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FROM PRESIDENT'S DESK



I would like to congratulate all IETE Centres and Sub-Centres for successfully conducting meaningful seminars on various topics especially on the theme "ICTs: Leading the Way to Sustainable Development" chosen by the ITU for deliberation on World Telecommunication Day 2004. ICT presents opportunities to resolve traditional tradeoffs between economic growth, the environment and social cohesion. Equally, there is the opportunity to integrate sustainability criteria into the information society at an early stage in its development, maximizing the social and environmental opportunities of ICTs and mitigating its adverse impacts. For effective use of ICT a comprehensive analysis needs to be undertaken of full range of converging technology choices.

In its sincere endeavour, IETE has been updating the technical knowledge of the society in the emerging fields of ICT. Recently it conducted Mid Term Symposium on "Bioinformatics-Applications and Emerging Technologies" and Apex Forums on "Exploitation of Ku Band" and "Optimal Utilization of Frequency Spectrum". In these deliberations indigenous development of current Information and Communication Technologies which are the key tools for the growth and development of these fields were emphasized.

Indigenous development and manufacture of telecom and computer equipment is the prime requirement to drive growth of teledensity, Internet usage and ultimately building a global knowledge society. The power of homegrown technology was amply demonstrated by C-DOT through manufacture of a digital switch within the country. This technical marvel made people communicate with each other from widely dispersed cities, towns and villages in the country and world over. The important point to note was the cost effectiveness, affordability, reliability and maintainability for the life of equipment. It was precursor to the subsequent telecom reforms through NTP-94, TRAI-97, NTP-99, TRAI-2000 and recent rationalization and liberalization steps announced by Government and TRAI.

The reforms in telecommunication have improved quality of service and also quality of life. It has improved the teledensity and Internet usage over the years. However, we do have problems in planning strategic telecommunications. Besides, distribution and optimal utilization of frequency spectrum, which is essential for any wireless communication, is also effected due to non-availability of indigenously manufactured equipment. An analysis of telecom development process in our country reveals that we are lagging behind in manufacture of electronic devices, telecom components & systems and computers, which is the root cause of slow growth of ICT and sustainable development.

However, of late industries have realized the need for indigenous manufacture and increased their R&D budget. Also, innovative product development is already taking place at many premier academic institutions like IITs, IISc and others. Innovation and R&D are being discussed in seminars / symposia, lectures and other deliberations in technical organizations. Notwithstanding the foregoing, we have to do much more in research, design & development and manufacture to catch up even with the countries like Korea, Japan and even our neighbour China. I suggest IETEians to continue their good work, which promotes indigenous development and manufacture.

(K K AGGARWAL)

uAssemal

News From Headquarters

President Elect IETE- 2004-2005



Lt Gen (Retd) D P Sehgal, PVSM, AVSM, VSM is a dynamic leader with vast experience of leading officers and men both during Peace and Active Operations. He has been actively involved in strategic and perspective planning of telecommunications for nearly 'four decades'. While in service Gen Sehgal was responsible for conceptua-

lizing and implementation of the defence networks, information warfare & information technology, Cyber security & spectrum management to support the evolving strategic and operational requirements of the Army in keeping pace with the current technology. In essence he therefore, controlled the organization which is responsible for achieving the integration, synergy, networking, convergence of the various arms and services of not only the Indian Army but of the three services as well for ensuring the security and territorial integrity of the country.

By virtue of his appointments he was in constant dialogue with the Ministries of Defence, IT and Telecom, which he continues even now. He was a founder member of the Controller of Certification Authority (CCA). He is a member of the APEX Committee (WPCC) which is an interministerial committee to formulate spectrum policies at the national level. Recently, he represented Govt of India in Asia IT Ministries Summit at Hyderabad.

Besides being on the Board of BEL, ECIL & ITI he has been the Chairman of various Electronic Development panels of DRDO, Joint Electronic Management Compatibility Committee, Chairman Joint Electronic Warfare Board etc.

