



THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS

Newsletter

1953-1993
40
years

Vol.2, No.5

September-October 1993

FROM PRESIDENT'S DESK

Greetings and good wishes from the IETE HQs. Our members would be happy to learn that the 40th Foundation Day, and our associated technical programmes during Sept 30-Oct 3, 1993 were all a grand success, kudos to our Hyderabad centre. Our patriarch Founder Member Shri M Madan Mohan ably assisted by Prof CVS Rao, Chairman, Hyderabad centre, Shri Warlu, Chairman Exhibition & Souvenir Committee and various committees deserve our full commendation and grateful thanks for successfully organizing the whole programme. Several of our past Presidents and tens of our Founder Members graced the occasion together with Chairman/Hony Secretaries of most of our local centres/sub-centres; and many members from different parts of the country also attended the programme. We are happy that a number of special publications could be released on this occasion, which I hope our members would cherish to possess. A brief account of this programme together with the details of the books, ordering procedure etc appears elsewhere in this Newsletter; and, major technical papers including the 25th Bhabha Memorial Address (Prof Thomas Kailath) and the Key-Note Address on PCS (Prof A Paulraj) will appear in a forthcoming issue of IETE Technical Review.

Our new council has assumed office on Oct 1, 1993. Based on our successes in the past year, our action plan-towards greater visibility for IETE through new programmes, will now continue with greater vigour this year also. I seek your cooperation in this endeavour.

Our major technical programmes in the coming year will be 25th Mid-Term-Symposium on Electronic Access & Security Systems at Calcutta on April 9-10, 1994 and international Conference on Emerging Optoelectronic Technologies (jointly with other sponsors) at Bangalore on July 18-22, 1994. I am sure our members would welcome these and other events during the coming year.

Our 40th Foundation programme was tragically overshadowed by the killer earthquake which brought death, destruction and misery to our fellow citizens in three neighbouring states. Our condolences to the bereaved families. IETE also extends its helping hand to them in the national reconstruction efforts to mitigate their hardship in this period of grief and disaster.

Bangalore

B S Sonde
President

NEWS FROM HEADQUARTERS

40th Foundation Day of IETE and the 36th Annual Technical Convention

The 40th Foundation Day of the Institution of Electronics and Telecommunication Engineers was celebrated on 1st Oct'93 in conjunction with the 36th Annual Technical Convention (ATC '93) of the Institution on the theme Personal Communications Systems (PCS) and Enabling Technologies held at Mekaster Auditorium, IETE Hyderabad Centre on 1-2 Oct '93. His Excellency Shri Krishna Kant, the Governor of Andhra Pradesh was the Chief Guest on the occasion. In his inaugural address he called upon the electronics experts, planners and policy makers to give thrust to the area of personal communications systems, success in which was essential for rapid economic growth and democratisation of the society. Prof B S Sonde of the Indian Institute of Science Bangalore who was re-elected President of IETE for 1993-94, presided. In his presidential address he described the 40 years of IETE (1953-1993) in retrospect and identified new and major challenges in emerging technologies requiring intensive R&D and industrial efforts in the immediate future. He also enumerated the role of IETE to meet the above challenges. Earlier in his welcome address Mr M Madan Mohan, Chairman of the Organising Committee of the convention said

that it was very appropriate that the 40th foundation day of IETE in conjunction with the 36th Annual Technical Convention was being held at Hyderabad which recently celebrated the 400th year of its existence. He further informed that this year, the IETE centre Hyderabad too has completed 20 years of its existence.

On this occasion the Chief Guest conferred Distinguished Fellowship on Prof S C Dutta Roy of IIT, Delhi. The Chief Guest also inaugurated the Staff College of IETE named as Centre for Advanced Studies in Emerging Technologies (CASET). IETE-CASET is an affiliate of IETE with the objective of conducting courses of advanced technologies in the field of electronics, telecommunications, and computers. Shri OPN Calla is the first Chairman of its Governing Council.

