TOP REASONS TO DO EXCHANGE STUDIES AT EURECOM

December 2020
KEY FACTS ABOUT EURECOM

300 Master students
75 Phd students
26 Professors

3 Main fields of research and teaching
- Data Science
- Digital Security
- Communication Systems

A consortium of
- 9 universities
- 5 companies
- 1 institution
- from 10 countries

300 Days of sun on the French Riviera
SOPHIA ANTIPOLIS: "French Silicon Valley"

EURECOM is located in the heart of EUROPE's largest techno park

- Dedicated to information technology, life and environmental sciences, fine chemicals
- 1,452 companies, 40% of companies involved in R&D activities
- 31,000 jobs
- 4,500 researchers
- 5,000 students
- 70 nationalities

Some of Sophia Antipolis' leading companies

EURECOM is part of a brand new campus called SophiaTech and benefits from cutting-edge facilities
Where do EURECOM students live?

Antibes: 48%
Biot /Valbonne: 32%
Cannes: 10%
Nice: 5%
Others: 5%
EUROPEAN SILICON VALLEY

EURECOM is located in the heart of **SOPHIA ANTIPOLIS**

One of the largest techno-parks in Europe

Some of the top companies offering internship opportunities to our Master & Post Master students:

- SAP
- BMW
- monaco telecom
- Symantec
- IABG
- orange
- NVIDIA
- IBM
- HP
- THALES
- Alcatel-Lucent
- AMADEUS
- SOFTWARE LABS
- SIEMENS
- ARM
- FORTINET
- SAP
- HITACHI
- DLR
- NXP
- Magneti Marelli
- PSA
- KMPG
- Delivery Hero Germany
- Technicolor
- HP
- Nokia
- CEA
- Accenture
## ITS AREAS OF EXPERTISE

### DIGITAL SECURITY
- System and Software Security
- Embedded System Security
- Applied Cryptography and Security Protocols
- Signal Processing for Security and Biometrics
- Security and Privacy for Big Data and Cloud Computing

### DATA SCIENCE
- Big Data and Cloud Computing Systems
- Machine, Deep and Adversarial Learning, Statistical Inference
- Information Extraction and Retrieval
- Open and Linked Data and Semantic Web

### COMMUNICATION SYSTEMS
- Information and Communication Theory
- Systems and Protocols for Cellular and Heterogeneous Networks
- Device-centric and machine type communications, Internet of Things
- Cloud and Mobile Computing Architectures
- Open source 5G (OpenAirInterface International Software Alliance)
- Vehicular proximity networks and ITS (Intelligent Transportation Systems)
Diversity is not the exception: it’s the norm!

A VERY INTERNATIONAL SCHOOL

- 100% courses taught in English
- 300 Master students
- 75 PhD students
- 40 nationalities
- 25 Professors
- 70% foreign students & 70% foreign professors
INTERNATIONAL FACULTY

26 Professors
14 nationalities
EURECOM’s Faculty has achieved world-wide recognition in their field thanks to major research achievements

- **332** Scientific Publications
- **207** Top International Conferences
- **29** Average H-Index

**3 ERC Grant:**
- Two in Mobile Communications
- One in Digital Security

EURECOM is a partner in Europeans Double Degree Masters programs

- **Big Data Security**
- **Sensing, Communicating and Processing Big Data for IoT**
- **Mobile Systems and Security**
STUDENT MOBILITY

October

FALL SEMESTER
30 ECTS

1 Academic Semester

12 Months Track (2 Academic Semesters)

6 Months Track (1 academic semester)

February

SPRING SEMESTER
30 ECTS

1 Academic Semester

OR

June

July

MASTER THESIS
30 ECTS

(Thesis Semester)
Courses are organized into 4 Study Tracks with several compulsory courses and the rest being elective. More information: [http://www.eurecom.fr/en/teaching/engineering-studies/18-months-curriculum](http://www.eurecom.fr/en/teaching/engineering-studies/18-months-curriculum)
EURECOM’s organisation is very flexible and allow students to design their own curriculum (if approved by their home university).

The whole catalogue of courses is open to exchange students.

