



## DESCRIPTION

The ACS studies' programme is focused on delivering multidisciplinary knowledge and developing theoretical and practical skills in modern areas of computer science (Machine Learning, Neural Networks, optimisation, etc.), information technology and computer systems. We believe that students gain the most when they are involved in research (working on projects) individually and as a team while the lecturer is ready to advise and guide. Therefore, more than 65% of the course's programme is focused on active forms of learning like group projects, seminars, classes (tutorials) and laboratory training. ACS (formerly known as AIC - Advanced Informatics and Control) shapes many successful PhD candidates and researchers. Historically speaking, we have had 25 double diploma students and 11 PhDs with the cooperation of foreign universities.

## JOB PROSPECTS

The graduates will gain deep knowledge in computer science (Machine Learning, algorithms, optimisation) and software engineering. They will be prepared to solve real-life IT and computer science problems, conduct proper research and learn how to gain information from the literature and other available sources. The alumnus will be prepared for a role of a team leader and have extensive teamwork skills (critical thinking, collaboration, communication etc.). They will have experience in both organising and participating in workshops/conferences. They will acquire the experience necessary for a professional career at research units, universities, colleges, and industry. In addition, they will develop English communication skills that are well above industry standards.

## ENTRY INFORMATION

Requirements: Bachelor's Degree in Informatics, Computer Science, Computer Engineering, Information Technology, Teleinformatics, Computer Systems, Robotics, Control, Control Engineering, Systems, Electronics, Telecommunications. Each application is assessed individually on its merits. If in doubt, please contact an Admission Officer, e-mail: [admission@pwr.edu.pl](mailto:admission@pwr.edu.pl)

- » **Deadline for application:**  
Non-EU/EFTA students see:  
[www.admission.pwr.edu.pl](http://www.admission.pwr.edu.pl)  
EU/EFTA students see:  
[www.rekrutacja.pwr.edu.pl](http://www.rekrutacja.pwr.edu.pl)
- » **English:**  
Equivalent of minimum TOEFL IBT – 87 points or 6.5 points IELTS. List of accepted language certificates can be checked online.
- » **Tuition fee:**  
Non-EU/EFTA students: 2000 EUR per semester  
EU/EFTA students: no tuition fee
- » **Application fee:**  
Non-EU/EFTA students see:  
[www.admission.pwr.edu.pl](http://www.admission.pwr.edu.pl)  
EU/EFTA students see:  
[www.rekrutacja.pwr.edu.pl](http://www.rekrutacja.pwr.edu.pl)

## ABOUT STUDIES

- » **Duration:** 3 semesters
- » **Mode of study:** Full time
- » **Language of instruction:** English
- » **Start date:** 1<sup>st</sup> February 2023
- » **Programme coordinator:**  
Wojciech Kmiecik, PhD

## CONTENT

### SEMESTER 1

- » Research Skills and Methodologies
- » Optimisation Methods: Theory and Applications
- » IT Applications: Electronic Media in Business and Commerce
- » Information Systems Modelling
- » Computer Project Management
- » Discrete Mathematics
- » Social Communications
- » Foreign Language/Polish Language I
- » Physics

### SEMESTER 2

- » Machine Learning
- » Neural Networks
- » Research Project
- » Secure Systems and Networks
- » Modelling and Optimisation of Computer Networks
- » Information and Storage Management
- » ACS Diploma Seminar 1
- » Foreign Language/Polish Language II

### SEMESTER 3

- » Research Project 2
- » Natural Language Processing
- » Introduction to Computer Vision in Quality Control
- » Entrepreneurship
- » ACS Diploma Seminar 2
- » Final Project (MSc Thesis)



Questions? Please contact the Admission Officers e-mail: [admission@pwr.edu.pl](mailto:admission@pwr.edu.pl),  
phone: +48 71 320 37 11, +48 71 320 31 70, +48 71 320 37 19, +48 71 320 44 39