The Chief Guest released the following books :

- "Power Electronics & Drives" edited by Gopal K Dubey of IIT, Kanpur & C Rao Kasarabada of ECIL, Hyderabad.
- "First Four Decades of IETE " edited by Dr R P Shenoy, Visiting Professor, Indian Institute of Science, Bangalore.
- 40th Commemoration Volume of the IETE.

The Chief Guest also presented the IETE awards to various winners including students.

Prof Thomas Kailath of Stanford University, USA & Hony Fellow of IETE delivered the 25th Bhabha Memorial Lecture on Some Challenges of Telecommunication. The 16th Ram Lal Wadhwa Memorial Lecture was delivered by Dr V P Bhatkar, Executive Director, C-DAC, Pune on Perspective in Advanced Computing. An exhibition on Personal Communication Systems and Enabling Technologies was inaugurated by Prof Thomas Kailath of Stanford University, USA and a souvenir was released on this occasion by Prof A Paulraj of Stanford University, USA.

Eleven past Presidents out of the 14 living and 15 founder members out of 109 attended the 40th Foundation Year celebrations. A dinner was hosted by Shri V M Trehan, CMD, Mekaster on 3rd Oct 93 at Holiday Inn in their honour.

There were five technical sessions spread over 2 days. The key-note address in Technical session-I was given by Prof A Paulraj on the topic Overview of PCS. Technical sessions-II, III & IV were devoted to the topic PCS-R&D in India while Technical

session-V dealt with PCS-Planning & Implementation in India. These sessions were addressed by expert speakers. The sessions were followed by a valedictory function chaired by Prof B S Sonde, President IETE. This session was thrown open to the audience for their views on the convention and its theme.

- A tutorial on Data Reception from Remote Sensing Satellites was held on 3rd Oct'93 at the Satellite Earth Station complex at Shadnagar. The participants were given certificates at a ceremony by the Chief Guest Mr P Kameshwara Rao, Chief General Manager, DoT, Hyderabad.

- A programme of interaction between students and representatives from industries in public and private sectors was arranged on the morning of Oct 3, 1993. A large number of students and representatives from industries participated in the interaction. Shri T H Chowdary presided over this programme.

- A programme of co-ordination between academic institutions and the industry was arranged on the afternoon of 3rd Oct '93. A large number of representatives from academic institutions and the industry participated. Mr U V Warlu presided over this programme.

The success of the entire activities from Oct 1-3rd were due to the organisation done by Shri M Madan Mohan and the executive committee of Hyderabad IETE centre.

IETE Award Winners 1992-93

The following received the IETE Awards during the 36th Technical convention of the Institution on 1st Oct '93 at Hyderabad.

- Dr Vijay P Bhatkar, Executive Director, Centre for Development of Advanced Computing, Pune - 16th Ram Lal Wadhwa Gold Medal.

- Dr Vinod Chandra of Indian Institute



The President and members of the council, with chairman of local and subcentres at Hyderabad during the 40th Anniversary Celebrations.

of Technology New Delhi - 5th Hari Ramji Toshniwal Gold Medal.

- Prof Vedula V Sastry of Indian Institute of Technology, Madras - 9th Bimal Bose Award.

- Dr Madarantakam Srinivasan of Defence Electronics Research Lab, Hyderabad - 2nd Bapuseetharam Memorial Award.

- Dr Barkur Suryanarayana Adiga, Shri S J Murlidhar & Shri Nagaraj Narayan Murthy of National Aerospace Laboratory, Bangalore - 1st Flt Lt Tanmaya Singh Dandass Memorial Award.

Awards for Articles - 1991

- Dr U A Srivastava of Motorola, Phoenix, USA - S K Mitra Memorial Award.

- Dr Rabindra Nath Ghose of Technology Research International, USA - J C Bose Memorial Award.

- Dr Bidyut B Chaudhuri of Indian Statistical Institute, Calcutta, Shri O A Kumar of Citicorp Overseas Software Ltd, Bombay & Dr K V Ramana of New Jersey Institute of Technology, USA - M N Saha Memorial Award.

