

सह वीर्यं करवावहै

THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS

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FROM PRESIDENT'S DESK



IETE is engaged in a noble task of engineering education in the field of electronics, telecommunications, computer Science and information technology. It is a matter of pride that the IETE has helped in providing a large number of well trained engineers to the industry and government organizations. Although our courses are well reckoned with and held in high esteem, the ever changing pace of advancement in technology in general and in electronics in particular has been pushing the acquired knowledge into obsolescence. It is therefore essential that concerned people at every level at IETE headquarter and centres should regularly update their knowledge and acquaint themselves with the latest advancements in their respective fields.

The students of IETE need to be trained in latest curricula using modern techniques of emerging culture of fusion between information technology and engineering. Extensive laboratory practice and project work experience, besides thorough theoretical knowledge of their discipline is being emphasized to maintain quality of IETE engineers. Wireless communications and electronic sensors are part of the syllabi to train engineers for meeting requirement of tomorrow. Recently a number of steps have been taken to enhance and improve the laboratory and library facilities at our centres. Besides, action has been taken to interact with students for solving their problems. Students' interactive committee has done a lot of good work in attending to the queries projected by students and bringing in synergy between students and the IETE establishments.

We are vigorously pursuing e-learning programme which has always been upper most in my priority list. We have already signed memorandum of understanding with C-DAC, Noida and negotiations are going on for signing with ISRO and ISTE for facilitating IETE e-learning through EDUSAT. The content creation has commenced and the infrastructure acquisition is progressing well. However, much more needs to be done before quality education is imparted to people at remote areas and villages.

Lastly I would like to thank our knowledgeable Council and Corporate members for their support and constructive suggestions.

Lt Gen D P Sehgal



Lighting the lamp during inaugural ceremony of 36th MTS of IETE at IISc Bangalore, Seen from R L : Prof Roddam Narasimha, Lt Gen D P Sehgal, Shri P N Chopra and Prof C Murali



President IETE Lt Gen D P Sehgal holding press conference in Bangalore during 36th MTS on 29th April 2005. Sitting on the dais are : L R Prof C Murali, Shri P N Chopra, Lt Gen D P Sehgal, Maj Gen C M Logani and Dr M H Kori



World Telecommunication Day function at IETE HQ, New Delhi. Sitting on the dais are (from L R) : Shri K S Sarma, Shri P N Chopra, Dr Shakeel Ahmad, Hon'ble Minister of State for communication and IT, Lt Gen D P Sehgal, Shri Pradip Bajjal and Dr M B Athreya



President IETE, Lt Gen D P Sehgal, presenting a memento to the Hon'ble Minister of State Dr Shakeel Ahmad during World Telecommunication Day function at IETE HQ, New Delhi



37th World Telecommunication Day of IETE Bhubaneswar Centre

NEWS FROM HEADQUARTERS

President, IETE : Re-elected

Lt Gen D P Sehgal, PVSM, AVSM, VSM (Retd), President, IETE has been re-elected by the Council of the IETE for 2nd term (October 2005 - September 2006) as the President of the IETE. He had assumed office of the President of IETE in September 2004.

IETE 36th Mid Term Symposium

This year IETE Bangalore centre hosted the 36th Mid-Term Symposium around the theme Emerging & Futuristic Communication Systems (EFCoS-05) during April 30- May 1, 2005 at National Science Seminar Complex, IISc, Bangalore. Prof C Murali, Chairman IETE Bangalore Centre delivered the welcome address. The Chief Guest, Prof Roddam Narasimha, FRS, Padmabhushan, Member Space Commission inaugurated the symposium. In his inaugural address, Prof Roddam Narasimha said the transformation of space, communication and information technologies had brought about a big change in the common man's way of working and thinking. IETE has been rendering an yeoman's service in dissemination of current and emerging information and communication technologies.

Shri P N Chopra, Chairman, Technical Programme Committee deliberated the overview of the symposium. Dr M H Kori, in his brief speech correlated the various presentations that were being made on Emerging & Futuristic Communication technologies with IEEE standards. Lt Gen D P Sehgal, PVSM, AVSM, VSM (Retd), President IETE, in his presidential address emphasized the requirement of reliable multimedia communication through broadband channel. He said Communication Systems have the options of using copper or optical fibre cables for backbone as well as last mile connectivity in the urban areas. However, in rural, remote and inaccessible areas the last mile

connectivity will be augmented with microwave wireless terminals and V-SATs. The knowledge of latest and emerging wireless technologies will help mobile wireless users as well as those using V-SATs.

Prof Roddam Narasimha, the Chief Guest, conferred 18th Lal C Verman Award on Shri H S Raina, Head TED/ SRG, Space Application Centre, Ahmedabad and released the souvenir and 2004 ATC proceedings.

Introduction of Vikram Sarabhai Memorial Lecture was given by Shri P N Chopra, Chairman Technical Programme Committee. Shri G Madhavan Nair, Chairman, Indian Space Research Organization (ISRO) delivered the **32nd Vikram Sarabhai Memorial Lecture on "Space Applications for societal Needs"** via a video link from Sriharikota in Andhra Pradesh. He said that the digital divide between people living in urban and rural areas could be bridged through the network of Indian satellites. He said CARTOSAT would provide high-resolution images that would help make better maps. Shri Nair said that the Indian space programme had travelled a long way from the launch of Aryabhata in 1975 and Bhaskara I in 1979. "Our satellites can now track small objects on Earth. We have also attained self-reliance in launching them" Shri Nair said. The Indian National Satellite (INSAT) Series, he said, was being used for delivering tele-education, telemedicine, meteorology and disaster warning. For the tele-education project, EDUSAT was being used to create virtual classrooms. In Chamarajanagar district of Karnataka most of the schools had the facility and it enabled students to interact with teachers far away from their place. Over one lakh patients are being treated through telemedicine, he said. The ISRO was trying to build a disaster management facility that could warn about natural disasters. Vote of thanks was proposed by Maj Gen C M Logani, VSM (Retd), Secretary General, IETE.

