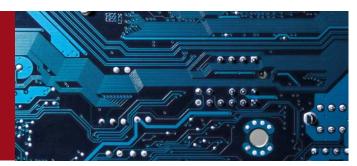


GENERAL INTRO

This course will give students multidisciplinary knowledge of electronics and computer engineering. It will enable them to obtain theoretical and practical knowledge in designing applied electronic systems based on analogue and digital techniques as well as gaining expertise in microprocessors, programmable logic applications and signal processing. Graduate students will be able continue second level study in the fields of Electrical Engineering, Computer Science, Automation and Robotics or Telecommunication, or other related fields.



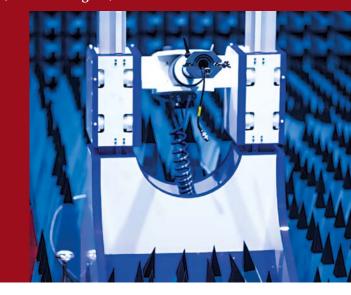


JOB PROSPECTS

The graduate will acquire the experience necessary for a professional career in broadly covered industrial automation, and will be prepared for 2nd level studies (master level).

1st YEAR, SEMESTER 1				
	Subject/Module	ECTS		
1	Metrology	4		
2	Mathematic – Analysis	7		
3	Mathematic – Algebra	7		
4	Introduction to Programing	8		
5	Foreign languages	2		
6	Philosophy, Ethics	2		
	TOTAL	30		
	1st YEAR, SEMESTER 2			
	Subject/Module	ECTS		
1	Mathematic – Analysis 2	5		
2	Mathematic for Electronics	5		
3	Physics	6		
4	Object Oriented Programming	6		
5	Electronics	8		
6	Sport	0		
	TOTAL	30		

