



# Master's Programme in Service Design and Engineering



## “Learning by engaging to the future of digital services!”

Are you ready for a career in today's software and media business? If the answer is YES. And if you are serious about getting ahead in this thriving field. We have just the thing for you.

Digital Software Design and Entrepreneurship (SDE) is at the forefront of information technology and computer science education as well as research and industry co-operation. The program offers a multidisciplinary science and technology approach to complex engineering. Furthermore, organizational and managerial challenges are resolved using creativity, innovation, human centric design and engineering, advanced software technologies, entrepreneurial venture management and global service development. The SDE program is meant for full-time engineering, business and design students with a highly competitive Bachelor's degree in software, computer science, telecom, media, business, sociology, arts; and requires strong English skills. The program has been running since 2009, and has become a European Institute of Innovation and Technology (EIT) ICT Labs core master program.

Information intensive service business models, networked digital ecosystems, cyber infrastructure, software systems and sustainable ICT innovations are driving the new post-industrial economies. There is increasingly more focus on scalable and network solutions-based business models and platforms. Collaborative teams, social innovation, modern software solutions, architectures and technologies are the epicenter of this change and value creation. They enable leading individuals, teams and companies to collaborate and share information quickly, efficiently and economically. Closer interactions between globally distributed stakeholders are becoming more extensive

The SDE Master's Program focuses on new business and venture development. The intensive two-year program places emphasis on future foresight, service development, business venturing and technology management. All students will engage in a real-life research case or start-up project. Apply now to join the SDE Intake 2011, and take part in global innovation application, international insight projects, get-togethers, field trips, recreational activities and summer internships! Admissions will end on Monday, 28 February 2011.

The full-time SDE programme provides insights in the following engineering majoring tracks in the international digital service and software business:

- Software technology and engineering
- Innovation and entrepreneurship
- Media and service design
- Technology management
- Enterprise information systems

The program provides students with a solid basis in Service Design and Engineering, from open innovation and technical viewpoints to relevant business methods, and behavioral, legal and societal elements. It includes both consumer and enterprise aspects of service creation and operation, and promotes the key enabling approaches for future services. This includes open standards and service-oriented computing via lectures as well as design and implementation activities.

### **Full time graduate program**

With a highly flexible master degree in computer science curriculum and Aalto University's spirited campus life, the full-time SDE Program is a two-year course that offers endless opportunities for collaborative learning experiences, real industrial engagements and international internships.

### **Academic content of the programme**

The intensive SDE experience will take you to the next level in business thinking and technology venturing. At Aalto University, the TKK CSE, you'll find a master's programme that features:

- An emphasis on problem-based learning and community building by generating key insights and implementing creative solutions in a real-case environment - We value questioning, new ideas and academic judgment. You will gain the ability to analyze, solve and present complex service business and technology problems.
- Open dialogue - We challenge you to debate and discuss in classrooms and teams, to share your knowledge and experience. You will be asked by faculty and your peers to stand out and take an active role in search of new ideas.
- An academic connection with the Aalto University - TKK is part of one of the greatest research institutions networks in Europe. The TKK Campus, located in Otaniemi, is a leading R&D hub in northern Europe, bridging technology and business.
- Innovation - Learn how to build a new business, work with international entrepreneurs, and network with a venture capital or private equity firm through the Aalto Entrepreneurship Society, one of the fastest growing new business networks in the world.
- IT sector competitiveness - The Finnish ICT business environment has been ranked 1st in the world by the Economist Intelligence Unit and in the overall ranking, has shown the greatest improvement in the TOP 3 countries.
- Well-being and wealth - Finland ranks 1st in the world when economic fundamentals, entrepreneurship and innovation, democratic institutions, education, health, safety and security, governance, personal freedom and social capital are used as parameters.

### **Career opportunities**

SDE students graduate to highly competitive information technology roles in international and local organizations both in the business and technology roles. Typical titles can be etc. Service Development Engineer/Consultant, Information Architect, Systems Engineer, Business Development Manager, Service Manager, Account Manager, Product/Service Manager, Enterprise Architect, Chief Service Officer (CSO) or Chief Technology Officer (CTO).

### **Content of the Program**

The program begins with joint courses together with Service Management and Engineering (SME) and Information Systems Management (ISM) programs. After intermediate you can concentrate on majoring in technology, innovation, design, management or venturing in research seminars and projects. The program links theory and practice with for-use inspired research activities. It provides a well-planned and structured curriculum with a close link to Aalto community, faculty, alumni and partners.

This Master's program is organized together with the "Master's Program in Service Management and Engineering", offered by the Department of Industrial Engineering and Management of TKK.

The Department of Computer Science and Engineering (CSE) at Aalto University School of Science is responsible for the digital SDE Master's Program. The goal of the department, both in education and research, is to have both a practical impact and meet high academic standards. Our research projects are carried out in close co-operation with industrial partners.

The professors associated with this Master's Program have a great deal of experience in companies and in education. Heikki Saikkonen is the responsible professor. The other professors associated with the program are Tomi Männistö, Matti Hämäläinen, Juha Laine and Marjo Kauppinen as well as program director Mika Helenius.

## Scholarships and tuition fee

The Program is tuition FREE for all EU/EEA citizens. For others non-EU/EEA citizens, there will be a tuition fee of 8.000 Euros per academic year. Aalto University offers a limited number of scholarships for those students who are subject to tuition fees. Non-EU/EEA citizens who have a permanent residence permit in Finland, or who have completed a Finnish higher education degree, do NOT need to pay tuition fees.

Check further details about the tuition fees and Aalto University scholarships here

[http://www.aalto.fi/en/studies/scholarship\\_programs/](http://www.aalto.fi/en/studies/scholarship_programs/)

## Campus and high technology hub

The Nordic countries have a long tradition of world-class innovations driven by close co-operation between universities, companies and flexible public-private funding mechanisms. The mobile communication industry and open source competence clusters are strongly thriving due to new technological and regulatory breakthroughs. The Nordic countries are leaders in multi-disciplinary organizational and social innovations. The Aalto University Science and Technology Schools are the oldest and the most prestigious research and technology oriented universities in Finland. There are 15 000 undergraduate, graduate and postgraduate students which of 1200 are foreign students. The beautiful campus is located in Otaniemi, 10 km from the centre of Helsinki. Otaniemi has the highest concentration of high technology in the Nordic countries. A unique combination of education, research and business prospers in this small area, yet it is within walking distance of both sea and forests. Otaniemi has been chosen twice as a top innovation area in Europe, and it has been awarded the EU Award of Excellence. Several large Finnish multinational companies with global outreach, such as Nokia, Kone, and Fortum etc, have their headquarters nearby.

## Department of Computer Science and Engineering (CSE)

The Department of Computer Science and Engineering (CSE) is responsible for the SDE Master's Program. The goal of the department, both in education and research, is to have a practical impact and at the same time to meet high academic standards. Our research projects are carried out in close co-operation with industrial partners. Software Business and Engineering Laboratory is part of Department of Computer Science and Engineering at Aalto University School of Science and Technology. At this laboratory, we are responsible for research and education related to software business and the management aspects of services, IT and software development. Our mission is to improve the global competitiveness of the software industry by providing world-class education and research.

Last update: 24.01.2011. Page content by: [SDE](#).