Pre-Symposium tutorials on "Broadband Wireless" were held at Satish Dhawan Hall, NSSC, IISc. The topics covered were Evolution Data Optimized, High Speed Downlink Packet Access, 802.11 WiFi, 802.16 Wi Max, 802.20 and Futuristic Trends. The tutorials were conducted by Dr M H Kori, Technical Director, Lucent Technologies and his team.

The symposium was conducted in five technical sessions. The sessions were chaired by Shri K M Paul, Engineer-in-Chief AIR, Dr R P Bajpai, former Director, CSIO, Chandigarh, Shri S N Zindal, Dir Gen STPI, Dr H S Sharma, Past President IETE and Shri P K Garg, Wireless Advisor to GOI. The emerging communication sub-systems discussed in the seminar included broadband backbone interconnect and access technologies based on Optic Fibre, Copper Cable and Microwave Wireless capable of transporting voice, data and video information. Shri T V Ramachandran, DG COAI, presented an interesting review of the world scenario of 3G in the first invited lecture. The other invited lectures were delivered by Prof Veni Madhvan of IISc, Bangalore on 'Computational Complexity of Cryptography and Steganography'; Shri D Venugopal on, 'Low bit Rate Data Applications & Systems'; Shri S N Gupta, Advisor TRAI on, 'Unprecedented Growth in Telecom Services', Shri Kamallesh Deka, IG (Communications), BSF on, 'Police Networks'; Shri ANJ Aradhya, GM, BSNL, Karnataka Circle on, 'New Generation Networks and BSNL Plans'. Some of the important deliberated topics presented in the seminar were; High Speed Fibre Optics Communication, Hardware/ Software approach for generation, serial transmission and retrieval of Modified Trinary Number (Mtn) Coded data, MPLS-VPN: The technology and a New -Market, VLSI Implementation of COFDM Modem, Modeling & Emulation of VSAT Signaling for SCPC DAMA Network, an Adaptive MVDR Approach towards Beam Forming and its Performance Analysis for GPS

Interference Cancellation, Agent-based Topology discovery and Management in Wireless ad hoc Networks, Performance Evaluation of High Speed WLAN using OFDM and Design of an ad hoc Network for Cognitive Telemedicine Applications.

Shri H S Raina, Head TED/SRG, SAC, Ahmedabad delivered 18th Lal C Verman Award lecture on "Electromagnetic Compliance in High Power Communication Satellite Payloads". Shri Raina highlighted the significance of proper integration of communication payload of satellite to control the EMI environment. He said poor EMI control results in appearance of spurious signals in the output and poor frequency response of the subsystems. Shri Raina brought out the electromagnetic compliance plan for the integration of communication payloads of ISRO Satellites, which was evolved and implemented successfully at SAC, Ahmedabad.

37th World Telecommunication Day

To commemorate the World Telecommunication Day, a seminar was organized at IETE HQs on the theme "Creating an Equitable Information Society: Time for Action" selected by the ITU Secretary General Mr Yoshio Utsumi, who in his message described human communication as a combination of intellect and emotion- a characteristic that helps to define our shared humanity. And our Information society has a way of reminding us of this reality. A recent example was the Asian Earthquake and Tsunami disaster when information and communication technologies brought the tragedy home to us in a manner unimaginable in the not-so-distant past and produced a surge of unprecedented global sympathy and humanitarian action. His message again reiterated the sincere efforts of ITU, who has been working in earnest to bring the benefits of ICT to humanity.

The Chief Guest on the occasion was Hon'ble Minister of State for Communications & IT, Dr Shakeel Ahmed. Other dignitaries who graced the occasion and presented papers were Shri Pradeep Baijal, Chairman TRAI, Shri K S Sarma, CEO, Prasar Bharati, Dr M B Athreya, Telecommunications Consultant, Lt Gen D P Sehgal, President, IETE, Past Presidents and IETE Council members.

Shri P N Chopra, Chairman, TPC, IETE welcomed the techno-savvy audience and apprised about the ITU's theme for the World Telecommunication Day 2005 and read extracts from ITU Secretary General's message. He briefly touched upon the functions of ITU and the telecommunication progress in respect of teledensity in India and abroad. Lt Gen D P Sehgal, President IETE highlighted the impact of ICTs in all aspects of our lives. These technologies act as a force multiplier for conduct of trade, delivery of healthcare, imparting education, protecting environment and with wireless communication technologies, the benefits are virtually in every possible domain of human applications. Talking about the bandwidth requirement, he said that it has become necessary for providing universal service which has become a widely shared goal of national & international telecommunication policy. He informed that introduction of broadband and 3G technologies will hasten the universal accessibility. The innovative ways and home grown technology like CorDect are helping in making the telecommunication infrastructure affordable to bridge the digital divide, said Lt Gen Sehgal.

Shri Pradeep Baijal, in his presentation brought out the steps taken by TRAI to reduce the mobile telephone charges, by 35%, IPL charges reduced by 35 to 70% for low and higher capacities respectively. TRAI won the Asia Pacific regulatory of the year Award 2004. Shri K S Sarma highlighted the various improvements that been affected in the Doordarshan programmes and the use of Cable TV as a

powerful media tool. He also cautioned about violation of the intellectual property rights and expressed that the rights of an individual should be considered sacrosanct.

Dr M B Athreya, said that the objectives and plan of action to build an information society have been enunciated in the World Summit and the potential of knowledge and ICTs has to be exploited for the benefit of mankind. He said in India more than 60% people do not have Internet & telephone facilities available to them and efforts have to be made to provide universal connectivity to these people, which would help in bridging the digital divide.

Dr Shakeel Ahmad, Hon'ble Minister of State for Communications & Information Technology in his address said that World Telecommunication day has a very special significance in developing global information society. He said today, it is difficult to conceive life without telecommunications yet we have people living in the world's developing countries without the advantages of Information and Communication Technologies. He said forward looking policies of Indian Govt are encouraging growth in telecom sector. However, lot more is required to be done to be at par with other developing countries of Asia. He was happy to be in IETE for such an important function and said that it will help in our efforts in achieving the goal of universal connectivity.