**TECHNICAL COURSES**

**FALL SEMESTER (OCTOBER-JANUARY)**

<table>
<thead>
<tr>
<th>Technical courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATMII</td>
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<tr>
<td>ATMWireless</td>
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<tr>
<td>Clouds</td>
</tr>
<tr>
<td>CompArch</td>
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<tr>
<td>DigiCom</td>
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<tr>
<td>EnSim</td>
</tr>
<tr>
<td>Q Theory</td>
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<tr>
<td>Image and video</td>
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<tr>
<td>InfoTheo</td>
</tr>
<tr>
<td>MALIS</td>
</tr>
<tr>
<td>MathEng</td>
</tr>
<tr>
<td>MMIR</td>
</tr>
<tr>
<td>MobCom</td>
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<tr>
<td>MobMod</td>
</tr>
</tbody>
</table>

**NON TECHNICAL COURSES**

**FALL SEMESTER (OCTOBER-JANUARY)**

<table>
<thead>
<tr>
<th>General courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrep</td>
</tr>
<tr>
<td>GreenIT</td>
</tr>
<tr>
<td>innov</td>
</tr>
<tr>
<td>ManagIntro</td>
</tr>
<tr>
<td>Property</td>
</tr>
<tr>
<td>TeamLead</td>
</tr>
</tbody>
</table>
CONTENT OF THE CURRICULUM

Technical Courses
- Innovative courses, designed in partnership with EURECOM’s academic and industrial members.
- Regularly assessed and updated.

Non Technical Courses
- 1/3 of the curriculum. «Soft skills» MBA type classes taught by experts from companies or professors from renowned business schools in Law, Management, Business simulation…

Semester Project
- Blend of theoretical and practical work under the supervision of a professor, often involves the building of a prototype. In teams of 2/3 students. (Around 90-100h per semester)

Foreign Languages
- Any foreign language can be taught provided there are 5 students min. with a similar level.

Master’s Thesis
- Thesis on an industrial or research subject carried out in a company or a lab during 6 months. EURECOM maintains an updated database.
- Students are paid and integrated as part of the company’ staff.
INNOVATIVE LEARNING METHODS

• Use of customized platforms:
  o Cloud platform Zoe
  o OpenAir Interface (5G)

• Use of cutting-edge software (Jupyter...)

• Students projects in cooperation with researchers

• Participation & organizations of competitions (such as DEFCON Capture the Flag)

☞ 2nd place at CSAW 2017 (Europe)

EURECOM’ Students rank high in national hacking challenges!
HANDS-ON APPROACH

• Balanced approach between theoretical input and practical application (Labs, Challenges..)
• Guest Speakers from the Industry
• Semester long projects on relevant industrial topics
• Visits in nearby companies and introduction to new technologies
SEMESTER’s PROJECTS

Students choose a topic and work on project which is highly related to research and/or industrial partnership. It can be about developing a prototype, finding a solution to an identified problem…

The aim is to put into practice the concepts learnt in class and gain a valuable practical and/or research experience.

- Students work in team under the supervision of a professor.

Some recent examples of students projects:

- Web Interface , Semantic Web, Sensor Networks & Security
- Online Game to teach Reverse Engineering
- Statistical tests of machine-learning algorithms with applications in security
- Collect and analysis of dynamic data on Twitter
- Where is my money going ? Following the bitcoin money trail
- Automated Identification of Android Malware Using Classification Techniques
- Surveillance networks : How to build surveillance networks from a communications point of view, what are the networks limits and will the big brother win
- Prototype of Cloudup: Secure Deduplication with encrypted data for cloud storage
- Monitoring Android baseband system status for GSM fuzzing
- A game-theoretic analysis of the economic issues in ISP regulation
- People tracking with autonomous UAVs based on AR.Drone 2.0
• Master’s programs include a paid 6-month internship (master’s thesis) in a hi-tech company or lab - a unique industrial exposure and competitive asset on the job market!
• EURECOM gives students access to its database of internship opportunities in prominent companies both in France and Abroad.

Example of internships (Places and Topics)

<table>
<thead>
<tr>
<th>Company/Major</th>
<th>Topics/Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFD Technology</td>
<td>International GSM Roaming</td>
</tr>
<tr>
<td>ALCMEON</td>
<td>crawl, and large-scale processing of UGC (User Generated Content)</td>
</tr>
<tr>
<td>AMADEUS</td>
<td>iPhone application for online flights shopping</td>
</tr>
<tr>
<td>ATOS</td>
<td>Network security</td>
</tr>
<tr>
<td>BMW</td>
<td>Security analysis and specifications of the fedust protocol</td>
</tr>
<tr>
<td>CISCO Systems Inc.</td>
<td>Router's Penetration Testing</td>
</tr>
<tr>
<td>Commsquare</td>
<td>Protocol Analysis in IP Mobile Networks</td>
</tr>
<tr>
<td>EUREVA</td>
<td>Developing a Cloud-Computing visualization solution</td>
</tr>
<tr>
<td>NOKIA</td>
<td>TCP Response to Lower-Layer Connectivity-Change Indications</td>
</tr>
<tr>
<td>ORANGE</td>
<td>Practical Network security applications in a network provider environment</td>
</tr>
<tr>
<td>PHILIPS ELECTRONICS</td>
<td>Study of the influence of NAT in triple play networks</td>
</tr>
<tr>
<td>SAP</td>
<td>Security mechanisms for the Internet of Services</td>
</tr>
<tr>
<td>SecludIT</td>
<td>Security Audit in cloud infrastructures</td>
</tr>
<tr>
<td>ST MICROELECTRONICS</td>
<td>Evaluate the feasibility of particular kinds of multi-fault attacks against RSA</td>
</tr>
<tr>
<td>SWISSCOM Innovations</td>
<td>Network access control</td>
</tr>
<tr>
<td>TECHNICOLOR</td>
<td>Design and evaluation of a hybrid cloud for dynamic workloads</td>
</tr>
<tr>
<td>THALES ALENIA SPACE</td>
<td>network access control with port based security</td>
</tr>
</tbody>
</table>
EURECOM provides students with a database of Master’s thesis opportunities in labs and companies in France and abroad.
EURECOM students can browse a database of several hundreds of offers, fueled by the efficiency of its network of partners and relationships with **local, national** and international companies.

