SILVER JUBILEE OF DELHI SECTION

Prof. P. Kundu, Life Senior Member of IEEE being honored by Mr. P.K. Srivastava, Chairman, IEEE India Council; also seen in the picture (L-R) Section Treasurer Prof. Sudhanshu S. Jamuar, Vice Chair Mr. Raj K. Vir Chair Prof. R Balsubrananian & Secretary Dr. Ram Nath T&PA Sub-com Chair and ECC Dr. S. Mukhopadhyay

Mr. Swaranjit Singh, Life Senior Member of IEEE being honored by Dr. P.N. Choudhary, former Member Telecommunication; sitting on a dais (L-R) Section Treasurer Prof. Sudhanshu S. Jamuar, Vice Chair Mr. Raj K. Vir Chair Prof. R Balsubrananian & Secretary Dr. Ram Nath

A special general meeting was organised on May 13, 2001 to celebrate the silver jubilee of formation of Delhi Section at India International Centre, New Delhi. The specially invited dignitaries and a large number of members attended it with their spouses. On this occasion Life Members and Life Senior Members were honoured with momentos. These included Col. J.C. Anand (Retd.), Prof. P. Kundu, M/s V.N. Manohar, S.K. Zaheer and Swaranjit Singh. The long dedicated services, rendered by all the Life Members were recalled and the Chairman expressed the gratefulness of the Section to them.

Chairman informed about the steps taken by various Professional Institutions like IE(I), IEE, IEEE, Construction Industry Development Council etc in India to form the "Engineers' Council" Forum , whose main task will be to maintain a National Register of Qualified Engineers covering all engineering fields and to

help the Government of India in formulating an "Engineers' Bill" in the Parliament.

Chairman informed that the IEEE Delhi and Washington Sections have entered into a long term, voluntary relationship for the purpose of exchanging ideas and experiences on how to benefit from each others' operations. These Sections shall be designated as Sister Sections. The two sections shall cooperate with each other in all their activities without any financial obligations to either section or to the IEEE Headquarter.

The special feature of this function was felicitation to Dr.Pradeep K. Dubey on his getting elected as fellow of IEEE. Dr Dubey delivered an illuminating and informative talk on "Architectures: Multimedia and Beyond" which evoked good response from the audience. This opportunity was also utilized to approve the amended By-laws.

LIST OF TECHNICAL & PROFESSIONAL ACTIVITIES

(*from January to June 2001*)
Visit http://www.ewh.ieee.org/r10/delhi for more details and future programs

January 22	Day-long Workshop on 'Electro-Magnetic Compatibility of Electrical / Electronic Equipment' by IEEE IAS DL Prof. Paolo Tenti & Dr. Giorgio Spiazzi of University of Padova, Italy at IIC, New Delhi (along with PES-IAS Chapter & India ED-MTT Chapter)
March 2	Talk on 'Intelligent Control Systems: Status and Future Perspectives' by Prof. Naresh K Sinha, formerly of McMaster University, Canada (organized by CAS-CS Delhi Chapter along with EE Dept. of IIT Delhi)
March 3	Talk on 'System Identification: From Frequency Response to Neural Networks' by Prof. Naresh K Sinha, formerly of McMaster University, Canada (organized by CAS-CS Delhi Chapter along with EE Dept. of IIT Delhi)
March 16	Talk on 'DTH Television' by Mr. Y.Venkateswaralu, Doordarshan Directorate, New Delhi at EE Dept., IIT, New Delhi (with ComSoc Chapter, IEE and EE Dept. of IIT Delhi)
March 19	Day-long workshop on 'Power Sector Reforms' at India International Centre, New Delhi (along with IEE)
March 30	Talk on 'Indoor Cellular Substations' by Mr. Harjit Singh Anand, IRCON, New Delhi at India International Centre, New Delhi (along with EMS and PES-IAS Chapters)
April 25	Talk on 'Trends in SCADA / EMS and Telecommunication in Indian Power Sector' by Mr. R.N.Nayak, POWERGRID, New Delhi at EE Dept., IIT, New Delhi (along with PES-IAS and ComSoc Chapters and EE Dept. of IIT Delhi)
May 13	Talk on 'Architectures :Multimedia and Beyond' by Dr.Pradeep K.Dubey,IBM India Research Lab
May 19	Talk on 'E-Business Models & Strategies' by Mr.P.K.Gupta Legato India,New Delhi at India Habitat Center,New Delhi Talk on '3G Mobile Communication Systems' by Mr.Harish Tejwani, Hughes Software Systems,Gurgaon at India Habitat Center,New Delhi
May 30	Talk on 'Conversion of 1500 V DC to 25 kV AC Traction in Mumbai Area' by Mr. A. K. Jain, Indian Railways, New Delhi at India International Centre, New Delhi (along with EMS & PES-IAS Chapters)
June 21	E.H.V Transmission System, its operation, maintenance and use of Silicone Insulator for 220 kV lines by Mr S.C.Jain, Yamuna Gases & Chemicals Ltd., Delhi at India International Centre, New Delhi
June 25	Two-day seminar on 'Network Synchronization' by Mr. Andre Marais, Datum Irvine, CA, USA at Hotel Hyatt Regency, New Delhi (organized by ComSoc Delhi Chapter & AES-COM-LEO Societies India Chapter)