NEWS FROM LOCAL CENTRES

Allahabad

The Allahabad Centre hosted a seminar on 'Supply Chain Management using Information Technology' on April 16, 2005. At this occasion, Prof G M Pandey, Vice Chancellor, Chitrakoot University was the Chief Guest and his invited talk was on the theme of the seminar. The other guest speakers were Er Arun Jain, Vice President, Eastern UP

Chamber of Commerce and Industry, Dr R K Singh, Sr Lecturer MONIRBA, Allahabad University and Prof U S Tiwari, Indian Institute of Information Technology, Allahabad. Some students also presented their papers on the occasion.

The centre arranged for celebrations of World Telecommunication Day on May 17, 2005 at J K Institute of Applied Physics and Technology. Er G S Shukla, Ex DGM, ITI was the Chief Guest, who spoke on the theme of ITU. Er P N Gupta, Hony Secretary read out the message of ITU, Secy General and Prof S G Prakash welcomed the guests.

Bangalore

The centre conducted the following short term courses :

Embedded Software system Design, VxWorks: TASK, Semaphores, MSGQ, RISC Processor Architecture, Super Scalar & VLIW Architecture, Vx Works: NSGQ, example Programme, High Speed board design (Embedded System), Design Methodology, interrupts Examples of Solving a Design (Vx Works), Reliability Calculation, R&D, FTA FMEA & FMECA, Device drivers, BSP, Customization of Vx works, Demo of Multi Tasking related VX Works programme, VHDL, FPGA design, Demo of semaphores & message queries.

Dr S V Kibe, Programme Director, ISRO HQ, Bangalore delivered the lecture on the theme "Creating an equitable information Society: Time for Action" on the World Telecommunication day on May 17, 2005, celebrated by IETE centre jointly with IE (I), Karnataka State Centre, Bangalore.

A lecture on Applications of FPGA Design was delivered by Shri Cyril Prasanna as part of short-term course.

Prof C Murali, Chairman IETE Bangalore Centre and Sri Lakshminarayana Rao, Vice Chairman, IETE Bangalore Centre conducted a Phone-in Programme "Hello Geleyare (Hello Friends) "for Doordarshan,

Bangalore on the topic "IETE for Engineering aspirants".

Bhopal

A two-day workshop on "Emerging Trends in Broadband Communication and Computation" was organized under the joint aegis of IETE Student Forum University Institute of Technology Barkattullah University, Bhopal and IETE Bhopal Centre. The experts present were Shri C K Pani, G M BHEL, the Chief Guest, Shri P P Khare, Ex CGM BSNL Bhopal, the Guest of Honour, Shri Rajesh Gupta, GM BSNL, Dr D K Trivedi, Chairman IETE Local Centre and Dr Aditya Goyal, Secretary IETE local Centre, who presented an enriching information on the latest trends and technologies in broadcasting. Computer experts Dr Chandwani and Dr Ramani of Indore delivered the special lectures. Dr T K Bandhopadhyaya and Dr A K Gawl spoke on Communication and Space research imparting valuable guidance to students. The workshop ended with a technical quiz and the winners were awarded. The co-ordinators of the workshop Dr (Mrs) Poonam Sinha and Mrs Anjali Potnis were actively supported by Neeraj Saxena & Apurv Shukla of ISF.

The Chief Guest on the occasion of World Telecommunication Day on May 17, 2005 was Shri N K Yadav, CGM (I/C), BSNL, Bhopal. He spoke about the active role played by BSNL in the growth of telecommunications especially in rural areas. He also discussed the facilities being provided to the customers by BSNL for various broadband applications and expressed his views on increasing rural customer density of BSNL from existing 1% to 5%. The Guest of Honour was Shri S R Chouhan, SE, Doordarshan Kendra, Bhopal. He emphasized the need for the convergence of television and telecommunication for interactive broadcasting services. Dr K S Sayann, Director MANIT, Bhopal presided over the function. Shri G Kumar, Head of Reliance Infocomm in MP & Chattisgarh spoke on the proposed theme. Other distinguished

guests present on this occasion were: Dr R P Singh, Dr S C Soni, Dr Gawal, Dr Gayatri Agnihotri, Dr R C Chakraborty. Shri P P Khare, Vice Chairman IETE Bhopal Centre proposed vote of thanks.

Bhubaneswar

World Telecommunication Day at IETE Bhubaneswar Centre was sponsored by BSNL, Orissa and Reliance Infocomm. Shri S Bhargava, CGMT, Orissa and Chairman of the IETE centre delivered the keynote address followed by technical talks delivered by Shri S Sridhar, Jt DDG, BSNL, New Delhi on "New Generation Networks" and by Shri P C Sahu, Ex CGMT, MH Circle and Ex Chairman of the Centre on "Digital Convergence – The New Wave"

Chandigarh

The Centre organised '**National Conference on emerging Trends in wireless Technologies**' on 16th & 17th April, 2005. Lt Gen D P Sehgal, PVSM, AVSM, VSM (Retd), President, IETE inaugurated the conference. Prof (Wg Cdr (Retd)) P Prabhakar, Chairman IETE Chandigarh Centre and Director SSIET, Dera Bassi gave an overview of the conference. He mentioned that the present wireless scenario of the 2G based systems is evolving into the 3G. He said that the major beneficiaries of the conference would be mobile operators, telecom service providers, wireless equipment vendors, policy makers, administrators, researchers and professional engineers. Wireless Technology is gaining tremendous importance as it is becoming all-pervasive in its application be it in the telecommunication, telemedicine, defence, energy, transportation, education or commerce. It is required for the growth and development of any nation and its importance has been duly recognized by the planners.

About 500 delegates heard 12 eminent speakers. Nearly 100 research papers were presented orally and through educative poster presentation, covering the topics like Wireless technologies,

Antennas, wireless standards, networks security, Voice, Video and data Compression technologies and upfront wireless technologies like Wi-Fi, Wi-Max, 3G Cellular Variants and Spectrum management.

The valedictory session proved to be most fruitful where the experts and the delegates consolidated the views and suggestions shared during various sessions. It was clear that wireless technology is destined to become the dominant mode of access technology in the times to come as it will enable us make the life simpler, easier, efficient and faster.

