EMECS
European Master Embedded Computing Systems

Duration: 2 years

Course description:
An embedded computing system, or simply "embedded system", is a highly complex, special-purpose computer-controlled system. The core of such a system is a microprocessor or microcontroller programmed to perform application-specific tasks. For example, dozens of processors are embedded in modern automobiles and communicate through sophisticated communication structures. Other typical examples of embedded computing systems are cell phones or the control systems in manfacturing. Embedded systems are of strategic importance to Europe's economy since a competitive advantage arises from Europe's traditional strength in deployment areas of embedded computing such as automotive systems and telecommunication.

The European Master's Course in Embedded Computing Systems (EMECS) is designed to educate Bachelor graduates from Electrical & Computer Engineering and Computer Science as well as graduates from related disciplines to become experts in the field of Embedded Computing Systems.

The participating institutions are:
- University of Kaiserslautern (Germany)
- Norwegian University of Science and Technology (Norway)
- University of Southampton (United Kingdom)

EMECS is a two-years Master' s Course (120 ECTS credits) that can be pursued at any two of the participating institutions. Students will earn 50% of the credits at each institution leading to a joint degree from the respective institutions. The language of instruction is English.

Students participating in this programme will be trained in three major areas:
- hardware architectures of embedded systems
- system-on-chip design
- system software

These areas constitute the "Core Programme" of EMECS and will be taught during the first year of study at each institution. Completion of the core programme (45 ECTS credits) will ensure the mobility of the students after the first year of study.
The "Elective Programme" (45 ECTS credits) provides training in specialized topics of embedded system design and provides the background in typical application areas like communication systems, automation & control and microsystems. The elective programme reflects the individual strengths of the participating institutions. The course is completed with a Masters Thesis (30 ECTS credits) which typically contributes to a larger project conducted jointly with industry.

Website: http://mundus.eit.uni-kl.de

Partners:
UNIVERSITY OF KAISERSLAUTERN, Germany (Co-ordinating institution)
UNIVERSITY OF SOUTHAMPTON, United Kingdom
NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY, Norway

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Maximum grant:

774 200 € (30 000 € consortium + 744 200 € scholarships), 2010
710 800 € (30 000 € consortium + 680 800 € scholarships), 2011
746 800 € (30 000 € consortium + 716 800 € scholarships), 2012
616 400 € (30 000 € consortium + 586 400 € scholarships 2013)