

# ETSI TELECOMUNICACIÓN. List of courses available for exchange students for the 2026-2027 Academic Year

## 1. Main knowledge areas and notices

Our ISCED-2013 codes for our studies are:

- 0714 Electronics and automation (Telecommunications branch)
- 0211 Audio-visual Techniques and Media Production
- 0533 Physics (Physics Engineering)
- 0540 Mathematics

Some other areas, such as Physics related to Acoustics, Photonics, and related matters, can be considered. We offer courses in 7 degrees:

1. Code 190. [GITST] *Grado en Ingeniería de Tecnologías y Servicios de Telecomunicación* (Bachelor's Degree in Telecommunications Technology Engineering). It is a 4-year Bachelor's degree.
2. Code 194. [GTDM] *Grado en Tecnología Digital y Multimedia* (Bachelor's Degree in Digital and Multimedia Technology). It is a 4-year Bachelor's degree.
3. Code 205. [GIFIS] *Grado en Ingeniería Física* (Bachelor's Degree in Physical Engineering). It is a 4-year Bachelor's degree.
4. Code 200. [GMAT] *Grado en Matemáticas* (Bachelor's Degree in Mathematics). It is a 4-year Bachelor's degree.
5. Code 2314. [MUIT] *Máster Universitario en Ingeniería de Telecomunicación* (Master's Degree in Telecommunication Engineering). Professionally and firm-oriented. It is a 2-year Master's degree.
6. Code 2179. [MUTSRC] *Máster Universitario en Tecnologías, Sistemas y Redes de Comunicaciones* (Master's Degree in Communication Technologies, Systems and Networks). Scientific Master's that leads to a PhD. It is a 1-year Master's degree. You MUST upload your CV and have a strong background in Telecommunications. Please note that English courses are no longer offered in this degree except 30738 and several seminars (check below).
7. Code 2319. [MUISE] *Máster Universitario en Ingeniería de Sistemas Electrónicos* (Master's Degree in Electronic Systems Engineering). Scientific Master's that leads to a PhD or the professional market. Corresponds to a 1-year Master's degree. You MUST upload your CV and have a strong background in Electronics. There are few places available, and deadlines are stringent.
8. Code 2345. [MUQIP] Master's Degree in Quantum Technologies and Photonics. Scientific Master's that leads to a PhD or the professional market. Corresponds to a 1-year Master's degree. You MUST upload your CV and have a strong background in Quantum Mechanics and Technologies and Photonics. There are few places available, and deadlines are stringent.

### Some remarks:

- ALL COURSES ARE ENGLISH-FRIENDLY: Every academic activity, except for the lectures, can be done in English.
- You can **choose freely** among all the courses we list below, although you should be aware that to take classes for a master's, you have to be previously accepted by the directors.
- Please be aware that you can only get a Master's degree if your home institution has a double degree agreement with our School and you complete the specific academic plan for double degree students.
- Please consider that examinations in the same semester for courses in a different course year could **overlap** (i.e., the 3rd-year course *Fundamentos de transmisión* and the 4<sup>th</sup>-year course *Microondas* could have the same examination day or even hour). CHECK TIMETABLE MAKER.
- Bachelor's and Master's degree Thesis can be written in English, and you can also write your dissertation in English. Remember that if you take this thesis, your dissertation MUST BE done in Valencia during your stay. There are different calls to do your dissertation. If you are interested, please visit our office preferably during your first month of your stay.
- All courses are taught in Spanish unless explicitly stated or written in English in the following tables.
- You can check every course's **content** and complete details at the link: <https://aplicat.upv.es/buscasupv-/> You only need to feed the search box with a course code.

## 2. Courses available for exchange students at the Degree 190 “Grado en Ingeniería de Tecnologías y Servicios de Telecomunicación” (GITST)

### 3<sup>rd</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CRED
12429	Comunicaciones Digitales	B	ESP	SISTEMAS	4,5
12433	Radiocomunicaciones	B	ESP	SISTEMAS	4,5
12434	Líneas de Transmisión	B	ESP	SISTEMAS	4,5
12441	Redes Públicas de Acceso	B	ESP	TELEMÁTICA	6
12447	Comunicación de Datos	B	ESP	TELEMÁTICA	6
12448	Sensores	B	ESP	ELECTRÓNICA	4,5
12452	Fundamentos de VLSI	B	ESP	ELECTRÓNICA	4,5
12453	Aplicaciones de los Microcontroladores	B	ESP	ELECTRÓNICA	4,5
12456	Electrónica Analógica Integrada	B	ESP	ELECTRÓNICA	4,5
12465	Acústica Arquitectónica	B	ESP	SISTEMAS AUDIOVISUALES	6
12471	Equipos y Sistemas de Audio	B	ESP	SISTEMAS AUDIOVISUALES	6
12473	Sistemas de Video	B	ESP	SISTEMAS AUDIOVISUALES	6
14124	Comunicaciones Multimedia	B	ESP	COMÚN	4.5
14125	Tratamiento Digital de Señales en Comunicaciones	B	ESP	SISTEMAS	4,5

