MOBILE COMPUTING SYSTEMS
MASTER OF SCIENCE

EURECOM
Sophia Antipolis

ACCREDITATION

National Accreditation by the French Ministry of Education, Higher Education and Research. The degree can lead to enrollment in a Phd program.

KEY WORDS

Wireless communication and computing, Mobile communication Systems, Mobile networking and computing, Mobile Applications and Services, Telecommunications, Signal Processing Technology.

STRONG POINTS OF THE PROGRAM

> During their Master, students will have access to cutting edge technological platforms within Eurecom's Wireless
> Communications Laboratory
> Students are supervised by internationally renowned researchers
> A 6-month paid internship which provides a cutting-edge experience. Eurecom has its own database of internship offers in several countries
> A fully dedicated team providing administrative support to international students
> Strong international exposure providing essential intercultural tools (only school in France with 2/3 of international students and professors)
> The teaching program benefits from a unique location and from the expertise of renowned industrial partners
> Eurecom is located in Sophia Antipolis, Europe's largest technology park, a hotbed of internships and jobs opportunities for students
> Eurecom is a consortium of leading international universities and top ICT companies and has established a synergy with the local industrial environment on advanced research topics

SCHOOL OFFERING THE MASTER

Eurecom, a "Grande Ecole" with a 100% curriculum in English. It is located on the French Riviera, between Nice and Cannes. The degree is co accredited by Institut Mines-Télécom (IMT).

INDUSTRIAL PARTNERS

BMW Group, IABG, Orange, Monaco Telecom, SAP, Symantec.

LANGUAGE OF TEACHING

100% teaching in English. French is taught as a foreign language throughout the program. A 3-week program of intensive French courses is organised in September.

ENVIRONMENT

This Master provides a comprehensive set of competences in Communication Systems: from physical layer (wireless communications theory and implementation aspects), mobile computing systems (based on SDN, NFV, MEC, IPv6 among the others), to applications (for smartphone, tablets...). Sophia-Antipolis is considered The European Silicon Valley for telecommunications research and development in southern France. Eurecom has established over the years a synergy with both local and international industrial environment on advanced research topics.

COURSE AIMS

> Provide the theoretical background and the applied knowhow for engineers in Mobile Communications Systems
> Learn to tackle problems from a system viewpoint, spanning across all the layers taking a vertical cut
> Acquire and master tools and methods to follow the rapid evolution of technology and provide solutions leading to future generation of wireless communication and computing systems
> Acquire managerial knowledge to provide innovation in Mobile Communications Systems (Project Management, Organization, innovation management...)

PROGRAM

The Master's program is made of 4 full-time semesters: 3 semesters of courses followed by a 6-month Msc thesis in industry or in a research lab.

Scientific and technical modules
> Information theory
> Essential Mathematical Methods for Engineers
> Mobility Modeling
> Fundamentals of Optimisation
> Distributed Systems and Cloud Computing
> Operating systems
> Secure communications
> Software development methodologies
> Mobile Communication Systems
> Mobile Communication Techniques
> Advanced topics in Wireless communication
> Digital Communication
> Statistical Signal Processing
> Mobile application and services
> Network modeling
> Radio Engineering
> Wireless Access technologies
> Mobile Networking
> Mobile Advanced Networks
> Signal Processing Technologies
> Channel Coding theory
> Signal Processing for Communications

Management modules
> Introduction to Management
> Personal development and Team
> Leadership
> Entrepreneurship and Capital Venture
> Innovation and new product development
> Business Simulation
> Sociological approaches of telecom technologies (course given in French)
> Project Management
> Sustainable ICT's (Green IT)
> Intellectual Property Law
> General Introduction to Law

Also part of the program
> Company visits and seminars
> Scientific and Technical Projects
> French language
> Professional coaching (workshops on CV/professional interviews)
> 6-month thesis in Industry or Research lab

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ADMISSION REQUIREMENTS

> A Bachelor's degree (3 years min) in the engineering fields covered by the Master's program (Electrical engineering/ computer sciences/communication engineering…)
> B2 level in English

LANGUAGE REQUIREMENTS

English (at least one of the following)
> Mother tongue
> English Language Qualification:
> > TOEFL 564 (PBT), 213 (CBT), 80 (IBT)
> > IELTS: 5.5
> > TOEIC: 750
> > Cambridge CAE

COMPETENCES ACQUIRED

> A global view of the major challenges of future Mobile
> Communications Systems
> A strong theoretical background in communications and networking to address the fixed/wireless convergence
> Knowledge of the most recent industrial developments and standards
> Introduction to advanced research topics

TYPICAL JOBS

The Master in Mobile Computing Systems gives access to the Telecom Equipment industry, to the Telecom Operators industry and to the academic/theoretical research world. All national and international institutions in the field of communications systems provide career opportunities to graduated students:

> Operators
> Telecommunications industry
> Consulting companies in Information Technologies
> Regulators
> Software editors
> Semi conductor industry
> Other industries (car manufacturers...)

PROFESSIONS

> Research and development in Communication Systems
> Network Consulting
> Network Architect
> Communications Software Development
> Communications Hardware Development
> Project Management
> Telecom Policy Making

COST

Tuition fees for the full program (2 years):
> €12,000
> €6,000 (European Union and Erasmus zone)
Possible partial fee waivers and scholarships.

DURATION

2 years (starting in september):
3 semesters of courses followed by a 6-month paid internship in a lab or company. Some of the companies offering internship opportunities to our students: SAP, BMW, Symantec, IABG, Orange, Amadeus, Renault, Siemens, ARM, Fortinet, PSA, KMPG, Nokia, Accenture, HP, Magnetti Marelli, DLR...

LODGING

Accommodation is organised with the Administration Staff of Eurecom in student halls of residence, rooms or shared flats.Eurecom has an online platform of accommodation offers, from public student residents to flat-sharing in villas and individual studio options. Eurecom students live in several cities nearby: Antibes (a charming city by the seashore), Nice (5th biggest French city); Valbonne or Biot.
https://housing.eurecom.fr/en/

APPLYING

All applications should be made online:
https://www.eurecom.fr/en/postulant/new
The website provides full information on application procedures:
https://www.eurecom.fr/en/teaching/master-science/
master-degree-mobile-computing

SCHOOL CONTACTS

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MINISTÈRE
DE L'ÉCONOMIE
ET DES FINANCES
Liberté
Égalité
Fraternité

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