

**IEEE India Bulletin Vol. 12 No. 9 September 2002****INDEX****Features**

[|| Chairman's Message](#) || [|| Quotation](#) || [|| Editor's Desk](#) || [|| This issue is sponsored by](#) ||  
|| [|| News-Scan](#) || [|| IEEE News & Events](#) ||

**CHAIRMAN'S MESSAGE**

Dear Fellow Member,

The All India Student Congress (AISC ) 2002 held at Trivandrum was a grand success, though I regret my inability to be personally present there. Thanks to the Kerala Section and the organisers led by Shri S Gopakumar and team of volunteers led by Shri A K Sheju. This was the Third Student Congress, the first held at Chennai in 2000 and the second at Mumbai in 2001. Such Congresses are very important for the participants to know more about the IEEE and discuss their problems and suggestions to make it more useful. The interactions among student members give rise to many new ideas which are helpful for the activities. The enthusiasm shown by our student members is reflected in the rate of growth in membership in India which is perhaps the highest in the world and we should try to at least maintain it.

But there is now a bad news. IEEE Management has decided to increase the membership dues of all categories in 2003. While the majority of members in Member or Senior Member category can enjoy discount due to low income in terms of US\$, the student category will be hit hard. The increase in student membership dues is from US\$ 14 to US\$ 25 which is rather very steep. The students who are all non-earning members may feel pinch, particularly because of high conversion rate.

Recently in the Meeting of India Council Execom held at New Delhi on the 14th August 2002, we have deliberated on this issue and decided to take up with the IEEE Management appropriately. This issue may also figure in the World Section Congress to be held at Washington DC in October 2002 where all the Section Chairs from India will be present. Let us hope for the best.

I hope the members will take this in their stride and keeping in view the advantages IEEE offers to members, they will continue to participate in the activities with full enthusiasm. The series of AISC will continue. Now is the turn of North India and so the AISC 2003 is likely to be hosted by UP Section or Delhi Section. Exact dates will be announced when finalised.

With best wishes,

Noida  
1 Sept '02

Promod K.  
Srivastava  
Chairman  
India Council, IEEE



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[Goto Top](#)

## Quotation

'There is no such thing as a self-made man. We are made up of thousands of others. Everyone who has ever done a kind deed for us, or spoken one word of encouragement to us, has entered into the make up of our character and our thoughts, as well as our success'

-George Adams

[Goto Top](#)

## EDITOR'S DESK

'Only three people, the father, the mother and the elementary school teacher can help in removing corruption by introducing values in the young'

- **APJ Kalam**

While discussing the education scenario of 2009, it is predicted that computer- aided self learning would be common place. But the experts were also wise enough to say that the traditional mode of a human teacher instructing a group of children will still be prevalent, even though schools will increasingly rely on software approaches. Teacher will continue to play the most important role of a mentor, in moulding the character of young ones, attending to issues of motivation, psychological well-being, socialization etc. This goes very well with the statement of our President, APJ Kalam, providing solace to those worried about the plight of children in a totally mechanized learning environment, where the soft touch of a human teacher may be absent. Artificial Intelligence and Expert Systems may work towards mimicking all the human expertise. But looking at the pace of development in these sun-rise technologies, it may have to be reasonably assumed that several decades may elapse before anything worthwhile to totally replace human expertise becomes a reality. Let the regime of teachers with flesh and blood continue until we reach such a comfortable state to leave our children to machines to teach them ethics, compassion and such other human values.

Trivandrum  
1 Sept. '02

**N. T. Nair**  
Trivandrum Editor  
[email: del@vsnl.com](mailto:del@vsnl.com)



## AN APPEAL

The members, by now, would have received their ballot papers for the IEEE Elections of

2002 and among various candidates for a number of positions , we have to elect the Region 10 Director Elect , who after serving a two-year term in 2003 - 04, will take over as Director of Asia Pacific Region in 2005. We all know, the Director of a region is on the Board of Directors of IEEE and plays a very crucial role for the Region. Hence it is necessary that we cast our vote very carefully so that a deserving person, capable of doing full justice to the position and serving our interest well, is elected.

