

# Overview of the lecture

- ❑ Introduction
  - Use-cases, applications
  - Definition of terms
  - Challenges, history
- ❑ Wireless Transmission
  - frequencies & regulations
  - signals, antennas, signal propagation
  - multiplexing, modulation, spread spectrum, cellular system
- ❑ Media Access
  - motivation, SDMA, FDMA, TDMA (fixed, Aloha, CSMA, DAMA, PRMA, MACA, collision avoidance, polling), CDMA
- ❑ Wireless Telecommunication Systems
  - GSM, HSCSD, GPRS, DECT, TETRA, UMTS, IMT-2000
- ❑ Satellite Systems
  - GEO, LEO, MEO, routing, handover
- ❑ Broadcast Systems
  - DAB, DVB
- ❑ Wireless LANs
  - Basic Technology
  - IEEE 802.11a/b/g, .15, Bluetooth
- ❑ Network Protocols
  - Mobile IP
  - Ad-hoc networking
  - Routing
- ❑ Transport Protocols
  - Reliable transmission
  - Flow control
  - Quality of Service
- ❑ Support for Mobility
  - File systems, WWW, WAP, i-mode, J2ME, ...