- Dr Dwijesh Dutta Majumder & Dr Kumar Sankar Ray of Indian Statistical Institute, Calcutta - K S Krishnan Memorial Award.

- Mr Gangadhara S Mathad of IBM General Tech, USA - CDIL Award for Industry.

- Dr B D Gupta & Dr Bishnu P Pal of Indian Institute of Technology, New Delhi - Gowri Memorial Award.

- Dr Wasim Ahmed of Aligarh Muslim University, Aligarh & Dr PK Das of Dept of Ocean Development, New Delhi - Students' Journal Award.

Awards given to Students of AMIETE & DIPIETE

- Ms S Parvathy - Subramania Thyagaraja Prize.

- Shri Varghese Ray- Council Prize -I

- Shri S Sreenivasulu-Council Prize -II

- Ms Simmi Mittal - Council Prize - II

National Technical Paper Contest '93 on "Personal Communication Systems in Developing Countries - A Techno-Economic Challenge"- (open to IETE Student Members & undergraduate Engineering Students in India).

- Mr Anand Shridhar Sawant of Walchand College of Engg., Sangali - First Prize.

- Mr Joydeep Bhattacharjee, NERIST, Nirjuli, Itanagar - Second Prize

- Mr Sanjeev Athalye of Thadomal Sohani Engg College, Bombay and Ms S Vidyalakshmi & Ms R Suja of College of Engg, Guindy, Madras - Third Prize.

Correction in the Annual Report

In the Annual Report 1992-93 (Pg 4) Shri M N Kekre and Shri Chamman Lal, Fellows and Founder Members of the Institution were erroneously reported as having passed away. We profusely regret our error. It is heartening to note that both have been in the USA for many years.

While again regretting the error, we wish them many years of happy and cheerful life.

IETE-CASET/DoE (MAEP) Courses

Intelligent Controllers

A two day course on "Intelligent Controllers" was held at Electronic Niketan, DoE on 6-7th Oct 93. It was the first of the courses jointly organized by IETE-CASET (Centre of Advanced Studies in Emerging Technology) and MAEP (Microprocessor Application Engineering Programme), DoE, Delhi.

The main speaker for the course was Prof D Popovic, University of Bremen, a UNDP expert. Shri OPN Calla, Deputy Director, SAC, Ahmedabad was the Chief Guest at the inaugural function. Mr Mukhopadhyaya, Sr Director, Dept of Electronics presided over the function.

Some of the topics Dr Popovic dealt with were on knowledge based vs conventional controllers, knowledge based systems (KB), KB systems in process monitoring control and conventional and AI modelling of systems. He also deliberated on neural networks, advanced networks, such as ADELIN & MADELIN, applied neuro controller and neuro hardware. There was a demonstration on neural networks too. Prof Popovic discussed the fuzzy logic and fuzzy controllers in detail.

Microcontroller based system design

Second in the series of courses was a 5 day course in Microcontroller Based System Design held at Electronics Niketan, DoE, Delhi from 1-5th Nov '93. Dr Seshagiri, DG, NIC was the Chief Guest, Shri OPN Calla, Chairman Governing Council of IETE-CASET and Lt Gen Mookerjee too graced the inaugural function.

During the course, microprocessor based systems for real-time control, the i8096 family of microcontrollers, their hardware, software features, architecture, system design etc were discussed.

Future Courses in Emerging Software Technology by IETE-CASET / DoE (MAEP)

A course on "Neural Networks in Computer Vision" is likely to be held in Feb 94. Course fee per participant is Rs 3000/- which includes course kit, lecture notes, lunches and snacks. Delegates can register with EDP Manager, IETE, 2 Institutional Area,

Lodi Road, New Delhi 110003.
Telephone : 4631830, Fax :4631810.

