



**NATIONAL SEMINAR
ON**

**'ADVANCES IN WIRED AND WIRELESS COMMUNICATION'
(AWWC - 08)**

Jointly Organized by

**The Institution of Electronics and Telecommunication Engineers
West Zone, India**

&

Barkatullah University Institute of Technology

Barkatullah University, Bhopal

26th & 27th APRIL 2008

Souvenir

Venue

**BARKATULLAH UNIVERSITY INSTITUTE OF TECHNOLOGY
BARKATULLAH UNIVERSITY, BHOPAL-462026**



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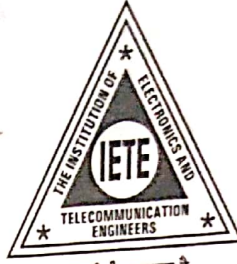
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सह वीर्यं करवावुं है
Let us do great things together



Dr. R. P. Singh
Chairman,
IETE Bhopal Local Centre

FOREWORD

The tremendous recent developments in the field of communication, both wired and wireless, has changed the life style of the people. Investigations in communication have shrunk the whole globe as a village. Indian society is witnessing a rapid change with the aid of growth in communication sector. But much has yet to be done. The telecommunication is penetrating remote villages, but the digital divide is still to be bridged. The country is all set for launching 3G, whereas developed world is looking for 4G. We have emerged as a power in satellite communication, optical communication, ADSL based wired communication, broadband domestic systems, DTH etc., but mainly concentrated towards service sector. The manufacturing and R&D is yet to be strengthened in the country.

The IETE Bhopal centre from its inception has been concerned to create awareness of the developments in the field of communication systems. A seminar on "Communication Highways" was organized in October 1996 when internet and computer networking was introduced in the country. Another seminar on "Local Access Network for Next Millennium" was held in December 1998 to acknowledge the growth of FILL, WLL and wired digital techniques. In 2003, a seminar on "Mobile Communication" was conducted, and now continuing the series, present seminar on "Advances in Wired and Wireless Communication" is expected to be a significant milestone.

The objective of this seminar is to provide a forum for interaction and share view among users, service provider, manufacturers, educationist, academician and industrialists engaged in the emerging high-tech area of telecommunications technology in general, and local access technologies in particular. This will disseminate information, views and innovative ideas for creating an environment for improving the nation-wide telecomm facilities, specially in Madhya Pradesh so that it can achieve the status of e-state.

I am privileged and fortunate for having a highly motivated and dedicated team of organizers putting their wholehearted efforts to bring this seminar a great success. I am grateful to them. I express my sincere thanks to the advisers, speakers, sponsors, advertisers and all those who have directly or indirectly contributed to make this seminar a grand success.

Dr. R. P. Singh

PREFACE

Telecommunications has had a major impact in all aspects of life in the last century. There is little doubt that the transformation from the industrial age to the information age has been fundamentally influenced by advances in telecommunications. What sounded like science fiction just a few years ago is now reality. For example, in 1945, Arthur C. Clarke envisioned the integration of rockets and wireless communications in a system of orbiting space stations to relay radio signals around the world. Only twenty years later, Intelsat, the international satellite telecommunications organization, successfully placed the 'Early Bird' satellite over the Atlantic Ocean.

Innovation and growth in telecommunications have been staggering. In 1927, AT&T introduced transatlantic telephone service, via radio, between the U.S. and London. The service had capacity for one call at a time and cost \$75 for a three-minute call. Customer dialing for long distance domestic calls was introduced in 1951, and international calls only in 1970. The first fiber optic cable in a commercial communication system was put in place in 1977. Today, international calls cost consumers only a few paise a minute.

