



CYBERUS

ERASMUS MUNDUS JOINT MASTER IN CYBERSECURITY

If you want to:

- ▶ Become a cybersecurity expert
- ▶ Study in European universities at the forefront of cybersecurity
- ▶ Join a prestigious master programme in the EU
 - ▶ Obtain a double degree
- ▶ Enjoy exceptional learning conditions at almost no cost

CYBERUS is just for YOU

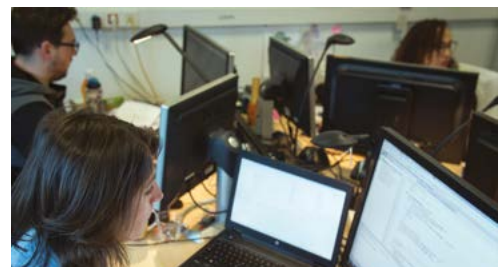


In a world that is increasingly digital, cyberattacks such as ransomware, malware, phishing, distributed denial of service (DDoS), identity theft, etc., have become more and more sophisticated. And they are sometimes combined to carry out crime, sabotage, espionage and destabilisation. Their actors may be individuals defending a cause (so-called 'hacktivists') but more often criminal groups working indifferently for mafias or rogue governments anywhere in the world. They are also on the rise and costly.



The CYBERUS Erasmus Mundus Master in Cybersecurity, or CYBERUS, is the joint response by Université Bretagne Sud - UBS (Lorient, France), Université du Luxembourg - UL (Luxembourg) and Université Libre de Bruxelles - ULB (Brussels, Belgium), in conjunction with Tallinn University of Technology - TalTech (Tallinn, Estonia) and some 50 universities, research centres, state agencies, companies and business clusters worldwide to address these types of cybersecurity threats.

CYBERUS has been selected for funding by the EU to be an Erasmus Mundus Joint Master Degree (EMJMD). An EMJMD is a prestigious, integrated, international study programme, jointly delivered by an international consortium of higher education institutions. It aims to enhance the attractiveness and excellence of European higher education in the world and attract talent to Europe.



In 2020, for the first time, there were more connections of IoT objects and equipment (connected cars, smart home automation devices, connected industrial systems, etc.) than of non-IoT terminals. With the deployment of 5G and more and more billions of potentially hackable connected devices in our everyday lives, protecting them has become urgent. Modern computing systems are also vulnerable both from computational and from storage perspectives and most of the performance optimisations in IoT and software systems can potentially expose them to attacks and leak critical information. These existing vulnerabilities lead to information leakage in many different ways from physical to microarchitectural and software information. New leakage channels keep appearing too and the real attack surface is still unknown, both at software and hardware levels. As most top threats rely on software and hardware vulnerabilities, it is essential that future designers master these threats and existing countermeasures.

If you are an **excellent student anywhere in the world**, whatever your social background, if you want to study cybersecurity in a challenging multicultural environment, CYBERUS is just for YOU.

If you are afraid you cannot afford such a prestigious programme, we offer **scholarships of €1,400/month** and **fee waivers** to the best students. We also offer other support mechanisms. Do not let financial matters hinder your ambitions. **DO** apply.

If you are a **female student** and would like to study cybersecurity, **DO** apply. Cybersecurity needs female talents.

If you suffer **disabilities**, do not let them hamper your talent. CYBERUS is also for YOU. If you are selected, mention you have special needs before arrival so that they can be taken care of.

The CYBERUS Erasmus Mundus Joint Master in cybersecurity, or CYBERUS, is a highly integrated **two-year full-time master programme**. It is taught in **English**. It offers 2 specialisation tracks leading to double master's degrees:

- **IoT Cybersecurity track** (between UBS and ULB): security of digital objects/equipment, of their design and of their connections,
- **Software Cybersecurity track** (between UBS and UL): security of applications, systems and programming.



International mobility forms part of the programme:

- All students spend the first two semesters at UBS (Lorient, France) in order to acquire a set of common major cybersecurity competences and transversal skills and to prespecialize.
- Between semester 1 and semester 2, students move to Tallinn University of Technology - TalTech (Tallinn, Estonia) for a Winter School dedicated to 'Cyberthreats to the EU and Cyberactors'.
- In semester 3, students move to ULB (Brussels, Belgium) to specialize in IoT Cybersecurity or to UL (Luxembourg) for Software Cybersecurity.
- In semester 4, students conduct a compulsory 5-month internship at an approved institution anywhere in the world. They are required to write a master's thesis.

Students enrolled in the IoT Cybersecurity track will receive a **double master's degree** from Université Bretagne Sud - UBS (Lorient, France) and Université du Luxembourg - UL (Luxembourg) while those registered in the Software Cybersecurity track receive a **double master's degree** from Université Bretagne Sud and Université Libre de Bruxelles - ULB (Brussels, Belgium).

Summer School

CYBERUS students and alumni are strongly invited to attend an optional one-week Summer School and Scientific Workshop at UBS (France) at the end of semester 2 and semester 4. This workshop will bring together top researchers and professionals at the cutting edge of cybersecurity to discuss topical cybersecurity issues and to provide complementary insights from other related fields.



Teaching methods include: lectures, tutorials, and presentations by senior and junior researchers, international experts, practicals in state-of-the-art facilities, projects, internships, competitions, visits to companies.

Let your aspirations be your guide. Enquire about our top-notch cybersecurity master programme and check for admission requirements and funding opportunities.



The academic year starts on 1st September 2022.
Waste no time. Visit our website at
<https://cyberus.univ-ubs.fr/en/index.html> NOW.

APPLICATIONS END SUNDAY 24 APRIL 2022.

You will study in:

- ▶ **LORIENT**, France (Université Bretagne Sud): Lorient is a vibrant middle-sized French-speaking city in the south of Brittany on the seashore. A recognized actor in cybersecurity, and renowned for its largest international interceltic festival (800,000 visitors every year) and its pop and techno music festival (Les Indisciplinés, The Undisciplined), it also offers many sporting and cultural activities all year round. More at www.lorientbretagnesudtourisme.fr
- ▶ **BRUSSELS**, Belgium (Université Libre de Bruxelles): French and Flemish-speaking Brussels is a lively European city, capital of Belgium at the heart of Europe. It hosts many international institutions such as the European Union and NATO. It is admired for the richness of its heritage and envied for its student life. More at <https://visit.brussels/en>
- ▶ **LUXEMBOURG** (Université du Luxembourg): Luxembourg City, in the Grand Duchy of Luxembourg, is a cosmopolitan middle-sized European capital. It has three administrative languages: Luxembourgish, French and German. English is also widely spoken. You will enjoy studying in a truly multicultural environment at the crossroads of Europe and close to many other EU countries. More at <https://visit.brussels/en>
- ▶ **TALLINN**, Estonia (TalTech): Tallinn is the capital city of Estonia situated on the Baltic Sea. The official language is Estonian while Russian is also spoken by part of the population. At the forefront of cybersecurity, Tallinn hosts the NATO Cooperative Cyber Defence Centre of Excellence. It is home to more than 60 museums and galleries and the Black Nights Film Festival. More at <https://visittallinn.ee/eng>