TECHNICAL UNIVERSITY OF VARNA

Ratified by:
Rector……
/Prof. Rosen Vasilev, PhD/

C U R R I C U L U M

Professional orientation: **COMMUNICATIONS AND COMPUTER ENGINEERING**
Educational and qualification degree: **MASTER**
Programme: **COMPUTER NETWORKS AND COMMUNICATIONS**
Professional qualification: **MASTER - ENGINEER**
Mode of study: **FULL - TIME**
Length of study: **1,5 years / 3 semesters**

For holders of educational and qualificational degree "Bachelor" in specialities of professional orientation 5.3 Communications and Computer Engineering and specialities "Electronics", "Automation, Information and Control Computers Systems" and "Automation, Robotics And Control Computer Systems" of professional orientation 5.2 Electrical Engineering, Electronics and Automation.

Number	Subject Name	Forms of assessment				Weekly auditorium load						Unsupervised load	Whole load of students	ECTS credits
		Exams	Inter-semester Evaluation	Course project	Accepted	Lectures	Seminars			Laboratory Exercises	Total load			
							Seminar Exercises	Course project	Assignment					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Optional Subject 1	*				30			15	30	75	135	210	8
2	Optional Subject 2	*				30			15	30	75	135	210	8
3	Optional Subject 3	*				30				30	60	120	180	7
4	Optional Subject 4	*				30				30	60	120	180	7
5	*Optional Subject 5*		(*)			*(30)*				*(30)*	*(60)*	*(90)*	*(150)*	*(5)*
	Optional Subjects													
a	Network Infrastructures													
b	Integrated Computer Systems and Networks													
c	Computer Networks Design													
d	Network Programming with Java													
e	Virtualization Technologies													
f	Single Chips Microcontrollers for Network Application													
g	Design of Digital Schemes with FPGA and Verilog													
h	IT Security													
	Total for the 1 semester:	**4**	**0**	**0**	**0**	**120**	**0**	**0**	**30**	**120**	**270**	**510**	**780**	**30**
6	Optional Subject 1	*				30			15	30	75	135	210	8
7	Optional Subject 2	*				30				30	60	150	210	8
8	Optional Subject 3	*				30				30	60	120	180	7
9	Optional Subject 4	*				30				30	60	120	180	7
10	*Optional Subject 5*		(*)			*(30)*				*(30)*	*(60)*	*(90)*	*(150)*	*(5)*

Number	Subject Name	Forms of assessment				Weekly auditorium load						Unsupervised load	Whole load of students	ECTS credits
							Seminars			Laboratory Exercises	Total load			
		Exams	Inter-semester Evaluation	Course project	Accepted	Lectures	Seminar Exercises	Course project	Assignment					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Optional Subjects													
a	Distributed and Network Operating Systems													
b	Internet for Mobile Devices													
c	Reliability and Security of Communications													
d	Inernet Servers and Technologies													
e	Wireless Communications													
f	Industrial Computer Networks													
g	Design of Microprocessor Systems for Network Applications													
h	Applied Cryptography													
i	Machine Learning													
	Total for the 2 semester:	**4**	**0**	**0**	**0**	**120**	**0**	**0**	**15**	**120**	**255**	**525**	**780**	**30**
	Totals for the whole course of education	**8**	**0**	**0**	**0**	**240**	**0**	**0**	**45**	**240**	**525**	**1035**	**1560**	**60**
	Facultative Subjects													

Types of graduation	Semester	Unsupervised load	ECTS credits
Preparation of Diploma Thesis	**3**	**450**	**15**
Defense of Diploma Thesis			

Note:

1. The curriculum is valid for the training in Bulgarian and English
2. In semester 1 and 2 are taught in 4 or 5 subjects in a decision of the department council.

Approved by the Academic Board of TU-Varna:

Protocol № 11 / 06.06.2016

Modified with Protocols: № 21/ 24.04.2017

Valid from 2017/2018 academic year

The weekly plan of the lessons is fixed according to the Academic Board "Structure of the Learning Process" adopted for the current academic year.

Head of Department: /Assoc. Prof. H. Valchanov, PhD/

Dean of Faculty: /Assoc. Prof. N. Nikolov, PhD/