



The Faculty of:	Faculty of Electrical and Computer Engineering
Field of study:	Computer Science
Speciality:	
Study degree (BSc, MSc):	Full time studies

COURSE UNIT DESCRIPTION

Course title:	Telecommunication systems
Lecturer responsible for course: dr. Kazimierz Lal	
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Department : Department of Electrical Engineering and Informatics	

Semester	Weekly load	Type of classes				Number of ECTS credits
		L Lectures	C Theoretical Classes	Lb Laboratory	P Project	
9	2	25		25		2

Course description
<p>Lecture: Classification of computer network – ISO/OSI model. Telecommunication infrastructure. Transmission media (Copper cables, Optical cables, Cordless media). Analog and digital signals. Wireless transmission. Cable and wireless - IEEE 802 standard. Frame Relay and ATM technologies. SDH and WDH standards. Analog and digital telephony – POTS, ISDN, GSM, UMTS, VoFR, VoATM and VoIP.</p>
<p>Classes:</p>
<p>Laboratory: Tools and technics installations in practice.</p>

<p>Installation and testing of wireless computer network.</p> <p>A/c and c/a converters.</p> <p>Selected problems of digital signal processing.</p> <p>Configuration of Ethernet switches for second and third layers.</p> <p>Configuration and testing of analog central station.</p> <p>Configuration and testing of digital central station - ISDN.</p> <p>Installation and configuration of communication system - VoIP.</p> <p>Credit - Test.</p>
Project:

Objectives of the course
Student should obtain theoretical knowledge and practical understanding of subject and skill of maintaining communication systems.
Examination method
Final examination, oral or written test on each laboratory, credit test from laboratory.

Bibliography
Lal K., Rak T.: Systemy telefonii komórkowej. Oficyna Wydawnicza Politechniki Rzeszowskiej Rzeszów 2002; Haykin S.: Systemy telekomunikacyjne. Tom I i II. WKŁ Warszawa 1998; Read R.: Telekomunikacja. WKŁ, Warszawa, 2000; Simmonds A.: Wprowadzenie do transmisji danych. WKŁ, Warszawa, 1999; Siudak J.: Wstęp do współczesnej telekomunikacji światłowodowej. WKŁ, Warszawa, 1999.

Lecturer signature	
Head of Department signature	
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