Master’s degree in Electronics

Contacts

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Website: http://www.unice.fr/elec/
Master’s degree in Electronics
Specialty: Electronics, Systems and Telecommunications (ESTel)

Purpose:
• Diploma for students wishing to continue their studies in the electronics domain (training in 2 years)
• Propose to students advanced courses in Electronics, Telecommunications, Embedded Systems

Credits:
• Master’s degree: 120 ECTS* (4 semesters of 30 ECTS each)
• Master 1: 680h
• Master 2: 400h (Teaching) + Internship (6 months)

Admission
• Bachelor degree or more required
• Admission in first year according to academic results
• Possibility to enter in second year after the examinations of academic results at equivalent master level

Internship
• Industry
• Academic laboratory

*ECTS: European Credits Transfer System
Topics covered

- Electronics and Microelectronics
- Telecommunications systems
- Automatic & Robotics
- Microprocessor architecture
- Signal processing
- Microwave & Imaging
- Embedded systems design
First and Second year content

First year

- **Electronics 1 (5 ECTS)**
  - Lectures: 15h
  - Tutorials: 15h
  - Practical work: 24h

- **Telecommunications 1 (5 ECTS)**
  - Lectures: 25h
  - Tutorials: 25h

- **Analog Microelectronics (5 ECTS)**
  - Lectures: 22h
  - Tutorials: 21h
  - Practical work: 12h

- **Signal Processing (5 ECTS)**
  - Lectures: 24h
  - Tutorials: 24h

- **Digital Architecture (5 ECTS)**
  - Lectures: 19h
  - Tutorials: 11h
  - Practical work: 21h

- **English (3 ECTS)**
  - Lectures: 10h
  - Tutorials: 20h

- **Management (3 ECTS)**
  - Lectures: 12h
  - Tutorials: 12h

- **Automatics & robotics (6 ECTS)**
  - Lectures: 28h
  - Tutorials: 32h
  - Practical work: 18h

- **Digital microelectronics (6 ECTS)**
  - Lectures: 18h
  - Tutorials: 20h
  - Practical work: 18h

- **Signal processing 2 & applications (6 ECTS)**
  - Lectures: 20h
  - Tutorials: 20h
  - Practical work: 20h

- **Telecommunications 2 (6 ECTS)**
  - Lectures: 18h
  - Tutorials: 17h
  - Practical work: 30h

- **Event driven systems (6 ECTS)**
  - Lectures: 18h
  - Tutorials: 20h
  - Practical work: 18h

Second year

- **Transmission Systems (6 ECTS)**
  - Lectures: 20h
  - Tutorials: 40h
  - Practical work: 20h

- **Telecommunication System (6 ECTS)**
  - Lectures: 20h
  - Tutorials: 20h
  - Practical work: 20h

- **RTOS & C++ Programming (6 ECTS)**
  - Lectures: 21h
  - Tutorials: 20h
  - Practical work: 20h

- **Embedded System Design (6 ECTS)**
  - Lectures: 20h
  - Tutorials: 20h
  - Practical work: 20h

- **English (2 ECTS)**
  - Lectures: 10h
  - Tutorials: 10h

- **Microsystem for Telecommunication (4 ECTS)**
  - Lectures: 20h
  - Tutorials: 20h
  - Practical work: 20h

- **English communication (2 ECTS)**
  - Lectures: 10h
  - Tutorials: 10h

- **Project management (2 ECTS)**
  - Lectures: 10h
  - Tutorials: 10h

- **Project (2 ECTS)**
  - Lectures: 10h
  - Tutorials: 10h

- **Internship (15 ECTS)**
  - Lectures: 20h
  - Tutorials: 10h
  - Practical work: 15h

- **Energy and time management in Embedded System (4,5 ECTS)**
  - Lectures: 20h
  - Tutorials: 10h
  - Practical work: 15h

- **Microwave Circuits and CAD (4,5 ECTS)**
  - Lectures: 20h
  - Tutorials: 10h
  - Practical work: 15h

- **Modeling, interactions, microwave imaging and radar system (4,5 ECTS)**
  - Lectures: 12h
  - Tutorials: 15h
  - Practical work: 18h

- **Network Technologies for multimedia application (4,5 ECTS)**
  - Lectures: 20h
  - Tutorials: 10h
  - Practical work: 15h

- **Signal Processing and depth imagery (4,5 ECTS)**
  - Lectures: 20h
  - Tutorials: 10h
  - Practical work: 15h
Career prospects

Master’s degree in Electronics

Academic & Industrial Research
(Telecom domain, Embedded Systems, Microelectronics)

Researchers

Engineers

Doctoral thesis

Domain of Information Technologies

Associate professor

Full professor
Master’s degree in Electronics

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