The Chief of the Army Staff duly recognized his outstanding achievements in 1986 & 1990 by awarding him COAS Commendation. The Government on the other hand recognized his distinguished service to the nation by awarding Vishist Seva Medal (1997), Ati Vishist Seva Medal (2002) and Param Vishist Seva medal (2003). He had the distinction of being selected as the Honorary Aide de Camp (ADC) to the President of India from April 2001 to till retirement.

Having served in the Army from 1963 to 2004, he is currently Advisor to BEL and ECIL. Gen Sehgal has been contributing to the efforts of IETE for a long time. Earlier also he was the IETE Council Member (1999-2002), Vice President, IETE (2001-2002) and Chairman of Inter Organization and Industrial Coordination Forum. Presently he is once again Chairman of Industrial Coordination Committee (ICC).

Report on 36th World Telecommunication Day

World Telecommunication Day was celebrated at IETE HQ on May 17, 2004. Broadcast Engineering Society (BES) (I) joined IETE in the celebrations, which lent special significance to it. The theme chosen by the ITU was 'ICTs: Leading the way to sustainable development". For deliberation on this apt topic, IETE had a gathering of leading personalities from telecommunication, information technology and broadcasting fields. The Chief Guest on the occasion was Dr V K Aatre, Scientific Advisor to the Raksha Mantri. The proceedings commenced with the Welcome Address and introductory remarks on the theme by Shri P N Chopra, Chairman, Technical Programme Committee. President IETE, Prof K K Aggarwal, in his address said that ICT is known as an important enabler and tool for development. He said efforts would have to be made to use ICT for sustainable development, which meets the need of the present without compromising the ability of future generations to meet their needs. Strategies should be devised to adopt ICTs, which suit to Indian environment. "What we need to do is to take stock of our available as well as required ICT resources and prepare an action plan for development of rural areas, which comprises of 70% of the Indian population living in 600,000 villages dispersed all over geographically", said Prof Aggarwal. He went on to say that this would be possible with affordable indigenous infrastructure for telecommunication, Internet, TV and e-Education. Efforts will have to be made to spread the awareness about benefits of ICT through seminars, symposia and exhibitions in local languages and by way of setting-up rural business support centres.

The Chief Guest Dr V K Aatre, in his address emphasized on building self-sufficiency in information & communication technologies. For building knowledge power, he suggested to adopt science and technology as panacea for all levels of society. Dr Aatre said that the regular discussions and sharing of views between R&D, industry, academia, Govt and users was necessary to accelerate indigenous development of the latest and current ICTs, which would help in sustainable development.

The other invited speakers were Shri N S Ganeshan, President, BES (I), Dr DPS Seth, Member TRAI, Shri P K Chanda, Member Telecom Commission, Lt Gen Davinder Kumar, VSM & BAR, SOC-in-C, Army HQ, Shri P K Garg, Wireless Advisor & Dr H S Sharma, Past President IETE.

The speakers deliberated on modern digital technologies, Internet as enabler, implementation of liberalization and how the competition helped in improving the quality of telecommunication services and in bringing down the cellular mobile telephone charges drastically. The available telecom infrastructure including copper cable network of BSNL and fibre optic cable infrastructure of BSNL and other private operators for providing broadband services were advocated along with the required innovations. Speakers were quite clear that the indigenously developed technology would not only give reliability, affordability but also sustainability to the ICT services in the country. Adoption of technologies suitable for Indian conditions and reduction of WPC charges for spectrum and ISRO charges for transponders were suggested by the speakers. Each speaker gave his views for adopting required measures to increase the teledensity in rural and inaccessible areas through VSAT, microwave radio links, wireless communication, setting-up Internet kiosks in the villages, upgradation of existing copper cable network etc. Use of solar power for communication installations was also suggested. Dr H S Sharma while summing up the deliberations said that we have to make efforts for introducing the technology, which give seamless connectivity at affordable cost and ultimately generates the wealth.