Chennai

World Telecommunication day on the theme "Creating an Equitable Information Society: Time for Action" was celebrated under the auspices of IETE Chennai Centre on May 17, 2005. Shri A Ganesan, Hony Secretary welcomed the gathering of around 200 people from various walks of life at Hotel Savera, Radhakrishnan Salai, Chennai. Shri K Balakrishnan, CGM, Southern Telecom Region, BSNL Chennai was the Chief Guest of the function. He said that e-Connectivity is already established and information is also available but the question is whether these inputs can be equally distributed among the various sections of the society. Inaugurating the seminar, he stressed the importance of taking the benefits of telecommunication technology to all sections of society, particularly in rural areas. Suggesting methods to bridge this divide, Shri Balakrishnan said that rural areas would benefit with more computers, telephones and Internet connections. Also, the content should be in local language, he added. Shri V Appakutty, Chairman of the Centre said "There is still a digital divide between and within nations. We have to work together to create an atmosphere to take benefits to all people." Eminent personalities present included Shri A S Menon, CGM, VSNL, Shri M S Ravichandran, CTO Bharati Infotel Ltd., Shri G Selvam, GM Chennai

Telephones, Shri B Govindarajulu, MD Micro Code, Shri Santhosh Samuel Mathews, American Megetrends India Pvt Ltd, Dr N M Parthasarathy, C& MD ETK International Ferrites Ltd during the occasion. Shri Thiagarajan of Doordarshan proposed vote of thanks.

Goa

The Sub-centre arranged two-day workshop on **Biomedical Electronics** on March 14-15, 2005 in Electronics and Telecommunication Department at College of Engineering Goa. 15 participants were present for 2 days workshop. Hands on experience was given on biomedical telemetry. Dr R B Lohani, Chairman of the sub-centre was the co-ordinator for the workshop.

The Sub-Centre organized World Telecom Day at Goa International Centre, Donapaula on the theme, "Creating an Equitable Information Society: Time for Action".

Guwahati

Member of The Institution, Fellow Members, Associate Members and a largeish number of Student Members and a few prominent citizens of Guwahati attended the World Telecommunication Day celebrations. The Chief Guest was Shri Harekrishna Deka, the Editor of the prominent English Daily "The Sentinel" and former DGP of Assam. The Guest of Honour was Srimati Tilottoma Barua, former DPI of Assam. In his key-note address, Dr P C Mahanta, former of Principal of Assam Engineering College, spoke mainly on the access to ICT and its benefits. The message from the Secretary General of ITU, by the Chairman of the Guwahati Centre who also presided over the function. Miss Pranjali Baishya, a member of our EC, offered the vote of thanks.

Hyderabad

The centre arranged the following activities:

Under Professional Development Programmes, 9th U V Warlu Endowment Lecture on "Telecom Manufacturing Industry in India" by Dr T H Chowdary, Distinguished Fellow and Past President of IETE was organized on April 2, 2005 at IETE Hyderabad Centre. Chairman of the Centre, Shri C Govardhan presided over the programme. Dr T H Chowdary in his lecture informed that the telecom sector is playing a vital role in providing communication to the end users throughout the world with latest technology. He focused on the growth of cellular mobile phones vs fixed line telephones, telecom network costs & revenue generation, affordability, telecom equipment & services, production and export of telecom equipment, growing of national champions in the telecom field.

Prof B L Deekshatulu, Fellow IETE delivered the 9th M Madan Mohan Endowment Lecture on "Non Linear & Chaotic Systems- Made Easy" on April 23, 2005. Dr A S Rao Scholarship Award was given to Shri V Pavan Kumar, a AMIETE student by the Chief guest. Shri C Govardhan, Chairman, IETE presided over the function.

The World Telecom Day was celebrated alongwith BSNL, IE(I), IEEE, CSI, CTMS, FAPCCI, ELIAP, ISOI, BES on the theme "**Creating an Equitable Information Society: Time for Action**" on 17th May 2005. The Seminar was inaugurated by Smt N Rajyalakshmi, Hon'ble Minister for Primary Education, Govt of AP was the Chief Guest and Shri Sanjaya Kumar, Chief General Manager, BSNL, Hyderabad was the Guest of Honour, who delivered Keynote Lecture. Shri R Ramaraj, Mg Director & Chief Executive Officer, SIFY delivered 1st Dr T H Chowdary Endowment Lecture. Dr T H Chowdary, Distinguished Fellow, IETE and former IT Advisor, Govt of AP was felicitated on the occasion. Shri C Govardhan, Chairman, IETE, Hyderabad Centre presided over the programme. The function was concluded by a round table discussion on "Telecom Reforms with

regard to Regulation, Service Parameters, Investment Control, Security Arrangements". The Speakers for the Round Table Discussion were Dr T H Chwdary, former IT Advisor, Govt of AP; Shri K Jayachandran, Director, NICMAR, Hitech City; Shri N Janardhana Rao, BSNL; Shri P Ashok Babu, BSNL. A total of 130 participants attended the Seminar.

About 36 participants attended a 5-week course on "CCNA & CCNP" which was inaugurated by Col M Vijay Kumar, former Director Software Technology Park, Hyderabad on April 4, 2005 at Hyderabad Centre.

Jaipur

A two-day National Symposium on **"Mobile Handsets"** was organized by IETE Jaipur Centre during April 23-24, 2005 at the Auditorium of HCM Lokprashasan Sansthan, Jaipur. Shri S D Saxena, Director Finance, BSNL was the Chief Guest at the inaugural function while Prof K R Sarma, Advisor, Samtel Group was the Guest of Honour. Prof V Sinha, Director LNMIIT presided over the function. Shri Mohan Lal CGM, BSNL was also present on the occasion. Shri P K Saha, Chairman of the Symposium and Prof S Sancheti, Chairman, IETE Jaipur Centre welcomed the guests while Dr D Bhatnagar, Hony Secretary thanked the participants and the dignitaries present.

