TECHNICAL UNIVERSITY OF VARNA

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

C U R R I C U L U M

Professional orientation: **ELECTRICAL ENGINEERING, ELECTRONICS AND AUTOMATION**

Educational and qualification degree: **MASTER**

Programme: **BUILDING AUTOMATION SYSTEMS**

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" or "Master" after the secondary education of professional orientation 5.2.Electrical Engineering, Electronics and Automation, 5.3. Communications and Computer Engineering and 5.4.Energetics

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	Legal Requirements and Management of the Energy Resources of Building		*			30				30	60	105	165	6
2	Automated Security and Fire Alarm Systems	*				15				45	60	105	165	6
3	Automated Video Surveillance Systems	*				15				45	60	105	165	6
4	Programmable Controllers for Building Automation	*				15	15			30	60	105	165	6
5	Heating, ventilation and air conditioning (HVAC) control systems	*				30				30	60	130	190	7
	Total for the 1 semester:	**4**	**1**	**0**	**0**	**105**	**15**	**0**	**0**	**180**	**300**	**550**	**850**	**31**
6	Access Control Systems	*				30				30	60	105	165	6
7	Intelligent Building Automation Systems	*				15	15			30	60	130	190	7
8	Building Management Systems Design	*				15				45	60	105	165	6
9	Control of Building Electric Drives	*				30				30	60	105	165	6
10	Complex Project			*				30			30	105	135	5
	Total for the 2 semester:	**4**	**0**	**1**	**0**	**90**	**15**	**30**	**0**	**135**	**270**	**550**	**820**	**30**
11	Pre-graduation Practice				*						0	120	120	4
	Total for the 3 semester:	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**120**	**120**	**4**
	Totals for the whole course of education	**8**	**1**	**1**	**1**	**195**	**30**	**30**	**0**	**315**	**570**	**1220**	**1790**	**65**
	Facultative Subjects													
1	Foreign Language, part 1		1				30				30	45	75	3
2	Foreign Language, part 2		2				30				30	45	75	3
3	Step7 Programming	1				15				45	60	105	165	6
4	Human-Machine Interface	2				15				45	60	105	165	6
5	Network Communication Protocols	2				15				45	60	105	165	6

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

Approved by the Academic Board of TU-Varna:

Protocol № 11 / 06.06.2016

Modified with Protocols:

Valid from 2016/2017 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. N. Nikolov, PhD/

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