IETE Apex Forum on Optimal Utilization of National Frequency Spectrum

The second Apex Forum of the year was held on April 24, 2004 at IETE Delton Hall on the ever-important topic of "Optimal Utilization of National Frequency Spectrum". Frequency Spectrum is a fixed resource, which is used for operation of every wireless communication channel. Shri P N Chopra, Convenor of the Apex Forum while welcoming the distinguished gathering of experts and audience said that telecommunications is a key factor in the development of social, economic, commercial and cultural activities of a country. He enumerated the various facilities, which use wireless and stated that modern trend is towards mobility for which radio frequency spectrum is a resource. He said growth of wireless telecommunications depends on availability and efficient management of frequency spectrum and expressed that the panelists would enlighten the audience with their expert views on utilization and management of the same.

Prof K K Aggarwal President, IETE presided over the function. Welcome address was delivered by Lt Gen (Retd) D P Sehgal, PVSM, AVSM, VSM, Chairman, Industrial Coordination Committee. He spoke about the broadband, digital communication, convergence, Internet and also the current technologies such as CDMA, WiFi, WiMax, GMPLS etc. Gen Sehgal traced the problems created by the mismatch between the requirement and allocation of frequency spectrum right from 1981 till date. He sought the views of the experts and the techno savvy audience for finding solution to spectrum related issues.

The expert panelists who deliberated on the subject were Shri R N Agarwal, Shri V P Chandan, President Qualcom, Shri

S N Gupta, Advisor, TRAI, Lt Gen Davinder Kumar, VSM & Bar, Signal Officer-in-Chief, Shri K M Paul, Engineer-in-Chief AIR, Shri B B Anand, President Reliance Infocom Ltd, Maj R S Chhatwal, ADG, DIT, DG Sigs, Shri D Venugopal, Wg Cdr T R Dua (Retd), Advisor Bharati Televentures, Shri P K Garg, Wireless, Dr Rakesh Malhotra, Vice President, ASC Enterprises Ltd, Shri R K Arora, Gp Coordinator & Scientist 'G' MCIT.

Requirement, inadequacy of allocation, optimal utilization, standardization and high cost of the RF Spectrum were the main issues around which deliberations centered. The following are the salient points brought out by the panelists:-

- The RF Spectrum is a valuable resource and the demand for it is increasing with the current trends of utilization of mobile telecommunication services.
- The RF Spectrum utilization needs to be discussed between the WPC wing and users thoroughly to ensure objective, timely, contiguous and non-discriminatory allocations.
- All users should adopt the principle of co-operation and co-existence and share the available spectrum.
- The wireless links below 3 GHz band should either change over to optical/fiber copper cable or shift to frequencies above 10 GHz in Ku or Ka band.
- The price of the spectrum should be made affordable.
- There should be an effective frequency monitoring system to point out—unauthorized transmissions, users causing interference and also the vacant/ unutilized frequencies in the already allotted bands. This will enable re-allocation of unused frequencies and vacation of unauthorized usages.
- Organizations using old inefficient transmission equipment should make efforts to replace them at the earliest in a time bound schedule.
- WLL, CDMA, WiFi & WiMax along with integrated systems, which can provide multi-services from one platform, should be introduced by the users.
- Indigenous software driven systems should be developed, manufactured and introduced as these would help to select the best frequency for operation dynamically and thus increase probability of sharing.
- Standardization in equipment manufacturing should be enforced to maintain EMI, EMC and specifications of other parameters to avoid interference to other users.

Prof K K Aggarwal, President IETE in his address emphasized the need for innovation and indigenous development to enable long term frequency planning. He said that the Govt, R&D organizations, academia, industry and users

should discuss the measures to be adopted to improve utilization of radio frequency spectrum with indigenously designed and developed spectrum efficient transmission systems through a well coordinated plan.

News From Local Centres

Allahabad

The 6th Prof S N Ghosh Lecture was delivered by Dr R A Mashelkar, FRS on "21st Century as India's Century: Converting a Dream into Reality." Prof G K Mehta, Vice Chancellor, Allahabad University presided over the function. Vote of thanks was proposed by Er P N Gupta.

Bangalore

The technical activities held by the centre for the month of April were lectures on Embedded System, VX works, DSP, VLSI Design. The centre is also celebrating the 25th year of Summer School in Electronics in IETE Bangalore centre. A month long course for school children of 9th & 10th standards was inaugurated on April 4, 2004.

