



सह वीर्य करवावहै

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IETE NEWSLETTER

FROM PRESIDENT'S DESK



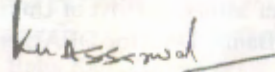
Never before the necessity of research, both basic & applied, has been felt so much in our country as today. Innovation is the key to progress & survival in any profession. Opportunities are available in every field of science & engineering for taking up R&D work in design, development, manufacturing and provision of services. We are living in a globalized knowledge society, where everything is technology driven. With the unprecedented miniaturization in the areas of electronics and sensors, manufacturing tools and processes are improving their accuracy. Computers, embedded software and sensors have made systems intelligent. Scientists and engineers are in a position to make useful inventions in chemical and biological sciences. Applications of biochemical and bio-molecular engineering in pharmaceuticals, patient care, computer chips and in renewable sources of energy are coming to light regularly. Nano-technology and bio-technology, which are the subjects of R&D activity today, will perhaps be the technologies for fuelling development after 20 years. Nevertheless, micro-electronics, telecommunication- both wireless and wireline, megacomputing, sensors and robotics will continue to act as catalyst in every field of science and technology.

R&D spending of our country is very low compared to developed countries like US, Japan, UK, France, Germany and even China. Notwithstanding this, there is an all-round increase in the R&D expenditure in government as well as private sectors during 2003. The 10th Plan (2002-2007) financial outlay has doubled compared to 9th plan (1997-2002). Private sector has started spending on R&D in order to maintain competitive stance of their products in the face of globalization. Education sector is building infrastructure to take on outsourced R&D activities of multinationals like IBM, Microsoft, INTEL and others who are all setting up their facilities in India. We have to maintain the quality of our services to establish credibility in order to become first choice for outsourcing and to be able to attract foreign students.

During 2003 private companies incurred substantial expenditure on R&D in automobile, pharmaceuticals and electronics sector. This is an important step by private sector and has already sent positive signals to Indian professionals working in developed countries to come back. Also, it would help in reducing the brain drain in future. This ascent is going to help in making India a developed Nation, if not earlier, then atleast by 2020.

All of us know that IETE has been contributing in R&D, for nearly 50 years through basic & applied research literature published in IETE Journal of Research, a bi-monthly publication of the Institution. This publication has evolved as a major source of information for research scholars and innovators in the field of electronics, telecommunications, computer science and engineering. Our latest contribution towards the research activity is initiation of two research fellowships in the areas of Emerging Wireless Technologies and Microwave & Radar Engineering. IETE would be providing financial support to bright research scholars through our Board of Research.

May I invite fellow IETEians, who are intellectuals, innovators, educationists, research scholars, managers both in private and government sectors and also the entrepreneurs to help in furthering the research activities of the Nation in general and IETE in particular.


(K K AGGARWAL)

NEWS FROM HEAD QUARTERS

Aurangabad

A national conference on "Computer Communication and Security" was arranged on Jan 4, 2004 at Hotel Ajanta Ambassador, Aurangabad. Dr M K Sahib, Director, Genomics & Biotechnology, Wockhardt Research Centre, Aurangabad was the Chief Guest. Shri Srikant Joshi, MLC was the Guest of Honour. Shri K P Sonawane, Hon'ble Vice-Chancellor, Dr Babasaheb Ambedkar Marathwada University, Ahmedabad presided over the valedictory function of national conference on Jan 5, 2004. Dr Vijay Bhatakar, Chairman, ETH Lab addressed the gathering through video conferencing.

Bangalore

The Centre conducted a number of technical lectures on the following topics :-

- Embedded system: Posix, application Demo, UML & its use.
- VLSI design: Evolution of Microelectronics, basics of VLSI design, design flows and styles, Y-chart, CAD Tools and Basics of MOS Transistors
- VxWorks: introduction, Multitasking and Semaphores, Synchronization, Object creation, Demo, Task creation, PGM discussions
- MOS characteristics, parameters, CMOS, BiCMOS, Interrupts, Timers, Device drivers; Static CMOS, Pass transistor logic, Power dissipation, Delay calculation
- Micro controller 8051 architecture
- Real time system example, Decomposition criteria
- ASIC Design
- MCS 51 Instructions & assembly programming
- Application programming, task creation, deletion SAFE & UNSAFE.