Inauguration of NICNET Connectivity to IETE

Prof G Ram Reddy, Chairman, University Grants Commission, inaugurated the NICNET connectivity to the Institution of Electronics and Telecommunication Engineers (IETE) at a function held at the Siemens Chamber, IETE on 2nd Nov, 93. It was on this very day (40 years earlier) in Nov '53 that Dr S Radhakrishnan, former President of India inaugurated the formation of IETE. Welcoming the gathering, Prof Sonde, President IETE said that IETE will benefit from this in terms of greater interaction between various centres of the Institution and the Headquarters. It is also expected to give a boost to the distance education programme and the membership activities of the IETE.

Dr Seshagiri, Director-General of National Informatics Centre who also graced the occasion said that the NICNET connectivity, will provide IETE access to around 47 international networks which in turn will provide access to around 3000 databases. Teleconferencing is one mode of promoting distance education and NIC hopes that by end of Dec '93, it will be possible to connect 15 cities on an information highway that will be able to provide teleconferencing facilities. This will be possible thanks to the Ku-band operations now available.

Prof Ram Reddy said it is possible to provide high quality distance education by integrating new technologies with the educational infrastructure. The projected number of aspirants to technical education far exceeds the number conventional educational systems can handle. Distance education is the only feasible mode to supplement this and provide additional trained manpower. He expressed his appreciation of the fact that IETE has taken this venture of distance education

with great enthusiasm.

Lt Gen Mookerjee thanked the Chief Guest and other dignitaries assembled at this occasion.

Inauguration of Siemens Chamber of IETE

The Siemens Chamber at the IETE Headquarters was inaugurated by Dr E Hardt, Member of the Managing Board of Siemens AG, Germany and Group President - Public Communication Systems, on the evening of 24th Sept'93. Dr Hardt gave a technical presentation on the Changing Face of Telecommunication Market. Dr Hardt was accompanied by Dr E Reinhardt, Managing Director of Siemens Ltd.

IETE's Contribution towards Quake relief

The Prime Minister's Office has expressed appreciation of the contribution of Rs 10,000/- by the IETE towards the PMO's relief fund for the quake-hit. Thanks are to all the members of the IETE.

The following books are available at IETE HQ, Local centres, Sub centres (limited copies) for sale.

- i) The First four Decades of IETE (Ed. Dr R P Shenoy) Rs.40/-
- ii) 40th Commemoration Volume of IETE Rs.60/-
- iii) Power Electronics & Drives, Vol 1, IETE Book Series (Ed. G K Dubey & C Rao Kasarabada) Rs.330/-

The first two books are valuable compendiums on IETE's achievements since its inception to date and Volume 1 of the Book Series is an excellent reference book for telecommunication engineers and students engaged in research and development work. Those interested in purchasing these publication may place their

queries/order to Secretary, IETE HQ, Lodi Road, New Delhi-110 003.

PERSONALIA



Dr A P Mitra was born in 1927 and obtained his PhD under the guidance of Prof S K Mitra, FRS. For over four decades, he led the Indian research activities on ionosphere

and aeronomy through a wide range of ground based and space techniques, with pioneering activities in ionospheric and atmospheric chemistry, stratosphere-mesosphere coupling, physics and chemistry of minor species and ionospheric effects of solar flares. He introduced the famous and widely used technique of Riometers. The Radio Science Group established by him in National Physical Laboratory, New Delhi, is the best known group in this area in India and is internationally famed.

In recent years his efforts have been directed towards the scientific aspects of global environmental hazards of human activities at all levels (troposphere, stratosphere, thermosphere). The monograph entitled "Human Influences on Atmospheric Environment" brought out in early 80's as a result of his Nehru Fellowship work became a reference document. This has been followed up with measurements and study of ozone and several critical minor species including greenhouse molecules. He is currently leading the CSIR programme on Global Change and advising Government of India on global environmental problems as the Chairman, Expert Advisory Committee of the Ministry of Environment and Forests. In this context he is preparing a series of documents relating to India; the first entitled "Greenhouse Gas Emissions in India: A Preliminary Report" has been brought, and the results of a new campaign (1991 rice paddy campaign) are under publication. He is an acknowledged international authority on interactive atmospheric

chemistry relating to ozone and greenhouse molecules.