### 4<sup>th</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
12449	Instrumentación y Calidad	A	ESP	ELECTRÓNICA	6
12451	Procesadores Digitales de Señal (DSP)	A	ESP	ELECTRÓNICA	4,5
12454	Microelectrónica Analógica y Mixta	A	ESP	ELECTRÓNICA	4,5
12455	Sistemas Electrónicos de Comunicaciones	A	ESP	ELECTRÓNICA	6
12461	Instrumentación Biomédica	A	ESP	ELECTRÓNICA	4,5
12462	Desarrollo de sistemas electrónicos	A	ESP	ELECTRÓNICA	4,5

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
12421	Política y Normativa de Telecomunicación	B	ESP	ELECTIVES	4,5
12424	Inglés para fines Académicos y Profesionales (B2)	B	ESP	ELECTIVES	4,5
12425	Radiodeterminación	A	ESP	SISTEMAS	4,5
12431	Sistemas de Comunicaciones Ópticas	B	ESP	ELECTIVES	4,5
12432	Tecnologías y Sistemas en Redes de Acceso	A	ESP	SISTEMAS	4,5
12437	Redes Corporativas	A	ESP	TELEMÁTICA	6
12438	Conmutación	A	ESP	TELEMÁTICA	4,5
12440	Redes Públicas de Transporte	A	ESP	TELEMÁTICA	4,5
12445	Ingeniería de Sistemas Telemáticos	A	ESP	TELEMÁTICA	4,5
12446	Seguridad	A	ESP	TELEMÁTICA	6
12457	Sistemas complejos Bioinspirados	B	ESP	ELECTIVES	4,5
12462	Desarrollo de Sistemas Electrónicos	A	ESP	ELECTRÓNICA	4,5
12463	Tratamiento de Imágenes	A	ESP	SISTEMAS AUDIOVISUALES	4,5
12466	Acústica Ambiental	A	ESP	SISTEMAS AUDIOVISUALES	6
12467	Proyectos e Instalaciones Audiovisuales	A	ESP	SISTEMAS AUDIOVISUALES	4,5
12468	Distribución de Señales Audiovisuales	A	ESP	SISTEMAS AUDIOVISUALES	4,5
12470	Producción Audiovisual	A	ESP	SISTEMAS AUDIOVISUALES	4,5
12472	Tratamiento Digital de Audio	A	ESP	SISTEMAS AUDIOVISUALES	6
13173	Microondas	A	ESP	SISTEMAS	4,5
13175	Comunicaciones Espaciales	A	ESP	SISTEMAS	4,5
14121	Antenas	A	ESP	SISTEMAS	6
14122	Comunicaciones Móviles e Inalámbricas	A	ESP	SISTEMAS	6
14123	Sistemas Telemáticos para la Gestión de la Información	A	ESP	TELEMÁTICA	4,5
12483	Trabajo Fin de Grado/Bachelor Degree Thesis	A-B	ESP/ENG	-	12

The Bachelor's Thesis (TFG) comprises 12 ECTS. It consists of a presentation and defence of an original exercise carried out individually before a university tribunal, involving a novel research project in one of the areas contemplated.

If you take it, doing the dissertation at the ETSIT is compulsory. The BSc Thesis can be defended in July or September, **face-to-face or via videoconferencing**. Please check the calendar for TFG/TFM on the ETSIT webpage

<https://instudentetsit.blogs.upv.es/bachelor-and-master-thesis/>

### 3. Courses available for exchange students at the Degree 194 “Bachelor's Degree in Digital and Multimedia Technology” (GTDM)

NOTICE: There are only 5 places available for each course—assignments in order of arrival.

