



The Faculty of:	Faculty of Electrical and Computer Engineering
Field of study:	Automation and Robotics
Speciality:	
Study degree (BSc, MSc):	First circle full time studies

COURSE UNIT DESCRIPTION

Course title:	Computer networks
Lecturer responsible for course: dr. Kazimierz Lal	
Contacts: phone: 48178651767	e-mail: klal@prz-rzeszow.pl
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	
5	4	30		30		5

Course description
<p>Lecture: TCP/IP protocol - version 4: IP v.4 datagram structure, IP addresses and ARP protocol, UDP and TCP segment structure, application layers protocol.</p> <p>Static and dynamic routing.</p> <p>TCP/IP protocol - version 6: IP v.6 datagram structure, datagram segmentation, addressing system, transmission stream reservation mechanism, quality of service.</p> <p>Selected network operating systems - installation and configuration.</p> <p>Directory service in computer networks.</p> <p>VPN and security in computer networks.</p> <p>Planning, implementation and using computer network.</p> <p>Server virtualisation.</p>
<p>Classes:</p>
<p>Laboratory: Configuration and tests of selected Ethernet switches.</p>

Introduction to routing problems.

IP addresses and ARP protocol.

Static routing.

Dynamic routing.

Network services installation and configuration.

Virtualisation - implementation and tests.

Credit - test.

Project:

Objectives of the course

Student should obtain theoretical knowledge and practical understanding of subject and skill of maintaining computer networks.

Examination method

Final examination, oral or written test on each laboratory, credit test from laboratory.

Bibliography

Sportack M.: Sieci komputerowe Księga eksperta, Wydanie II – poprawione, HELION 2004; Hunt C.: TCP/IP - Administracja sieci, RM, 2003; Scrimger R., LaSalle P., Leitzke C., Parihar M., Gupta M.: TCP/IP. Biblia, Helion, 2002; Akademia CISCO. Pierwszy i drugi rok nauki. Mikom, 2004; 3Com. Dokumentacje techniczne przełączników i ruterów; Rak T.: Tworzenie sieci komputerowej. Ćwiczenia praktyczne, HELION, 2006.

Lecturer signature

Head of Department signature

Dean signature