For your information, there are three candidates for this position, one each from India, Japan and Malaysia. Prof. H P Khincha of Indian Institute of Science, Bangalore is the candidate from India . He has been actively involved in IEEE for the last 25 years in various capacities at Section, Council and Regional levels and his contribution is well recognised . The Ballot Paper will come to you along with the " Postage to be paid by the addressee" All you have to do is just mark it and post it in the sealed cover in the nearest mailing box . I appeal to all the voting members to positively exercise their rights and send the votes well in time

Promod K . Srivastava

[Goto Top](#)

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[Goto Top](#)

**News - Scan**

### **Flash Memory**

It is the most important semiconductor innovation of the 1990s and Fujio Masuoka of Japan, working then for Toshiba was the inventor. In 2001, it grossed US\$ 76 billion in sales. Flash memory chips went into products worth more than \$3 trillion, including automobiles, computers, mobile phones etc. IEEE gave its Morris N.Liebman Memorial Award to Masuoka in 1997 in recognition of his invention of flash memory while he worked at Toshiba.

His aim was nothing less than to replace the \$50 billion-a-year market for hard disk drives on computers. The advantages of flash memory include no moving parts, uses less than a hundredth the power of a hard disk, and it can be made very small. Over time, its biggest disadvantage, high cost, would be overcome, he felt.

### **Electrical Industry-China Vs India**

A recent study conducted by PriceWaterhouseCoopers (PWC) for Indian Electrical and Electronics Manufacturers' Association (IEEMA) says that China is set to pose stiff competition to the Rs 40,000 crore Indian electrical industry, given its advantage factor of 50% in labour cost efficiency. In India, labour cost efficiency in terms of value added per unit labour, works out to 2.62, as compared to 3.96 in the case of China. In base metals, which constitute the input materials for T&D industry, Indian companies are at a disadvantage. Also China enjoys a 30% advantage in administration costs. However, Indian manufacturers have a slight advantage in terms of power cost today, which aggregates to \$0.07 per unit, as against \$0.09 per unit in China. But the fast pace at which Chinese power sector is progressing will eventually remove even this advantage.

In the matter of average cost structure for various product categories, the scenario is as follows:

- Chinese transformers enjoy a 10% cost advantage vis-a-vis Indian ones.
- Switchgears -17%
- Electronic energymeters-12%
- Power cables- 10%
- Transmission line towers- 17%

What accentuates the problem further for Indian manufacturers is the multiple taxation that exists in India, against the value- added tax in China, which is 17%. Besides, the local industry suffers also from inverted duty regime, wherein imports of finished goods attract lower duty than raw materials.

## OBITUARY

Dr. P. K. Patwardhan, Fellow IEEE, passed away suddenly on 11th July '02 at the age of 75 after a heart attack. Dr. Patwardhan was a pioneer of computer, electronics and instrumentation engineering in India and was former Head, Computer Division at BARC for a number of years. He retired from BARC in 1987. Even following his retirement, he continued to be active in technical, professional and charitable activities till the very end. Dr. Patwardhan was active in IEEE activities in India since the beginning. He was one of the first Fellows in India. His fellowship citation in 1976 read, "For contributions to nuclear electronics, data handling systems and instrumentation." He also served the India Council as Secretary (1977-79) Vice-Chairman (1979-81) and Chairman (1990-91). He received the IEEE Millennium Award in 2000. Dr. Patwardhan was active in other professional bodies also. He was honoured as a Distinguished Fellow of IETE, a Fellow of IE (India), a Fellow of IEE(UK), a Fellow of CSI, and a Fellow of the Maharashtra Academy of Sciences. Among his many awards were the Ram Lal Wadhwa Memorial Award of the IETE in 1988, and the FICCI National Award in 1979.



'May his Soul Rest in Peace'

## Ego-Unlimited

- Julius Caesar, who was an incorrigible egotist, was kidnapped when he was a child. He was held for a ransom of 11,000 gold pieces. Horrified, he exhorted his captors to raise the ransom amount to 2,50,000 gold pieces so as to preserve his prestige!
- A famous boxer once refused to tie his seat-belt aboard a plane. "Superman doesn't need a belt", he resisted. Tying his belt for him, the airhostess replied: "Superman doesn't need a plane either!"