Dehra Dun

A computer course for Hindi medium school students by the IETE Dehra Dun Centre was organized during Jan 7-19, 2004 at DEAL Campus. More than 100 students from 10 schools participated in the programme. Shri M Ramachandran Addl Chief Secretary to the Chief Minister, Govt of Uttaranchal, inaugurated the course. Dr A S Bains, Director DEAL emphasized the need

for higher computer education amongst the younger generation. Mrs Prakash Kaur Bains distributed the prizes and certificates to the participants.

Hyderabad

The centre conducted the following activities:-

- The centre conducted short-term courses on "CCNA & CCNP" and "PC Hardware & Trouble Shooting" in the month of December 2003.
- Under professional development courses a lecture on "Network Security, Challenges & Solutions" by Shri K D Ambi, Jt Director, STQC, ETDC, Hyderabad was organized on Dec 18, 2003.
- Renowned Control Theorist, Prof K S Narendra, Director, Centre for Systems Science, Yale University, USA was felicitated on Dec 26, 2003. He delivered a lecture on "Adaptive Control: Past, Present and Future". Dr B L Deekshatulu, ISRO Visiting Professor, Dept of Computer Information Sciences, University of Hyderabad was the Chief Guest.

Kolkata

A technical lecture on "ISDN Services and its application in Broadcasting System" by Shri S C Rudra, Deputy Director-All & TV was arranged on Jan 31, 2004. He mentioned about the problems that were faced in maintaining better quality of service in AIR & Doordarshan with the non-exchange telephone-line used earlier and the edge we have now with optical fibre communication and ISDN. ISDN circuits may be used in future with the help of CODES to obtain high quality sound, picture etc. Shri Rudra explained Integrated Service Digital Network (ISDN) with basic elements like, Digital connectivity, Common channel signaling connectivity, multi purpose capability of user network Intrinsics.

Shri Rudra defined the different classes of Time Division Switching and Space Division Switching. He concluded by stating that the primary task of ISDN is to provide reliable and quality communication services to its subscribers. It has sophisticated information processing function for various use in Telecommunication system, Broadcasting Service and Banking Service.

Lucknow

A seminar on "Digital Radio Broadcasting" was held at Hotel La Place Park Inn, Lucknow on Dec 13, 2003. The Chief Guest on the occasion was Shri K M Paul, Engineer-In-Chief, All India Radio, who inaugurated the seminar and delivered the keynote

address. Shri V K Shukla, Chief General Manager Telecom, BSNL UP Circle, Lucknow was the Guest of Honour. Papers on Digital Radio Broadcasting below 30 MHz, DRB (Eureka-147), Satellite Digital Radio, Data Broadcasting, Internet Broadcasting, Digital Studios, Hard Disk Based Studio Automation Services, ISDN services, Mobile Services and Broadcasting were presented in two technical sessions chaired by Shri D K Bandhopadhyay, Chief Engineer, AIR and Shri Vigyan Prakash, Chief Engineer, AIR. Panel discussion and Valedictory session were chaired by Shri S P Kalsi.

Mumbai

The centre conducted a two-day National seminar (2003-04) on **"Telecom Development— Strategy for National Growth"** during Jan 16-17, 2004 at Hotel Inter Continental The Grand, Andheri- East, Mumbai. Welcome address was by Shri G S Tuteja, Chairman, IETE Mumbai Centre. Shri Vimal Wakhlu, Chairman of Technical Programme Committee gave the overview of the seminar. The Chief Guest Shri S C Gupta, Member Electrical (Railway Board) emphasized the importance of telecommunications in the development of our country. He said the rural areas, which are still lagging behind in telecom facilities should be provided connectivity through railway stations as base stations for cellular mobile services.

The keynote address was delivered by Shri K V Sheshasayee- President TMT, Hinduja Group India, who presented the statistics on the current status of Telecom growth in India. He showed that cellular mobile and OFC are the fastest growing segments. The usage of pre-paid cards and SMS messaging has shown a higher growth rate during 2003.

Technology was covered in three sessions each covering Core-Networks, Access Networks and Value-added services.

