



washing machines, they form an integral part of Europe's electronic production and are located in products of large corporations. More and more often, embedded systems are also distributed systems, connected to various networks. The future offers fantastic prospects for embedded systems, and world-leading companies in this area have a strong demand for creative, highly-skilled and entrepreneurial engineers.

### Human Computer Interaction and Design

The programme focuses on study, design, development and evaluation of novel user interfaces and interactive systems which take into account human cognitive and sensory-motor responses and how these influence both technological and business requirements. The programme is interdisciplinary with courses on design and evaluation of interactive systems and a strong emphasis on user-centred design techniques. It is important to understand human responses to and consequences of using information technology as a tool for solving work-related tasks. In addition, the programme will create business thinking in terms of user profiles, market segmentation, branding, as well as market development and product introductions. Achieving the right user experience is crucial for marketing products and services and a necessary component for commercial success, as witnessed nowadays in the smart phone market, where this has been a fundamental product strategy.



### Internet Technology and Architecture

The aim of this programme is to develop a coherent set of theoretical, innovative and professional skills in computer networks, incorporating world-leading European educational centres with strong industrial partnership for our students. 'Internet Technology and Architecture' focuses on advanced networking technologies and architectures for the design and management of modern, distributed computer systems and networks. The internet, computing communication and networking technologies represent a challenging field of growing importance with high innovation potential as well as a recognized, major topic for most curriculum studies in Information Technology.



It is crucial to understand current research issues, as well as to have detailed hands-on experience of network design, development, implementation, and management. Internet Technology and Architecture provides you with both theoretical concepts and practical tools that will develop critical thinking in assessing entrepreneurship opportunities and devising appropriate strategies to turn ideas into profitable business ventures.

### Security and Privacy

Security and Privacy is a cross-disciplinary programme and focuses on the design, development and evaluation of secure computer systems, which are also capable of ensuring privacy. The course teaches a constructive security approach to teach the very complex and challenging field of information assurance. Students learn how to understand concepts and technologies used for achieving confidentiality, integrity, authenticity, and privacy protection for information processed across networks. Topics include core network security principles, traffic filtering, traffic analysis, cryptography, tunnelling and encapsulation, public infrastructure, remote authentication protocols, and virtual private networks.



### Service Design and Engineering

Without online digital services like Google, eBay, Facebook, YouTube, Skype and a myriad of others, the internet would be just a confusing labyrinths of computers and devices connected with cables and radio links. Every day, we depend on digital services when reading news, listening to music, keeping in touch with friends, shopping or booking tickets. Digital services changed our lives as individuals, societies and economies. Nowadays businesses are increasingly based on and interconnected with digital services. Service Design and Engineering focuses on the analysis, design, development and operation of digital services. Service design starts by examining how customers value an existing service or how a new opportunity could be exploited. Students learn how to create and evaluate different types of service designs and how to combine both the technological and business-related elements of service design. Who knows... you might be the next Mark Zuckerberg!



## Innovation & Entrepreneurship

Entrepreneurial skills are considered a core competency of top talent: best-in-class engineers and researchers combine excellence in science and technology with outstanding entrepreneurial behaviour. Therefore, four course modules of Innovation and Entrepreneurship are offered at all universities. The basic courses build fundamental knowledge of Innovation and Entrepreneurship matters. Business Development Lab courses and thematic Summer Schools provide hands-on experience of innovation and new business development. Why? Simple! We want our students to set the bar for breakthrough innovation in new products and services.

Both standard and excellence scholarships for the Master School are available. Check the website for more information: [masterschool.eitdigital.eu](http://masterschool.eitdigital.eu)



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Tomorrow's **digital** innovators  
 and entrepreneurs

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Are you striving for excellence?





Students should choose one university for their entry year and a second university in a different country for their exit year.



Find out more at [masterschool.eitdigital.eu](http://masterschool.eitdigital.eu)

### The programme structure

The **first year** starts with basic courses to lay the foundation for students' chosen Technical Programme focus. At the same time students will also be introduced to the basics of business and management. During the second semester they will combine a design project with business development exercises, in which they learn how to turn technology into business and how to write a business plan. In addition, some elective courses may be taken. In between the first and second year, a summer school will address business opportunities within a socially relevant theme. The **second year** offers a specialisation and a graduation project. The graduation project includes an internship at a company or a research institute and will result in an MSc thesis and a thesis on Innovation and Entrepreneurship.

Are you striving for excellence?  
Join the EIT Digital Master School if you want your academic education to be entrepreneurial and innovative.

