CHAIRMAN'S MESSAGE

Dear fellow members,

The IEEE activities in India continue its journey to uplift the achievements of Sections / Council in India and contributing to the growth of Region 10 in terms of giant milestones.

I hope most of you know by now that today Region 10 is largest Region in IEEE both within & outside USA. The Veteran IEEE Volunteer in India respected Shri H. Kalyanasundaram, popularly known in IEEE as "HK" had compiled startling facts about IEEE movement in India. HK tells us that way back in 1989 with strength of 23870, Region 10 was smallest Region compared to all the six Regions of US. Region 10 overtook R4 in 92, R5 in 93, R3 in 94, R2 in 96, and R1 in 98 and finally R6 at the end of 2004. As on January 2005, strength of R10 was 63,548 compared to 61,540 of R6. During the last 5 years, contributions of Sections in India had been very significant. Towards Membership growth all the 10 Sections in India had contributed 68% growth against 38% by remaining 38 Sections of Region 10. Also on front of student strength, India represents 17% of student strength & 21% student branches worldwide. Today India Council is largest Council in the world and out of 5 top Sections in Region 10, India has three, namely Mumbai, Chennai & Hyderabad. A job well done & let us keep it up.

During February 2005, IEEE Region 10 had announced Outstanding Volunteer Awards and most deservingly out of 4, three are won by Indian Sections. Heartiest Congratulations to awardees Dr. Mini Thomas of Delhi, Shri D. M. Tagare of Mumbai, & Shri S. Raghunathan of Hyderabad Section. Extremely well done & good luck for 2006.

On 19th & 20th February 2005, IEEE Delhi Section had organized "Indo-Pak conference on Impact of Infrastructure Reforms on Development" jointly with IEEE India Council and IEEE Sections - Pakistan i.e. Karachi, Lahore & Islamabad. Hon. R. V. Shahi, Secretary (Power), Govt. of India, Shri Harbans L. Bajaj, Chairman CEA & Fellow IEEE & Dr. F. C. Kohli, fellow IEEE graced the inaugural ceremony. The Conference was attended by speakers & delegates from Pakistan and India.

With warm regards,

Delhi
1 March '05

RAJENDRA K. ASTHANA
Chairman - IEEE India Council
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Editor's Desk

"Refreshment Blues"

As the meeting progressed, an attendant walked in with paper plates loaded with puff and pastry and placed it near each participant seated around that large table. Slowly, attention of the people turned to the eatables. By the time the pastry was finished, most of the faces were smeared with the white creamy matter from it, leave alone the white patches on hands and where ever one touched. Then came the turn of puff, with its multitude of flakes freely falling off on the meeting papers over the table as well as on ones shirt and pants. It made several oily patches on the documents, partly spoiling the looks of some important ones. Finally, when the exercise was completed by all, the table was almost like a war scene, with puff layers sprinkled all over it. Some people tried to tidy themselves with tissue paper, but with great difficulty. A really shabby state !

Snacks served during a meeting should not be a matter for so much fuss, many would argue. Well taken. But the distraction caused by it can not be taken so lightly. The organisers should exercise their wisdom in selecting the items for such occasions, making sure that they are convenient to handle and also tasty, at the same time. In other words, it's choice should not be left to the discretion of tea servers or such people, who may not be able to appreciate how important this small matter is.

Trivandrum
1 March '05

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"Courage is the art of being the only one who knows you're scared to death"
- Harold Wilson

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IEEE NEWS & EVENTS

Commendable Achievement by IEEE Region 10

A report by Shri. H. Kalyanasundaram

The 31st Dec 2004 Administration Membership Status has come through, heralding that our main dreams and aspirations have been realised. Allow me to share with you some of the milestones we have crossed in our Region, Council & Sections. This will also serve as an overview of my term of office under Mr Muralidharan, Chair 2003-2004.

Region 10: We are now 63,548 strong and head all other Regions in member strength.

Back in 1989 , when late M V Chauhan was the Reg. 10 Director, we overtook Region 8 to become the largest Region outside USA. It was then we aimed to overtake one of the US Regions by 1995. The member strength status then was-(1) R6- 59,452, (2) R1-53227, (3) R2- 38990, (4) R3- 33457, (5) R5-28840, (6) R4-28569 and (7) R10- 23780.

- In 1992, with 28547 members we overtook Region 4.

- In 1993, at 30240, we overtook R5

- In 1994, at 31620, we overtook R3

- In 1996, at 35276, we overtook R2

- In 1998, at 43104, in the second year of Mr H L Bajaj's term of Office, we overtook R1 who then have come down to 43069 strength.   Region 6 was then 59,720 mighty strong, 16,616 ahead of us.   As Region MDC, I then conveyed our strong decision to target overtaking R6 by 2005. And we have now done it a year ahead.   As of 31 Dec 2004, R10 strength is 63,548 members, ahead by 2008 to R6's 61,540.