For his work on upper atmosphere (and ionosphere) he has been given many awards including Shantiswarup Bhatnagar Award for Physical Sciences (India's highest scientific award), was decorated by President with Padmabhushan, elected Fellow of all the three Science Academies of India, elected Fellow of Royal Society in 1988 and is currently the President of National Academy of Sciences, Allahabad. He is currently holding Bhatnagar Fellowship, the most prestigious scientific fellowship of the country. He has been member, secretary and chairman of many committees and groups. He also served as President of URSI (International Union of Radio Science) during 1984-87. He was Director, NPL, New Delhi from 1982 to 86 and Secretary to the Govt of India, DSIR from 1986 to 1991.

He has about 160 publications and several monographs including "Ionospheric Effects of Solar Flares" and "Human Influences on Atmospheric Environment" to his credit.

DISTINCTIONS



Prof S C Dutta Roy of Electrical Engg Dept, IIT, Delhi has been conferred the Distinguished Fellowship of IETE at the occasion of the 40th anniversary celebrations of IETE.



Prof D Dutta Majumder of Indian statistical Institute, Calcutta has been awarded the PC Mahalanobis Memorial Medal of INSA, 1993, for his outstanding contributions to applied science and technology.

NEWS FROM LOCAL CENTRES

Allahabad

Several lectures and group discussions were organised as a part of 40th anniversary celebrations by the centre. The highlights are :

- Lecture by Dr Nar Singh, Dept of Electronics and Commn, University of Allahabad, Allahabad & Mr Sobhab Babu, Scientist, HCL, Allahabad on "Optical Fiber and Communication" on 6 Oct 93.
- Group discussion on Information Technology Challenges and Opportunities on 13 Oct 93. The participants were Dr K K Bhutani, Head, Computer Centre, Univ of Allahabad, Prof Ashok Gupta, Dept of Electronics & Commn, Univ of Allahabad, Mrs Mittali Chatterjee, Engineer, AIR, Mr Tikku, In-Charge, TV Centre & Mr U C Dubey, Sr Manager, IFFCO.
- Lecture series for Student Members on microwaves and its application by Dr US Tewari, Dept of Electronics and

Communications, University of Allahabad on 14, 15 & 16 Oct 93.

Bangalore

The following activities were undertaken by the centre.

- Lecture by Dr P S Ramanujam, RISO National Laboratories, Denmark on Optical Information Storage - Current Trends on 10 Aug 93.
- A three day Engineering Talents Exhibition cum Contest on 13 Aug 93 inaugurated by Dr PN Gupta, Addl Director, DoE.
- Technical visit to BEL factory on 21 Aug 93. Twenty five corporate members took part in the visit.
- Shri P Ramachandran, Project Director, INSAT-2, and Dy Director, ESA, ISRO Satellite Centre, Bangalore delivered a lecture on "INSAT-2 Space Segment Systems" on Engineers' Day on 15 Sep 93.
- Short term technical course for students to impart preliminary insight

ANNOUNCEMENT

25th Mid Term Symposium Bidyut Bhavan Auditorium, Salt Lake City, Calcutta 9-10th April '94 Theme : Electronics Access and Security System

Program

- 9th April, 1994 : Inaugural session; Vikram Sarabhai lecture; Technical Session on Multiaccess Telecommunication (I), Service Information Systems (II) Security (III)
- 10th April, 1994 : Dr. Lal C Verman Award lecture; Technical session on Special Application (IV) and Technology Standards (V); Valedictory Session.

Authors' Schedule

- Receipt of Abstracts : 15.1.1994
Notification of provisional acceptance of papers : 15.2.1994
Receipt of full text : 15.3.1994

Contact : Prof J Das, Chairman Organising Committee or Prof H Saha, Organising Secretary, IETE, Calcutta Centre, 3A, Chowringhee Place, Ranecunge Coal House, Room No. 53 & 58, 2nd Floor, Calcutta-700 013

into digital electronics and computer fundamentals.