## EIT Digital Master School

Our Master School offers a two-year, European master's programmes with a focus on innovation and entrepreneurship. The Master School is delivered by a consortium of 20 leading universities led by EIT Digital. Master School students follow a scheme where they study one year at an 'entry' university and one year at an 'exit' university in two EIT Digital's hot spots around Europe. Upon completion, students receive a double degree from the two universities, recognised by the European Institute of Innovation and Technology.

## European universities involved

On the Master School website the Trackfinder visualizes your options for combining different Technical Programmes and specialisms. It allows you to match your interests with the Master School Technical Programmes.

### First Year (60 EC): Entry

1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester	Summer School	3 <sup>rd</sup> Semester	3 <sup>rd</sup> or 4 <sup>th</sup> Semester	4 <sup>th</sup> Semester
<ul style="list-style-type: none"> <li>Technical Core courses</li> <li>Introduction to Innovation &amp; Entrepreneurship</li> </ul>	<ul style="list-style-type: none"> <li>Electives</li> <li>Business Development Lab</li> </ul>	<ul style="list-style-type: none"> <li>Innovation &amp; Entrepreneurship projects with a thematic focus</li> </ul>	<ul style="list-style-type: none"> <li>Technical Specialisation with thematic relevance</li> </ul>	<ul style="list-style-type: none"> <li>Innovation &amp; Entrepreneurship thesis</li> </ul>	<ul style="list-style-type: none"> <li>MSc thesis (30 EC)</li> <li>Thematically oriented and industry based thesis work</li> </ul>

### Second Year (60 EC): Exit

## Career prospects

The EIT Digital Master School offers an ideal combination of technology and business. Students will be prepared for a career in business development at established companies, an entrepreneurial researcher at a knowledge institute or large enterprise, and for creating their own business. Learning how to turn technology into business is a ticket to a successful career.

## Our eight Technical Programmes at the EIT Digital Master School

### Cloud Computing and Services



The programme in Cloud Computing and Services focuses on a broad range of applications. This includes electronic commerce, mobile services, online social networks, web services, and knowledge discovery. What these applications have in common is that information sources and controls are decentralised over the network and provided by one or several computing centres that offer different cloud computing service models like Infrastructure, Platform, and Software as a Service. This makes the process of developing such cloud-based systems different from using centralised or traditional distributed systems. Cloud Computing and Services therefore provides students with a system of knowledge in formal foundations, technological platforms and practical skills in implementing cloud-based applications. After completion of the programme, students understand and know how to use large cloud and distributed systems. In addition they are also capable of designing and constructing cloud computing systems and services on network and computing infrastructures.

### Data Science

Data abounds: social media, manufacturing systems, medical devices, and countless other sources generate petabytes of data on a daily basis. With this wealth of data available, we are at a point in history, where we can conduct detailed analyses to detect, discover, and, ultimately, better understand the world around us. Become a professional for a Data



Science is a highly innovative area; hailed as the "... Sexiest Job of the 21st Century." by Harvard Business Review. The Data Scientist is a professional who simultaneously possesses breadth and depth in scalable data management, data analysis, and domain expertise, and who is capable of solving real-world problems. This is an opportune time to pursue training in both a challenging and rewarding new field. Join us and embark on a journey of a lifetime! The newly established Data Science Master's offers a unique academic programme, whereby students can study data science, innovation, and entrepreneurship at leading European universities. In this programme, students will learn about scalable data collection techniques, data analysis methods, and a suite of tools and technologies that address data capture, processing, storage, transfer, analysis, and visualisation, and related concepts.

### Digital Media Technology

The media industry is a large, global market that includes publications, TV, radio, film and music, interactive and digital media, the gaming industry and advertising, as well as a large and versatile supply chain industry. Digital Media Technology focuses on enabling technologies for digital media systems, including technologies for analysing media, generating interactive media, processing and coding, optimising wired and wireless transfer, and distributing digital 3D contents. The first year at the entry point universities Aalto, KTH, and TU Delft will include four basic courses on signal processing, computer graphics, web services and communication networks. The second year will focus on the technical specialisation. Graduates of the Digital Media Technology programme will be both specialists and innovators who are able to shape future digital media technology.

### Embedded Systems

Embedded Systems focuses on enabling technologies and design methodologies for computer systems. These computer systems are embedded as integral parts of larger systems designed for specific control functions of devices with various electronic and mechanical components. More than 98 percent of the world's processors are located in embedded systems. In satellites, robots, cars, aeroplanes, mobile telephones, to radio transceivers, elevators and