The ETSIT-UPM in figures

More than 16,000 alumni

- 2,500 enrolled students
- 250 faculty members
- Library with more than 500 working places, cyber library and meeting rooms
- More than 600 laboratory places
- 2 sports fields
- Over than 50 lecture halls with multimedia equipment
Accreditation and International Recognition

The diploma of Telecommunication Engineering offered by the Universidad Politécnica de Madrid (P-94) has been accredited by the Accreditation Board for Engineering and Technology (ABET), and has full recognition at Masters' level.

Corresponding levels in higher Education Systems

- **EUROPE**
  - PhD: 3-4 years
  - Masters’ Degree: 2 years
  - Bachelor’s Degree: 3 years

- **USA**
  - PhD Research: 3-4 years
  - M.S.-M. Eng: 2 years
  - B.S: 4 years
  - Undergraduate Studies: 4 years

- **ETSIT-UPM**
  - PhD: 3-4 years
  - Masters’ Degree: 1-2 years
  - Bachelor’s Degree: 4 years
ETSIT-UPM is a veteran among Engineering Schools in Spain in the teaching of telecommunications engineering. Founded more than 100 years ago, it is located on the Moncloa Campus of International Excellence in the Ciudad Universitaria in Madrid.

Bachelor Degrees

Engineering in Telecommunication Technologies and Services
- Audiovisual
- Telematics
- Electronic Systems
- Telecommunication Systems

Biomedical Engineering
- Bioengineering
- Telemedicine
- Biomedical imaging
- Biomedical Computing
Bachelor of Eng. in Telecommunication Technologies and Services
4th year - option (major) in

**TELECOMMUNICATION SYSTEMS**
- Microwave Engineering (4.5)
- Radiocommunications (6)
- Digital Communications (6)
- Antennas (4.5)
- Telecommunication Systems (6)
- Mobile Communications (6)
- Radio Frequency Subsystems (4.5)
- Radiodetermination Systems (4.5)

**TELEMATICS**
- Corporate Networks (6)
- Security In Telecomm. Netw. & Systems (4.5)
- Mobile Communication Networks (6)
- Web Engineering (6)
- Data & Service Provisioning Centers (4.5)
- Radio Networks And Services (4.5)
- Network Dimensioning & Operation (6)
- Telematic Systems & Service Engine. (4.5)

**ELECTRONIC SYSTEMS**
- Digital Electronic Systems Design (6)
- Processor Architecture (4.5)
- Electronic Equipment Fabrication (4.5)
- Analog And Mixed Electronic Systems (6)
- Electronic Instrumentation (6)
- Electronic Systems Engineering (4.5)
- Electronic Control Systems (4.5)
- Consumer Electronics (3)

**TELEMATICS**
- Corporate Networks (6)
- Security In Telecomm. Netw. & Systems (4.5)
- Mobile Communication Networks (6)
- Web Engineering (6)
- Data & Service Provisioning Centers (4.5)
- Radio Networks And Services (4.5)
- Network Dimensioning & Operation (6)
- Telematic Systems & Service Engine. (4.5)

**AUDIOPHONIC**
- Speech And Audio Signal Processing (6)
- Digital Image And Video Processing (6)
- Audiovisual Equipment And Systems (6)
- Television (6)
- Broadcasting And Network Services (6)
- Audiovisual Communications (6)
- Multimedia Production (6)
Master Degrees
Telecommunication Engineering  Biomedical Engineering

Other Masters Degrees
• Solar Energy
• Electronic Systems
• Signal Processing and Communications
• Computational Statistics
• Telematics

PhD Programs
6 PhD Programs (Mention of Excellence)

Alejandra
(5th Year, ERASMUS in Germany)
“At the ETSIT-UPM, the professors are very close and committed with us. You can always go to their tutorials for their help.”
# Master in Telecommunication Engineering

## 2nd year – options (majors)

### SIGNALS AND COMMUNICATIONS
- High Frequency Circuits (6)
- Satellite Communications (6)
- Fiber Optics Communications (6)
- Radar Systems (6)
- Advanced Transmission/Reception Architect. (6)
- Communications Systems Workshop (6)

### ELECTRONICS
- Microelectronic Design (6)
- Photovoltaic Solar Energy (6)
- Engineering of Systems with Processors (6)
- Microelectronic Technology (6)
- Nanoelectronic (6)
- Microelectronic Design (6)

### TELEMATICS
- Cloud Computing, Ntwrk & Services Virtualization (6)
- Corporative Networks, Operators & Internet Workshop (6)
- Info. Systems & Knowledge Technologies (6)
- Security, Trust & Privacy in Info. Society Services (6)
- Fundamentals for Big Data Information Systems (6)

### BIOENGINEERING
- Bioengineering Foundations (6)
- Medical Images And Signals (6)
- Telemedicine (6)
- Neurosensorial Engineering (6)
- Biosensors (6)
Master in Telecommunication Engineering

2\textsuperscript{nd} year – options (majors)

MANAGEMENT, INNOVATION AND ICT BUSINESS

Business Management & Administration (4.5)
Systems & Information Technologies for Business Management I (4.5)
Technology & Business Innovation (4.5)
Strategies & Techniques for Decision Making (4.5)
Creation of Technological Companies (3)
ICT Market Policy & Regulation (4.5)
Systems & Information Technologies for Business Management II (3)
Decision Support Techniques & Business Intelligence (3)
ICT Business Analysis (3)
Market Prospective & Demand Analysis (3)
International Academic Partners

ETSIT-UPM participates in the majority of international mobility programs; it has approximately 100 Erasmus agreements as well as 13 agreements in the framework of the Magalhães Program. Also, as regards Bilateral Agreements, there are approximately 100 framework agreements signed with universities in the USA, Canada, Asia, Australia and Latin America.
Double Degree Agreements

ETSIT-UPM has double degree agreements with prestigious Schools in Europe and America.

