

## WIRELESS NETWORKS

**ECTS credits: 4**

**Period : year 2, semester 1**

**Objectives:**

To provide a good knowledge base on mobile radio networks :

- by presenting the main problems related to the wireless mobile networks in general.
- by describing the solutions that the standard organisations and the industry have provided so far, in both the LAN and telecom domains.

To describe the future of these technologies – new technical challenge, synergies, more friendly solutions.

**Contents:**

The main characteristics of the wireless data transmissions

The mobile LAN (the IEEE 802.11 family, Bluetooth)

The cellular telecommunication networks (GSM, GPRS, EDGE, UMTS)

New challenges – IP on radio, TCP on radio

**Prerequisites:**

The OSI layered model for networks.

Notions regarding the Internet protocols (IP, TCP, UDP).

Notions regarding antennas and propagation

Background knowledge on large operator network