

Module description: Electronics Project 1						
Module Code	t.BA.ET.PM3-EN.19HS					
ECTS Credits	4					
Language of Instruction/Examination	English					
Organizational Unit	ISC Signal & WCOM					
Module Coordinator	Hanspeter Hochreutener					
Legal Framework	The module description is part of the legal basis in addition to the general academic regulations. It is binding. During the first week of the semester a written and communicated supplement can specify the module description in more detail.					
Module Characteristic	Type 4* 4 lab lessons per semester week and half-class					
Module Description	Students develop an electronic device, from the idea through to building a prototype.					
Module Content	<ul style="list-style-type: none"> Metal detector, cable monitor, mobile phone detector, electrosmog meter, time-of-flight sensor for distance and gestures, communication via ultrasound or a similar project 					
Prerequisite Knowledge						
Learning Objectives (Competences)	Students...		Competencies	Taxonomies		
	Methodological, project management, self/social and business skills (½ SWL) Thinking in terms of variants and evaluating different approaches Efficient researching Presenting results to experts in an appropriate way Drawing up requirements and specifications Technical reports in English Responsibility for the functioning of the team		SO, SE	K1, K2, K3		
	Technical (3 SWL) Design, realisation, testing and documentation of electronic circuits Design, realisation, testing and documentation of microcontroller software If suitable: interface to smartphone and app programming Sensitisation for ESD and EMV problems		F	K2, K3, K4		
	Communication (½ SWL) Written documentation of the HW development Documentation of SW code and SW tests Demonstration and presentation skills Language of instruction and documentation is English		M	K1, K2, K3		
Performance Assessment	End-of-module exam	Assessment	Length (min.)	Weighting	Form	
	oral exam	Grade		40	acc. to module agreement	
	Performance assessment during the semester					
	Performance assessment during the semester	Assessment	Length (min.)	Weighting	Form	
	report	Grade		40	acc. to module agreement	
	oral exam	Grade		20	acc. to module agreement	
Classroom Attendance Requirement	None					

Module description: Electronics Project 1

Learning material

Comments

During the semester a prototype of an electronic device is built.
This module is held in English and accompanied by a communication lecturer. These skills contribute to the module grade with a weight of about 1/4.