

Title Mobile and satellite communication systems	Code 1018071810108110183
Field Electronics and Telecommunications	Year / Semester 4 / 8
Specialty -	Course core
Hours Lectures: 2 Classes: - Laboratory: - Projects / seminars: -	Number of credits 0
	Language polish

Lecturer:

prof. dr hab. inż. Krzysztof Wesołowski
Katedra Radiokomunikacji
tel. 0616653812, fax. 0616653823
e-mail: wesolows@et.put.poznan.pl

Faculty:

Faculty of Electronics and Telecommunications
ul. Piotrowo 3A
60-965 Poznań
tel. (061) 665-2293, fax. (061) 665-2572
e-mail: office_det@put.poznan.pl

Status of the course in the study program:

Obligatory course in the field of studies Electronics and Telecommunications (Faculty of Electronics and Telecommunications, speciality: Communication Systems)

Assumptions and objectives of the course:

Getting acquainted with the current status and development directions of mobile and satellite communication systems

Contents of the course (course description):

History of wireless systems, satellite systems and their standards. Repetitorium on signal propagation, interference, fading and distortions in radio channels. CDMA cellular networks - description of UMTS and cdma2000. Evolution of cellular system according to ITU-R: IMT-Advanced, UMTS-LTE. Broadband access networks - WiMAX (IEEE 802.16), WiFi networks (IEEE 802.11). Internet in mobile communication networks, mobile IP. Satellite link, signal propagation in a satellite link, multiple access, earth stations. Examples of satellite systems and networks (VSAT, personal satellite communications (Iridium), analogue and digital satellite TV, GSP and Galileo systems. Future of wireless communication systems and networks: 4G systems

Introductory courses and the required pre-knowledge:

Foundations of radiocommunications, digital communication systems

Courses form and teaching methods:

Lecture

Form and terms of complete the course - requirements and assessment methods:

Written examination

Basic Bibliography:

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Additional Bibliography:

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