

## COURSE DESCRIPTION CARD

Faculty of Electrical Engineering										
Field of study	Electrical and Electronics Engineering							Degree level and programme type	bachelor's degree, full time programme	
Specialization/ diploma path	-							Study profile	-	
Course name	Final Project							Course code	IS-FEE-10021W	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	winter	
								No. of ECTS credits	12	
Entry requirements	5/6 semesters of engineer level in appropriate area									
Course objectives	Familiarizing student with the methodology of solving engineer problems. Deepening skills of appropriate choice and use of literature references and the skill of use of scientific and technical data bases. Training the ability of analyzing the literature to identify the possible solutions of the problem stated in the engineer project. Obtaining the skill of formulating the engineer problem and the choice of the methodology and tools to solve it (including calculation tools and computer programmes). Achieving the skill of preparing plan and schedule of the process of the engineer task realization. Improving skill of preparing the report of the engineer task realization. Creating the skill of the design assumptions' verification, concluding and evaluation of achieved results.									
Course content	Knowledge and skills connected with the subject of the project - acquisition of information from the literature. Characterization of the possible solutions of the problem stated in the engineer project derived from the current state of knowledge. Knowledge of the development trends within the chosen area allowing to choose the solution of the problem. Planning the realization of the engineer problem. Using computer tools and techniques in order to realize or support the solution of the task. Verification of the solution by means of the methods and tools of theoretical and experimental analysis. Methodology of characterization and analyzing the engineer task and forming the conclusions. Development of the results and the documentation of executed tasks.									
Teaching methods	Discussion, consultations									
Assessment method	evaluation of the final project by the tutor and evaluator, evaluation of the defence of the final project.									
Symbol of learning outcome	Learning outcomes							Reference to the learning outcomes for the field of study		
LO1	collects knowledge from the literature and evaluates the applicability to solve chosen technical problem;									
LO2	individually plans the solution of the engineer problem, specifying									

	the method and the execution time;	
<b>LO3</b>	implements engineering task and prepares the development containing documentation and verification of the results;	
<b>LO4</b>	formulates objectives for the various stages of solving engineering tasks, suggesting methods of implementation and verification of a solution;	
<b>LO5</b>	can design a measurement system implementing engineering design or research task;	
<b>LO6</b>	can evaluate relevance and use appropriate methods and tools used to achieve engineering tasks;	
<b>LO7</b>	has the ability and understands the need to improve his/hers qualifications in order to enhance and update expertise technical knowledge.	
<b>Symbol of learning outcome</b>	<b>Methods of assessing the learning outcomes</b>	<b>Type of tuition during which the outcome is assessed</b>
<b>LO1</b>	positive evaluation of engineering work and the result of defense;	
<b>LO2</b>	positive evaluation of engineering work and the result of defense;	
<b>LO3</b>	positive evaluation of engineering work and the result of defense;	
<b>LO4</b>	positive evaluation of engineering work and the result of defense;	
<b>LO5</b>	positive evaluation of engineering work and the result of defense;	
<b>LO6</b>	positive evaluation of engineering work and the result of defense;	
<b>LO7</b>	positive evaluation of engineering work and the result of defense;	
<b>Student workload (in hours)</b>		<b>No. of hours</b>
<b>Calculation</b>	<b>self work on the subject, consultations, discussions with the supervisor</b>	<b>300</b>
	<b>TOTAL:</b>	<b>300</b>
<b>Quantitative indicators</b>		<b>HOURS</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>15</b>
<b>Student workload – practical activities</b>		<b>300</b>
		<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>0,5</b>
<b>Student workload – practical activities</b>		<b>12</b>
<b>Basic references</b>	<b>specialized literature - adequate to the subject of the project.</b>	
<b>Supplementary references</b>		
<b>Organisational unit conducting the course</b>	<b>Faculty of Electrical Engineering</b>	<b>Date of issuing the programme</b>
<b>Author of the programme</b>	<b>teachers of the Faculty of Electrical Engineering</b>	<b>15.02.2020</b>

L – lecture, C – classes, LC – laboratory classes, P – project, SW – specialization workshop, FW - field work,

S – seminar