

Cellular, Mobile and Satellite Communication

CSE-472

Course Objective

This Course is to expose the students to the most recent technological developments in Mobile and satellite communication systems.. The Course considers the basic concepts Cellular Concepts and Different Types of Cells, Modulation Techniques for Mobile System, Components of Cellular Systems, Cell Coverage and Prediction Curves, Operation of Cellular Systems etc. This course also deals with various methodologies to improve the received signal quality in mobile communication

Pre-requisite

1. Wireless Networks

Syllabus

| S.L | Topic | Resources |
|-----|---|---|
| 1 | Introduction to Satellite Communication | Course-1 Course-2 Youtube Repository |
| 2 | Introduction to Cellular Communication | |
| 3 | Orbits and Launching Methods | |
| 4 | Components of Cellular System | |
| 5 | Mobile Radio Propagation | |
| 6 | Modulation and Signal Processing | |
| 7 | Cell Coverage and Prediction Curves | |
| 8 | Operation of Cellular Systems | |
| 9 | Geostationary Orbit | |
| 10 | Earth Stations | |

Marks Distribution

| S.L. | Exam | Mark | Syllabus |
|--------------|------------|------------|-------------------------------|
| 1 | Midterm | 20 | 1 – 4 |
| 2 | Final | 40 | 5 - 10 |
| 3 | Lab | 20 | Quiz (lab resources) |
| 4 | Class test | - | C-1 (midterm), C-2 (final) |
| 5 | Assessment | 20 | Class test + Class attendance |
| Total | | 100 | |

Instructor

[Md Mahedi Hasan](#)