In this 6 year period of 1999-2004, our Region increased its strength by 20,444. Of this, the contribution made by Sections in India came to 13,979, ie. 68.4%-let me say it again - in the last 6 years the ten India Council Sections contributed to 68% of Region's growth, the other 32% coming out of the remaining 38 Sections of the Region.   To enable you to applaud IC Sections efforts, here are the individual Sections' contributions in this 13,979, (1)Bombay 5253 (37.6%);(2) Hyderabad-2464 (17.5%); (3).Bangalore-1834 (13.1%); (4). Madras-1356 (10.9%); (5). Delhi- 1035 (7.3%); (6).U.P.-702 (5%); (7).Kerala-682 (4.9%); (8). Calcutta-514 (3.7%) (9). Gujarat -120 (0.8%) and (10). Kharagpur-19 (0.1%).)

There is one comment by Ms.Falicia Taylor, in Dec 2004 HQ MD Progress report, (based on R6 split of 54466 HG & 7074 students and of R10's 45294 HG & 18254 students) "R10 has the largest population of Student members , while Region 6 remains the leader in total Higher Grade memberships." As of 31 Dec 2004, R6 is having a lead of 9172 HG members- a big lead indeed, but we can comfortably overtake them...Let me tell you why I'm optimistic.

In the 10 year period 1995-2004, R6 had a HG growth of 1821, averaging 182 p.a. and R10 growth of 17560 averaging 1756 p.a.(Previous 10 years -1985-1994 it was 604 and 1309 respectively.) We should therefore be able to overtake R6 HG by 2010. Here is another revelation. In the year 2004, **Region** HG growth was **2487**. Can you guess contribution by Sections in **India.?** It is **2388. Yes 2388**- (96%).. Allow me do the roll call of honour. (1). Hyderabad-772 HG growth in 2004; (2).Bombay-626 ; (3).Madras- 526 ; (4). Calcutta-176 ; (5). Bangalore-138 ; (6) Gujarat-107 ; (7). Kerala-41 ; (8).U P-13 ; (9).Kharagpur-5 ;and (10). Delhi (-)16 -total-2388. So it will appear that we will overtake R6 HG by 2009 and that is the period I hope and pray that we shall be having one of our clan as Region Director.

With our Student strength of 18,254 we are well ahead of all other Regions and account for 26.70% of worldwide strength of 68358. Here again, contribution by India at 11572 is 63.4% to our Region and 16.98% of worldwide strength. Bombay leads the near 310 Sections in the world with its student strength of 3997 (5.8% of world strength).

We have 376 Student Branches in our Region out of worldwide 1333 Branches(28.3%). Of this, India accounts for 276 Branches. Among all Regions, Madras Section leads all Sections in the world with 93 Branches, followed by Bombay with 70 Branches. Hyderabad with its 30 and Bangalore with 28 are well placed to claim the 3rd and 4th slots. There is, however, a distressing factor-you may close your eyes and ears-41 Branches in R10(39 in India) are with zero strength and 73 R10 Branches (50 in India) are with less than 10 strength.
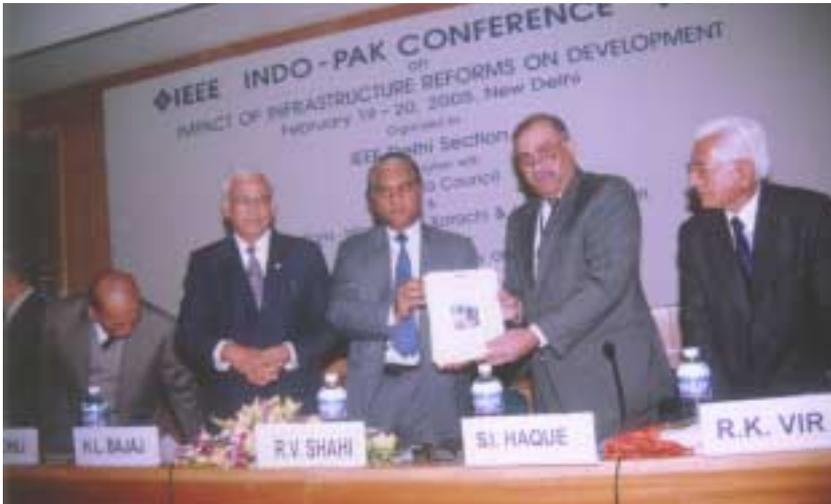
India Council-   At 25051 strength, we are the largest Council in the world, ahead of R6 San Francisco Bay Area Council.   In the year 2004, we had 16.89% growth (3620), as opposed to N.Z. Council's (-) 12.96%(Minus 125#), Australian Council's (-) 2.35% (minus 139#) and Japan council's 3.37% (400#). Our Region had 6.74% (4010) growth and 'All Regions" had 1.20% (4345) growth. Let me proclaim that IC Sections accounted for 83.31% of 2004 IEEE worldwide growth and trumpet that our Hyderabad Section alone with 1314 growth accounted for 30.2% of worldwide growth in 2004 and Bombay with 836(19.2%)).

