Master’s Degree in **APPLIED TELECOMMUNICATIONS AND ENGINEERING MANAGEMENT (MASTEAM)**

Fostering innovation and entrepreneurship on Information and Communications Technologies

- Internet of Things, Computer networks, Big data, Wireless communications, Sensors,
  Electronics, Entrepreneurship, Signal processing, Software-Defined Networking&Radio
**Presentation**

MASTEAM is an official international master programme for training professionals aiming at managing complex multidisciplinary projects, creating new technologies, new applications for existing technologies and telecommunication consulting. It offers a wide range of optional courses and prepares graduates for research or professional practice as engineers in cutting-edge Information and Communication Technologies (ICT) topics such as **Smart cities**, **Internet of Things**, **5G networks**, **Sensor Networks**, or **Big data**. Management, service-oriented and entrepreneurship-related topics are also covered. The master is aligned with the needs of the ICT industry, has double degree and external mobility agreements with top-level universities in Europe, Canada, Mexico and China, and internship and Master Thesis agreements with more than 100 companies of the Telecom sector.

**Prospective students**

# Graduates in Telecommunications Engineering, Computer Science or Computer Networks.
# Graduates in other fields (such as Industrial Engineering and Applied Sciences) who are seeking to change their professional career.
# ICT professionals who want to update their knowledge.

**Career prospects**

# Design, develop and manage telecommunication projects, create or innovate on products, systems and processes.
# Work for telecommunication operators and ICT companies.
# ICT consulting on sectors that are being transformed by ICTs (automotive, audiovisual media, food, logistics, energy, and finance industries, to name a few cases)
# Carry out advanced research in R&D division of a company. Graduates holding an official bachelor’s degree (240 ECTS) and this master’s degree may seek admission to PhD programmes in Telecommunications or other ICT-related fields.

**Content and programme structure**

MASTEAM comprises 60 ECTS credits distributed in 2 semesters (one year full-time or two years part-time), of which 15 credits are compulsory, 33 are optional, and 12 are for the Master Thesis.

**Content and programme structure:**

**FIRST SEMESTER**

**COMPULSORY COURSES:**
- Optimization for Applied Engineering Design
- Network Engineering
- Next Generation Wireless Communications and Internet of Things (IoT)
- Sensors and Interfaces
- ICT-based entrepreneurship

**OPTIONAL COURSES:**
- Optical Networks for Cloud-based Services
- Internet of Things and Ubiquitous IP
- 5G Mobile Network Planning
- Applied Image Processing
- Low-power Systems with Energy Harvesting
- Augmented Reality & Smart Objects

**SECOND SEMESTER**

**OPTIONAL COURSES:**
- Service Engineering
- Body Sensor Nodes
- Creativity and Engineering
- Big Data & Data Mining
- Network Security - Authentication & Authorization
- Software Defined Radio
- Project on ICT-based Business Models

**Master Thesis**