Two-day symposium was marked by 6 invited talks including those by Prof K R Sarma from Samtel, Shri Vivek Mudgil from Alcatel, Dr Mukesh Taneja from Texas Instruments, Ms Neeta Khare from Banasthali Vidhyapeeth and Vaibhav Garg and Shri Raghunandan Sharma from Genus Overseas Electronics Ltd, and Shri V D Raju, Technical Marketing Manager, NOKIA. Prof K R Sarma spoke on display technologies for mobile communications and he highlighted the race between different display technologies such as LCD and OLED. He emphasized that OLED displays can surpass some roadblocks and in future we can see a world of OLED

displays. Shri Mudgil threw some light on the design challenges of the future handheld devices. He emphasized on the need to implement the modern day applications such as high speed video streaming, 3G Graphics etc with low speed processors as high-speed processors require high power. Dr Mukesh Taneja from Texas instruments spoke about the future technologies such as High Speed Uplink Access (HSUPA) and High Speed Downlink Packet Access (HSDPA) that enhances the data rates to as high as 14 Mbps. He suggested that the future technologies would be a mix of 3G and WLAN networks to make it high Speed, high bandwidth and cost effective. Ms Neeta Khare explained the critical components of batteries, which are often taken for granted by the designers. She said that they would have the maximum impact on the future designs. Shri Vaibhav Garg & Shri Raghunandan Sharma from Genus Overseas Electronics Ltd., presented some typical and innovative applications of the mobile technology in power distribution and metering. Shri V D Raju from NOKIA discussed the clusters of mobile based on price, aspiration and functionality. He talked about adaptive multirate (AMR) services, which can result in 30% cost saving and capacity enhancement upto 140%. Shri Raju also highlighted the single antenna interface cancellation (SAIC) feature, which is located inside the handset to result in about 70% capacity increase by way of better RF planning and frequency reuse. He said like SMS and MMS, in future AMS (adaptive message services), Express audio message services, Video telephony, Visual Radio services will also be available. He also mentioned about future generation services like IP data Casting, Digital video broadcasting and Mobile TV etc.

Two short presentations one from Dr D Bhatnagar from University of Rajasthan on Antennas for Mobile Handsets and other from Dr Vineet Sahula from MNIT, Jaipur on Challenges and implications for VLSI architecture for multimedia processing were also presented.

Symposium also witnessed presentation of contributed papers from students where more emphasis was given to Mobile wireless security, SIM card security and Antenna system design. An special session on "Handsets of My Dream" was also arranged specially for the students in which participants presented their imaginative ideas on mobile as tool for applications like m-compounder, reconfigurable mobile, smart researcher meaning that a mobile by itself can change its mode of operation and can itself become a full fledged camera, radio, a scientific calculator, a health monitor etc. The presentation of Ms Vinita Jain from MNIT, Jaipur was chosen as the best contribution amongst this category.

The symposium concluded with the summation of Prof V Sinha, Director, LNMIIT, Sh P K Saha, Principal General Manager, BSNL and Prof S Sancheti, Chairman, IETE.

Jammu

The 37th World Telecommunication day was celebrated by the Centre on May 17, 2005 at MBS College of Engineering, Babilana, Ajit Nagar, Jammu. The Chief Guest on the occasion was Shri Rangil Singh, Ex-Education Minister and Chairman, MBS College of Engineering. Shri K C Jindal, CGM, BSNL J&K Circle was the Guest of Honour. Delivering his talk on the theme of the day, he threw light on the various features of telecommunication services including the broadband being launched in the J&K state shortly, which he termed as a step towards bridging the digital gap.

In addition to this, highly informative lectures were delivered on Nanotechnology by Ms Apurva Misra, Bluetooth Technology by Shri Nikhil Gupta and Recent Trends in Telecommunications by Shri Adish Prabhakar. Prof S K Suri, Hony Secretary, Jammu Centre delivered the Welcome address. The function ended with a vote of thanks presented by the Vice Chairman Prof H L Jalali.

Kanpur

To commemorate the 37th World Telecommunication Day, IETE Kanpur Centre and IE (I) Kanpur Centre jointly celebrated the occasion on May 17, 2005 at IIT, Kanpur. Prof Joseph John, Chairman IETE Kanpur Centre welcomed the participants. The program was chaired by Shri S K Gupta Immediate Past President, IETE Kanpur Centre. The Chief Guest was Air Marshal Dinesh C Nigam, PVSM, AVSM, VSM (Retd). Dr Y N Singh, Asstt Professor, Dept of Electrical Engineering, IIT, Kanpur talked about the role of open source for providing low cost reach of Information Technology to masses. He also talked about the phenomenal increase of IT in common life. Prof Sanjeev K Agarwal, Head Dept. of CSE, IIT Kanpur talked about Grid Computing. He told how the grid computing is evolving and will provide better and cheaper computing infrastructure to the scientific community all over the world. He told that with Grid Computing, computers all over the world could be combined and networked for better and efficient performance. He also informed that IIT Kanpur has made an active component of the National Computer Grid Project of C-DAC. Air Marshal Nigam talked about the society with the perspective of Information technology development. He told that the future society would be a digital society.

Shri D Manohar Prasad, immediate Past Chairman IE (I) Kanpur Centre distributed the mementos.

Kolkata

The IETE Kolkata centre organized a two-day "Annual Seminar-2005" at the VSNL Auditorium of the centre on, 'Business Prospects Out Sourcing (BPO) and Prospects in India' on March 11-12, 2005. Prof A R Thakur-Vice Chancellor of West Bengal University of Technology, Kolkata graced the occasion as Chief Guest, Shri Aloke Mukherjee, GM, M/c

CMC, Kolkata was the Guest of Honour and Shri Sri Kanta Sharma, CGM, BSNL was the Special Guest for the occasion. In the inaugural session the above-distinguished guests delivered their addresses. The centre also utilized the occasion to felicitate some of its senior and distinguished members viz., Prof M K Dasgupta, Prof D Dutta Majumdar, Dr K K Bandyopadhyay, AVM (Retd), A K Roy, AVSM for their long time association and significant contributions for the growth of the Kolkata centre.

Technical Session-I on "Present Scenario, Prospects & Concerns of BPO" was chaired by Dr Amitabha Sinha from M/s Techno India-Kolkata and the invited speakers were Dr Amit C Majumdar, Prof & Head IISWBM, who spoke on Present Scenario, Prospects & Concerns of BPO and Call Centres. Shri Rupankar Rakshit, Head Ontrack BPO Division delivered his address on Current Scenario of BPO in India and Indranil Biswas, CEO, BPO Solutions & Services (P) Ltd., spoke on An Overview on Business Process-outsourcing –BPO.

