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Course	ECTS	Language
Physics and Electronics 1	13	
Electronics laboratory introduction		
Physics of semiconductors		
Electronics 1		
Physics of semiconductor devices		
Electromagnetic waves 1		
Mathematics, signals and IT 1	12	
Programming laboratory introduction		
Stability of linear systems		
Engineering calculus		
Numerical analysis		
C language		
Continuous and discrete signals and systems		
LANGUAGES AND SOCIAL SCIENCE, HUMANITIES, ECONOMICS, LAW	5	
English		
TOEIC		
Organization and Functioning of Companies		
Intercultural management		
Digital responsibility		

















Microelectronics and Telecommunications Master's Degree 1st Year – 2nd Semester (S6)

Course	ECTS	Language
Physics and Electronics 2	8	
Electronics 2		
Laboratory of semiconductor devices		
Optics and Photonics		
Electromagnetic waves 2		
Mathematics, signals and IT 2	5	
Probabilities and Statistics		
Random signals		
Object-oriented programming		
Microelectronics and telecommunications	10	
Analog Filter Synthesis		
Signal transmission		
Synthesis of Analog Amplifiers		
Digital Circuits		
Data coding and Digital Modulation		
Complex digital systems - VHDL		
LANGUAGES AND SOCIAL SCIENCE, HUMANITIES, ECONOMICS, LAW	4	
English		
TOEIC		
Business financial management		
Professional project 1		
Sustainable development		
Internship research preparation		
Opening module		
WORK PLACEMENT I (Internship)	3	

Microelectronics and Telecommunications Master's Degree 2nd Year - 1st Semester (S7)

Course	ECTS	Language
Microelectronics 1	14	
Arithmetic operators		
Design of Digital Integrated Circuits		
Processor Architecture: Hardware		
Manufacturing of semiconductor devices		
Design of Analog Integrated Circuits		
Analog to Digital & Digital to Analog Converters		
Telecommunications 1	10	
Digital Signal Processing		
Electromagnetic waves III		
Antennas		
Transmission and Analog Systems		
Digital transmissions and systems		
LANGUAGES AND SOCIAL SCIENCE, HUMANITIES, ECONOMICS, LAW	6	
English		
TOEIC		
Quality management		
Sales and Marketing Management		
Internship research preparation		
Project management		

Microelectronics and Telecommunications Master's Degree 2nd Year – 2nd Semester (S8)

Course	ECTS	Language
Microelectronics 2	10	
Technological Training in a clean room (AIME)		
Modeling of radio and microwave devices		
Digital IC Test		
Processor Architecture : Application (MCU)		
CAD Flow for VLSI digital circuits		
Analog IC design flow		
Microelectronics Supervised Work		
Telecommunications 2	10	
Numerical method in electromagnetism		
Propagation in free space		
Measurements for telecommunications		
Physics and Photonic		
Hyperfrequency		
2G, 3G, 4G communication		
Telecommunications Supervised Work		
LANGUAGES AND SOCIAL SCIENCE, HUMANITIES, ECONOMICS, LAW	4	
English		
TOEIC		
Professional project 2		
Responsible management		
Innovation and Entrepreneurship		
WORK PLACEMENT II (Internship)	6	

Microelectronics and Telecommunications Master's Degree 3rd Year - 1st Semester (S9)

Course	ECTS	Language
OPTION/TRACK 1: High performance Mobile electronic systems	10	
5G		
Design of microwaves and RF circuits		
Integration of IP blocks		
Design of logic audio filters		
Android programming		
OPTION/TRACK 2: Autonomous embedded electronic systems	10	
Sensors and electronic processing		
Embedded Java systems		
ID systems and NFC/Cards		
Low power electronics		
Indoor transmissions		
Electronic systems	10	
Real time information processing		/
Memories		/
Cryptosecurity		/
Electromagnetic compatibility		/
RF architectures		/
AI material implementation		/
Industrial realization project – TAI	6	
Laboratory project of industrial realization		
LANGUAGES AND SOCIAL SCIENCE, HUMANITIES, ECONOMICS, LAW		4
English		
TOEIC		

Microelectronics and Telecommunications Master's Degree 3rd Year - 2nd Semester (S10)

Main course	ECTS	Language
WORK PLACEMENT III (Internship)	30	/