



CHAIRMAN'S MESSAGE

Let me firstly thank IEEE for its confidence in my team to continue its crusade for further strengthening the movement for one more year. During the Annual Conference at Hyderabad on 12 Dec 97, the Council Committee met for the fifth time in the year (sixth meeting) and reviewed the work done during 1997 for reporting to General Body. Keeping in view the constraints, we are quite satisfied with the progress on the Action Plan published in May 97 issue of our Newsletter. Highlights are:-

- Upgradation of Newsletter in contents and making it self supporting with the active sponsorship by all Sections.
- Distinguished Visitors/Speakers to various Sections including IEEE President Chuck Alexander, Prof Myron Kayton and Prof CC Chan.
- Workshop on "Emerging Trends in IT" at Hyderabad with Prof H N Mahabala as Key faculty.
- MVCSPC-97 and SPAC-97 at Jadavpur University, Calcutta and Increase in Student Membership by over 30% during the year (31 Oct 97 statistics).
- Consolidation of finances at Hyderabad and publication in Newsletter for information of all Members. With advice from specialists, efforts are on to resolve outstanding issues. The funds position has been stabilized by curtailing expenditure and maintaining the activities.
- Exercise in streamlining India Council by-laws to make them effective in the current environment.
- Sponsorship / Co-operation of many International/National Activities in India including VLSI-97, IMCEMIC-97, ICPWC-97, HiPC-97, ACE-97 and Software Engg and its Applications-97.



Inauguration of ACE - 97 at Hyderabad. Dr. R.K. Bagga (left), Mr. Vittal (3rd from left)

ACE '97 CONCLUDED

By N.V. Rao, Conference Secretary

Internet for India has been organised successfully as the Annual Convention and Exhibition (ACE 97) at Hyderabad, jointly by IEEE Hyderabad Section & India Council organised in co-operation with JNTU Hyderabad. The conference also marked the Silver Jubilee of the University. The conference was inaugurated by Sri N.Vittal, Chairman, PESB (Formerly Secretary, DOE) on Dec. 11, 1997 at 1700 hrs. In the conference inauguration, Dr. Rao C Kasarabada, Chairman, Advisory Committee, Dr. A K Aggarwal, Chairman, Tech. Committee, Dr RK Bagga, Chair, India Council and Prof. C. Dayaratnam, V.C., JNTU also participated. In his address, Sri Vittal dealt with the Internet policy of the government and made suggestions for a healthy growth of Information Technology in India.

A cultural programme was organised on Dec. 11, 1997 at 6.30 p.m. - a classical Dance Performance 'KRISHNA TATTVA' by Anupama Kylash, Dancer and Choreographer, well co-ordinated by Dr. Brij Bhushan Sahni.

Five pre-conference tutorials were held on Dec. 10 & 11, 1997 - I) Web Administration and Internet through Linux on Dec. 10, 1997. Internet for Beginners, Java; Network Security and Auditing Internet on Dec. 11, 1997. These tutorials were well attended, specially by students.

The Exhibition was organised at Hotel Golconda. About 10 stalls were used by

prominent vendors to exhibit their web products. Satyam Computers, CMC, ECIL, Wipro, NIIT, Front Line, Web Commerz, Zoom Technologies and Net Surfer were among the Exhibitors.

The eight technical sessions on Dec. 12 & 13 were conducted in parallel on different themes: Hardware and Software Tools, 'Impact and Social Issues, Infrastructure, Policies and Guidelines, Security, Applications and Future proposals. There were 4 invited talks by Shri J.A. Chowdary, Director STPI (H), Shri T.H. Chowdary, Director, CTMS, Dr. Prasanta Mahapatra, MD, APTS, Shri PVS N Raju, Gp. Manager, Sonata Software and Shri VR Nishatla, Director, Cybercash India, on Internet related topics. All were well attended by more than 100 delegates and reflected the present expectations on Internet. A good coverage was given by the media. (See 'Internet with an Indian accent' by Anand Parthasarathy in 'The Hindu' dated Dec. 25, 1997).

India Council conducted its AGM on Dec. 12, 1997. The award function of MVC Student Paper Contest - 97 was also held. The ACE-97 concluded with a session on 'feed back from participants'.

Internet for India : Conference Proceedings

A few copies of conference proceedings, covering about 24 contributed papers are available for sale. The price per copy:

IEEE Members: Rs. 400/- Others: Rs. 500/-
Student Members: Rs. 300/-

Write to : Mr. N. Vyaghreswara Rao

Conference Secretary
Scientist, DMRL
PO Kanchanbagh, Hyderabad - 500 058
E-mail: nvr@dmrl.ernet.in
Phone : (040) 4440051/403 Fax: 4440683

New Year Special

Minutes of the Annual General Meeting of the IEEE India

Council held on Dec. 12, 1997 at Hyderabad at 1800 hrs.