Zhan
(1st Year)
“The process of adapting has not been easy but ... I have done it!”
Broadly speaking, we aim at:

• contributing actively to technological knowledge generation & transfer through research and innovation…

• … within a school that educates professionals in the areas of Telecommunication Engineering and Biomedical Engineering with a sound knowledge of ICTs.
Research Units

• 4 Research Centers located at ETSIT:
  – Solar Energy Institute, IES
  – Institute of Optoelectronic Systems and Microtechnology, ISOM
  – Center for Advanced Materials and Devices in ICTs, CEMDATIC
  – Center for Information Processing and Telecommunications, IPT (new, potentially the biggest in UPM)

• 15 Chairs from industry
• 35 accredited Research Groups
• More than 700 researchers
Main Research Areas

- Signal Theory and Communications
- Telematics
- Electronics and Photonics
- Devices and Materials for ICTs
- Biomedical Engineering
- Photovoltaic Solar Energy and other sustainable energies
- Applied Mathematics and Physics
Chairs from Industry Partners

The School has more than 500 collaboration agreements with industry partners and has 16 Chairs integrated into the school itself. ETSIT-UPM students benefit from internships in companies and participate in research projects financed by these Chairs.
Some Figures

“In God we trust, all others bring data” (W. E. Deming. Debatable):

- **Publications**: nearly 400 JCRs (average annual value (AAV))
- **Patents**: more than 160 since 2000
- 30% of UPM funds in **Research Projects** (more than 15 M€, AAV). [UPM: 1st Spanish Univ. (3rd Organization) in R&D FP7 funding (2007-13) with 82 M€: 18.5 M€ come from ETSIT-UPM]
- Including public and private funding, ETSIT hosts more than 400 research projects (nearly 200 of which are international)
- More than 500 active **agreements** with industry partners
UNIVERSITY LIFE

The Moncloa Campus (better known as Ciudad Universitaria) is located in a privileged geographical location, one of the central areas of Madrid, integrated in the city itself. The constant presence of students in the university environment extends throughout the entire neighbourhood of Moncloa.

Services for Students

As a new student at the ETSIT-UPM you will begin your studies with an Orientation Workshop. You will familiarise yourself with the university environment and meet your mentor who is here to help you with everything related to your studies.

The International Office is always open to provide students with general information and support.

David.
(2nd Year)
"I chose the ETSIT-UPM because all of the information that I consulted lead me to conclude that it was the best option to consolidate my professional future."
Student Associations

- BEST Madrid UPM
- CD-CROM (Role Play and Strategy Games)
- Club de Cine Antena (Cinema Fans)
- Club Deportivo (Sports Club)
- Club Ícaro (Open Air Sports)
- Club Literario (Literature Club)
- Club Musical Delta (Musicians and Music Lovers)
- El ECO de Teleco (Humorous University Magazine)
- EURIELEC (Electronics and Computers)
- Grupo de Cámara y Coro (Classical Music)
- Asociación Hispano-China de Estudiantes UPM (Hispano-China Students Association)
- IAESTE (International Exchange and language Courses)
- ONGAWA (Engineering for Human Development)
- No es culpa nuestra (Theatre Group)
- Radio-Club EIT (Radio Fan Club)
- Rama de estudiantes de IEEE
- Satelec (Annual Employment Forum)

Margerite
(France)

"I chose the ETSIT UPM because of its international prestige. I especially chose digital image and video processing because of the quality of the professors and laboratories."
HOW TO APPLY?

Application and deadlines

Deadlines
June 1st: for full academic year or for Fall semester (September until February).
December 1st: for Spring semester (February until June).
Students must be nominated at least 2 weeks before application deadlines.

Application Package
Selected students must be nominated by the international office of their home University to the e-mail international(at)etsit.upm.es providing the following details:
• name of the student
• field of study
• e-mail address
• exchange period at ETSIT
  - academic year or
  - winter semester or
  - summer semester
The following documents are required:
HOW TO APPLY?

- **ETSIT Application form**
- Motivation Letter (free format in Spanish or English) explaining the purpose of the stay. Please, describe clearly your areas of interest if you want to carry out a Master Thesis or a Project Work.
- Curriculum Vitae (in Spanish or English).
- Official Transcript of Records in English listing all courses completed by the student at the home institution, ECTS credits of every course must be stated on the Transcript of Records.

- Learning Agreement signed by the home institution Coordinator:
  - 3 additional photographs (may be given upon arrival).
  - Copy of valid passport or national identity card.
  - Copy of a valid insurance policy.

Application package may be sent by e-mail or by postal mail before the deadline.
Languages

✓ Spanish language level equivalent to B1 according to the Common European Framework of Reference for languages.
✓ If following classes in English, the minimum of English level required is B2

No certificate is required.
Contact and Location

International Office
ETSI de Telecomunicación - UPM
Av. Complutense 30, 28040 Madrid (Spain)

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internacional@etsit.upm.es
www.etsit.upm.es