Our program to have Subsection formations at Delhi, Calcutta and Madras did not materialise, But Hyderabad has come from behind in a big way to launch Guntur Subsection with 265 HG and 229 Students, totalling 494 members .We now have 3 Subsections - MP (523 strength) & Pune (1911) with Bombay Section and Guntur(494) with Hyderabadn Section. Pune Subsection with its 620 HG and 1291 student members have deservedly staked their claim to be upgraded as a Section.

Sections- 31 Dec 2004 Section strengths are: Bombay- 7587; Madras- 4409: Hyderabad- 3661 : Bangalore- 2845; Delhi-1911; Kerala –1501; Calcutta –1480; U P –1023; Gujarat- 504 and Kharagpur - 130. Total-25051

Bombay at 7587 is the top Section in the Region, followed by Tokyo-7471, Madras 4409, Hyderabad- 3661, Singapore 2980 etc.

Indo-Pak conference on Impact of Infrastructure Reforms on Development

Left to right: Dr. F. C. Kohli, Fellow, IEEE, Shri Harbans L. Bajaj, Chairman CEA & Fellow IEEE, Shri. R. V. Shahi, Secretary (Power), Govt. of India, fellow IEEE S.I. Haque, IEEE Karachi Section and R.K.Vir, Delhi Section Chair

The IEEE Medal of Honor, the highest award given by the IEEE, is presented to individuals for their exceptional contributions or extraordinary careers in any of the IEEE fields of interest. The award is sponsored by the IEEE Foundation and comprises a gold medal, bronze replica, certificate and cash honorarium. Flanagan will receive the Medal at the annual IEEE Honors Ceremony on 18 June in Chantilly, Va.

As former director of the Information Principles Research Laboratory at Bell Laboratories in Murray Hill, N.J., Flanagan led researchers to a greater understanding of how the human ear processes signals and was responsible for the development of advanced hearing aids and improved voice communications systems. His work included the development of an electronic artificial larynx, playback recording systems for the visually impaired and automatic speech recognition to help the motor impaired.

Bombay is likely to be the 4th largest Section in the world after Santa Clara Valley, Boston and U.K & Rep.of Ireland Sections.

Hyderabad has made us proud, joining the 3000 member Section club; Bangalore is at the threshold.

Student Branches- In the year 2003 - 82 branches were formed worldwide, of this 43 were from our Region and Sections under India Council accounted for 34, the highest for any country in any year.

In 2004, we excelled ourselves forming 46 Branches, in the Region tally of 52 and worldwide 93. The formations in India were - Bombay-13, Madras-10, Hyderabad-8, Kerala-8, Bangalore-4, Gujarat-2, and Calcutta-1.

Let me conclude this note by recording a significant contribution we, from IC , have made last year, to compile a database of all our Branches in India and establish a web site, inaugurated by our President Mr Cleon Anderson on Jan 9, 2005.

I would also like to take this opportunity to convey my gratitude to our IC Chairs from 1985, and to Mr. Muralidharan, immediate past Chair,IC, who gave me a platform and opportunity to serve IEEE.

[HK is a veteran Senior Member, with 31 years of standing in IEEE. He served twice as MDC of IEEE India Council]

James L. Flanagan to Receive IEEE Medal Of Honor

The IEEE, the world's largest technical professional society, has named James. L. Flanagan, a Bell Labs Research Pioneer in the areas of speech analysis, speech transmission and acoustics, as recipient of the 2005 IEEE Medal of Honor. The award celebrates Flanagan's sustained leadership and outstanding contributions in speech technology.

Library Scan

"Smart Things to Know about Technology Management"

Book by: **Andrew J. Holmes**

Published by: **Capstone Publishing Ltd (A John Wiley & Sons Co)**

Ever since the Stone Age, man has attempted to harness technology in whatever form it took to enhance their lives. From the invention of the wheel, to the creation of computer, we have used technology to eliminate the mundane, boring and manually intensive aspects of our lives. Up until recently, we have been in control of technology, determining how and when it would be applied. Nowadays, it seems that technology is in control of us. This is particularly the case when we look at the effect that technology has had on the world of work.

