Measurable productive

Kajaani University of Applied Sciences (KUAS) is a proactive, profiled and genuinely international university. We are involved in CEMIS with the Information Systems competence area. Area includes our Business Information Technology and Information Technology expertise, such as games and vehicle information systems. Mechanical and Mining Engineering is our newest and most rapidly developing competence area.

Our R&D service comprises of development and testing facilities for product development, manufacture and use. Our testing and development laboratories and services for the whole life cycle of the product promote the development of higher quality and reliable products for demanding operative conditions.

We offer measurement and information system oriented

companies
- competent and desired labour
- testing and product development services
- consultancy and training services

experts
- an innovative and international working environment

students
- attractive engineering and business administration training
- an enthusiastic and practical educational environment
- good contacts with business and commerce during studies
Degree programme in Business Information Technology, Bachelor of Business Administration

Game Development
Teaching in this area focuses on learning by doing, as seen in the seamless integration of teaching into production team based game development. The study of creating games and actual game development takes place in the Kajak Game Development Lab and in the student-founded Kajak Games cooperative which provides the facilities for learning how things are done in the real world of work and business during studies. An aid to creating to new business exists in the form of Innovation and Enterprise Centre INNOVA. Our game production students have also met with success in international game-oriented competitions.

Specialisation options:
* Game business and production
* Game design
* Game graphics
* Game programming
* Game engine programming

Datacenter
The main focuses in this major are virtualisation, cloud services and information security. Students study in the new information systems laboratory with its own computer room/machine room and they specialise in a techinal area where they can accomplish the valued MCP, VMware etc. certificate towards the end of their studies. The Datacenter has business cooperation with CSC amongst other companies.

Degree programme in Information Technology, Bachelor of Engineering

Vehicle Information Systems
Our main area of expertise is the planning and testing of embedded systems for extreme conditions and vehicle information system management. This form of engineering education provides the skills to create ideas and make them into devices, systems and products. Studies include crucial working life inspired “Own product projects”. We have at our disposal the CarLab, where it is possible to apply theoretical knowledge in practice within an authentic vehicle environment.

> [www.kajak3d.com](http://www.kajak3d.com)
> [www.kajakgames.com](http://www.kajakgames.com)

Game Technology
is our new major option within engineering studies in the information technology degree programme. Its main focus is 3D real time graphics programming. Learning takes place largely through project work during which students carry out game projects either at the instigation of working life or according to their own interests. A versatile simulator environment is being built to support these studies. Game and simulator technology experts are needed not only in the field of game production, but also in simulator technology and as software designers for a variety of interactive 3D user interfaces or industrial applications.

> [www.kajak.fi/ij](http://www.kajak.fi/ij)

CEMIS Centre for Measurement and Information Systems
is a community of 120 measurement and information system experts combined with excellent research and training environments. The combined annual funding of the various units is approx. € 10 million.

Competence focuses:
- Process and environmental measurements
- Sports, exercise and well-being measurements
- Vehicle information and measurement systems
- Computer games and simulators

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