#### 1<sup>st</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
14178	<a href="#">Matemáticas</a>	T	ESP	COMMON	12
14179	<a href="#">Sociedad Digital</a>	A	ESP	COMMON	6
14180	<a href="#">Programación</a>	T	ESP	COMMON	12
<a href="#">14181</a>	<a href="#">Computadores y Sistemas Operativos</a>	A	ESP	COMMON	6
<a href="#">14182</a>	<a href="#">Arquitecturas de Redes</a>	B	ESP	COMMON	6
<a href="#">14183</a>	<a href="#">Física</a>	B	ESP	COMMON	6
<a href="#">14186</a>	<a href="#">Organización y Transformación Digital</a>	B	ESP	COMMON	6
<a href="#">14203</a>	<a href="#">Narrativa y Lenguaje Audiovisual</a>	A	ESP	COMMON	6

#### 2<sup>nd</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
14184	Sonido, Óptica y Movimiento	A	ESP	COMMON	6
14185	Electrónica	A	ESP	COMMON	6
14193	Talleres y Seminarios de Tecnologías Emergentes I	B	ESP	COMMON	6
14198	Señales y Sistemas audiovisuales	A	ESP	COMMON	6
14199	Comunicación de Datos	B	ESP	COMMON	6
14204	Diseño Gráfico	B	ESP	COMMON	6
14206	Aplicaciones y Usabilidad	B	ESP	COMMON	6
14208	Sistemas embebidos	B	ESP	COMMON	6
14210	Redes de Distribución de Contenidos	A	ESP	COMMON	6

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
14211	Tecnologías Web	A	ESP	COMMON	6

### 3<sup>rd</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
14187	<u>Dirección y Gestión de Proyectos</u>	A	ESP	COMMON	6
14194	<u>Talleres y Seminarios de Tecnologías Emergentes II</u>	B	ESP	COMMON	6
14195	<u>Equipos Multimedia</u>	A	ESP	COMMON	6
14196	<u>Medios de Transmisión</u>	B	ESP	COMMON	6
14200	<u>Codificación de la Información</u>	A	ESP	COMMON	6
14201	<u>Voz y Audio Digital</u>	B	ESP	COMMON	6
14202	<u>Imagen y Vídeo Digital</u>	B	ESP	COMMON	6
14209	<u>Interacción, sensores y transductores</u>	A	ESP	COMMON	6
14212	<u>Seguridad y Gestión de Derechos Digitales</u>	A	ESP	COMMON	6
14213	<u>Plataformas de Streaming</u>	B	ESP	COMMON	6

### 4<sup>th</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
14188	Modelos de Negocio	A	ESP	COMMON	6
14197	Sistemas y Estándares de Distribución	A	ESP	COMMON	6
14205	Edición y Postproducción Audiovisual	A	ESP	COMMON	6
14207	Desarrollo de Videojuegos	A	ESP	COMMON	6
14214	Plataformas IoT	A	ESP	COMMON	6
14189	Frameworks para el desarrollo completo de aplicaciones web	B	ESP	ELECTIVE	4.5
14190	Ideación, diseño y programación de proyectos interactivos	B	ESP	ELECTIVE	4.5
14705	Inteligencia artificial	B	ESP	ELECTIVE	4.5
12424	Professional English (level B2)	B	ENG	ELECTIVE	4.5
15593	Basic Principles of Particle Accelerators	B	ENG	ELECTIVE	4,5

14215	Trabajo Fin de Grado	A/B	ENG/ESP	-	12
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<https://instudentetsit.blogs.upv.es/bachelor-and-master-thesis/>

## 4. Courses available for exchange students at the Degree 200 "Bachelor's Degree in Mathematics" (GMAT)

### 2<sup>nd</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
14323	Cálculo en varias variables	A	ESP	COMMON	6
14324	Variable Compleja	A	ESP	COMMON	6
14328	Álgebra Lineal y Geometría II	A	ESP	COMMON	6
14330	Estructuras Algebraicas I	A	ESP	COMMON	6
14337	Resolución numérica de sistemas lineales y no lineales	A	ESP	COMMON	6

### 3<sup>rd</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
14335	Ecuaciones diferenciales II	A	ESP	COMMON	6
14341	Inferencia Estadística	A	ESP	COMMON	6
14326	Integral múltiple	A	ESP	COMMON	6
14336	Investigación Operativa	A	ESP	COMMON	6
14332	Topología General	A	ESP	COMMON	6

### 4<sup>th</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
14329	Álgebra Lineal y Geometría III	A	ESP	COMMON	6
14331	Estructuras Algebraicas II	A	ESP	COMMON	6
14333	Geometría Diferencial	A	ESP	COMMON	6
14327	Integración curvilínea y de superficie	A	ESP	COMMON	6

14338	Resolución numérica de ecuaciones en derivadas parciales	A	ESP	COMMON	6
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## 5<sup>th</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
14325	Análisis de Fourier	A	ESP	COMMON	6
14339	Computación de altas prestaciones	A	ESP	COMMON	6
14334	Topología algebraica	A	ESP	COMMON	6
14340	Modelización	A	ESP	COMMON	6
14359	Trabajo Fin de Grado	A/B	ENG/ESP	COMMON	12

