

„Robotics is about intelligent connection of perception to action. We do robotic research, and build intelligent and social robots. We want to share our knowledge and experience with our students.”

*(Professor Krzysztof Tchoń,
„Mathematical Methods
of Automation and Robotics”)*



FACULTY OF ELECTRONICS

MASTER OF SCIENCE PROGRAM IN
CONTROL ENGINEERING AND ROBOTICS
SPECIALIZATION: **EMBEDDED ROBOTICS**



www.kcir.pwr.edu.pl/embedded/

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ENTRY INFORMATION

Recruitment webpage:

<http://rekrutacja.pwr.edu.pl/en/>

Requirements: Bachelor or Engineer Degree in Electrical Engineering or related field. Each application is assessed individually on its merits. If in doubt, please contact the Admission Officer.

Deadline for application: International students: program starts in the summer semester (February); applications should be received through November of the preceding year.

Fees: For fees and exemptions please refer to the above webpage

Admission Process: To start the recruitment process write an inquiry to admission@pwr.edu.pl



Campus Wrocław University of Technology



programming
skills
artificial intelligence
human-robot-interaction

embedded
social robots
vision systems
mobile robotics

electronics
real-time systems

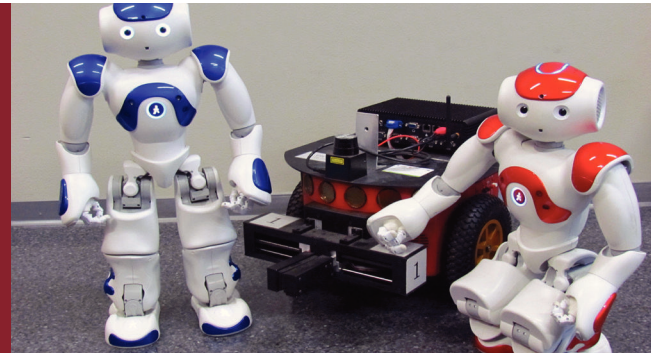


GENERAL INTRO

The Master of Science program **Embedded Robotics** combines the fields of robot control and design with digital electronics and embedded circuits. The goal is to provide the scientific skills and the practical ability to analyze, develop and deploy systems for the broad field of robotics: low and high-level control systems, perception, in particular robot vision, intelligence, motion and task planning, communication, and human-robot interaction. The courses are meant to provide an in-depth understanding of theory and the principles, methods, and processes, allowing the graduates to achieve the competencies required in their future job responsibilities. All instruction is held in English. The graduates of the program can pursue an industry, research and development, business or administration career. Typical activities include solving problems in the analysis, design, development, integrating, deployment, debugging, and maintenance of robotic and/or embedded systems.

POSSIBLE JOB POSITIONS INCLUDE:

- design engineer and/or programmer of embedded systems and circuits,
- implementation/deployment specialist of industrial robotic systems, robotics systems specialist, integrator, project manager,
- control systems engineer, embedded control devices and systems specialist, building and home automation systems design engineer,
- expert/consultant for robotic systems deployment, including intelligent and social robots.



Apart from regular academic curriculum students may expand their knowledge and experience by participating in **Student Interest Groups** like KoNaR, which engages students in a wide range of projects and organizes Robotic Arena – annual international robotic competition.

Semester I (summer)	Semester II (winter)	Semester III (summer)
Embedded Systems [5 ECTS]	Embedded Systems Components [3 ECTS]	Selected Topics in Robotics [9 ECTS]
General Automation and Robotics Courses [11 ECTS]	Robotics Courses [4 ECTS]	
	Mathematics Background Courses [8 ECTS]	Advanced Control for Autonomous Systems Courses [15 ECTS]
General Science Background Courses [3 ECTS]		General Automation and Robotics Courses [3 ECTS]
Foreign language [3 ECTS]	Specialization Project and Seminar [4 ECTS]	Diploma Seminar [3 ECTS]
		Entrepreneurship [3 ECTS]

Wrocław University of Science and Technology is one of the largest and most dynamically progressing technical universities in Poland. Among its hallmarks are the rich educational offer and international ties in research and education. The highly qualified scientific staff and modern infrastructure places the quality of instruction at a very high level. The University offers a high level of teaching thanks to its qualified research and teaching staff as well as a modern infrastructure.



Wrocław is located between three Central European capitals: Warsaw, Prague and Berlin. With over 120,000 students enrolled in the city's thirteen university-level schools, Wrocław is one of the leading academic centers of Poland. Apart from the excellent standards of education, students come to Wrocław for the quality of life this city offers. With its picturesque river banks, canals and parks, and the many restaurants and pubs located around the medieval market square, the scene is very much set for refining the mind. And with the annual calendar full of cultural and sport events, life outside of classes is rich and stimulating.