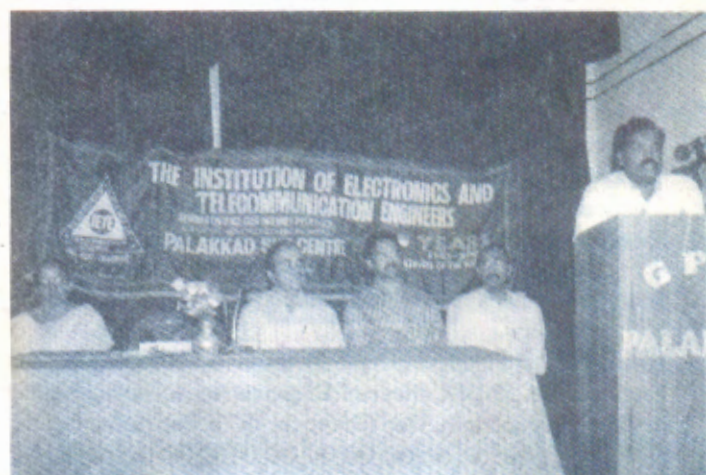


Inaugural Function : National Seminar 2003-2004 on "Telecom Development—Strategy for National Growth"—16th-17th January 2004

Policy, Regulatory, Security and Applications to business & health care were covered on second day. One of the highlights was the presentation on the growing menace of cyber crime and effort initiated by Mumbai police to tackle it. Large number of delegates attended the seminar from all over the country.

Palakkad

The Seminar on **"VOIP : Voice Over Internet Protocol"** - was conducted on Feb 4, 2004 at Govt. Polytechnic Palakkad. Sri C I Haridas, Chairman presided over the function and the seminar was inaugurated by Sri M Sankaran, Principal of Polytechnic. Smt E I Jayasree, Manager (Computer Centre - ITI Ltd, Palakkad presented the paper on VOIP. The students of Polytechnic as well as students of IETE effectively participated in the seminar including Corporate Members. The function concluded with the vote of thanks by the treasurer Sri K P Ragunath.



Seminar on VOIP at Palakkad Sub Centre on 4th Feb 2004 - M Sankaran, Principal Govt. Polytechnic inaugurating the Seminar On the Dias (L To R) - E K Jayasree, C K Haridas (Chairman), K P Ragunath (Hon Treasurer) and A S Rahulan (Hon Secretary)

Thiruvananthapuram

IETE Thiruvananthapuram building was inaugurated on Jan 2, 2004. Shri K Sreekantan Nair, Principal General Manager, BSNL Trivandrum was the Chief Guest. Prof K Babu Rao, Zonal Coordinator, IETE HQ presided over the function. Welcome address was by Shri K V Balasubramanian, GM, BSNL Mobile Vice Chairman IETE Trivandrum Centre. The Hon Secretary, Shri G Abraham gave details of building construction. Dr V P Kulkarni, Council Member IETE was felicitated during the function. Hon Treasurer of the centre delivered vote of thanks.

A one-day seminar on **"Mobile Computing"** at Priyadarshini Auditorium, Thiruvananthapuram was organized by the centre on Jan 3, 2004. Prof K Babu Rao, Zonal Coordinator, IETE presided

over the function. The papers presented during the technical sessions by the invited speakers were on SMS, MMS, GPRS, Billing of Next Generation Services, WiFi & LBS, BLUETOOTH, WAP and UMTS- 2000 Standards.

Varanasi

Varanasi sub-centre held a meeting on Dec 27, 2003 at Akashvani Gorakhpur and discussed initiation of IETE activities at Gorakhpur University. It was opined that a study centre could be opened at Gorakhpur University to meet the requirement of the interested candidates who wish to pursue IETE examinations.

Vijayawada

The following activities were arranged by the centre:-

- The IETE & IE (India) Vijayawada Centres jointly organized a technical lecture on **"Communication in Future"** on Dec 22, 2003 by Shri M Ravi Shankar, Deputy Gen Manager, Switching & Installation, BSNL Vijayawada.
- The centre inaugurated weekly lecture series on Electronics, Telecommunications and Computers on Jan 17, 2004. The function was inaugurated by Shri V Kameswara Rao, FIETE. He also suggested incorporation of endowment lectures.