1. Chairman, Maj. Gen.(Dr.)R K Bagga welcomed the members. The minutes of the Special General Body Meeting held at Bangalore on July 26, 1997 were approved.
2. Chairman informed that the amendments to the byelaws are discussed at IC meeting. However, the framework of byelaws is under revision at Hqs. It is decided to wait until new guidelines are framed by IEEE Hqs. In the meanwhile, Prof. AK Aggarwal, will consolidate the views of all Sections, along with the other members of the sub-committee for byelaws.
3. Mr. H. Kalyanasundaram, Chairman, MDC, Region-10, presented a statistical view of Membership development, highlighting the strengths and weaknesses.
4. Executive Vice-Chairman, Prof. A K Aggarwal informed that the four chapters under IC, are revitalised with dynamic technical programmes. Members suggested that the IC should more actively work towards motivating Sections in arranging more professional and technical programmes.
5. Secretary & Treasurer, Mr. N. Vyaghreswara Rao submitted the Activities report and financial statement as on Nov. 20, 1997. The audited statement of accounts for 1997 will be published in the India Bulletin. Both were approved by the General body.
6. ACE 98 will be held at Ahmedabad during Dec. 10-12, 1998. Prof. A K Aggarwal, Exe.Vice-Chairman highlighted the proposed theme : Networking India & the World, with other two tracks on 1) topics related to IEEE 2) Computers, Electrical & Electronics Engg. in Chemical & Petrochemical Industries.
7. IC Committee - 1998 : Dr. SC Bhargava announced the slate suggested by Nominations Committee. As there were no petitions, the members recommended by the Committee are declared elected. Chairman, requested Prof. K. Uday Kumar (Madras Section) to be the Vice-Chairman, Student Activities. The next SPC will be organised at Madras Section. The new Committee assumes charge from January 1, 1998.

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TECHNOLOGY CORNER

Data Through Electric Cables

NORWEB communications, an international gas and electricity group in the UK, is developing techniques to use electric cables instead of phone lines to transmit data into homes. The method would ensure that data could be transmitted without any problem.

The group has developed a method to send Internet data to an electricity sub-station through optical fibre, coaxial cable, or twisted copper wires. The Internet signal is injected into power cables after it leaves the electricity sub-station. Then it is transported into home by modulating high frequency carrier waves. The signal is imposed on a much lower frequency. Then it is extracted from the power line by a filtering unit set close to each domestic meter. It is then delivered to a PC via conventional coaxial cable.

Sonar Robot

Rodolph — a robot which uses the sonar ability of bats and dolphins to use echoes for locating a target — has been developed by Roman Kuc at the Yale University, USA. The sonar device is very sensitive and can detect whether a tossed coin has come up heads or tails. The detector could be easier to use and less costly than camera vision in identifying an authorised customer at an automated teller machine. It may also help find production flaws on an assembly line.

Shrinking Transistors

The number of transistors in a single chip has been growing steadily for many years.

8. All Sections & IC are encouraged to have Internet & Home pages with frequent updates, and are specially requested to use e-mail for regular correspondence. Dr. S. Parthasarathy, Algologic Research & Solutions, Secunderabad will be entrusted with the responsibility of creating and maintaining a Home page for IC as per the IEEE norms.
9. It is suggested to have an IC committee meeting at Ahmedabad in February '98, well before the Region-10 meeting to be held in April at Perth, Australia. All Section Chairs can discuss various issues, including organisation of ACE 98, in the meeting.
10. Prof K. Uday Kumar, stressed the need for the status of ACE to attract good quality papers for the conference. Regarding reimbursement of IEEE subscriptions by academic institutions, Prof. Uday Kumar suggested to approach UGC, AICTE etc. before they submit their recommendations.
11. Mr. N. Vyaghreswara Rao was felicitated by Mr. H. Kalyansundaram on his receiving the award for best Volunteer, Region-10 at Brisbane on Dec. 3, 1997.

The AGM concluded with thanks to the Chair.

29 Dec., 1997

N. Vyaghreswara Rao
Secretary

Simultaneously, the size of transistors has been shrinking at a faster rate. Most researchers believe that after a certain point, the shrinking of transistors in size would stop as there is a lower limit for the transistors to work efficiently. The limit for the size of the transistor gate—the part of the transistor responsible for switching on and off—is normally considered to be about 30 nanometres. One nanometre is a billionth of a metre.

Researchers at NEC's Fundamental Research Laboratories, Tsukuba, Japan, however, report that they have developed a transistor which has a gate of only 14 nanometres. If the device is produced commercially, it would have far reaching implications on the microelectronics industry (Science, Vol 278, No 5337).

EDITORIAL

ON TO ACE '98

ACE '97 concluded with a bang, a big bang - announcing ACE '98 to mark yet another milestone in the activities of India Council of the largest professional body of engineers, viz. IEEE. The year 1997 for IC has been one of resounding success. A coherent team of volunteer engineers could silently and in mutual co-operation, achieve an array of success as shown in the Annual Report of the Secretary. The year 1997 has proved the need for and the role of an active co-ordinating body like the India Council Committee for an organisation with spread out activity centres and individual members with diverse views and professional environments. The EC of IC with sizable participation could meet six times during the year at different locations spread between south and north and east and west, is no mean achievement. Let us pledge ourselves to repeat our good performance and surprise others by yet other mega events during the year 1998! Let me look for more and more pressures to compress my letter size to cover more of activity reports and announcements in the limited pages of this small bulletin in the months to come.



Trivandrum
04 January 1998

Prof. V K Damodaran
Editor