Dehradun

The Dehradun Centre conducted a computer education programme titled "Management by Computers" from 26th July to 20th Aug 93. Thirty candidates have been trained. Shri VP Sandlas, Director, Defence Electronics Applications Laboratory, Dehradun inaugurated the course and Dr AS Bains, Chairman, local centre presided over the valedictory function held on Aug 23 '93. The course covered DOS 5.0, WS4, WS6, DRAW PERFECT and dBASE III PLUS packages. Eight PC-ATs were utilised for giving hands-on practice to the participants.

Guwahati

The 40th Anniversary celebrations of the IETE at the centre coincided with the World Standards Day on 14 Oct 93. The theme for the day was "Information Management - Faster and better with Global Standards". The seminar was jointly organised with

Bureau of Indian Standards (BIS). An exhibition on the theme displaying locally manufactured BIS certified items was also arranged on the occasion. The celebration was inaugurated by the State Cabinet Minister for Food and Civil Supplies, Dr Arrdhendu Kumar Dey at Gauri Sadan, Guwahati. The key note address was delivered by Shri P M Dastidar, Chairman, IETE centre.

Madras

The IETE students forum with 104 students from College of Engineering, Anna University was inaugurated by Dr M Anandakrishnan, Vice Chancellor of the University on 23 Aug 93. Prof R Sethuraman Chairman, IETE Madras Centre, presided over the function.

TECHNICAL NEWS

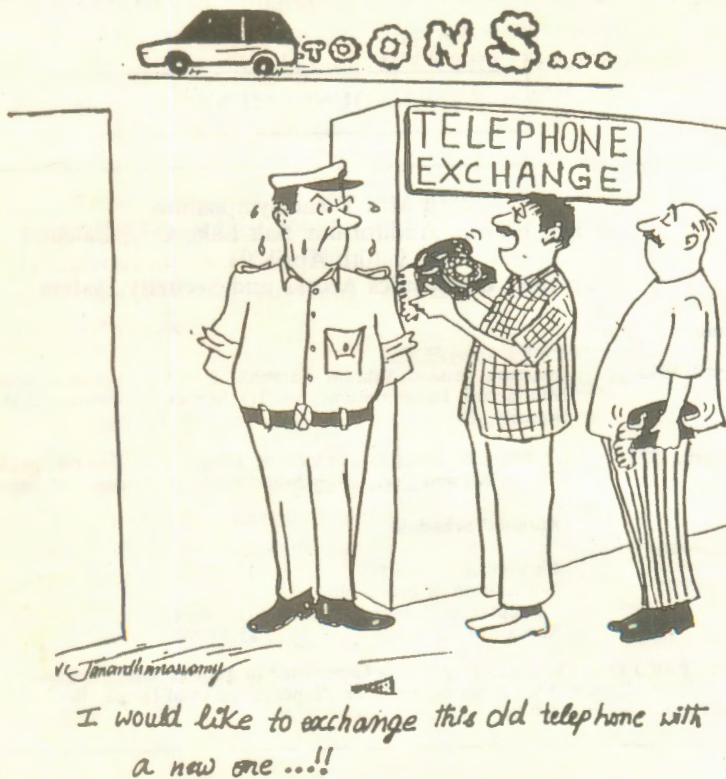
HTL's Fax Machine

HTL has diversified its production in the context of changing technologies in the field of electronics and communication and has grown as a

multiproduct company. Among the various new state-of-the-art technology products introduced in the market by the company is the Group 3 facsimile machine which is sleek and user friendly. In the first phase, HTL is marketing these machines as fully assembled at the collaborator's works, M/s Sagem, France who is the premier manufacturer in Europe and OEM suppliers to the leading brands like Alcatel, Minolta, Rank Xerox, Olivetti, Phillips etc. The range of fax machines are from personal fax to plain paper fax machines. These are very competitive in price and comparable to the best in quality. Servicing of these machines are taken care by their network of service centres at New Delhi, Bombay, Calcutta, Madras, Bangalore, Guwahati and Chandigarh. Since HTL is PSU under the Ministry of Communications, the purchase formalities could be minimised for placement of orders by Govt, and other PSUs.