The International Telecommunication Union (ITU) estimates that the number of landlines worldwide grew from about 689 million in 1995 to over 1 billion in 2001. In the developing world, the growth was much greater. As recently as twenty years ago, personal wireless communication was limited to a handful of government and military officials. The first commercial cellular telephone system in the U.S. was opened in 1983. Now, it has spread all over the world. Again, in the period from 1995 to 2001, the number of mobile phones worldwide grew from about 91 million to almost a billion. In 64 developing countries, the number of mobile lines grew a hundred-fold in that period. In many countries, there are more wireless lines than wire lines. Wireless penetration in Europe has already reached 100% and India is not far behind reaching with more than 150 million subscribers.

Wired and wireless communications together with its applications and underlying technologies are among today's most active areas of technology development. The very rapid pace of development has necessitated the need for professionals, teachers and students to stay abreast with the latest advancements. In its endeavor to provide knowledge, IETE WEST ZONE in association with Barkatullah University Institute of Technology is organizing this national seminar on "Advances in Wired and Wireless Communication" in sync with our ongoing commitment to providing industry oriented courses. The seminars will have distinguished participation from professors of various IIT's to professionals of the telecommunications industry who will acquaint us with the current trends. Government of India has envisaged a future in which every town and village will be connected, every citizen shall have the privilege of experiencing the information revolution and where everything is just a click away; this seminar shall be our contribution to the service of the nation.



BARKATULLAH UNIVERSITY INSTITUTE OF TECHNOLOGY BARKATULLAH UNIVERSITY, BHOPAL (M.P.)

1.0 Introduction:

Barkatullah University Institute of Technology is an autonomous and self-financing Institute of Barkatullah University, Bhopal. It was established in 1997 with the objective of providing excellence in technical education and research, commensurate with the national and international requirements. It offers undergraduate as well as post graduate programmes in engineering and computer application.

The Institute has developed from strength to strength since its inception. It has adapted several novel approaches to impart effective teaching to its students:

- The institute has adopted internationally accepted credit and grade system (CGPA) based on continuous evaluation.
- It also takes regular feed back from the students for improving the quality of teaching.
- The institute encourages regular interaction with parents.
- It has highly active Training & Placement Cell that not only provides training to students for preparing them to face campus interview but also organizes campus placement activities.
- BUIT has students chapters of SAE International, IETE, ISTE and CSI.
- M/s Smart Chip granted two merit scholarships by way of full tuition fee to students of CSE & IT (one each).
- Collaboration with IBM International.
- Research Collaboration with Universities in UK, Japan & Israel.
- Sponsored research projects funded by National Funding Agencies.
- Consultancy services to Industries.

2.0 The Management:

The Institute operates as a self-financing and autonomous institution of Barkatullah University. It is situated in the University premises with 15 acres of land, spacious buildings and well equipped laboratories and library.

Shri Bhupal Singh, Vice-chancellor, Barkatullah University, Bhopal is the Chairman of the Governing Body of the Institute. **Prof. R. K. Pandey** is the Director of BUIT.

The Executive Council of Barkatullah University, Bhopal is the apex body that governs all activities of BUIT.

3.0 Academic Programs :

Keeping abreast with the current industrial and technical scenario, the institute offers BE, MCA & M.Tech (Part Time) Degree programs in the most coveted branches of engineering. All our programs focus on producing professionals with the desired core competence in identified areas of advanced technologies, most appropriate to suit

BARKATULLAH UNIVERSITY BHOPAL, MADHYA PRADESH, INDIA

"The Foundation of every state is the education of its Youth" - Diogene

The University, formerly known as Bhopal University, was established in 1970 in the capital city of Madhya Pradesh. In 1988, it was rechristened as Barkatullah Vishwavidyalaya, in the living memory of the great freedom fighter, Prof. Barkatullah, who belonged to Bhopal.

The University campus, covering an area of approx. 400 acres of land, is located along Hoshangabad highway at a distance of about 3 km from Habibganj Railway Station. The University complex includes Administrative Block, Library Block, Life Science Block, Microbiology Building, Law Block, Applied Aquaculture Building, Humanities Block, Social Science Block, Physics Block, C.R. Institute of Management Block, Department of Pharmacy Block, University Institute of Technology Block, Hostel Building, Physical Education Building, Guest House Building, Post Office, State Bank of India Branch, Printing Press and Faculty Club.