PES REGIONAL OUTSTANDING AWARD

Prof. B.P. Singh of IIT Delhi past chairperson of PES IAS chapter, Delhi Section is the recipient of Regional Outstanding Award of Power Engineering Society from the Region 10 for the year 2000. The award will be handed over to Prof. Singh in the Summer Power Meeting in Vancouver, Canada in July 2001. Section congratulates Prof. Singh for this recognition.

PLEASE RENEW YOUR IEEE & SOCIETY MEMBERSHIP FOR 2001
IF YOU HAVEN'T

ANNUAL CONFERENCE & EXHIBITION, ACE 2001
CONVERGENCE IN SPICE
CALL FOR PAPERS AND PARTICIPANTS

The Annual Conference & Exhibition for the year 2001, ACE 2001, will be held at New Delhi on 1st, 2nd & 3rd November 2001. It is hosted by Delhi Section for India Council. The theme of ACE 2001 is **Convergence** in **S**emiconductors, **P**ower, **I**nformation Technology, **C**ommunications and **E**ntertainment (**SPICE**) and this wide area of coverage will give opportunity to engineers of practically every field to contribute their technical papers.

CONFERENCE PAPERS

The scope of the conference will cover convergence in following technologies. Please submit your abstract of papers (not exceeding 500 words) to Dr S.Mukhopadhyay, DII-62, Pandara Road, New Delhi-110003 (subrata@ieee.org) by July 31, 2001.

SEMICONDIUCTORS

E-CAD, Tools for Microelectronics Design, Nano-Electronics, Advances in VLSI Design, Real Time Micro-Controllers, GTOs, Light Triggered Thyristors, IGBT applications in Power Electronics

POWER

Energy Trading and Management Systems and SCADA, Real Time Control of Power Plant and Systems, Energy metering, FACTS, HVDC, STATCOM, UPFC, Numerical Protection of Power Systems, Distribution Automation, Real Time Islanding and Load Shedding, Online Power engineering Education, Online monitoring of Power Apparatus

INFORMATION TECHNOLOGY

Embedded Systems Software, E-Commerce and its enablers, Data Mining, Neural Networks, Artificial Intelligence, Parallel Computing, Distributed and Fault Tolerant Computing, ERP, Modeling and Performance of Internet Traffic, Software Simulations, Streaming Applications, M-Commerce

COMMUNICATIONS

Wireless and Personal Communications, Satellite Communications, Digital Signal Processing and its applications, Estimation and Detection, Broadband Networks, Traffic Engineering, QoS, Intelligent Networks, Voice/Multimedia over IP, 3G/4G, Optical Networks, ATM, Ad-hoc Networks, WAP, Bluetooth, Network Computing, Storage Area Networks

ENTERTAINMENT

Multimedia, Convergence in Media and Content Delivery, Future Trends in Entertainment, Corporate Communications, Investigative Journalism, DTH, Cable TV, LMDS

TUTORIALS

The following tutorials on current topics will be organised on Nov 1, 2001. These shall be taken bu experts of international eminence.

(1) *CONTROL***:** "Tuning of Industrial Controllers" & "A Probabilistic Approach to the Analysis & Synthesis of Robust Controllers" by Prof. Marco Campi of University of Brescia, Italy.

(2) *VLSI***:** "Code sign Tools for Architecture Microsystems" & "Design Technology & Architectural Adaptation for Deep Sub micron VLSI Systems" by Prof. Rajesh Gupta of University of California,Irvine.

(3) *POWER***:** "Microprocessor-based Protection for Power Systems" by Prof. Mohinder S. Sachdev, formerly of University of Saskatchewan, Canada.

(4) *COMMUNICATIONS***:** Signal Processing for Multimedia Communications by Dr. Aloknath De, Director, Communication Signal Processing, Hughes Software System.

EXHIBITION

A three day Industry Exhibition and Expo has also been planned to enable industry to showcase their products/ systems. Interested participants may contact Mr. P.K. Srivastava at 91-4552570 (pks@ieee.org) or Mr Harish Tejwani at 7221116 (htejwani@ieee.org)

VENUE

India Habitat Centre, Lodhi Road, New Delhi.