Chandigarh

A National Conference on Opto-Electronics and MEMS Technologies (NCOMT-2004) was organized at CSIO, Chandigarh under the auspices of IETE Chandigarh Centre during April, 16-17, 2004. Shri A K Dimri, Chairman of the Centre, outlined the objectives of the conference and emphasized that the technology should generate revenue. Rear Admiral K R Srinivasan, AVSM, Chief Hydrographer, Ministry of Defence, New Delhi and Chief Guest on the occasion, in his inaugural address, mentioned that the science of optoelectronics and MEMS promise to lead into low-cost data acquisition, signal processing and control systems for use in defence, automobile, space, environmental monitoring and healthcare. Prof K K Aggarwal, President IETE in his presidential address touched upon the relevance and timeliness of the conference and explained that IETE is holding several such seminars in partnership with other organizations that are doing pioneering work in the respective areas. He emphasized the need for the merger of Opto-electronics and MEMS as electronics is reaching its limits and a marriage of optics and electronics would possibly change the face of information technology, instrumentation and therefore optoelectronics is the most researched area today and as such it is likely to have the technology dominance in the 21st century.

Prof R S Sirohi, Director IIT, Delhi in his keynote address gave an overview of advances in the areas of Sensors: Fiber, Interferometric and MEMS'. He mentioned that optoelectronics is an enabling technology today and described how ultra small measurements could be carried out

by using optical and opto-electronic techniques. Dr R P Bajpai, Director CSIO remarked that all streams in science are merging and opto-electronics and MEMS is an example of such a merger.

An exhibition was also organized on this occasion, which was inaugurated by Dr R P Bajpai, Director CSIO, Chandigarh.

During the five interactive technical sessions organized on the topics of Optical Fiber Communication & MEMS Materials; Non-Linear & Integrated Optics and Micro-Sensors; Micro-Fabrication & Optoelectronics Techniques; Fiber Optic Components, Sensors and MEMS Devices and Bio-MEMS, Optical MEMS and packaging, 18 invited lectures were delivered by experts from academic institutions, research laboratories and industry. More than 65 research papers were presented in a poster session held on this occasion.

The important issues deliberated upon in the panel discussions included material for device design, packaging technology integration, cohesive working of multidisciplinary teams and synergy amongst various disciplines. It was generally agreed that the time gap between research and commercialization needs to be reduced through interaction between R&D, academia and industry.

Chennai

The Centre celebrated 36th World Telecommunication Day jointly with other professional organizations on May 17, 2004 at Hotel President, Chennai. The Chief Guest for the occasion Shri K B Brahmadathan expressed that the new Central Govt would formulate sustainable policies and approaches to bridge the digital divide between rural and urban people. He said that the need of the hour was to chalk out policies to reach the unreached, using the latest technology. The other speakers on the occasion were Shri P R Krishnan, Vice President and Head of Telecom Project, Tata Consultancy Services, Shri P Mohandoss, Chief Engineer, AIR & Doordarshan, Shri A Surendra Menon, Regional Manager (SR) VSNL and Shri K S Lakshmi Narayanan GM (IT) & Chief Technical Advisor, ELCOT.

Coimbatore

On the occasion of World Telecommunication Day on May 17, 2004, a state-of-the-art Digital Loop Carrier (DLC) Telephone Exchange of BSNL was commissioned at the Ettimadai Campus of Amrita Vishwa Vidyapeetham Deemed University, where the Coimbatore Sub- Centre of IETE is located. Shri R Varadarajan, Principal General Manager, BSNL and Dr P Venkat Rangan, Vice Chancellor of Amrita University were present on the occasion. The Sub-Centre got excellent

press coverage in the New Indian Express with one of the executive council members, Shri Prashant R Nair. The interview brought out the various activities of IETE.

Dharwad

Prof K K Aggarwal, President, IETE & Vice Chancellor, GGS IP University, Delhi inaugurated the IETE Dharwad Sub-Centre at SDM College of Engineering & Technology, Dhavalagiri, Dharwad on May 29, 2004. The key-note address on the occasion was by Dr D H Rao, Principal, Gogte Engineering College, Belgaum on "Intelligent Systems". The inaugural address was by the Chief-Guest Prof K K Aggarwal. Others who addressed the gathering were Prof K Babu Rao, Lt Gen A K Agarwal, PVSM (Retd) and Maj Gen (Retd) C M Logani, VSM.