ISF ACTIVITIES

- **IETE Student Forum at Department of Telecommunication Engineering, BMS College of Engineering** was inaugurated by Prof S Jaganathan, Vice Chairman IETE Bangalore Centre on Dec 6, 2003. Dr C Ramesh of CRL BEL delivered a talk on **"Application of DSP"**. Prof Nagabhushana, HOD presided.
- **IETE Student Forum at Department of Electronics & Communication Engineering, BMS College of Engineering**, was inaugurated by Dr M H Kori, Past Chairman Bangalore Centre & Technical Director Lucent Technologies. He also delivered a talk on **"Mobile Communication"** on Dec 13, 2003. Dr P S Satyanarayana, HOD presided. Shri Modalia was the Guest of Honour.
- **Jawaharlal Nehru National College of Engineering, Shimoga** conducted the following activities during the last quarter of 2003.
 - An 'Excel Interview' workshop for students of all faculties of the college was arranged during Nov 8-9, 2003 to impart training on how to face and prepare for interviews and how to prepare curriculum vitae etc.
 - A seminar on **"Amateur Radio Communication"** by

Nandish S Matad of VII semester was arranged on Nov 21, 2003 to highlight the advantages of HAM learning. A demo of HAM communication using UHF/VHF transceiver set was also arranged.

- A technical visit to Bhadravathi "All India Radio" station on Nov 26, 2003.
- A invited technical talk by Shri Chidhambara, Senior Manager, Business Development, Convergent Communications (India) Pvt Ltd, Bangalore on **"Trends in Wireless Networking"** was arranged on Nov 28, 2003.

COIL NET

"हिन्दी में तकनीकी लेखन पर प्रशिक्षण कार्यक्रम" पर संक्षिप्त रिपोर्ट

सूचना प्रौद्योगिकी विभाग द्वारा समर्थित कॉयल नेट परियोजना के अंतर्गत आई ई टी ई ने दिनांक 7-9 जनवरी 2004 को छात्र-वर्ग के लिए हिन्दी में तकनीकी लेखन पर एक तीन-दिवसीय प्रशिक्षण कार्यक्रम का आयोजन किया। यह कार्यक्रम तकनीकी स्नातकों एवं स्नातकोत्तर छात्रों के हिन्दी तकनीकी लेखन की ओर प्रेरित करने के उद्देश्य से आयोजित किया गया था। कार्यक्रम के प्रतिभागी एम सी ए/बी सी ए, एम आई टी/बी आई टी, एम एससी आदि जैसी तकनीकी शिक्षा प्राप्त कर रहे छात्र/छात्राएँ थे।

कार्यक्रम का उद्घाटन दिनांक 7 जनवरी, 2004 को मेजर जनरल प्रेम प्रकाश द्वारा किया गया जो कि आई ई टी ई के उप-सभापति होने के साथ-साथ आई ई टी के उत्तरी जोन के जोनल कोऑर्डिनेटर भी हैं। मेजर जनरल प्रेम प्रकाश ने आशा व्यक्त की कि हिन्दी में तकनीकी लेखन का स्वरूप लोकप्रिय एवं रोचक बनाने पर अधिक बल दिया जाएगा ताकि इस प्रकार का लेखन वास्तव में सार्थक हो सके। उद्घाटन समारोह में आधार-व्याख्यान सूचना प्रौद्योगिकी विभाग के निदेशक डा० पी के चतुर्वेदी ने दिया जो कि TDIL (Technology Development for Indian Languages) कार्यक्रम में सक्रिय रूप से संलग्न हैं। अपने आधार-व्याख्यान में डा० चतुर्वेदी ने आँकड़ों की सहायता से बहुत सुन्दर ढंग से यह प्रस्तुत किया कि 100 करोड़ की जनसंख्या वाले भारत देश की भारतीय भाषाओं में उपलब्ध तकनीकी अन्तर्वस्तु नगण्य हैं और इसलिए भारतीय भाषाओं में अन्तर्वस्तु बनाना आवश्यक है। डा० चतुर्वेदी ने इस बात पर बल दिया कि संचार-क्रान्ति ही भारत को एक ज्ञान पर आधारित समाज की ओर ले जा सकती है।

