## Why to choose Budapest for specialization?

- You can work on large-scale innovative projects initiated by industrial partners, i.e. Ericsson Hungary, Nokia Siemens Network, Telecom Hungary, Cisco and ELTE-Soft.
- You can experience the lively atmosphere of the InfoPark, where the university is co-located with the industrial partners.
- You can enjoy the unique urban culture and vivid nightlife of Budapest with its world famous ruin pubs and exclusive spas.

## The X-Europe Consulting Office

The Central and Eastern European students who are joining the EIT ICT Labs Master School have an additional resource for help. The EIT ICT Labs X-Europe Consulting Office located in Budapest, Hungary, has been created for them to bring the EIT ICT Labs MSc programmes to their attention, and to help them gain access to the programme of their choice. The X-Europe team uses region specific knowledge in accessing the students, and provides them with up-to-date information as and when required by them, both face-to-face and online:

- technical information on the programmes, including the curricula and the internships
- practical information on the application requirements, application deadlines and available scholarships
- assistance with preparing the application materials, with a particular emphasis on writing the motivation letters.

**To learn more about the EIT ICT Labs Master School, the Budapest X-Europe team and its Consulting Office, visit www.ictlabs.elte.hu www.facebook.com/X-Europe or e-mail xeurope@ictlabs.elte.hu.**

# Do a Master's Programme in Information and Communication Technologies in Budapest

**Study Security and Privacy at the Eötvös Loránd University (ELTE)**

EIT ICT Labs
**MASTER SCHOOL**
www.masterschool.eitictlabs.eu

## What is the background of the EIT ICT Labs Master School?

- ICT Labs is the European Union's, and more specifically, the EIT's (European Institute of Innovation and Technology) Knowledge and Innovation Community focused on Information and Communication Technology (ICT). The community emerged from the recognition that the best results (products) in the field of ICT can only be achieved through the close collaboration of experts representing three sectors: education, research and industry.

- EIT ICT Labs has recently set up its Master School. The objective behind it is twofold. On the one hand, it aims to provide the students with a sound technical knowledge; on the other hand, it aims to stimulate an entrepreneurial mindset and develop valuable business skills. The students are expected to use their technical knowledge to generate breakthrough innovations on the global markets.

- The EIT ICT Labs Master School now offers a two-year programme in which students can choose two universities in two different European countries to build a curriculum of their choice. There are seven technical majors available, from which the students choose one based on their skills and interests.

## Why to choose EIT ICT Labs Master School?

1. A 2-year programme at 2 different universities from 8 countries
2. 19 top universities across Europe to choose from
3. 7 MSc programmes in the most innovative research fields in ICT
4. High level technical education combined with an Innovation & Entrepreneurship minor
5. Research and work experience at leading industrial partners
6. Double degrees and an Innovation and Entrepreneurship EIT ICT Labs Certificate

## The structure of the Technical Majors and of the Innovation & Entrepreneurship Minor:

*The Technical Majors (90 ECTS) consist of three parts:*


*The Innovation & Entrepreneurship Minor (30 ECTS) consists of four parts:*


## Security and Privacy (S&P)

### When to choose this major?

1. You have to join this programme if you are interested in the very complex and challenging field of information assurance.
2. You wish to study the design, development and evaluation of secure computer systems which are ideal for ensuring privacy for future ICT systems.
3. You wish to improve your knowledge of core network security principles, traffic filtering, traffic analysis, cryptography, tunnelling and encapsulation, public-key infrastructure, remote-authentication protocols and virtual private networks.
4. You wish to work for a company that provides product services, such as telecom companies, financial institutes, software and hardware vendors .
5. You wish to start your own company, providing product or technology development, business development or consultancy services.
6. You wish to have an advanced research career in the industry or in the academia.

### What are the goals of the programme?

1. To develop an understanding of the concepts and technologies for achieving confidentiality, integrity, authenticity, and privacy protection for information processed across networks.

2. To develop competences in communication, knowledge integration, open innovation and technology management valuable both in business and technology.

### In what areas does S&P have an important role?

- Future Media and Content Delivery
- Smart Spaces
- Smart Energy Systems
- Intelligent Mobility and Transportation Systems
- Digital Cities
- Health and Wellbeing
- ICT-Mediated Human Activity

### The structure of the Security and Privacy major

**1st year: Common base**

*It develops a common background and prepares the students for all the technical specializations offered in the programme.*

**Courses related to five main disciplines:**

- Network Security
- Software OS/Security
- Information Security Management
- Cryptography
- Privacy
- Electives

**2nd year: Specialization on Advanced Cryptography**

*It focuses on the general ideas, techniques and methods of Applied Cryptography, and gives a solid theoretical background in security in a wider context.*

**Courses:**

- Applied Cryptography Project Seminar
- Cryptographic Protocols
- Cryptography and its Applications
- Economics of Security and Privacy
- Electives: Applied Cryptography Project Seminar