

# Master's degree program in Electronics

as of 2020/2021 academic year

## CURRICULUM

ECTS Subject code **T p E SN**

- **T** – type of course: **B** for BEng, **M** for MEng
- **p** – for Plovdiv branch
- **E** – 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	SA		

### SEMESTER I

1	Artificial intelligence and neural networks	30	0	30	60	60	120		1			<b>MpE01</b>	<b>4</b>
2	Computer networks and communications	30	0	30	60	60	120		1		1	<b>MpE02</b>	<b>4</b>
3	Electronic development	30	0	30	60	90	150	1				<b>MpE03</b>	<b>5</b>
4	Medical systems for remote monitoring, storage and data processing	30	0	30	60	90	150		1			<b>MpE04</b>	<b>5</b>
5	Electronic energy converters	30	0	30	60	90	150	1				<b>MpE05</b>	<b>5</b>
6	CAD systems in microelectronics	30	0	30	60	90	150		1			<b>MpE06</b>	<b>5</b>
7	Semester Project (according to subject chosen from 3-6)					60	60				1*	<b>MpE07</b>	<b>2</b>
<b>Total</b>		<b>180</b>	<b>0</b>	<b>180</b>	<b>360</b>	<b>540</b>	<b>900</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>1</b>		<b>30</b>

\* One SP should be chosen.

### SEMESTER II

8	Design of embedded systems	20	0	20	40	50	90		1			<b>MpE08</b>	<b>3</b>
9	Optional Subject (List OS - 1)**	20	0	20	40	50	90		1			<b>MpE09</b>	<b>3</b>
10	Optional Subject (List OS - 2)**	20	0	20	40	50	90		1			<b>MpE10</b>	<b>3</b>
11	Optional Subject (List OS - 3)	20	0	20	40	50	90		1			<b>MpE11</b>	<b>3</b>
12	Optional Subject (List OS - 4)	20	0	20	40	50	90		1			<b>MpE12</b>	<b>3</b>
	Diploma Project					450	450	Diploma Thesis Defense			<b>MpE13</b>	<b>15</b>	
<b>Total</b>		<b>100</b>	<b>0</b>	<b>100</b>	<b>200</b>	<b>700</b>	<b>900</b>		<b>5</b>				<b>30</b>

\*\* Subjects MpE09.1, MpE10.1 form “Industrial Electronics” Master program

\*\* Subjects MpE09.2, MpE10.2 form “Electronic information processing systems” Master program

**LIST OF OPTIONAL SUBJECTS**

<b>List OS 1- MpE09 ( ECTS =3)</b>		
1	Electronic converters for controlling of electric motors	<b>MpE09.1</b>
2	Programming of Embedded Systems	<b>MpE09.2</b>

<b>List OS 2 – MpE10 ( ECTS =3)</b>		
1	Programmable Logic Controllers	<b>MpE10.1</b>
2	Mathematical methods for digital signal processing	<b>MpE10.2</b>

<b>List OS 3 - MpE11( ECTS =3)</b>		
1	Optical communication systems	<b>MpE11.1</b>
2	Telecommunications	<b>MpE11.2</b>

<b>List OS - 4 MpE12 ( ECTS =3)</b>		
1	Project Management	<b>MpE12.1</b>
2	Industrial legislation	<b>MpE12.2</b>

**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	Power supplies	30	0	30	60	60	120		1			<b>FaMpE01</b>	<b>4</b>
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**SEMESTER II**

2	Intelligent sensor-actuator systems	30	0	30	60	60	120		1			<b>FaMpE02</b>	<b>4</b>
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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.