Guwahati

A seminar was organised by the centre, to celebrate the World Telecommunication Day on May 17, 2004. Shri A Nath delivered the key-note address. Shri S Maity, Director, ETDC, Guwahati and Shri S Hazarika, Director Assam Institute of Management, Shri Bijay Singha of Regional Telecomunication Training Centre (RTTC) were the other speakers on the occasion.

Gwalior

The Sub-centre organized a one-day workshop on "Recent Trends in Information Technology" on April 25, 2004 at DRDE Auditorium in association with CSI Gwalior Chapter. Dr Y M Gupta delivered a lecture on Quantum Computing. Shri Udaiy Billore from Reliance Info System gave salient features of GSM and CDMA technologies used in mobile communication. Shri R P Arya from Esperence Software, New Delhi spoke on Call Centre Management. Shri Sudeep Das paved the way to manage the stresses in the competitive world in his lecture on Stress Management.

Hyderabad

The centre organized the following activities:-

- 8th Madan Mohan Endowment Lecture on "Technological Developments in the field of Broadcasting" by Dr H O Srivastava, Chief Engineer & Head, AIR Resources, AIR, New Delhi was organized on April 24, 2004. Shri Madan Mohan was felicitated on this occasion. Shri V Premsagar Rao, Chairman, IETE Hyderabad Centre presided over the function.
- IETE and IE (I) Hyderabad Centre jointly celebrated World Telecommunication day on May 17, 2004. On the occasion a one-day national seminar on "A Decade of Telecom Reforms in India" at the Institution of Engineers, Sir Visvesvarayya Bhavan, Hyderabad. The Seminar was inaugurated by Justice J Chelameswar, High Court of Andhra Pradesh.

Jaipur

- A two-day national symposium on "GSM and CDMA Technologies for Mobile" was organized during 17-18 April 2004 at the Auditorium of HCM Lokprashasan Sansthan, Jaipur. Inaugurating the symposium, the Chief Guest Padamshree Prof Ashok Jhunjhunwala from IIT, Chennai explained the role of wireless in India in his keynote address. He compared the performance and cost of these technologies and explained the role of future technologies like 4G and MIMO technologies. He introduced many direct and rural applications in animal husbandry, agriculture, medical support etc using mobile technologies. Earlier Prof V Sinha, Chairman of the Symposium introduced both the GSM and CDMA technologies in his welcome speech and discussed the developments and needs of these technologies in telecom sector. The invited talks were by Dr Y S Rao, Qualcomm, Shri Raj Batra, Reliance India, Shri Harsh Vardhan Singh, Secretary, TRAI and Prof V Sinha, Director LNM IIT, Shri P K Saha, GM, BSNL and Dr K K Sirohi, CDOT on diverse topics of CDMA, Reliance Perspective, TRAI's Role, GPRS and 3G systems. A panel discussion on "Road Map for India to Adopt" was chaired by Shri Harsh Vardhan Singh during the first day of the event in which representatives from different service providers presented their future plans and answered the queries of large gathering. Qualcomm organized three hours extensive tutorial programme for the benefit of the young engineers. Some selected research contributions were also presented during occasion. The event was sponsored by BSNL, Qualcom and Hutchison Essar.
- by the centre. Shri Mohan Lal, CGM, BSNL was the Chief Guest of this function. The invited talks on the theme topic given by ITU, were delivered by Shri S L Singh, G M, BSNL, Jaipur and Shri Ashu Agarwal, DGM, BSNL, Jaipur. Shri A Deobhakta, Director, ETDC, Jaipur and Prof V Sinha, Director, LNM IIT were the other speakers.

Four senior IETE Fellows namely Wg Cdr B S Solanki (Retd), Shri G J Gyani, Col B S Jaggi (Retd) and Prof Raj Kumar Gupta were honoured with the IETE Golden Jubilee Awards.

