THE SILESIAN UNIVERSITY OF TECHNOLOGY

Faculty of Automatic Control, Electronics
and Computer Science

CONTROL, ELECTRONIC AND INFORMATION ENGINEERING
(Makrokierunek) CEIE

Curriculum and Subject Syllabi

Full-time BSc and MSc studies in English
Who we are ...

The Silesian University of Technology (SUT) is located in Gliwice, Upper Silesia, Poland and was founded on 24 May 1945 with four faculties formed:

- Mechanical Engineering,
- Electrical Engineering,
- Metallurgy,
- and Civil Engineering.

Its core faculty members were in majority the former professors from Lviv Politechnic, (established in 1844, at present belongs to Ukraine). SUT is a self-governing state university supervised by the following elected bodies:

- Rector - a supreme one person body and 4 vice-Rectors,
- Senate - a collective body of faculty members, staff and students.

The structure of the University entails three levels. The basic units is constituted by a faculty with institutes and chairs acting as internal departmental units.

Right now Silesian University of Technology is one of the biggest universities in Poland, with 14 faculties, 300 professors, and more than 33 000 students. Since 1945 almost 120 000 students graduated from our University.

The Faculty of Automatic Control, Electronics and Computer Science (AEiI) was founded in 1964, with 250 students and 30 academic staff members. Since then, it has expanded to 3000 students and 240 academic staff members. It consists of three institutes:

- Institute of Automatic Control
- Institute of Electronics
- Institute of Informatics

It offers BSc, MSc and PhD degree studies in Polish language:

- Automation and Robotics
- Biotechnology (spec. Bioinformatics)
- Computer Science
- Electronics and Telecommunications

The University is involved in the student exchange programme within SOCRATES/ERASMUS framework since its beginning in Poland, i.e. since 1998/99. Each year more than 200 students and 50 teachers from university take advantage of the programme and go abroad for study or teaching. More than 30% of them are students from the Faculty of Automatic Control, Electronics and Computers Science. In the academic year 2011/2012, the Faculty co-operates with more than 50 European universities.
What we offer …

Faculty of Automatic Control, Electronics and Computer Science offers courses given in English since 1997. In October 2001 a full-time studies given in English were established. This interdiscipli-nary BSc or MSc level courses are called:

**Control, Electronic, and Information Engineering – CEIE.**

Program of these 5-year studies corresponds to common standards of technical universities in European countries. This fact makes possible, for students, to participate in exchange programs and spend a semester or two at the foreign universities as part of their study. During the first semesters of BSc studies, students obtain thorough education in mathematics, physics, basics of computer sciences and basic technical sciences: electrical engineering, control theory, electronics, metrology, computer programming, microprocessor systems, databases, computer networks, artificial intelligence and computer vision systems. Attention is paid on solving practical engineering problems, integration of knowledge with team-work and leading skills.

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<th>Undergraduate studies (3.5 years)</th>
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<td>Basic courses on automation, robotics, electronics and computer science + 2 semesters of specialization</td>
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<th>Postgraduate studies (1.5 years)</th>
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<td>Specialized courses on one of the specialization chosen by the students</td>
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Alumnus acquires skills in using up to date tools of engineering workshop, in particular CAD and automated design computer measurements systems, as well as skills in accessing information in scientific databases. CEIE alumni are engineers whose education has interdisciplinary elements based on three areas listed in the study name, combined with practical experience and specialized knowledge in one of the three fields, chosen as leading in the final two years of studies.
Specializations offered at the last semesters of the studies guarantee a lot of flexibility and follow dynamic changes resulting from scientific developments in Automation and Robotics, Electronics and Telecommunication and Computer Sciences.

**Automatic Control**

Alumnus of this specialization is prepared to work as designer and maintenance engineer of automatic control systems and plants, robotic technologies, measurement systems, mechatronic technologies and computer systems of automation.

**Electronics and Telecommunication**

Alumnus of the specialization: Electronics and Telecommunication is prepared to carry out research and scientific tasks and to solve engineering problems in areas of electronic elements and systems design, user hardware and software design for systems in electronic and telecommunication, measurements, control and medical equipment.

**Informatics**

Alumnus specialized in Informatics - Databases, Computer Networks and Systems - acquires skills in construction, maintenance and usage of system software and applications development, building systems and computer networks and designing and administrating of databases operating in various environments and operation systems.

Alumnus of Macrocource is very well prepared to join the work market in fast changing environment, thanks to creativity, openness to new ideas, skills in team-work. Proficiency in English and knowledge of English scientific and professional terminology allows him to be employed in international companies and in foreign countries.