The territorial jurisdiction of the University extends to eight districts viz Bhopal, Sehore, Vidisha, Raisen, Hoshangabad, Harda, Betul and Rajgarh. There are nearly 230 colleges affiliated to the University. There is one Engineering College, two Colleges of Education, a Technical Teachers Training Institute, a Medical College, an Institute of Russian language, a College of Indology and Museology, an English Language Teachers Training Institute and one each Ayurvedic, Unani, Physiotherapy and Homeopathic colleges affiliated to this University.

The University covers almost full spectrum of higher education, offering courses in its affiliated colleges and the University Teaching Departments in the faculties of Arts, Sciences, Social Sciences, Life Sciences, Home Science, Medicine, Commerce, Management, Law, Engineering, Education, Physical Education and Technical Education. The Chakravorty Rajgopalachari Institute of Management (CRIM) provides the courses in different disciplines of Management and the Institute of Open and Distance Education (IODE) provides undergraduate, postgraduate and diploma courses through correspondence.

The major emphasis of the University Teaching Departments is on interdisciplinary teaching and research. Most of these teaching departments follow the semester system of teaching and examination and make provision for such postgraduate courses which are by and large, not provided in the affiliated colleges, thereby avoiding duplication of efforts.

The University has a Central Library which contains nearly 72,000 books and 5,800 theses pertaining to different subjects. The University has its own Printing Press which caters its need of printing of all types of material. The Social Center for the Welfare of Students is established to make available various facilities and information to the students. The University has a sprawling play ground and gymnasium for various type of games and physical activities and a huge Gyan Vigyan Bhawan for cultural and academic activities. The University runs its own buses for its employees. Local transportation facility is also available from different parts of the city to the university.



BHOPAL 'THE CITY OF LAKES' AND NOW 'THE EDUCATION HUB'

Historical Perspective

Bhopal, the capital of Madhya Pradesh, is a fascinating amalgam of scenic beauty, old historic city and modern urban planning. It is the 11th century city Bhojpal, founded by Raja Bhoj. However, the present city was established by an Afghan soldier, Dost Mohammed (1707 - 1740). His descendants built Bhopal into a beautiful city. Tucked in between the Vindhya ranges and Malwa plateau, Bhopal, has a history going back to the ancient times. In fact, a city without a history is a poor city indeed. Virtually located in the heart of India, Bhopal has imbibed a many splendored heritage over the past millennia. From the pre-historic rock art of Bhimbaitika to the great Parmar King Raja Bhoj who ruled Malwa region and its surrounding areas more than a thousand year ago, to the Gond rulers and the Palhans, the history of every era is deeply imprinted on the soil of Bhopal, enriching its culture.

The two lakes of Bhopal called upper and lower lakes still dominate the city, and are indeed its nucleus. Bordered along their shores stand silent sentinels that testify to the growth of this city. Bhopal today presents a multi-faceted profile; the old city with its marketplaces, fine old mosques and palaces still bears the aristocratic imprint of its former rulers. Equally impressive is the new city with its verdant, exquisitely laid out parks, gardens, broad avenues and streamlined modern edifices. It is greener and cleaner than most cities in the country. The name 'Lake City' has been derived from the fact that the city and nearby places have hold on not less than 17 lakes. The landscape of Bhopal is further beautified by several hills like Shyamla, Arera, Idgah, Lalghati and Manua Bhan Ki Tekri.

Tourism Attractions within Bhopal

Bhopal has emerged as a favored tourist destination for people in search of adventure, ethnic diversity and a rich cultural experience. It has also emerged as a thriving commercial centre due to its peaceful milieu. Bhopal also acts as a magnet for renowned intellectuals, writers, classical vocalists and folk artistes. Its gentler, more laid-back lifestyle attracts people wanting to escape the hectic pace of life in metropolises like Delhi and Mumbai. Bhopal offers a mix of traditional splendour at its very best and a feel of the modern city. This allows people who visit Bhopal to mix business with pleasure. 'With lush green environs coupled with natural beauty within the city limits, as well as surrounding it, Bhopal is an ideal place to unwind oneself.