Kolkata

A one-day seminar on "ICTs: Leading the Way to sustainable Development"-theme of the 36th World Telecom Day, was organized by IETE Kolkata Centre and co-sponsored by VSNL Kolkata and BSNL-Calcutta at the VSNL Auditorium

on May 17, 2004. Shri G D Gautama, Principal Secretary, Dept of Information Technology, Govt of West Bengal inaugurated the seminar and suggested a work plan of Govt of West Bengal for development of information society. Shri P D Gupta, CGM (ER) VSNL, Chairman of the seminar, covered the measures, plan and contribution being made by VSNL for creation of opportunities and poverty alleviation of masses in the country. Shri S P Chakraborty, CGM, Calcutta Telephones, BSNL was the Guest of Honour, who in his address explained the plan and work in progress including upgradation of facilities and network of BSNL for enhancement of the telecom facilities.

Prof S K Lahiri, Dy Dir, IIT Kharagpur, the key note speaker in his address compared the progress made in the field of telecommunication and information technology in the academic and R&D organizations. He suggested the measures to upgrade the application of technology for the benefit of general masses. Dr S Matsuddi, Executive Director, WBEIDC Ltd, Kolkata, the other keynote speaker in his address brought out the achievements of WBEIDC Ltd, to set up and upgrade Telemedicine Network in West Bengal by linking up various hospitals and health centres, for health service management with the enhancement and development of communication and information technology and bringing the benefits to people.

Lucknow

36th World Telecommunication Day was celebrated by the centre at Surya Officer's Institute, Cantonement, Lucknow. The Chief Guest on the occasion was Shri K H Khan, Member (Technology), Telecom Commission, spoke about the ICTs and its impact on economic, social and cultural life of the people. Others who spoke on the occasion were Brig Rajesh Pant, DCSO, HQ Central Command and Shri V K Shukla, CGM, UP(West).

Mysore

In a function to celebrate the World Telecommunication Day, the centre invited Shri A B Ibrahim, Commissioner, Mysore City Corporation, as the Chief Guest. Prof M N Sivaram, FIE, Chairman, IE (I) Mysore Local Centre presided over the function. The keynote speakers were Shri Anup Vittal, Head, embedded System Division, Infosys Technologies Ltd and Shri G Gopinathan, Divisional Engineer, RTTC, Mysore.

Nagpur

Shri M G Joshi, current Vice Chairman of IETE, Nagpur Centre and former Member of Telecom Commission, Govt of India spoke on "ICTs for Social and Economic Development" on the occasion of the 36th World Telecom Day. Information Technology is helping in creating a global information society,

which can achieve social and economic development of the developing nations. He said co-operative efforts from Government, industrial sector and social organizations can raise social and economic status of the people of developing countries. e-science, e-agriculture, e-education etc are different shades of information and communication technologies. The contribution of DoT/BSNL in the last decade in formulation of National Telecom Policy-1994 and 1999 was brought out. By proper absorption and execution of information technologies the problems of poverty and illiteracy can be tackled effectively.

Shri P C Sahu, Ex CGM, BSNL, Maharashtra spoke on "Possibility Thinking: Leading the way to Worthwhile Living". The curiosity and the drive of the man since ages past have helped him to convert seemingly impossible to realistic achievements. Efforts of man in space technology, information technology and advances in micro-miniaturization are some recent examples. Shri P Punj, PGM, Nagpur Telecom, Shri A G Joshi and Dr D A Deshpande also spoke.

Palakkad

36th World Telecommunication Day was celebrated under the joint auspices of IETE, Palakkad Sub-centre and IE (I), Palakkad centre at Hotel Inderprashtha Hall on May 17, 2004. Shri C K Haridas, Chairman IETE presided over the function and Shri R Yuvakumar, Addl GM (Unit Head), ITI, Palakkad inaugurated the celebrations. Dr K S M Panikker, Chairman IE (I) delivered the keynote address. Shri T B Ramkumar, Hon Secretary IE (I) welcomed the audience. Vote of thanks was proposed by Shri A S Rahulan, Hony Secretary IETE.

