ICT Design and Management

About ICT Design and Management

ICT is an integral part of any organization in today's economy. But what really makes the difference is how capable an organization is to design and manage ICT solutions. How to design ICT services that help organizations create and capture value? How to design the underlying platforms and architectures? These are the core issues dealt with in this specialisation.

Students will be provided with knowledge and capabilities to design and manage ICT artefacts in organizations. They are expected to translate new innovative ICT applications to organizational opportunities, like what to do with blockchain, Internet-of-things or social media from a business perspective. But there is also attention for increased internal efficiency and effectiveness, enabled by ICT applications, like cloud computing. We give specific attention to mobile applications and service platforms.

You also learn to design and manage information systems and architectures in order to support web-based electronic services. We combine technology know-how with management and organization know-how, specifically oriented towards ICT companies that collaborate in a multi actor environment.

Job perspectives

We educate students to become ICT-managers, ICT-architects, high-tech entrepreneurs and consultants. To understand and to be able to design and manage ICT, both on an organizational and engineering level, within (ICT) organizations. More general managers basically lack this knowhow and are not able to make use of all the opportunities ICT offers.

Detailed description

SEN1611: I&C Architecture Design (5 ECTS, x/0/0/0)

Creating value with ICT typically requires organizations to collaborate in ecosystems of both public and private actors. Doing so involves designing architectures that interconnect legacy systems and processes. This course focuses on designing I&C architectures for organizations in ecosystems, with

attention for the technical architecture and organizational processes.

SEN1622: I&C Services Design (5 ECTS, 0/x/0/0)
Designing ICT service is far from trivial, as the interests of users and other stakeholders need to be addressed. In this course, you learn how to design ICT applications that meet user needs as well as an underlying valorization plan to bring that application to the market. We give attention to design, technology and stakeholder involvement. We focus on mobile applications. During the course, students are challenged to apply these insights by designing an innovative mobile service concept including a mock-up and valorization plan.

IN4252: Web science & engineering (5 ECTS, x/x/0/0)
IN4252 takes an engineering perspective to ICT, going in detail on the technical design choices and specifications. The course considers methods and techniques for the design and development of web-based information systems, and as a consequence it gives an insight into the state of the art of the research area of Web Engineering. It also pays attention to user modeling and adaptive hypermedia, as the basis for user-adaptation and personalization in web-based information systems.

Study experience and graduate outlook
- MSc Theses
    - Unlocking customer value within the Dutch telecommunication sector
    - A blockchain-based business process to securitise mortgages
    - Blockchain Technology for Governmental Processes
    - The Openness between Platforms
    - Edge Computing on the Rise
- Video
- Q&A session

Additional information
This specialisation is not accessible for CoSEM students in the I&C track since it contains overlap with the track courses.

Contact
In case of questions, please contact the coordinator Mark de Reuver (B3.210, +31 15 27 81920) g.a.dereuver@tudelft.nl.