

Syllabus

Module - I 10 hours	Introduction to Personal Communications Services (PCS) : PCS Architecture, mobility management, Networks signaling Global System for Mobile Communication (GSM) System overview : GSM Architecture, Mobility management, Network signaling. General Packet Radio Services (GPRS) : GPRS Architecture, GPRS Network Nodes, Mobile Data Communication WLANs (Wireless LANs) IEEE 802.11 standard, Mobile IP.
Module - II 15 hours	Wireless Application Protocol (WAP) : The Mobile Internet standard, WAP Gateway and Protocols, wireless mark up Languages (WML) Wireless Local Loop (WLL) : Introduction to WLL Architecture, wireless Local Loop Technologies. Third Generation (3G) Mobile Services : Introduction to International Mobile Telecommunications 2000 (IMT 2000) Vision, Wideband Code Division Multiple Access (W-CDMA), and CDMA 2000, Quality of services in 3G.
Module - III 08 hours	Global Mobile Satellite Systems ; case studies of the IRIDIUM and GLOBALSTAR systems. Wireless Enterprise Networks : Introduction to Virtual Networks, Blue tooth technology, Blue tooth Protocols.
Module - IV 10 hours	Server-side programming in Java, Pervasive web application architecture, Device independent example application.

Text Books :-

1. "Pervasive Computing", Burkhardt, Pearson
2. "Mobile Communication", J. Schiller, Pearson
3. "The Wireless Application Protocol", Sandeep Singhal, Pearson
4. "Mobile and Personal Communication Systems and Services", Raj Pandya, Prentice Hall of India, 2001.

Reference :-

1. "Guide to Designing and Implementing Wireless LANs", Mark Ciampa, Thomson learning, Vikas Publishing House, 2001.
2. "Wireless Web Development", Ray Rischpater, Springer Publishing
3. "The Wireless Application Protocol", Sandeep Singhal, Pearson.
4. "Third Generation Mobile Telecommunication Systems", by P. Stavronlakis, Springer Publishers,
5. "Mobile Computing", Rajkamal, Oxford Publication.
6. "Mobile Computing Technology, Applications and Service Creation", Ashok K Talukder and Roopa R Yavagal, Tata McGraw Hill.
7. "Mobile Computing Technology Applications, Issues and Research Directions", Brijesh Gupta, Khanna Book Publishing.
8. "Mobile Computing a book of readings", C. S. R. Prabhu, Universities Press.
9. "Mobile Computing", Vishnu Sharma and S. P. S. Chauhan, S. K. Kataria and Sons (Katsan) Books.
10. "Principles of Mobile Computing", Uwe Hansmann, Lothar Merk, Martin S. Nicklons and Thomas Stober, Springer, 2003.
11. "Handbook of Wireless Networks and Mobile Computing", Stojmenovic and Cacute, Wiley, 2002, ISBN 0471419028.
12. "Mobile Computing Principles: Designing and Developing Mobile Applications with UML and XML" Reza Behravanfar, , ISBN:0521817331, Cambridge University Press October 2004
13. "Wireless Communications and Networks", William Stallings, PHI/Pearson Education, 2002.