Technical Session-II on "Technology Trends Call and Contact Centre" was chaired by Prof Dilip Bose, Ex VC, Tripura University and the invited speakers included Shri Ashoke Kumar Basu, President & CEO, LANPRO, who spoke on BPO for the rest of US: What to watch out for. Shri Santanu Sengupta, Secretary & CEO, Gramin Sanchar Society who delivered his address on Empowering Rural Bengal Through ICT Solution and Shri Santanu Bhattacharjee, Director Technable Corporation, USA, Technable Solutions Pvt Ltd., India who delivered the last lecture of the session on "BPO (HR)- Challenges".

Technical Session-III on "Technology Trends: Major BPO Segments" was chaired by D J N Maity, GM, WEBEL. The speakers were Dr Amitabha Sinha, M/s Techno India, delivered his lecture on "Reconfigurable Architecture: A Challenge in Embedded System Design, Shri Avinash

Chaurasia of Force 3, Forum for Creative Entrepreneurship, Nagpur delivered his lecture on Govt Outsourcing Opportunities for Challenged (Handicapped)/ under privileged rural youths on in Class commune and Shri Pranab Rai of GTL spoke on Technology Trends: Major BPO Segments.

The seminar concluded with a valedictory session where a brief summation of the lectures were presented and mementos were presented to speakers and session chairmen.

Kolkata Centre organized one-day seminar on the occasion of World Telecommunication day on May 17, 2005 around the theme "Creating an Equitable Information Society: Time for Action". The speakers included Dr G D Gautama, IAS, Principal Secretary, Dept of IT, Govt. of WB, the Chief Guest, Shri S P Gonchoudhuri, a premier researcher, Shri S P Chakraborty, CGM Calcutta Telephones, Shri C Mitra, GM, BSNL, Shri S Maity, GM, Calcutta Telephones, Shri B Hari, CEO & MD Ontrack System Ltd, Shri J P Singh, Regional Manager (ER), VSNL and Shri Sugat Halder, Hutch Telecommunication.

Prof H Saha, Chairman Kolkata Centre welcomed the dignitaries and delegates present and said that IETE Kolkata Centre was privileged to have so many distinguished personalities as the Guest Speakers. He said that the Chief Guest Dr G P Gautama has done pioneering work in putting West Bengal on IT map. He stressed the significance of IT and ITES for developing export market for India.

The distinguished speakers brought out the role of knowledge society which is based on communication tools in globalization of economy and societies. They stressed on promotion of non-conventional sources of energy and free-flow of telecommunication & Internet to rural areas to help equitable distribution of resources. The speakers also stressed the need of broadband facilities to enhance the quality of multimedia

communication. Each of the speakers stressed on making available affordable quality telecommunication and Internet to rural parts and help in fueling the development of the so far deprived people. It was effectively brought out that more users of telephones, Personal Computers and Internet will improve the quality of life of people.

Lucknow

A zonal seminar and exhibition on **“Future Broadband, Wireless & Mobile Communication”** was organized by IETE Lucknow Centre on March 11-12, 2005 at Taj Residency Hotel, Lucknow. Chairman of the Centre Brig Dharm Vir (Retd) delivered the welcome address. The Chief Guest, Dr DPS Seth, Member TRAI, New Delhi highlighted the importance of the Broadband Services and presented an elaborate review on the topic. Distinguished Guests Shri K M Paul, Engineer-in-Chief, AIR, New Delhi and Shri V K Shukla, CGM, UP (East) Telecom Circle, Lucknow graced the occasion.

The presentations scheduled in four different technical sessions, were on “Technical Trends in Broadband and Next Generation Networks”, “Evolution of Wireless Technologies for Mobile and Broadband Services including Optical Networks”, “Broadband Architecture and IP Mobility Networks- Engineering Services and Application” and “Spectrum and Regulatory Issues”. The speakers were Mrs Deepa Tyagi, DDG (M), BSNL Board, Shri P K Garg Wireless Advisor to the Govt. of India, Shri R N Padukone, Sr DDG (Strategic Planning) BSNL, Shri P Ganesh Director (Technical) TCIL, Shri M K Singh, Additional Director and Unit Head ITI Naini, Shri Sanjay Jasola, Dy Dir (Computer) IGNOU, Shri Prasad Babu Annapareddy SE Manager (India and SARC) Jupiter Networks India and Prof Neelam Srivastava and Shri Subodh Wariya of IET, Lucknow. The panelist in the Valedictory Session included Shri Shabbir Ahmad, Ex Director, BSNL Board, Shri S P Kalsi, Ex-

CGM UP (East) Telecom Centre, Lucknow, Shri P K Garg and Shri P Ganesh. Vote of thanks was given by Col R D Gupta (Retd), Hony Secretary IETE, Lucknow Centre. Presentations are available on line at <http://www.ietelucknow.com>

The centre also celebrated the World Telecommunication day by inviting Prof D S Chauhan, Vice Chancellor, UP Technical University as the Chief Guest of the occasion. He talked about the advancements in communication and Internet and its impact on economic, social and cultural life of the people. He told that the time was ripe for creation of equitable information society. Other speakers included Shri Jayant Krishna, Brig Rajesh Pant, VSM, Shri M K Garg and Shri Shabbir Ahmad who all emphasized on the requirement of affordable and equitable access by all divides to information and communication technologies (ICT) for all sections of societies living in rural, remote and urban areas of our country.

Mankapur

World Telecommunication day 2005 was celebrated by the Sub-Centre on May 20, 2005 in association with ITI Mankapur and CSI Mankapur Chapter. Shri S P Tripathi, Addl Gen Manager, ITI Mankapur was the Chief Guest. A technical presentation on GSM Technology was made by Shri Arun Verma, Manager (GSM). Chairman IETE Mankapur Sub-Centre delivered a talk on the theme of the day. The Chief Guest Shri Tripathi, exhorted the members of the professional bodies like IETE/ CSI at Mankapur to conduct more activities with vigour to keep the professional community abreast of trends in various telecom technologies and their applications.