Notebook Computers

Personal computing has come of age. PCs come in many shapes and sizes - desktop, laptop and now notebook type. The most current are notebook sized which are small and weigh as little as 2 lbs. Note book machine with Intel 386 and 486 processors are now available. These machines have many features as any other desktop machine with speeds upto 25 MHz or more and can support external floppy drive and support all the current softwares. The concept of owning and using a notebook computer is comparatively new in India. If properly advertised, note book computers will be more popular than laptop, because it can fit into an executive briefcase. Most of the people use the notebook as a desk-top computer, moving it between home and the office. Recently there is sharp fall in prices of note book computers while popularity of the product growing. Time is not far when note book computers will become a part of day to day living in India.



NEW OFFICE BEARERS

The following were elected as Office Bearers of the IETE Council (1993-94)

Vice Presidents : Brig SVS Chowdhry
Prof J Das
Prof S V Kharkar

Honorary Treasurer Prof R K Arora

The Committees of the Council (1993-94)

Academic & Distance Education Committee (ADEC)

Chairman - Prof J Das
Co-Chairman - Prof S C Dutta Roy

Finance & Policy Planning Committee (FPPC)

Chairman - Prof B S Sonde
Co-Chairman - Prof P V Indiresan

Membership & Local Centres Committee (MLCC)

Chairman - Brig SVS Chowdhry
Co-Chairman - Maj Gen J C Ahluwalia

National Policies Advisory Committee (NPAC)

Chairman - Lt Gen SG Mookerjee, PVSM, AVSM, VSM
Co-Chairman - Prof V Sinha

Publications & Annual Awards Committee (PAAC)

Chairman - Dr R P Wadhwa
Co-Chairman - Shri P P Malhotra

Technical & Innovative Programmes Committee (TIPC)

Chairman - Prof S V Kharkar
Co Chairman - Shri M C Agarwal

Local Centres Election

Chairman & Hony Secretaries elected at Jaipur, Patna, Mankapur local centres, & Pilani sub centre for 1993-94, are as under.

Jaipur	Shri A N Prasad (re-elect)& Dr Awdhesh Kumar
Patna	Shri V P Sinha & Shri S S Singh
Mankapur	Shri Mahesh Chandra & Shri G P Gupta
Pilani	Shri H N Bandopadhyay & Shri L M Joshi

FORUM

Science & technology in general and electronics and telecommunications in particular are the essential wheels for growth of the economy and social life of the people. Electronics has been moving from big to small and consequently, from multinational/large organisations to small-scale and household industry. Liberalisation is the logical conclusion of this spread of electronics to small-scale and household industry.

With greater impetus on liberalisation, now even the telecom which was a protected sector earlier, is going the way electronics has gone. Computers have further enhanced this process of universalisation and liberalisation as computers and communications are based on electronics and have become the essential ingredient in all walks of life.

With this in view, IETE had organised the Annual Technical Convention on the theme Personal communications. Personal communication will provide an individual a personal number, free from the limitations of wire and space, for communication with any other individual at any place and time. This, coupled with computers, will open a new era in data communication and multi-media systems.

IETEians, with their dedication to growth of electronics, telecommunications and computers, have a new role in the development and spread of high quality systems and services. This is particularly important for small organisations and operators who cannot have required quality R&D facilities and will have to depend on freelance professionals and consultancy houses. There is a need for our professionals to assess their strength, match these with the public requirements and evolve a system of mutual interaction, in which professionals can give their best and the customers can get the best service. Seminars and workshops as well as dissemination of technical literature on current topics can boost this interaction between professionals and the people.