CONTACT

Chief Coordinator, Prof R. Balasubramanian, Chairman, IEEE Delhi Section IIT Hauz Khas, New Delhi-110 016.
Tel. 011-6591246 (off) 011-6591954 (Res.)
Fax. 011-6862037
e-mail:balu@ieee.org

FROM CHAIRMAN'S DESK

Dear Members,

This is my first message to BEACON after I took over as the Chairman of the Delhi Section. This year, the SILVER JUBILEE YEAR of our Section, has started off wonderfully well, with the announcement that our Section has been adjudged as the 'OUTSTANDING SECTION OF IEEE REGION-10' for our many excellent Technical Activities and Membership Growth in the year 1999. This is indeed a great honor to our Section and we are the Second recipient of this Award, which was started just last year. I cannot express in words the feelings we experienced when Mr. Asthana (our past-chairman), Mr. Srivastava (our past-chairman & the present IEEE India Council chairman) and I received the award from the IEEE President-Elect in the Region-10 Annual General Meeting, held at Singapore on 6th April. I wish to take this opportunity to sincerely thank all the Executive Committee Members and other members of our Section and in particular Dr. S.Mukhopadhyay (our Technical Activities Subcommittee Chair), Mr.R.K.Vir (our Membership Development Subcommittee Chair) and Prof. S.S. Jamuar (our CS&CAS Joint Chapter Chair), who were responsible for this outstanding performance of our Section.

We are going ahead with a fully packed set of technical activities for this year also. We started off with a day-long Tutorial on 'Electro-Magnetic Compatibility' by Prof. Paulo Tenti, a Distinguished Lecturer of IEEE Industrial Application Society, for which we got a $ 500/- Special Grant from IEEE Headquarters. We are holding evening Technical Lectures as usual on an average about 2 every month. The Special General Meeting to commemorate the Silver Jubilee of our Section was held on 13th May. The Section Student Branches are being given a lot of encouragement. Efforts are on for increasing the Section Membership. Preparations are on in full swing for the Annual Convention & Exhibition (ACE)-2001, scheduled for 1-3 November, 2001. Thanks to our Electronic Communication Coordinator (Dr. Mukhopadhyay), we are coming out with our Section Electronic Newsletter **ieeedelhinews** every month, which supplements 'BEACON'. It is being sent to all the members whose email addresses are registered with IEEE.

I am sure we will be able to maintain the same tempo of our activities this year with your kind support, guidance and advice.

With regards,

Yours sincerely,
Dr. R. Balasubramanian

DELHI: OUTSTANDING SECTION OF THE REGION

Delhi Section has got the award for being the OUTSTANDING SECTION of the ASIA PACIFIC REGION 10 for the year 1999. The award was given in the Banquet Dinner of the Regional Committee Meeting held on 6th April 2001 at Singapore. Due to this award Delhi Section was allowed participation of an additional delegate in the meeting and Sh. R.K. Asthana, Immediate Past Chairman attended it. BEACON congratulates all the Execom Members of 1999 for this distinction!

Technology Forecast
Bejan Daruwala

2006: Genetic engineering will reach a highly successful level

2008: Robots will be humanized

2011: Computers will start reproducing themselves

2050: We will live in a One World Government

2091: Mysteries of Cosmic creation and the Supreme Energy will finally be revealed

Source: *Hindustan Times*

INTERNET TELEPHONY IN INDIAN CONTEXT

Dipankar Mishra, Pusa Polytechnic

Introduction

The communication world has been shaken up under the impact of the Internet. Conventional modes of communication have gone for a toss with the popularity of the Internet, the reach of which goes beyond the realms of geographical boundaries. With voice over Internet, a new phenomenon in the communication system is coming into play. Various web sites enable a user with multimedia PC and an Internet connection to place real time telephone calls over the Internet, bypassing conventional public service telephone network (PSTN) systems. Welcome to the world of Internet Telephony.

Internet Telephony vs. Conventional Telephony

PSTN is a circuit switched communication system. There exists a dedicated path for the flow of signals from one person to another person. This eliminates latency and lag enabling smooth voice communication between the two persons connected. Internet is a packet based communication system. Data that will use the Internet is divided into packets. The packets then routed to their destination where they are combined to form the complete message. The route taken by the packets depends on the traffic at that instant in any given route. Sometimes the heavy traffic causes packets to be dropped for later transmission. Whenever the packets face bottlenecks due to traffic congestion, communication takes place in jerks. If the packets contain real time voice data, the message then becomes incoherent. Although lost packets can be reconstructed and resent, the delay that is introduced also renders the message incoherent if it is real time voice data.

The present scenario

Internet telephony has become a multi million-dollar business. The initial products were used for real time PC-to-PC communication between users of the same software logged onto the net at the same time. The real development was achieved with Pc-to-Phone software. Delay and latency were the bugs in the initial software, which were reduced to a great extent in the newer versions. The latest development is the interfacing circuits which when connected to the computer make them a private exchange of its own. The user then logs onto the net and through the interfacing circuits' helps other users to connect to another phone through the Internet. This is the Phone-to-Phone connection through the Internet being used as a gateway. These are nascent products, which are still trying to find their feet in the Voice over IP scenario. But the advantage of these circuits is that an ordinary telephone is used to connect to another telephone.