[Goto Top](#)

**IEEE NEWS & EVENTS****All India Student Congress -IEEE AISC 2002**

The All India Student Congress 2002 organised at Trivandrum on 26th and 27th of July '02 had an overwhelming response from the IEEE Student Branches of various institutions in India. The Student Members also had the benefit of attending the one-day National Conference on Knowledge Management (K-ware 2002) conducted on 25th July '02 at the same venue.

There was all India representation, with a total of 39 institutions, 11 Councillors and 121 Student Members participating in the Congress..

The inaugural function included welcome address by Mr. S. Gopakumar, Student Activities Chair, IEEE Kerala Section, presidential address by Mr. R. Narayanan, Chairman, IEEE Kerala Section and finally the inauguration by Dr. S. Unnikrishna Pillai, Director, CAPE.

Mr. S. Gopakumar, Mr. Anthony Lobo (TCS, Mumbai) and Mr. B. R. Prabhu, Vice-Chairman, IEEE Bombay Section lead the student activities training.

Ms. Meera S., Chairperson, IEEE GOLD Kerala Section made the student delegates aware of the activities they have to do and the benefits they would get, if they chose to transit to IEEE GOLD membership after their student membership.

The delegates' enthusiasm was obvious during the talk on 'How to Structure a Technical Paper' by Ms. Georgeen George of TCS, Trivandrum, where the delegates learnt the tips to write technical papers effectively.

The delegates were keen to know on how to recruit and retain student members in IEEE.

Mr. Raghavender V. R., a former Branch Chair of Shadan College of Engg, Hyderabad who graduated in the year 2001, threw light on this aspect.

On the first day, the various student branches presented reports on their experiences and activities for the last one-year.

The second day of the AISC began with a technical talk on Digital Signal Processing by Mr. George Varkey, Additional Director, ER&DC, Trivandrum. The objectives of the congress was consummated with Mr A. Salim, Director, TKM Institute of Management, Kollam and an alumni of IIM, Ahmedabad talking on management.

The winning paper titled Electrical Conduction in DNA in the paper contest conducted as part of the AISC was by Sugata Bhattacharya, IIT, Bombay, Saurabh Mathur, Jamia Millia Islamia (JMI), New Delhi, and Mustafa Tura, JMI, New Delhi. Two more papers - Remote Heart Beat Monitoring System from Sri Ramakrishna Engg College, Coimbatore and CMRA Algorithm for Radial Basis Function Network Equalizers for Rayleigh Fading Channel from Sri Jayachamarajendra College of Engg, Mysore- were selected for presentation. Electrical Conduction in DNA and Remote Heart Beat Monitoring System were presented at the congress.

Mr. Dipu Jose of College of Engg, Chengannur, shared his experiences from the Region 10 Student Congress at Singapore.

The discussion session saw various issues being raised by the student branches, which were answered by Mr. S. Gopakumar, Mr. B.R. Prabhu and Mr. Anthony Lobo. Some of the concerns were the increase in membership fee and the need for a better communication between Student Branches, Sections, India Council and the Headquarters.

The quiz master and his team from TCS made the six finalists and the audience enthralled through questions from science, technology and business. The winners were Mr. Jacob Iype and Mr. Deepak D. of SCT College of Engg, Trivandrum.

The Congress came to a grand finale with a valediction that included the addresses by Mr. E. E. Rajakumar, Vice-Chairman, IEEE Kerala Section and Prof. V.K. Damodaran, IEEE India Council. The different feedbacks received later proved that the Congress had achieved its goal. Office bearers of new branches especially felt relieved and glad to know what and how they need to do things to make their branches full-fledged.

Reported by :A.K. Sheju  
Secretary(OC), AISC 2002



Winner of the 2001 PES regional Outstanding Engineer Award for Region 10, Dr. S. Mukhopadhyay, SMIEEE of Delhi (center) flanked by PES President Mr. John W. Estey (left) and Vice President (Membership/Chapters Activities) Mr. Barnard M. Speckman (right) at the 2002 IEEE Summer Power Meeting, Chicago, IL, USA.

**"We, the members of the IEEE ... do hereby ... agree to seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others"**

- IEEE Code of Ethics

[Goto Top](#)

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**Administrivia:**

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