24PE1001 PERVASIVE COMPUTING (3-0-0)

Objective:

1. To understand the principles of Pervasive Computing.
2. To be familiar with the various Pervasive Computing Models and their applications.

MODULE – I

Pervasive Computing Application - Pervasive Computing Devices and Interfaces - Device technology trends, Connecting issues and protocols. Pervasive Computing and web based Applications - XML and its role in Pervasive Computing.

MODULE – II

Pervasive Computing and web based Applications (continued) - Wireless Application Protocol (WAP) Architecture and Security - Wireless Mark-Up language (WML) – Introduction. Voice Enabling Pervasive Computing - Voice Standards - Speech Applications in Pervasive Computing and security

MODULE – III

PDA in Pervasive Computing – Introduction - PDA software Components, Standards, emerging trends - PDA Device characteristics - PDA Based Access Architecture.

MODULE – IV

User Interface Issues in Pervasive Computing, Architecture - Smart Card- based Authentication Mechanisms - Wearable computing Architecture.

Books Recommended:

1. Jochen Burkhardt, Horst Henn, Stefan Hepper, Thomas Schaec & Klaus Rindtorff., Pervasive Computing Technology and Architecture of Mobile Internet Applications, Addision Wesley, Reading, 2002.
2. Uwe Ha nsman, Lothat Merk, Martin S Nicklous & Thomas Stober, Principles of Mobile Computing, Second Edition, Springer- Verlag, New Delhi, 2003. Reference Books
3. Rahul Banerjee: Internetworking Technologies: An Engineering Perspective, Prentice –Hall of India, New Delhi, 2003. (ISBN 81-203- 2185-5)
4. Rahul Banerjee: Lecture Notes in Pervasive Computing, Outline Notes, BITS-Pilani, 2003.