Taj-ul-Masajid

The Taj-ul-Masjid located at royal market is an esteemed religious centre of Muslim Culture standing tall in the heart of old city, this imposing edifice has the distinction of being the largest mosque in the country. The building of this mosque was begun by Shah Jehan Begum (1868-1901) but was incomplete on her death and was completed only after 1971.

Jama-Masajid

Jama Masjid is located at the centre of chowk bazar, a busy business centre of Bhopal. It was built in 1837 by Kudsia Beguni. This Masjid was completed in 24 years. This beautiful mosque has gold spikes in the minarets of its solemn structure.

Moti-Masajid

Moti Masjid is architecturally akin to Jama Masjid in Delhi. It was built in 1860 by the Sikandar Jehan Begum daughter of Kudsia Begum (Sikandar Jehan). It is situated on the Sultania

road.

Idgah

Shahjahan Begum got it built on about five acres of land. This area is known as Idgah Hills. Muslim devotees offer their prayers on Id and other occasions.

Indira Gandhi Manav Sangrahalaya (Museum of Man kind)

It is a open-air exhibition of tribal house types located on Shamla Hills. The exhibition highlights the architecture features and has elaborately displayed interiors. The surroundings have been reconstructed to match some of the interesting environmental features of tribal villages. Those interested in making a foray into man's life and unravel the past and the traditions of a bygone era, Indira Gandhi Rashtriya Manav Sangrahalaya is a place to be in.

Bharat Bhawan

In February 1982, a unique cultural complex called Bharat Bhawan opened in Bhopal. Built and designed by the well known architect Charles Correa, the complex is set in a number of low buildings cunningly woven around the banks of the lake. Here, in one compound are the Rang Mandai, the theatre repertory- Anhad, the hall for classical music Vagarth, the poetry library- Bahirang, the open air auditorium and Roopankar the museum of art. Roopankar is divided into two sections. The gallery of modern art represents some of the best examples of contemporary Indian art and sculpture. However, the section devoted to tribal and folk art excites visitors.

Upper lake

The Bhopal lake was built by late parmar king Bhoj and is now known as Upper lake. There is a saying that once king Bhoj suffered from skin disease. One day a saint told king Bhoj to build a tank to combine 365 tributaries and have a bath in it to wipe out the skin disease. The king Bhoj called upon his engineers to build up a huge tank. They spotted a place near river Betwa, 32 Km. away from Bhopal, which was found to be only 359 tributaries. A Gond Commander Kalia gave the address of an invisible river. After merging the tributaries of this river the number 365 was completed. The Upper Lake is one of the biggest men made lakes covering an area of around 13 sq. km as on now. It is believed that the original lake was around 40 sq. km. It's beauty is enhanced by the Shamla hills on one side and the VIP road on the other. There are facilities for exciting trips by sail, paddle, and motorboats.

VanVihar

It is the center of attraction for local as well as foreign tourists which is located near the upper lake in natural surroundings. Wide spread lake water, turning roads, sweet chirping of birds on the trees, cold waves, peaceful atmosphere and the natural beauty of van vihar give a lot of self enjoyment. Van Vihar is spread over an area of 445 hectares.

There are many wild animals like White Tiger, Leopard, Panther, Lion, white bear, deers are kept in open and aquatic species like crocodile, turtle etc. A 'reptile' division is also formed to watch variety of snakes. The Five-km drive of Van Vihar will make you feel closer to nature and its wonders. The 101" g stretch of road meanders uphill, flanked on one side by the Upper Lake. You can just rally forth or take your vehicle along. Vihar Vithika or Nature Interpretation Centre is a place of great exhibits, pictures of wild life, banners, foot prints of animals in plaster-of-paris and horns of sambhar, deer, gazelles, blackbuck, et-. Van Vihar also plays host to many migratory birds from the Himalayan region from November to March. The park gives a feeling of safari-like adventure while you can spot tigers, bison, deer, crocodiles.

exotic migratory birds, etc.)

