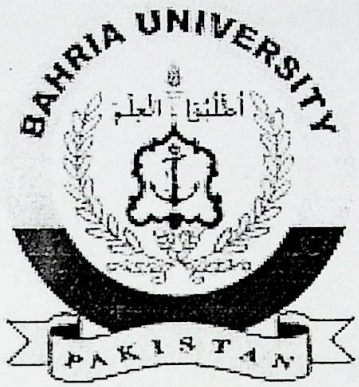
Wireless Mobile Networks



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Certificate

We accept the work contained in this repot as a confirming to the required standard for the partial fulfillment of the degree MCS in Networks Telecommunication.

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Abstract

Wireless networks have been an essential part of communication in the last century. Over recent years, telecommunications has been a fast-growing industry. Traditionally, first-generation wireless networks were targeted primarily at voice and data communications occurring at low data rates. Then evolution of second- and third-generation wireless systems that incorporate the features provided by broadband. Like most technologies, advances in wireless communications occur mainly through a process of steady evolution for example a big evolution in GSM like GPRS, IS 136 and IS 95 and CDMA is discussed in this thesis.

Bluetooth, a new wireless interconnect technology standard, is designed to replace the many cables we need to connect devices to our PCs or networks. Its usage, specification and what is the future of Bluetooth is discussed.

A new technology in third generation mobile networks UMTS is also discussed. Its history and improvement which it needs from other networks are discussed.

The IETF has developed a protocol called Mobile IP that allows IP nodes to move without changing their IP address or restarting connections. Its working, its network and its evolution is discussed in this thesis.

Wireless LANs are becoming increasingly more common after standardization has been reached. Its architecture, standards and configuration are discussed in this thesis.
In VOIP the voice signal is digitized, compressed and converted to IP packets and then transmitted over the IP network. Signaling protocols like H.323, SIP, RTP, MGCP, RTSP, RSVP etc, are used to set up and tear down calls, carry information required to locate users and negotiate capabilities are discussed. IPv6 is also discussed.
Liberalization has resulted in the rapid growth, modernization and development of the telecom sector in Pakistan. What is the present condition of telecom sector in Pakistan and what is future are discussed in this thesis.

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