INTERNET OF THINGS
MASTER OF SCIENCE

EURECOM
Sophia Antipolis

ACCREDITATION

National Accreditation by the French Ministry of Education, Higher Education and Research. It can give access to Phd Studies.

KEY WORDS

Sensors, Actuators, Low-energy communication, Big Data, Data Semantic, Machine Learning, Security, Business Intelligence.

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

ORANGE, SYMANTEC, SAP, Monaco Telecom, BMW Group Research & Technology, IABG.

LANGUAGE OF TEACHING

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

ENVIRONMENT

The Internet of Things (IoT) represents a new stage in the digital revolution, fully contributing to the construction of a digital society. Several sectors of the digital society use or will use the internet of objects to improve deployment, exploitation and industrialization procedures. These include intelligent transport, smart grids, smart city, industry 4.0, and so on. The issues concerning the mastery of the technologies and processes around the internet of objects are enormous and require a very high level of expertise with cutting-edge skills in multi disciplinary areas.

COURSE AIMS

The Master of Science in Internet of Thing offers the necessary technical knowledge and advanced skills to create IoT innovations at the cutting edge of Big Data/sensor/cloud technologies.

PROGRAM

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

Scientific and technical modules
> Emulation and simulation methodologies
> Mobility Modeling
> Mobile communication systems
> Introduction to computer networking
> Distributed Systems and Cloud computing
> Standardization activities
> UML for Embedded Systems
> Computingand internet
> Operating systems
> System and Network Security
> Advanced Data Science Topics
> Machine Learning and Intelligent System
> Mobile application and services
> Network Modeling
> Fundamentals of Optimisation
> Software development methodologies
> Iot Application Protocols
> Iot Communication Protocols
> An Introduction to Semantic Web technologies
> Algorithmic Machine Learning
> Deep Learning
> Mobile Networking
> Network Softwerization
> Security applications in networking and distributed systems

Management modules
> Entrepreneurship and Capital-Venture
> Innovation & new product development
> Introduction to management
> Intellectual property law
> Personal Development and Team Leadership
> Business Simulation
> General introduction to law
> Project management

Also part of the program
> Career Preparation workshops (CV, interviews)
> Company visits
> 6-month Paid Internship in Industry in France or Abroad (Eurecom provides students with a database of Internship opportunities)

LOCATION

Eurecom is located on the French Rivieria (between Nice and Cannes), at the Heart of Sophia Antipolis (largest Techno Park in EUROPE, a major employment hub in France).
The campus provides the following facilities: sports facilities, wireless network, library, associations, etc.

ADMISSION REQUIREMENTS

The Master of Science is open to applicants with at least a scientific Bachelor's degree in a relevant discipline (Computer Science, Electrical Engineering, Applied Mathematics…).

IMT - 2020

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LANGUAGE REQUIREMENTS

English
> Mother tongue or English proficiency test such as:
>> TOEFL: 564 (PBT), 213 (CBT), 80 (IBT)
>> IELTS: 5.5
>> TOEIC: 750
>> Cambridge: CAE

No prerequisite in French.

STRONG POINTS OF THE SCHOOL

> Internationally renowned Faculty with a high publishing rate in top conferences
> Access to Cutting-edge technological tools and platforms
> Hands-on approach to learning and tight links with the Industry
> A Human-sized school offering a favorable Student/Professor ratio
> A Paid 6-month Master's thesis in industry
> Access to a regularly updated and large database of Master's thesis opportunities in companies or labs
> Career Preparation Program (CV and Interview workshops, Recruitment Fairs, Company Visits…)
> Free Program of French language and Cultural visits before the start of the program (3 weeks)
> Individual assistance and help with all administrative issues in France
> A pick up at the airport and train station
> Partial Tuition fee waivers based on academic excellence
> Numerous Students activities (trips abroad, International Meal, fresher's weekend, sport and cultural clubs…)
> An unparalleled natural environment on the worldwide famous French Riviera (300 days of sun per year)

COMPETENCES ACQUIRED

The curriculum offers a cohesive blend of mandatory technical courses coupled with courses in Management/Entrepreneurship to foster a spirit of business initiative among students. It relies on very hands-on approach with many laboratory works, supervised semester-long projects on a topic of industrial relevance and a paid 6-month internship in a company

> Design tools for processing and analyzing large amounts of data from sensors
> Design and develop IoT applications and services adapted to industrial needs
> Understand and design communication mechanisms adapted to the constraints of the sensors (energy consumption, lack of computing capacities)
> Acquire dual competences technical courses in advanced fields (data exploitation, software development, communication networks in constrained environments, Machine Learning, sensor security) associated with courses in Innovation, Project Management, Entrepreneurship...
> Acquisition of written and oral communication skills to make a compelling technical presentation
> Project planning skills : Organizational and Team Leadership competences

TYPICAL JOBS
> IoT Consultant
> IoT Developper
> IoT Innovation Manager
> IoT Solutions Architect
> IoT Project Manager
> Data Scientist

SCHOLARSHIPS
Partial Tuition Fee Waiver for students from University partners and highly ranked students.
Scholarships from French Embassies…

CALENDAR
One intake per year in September.
3 academic semester at Eurecom followed by a 6-month paid internship in a 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/

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

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

SCHOOL CONTACTS
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