ELECTIVE: I

BEIT704T1 **MOBILE COMPUTING**

(Theory Credit: 05)

Teaching Scheme:	**Examination Scheme:**
Lecture: 4 Hours/week	**Theory: T (U): 80 Marks T (I): 20 Marks**
Tutorial: 1 Hour/week	**Duration of University Exam. : 03 Hours**

==========

UNIT I:

Introduction to Mobile Computing:

Wireless Communication and examples, Applications cellular communication (1G to 4G Networks), GSM (Mobile services, system architecture protocol, Localization and Calling, Handover, Security)

UNIT II:

Mobile Computing Architecture:

Internet the ubiquitous network, Architecture for Mobile Computing three tier architecture, Design consideration for Mobile Computing, Mobile Computing, Mobile Computing through Internet.

UNIT III:

Wireless LAN:

Wireless LAN advantages, Applications, IEEE 802.11 standards, System Architecture, Protocol Architecture, Physical layer, Medium access control layer, MAC management roaming.

UNIT IV:

Mobility Management and Control:

Mobile agents, characteristics, requirement for Mobile Agent system, Platform (Aglet object Model, Agent Tcl architecture)

UNIT V:

Wireless Application Protocol:

WAP model, architecture, wireless datagram protocol, wireless transaction protocol, wireless session protocols.

UNIT VI:

Introduction to Android:

Layer android components, Mapping applications to process, Android development basics, Hardware tools, Android SDK features.

Text Books:

1. Mobile Communications: 2nd Edition, Jochen Schiller, Pearson Education.
2. Wireless Communication-Principles and Practice-2nd Edition, Theodore S. Rappaport, PHI Publications

Reference Books:

1. Mobile Computing- Technology, Applications and services creation-Ashok K. Talukder, Roopa R. Yavagal, TMH.
2. Mobile Computing-Theory and Practice-Kumkum Garg-Pearson Publications

******