Palakkad

World Telecommunication day was celebrated under the joint auspices of IETE Sub-Centre, Palakkad and IE Local centre at Indraprastha Hall. Shri C K Haridas Chairman IETE sub-Centre presided over

the function. Shri P N S Nair, CE Patspin India, inaugurated the function and Dr M R Vikraman, Principal NSS College of Engineering delivered the key-note address. Shri N M Ravindranath, Secretary IE (I) welcomed the guests and Shri A S Rahulan, Secretary IETE, Sub-Centre proposed vote of thanks.

Pilani

May 17, 2005 was observed as 37th World Telecommunication Day at IETE Pilani Centre. On this occasion, a series of lectures were delivered by eminent personalities as well as young technologists. Shri S N Joshi, Chairman, Pilani Centre welcomed the guests and Dr A K Sinha, Hony Secretary read the message from the Secretary General, ITU. Key-Note address was delivered by Prof M P Jain, Pro VC, Modi Institute of Technology and Science (MITS), Laxmangarh. Other speakers were Shri Raj Singh, Scientist ‘F’ CEERI, Pilani, Shri H D Sharma, Scientist ‘B’, CEERI and Ms Priyanka, MSc (Electronics), Banasthali Vidyapith, Banasthali.

Prof L K Maheshwari, Pro,VC, BITS, Pilani graced the occasion as the Chief Guest and Dr Chandra Shekhar, Director, CEERI presided over the function. The programme was a great success with lot of deliberations on the problem and its solution. It was felt that science through technology and society through awareness could help in this endeavour to achieve the aim of the theme and IETE would be of great help. Vote of thanks was delivered by Shri G K Gautam.

Pune

IETE and Institution of Engineers Pune, Jointly celebrated the 'World Telecommunication Day' on 17th May 2005 at the IE (I) auditorium. Shri Mlind Kshirsagar, Business Head, Broadband Service Ltd was the chief guest. In his address on the theme of ITU, chief guest, laid stress on creation of infrastructure for access along with educational

opportunities for building knowledge and equitable information society. Shri M G Kulkarni, Chairman IETE Pune Centre, read out ITU Sec Gen's message. Er D S Gandhe, Chairman IE (I) delivered the welcome address. Vote of thanks was proposed by Er M A Toke.

Ranchi

The new IETE Sub-centre at Ranchi was inaugurated by Hon'ble Assembly Speaker of Jharkhand Shri Inder Singh Namdhari on May 13, 2005 in a well attended function. Speaking on the occasion Hon'ble speaker assured that the State Govt would extend full support to the Ranchi Sub-Centre of IETE, which is 52nd Sub-Centre/ Centre of IETE and first of its kind in Jharkhand. Lt Gen D P Sehgal PVSM, AVSM, VSM (Retd), President IETE, spoke about the aims and objectives of IETE. He said IETE would like to help in promoting the International Communication Technologies in Jharkhand.

Shimla

37th World Telecommunication Day was celebrated on 17th May 2005. Shri Rajesh Verma delivered welcome address. Shri V K Upadhyay, Chairman Sub-Centre expressed his views over the activities and achievements of the centre and conveyed the message of Secy Genl ITU. Shri K S Sisodia, Founder and Ex Chairman of this sub-Centre delivered the technical lecture on the subject. Shri P S Kalia, member IETE Shimla Sub-centre gave an account of the history of Electronics development from pace to pace. Col D P Gupta delivered a lecture on the development of advance technology and its present and future impact. Others who delivered lectures on the theme of World Telecom Day were , Shri Ravikant Sharma, Lecturer, Shri P K Sood, Hony Treasurer.

Thiruvananthapuram

Shri P Radhakrishnan, Visiting Scientist, VSSC was the Chief Guest on the occasion of World Telecommunication Day on May 17, 2005. Shri K V Balasubramanian, Chairman welcomed the Chief Guest and delivered the presidential address. Shri P Radhakrishnan spoke on the theme "Creating an Equitable Information Society- Time for Action". He highlighted the existence of a digital divide, even in a state like Kerala, which is declared as a fully literate state. He suggested some action points like making the access to telephone and Internet available to all sections of the society.

Vadodara

IETE Vadodara Sub-Centre and the IE (I) jointly with Vadodara Telecom District, Dept of Telecom, BSNL organized a symposium " on Creating an Equitable Information Society: Time for Action" on the occasion of 37th World Telecom day celebration on May 17, 2005 at Vasvik Auditorium, Vadodara. Shri D K Sinha, General Manager (Operations), BSNL Vadodara was the Chief Guest. Prof S M Joshi, Dean, Faculty of Technology & Engg, M S University, Col Mukesh Dutta of EME School, Shri P V Khubalkar, Chief Engineer (E&T), ONGC and Dr Sanjeevan Kapshe of Railway Staff College were the speakers who made very interesting, vivid and thought provoking presentations. About 145 prominent educationists and professionals in the field of electronics, communication, computers and Internet attended the programme including Dr M Ramamoorthy, Director ERDA Vadodara. Vote of thanks was proposed by Shri Naresh Kumar, Hony Secretary IETE Vadodara Sub-Centre.

Vijayawada

Chief Guest, Shri P Balagangadhara Rao, General Manager (Operations), BSNL,

Vijayawada delivered a lecture on the theme "Creating An Equitable Information Society: Time for Action" on the occasion of World Telecommunication day on May 17, 2005. He said that information should reach at every place instantaneously, only then society can draw full benefit from it. It can help in avoiding major loss. Cell-phones must be provided at lower tariff to everybody to ease the communication problem. Dr K M Prasad, Chairman IETE Centre presided over the function. Ms M Padmaja, Hony Treasurer, gave vote of thanks.

ISF ACTIVITIES

Prof C Murali, Chairman IETE Bangalore Centre delivered the keynote address on "Wi-Fi" during the inaugural function of the workshop on "Trends in Global Communications" at MVJCE, ISF Bangalore.

Prof C Murali, Chairman IETE Bangalore Centre presided over the seminar on "Embedded Technology" at Sambram Institute of Technology and JNNCE, Shimoga ISF valedictory function.