A newer development has been the use of private networks to carry real time voice over the net. This will eliminate the delay and latency to a great extent as these routes are expected to be of low traffic. There is no dearth of software available at present for Pc-to-Pc communication. But the inter software compatibility has reduced the effectiveness of these software. Inspite of the drawbacks these software are still popular with the net users.

Future Possibility

The present scenario is definitely not rosy but it is looking up. The present structure of the Internet was not built to carry real-time voice signals. This has been the major headache for the software developers. The development of Ipv6 is expected to provide the real backbone for real time voice communication by providing a mezzanine structure over the present state without replacing it. Till such development is provided for public use one has to do with the products available and accept their limitations. Development is also approaching its end to solve the issue of inter-software compatibility. This has been possible due to standardization of the protocols governing the flow of real time voice data over the net. Another development that has caught the eye is the development of "Gateways". These are specialized servers that are used to connect the Internet to the local PSTN network. When a person tries to connect to another telephone he is guided through the gateway. The quality of service is similar to mobile telephones. A newer development involves the elimination of the computer for Internet connection. In this case the local PSTN network is connected to the Internet. When a PSTN telephone dials a

number it is connected to the Internet through the exchange and the call is routed through the net to the destination local exchange where the reverse procedure occurs and the connection takes place.

The Indian Scenario

At present Internet Telephony is banned in India. Voice transmission over the internet is not allowed and internet accounts of persons using or trying to use the products for voice transmission are fire-walled from the respective servers. Irrespective of the ban Internet Telephony products are still being used on the sly by the users. The most popular of these products have been the PC-to-Phone and PC-to-PC software. The popularity can be gauged from the fact that these software are available from the accompanying CD on various IT magazines.

The popularity of these software arises due to the high priced international calls from India. In the US a call from US to India costs roughly $ 0.25 whereas the reverse call costs roughly Rs 65 that is roughly $ 1.50.

Open up Internet Telephony in India

In the wake of advancement of technology it is not possible to go against it by the method of firewalling. Private ISP's in India have already started functioning and most of them have their own gateways. It is not practically possible to monitor if any one of them is allowing real-time voice transmission. The Govt. has already allowed private players into the domestic long distance scene. Why should the Govt. controlled bodies monopolize the international scene?

The main problem that the government telephone companies face is the loss of revenue if voice over IP is allowed. If the real facts are presented then one can see that as email ate into the revenue of the postal department, unauthorized voice over IP will erode the revenues from the international route if it has not already started.

Telecom Commission Chairman A.V.Gokak, is reported to have said: "We will study the trade off between retaining government monopoly over international voice services and freeing data services over international circuits. If the benefits to society are large enough, we may free data traffic."

India has large number of NRIs whose families still live in India. They will be the major users of Internet Telephony if they are not using one on the sly. The demand for the product is there. The use of Internet Telephony products that are reasonably priced will entice the users to a large-scale use of such service. This in turn can offset the loss of revenue to a major extent on the international circuit.

Need of the Hour

Clearly the onus lies with the government. The policies should stop protecting the government agencies and lulling them into a false sense of security. The government agencies are venerable to breakdowns both man made and technical. Users will always require reliable and economical products. As no body owns the Internet the possibility of a breakdown is very remote. With development new services will evolve which will entice the users to these products irrespective of the drawbacks. Technology knows no barriers and attempting to tackle the progress of technology is like trying to stop the tide by standing in front of it.

Vint Cerf, Senior VP of global telecom giant MCI predicts that by 2010, more than half of all voice traffic will be carried over packet switched data networks. Consulting agencies like Arthur D. Little and Phillips Tarifica have warned that leading telecoms will lose millions of dollars in international revenues after 2000 because of the low cost voice calls over the Internet.

It is for the government to formulate policies that will harness the new technologies for the betterment of the people of the country and also the economy of it. Who knows the fears of telecoms of losing revenue may turn on its head with the embracing of new technology and generate more revenue than the present situation.