	2nd YEAR, SEMESTER 3	
	Subject/Module	ECTS
1	Physics for Electronics	6
2	Scientific & Engineering Programming	5
3	Electronic Components and Sensors	8
4	Electronic Technology	5
5	System Theory	3
6	Foreign Languages	3
	TOTAL	30
	2nd YEAR, SEMESTER 4	
	Subject/Module	ECTS
1	Programming Systems & Environments	4
2	Introduction to Microcontrollers	8
3	Electronic Circuits	7
4	Introduction to Automation & Robotics	7
5	Fundamentals of Telecommunication	4
	TOTAL	30
	3rd YEAR, SEMESTER 5	
	Subject/Module	ECTS
1	Computer Networks	4
2	Digital signal Processing	5
3	Optional Courses (3 of the 5: Advanced Topics in Robot-	21
	ics; Microcontrollers; Artificial Intelligence and Comput-	
	er Vision; Optoelectronics; Wireless systems)	
_		
	TOTAL	30
	TOTAL 3rd YEAR, SEMESTER 6	
	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module	ECTS
	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project	ECTS 5
2	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic	ECTS 5 4
2	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineer-	ECTS 5
2	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineering; Embedded Systems; Real Time Operating Systems;	ECTS 5 4
2	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineer-	ECTS 5 4
2	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineering; Embedded Systems; Real Time Operating Systems; Lasers, Fibres and Applications; Communication Systems	ECTS 5 4
2	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineering; Embedded Systems; Real Time Operating Systems; Lasers, Fibres and Applications; Communication Systems & networks)	5 4 21
2	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineering; Embedded Systems; Real Time Operating Systems; Lasers, Fibres and Applications; Communication Systems & networks) TOTAL	5 4 21
3	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineering; Embedded Systems; Real Time Operating Systems; Lasers, Fibres and Applications; Communication Systems & networks) TOTAL 4th YEAR, SEMESTER 7	ECTS 5 4 21 30
3	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineering; Embedded Systems; Real Time Operating Systems; Lasers, Fibres and Applications; Communication Systems & networks) TOTAL 4th YEAR, SEMESTER 7 Subject/Module	ECTS 5 4 21 30 ECTS
2 3 1 2	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineering; Embedded Systems; Real Time Operating Systems; Lasers, Fibres and Applications; Communication Systems & networks) TOTAL 4th YEAR, SEMESTER 7 Subject/Module Diploma Seminar	5 4 21 30 ECTS
2 3 1 2 3	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineering; Embedded Systems; Real Time Operating Systems; Lasers, Fibres and Applications; Communication Systems & networks) TOTAL 4th YEAR, SEMESTER 7 Subject/Module Diploma Seminar Final Project	ECTS 5 4 21 30 ECTS 2 13
2 3 1 2 3 4	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineering; Embedded Systems; Real Time Operating Systems; Lasers, Fibres and Applications; Communication Systems & networks) TOTAL 4th YEAR, SEMESTER 7 Subject/Module Diploma Seminar Final Project Internship	ECTS 5 4 21 30 ECTS 2 13 6
1 2 3 4 5 6	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineering; Embedded Systems; Real Time Operating Systems; Lasers, Fibres and Applications; Communication Systems & networks) TOTAL 4th YEAR, SEMESTER 7 Subject/Module Diploma Seminar Final Project Internship Author Law Business Optional Courses (2 of the listed: Practical Electrotechnics; Medical Electronics; Fibre-Optics Technology;	ECTS 5 4 21 30 ECTS 2 13 6 2
2 3 1 2 3 4 5	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineering; Embedded Systems; Real Time Operating Systems; Lasers, Fibres and Applications; Communication Systems & networks) TOTAL 4th YEAR, SEMESTER 7 Subject/Module Diploma Seminar Final Project Internship Author Law Business Optional Courses (2 of the listed: Practical Electrotechnics; Medical Electronics; Fibre-Optics Technology; Electronics For Renewable Energy Sources; Satellite Communication Networks; Virtualization and Cloud	ECTS 5 4 21 30 ECTS 2 13 6 2 1
2 3 1 2 3 4 5	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineering; Embedded Systems; Real Time Operating Systems; Lasers, Fibres and Applications; Communication Systems & networks) TOTAL 4th YEAR, SEMESTER 7 Subject/Module Diploma Seminar Final Project Internship Author Law Business Optional Courses (2 of the listed: Practical Electrotechnics; Medical Electronics; Fibre-Optics Technology; Electronics For Renewable Energy Sources; Satellite Communication Networks; Virtualization and Cloud Computing; Machine Learning; Selected Topics In Arti-	ECTS 5 4 21 30 ECTS 2 13 6 2 1
2 3 1 2 3 4 5	TOTAL 3rd YEAR, SEMESTER 6 Subject/Module Team Project Electroacoustic Optional Courses (3 of the 5: Control Systems Engineering; Embedded Systems; Real Time Operating Systems; Lasers, Fibres and Applications; Communication Systems & networks) TOTAL 4th YEAR, SEMESTER 7 Subject/Module Diploma Seminar Final Project Internship Author Law Business Optional Courses (2 of the listed: Practical Electrotechnics; Medical Electronics; Fibre-Optics Technology; Electronics For Renewable Energy Sources; Satellite Communication Networks; Virtualization and Cloud	ECTS 5 4 21 30 ECTS 2 13 6 2 1





ENTRY INFORMATION

Required

Secondary school certificate, received after the completion of a recognized secondary school (total 12 years of education), being the equivalent of Polish Matriculation certificate. Each application is assessed individually on its merits. If in doubt, please contact the Admission Officer.

Other information

Polish students – check on www.rekrutacja.pwr.edu.pl
International students – check on admission.pwr.edu.pl







"Electronic and Computer Engineering (EAC) – a new field of study at Wroclaw University of Technology where the theoretical background and practical knowledge from the current study programs of Electronics, Computer Science and Automation & Robotics is combined. Such a combination of disciplines reflects modern trends in electronics where analogue meets digital and hardware meets software. This new practical field of study is recomended among others for those electronic enthusiasts who want to know «how it works»".

> Professor Krzysztof Tchoń, program coordinator and lecturer





FIELD OF STUDY

ELECTRONIC AND COMPUTER ENGINEERING STUDIES IN ENGLISH





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PROFESSOR KRZYSZTOF ABRAMSKI

DR GRZEGORZ BUDZYN