Some of the top companies offering internship opportunities to our Master & Post Master students:

- SAP
- BMW
- monacotelecom
- Symantec
- IABG
- orange
- amadeus
- SOFTWARE LABS
- Siemens
- arm
- FORTINET
- DLR, NXP, Magnetti Marelli, PSA, KMPG, Delivery Hero Germany, Technicolor, HP, Nokia, CEA, Accenture

![Institut Carnot: Télécom & Société numérique](image)
WHY EURECOM?
ENHANCED EMPLOYABILITY

DURING

- Very strong ties with major actors in industry, not only in Sophia but in the whole world
- 6-month Paid Master Thesis in a company or lab (EURECOM provides students with an updated Database of internship opportunities)

Average monthly allowance: 1200€/month

AFTER

- 99% of our Graduates find a job between 0-12 months after graduation (93% from 0 to 3 months)
- 75% have an annual salary between 40K€ and +75K€
- 97% satisfied by EURECOM’s education
- 90% declare professional career = career aspirations
INDIVIDUAL ASSISTANCE

- Human-size school: Accessible professors and staff
- Favorable professor/students ratio
- A whole team dedicated to student’s administrative life
  - Administrative assistance: Health insurance, housing, bank account…
  - Help to find a flat and an internship

EURECOM Student Affairs Team
LANGUAGE AND CULTURAL TRAINING

• A 3-week Intensive program of French language and cultural visits organized in September

• Included in the program (Free of charge for Exchange Students)

• Weekly French courses throughout the academic year
EURECOM has a very active Student’s association organises many events all year long to fully enjoy your stay in France.

- Weekend of Integration
- International Meal
- International Study trip
- Ski Weekend
- Many sport activities
- Graduation and Alumni Events
AN UNPARALLELED LOCATION

EURECOM’s localization allows our students to enjoy culture, sports and discovery.

Gateway to main European Cities with low cost flights

60 km from Italy

Like the cinema?
Enjoy the Festival de Cannes

Fine Arts
FANCY LIVING IN A VILLA?
1h30 from the sky slopes
30 min the beach
A few words from past exchange students at EURECOM (1):

- Leaving Trondheim in mid February and arriving under the sun of Côte d’Azur is not only a remarkable change of climate, the EURECOM staff are also very helpful with all administrative tasks making the transition fast and easy.

- Coming to campus you find yourself in a state of the art research driven environment; the professor / student ratio is one of the major differences to NTNU.

- It is really cool to work with the professors that have written some of the most referenced articles and books in communication.

I’ll strongly recommend spending a year at EURECOM to anyone.

It was an educational and social experience I’ll never forget!”
"I definitely recommend EURECOM! The university building is small and all students are exchange students, so the atmosphere is very positive and social. The professors are from many different countries and are motivated to lecture and research. The topics of the courses and research are timely and that boosts studying motivation.

Cote d'Azur as a location is awesome, because here we have only a few months of the "Finnish spring" and the rest of the time it is summer. One should not fear the infamous bureaucracy of France, because there are many members of the staff of the university, that gladly assist with all the practicalities.

There are multiple opportunities to learn the French language, but knowing the language is not a requisite, as everything can be done in English.”
TOP 5 REASONS TO STUDY AT EURECOM

1. **INTERNATIONAL**
   - 100% in English
   - 70% foreign professors and students
   - Make friends from all over the world and work with different perspectives!

2. **LOCATION**
   - Combine high quality study and leisure on the French Riviera!

3. **AVAILIBILITY**
   - EURECOM’s size ensures greater proximity with staff and professors.

4. **QUALITY**
   - Classes are fueled by cutting-edge research and tight links with industry

5. **FLEXIBILITY**
   - Design your own curriculum by choosing among a large list of technical and non-technical classes
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