POZNAN UNIVERSITY OF TECHNOLOGY

M.Sc. Programmes

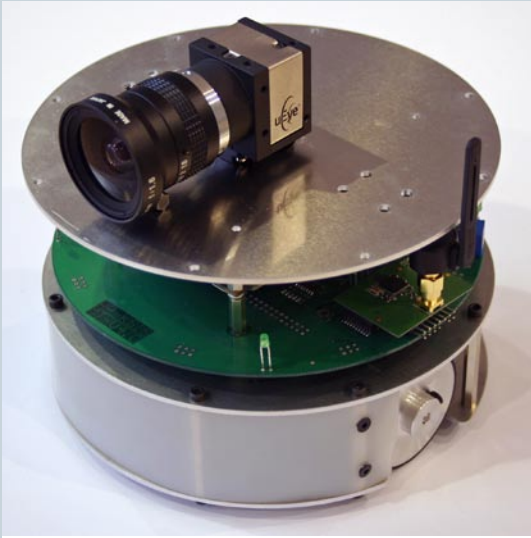
Smart Aerospace and Autonomous Systems (SAAS)

Field of study: Automatic Control and Robotics

The Chair of Control and Systems Engineering of the Faculty of Computing at Poznan University of Technology (PUT), Poland, and the UFR Sciences et Technologies of Universite d-Evry-Val d'Essonne (UEVE), France offer Master of Science, double degree diploma, in Automation and Robotics with specialization Smart Aerospace and Autonomous Systems (SAAS) – *Autonomiczne Systemy Latające na kierunku Automatyka i Robotyka.*

The last decade has seen a significant increase in research in Smart Aerospace and Autonomous Systems. Now, the field is sufficiently mature to engage in a procedure of education. From an educational point of view in the SAAS program we are interested in developing, modeling, simulating and testing guidance, navigation, control and decision systems for autonomous operation of unmanned aerial vehicle systems, unmanned ground vehicle and autonomous and robot systems. Issues of special interest include the determination of levels of autonomy and integration of control, online decision systems, mission planning, trajectory generation and tracking and limited communication.

The objective of the Master SAAS is to give interdisciplinary degree program providing students with strong foundation in smart and autonomous systems aerospace and terrestrial robotics thorough hands-on experience through projects, assignments and a Master's thesis. One of the main aims of the proposed program study is to merge all institution efforts under one umbrella such as autonomous systems control. The curriculum's common core represents electrical, aeronautics, mechanical, control, computer science and engineering. At the end of their curriculum, students will be able to develop and implement reliable, safe economically feasible and environmentally responsible smart aerospace and autonomous systems, and then to advance the technology to make such autonomous systems possible. The first semester will be taught at PUT. The second semester will be held in UEVE. The third semester is principally devoted to the Master's thesis and students will choose it between PUT and UEVE. In this way, they will all have mobility of at least 6 months between two institutions in Poland and France, respectively. In each country the local language will be offered but all courses will be delivered in English.



Learning outcome. Student, after passing their master, will have the following skills:

- Scientific and technical knowledge of autonomy engineering and the skills to use this knowledge efficiently;
- Capacity to develop and design innovative autonomous systems;
- Capacity to work both independently and in multidisciplinary teams, to communicate by written and oral presentations, in an international context;
- Capacity to transfer high techniques methodology from university to industry;
- Capacity to manage an engineering team;
- Ability to understand different European cultures and languages.

Potential jobs: Government (Law enforcement, border security, coast guard), fire and rescue (forest fire, emergency rescue), energy sector (oil and gas industry distribution infrastructure, electricity, grids/distribution network monitoring), communication – broadcasting, surveillance, agriculture – forestry – fisheries (environmental monitoring, crop dusting, fisheries protection) and others.

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M.Sc. Programmes

Smart Aerospace and Autonomous Systems (SAAS)

Field of study: Automatic Control and Robotics

University	Poznan University of Technology Poznan, POLAND
Degree to be obtained	Double Master degree Master Degree in Automatic Control and Robotics with specialization Smart Aerospace and Autonomous Systems of PUT and Master Degree Sciences pour l'Ingénieur option Smart Aerospace and Autonomous System (SAAS) of Universite d-Evry-Val d'Essonne – UEVE
Department	Faculty of Computing
Address	Piotrowo 3 60-965 Poznan Phone: +48 61 665 3427 Fax: +48 61 665 3421
Programme web site	http://www.put.edu.pl/
Contact	Lifelong Learning and International Education Office Pl. M. Skłodowskiej-Curie 5 60-965 Poznan
Phone	+48 61 665 3544
Fax	+48 61 665 3956
E-mail	study@put.poznan.pl
Language of instruction	English
Tuition fee	EU citizens: free of charge NON-EU citizens: 2000 EUR per year
Registration fee	EU citizens: 85 PLN NON-EU citizens: 200 EUR
ECTS points	90
Duration	1,5 years (3 semesters) I sem. PUT, II sem. Evry, III sem PUT or Evry
Programme begins	end of February
Programme ends	end of June
Deadline for application	2 months before the course starts – end of December
Education requirements	English language – level B2 (Common European Framework), Bachelor of Science degree (or equivalent) in engineering or applied sciences, obtained with good marks, with qualification in aeronautics, electrical engineering, computer science engineering, systems engineering, mechanical engineering and mechatronics. Full list of the required documents is available at http://www.put.edu.pl/
Mode of instruction	Lectures, classes, laboratory classes, projects, internships