कार्यक्रम के तकनीकी सत्रों में छात्रों को तकनीकी लेखन से संबद्ध विस्तृत जानकारी लेखन के क्षेत्र में निपुणता प्राप्त विशेषज्ञों द्वारा दी गई। तकनीकी लेखन क्या है, कैसे करें जैसे मूलभूत प्रश्नों से लेकर पाठ्य पुस्तकों, संदर्भ पुस्तकों एवं लोकप्रिय पुस्तकों के निर्माण, अनुवाद में ध्यान रखने योग्य मुद्दे, विज्ञान पत्रिकाओं के लिए लेखादि की रचना जैसे विषयों पर व्याख्यानदाताओं ने बहुत ही रोचक शैली में संगठित एवं सम्पूर्ण जानकारी छात्रों को दी। हिन्दी अन्तर्वस्तु बनाने के लिए उपलब्ध सॉफ्टवेयर टूल्स जैसे आई एस एम 2000, अक्षर, श्रीलिपि, आई-लीप, शक्ति आदि के विषय में छात्रों को विस्तार से बताया गया।

छात्रों के उत्साह एवं उनकी सक्रिय सहभागिता का अनुमान इसी बात से लगाया जा सकता है कि प्रशिक्षण कार्यक्रम के तीनों दिन सभी प्रतिभागी उपस्थित थे। इस कार्यक्रम के प्रति उनकी रुचि उनकी प्रतिपुष्टि से स्पष्ट है जिसके मुख्य बिन्दु निम्नलिखित हैं:

- कार्यक्रम की अवधि को बढ़ाकर 10-15 दिन किया जाए।
- प्रतिभागियों की संख्या अधिक होनी चाहिए (प्रथम प्रयास होने के कारण कार्यक्रम छोटे स्तर पर आयोजित किया गया था एवं इच्छुक 70 छात्रों में से केवल 30 को आमंत्रित किया गया था)
- भविष्य में भी इस प्रकार के कार्यक्रम आयोजित किए जाएँ।
- कार्यशालाओं के लिए अधिक समय दिया जाए।
- सॉफ्टवेयर टूल्स पर केन्द्रित ऐसा प्रशिक्षण कार्यक्रम आयोजित किया जाए।

कार्यशाला का समापन आई ई टी ई कॉयल नेट परियोजना के मुख्य अन्वेषक, श्री हरी ओम अग्रवाल द्वारा प्रमाण-पत्र वितरण के साथ हुआ।

DISTINCTION

Dr Surendra Pal, an outstanding Scientist, Dy Director ISRO and Chairman, Board of Research IETE has been elected as an **IEEE Fellow Member**, the highest grade of membership in IEEE by the IEEE Board of Directors on Nov 16, 2003 for his valuable contributions to space-borne communication systems.



NOTICES

- **IETE Journal on Website:** It is proposed to put the **IETE Technical Review**, a bimonthly journal of the institution containing articles of general interest, practical designs, book reviews and new products **on the IETE Web Site**. Corporate Members are requested to **intimate** to the Managing Editor IETE HQ, if they would like to receive a printed copy of the journal or view it on the website.
- **EuroIndia 2004:** The first Euro-Indian cooperation Forum on Information & Communication Technologies is being organized by the European Commission in cooperation with the Government of India (Ministry of Communications & Information Technology and the Dept of Science & Technology) on March 24-26, 2004 at Delhi.

It will bring a detailed overview of the cooperation opportunities and European research & development funding priorities. Cooperation experts would provide the modus operandi at dedicated workshops. Participation is free of charge. Interested individuals and organizations may immediately register at www.euroindia2004.org.

OBITUARY

IETE expresses its heartfelt condolences on the sad demise of the following IETE senior members and prays to the Almighty to grant their family members strength to bear the irreparable loss.

Gen K S Garewal (DF-05562) passed away on Nov 15, 2003.

Wg Cdr K N Sinha (F-002619L) passed away



Prof R Venkitakrishna Iyer (F-1031561), Chairman of IETE Thiruvananthapuram Centre and Council member of IETE passed away on Jan 13, 2004. His valuable contribution towards the growth of IETE, particularly that of IETE Trivandrum Centre will always be remembered.

