

TECHNOLOGY CLUSTER COMPUTER SCIENCE TECHNOLOGY

Architectures - systems - platforms

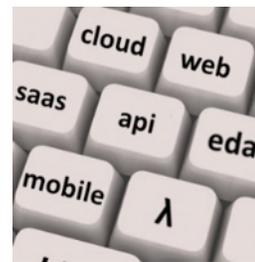
e-Media Physical Computing for Serious Fun

Serious fun refers to the type of applications we develop, with a 'serious' goal (i.e. improving the player's abilities in some area), but also motivating and 'fun' to work with. **Physical computing** refers to novel ways of interacting with the computer through motion sensors, 3D camera's, biosignals, e-textiles, ...



ES&S

ES&S combines platforms (web, cloud, android and small devices as sensors and SBC's) through **loosely coupled and flexible software services**. Another focus is the use of **functional programming** in the development of an Electronic Automation Tool (EDA) for (crypto) hardware, and in software development in general.



MSEC

MSEC is active in the domain of **mobile technologies and secure software**. Research focuses on design, development and analysis of security demanding applications:

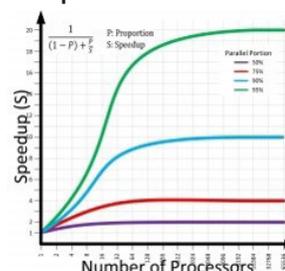
- Design & development of applications with advanced security and privacy requirements
- Security and privacy analysis of advanced electronic services & systems



ReMI - Embedded Programming

The EP task force of the ReMI research group mainly organises its research in two domains of embedded programming mechatronic systems. It focuses on:

- fundamental research in the domain of **testing concurrent execution of software, reliability, fault detection and recovery**
- applied research is on software process evolution in embedded systems and the like. Main topics of interest are currently **Test-Driven Development** and **software parallelism**.



Algorithms - models - data

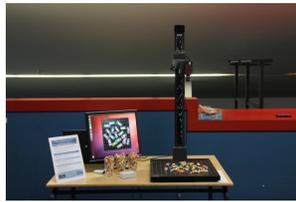
CODES - Operational Research

CODES focuses on modelling and algorithm development for industrial and societal **optimisation problems**.

CODES' research is often driven by demand. Challenging optimisation problems originating from industry, health care and logistics are addressed. Key research areas include **scheduling, timetabling, routing, cutting and packing**.



Eavise - Artificial Intelligence



Eavise is a multidisciplinary research group focusing on applications of advanced computer vision and artificial intelligence. Eavise offers specific **Artificial intelligence** expertise in **knowledge representation** and **probabilistic logic learning**.

Advise - Artificial Intelligence

Advise focuses on **automated learning** and on **big data** challenges, where large amounts of complex data need to be analysed in an efficient manner. The technology is applicable in many domains, including home care monitoring.



Contact

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*The research groups of the Technology Cluster Computer Science are active on the Technology Campuses in Ostend, Ghent, De Nayer Sint-Katelijne-Waver, Leuven, Geel and Diepenbeek.
In 2017-2018 the research of Campus Ostend will move to a new campus in Bruges.*