Fish Aquarium

It is situated near Raj-Bhavan, it came into existence on 31st May, 1977. Covering one hectare fish house is built in fish like structure. It attracts visitors a lot. Fish house is a double structure. Upper portion has forty glass aquariums, where various species of living fishes can be seen. In the Fish house you can see Golden Shark, paradise blue, Rosy Barb, Kobra, Golden plaia, Goklen Gormi, Tiger Barb, Black Moor, King Zebra and many others.

Birla Mandir (Lakshmi Narayan Temple)

Birla Mandir is situated at the highest point of Bhopal, atop Arera Hills. Birla Mandir not only provides a spiritual experience but also a panoramic view of the breath taking picturesque city of Bhopal. It is a place where one can have an overview of the Bhopal city. The temple has a museum attached to it where there is a rich collection of sculptures from several districts of Madhya Pradesh.

Gufa Mandir

The famous temple is located at Lalghati. It is said that Late Baba Narayandas founded it in the year 1949. In the large campus of Mandir, beautiful idols of Lord Shiva, Ram Laxman, Sitaji, Goddess Durga and Hanuman are built. People and devotees from different places come for darshan everyday. A sanskrit college is also located in the campus.

Regional Science Centre

This is a science museum located on the picturesque Shymala hills. This centre houses about 300 science exhibits in 'Invention' and 'Fun Science' galleries. 'Taramandal' and Planetarium at the centre helps the students and enthusiasts study the astral and mysterious world of stars, galaxies and the universe. Stargazing sessions are organized at the planetarium for those who want to have a real close view of these luminous bodies.

BHEL Township

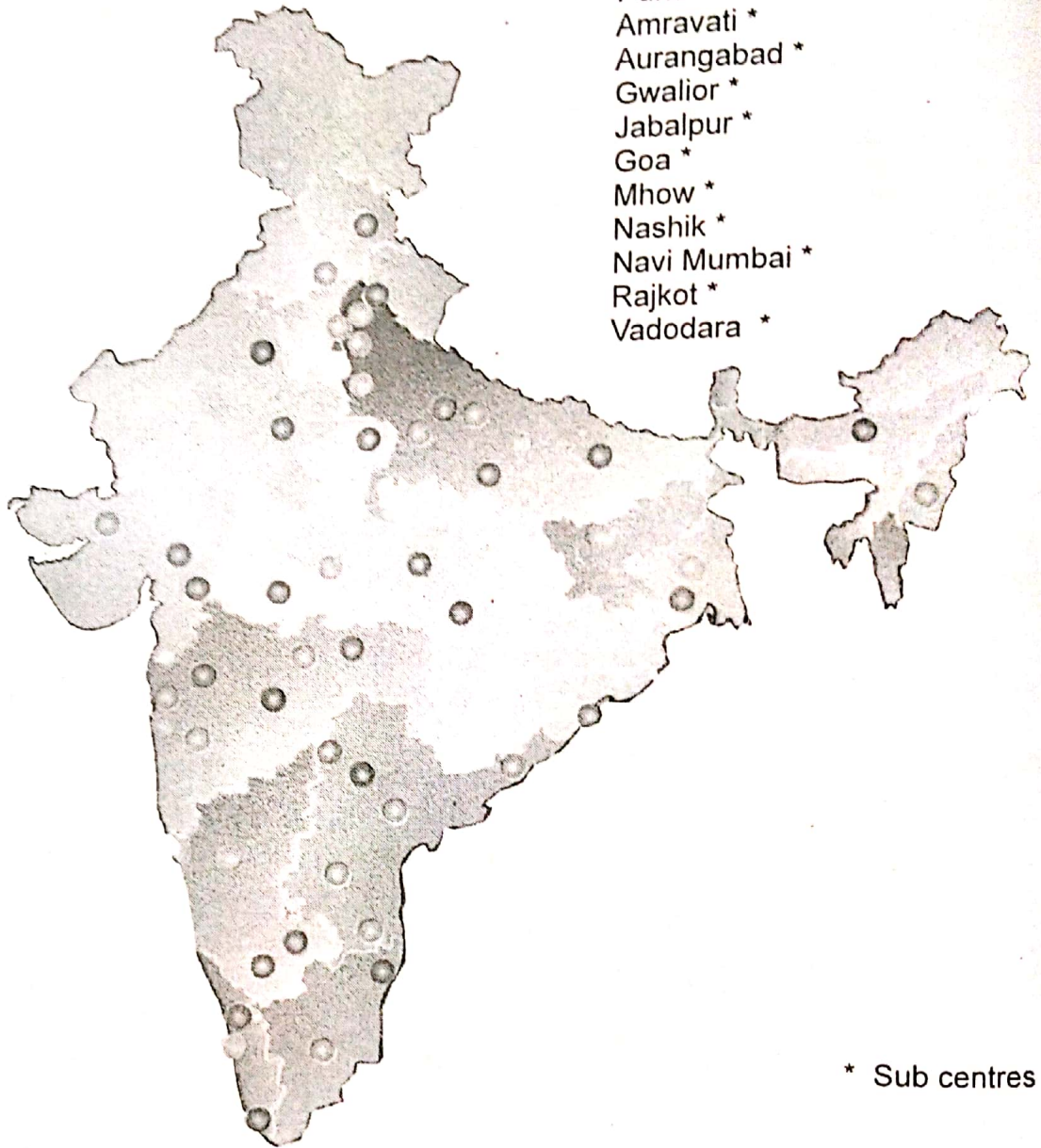
The sprawling industrial town of Bharal Heavy Electricals Limited (BHEL) spread over 19.56 sq. kilometer and having population of about 1.5 lack. has a quaint charm of its own. This modern township has been maintained with excellent amenities for residential quarters,