IEEE DELHI SECTION EXECUTIVE COMMITTEE : 2001

Position	Name	Organization	Tel (O)/(R)	E-mail Address
Chairman	Dr. R. Balasubramanian	IITD	6591246, 6562181	balu@ieee.org
Vice Chairman	Mr. Raj Kumar Vir	Ex-RLYS	4352890, 2154214	rajvir@ieee.org
Vice Chairman	Dr. Ajay K. Tandon	MIT	2969497, 7853952	akt@ieee.org
Secretary	Dr. Ram Nath	BHEL	4367725, 6894440	ramnath@ieee.org
Treasurer	Dr. S. S. Jamuar	IITD	6591070, 6582959	ssjamuar@ieee.org
Joint Secretary	Dr.(Mrs.) Mini S. Thomas	JMI	6312651, 6680480	mini@ieee.org
Past Chairman	Mr. R. K. Asthana	BHEL	6001093, 2240390	asthana@ieee.org
Member	Dr. S. Mukhopadhyay	CEA	6170541, 3387501	subrata@ieee.org
Member	Mr. Prakash V. Ekande	NTPC	914410239, 6315865	pvekande@yahoo.co.uk
Member	Mr. Man Mohan S. Puri	DESEIN	6446438, 3271101	anant@giasd101.vsnl.net.in
Member	Mr. Promod K. Srivastava	BHEL	914552570 (R)	pks@ieee.org
Member	Dr. Asok Bhattacharyya	DCE	7850042 (R)	bh_asok@hotmail.com
Member	Mr. G.R. Agarwal	N. RLYS	3387909, 3345651	agarwalgra@rediff.com
Member	Dr.(Mrs.) Devi Chadha	IITD	6512640 (R)	dchadha@ee.iitd.ernet.in
Member	Mr. Harish Tejwani	HUGHES	916346666, 7221116	htejwani@ieee.org
Member	Dr. V.R. Singh	NPL	5787161, 5752954	vrs@csnpl.ren.nic.in
Member(E/O)	Dr. Ram G. Gupta	MIT	6255675, 4363095	rgupta@mit.go
Member(E/O)	Dr. K.S. Chari	MIT	4362972, 4361464	chari@ieee.org
Member(Co-op)	Dr. K. Subramaniam	MIT	3239560, 6105497	ksdir@hub.nic.in
Member(Co-op)	Mr. R.K. Mallik	IITD	6591059, 6581170	ranjankmallik@yahoo.co.in
Member(Co-op)	Mr. Ravi K. Aggrawal	BECHTEL	916343107, 6849827	rkaggar1@bechtel.com
Member(Co-op)	Mr. Ashok Golas	TELECOM	3323500, 6437566	ashok.golas@ties.itu.int

VARIOUS SUB-COMMITTEES OF IEEE DELHI SECTION FOR 2001

S No.	Name of Standing Committee	Chairperson	Members
1	Membership Development	Mr. R.K. Vir	Dr. S. S. Jamuar Dr.(Mrs.) Mini S. Thomas Mr. G.R. Agarwal Mr. Daman D. Sood
2	Awards and Fellow Nomination	Dr. V.R. Singh	Dr. S. Mukhopadhyay Dr. S.C. Dutta Roy Dr. Pradeep K. Dubey
3	Student and Educational Activities	Dr.(Mrs.) Mini S. Thomas	Dr. A. Bhattacharyya Dr. R. K. Mallik Dr. Prerna Gaur
4	Public Relations and Publication	Mr. P.K. Srivastava	Dr. Ram Nath Mr. Harish Tejwani Mr. P.V. Ekande
5	Intersociety Relations	Dr. R. Balasubramanian	Dr. S. Mukhopadhyay Dr. S. S. Jamuar/ Dr. R G Gupta Mr. M M S. Puri/ Dr. K.S. Chari Dr. K. Subramanian
6	Section History	Mr. M.M.S. Puri	Mr. R K Asthana Dr. R. Balasubramanian Mr. Harjiwan Vyas
7	Finance	Dr. S.S. Jamuar	Dr. R. Balasubramanian Dr. S. Mukhopadhyay Mr. R.K. Asthana Dr. Ram Nath
8	Technical and Professional Activities	Dr. S. Mukhopadhyay	Dr. S.S. Jamuar Dr. R.K. Mallik /Dr. Ram Nath Mr. Harish Tejwani
9	Nomination	Mr. R.K. Asthana	Dr. S. Mukhopadhyay Mr. M.M.S. Puri Mr. P.K. Srivastava
10	Electronic Communications Coordinator	Dr. S. Mukhopadhyay	Mr. Rohit Joshi
11	Audit	Dr.(Mrs.) Devi Chadha	Mr. G.R. Agarwal

ACTIVITIES OF STUDENT BRANCHES

TROIKA 2001

TROIKA 2001 an annual event of Delhi College of Engineering Student Branch was held from 27th of February to 3rd of March 2001. The inaugural function was graced by the presence of chief guest Prof. K.K. Aggarwal, Vice Chancellor, Guru Gobind Singh Delhi Indraprastha University (guest of honour), Dr. S.S. Aggarwal, Scientist Incharge, CEERI. During TROIKA 2001, the students of IEEE Student Branch found an opportunity to pay their regards to some of the veteran personalities of IEEE and IEE Delhi, Dr. P.N. Choudhary, Mr. P.K. Srivastava, and Prof. Q.C. Gupta, who have contributed significialy to the cause of development of IEEE and IEE activities at New Delhi.

