IT8602 MOBILE COMMUNICATION

DETAILED SYLLABUS

OBJECTIVES:

The student should be made to:

- Understand the basic concepts of mobile computing
- Understand Wireless LAN, Bluetooth and WiFi Technologies
- Be familiar with the network protocol stack
- Learn the basics of mobile telecommunication system
- Be exposed to Ad-Hoc networks

UNIT I INTRODUCTION

Introduction to Mobile Computing – Applications of Mobile Computing- Generations of Mobile Communication Technologies-MAC Protocols – SDMA- TDMA- FDMA- CDMA

UNIT II MOBILE TELECOMMUNICATION SYSTEM

GSM – Architecture – Protocols – Connection Establishment – Frequency Allocation – Routing – Mobility Management – Security –GPRS- UMTS- Architecture

UNIT III WIRELESS NETWORKS

Wireless LANs and PANs – IEEE 802.11 Standard – Architecture – Services – Blue Tooth-Wi-Fi – WiMAX

UNIT IV MOBILE NETWORK LAYER

Mobile IP – DHCP – AdHoc– Proactive and Reactive Routing Protocols – Multicast Routing Vehicular Ad Hoc networks (VANET) –MANET Vs VANET – Security

UNIT V MOBILE TRANSPORT AND APPLICATION LAYER

Mobile TCP– WAP – Architecture – WDP – WTLS – WTP –WSP – WAE – WTA Architecture – WML

TEXT BOOKS:

1. Jochen Schiller, ―Mobile Communications‖, PHI, Second Edition, 2003.

2. Prasant Kumar Pattnaik, Rajib Mall, ―Fundamentals of Mobile Computing‖, PHI Learning Pvt.Ltd, New Delhi – 2012