Dr A K Tiwari (F-50264L), Chairman of IETE Bhopal Centre expired on Dec 17, 2003 at Bhopal. His contribution towards the development & growth of Bhopal Centre would always be remembered.

Shri J V Dhond (F-050573) passed away in USA in Dec 2003. Shri Dhond represented Telefunken (Germany) in India for over 30 years.

CALENDER OF EVENTS

Subject	Date	Venue	Contact
International Conference on Digital Libraries (ICDL 2004) – Knowledge Creation, Preservation, Access Management	24-27 Feb 2004	New Delhi	ICDL 2004 Secretariat, TERI Darbari Seth Block, Habitat Place Lodhi Road, New Delhi 110 003 Tel : +91 11 24651629, 24682100, 24682111 Fax : +91 11 2468 2133 E-mail : ICDL200@teri.res.in Website : www.teriin.org/events/icdl
IETE Apex Forum on "Exploitation of KU Band"	12 Mar 2004	New Delhi	Maj Gen C M Logani, VSM (Retd) Secretary General, IETE, 2 Institutional Area, Lodi Road, New Delhi 110 003 Tel : +91 (011) 4631810; Telefax : +91 (011) 4649429/4631810; E-mail : ietend@iasdl01.vsnl.net.in; Website : http://www.iete.org; http://www.iete.info
8th Sir C V Raman Memorial Lecture	12 Mar 2004	New Delhi	Maj Gen C M Logani, VSM (Retd) Secretary General, IETE, 2 Institutional Area, Lodi Road, New Delhi 110 003 Tel : +91 (011) 4631810; Telefax : +91 (011) 4649429/ 4631810; E-mail : ietend@iasdl01.vsnl.net.in; Website : http://www.iete.org; http://www.iete.info
12th Convergence India 2004-International Exhibition & Conference	18-20 March 2004	New Delhi	Exhibitions India Pvt Ltd A-17 (II Floor) DDA SCO Complex, Near Moolchand Flyover, Defence Colony, New Delhi 110 024 Tel : + 91 11 2463 8680, 5155 2001 Fax : +91 11 24623320 E-mail:exhibitionsindia@vsnl.com Website : www.exhibitionsindia.com
Annual Symposium & Workshop on "Embedded System Application in Electronics & Telecommunication" (ESAET-2004)	26-27 Mar 2004	Navi Mumbai	Prof V N Pawar Programme Co-Coordinator IETE, Navi Mumbai Sub Centre C/o AC Patil College of Engineering Sec-6, Koparkhairane, Navi Mumbai-400 709 Tel: 27540991/92/9320 E-mail:vn pawar@rediffmail.com
35th Mid Term Symposium of IETE on "Bio-Informatics, Applications & Emerging Technologies"	3-4 Apr 2004	Nagpur	Shri A G Joshi, Chairman S-17, MCA Complex, Behind Suyog Mangal Karyalaya, Laxmi Nagar, Nagpur-440 022 Tel : 0712-2248755 E-mail : iete_ngp@sancharnet.in
National Seminar on "Technical Manpower Development & Utilization"	15-16 Apr 2004	Rourkela	Dr S K Patel, Organising Secretary, National Seminar (NTMIS) & Project Officer, Nodal Centre, National Institute of Technology Rourkela-769008 (Orissa) Ph : 0661-2475091 (O): 2470344 (R) Fax : 0661-2475091 E-mail: rkl_ntmisrkl@sancharnet.in; nodal@nitrkl.ac.in Website : http://nitrkl.ac.in/tmdu
Hannover Messe 2004 – World's leading event for Technologies and Automation	19-24 April 2004	Germany	Laju@orbit-world.com
ELITEX'2004, Electronics & Information Technology Exposition	26-27 April 2004	New Delhi	Dr Ram Gopal Gupta Ministry of Communications & Information Technology, Electronics Niketan, 6 CGO Complex, New Delhi-110003 Tel : 91 11 24363095, 24301231 Fax : 91 11 24365404 E-mail : r.gupta@ieee.org; guptarg@mit.gov.in

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