Patna

centre commemorated the 36th World The Telecommunication Day by arranging a function at Conference Hall of Central Telegraph Office Building, Patna. Shri S S Chaudhary, FIETE, GM (Admn & Com), BSNL, Bihar Circle, Patna presided over the function. Shri Rakesh Babu, ITS PGM (O), Bihar Circle, Patna was the Chief Guest on the occasion. The keynote address on the theme "ICTs: Leading the Way to Sustainable Development" was by Shri S K Srivastava, PGM, Patna Telecom District. Other distinguished guests present on the occasion were Shri Arvind Sinha, GM (MS) BSNL Bihar Telecom Circle, Shri Atul Sinha, DGM (IT); Prof D P Singh, New Govt Polytechnic, Prof (Dr) G K Choudhary, FIETE, Bihar College of Engineering, Dr N K Goswami, A N College Dept of Electronics, Shri Bikas Chandra Kumar, Dy Dir (Computer), Dept of Science & Technology.

Pilani

The centre organized a function to celebrate the World Telecommunication day on May 17, 2004. Invited lectures

were delivered by the experts on the theme "ICTs: Leading the way to sustainable Development". Chairman Dr R K Nahar welcomed the guests and read the message from Secretary General ITU. Director CEERI, Dr Chandrasekhar in his address gave his views on the relevance and need for appropriate technology development for the benefit of masses. Shri S N Joshi, Dy Director, CEERI in his lecture discussed the emerging trends and state-of-the-art technology in the country on the development of TWT for space communication application. Shri S Raghunath, Scientist highlighted the different sectors of society where ICT has made visible effects and discussed initiatives taken by different governments and other agencies for sustainable developments.

Rajkot

The following activities were carried out at Rajkot Sub-Centre-

- A seminar on "Awareness on IETE" was held to introduce the IETE activities at Rajkot Sub- Centre. Many students with their parents/ guardians attended the seminar and gathered the required information.
- technical seminar on "Emerging Trends in Advanced Communication Technology" on 36th World Telecommunication Day. The topics covered in the seminar were on "Voice over IP (VOIP) and Wireless Communication" by Shri Alpesh Rawal, Territory Manager, D-Link India Ltd, and Shri Shailendra Sharma from Shani Peripheral. Prof K D Raval, Principal AVPTI, Rajkot inaugurated the seminar. Participants were from different BSNL, AIR, Saurashtra University, Engg College, IETE Members and industries.

Vadodara

President IETE, Prof K K Aggarwal inaugurated the new premises of IETE Vadodara Sub-Centre. Lt Gen A K Agarwal (Retd) , Chairman MLCC, IETE was the Guest of Honour during the occasion. Among those present were Mrs Anita Dandekar, Vice President IETE and Coordinator, West Zone, Maj Gen C M Logani (Retd)Secretary General, IETE, Maj Gen S K Sharma, Commandant, EME School, Shri Ashok Kumar Bhandari, PGM Vadodara Telecom District, BSNL. The new address of the Sub-Centre is

IETE Vadodara Sub-Centre

501-506, 5th Floor, Vraj Siddhi Tower, Khanderao Market Char Rasta, Raj Mahal Road, Vadodara- 390 001 IETE Vadodara Sub-Centre and IE (I) jointly with BSNL Vadodara Telecom District, BSNL organized a symposium on the theme chosen by ITU on May 17, 2004 at Vasvik Auditorium. Maj Gen S K Sharma, Commandant, EME School, Vadodara was the Chief Guest. Shri Ashok Kumar Bhandari, PGM, Vadodara Telecom District, BSNL presided over the function. Prof Rajeev Sharma, Sr Professor, Railway Staff College, Shri P V Khubalkar, Chief Engineer (E&T), ONGC, Dr A Ramamurti, Chief Manager (IS), Indian Oil Corporation (Gujarat Refinery) and Shri Parag Sane, Director of E-Solutions, Baroda were the speakers who made very interesting and thought provoking presentations. The programme was telecasted by Doordarshan and well covered by the dailies.

