherwise may be by lots. Those who wish to occupy a room with single occupancy in a hotel should be asked to pay the balance expense from their pocket.
5. A flat, maximum rate of daily allowance (DA) should be fixed for miscellaneous and out-of-pocket expenditure of delegates, other than the expenditure during the days of the meeting (borne/paid out directly by the meeting organisers), and that only should be reimbursed, the rest being borne by the delegates themselves.

6. Where it can help and possible, most ‘matters’ can be progressively discussed and dispensed with using modern, revolutionary means of communication such as e-mail, WWW or video conferencing, thus curtailing the meeting agenda considerably. This may have a bearing on the reduction of number of a few participants in the meetings.

7. Almost 75% times, the meetings can be organised in ‘less expensive’ countries of the Region. For example, India, Indonesia, Java, Pakistan and so on to control expenditure, if business is the prime concern and not enjoyment and merry making!

8. In general it is not necessary for Council Chairs/Representatives to attend these meetings-the councils can be easily represented by one of the section chairs - nor by delegates such as “Region 10 Newsletter Editor”, “Inter-chapter Coordinator”, etc.

9. Participation from IEEE HQ should be strictly limited to just two representative VVIPs, to put forward the HQ's points of view and to witness meetings’ proceedings.

To Make the deliberations at the meeting more effective and purposeful and to make it cost effective, the following points may be considered:

I. The discussion of the points/suggestions/problems of the sections (presented by the section chairs) should be given atleast half day in the two days duration of the meeting. After all, it is the sections who comprise the most important entity of the Region and a debate of their problems and views should be the top priority item of the agenda.

II A clear action agenda based on the deliberations of the meeting, must be distributed to all the delegates prior to their departure, with the section chairs involved with/responsible for action items fully aware of their commitments.

This must be monitored periodically, but rigidly by the Region 10 Director throughout the following year and revised in the next meeting giving it couple of hours or so on the very first day (forenoon).

III All section chairs must be involved in taking up some specific responsibility for improving the working of the Region and carrying out professional activities.

IV Three most important items should be given sufficient priority and importance during budget planning and discussions. These are: a) Distinguished Lecturer and continuing education programmes b) Students activities c) SSVR funds for section and student branches required for developmental and project works.

V It should be the moral responsibility of every section chair/representative to contribute something concrete and worthwhile during the meeting. As it is (at present) most section chairs attend the meetings to have a good time at the Regions expense and return home more or less ‘empty handed’.

It is possible that many of the above suggestions may not be palatable to many section chairs and prospective participants. However, in most cases it is the bitter pill that has the best effect and it should be the endeavour of all concerned to see that Region 10 meetings are made to be economic, more meaningful; and serving the Regions’ members in the best possible manner

Dr. S. C. Bhargava

Past Chairman (1991,1992),

Hyderabad Section, India
The 6th National Conference on Communications

January 29-30, 2000

Pre-Conference Tutorials - January 28th Indian Institute of Technology, Delhi
Organizer
Joint Telematics Group of IISc Bangalore and IITs at Bombay, Delhi, Kanpur, Kharagpur, and Madras

Announcement and Call for Papers and Participation

Original contributions based on theoretical/simulation/experimental research, development, design, testing and measurement work are invited for 20/10 minute presentation and poster sessions in the "National Conference on Communications - (NCC-2000)". Some review papers may also be accepted. All papers will go through a process of review and the accepted papers will be published in the proceedings. There will be a separate session for presenting product development.

The topics of interest include (but are not limited to) the following:

- Baseband and RF communication
- Source and channel coding, ciphers
- Spread spectrum
- Signal/Image processing, optical signal processing
- Circuit, packet and cell switching, telecommunication signalling
- RF, microwave, fiber-optic and satellite communication technology
- Wireless communication technology
- Telecommunication and computer networks
- Mobile/Wireless/Cellular communication
- Satellite/Optical/Multimedia/ATM broadband networks
- Telecommunication devices/ICs/VLSI/circuits
- Communication protocols and software
- Telecommunication network planning, management, policy & regulations
- Multimedia communications
- Emerging communication technologies

Extended summary limited to a total of four A4 size pages with double space typing should be submitted in quadruplicate for purpose of review. Submission (of single copy) can also be made initially by e-mail in MS-WORD/postscript format, but hard-copies should still be mailed. The summary should include the address of the author(s), a description of the work, a few diagrams, results, discussions, and the most relevant references. Review type of papers should however be submitted in full. The accepted papers will have to be submitted in camera ready format.

Other features of the NCC-2000 include tutorials on current topics in communications, industry presentation and product development session, invited lectures from eminent experts, panel discussions,
Holograms as storage giants

Within five years, a German team hopes to store a terabyte of data, the equivalent of 200 CD-ROMs, on a CD-sized hologram. They believe they will be able to access data at a rate of one GB per second which is 100 times faster than a DVD drive. Scientists at the Bayer Institute in Leverkusen, Germany, are turning to holography because in the next few years traditional two-dimensional storage - in hard drives and DVDs-is likely to reach its data density limit.

The scientists developed a new kind of polymer to be used for this holographic technique to store
huge quantities of rewritable data. When polarised laser light passes through Bayer’s new photo-addressable polymer (PAP) its chain-like molecules become aligned and stay like that even after the beam has been turned off. This alignment, or its absence, can then be read by an unpolarised lazer beam. The holographic effect is created by shining two laser beams that are in phase onto the PAP. One of these beams, the data beam, falls first on an object which encodes the data, in this case a liquid-crystal display template. This changes its phase. When the two beams meet on the polymer an interference pattern indicating the difference between their phases is etched into the substance. Then by adjusting the angle of the beam slightly, an entirely new pattern can be recorded on the same substance without disrupting any of the information already recorded. The aim is to store a thousand data images, each 1024 by 1024 pixels, on a single cubic millimetre of the polymer, and to be able to read each image in a millisecond.

(Source: New Scientist, 23 January 1999)

We often forget!

When 100 MW is generated from a coal fired thermal power plant, it requires in every hour about 50 tons of coal, 600 tons of air, 400 tons of steam, and 2000 tons of water. It releases in every hour about 5 tons of ash, 0.5 tons of sulphur dioxide, 0.35 tons of Nitrogen oxide and 50 kg of particulate. (Source: Current Science, 25 January 1998)
EDITORIAL

Let us Celebrate!

In the Message from the Chairman this month, the ‘IEEE’ians in India have immense material to be happy. Probably, one of the most unprecedented growth rate for the membership of IEEE in India. It has been the dedicated work of the sections and the chapters, which organised a number of quality technical programme under the banner of IEEE in India, that has attracted many more EE professionals to the fold of their Institute. More than all that Bombay section has a miraculous performance this year, for others to surpass. Can they ? I am sure other sections will take up this challenge.

This in fact, calls for some stories from the better organisers, how they could get so many more into their fold. If our esteemed ombudsman of India Council, Venerable Sri. H. Kalyana Sundaram could pinpoint those organisers who have done such organisational miracles, we could definitely request them to tell us their stories.

Regards,

Montreal Prof. V K Damodaran
01 April 1999 Editor

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