Following events were held under TROIKA

Envision	software development contest
Technovision	paper presentation contest
Brainwave	a hardware presentation contest
Bits 'n' Bytes	on the spot and overnight programming contests
Animania	animation development contest
Web now	web page designing contest
Panache	multimedia based quiz contest
SPAC	student – industry interaction program
SPAVe	managerial workshop & debate

SPAVe the Students Professional Awareness Venture was divided into two modules: the modern debate and the the case study. The modern debate session was chaired by Dr. Anil Wilson, Principal St. Stephens College, Delhi University and was judged by Prof. S.P. Seth and Mr. Sunil Tandon. The case study session was judged by professionals from Mckenzie.

SPAC the Student Professional Awareness Conference was held on 3rd March, Prof. S.C.Dutta Roy, Fellow of IEEE presented a most interesting talk highlighting the basic but very interesting problems of electronic and electrical circuit analysis which have remained still unsolved, to encourage the students educational interests. He also gave the merit awards to the participants in the valedictory function. Another important aspect of SPAC is company presentation where leading multinational companies like MICROSOFT, BHARTI TELECOM, SIGMA SOLUTIONS have come and graced the occasion by delivering their presentation to make the students aware of the professional and job opportunities in different fields.

Reported by: Dr Asok Bhattacharya, Branch Counsellor, Delhi College of Engineering

DITECH

DITECH, the annual all India Technical-cum-cultural festival of Netaji Subhas Institute of Technology(NSIT), organised by the IEEE student branch was held during 22-24th March. The festival was inaugurated by the late Mr. Dewang Mehta. We feel fortunate that this was one of the last educational institutions visited by Mr.Dewang Mehta before his sad demise. His excellent speech set off the tone for the festival, works hard and play hard. Staple Events like Vichaar - the paper presentation, Samasya – the on-the-spot and overnight programming competition, Samadhan - the predefined software / hardware problems and many more such events drew unprecedented numbers, some from as far as Chennai. There were two new events this year, Nirmaan, the on-the-spot hardware design contest as well as the junior on-the-spot programming competition, both needless to add, runaway success. Cultural events like debates, quizzes, etc were held side-by-side. The festival ended with a fabulous musical evening. The IEEE Delhi section took particular interest in this festival, and sponsored the prizes for Vichaar, the paper presentation contest.

Reported by Dr Mini S Thomas,
Student & Educational Activities Sub-Committee Chair

WORKSHOP ON POWER SECTOR REFORMS

Mr. Amitabh Agarwal, IEE lighting the traditional lamps; also seen in picture (L-R) Mr. C. P. Jain, Chairman, NTPC, Mr. Pradeep Chaturvedi, Institution of Engineers (India), Dr. TSM Rao, IEE, Dr. R. Balasubramanian, IEEE, Mr. Suresh, P. Prabhu, Honourable Union Minister of Power, Volunteer from Mahila Institute of Technology

A workshop on 'Power Sector Reforms' was Organized at New Delhi on March 19, 2001 jointly by the Delhi International Center of the Institution of Electrical Engineers (IEE) and the Delhi Section of the Institute of Electrical and electronics Engineers (IEEE).

Mr. Suresh P. Prabhu, Union Minister of Power inaugurated the workshop. He stressed upon the need to deliver affordable power to the ultimate consumer. He drew the attention of power professionals to the revamping of distribution system by introducing feederwise monitoring. In his keynote address, Mr. K.N.Sinha, Member (Planning), Central Electricity Authority analyzed the reasons of poor performance of SEBs. It was deliberated that the privatization of distribution system by dividing the total system into smaller manageable areas is expected to bring about improvement in power sector

In the session on *Distribution Sector Reforms*, speakers stressed the need of regulation, effective Metering, Billing and Collection System, proper assessment of T & D Losses, economic valuation of assets, rational fixing of tariff at the time of privatization. In the context of long turn around period for distribution companies, lease or outright sale could be thought of as mode of privatization.

As a large consumer, Indian Railways presented their viewpoints on the requirement of cost-based tariff, setting up of captive power plant to supplement the supply system, etc.

Afternoon session on *Issues and Challenges for Private Sector Participation* went through the salient features of 'Electricity Bill 2000'. The various issues included role of regulators, genesis of reforms to attract additional investment, corporatization of utilities and ultimately privatization.

In the panel discussion, Chaired by Mr. T.N. Thakur, CMD, Power Trading Corporation, panelists placed their views about the necessity of reforms in the background of low financial credibility of SEBs. It might follow one of the basic four models by unbundling of electric utilities. Control of thefts (in SEBs), assured power to agriculture sector even at premium cost, third party sale by generating company (through transmission access), continuation of budgetary support to SEBs for some more time (during transition period of reform) were felt as need of the day. To come out of crisis, suggestions were floated to implement Operation Finance Action Plan. It was proposed to strengthen the distribution circles with progressive metering. It was suggested to delegate the authority while fixing up accountability at every level.

