



TECHNICAL UNIVERSITY OF SOFIA

APPROVED

RECTOR:

(prof. DSc eng. Ivan Kralov)

Date:

Educational degree:

Master of Science

Professional qualification:

Master engineer

Period of study:

1 year, 2 semesters

Type of study:

regular

PLAN OF STUDY

specialty **“Computer systems and technologies”**

Professional direction: **5.3. Communication and computer technics**

for graduated form educational degrees BSc and/or MSc in professional directions:
5.3. Communication and computer technics or 4.6. Informatics and computer science

I. TIME OF STUDY

Number of weeks								
Course	Auditorium	Exam sessions	Teaching practise	Industrial practise	Diploma practise	Diploma project	Holidays	Total
I	36	3	-	-	-	8*	2	41

II. PLAN OF STUDY

ECTS Subject code **T p CST SN**

- **T** – type of course: **B** for BEng, **M** for MEng
- **p** – for Plovdiv branch
- **CST** – Industrial Electronics
- **SN** – subsequent number of the subject

Lectures (L), Tutorials (Tut.), Labs (Lab.), Auditorium Total (AT), Self-Study (SS), Exam (E), Continuous Assessment (CA), Semester Project (SP), Semester Assignment (course work) (SA)

No	SUBJECT	Semester Load					Assessment				ECTS code	ECTS credits
		L	Tut.	Lab.	AT	SS	Total	E	CA	SP		

SEMESTER I (15 weeks + 3weeks exams)

1	Computer vision	30	0	15	45	105	150		1			MpCST01	5
2	Natural language interfaces	30	0	15	45	105	150	1				MpCST02	5
3	Distributed systems and communication	30	0	15	45	75	120	1				MpCST03	4
4	Optional Subject – List 1	30	0	15	45	105	150	1				MpCST04	5
5	Optional Subject – List 2	30	0	15	45	105	150		1		1	MpCST05	5
6	Optional Subject – List 3	30	0	15	45	75	120		1			MpCST06	4
7	Projects (selected subject form semester 1 №№1-6)	0	0	0	0	60	60			1		MpCST07	2
TOTAL		180	0	90	270	630	900	3	3	1	1		30

SEMESTER II (10 weeks + 8 weeks diploma project (incl. 3 w. exams))

8	Distributed embedded systems	30	0	15	45	105	150		1		1	MpCST08	5
9	VLSI design	30	0	15	45	105	150	1				MpCST09	5
10	Optional Subject – List 4	30	0	15	45	105	150	1				MpCST10	5
11	Diploma project (11-18 w.)					450	450	Diploma thesis defence			MpCST11	15	
TOTAL		90		45	135	765	900	2	1		1		30

Note: *Diploma project is included in the semester 2 study time.

III. PARAMETERS OF THE STUDY PLAN

1. Period of study: 1 year, 2 semesters
2. Auditorium engagement:
 - Total – 405 hours
 - Lectures: 270 hours;
 - Labs: 135 hours;
3. Self-study engagement: 1395 hours.
4. Total engagement - 1800 hours.
5. Total number of subjects: - 10.
 - Compulsory: 5;
 - Optional: 4;
 - Facultative: 2.
6. Control:
 - Exams: 5;
 - Continuous Assessment: 4;
 - Semester Project: 1;
 - Semester Assignments: .
7. Total number of ECTS credits - 60

DEAN:
(assoc. prof. PhD eng. Georgi Ganey)

Accepted in Faculty council of faculty of Electronics and Automation on 10.09.2020 protocol № 9.
Approved in Academical council of TU – Sofia protocol № 8 / 30.09.2020.

List of optional subjects

List 1 (MpCST04 – ECTS 5)		
1	GRID technologies	MpCST4.1
2	Programming of modern heterogeneous architectures	MpCST4.2
List 2 (MpCST05 – ECTS 5)		
1	UML object-oriented design	MpCST5.1
2	Internet programming	MpCST5.2
List 3 (MpCST06 – ECTS 4)		
1	Systems for remote monitoring and control of space crafts	MpCST6.1
2	Methods and devices for digital signal processing	MpCST6.2
List 4 (MpCST10 – ECTS 5)		
1	Bioinformatics	MCS10.1
2	Combinatorial Algorithms	MCS10.2
3	Learning and self-learning in programming	MCS10.3

LIST OF FACULTATIVE SUBJECTS

No	SUBJECT	Semester Load						Assessment				ECTS code	ECTS credits
		L	Tut.	Lab.	AT	SS	Total	E	CA	SP	SA		

SEMESTER I

1	Time series forecasting	20	0	20	40	50	90		1			FaMpCST01	3
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SEMESTER II

2	Mathematical methods for digital signal processing	20	0	20	40	50	90		1			FaMpCST02	3
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Note:

1. The contents of the lists of optional courses and their names are subject to update before the start of the academic year.
2. The schedule of the facultative courses in accordance with the interests of the students will be announced by the faculty office.

DEAN:
(assoc. prof. PhD eng. Georgi Ganey)

Accepted in Department of Computer systems and technologies on 09.09.2020 protocol № 1.

Accepted in Faculty council of faculty of Electronics and Automation on 10.09.2020 protocol № 9.