DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
SYLLABUS FOR B.E. IV SEMESTER

INTRODUCTION TO MOBILE COMMUNICATIONS (for other Branches)

Instruction: 1 Hr /week	SEE Marks : 40	Course Code : OE450EC
Credits : 1	CIE Marks : 30	Duration of SEE : 2 Hrs

Course Objective	Course Outcomes
1 To provide fundamental principles and concepts required to understand the Mobile communication systems.	**At the end of the course, students will be able to:** 1. Demonstrate the fundamental knowledge of Mobile communication systems. 2. Differentiate between large scale & small scale fading channel effects. 3. Calculate the path loss, coverage area 4. Understand the standards of mobile communication systems.

UNIT - I

Introduction to Wireless Communication Systems: Evolution of Mobile Radio Communications, Examples of Wireless Communications Systems, The Cellular Concept – System Design Fundamentals: Introduction, Frequency Reuse, Handoff, Interference and System Capacity

UNIT - II

Mobile Radio Propagation: Introduction to Radio wave Propagation, Free Space Propagation Model, Reflection, Diffraction, Scattering, Small scale and multipath fading. Introduction to GSM and CDMA

Suggested Reading:

1 Theodore S. Rappaport, Wireless Communications Principles and Practices, 2nd edition, Pearson Education.
2 David Tse, Pramodh Viswanath, Fundamentals of Wireless Communication, 2005, Cambridge University Press.