Mr. Amitabh Agrawal, IEE Delhi Chair and Dr. S.Mukhopadhyay, IEEE PES-IAS Delhi Chapter Chair who coordinated the workshop expressed hope that deliberations in Workshop would lead to consensus in following the path of power sector reforms. The workshop attended by a large number of IEEE members as well as other engineers ended with the summing up of proceedings of the day and vote of thanks by Prof. R.Balasubramanian, IEEE Delhi Section Chair.

JOIN IEEE TO ENHANCE YOUR CAREER

IEEE DELHI SECTION BY-LAWS

(as amended w.e.f. May 13, 2001)

Article-I : Name and Territory

1.1 This organisation shall be known as the Delhi Section of the Institute of Electrical and Electronics Engineers Inc.

1.2 These Section By-laws as framed and promulgated hereafter are to be generally read in conjunction with different provisions of Section Operation Guide and By-laws of IEEE, which should be suitably interpreted for application to Delhi Section.

1.3 The territory of the Delhi Section as designated by the IEEE Regional Activities Board includes the National Capital Territory of Delhi, Union Territory of Chandigarh and the States of Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab and Rajasthan.

1.4 The Delhi Section shall have its principal offices in the city of Delhi from which it shall carry out its management and other administrative functions.

Article-II : Officers

2.1 The elected officers of the Section shall be Chairperson, two Vice-Chairpersons, Secretary, Joint Secretary and Treasurer.

2.2 Duties of elected officers will be as per the RAB operation manual and IEEE By-laws.

Article-III : Term of Office

3.1 The term of office of the Section Executive Committee as defined in Article-5.1 shall be one year beginning on 1st January, but in any case the outgoing Section Executive Committee will continue until their successors are duly elected and take office.

3.2 Any vacancy occurring during the year shall be filled by majority vote of the Section Executive Committee.

Article-IV : Executive Committee

4.1 Section Executive Committee shall constitute Standing Committees which will be responsible for functions listed below:

1. Membership Development

2. Awards and Fellow Nomination

3. Student and Educational Activities

4. Public Relations and Publication

5. Intersociety Relations

6. Section History

7. Finance

8. Technical &Professional Activities

9. Nomination

4.2 The Chairperson of each of the Committees, except the Finance Committee, will be appointed by the Section Executive Committee, from amongst the members of be the Executive Committee and their term will be concurrent with that of the Chairperson.

4.3 Each Standing Committee Chairperson, except Finance and Nomination Committee, may appoint his Committee Members in a manner that representation from inside and outside the Executive Committee is maintained, to ensure that Section operations have base broader than the Executive Committee.

Article-V : Management

5.1 Management of the Section shall be by the Section Executive Committee which shall consist of the elected officers, nine elected members, immediate past Chairperson, Chairpersons of all Sub-sections and Chairpersons of all Groups / Society Chapters, if located in Delhi as ex-officio Members. More Members not exceeding four may be co-opted by the Section Executive Committee.

5.2 Meeting of the Section Executive Committee will ordinarily be held monthly and will be called by the Section Chairperson or by a written request of any five Members of the Section Executive Committee.

5.3 Majority members of the Section Executive Committee shall constitute a quorum provided elected members are at least one more than the appointed members and the business shall be conducted by majority vote.

5.4 The financial year of the Section shall be one year with effect from 1st January.

Article-VI : Nomination and Election of Section Executive Committee

6.1 A nomination Committee consisting of three members other than present office bearers shall be appointed by the Section Executive Committee. Immediate past Chairperson of the Section (if available) failing which any past Chairperson shall be Committee Chairperson. The Nomination Committee shall not nominate any of its members as officer in the slate.

6.2 The nominations of the Nomination Committee will be announced to the Section Membership and, following this, a minimum of 28 days allowed for additional nominations by petition. To be valid, the petition must be signed by 25 or more voting members.

6.3 If only one nomination is made for each office, the election will be made at the Annual Meeting. If additional nominations are made, election will be made by ballot mailed to the voting membership and the vote counted by a Committee appointed by the Section Chairperson. Members other than Students shall be the voting members.

6.4 The suggested time table for this procedure is as follows :

1st September - Appointment of Nomination Committee

1st October -Announcement of Nominations

1st November- Close Nomination by petition

15th November - Mailing of ballots

15th December - Hold Annual Meeting

Article-VII : General Body Meeting

7.1 Annual General Meeting of Section Membership is called by Section Chairperson in consultation with Executive Committee for presentation of Annual Report, Election of Office Bearers & Executive Committee Members and any other agenda formulated by Executive Committee.

