



E2-241 Jan. 3:0

Wireless Networks

Instructor

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Teaching Assistant

Email:

Department: Electrical Communication Engineering

Course Time:

Lecture venue:

Detailed Course Page:

Announcements

Brief description of the course

First postgraduate level course in Wireless Networking for students in Communications and Networks.

Prerequisites

Preferably some background in Probability and Random Processes, and in Communication Networks.

Syllabus

Access networks - Cellular networks (FDMA-TDMA as well as CDMA and OFDMA). Multihop wireless networks.

Power and Coverage - path loss, shadowing, multipath fading, signal to interference ratio, outage. Capacity and Blocking probability - spectrum efficiency, spatial frequency reuse, dynamic channel allocation, channel handoffs, soft handoff and soft capacity. Power allocation, rate utility maximisation, mean queueing delay.

Multihop routing and scheduling.

Course outcomes

Students learn basic principles, concepts, techniques, and methods, for the design and analysis of Wireless Networks.

Grading policy

50% for two midterm tests, and 50% for final examination.

Assignments

Resources