Vijayawada

The following activities were conducted by the Vijayawada Centre:-

Technical lectures :-

- **Telecommunication Trends** by Er P Balagangadhara Rao ITS, GM (Operations) BSNL, Vijayawada on April 3, 2004.
- **Digital Image Processing An Overview** by Er V N Prudhvi Raj, V R Siddartha Eng College, Vijayawada on April 10, 2004.
- **Creativity in Engineering** by Er D Rama Krishna, Chairman IETE Vijayawada Centre, MD M/s Efftronics Pvt Ltd, Vijayawada on April 17, 2004
- Data Base-Basic Approach by Er K Seshagiri Rao, Sr Manager, Efftronics Systems Pvt Ltd, Vijayawada on April 24, 2004
- Introduction to MATLAB by Prof B S N Reddy, Professor of ECE Dept, Koneru Lakshmaiah College of Engineering, Vaddeswaram on May 1, 2004
- **Java Technologies Enterprise Computing** by Er B Sridhar, Sr Manager (RD), Efftronics Systems Pvt Ltd, Vijayawada on May 8, 2004.

On May 17, 2004 celebrating the 36th World Telecommunication Day, IETE and IE (I), Vijayawada Local Centre jointly arranged a lecture on the theme "ICTs: Leading the Way to Sustainable Development" by Dr M V Ramana Rao, CEO, M/s MIC Electronics Ltd, Hyderabad. Er P Balagangadhara Rao, GM (Operations) BSNL, Vijayawada was the Chief Guest. Er D Rama Krishna, Chairman, IETE Vijayawada Centre presided. Mementos were presented to all the speakers who gave technical lectures under the weekly technical lecture series programe 2004. The programme concluded with vote of thanks by Er V Radha Krishna, Hony Secretary IE (I), Vijayawada Local Centre.

ISF Activity

- A lecture on "Present Need of Communication Industry & Embedded Systems" was delivered by Shri Mukesh Chadha of Tata Elexi for the benefit of IETE Students' Forum of BMS College of Engineering, Bangalore of E&C and Telecommunication students. Dr P S Satyanarayana, Head of Dept of Electronics presided.
- IETE ISF at Shri Ramdeobaba Kamla Nehru Engineering College (RKNEC) was inaugurated by

- Shri Anil Joshi, Chairman of IETE Nagpur Centre on March 3, 2004.
- The Students' Forum of IETE at **JBIT Engineering College, Hyderabad** was inaugurated on April 3, 2004.
- A seminar on "ISO 9001-2000 QMS" (Quality Management System) by Shri Sharad Beke, Consultant from Quality Factor was conducted on April 7, 2004 on behalf of the IETE Students Forum of A C Patil College of Engineering at Koper Khairane, Navi Mumbai.

CALENDER OF EVENTS			
Subject	Date	Venue	Contact
• 47 th Annual Technical Convention on "Broadband Wireless Technologies"	25-26 Sept 2004	Ahemdabad	Smt Smriti Dagur Convenor, IETE-ATC 2004 IETE Ahmedabad Centre 206, Umiya Shopping Centre, Satellite Road Ahmedabad- 380015 Tel: 079-26753938/26733931 Fax: 079-26753938 E-mail: iete_ahd@rediffmail.com; smritidagur@hotmail.com
International Conference on BET-04 Bio-Medial Electronics and Telecommunication	9-10 Dec 2004	Visakhapatnam	Prof G S N Raju Chairman, BET-04 Dept of Electronics and Communication Engineering, College of Engg, Andhra University, Visakhapatnam-530 003 Tel: +91 891 2769647 (O) (R) +91 891 2553502; (M) +91 891 2553502 E-mail: drrajugsn@yahoo.co.in; vssnsbaba@yahoo.com
• 4 th International Conference on Trends in Industrial Measurements and Automation	15-18 Dec 2004	Chennai	The Chairman Organising Committee TIMA 2004 TIMA Secretariat, CEERI Centre, CSIR Madras Complex Taramani PO, Chennai-600113TIMA Telefax: 091 (442)254-2300 Chairman: 091 (442) 254-2281CEERI Fax: 091(442)254)1889 E-mail: sic@ceerichennai.org; tautomation@yahoo.com
 18th International Conference on VLSI Design & 4th Int'l Conference on Embedded Systems 	3-5 Jan 2005	Kolkata	Web Site: www.isical.ac.in/~visi2005; http://visi.nj.nec.com

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