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Website : <http://www.iete.org> <http://www.iete.info>

Itinerary

26th April '08

Venue: Gyan Vigyan Bhavan	Venue: C.V. Raman Hall
<p>9 a.m.- 10 a.m.– Registration</p> <p>10 a.m.– 11 a.m.– Inauguration</p> <p>11 a.m.– 11:30 a.m.– Refreshments(Delegates)/ Quiz Prelim- Elimination Round (Students)</p> <p>11:30 a.m.– 12:10p.m.– Guest Lecture by Prof. T.S. Rathore (IIT Bombay)</p> <p>12:20 p.m.– 1:00 p.m.– Guest Lecture Continued</p> <p>1:00 p.m. onwards Quiz</p> <p>7:00 p.m. onwards CulturalProgram</p>	<p>11:30 a.m.– 12:00 p.m.– Key Note Address by Prof. H.M. Gupta (IIT Delhi)</p> <p>12:00 p.m.– 12:30 p.m.– Guest Lecture by Shri V.K. Garg (ISRO Ahmedabad)</p> <p>12:30 p.m.– 1:30 p.m.– Paper Presentation Session I</p> <p>1:30 p.m.– 2:00 p.m.– Lunch</p> <p>2:00 p.m. 2:30 p.m.– Guest Lecture By Prof. P.K. Chand Indore</p> <p>2:30 p.m.– 3:30 p.m.– Paper Presentation Session II</p> <p>3:30 p.m.– 3:45 p.m.– Tea Break</p> <p>3:45 p.m.– 5:00 p.m.– Paper/ Poster Presentation Session III</p>