As you walk through the door and fire up your PC, you are in the hands of technology. When it fails, you feel helpless. When it does not work, you feel angry. And yet without it, you are naked. That's the reality of our working lives, so we had better get used to it and we had better begin to manage and control it more effectively than we do now.

This book presents some tools to manage and control technology. The major topics covered are:

- Improving the management skills in a technological culture
- Use technology to its competitive advantage
- Deal effectively with technological change
- Recognize and deal with psychological issues that technology can produce
- Survive in an increasingly competitive global economy

TECHNOLOGY IN BRIEF

Three-wheeled Car for Cities

An environmentally-friendly, three-wheeled car could appeal to city dwellers dealing with ever increasing traffic congestion. **Clever Car**, developed by Bath University, UK, is a low emission vehicle that seats one passenger behind the driver, thus making it narrower and easily maneuverable than a normal car, though just as tall. A tilting chassis keeps the vehicle stable in corners, and an engine that runs on CNG makes the vehicle fuel efficient and less polluting. A strengthened safety frame also makes it safer in accidents   than other micro cars.

(Website: www.bath.ac.uk)

Laser detects Explosives

Lasers could soon be used to detect explosives safely, quickly and inexpensively. Researchers at University of Florida have developed a new device that detects TNT using photoluminescence spectroscopy- casting light on an object and measuring the wavelength of the light that it returns. Because TNT and similar explosives create very specific wavelengths, creating a distinct spectral fingerprint, the technique could help security professionals identify explosives faster and more accurately than with current techniques. And because the process doesn't require contact with the object, detection could be done safely from afar, simply shining a light on a car, ship or person.

{Website: www.napa.ufl.edu)

Fuel cells for notebook

Though a number of companies have shown off fuel cells for cell phones and MP3 players, a company out of New Jersey says it has come up with one that can power a notebook.

Millennium Cell is showing off a fuel cell at the recent Intel Developer Forum (March'05) that it says can run a notebook for eight hours. The company's goal is to produce fuel cells for notebook manufacturers by 2007.

Fuel cells are tiny power packs that generate electricity through a chemical reaction between oxygen and a fuel such as methanol. Unlike most other fuel cells, this one doesn't rely on methanol. Instead, it extracts hydrogen from a metal-hydrogen compound (in the prototype, it's sodium hydride). Methanol provides less energy than hydrogen—which is why most developers are aiming fuel cells at low-energy devices like MP3 players—but it is easier to store.

Millennium Cell gets around the hydrogen production and storage problem with a plastic box, measuring 3 inches by 5 inches by 1 inch, that sits alongside the notebook. This box converts the metallic hydride into hydrogen. Ultimately, this unit will be capable of being integrated into notebooks.

The hydrogen is piped through a large membrane in the back of the notebook's screen. This powers the notebook and leaves water as a byproduct. (The plastic box contains the metallic residue from the earlier reaction.)

"There are no pumps or blowers," said Greg Smith, director of product management at the company. The fuel cell now can provide 20 watts of continuous power and peak bursts of power at 25 watts, enough to power a slim notebook, the company said. Recently, Millennium Cell signed a deal with Dow Chemical to develop the product.

In the market, consumers would buy replacement cartridges carrying the metallic hydride. Smith further added that the unit holding the sodium residues can be recycled into fiberglass.

Technologies in the offing - Intel Developer Forum

❖ A wireless universal serial bus demonstration by Texas Instruments. With Wireless USB, consumers can forgo cables to connect cameras and other devices to PCs. The protocol will be carried on top of ultrawideband wireless technology. Wireless USB and is in demo phase right now, said a TI representative. Samples of chips will likely come out in about six months with products going to device manufacturers in about 18 months.

❖ Technology for energy-efficient, bright notebook screens from Toshiba and start-up Clairvoyante. The screen consumes an inordinate amount of energy in notebooks, said Kamal Shah, an engineer with Intel who works with display manufacturers. Clairvoyante's PenTile liquid-crystal display technology contains pixels of different, rather than uniform, size to achieve better power consumption and brightness. Technically, Clairvoyante doesn't make screens but licenses the technology to screen makers.

Excellence in Work

'If a man is called a streetsweeper, he should sweep streets even as Michelangelo painted, or Beethoven composed music, or Shakespeare wrote poetry. He should sweep streets so well that all the hosts of heaven and earth will pause to say, here lived a great streetsweeper who did his job well'   **-Martin Luther King, Jr.**

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