7.2 In order to transact business in General Body Meeting at least 25 voting members (quorum) must be present. However, if the required quorum is not present at the scheduled starting time of the Meeting, then the General Body may be adjourned. The Meeting may be reconvened after waiting for half an hour to transact the slated business without waiting for the quorum.

7.3 Special General Body Meeting can be requisitioned by a petition signed by not less than 25 voting members submitted to the Section Chairperson, who in consultation with Executive Committee will call the Meeting within two months with proper formulation of agenda.

7.4 Notices for any General Body Meeting shall be mailed at least one month in advance and shall include date, time, venue and agenda for the meeting.

Article-VIII : Finances

8.1 All expenditure of Section funds must be approved by the Finance Committee.

8.2 The Finance Committee shall consist of the following :

- Chairperson : Section Treasurer

- Member : Immediate past Chairperson of the Section if available, otherwise one member appointed by the Section Chairperson

- Member : One member appointed by the Section Chairperson

8.3 Without prior authorisation of the Executive Committee, Section funds can only be used for normal operation of the Section.

8.4 The Treasurer jointly with either the Chairperson or Secretary or Joint Secretary shall be authorised to draw funds as approved by the Section Executive Committee.

Article-IX :Amendments

Proposals for amendment to these By-laws may originate in the Section Executive Committee or by a petition signed by 25 or more voting members, which shall become operative if adopted at General Body Meeting by majority vote.

Article-X : Sub-Section

10.1 Members of any town may through a petition signed by 20 or more members and approved by the Executive Committee form a Sub-section for the purpose of organising activities of the Section in that town.

10.2 A Sub-section will be managed by a Committee elected annually, comprising of a Chairperson, Vice-Chairperson, Secretary, Treasurer, immediate past Chairperson and not less than three Executive Committee Members.

10.3 The Chairperson of the Sub-section shall be an ex-officio Member of the Section Executive Committee and shall be responsible to the Section Executive Committee for liaison and maintaining relations with Section Executive Committee. He / she shall report from time to time to the Section Executive Committee, regarding the activities of the Sub-section.

10.4 Sub-section Chairperson will submit to the Section Secretary by the 31st December of each year, a consolidated report of meetings held during the year and a report on Sub-section financial operations. The Sub-section shall send to the Chairperson, Vice-Chairpersons and Secretary of Section Executive Committee every circular or notification, it sends to its members.

10.5 Sub-section shall receive annual financial support depending upon its membership and its meeting programmes.

TECHNO TOOLS : TRANSFORMING FILM WORLD

Special software such as Cyberware, Lightscape and RenderMan has ushered in a revoulution in the field of film production. Light and sound have witnessed phenomenal changes and versatile HMI and intelligent lighting have given a chance to film makers to get more creative. The use of digital technology and wireless microphones have completely bypassed the need for dubbing a movie.Honeycomb by OHM, UK, makes sound more punchy, warm and mood creating. Digital Signal Processors fuse recorded sounds with live music, making life easy for musicians and music directors.In the future, tools such as the hi-resolution ERICAM ST will help creative cameramen in shooting slow motion and free shots.

Source:*Hindustan Times*

FROM THE EDITOR

Dear Fellow Members,

The year started very well for Delhi Section. Due to tremendous growth in membership and a series of technical and professional activates organized by the section, Delhi Section won the award for being the Outstanding Section in the Region for the year 1999. This indeed is a great recognition and should motivate us to achieve still more in future. The Execom for 1999 under the leadership of Sh. R.K. Asthana deserves all congratulations for this achievement. It may be recalled that last year this award was won by Mumbai Section. That shows, how much active role Indian Sections have been playing in IEEE in the Region.

As Chairman, Indian Council, I had an opportunity to attend the IEEE Region 10 Committee Meeting at Singapore on 6th & 7th April 2001. Many important issues concerning growth of membership, increased educational activities, sustaining interest of student members, encouragement to young engineers etc. were discussed. What appealed to me most was the idea of formation of GOLD groups. GOLD, Graduate of Last Decade, members can form their own groups and organize activities of their interest among themselves for which they get support from their section. The idea has been introduced to motivate young engineers who otherwise feel a little isolated in the section activities generally dominated by members, senior in age and experience. For GOLD group, Headquarters gives special financial incentive to the section. I feel, Delhi Section should also encourage young engineers to form GOLD groups.

Delhi Section is hosting Annual Conference and Exhibition (ACE) 2001, the annual event of India Council, on November 1,2 and 3, 2001 at New Delhi. First brochure calling for papers has already been issued. The theme of the conference has been kept very broad based so that more and more engineers could participate and present their papers. Details of this event are given in this issue. Let all the members make efforts to give this conference a wide publicity and make it a success.

With best wishes

Yours sincerely

P.K. Srivastava