LIST OF PAPERS

Code No.	Paper Title
P-01	Design Of Digital Parallel Processor Using VHDL
P-02	Implementation Of Butler Matrix In Switched Beam Antenna As A Orthogonal Beamformer
P-03	Speech enhancement by Wavelet Based Noise Cancellation Using Neural Networks
P-04	Performance Analysis Of Adaptive Filtering Algorithms For System Identification
P-05	Client Controlled Security For Online Project Management System
P-06	Wireless Local Area Networks And Call Admission Control Mechanism (CAC) IEEE 802.11
P-07	Anomaly Detection In Networks Using Sequence Mining
P-08	Video Transport Over IP Networks
P-09	Different ECG Compression Techniques
P-10	Global Service of Mobiles
P-11	Satellite Communication
P-12	Feature Deduction For Cyber Attack Detection Using Support Vector
P-13	Performance Evaluation Of Svd Based MIMO System
P-14	Managing Mobility In Beyond-3g Environments
P-15	Wireless Security In Mobile Ad-Hoc Network
P-16	Simulation Based Performance Comparison of Adhoc Routing Protocols
P-17	Robust Watermarking Using Informed Coding & Informed Embedding
P-18 #	OFDM - An overview
P-19	Enhancing Data Security Having Support of Large Encrypted Blobs
P-20	An Algorithm For Off-Line Signature Verification
P-21	Signal Reconstruction Algorithm And Time-Based A/D Converters Implementation on Real Time DSP Processor
P-22	Implementation of An Echo Canceller In Telephone Networks Using Adaptive Filtering Techniques On DSP Processor TMS320C6713"
P-23	Microcontroller Based Real Time Data Acquisition
P-24	Direct Chaotic Communication
P-25	Spread Spectrum : The Solution Of Interference Problem

Itinerary

27th April '08

Venue:
C.V. Raman Hall

9:30 a.m.– 10:00 a.m.– Guest Lecture by Prof. T.S. Rathore

10:00 a.m.– 11:00 a.m.– Paper Presentation Session IV

11:00 a.m.– 11:15 a.m.– Tea Break

11:15 a.m.– 11:45 a.m.– Guest Lecture by Shri S. Parmeswaram (ISRO Centre, Bhopal)

11:45 a.m.– 1:30 p.m.– Paper Presentation Session V

1:30 p.m.– 2:00 p.m.– Lunch

2:00 p.m.– 2:30 p.m.– Guest Lecture by Shri G. Kumar (CEO, Reliance Bhopal)

2:30 p.m.– 4:00 p.m.– Paper Presentation Session VI

4:00 p.m. onward Valedictory

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P-24	Direct Chaotic Communication
P-25	Spread Spectrum : The Solution Of Interference Problem

- P-26 Temporal Scalability For Video Coding
- P-27 A Fault-Tolerant And Adaptive Dynamic Channel Allocation Scheme In Cellular Networks
- P-28 Reconfiguration Of High Capacity WDM Optical Network
- P-29 Analysis Of Existing GSM Services In India Over 3G Technology
- P-30 Wireless Biomedical Data Transmission By Using 89C51 Microcontroller
- P-31 Mobility Management In B3G Networks
- P-32 Architecture For Wireless ATM Network
- P-33 Enterprise-Enabled, Ubiquitous Workspaces.
- P-34 Ad-Hoc Networks: A Power Efficient Design.
- P-35 Design And Implementation of Tunable PID Controllers Using FPGA
- P-36 Adhoc Wireless And Sensor N/W - Motes
- P-37 A Cross Layer Frame Work For Wireless LAN For QOS Support
- P-38 Performance Analysis of High Capacity DWDM System For Fiber Radio System
- P-39 Content-Based Communication Network
- P-40 Reliability Considerations Of Digital Microwave Communication Link
- P-41 OFDM: A Technique for wireless Communication
- P-42 Multimedia Broadcasting Through Satellite
- P-43 A Comparative Study Of Different Coupling Techniques For Broadband Microstrip Antennas
- P-44 Effect Of Ionospheric Time Delay On GPS Signals
- P-45 Space Fed High Gain Circular Microstrip Antenna For Wireless Applications
- P-46 Investigations of The Performance of The Meander Line RFID Antenna
- P-47 Ka-Band Attenuation Statistics Due To Atmospheric Constituents Over Tropical Region
- P-48 Performance analysis of mobile location tracking techniques
- P-49 A Distributed Shared Memory Toolbox Implementation Using Matlab
- P-50 Semiconductor Devices For Fiber optic Communication
- P-51 A Survey on Routing Protocols of Sensor Networks
- P-52 Design of Dielectric Image Lines
- P-53 An Overview of 3G Mobile Technology