AWARDS & ACHIEVEMENT

Shri P M Udani, Hony Secretary IETE Ahmedabad Centre and scientist working at Space Applications Centre (ISRO), Ahmedabad has been awarded best paper presentation prize for his paper titled "PDA based Natural Resources Information System" during MAP INDIA 2005 International Conference organized by CSD MS at New Delhi during Feb 7-9, 2005. The paper demonstrated convergence of Global Positioning System, Geographic Information System, Remote Sensing and Wireless Communication Technology on Mobile Computing Device- PDA and its applications related to Natural Resources Management and Location Based Services.

IETE EXPO – 2005

International Conference & Exhibition and 48th Annual Technical Convention on ICT – The Road Ahead at Hotel Taj Palace, New Delhi, India: 23-25 September 2005

IETE is holding the two day international conference and 48th Annual Technical Convention during 23-24 September 2005 on the theme **ICT-The Road Ahead** along with three day exhibition during 23rd to 25th September 2005. The aim of the conference is to bring together scientists, engineers, technologists, researchers from various organizations, institutions, industries, universities and R&D laboratories on a common platform to discuss the relevance and growth prospects of ICT.

The topics for conference are:

- Emerging Trends in Telecom Technologies
- Reaching the unreached and bridging the digital divide
- Broadband —its impact on the future communication systems
- Rural connectivity, e-governance and telemedicine
- VSAT—Distance Education
- Aeronautic Communication
- Nano Technologies
- Digital Multimedia Broadcasting
- Digital Programme Production Techniques and Trends
- Field Production Equipment and Trends
- Multimedia and Interactive Broadcasting
- Regulatory issues in the converged scenario

Fees for Conference

For Delegates: Rs. 3,000/-

10% discount for three or more delegates from the same organization for organizational Members:

Rs. 2,000/-

For Foreign Delegates US\$ 200

The Products and participants for Exhibition are:

- Telecommunication Organizations
- Broadcasting Companies
- Information Technology-Software & Hardware Companies
- Internet Service Providers (ISP)
- Telecom & Broadband Applications
- Financial Institutions/Investment Management Companies
- Telecom/IT Consultants and
- Technical Publishers

Tariff for Stalls

Size of stall	Tariff (INR)	Tariff (US\$)
3m × 2m	Rs. 60,000/-	1750
3m × 3m	Rs. 80,000/-	2000








(15% Extra for corner stalls)

Exhibition space in the IETE EXPO-2005 will have an octanorm shell, facia, carpet, 2 chairs, 1 table, 3 spotlights and 1 power plug.

All payments for the booking stalls to be made through Cheque/DD drawn (in favor of “IETE, New Delhi” payable) at New Delhi. Multiple stalls can also be booked.

For details log on to IETE website iete.org. The Delegate Registration form and Stall Booking form can be down loaded from the website.

CALENDAR OF EVENTS

Subject	Date	Venue	Contact
 National Seminar on “Broadband Communication In Indian Scenario”	6-7 Aug 2005	Pune	Shri M G Kulkarni Chairman IETE Pune Centre Raghuraj, 62 Indiranagar, Near Mehendale Garage, Erandawana, Pune-411 004 Tel : 020 25449762 Fax : 020 25410179 E-mail : ietep@vsnl.net
 48 th Annual Technical Convention on, "ICT- The Road Ahead"	23-25 Sept, 2005	New Delhi	Shri P N Chopra, DIG, BSF (Retd), Chairman-TPCIETE, 2, Institutional area, Lodi Road, New Delhi- 110003 Tel : 011 51504751, 24611588 Fax : 011 24649429 E-mail : membership@iete.org ietend@giasdl01.vsnl.net.in Website : www.iete.org
 IEEE Tencon'05	21-24 Nov 2005	Melbourne, Australia	Craig Skinner c.a.skinner@ieee.org
 India's 7th International Infrabiz-Expo and Summit-Telecom India 2005	22-24 Nov 2005	Mumbai	Winmark Services Pvt Ltd Tel : 91 22 2660 5550 Direct : 91 22 5600 2988, Fax : 91 22 2660 3992/93 Info@telecommindia.com
 National Symposium on Ocean Electronics (SYMPOL-2005)	15-16 Dec 2005	Cochin	E-mail : prspillai@cusat.ac.in www.doe.cusat.edu/sympol
 5 th Indian Conference on Microwaves, Antenna, Propagation and Remote Sensing-InCMARS-2005	20-22 Dec2005	Jodhpur	Prof O P N Calla Chairman ICRS (Conference) “Om Nivas”, A-23, Shastri Nagar Jodhpur-342003 Tel : 91 0291 2613123 Fax : 91 0291 2626166 E-mail: opncalla@yahoo.co.in Icrs2003@sancharnet.in
 International Symposium on “Electronic Communication, Radio Surveillance, Automation, Control & Safety for Mines & Hazardous Areas”	23-24 Jan 2006	New Delhi	Dr Sudhir Kumar Scientist ‘F’, Dy Dir Convener Ph : 0091 326 203010/203070/203090 Fax : 0091 326 202429/202774/203156 E-mail: ddmisra@csir.res.in Website : www.csir.res.in/cmri



National Conference on Emerging Trends in Wireless Technologies at Chandigarh, seen from R L : Lt Gen D P Sehgal, Prof P Rrabhakar, Shri Avtar Singh and Dr Pawan Kapur



World Telecommunication Day function at Chennai



World Telecommunication Day function at IETE Guwhati Centre, seen on the dais are (from R L) : Dr P C Mahanta, Shri H K Deka, Shri B K Talukdar, Ms Tilottoma Barua and Miss Pranjali Baishya



Celebration of World Telecommunication Day at Hyderabad centre on 17 May 2005



National Symposium on Mobile Handsets during April 23-24, 2005 at IETE Jaipur Centre



37th World Telecommunication Day celebration of IETE Kolkata centre



Zonal seminar and Exhibition on Future Broadband Wireless and Mobile Communication during March 11-12, 2005 at IETE Lucknow centre



37th World Telecommunication Day at Vadodara Sub-Centre

Note: The Institution of Electronics and Telecommunication Engineers assumes no responsibility for the statements and opinions expressed by individual author and speaker.

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