Keeping this in view, IETE has started a Book Series under which books on current topics will be published by IETE from time to time.

IETE is also setting up a specialised institution called the Centre for Advanced Studies in Emerging Technologies (CASET) at Hyderabad to impart specialised training on current topics to the professionals, but there is a need for the professionals to come forward and organise similar efforts at town and city levels so that larger segments of the population can get the benefit of the professional advice and support. FORUM will therefore entreat all IETEians to ponder on this issue and come forward with their suggestions and programmes for better dissemination of information and interaction among the professionals and people.

IETE will grow with IETEians.

CDR(DR) H S Sharma (RETD)
Hony Editor

CALENDAR OF EVENTS

Subjects	Dates	Venue	Contact
7th International Workshop on Physics of Semiconductor Devices	14-18 Dec '93	New Delhi	Dr Krishan Lal, NPL, Dr K S Krishnan Marg New Delhi 110012
4th International Computing Congress	15-18, Dec '93	Hyderabad	Dr B Sushila, Org. Seceratry, ICC 93 Institute of Chartered Computer Professionals, India Tarnaka, Secunderabad 500017
4th Intl Symp on Recent Advances in Microwave Technology (ISRAMT '93)	15-18, Dec '93	New Delhi & Agra	Prof Banmali Rawat, Dept of EE, University of Nevada, Reno, Nevada 89557-0153, USA; or Prof Bharathi Bhat, CARE, Indian Institute of Technology, New Delhi 110 016
National Symp on Ocean Electronics 1993 (Sympol-93)	15-18, Dec'93	Cochin	Dr PRS Pillai, Coordinator, SYMPOL-93 Dept of Electronics, CUSAT Cochin-682 022, India
3rd International Conference on Advances in Pattern Recognition and Digital Techniques ICAPRDT '93	28-31, Dec '93	Calcutta	Convenor, Organising Committee Electronics and Communications Science unit, Indian Statistical Institute 203, B.T.Road, Calcutta 700035
Short term course on Communications, Signal Processing & Networking	27 Dec '93- 8 Jan '94	Kharagpur	Dr S S Pathak, E&ECE Dept., IIT, Kharagpur - 721302
16th Annual Pacific Telecommunication Conference	16-20, Jan '94	Honolulu, Hawaii USA	Pacific Telecommunication Council 2454, South Beretania street Suite 302, Honolulu,
National Seminar on Optical fibre	29-30, Jan '94	IETE , Pune Centre	N N Shukla, C/o IETE, Raghuraj 62, Indiranagar, Erandavana, Pune-411004
World Trade Fair International Exhibition & Seminar on Electronics & Telecommunication	13-22, Feb '94	New Delhi	M J Srinivasa Murthy Convenor, World Trade Fair Gagan Mahal, PO Box No-1065 Hyderabad - 500 029
National Symposium on Electronic Product Design (NSEPD-94)	18-20, Feb '94	Aurangabad	Dr D V Patil, Program Coordinator (NSEPD), Centre for Electronics & Design Technology, CEDT Complex, Marathwada University Campus, Aurangabad (MS) 431004
25th Mid Term Symposium on Electronics Access and Security System	9-10th, April '94	Calcutta	Prof J Das, Chairman, Organising Committee or Pro H Saha, Organising Secretary, IETE Calcutta Centre, 3A, Chowringhee Place, Raneeungee Coal House, Room No.53 & 58, 2nd Floor, Calcutta-700 013
International Conference on Computer Systems and Education	22-25, June '94	Bangalore	N Balakrishnan Supercomputer Education & Research Centre, IISc, Bangalore 560012
International Conference on Emerging Optoelectronic Technologies (CEOT '94)	18-22, July '94	Bangalore	Prof A Selvarajan, ECE Dept, Indian Institute of Science, Bangalore - 560 012
India COMM '94	25-28, Oct '94	New Delhi	Prem Bahal President Exhibitions India E-6, Defence Colony New Delhi-110 024

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