- P-54 ICA Based Adaptive Noise Cancelation Algorithm For Mobile Communication
- P-55 Push To Talk Over Cellular
- P-56 Multipath Routing in Ad Hoc Networks Using Directional Antennas
- P-57 MIMO-OFDM based wireless LAN system
- P-58 Timing synchronization in MIMO CDMA
- P-59 Wireless Mesh Networks (WMN) : A Survey
- P-60 Wireless Communication Over Ad-Hoc Networks
- P-61 Ad-Hoc Networks: A Power Efficient Design.
- P-62 Speech Recongnization With Hardware Implementation
- P-63 Speech Enhancement Using Wavelet Transform
- P-64 Wireless Broadband Modem
- P-65 Hacking Exposed: Network Security Secrets & Solutions
- P-66 SET Protocol as a method to secure payment card transactions over open networks



width and smaller earth receiving stations, which leads to greater mobility. The microwave digital communication systems finds extensive use in Cellular, personal communication system and public land mobile radio communication systems. In the system design of a digital microwave link the designer must be ensure that the link satisfies the regulatory requirement, it is compatible with the digital hierarchy and the link performs the well over a long path of communication system. Ideally, the performance of a digital microwave link is independent of the number of repeaters and the system length and topology. But in reality, transmission quality is not completely independent of length of the system or the number of the repeaters. The major factors, which affect the transmission qualities, are: multipath propagation, Atmospheric constituents, anomalous propagation disturbances, reflections etc. In this paper analysis of the reliability consideration due to fading and signal losses has been carried out to obtain an error free communication over a long haul digital microwave link. Fade margin requirements for specified system availability has also been analysed.

Keywords: Digital microwave, communication link, rainfall, multipath propagation, Attenuation.



OFDM-A TECHNIQUE FOR WIRELESS COMMUNICATION

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Rajiv Gandhi Prodygiki
Mahavidyalaya, Bhopal

R P Shrivastva
MPSIDC
Bhopal

ABSTRACT

OFDM is a technique for transmitting data at high bit rate over wireless communication. OFDM spreads the data to be transmitted over a large number of carriers. This paper explains about OFDM technique, its advantage over other technique . It gives information about the wired and wireless standards have adapted OFDM for various applications. It also shows for ADSL (asynchronous digital subscriber line) and for DAB (digital audio broadcasting)in the market.

key words- OFDM, CDMA, ADSL, DAB.



MULTIMEDIA BROADCASTING THROUGH SATELLITE

Mrs. Anjali Potnis

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ABSTRACT

Satellite communication facilities handling of huge bandwidth which is most appropriate for the multimedia Broadcasting and is going to be the efficient solution for transfer of huge multimedia data for the different types of receiver like Satellite Radio and Television , Computer or remote workstation and last but not least the mobile telephone. The advancement and standardization in the satellite technology has created a new opportunity to deliver the Internet protocol (IP) based services around the world .

The implementation and penetration of open standards such as Digital video broadcasting (DVB) satellite standards for television , cable, mobile and other type data receivers are quite efficient to cater to the present multimedia data transfer requirement. The key factor for selecting satellite for the transmission of multimedia is the huge bandwidth available in the required direction .The paper reviews the deployment of satellite communication in delivery of Audio, Video , Data and multimedia services through IP , terrestrial , handheld and cable mediums. Broadcasting for mobile will totally change the present telecommunication seniors. This will lead to 4G and it will become reality to receive all type of data by a single mobile unit . Research in this field is