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## 5. Courses available for exchange students at the Degree 205 “Bachelor's Degree in Physical Engineering” (GIFIS)

### 1<sup>st</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
14484	Física I	A	ESP	COMMON	6
14485	Física II	B	ESP	COMMON	6

### 2<sup>nd</sup> year not available

### 3<sup>rd</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
14494	Física Cuántica	A	ESP	COMMON	6
14495	Mecánica cuántica	B	ESP	COMMON	6
14500	Electrónica digital	B	ESP	COMMON	6
14501	Electrónica analógica	A	ESP	COMMON	6
14502	Instrumentación y experimentación	A	ESP	COMMON	6
14503	Proyectos de ingeniería física	B	ESP	COMMON	6

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
14504	Fotónica	A	ESP	COMMON	6
14505	Biofísica	B	ESP	COMMON	6
14506	Computación	B	ESP	COMMON	6
14512	Tratamiento Digital de la Señal	A	ESP	COMMON	6

#### 4<sup>th</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
14507	Fotónica integrada	A	ESP	COMMON	6
14508	Nanotecnología	A	ESP	COMMON	6
14509	Gestión de la innovación y emprendimiento tecnológico	A	ESP	COMMON	6
14514	Ampliación de Mecánica Cuántica	A	ESP	ELECTIVE	6
14521	Computación Cuántica	B	ESP	ELECTIVE	4.5
15010	Ingeniería Física para sistemas espaciales	B	ESP	ELECTIVE	4.5
14705	Inteligencia Artificial	B	ESP	ELECTIVE	4.5
15009	Nanomateriales	B	ESP	ELECTIVE	4.5
14515	Sensores	A	ESP	ELECTIVE	6
12431	Sistemas de Comunicaciones Ópticas	B	ESP	ELECTIVE	4.5
14518	Sistemas Electrónicos Programables	B	ESP	ELECTIVE	4.5
14517	Tratamiento Digital de Imágenes	B	ESP	ELECTIVE	4.5
14516	Tratamiento estadístico de Señales y Datos	A	ESP	ELECTIVE	6
12424	Professional English (nivel B2)	B	ENG	ELECTIVE	4.5
15593	Basic Principles of Particle Accelerators	B	ENG	ELECTIVE	4,5
14522	Trabajo Fin de Grado	A/B	ENG/ESP	-	12

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If you take it, doing the dissertation at the ETSIT is compulsory. The BSc Thesis can be defended in July or September, **face-to-face or via videoconferencing**. Please check the calendar for TFG/TFM on the ETSIT webpage

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## 6. Courses available for exchange students at the Degree 2314 “Master’s Degree in Telecommunication Engineering” (MUIT)

NOTICE ACCOMMODATION ISSUES: If you want to take courses only in semester A for the 1st year MUIT, MUTSRC or MUISE: Take into account that the examination period **takes place in February**, and you will probably have no accommodation for such a short period. We recommend you stay the whole academic year.

### 1<sup>st</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
35475	Inteligencia artificial para sistemas de comunicaciones y multimedia	B	ESP	SISTEMAS DE TELECOMUNICACIÓN Y AUDIOVISUALES	6
35476	Circuitos fotónicos integrados	B	ESP	SISTEMAS DE TELECOMUNICACIÓN Y AUDIOVISUALES	6
35477	Ingeniería de radiofrecuencia	A	ESP	SISTEMAS DE TELECOMUNICACIÓN Y AUDIOVISUALES	6
35478	Procesado digital de señal en comunicaciones	A	ESP	SISTEMAS DE TELECOMUNICACIÓN Y AUDIOVISUALES	6
35479	Tecnologías emergentes	A	ESP	TELEMÁTICA	6
35480	Ciberseguridad	B	ESP	TELEMÁTICA	6
35482	Electrónica de alta frecuencia	B	ESP	SISTEMAS ELECTRÓNICOS	6
35483	Codiseño hardware software	A	ESP	SISTEMAS ELECTRÓNICOS	6
35484	Sistemas embebidos para internet de las cosas (IoT)	B	ESP	SISTEMAS ELECTRÓNICOS	6
35486	Gestión técnica y económica de proyectos de telecomunicación	A	ESP	GESTIÓN TECNOLÓGICA DE PROYECTOS DE TELECOMUNICACIÓN	6

### 2<sup>nd</sup> year

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
30734	Procesado de señal en comunicaciones inalámbricas	A	ESP	FORMACIÓN ELECTIVE	3
30738	Redes de comunicaciones móviles de nueva generación	A	ESP	FORMACIÓN ELECTIVE	3
30747	Diseño de redes con calidad de servicio	A	ESP	FORMACIÓN ELECTIVE	3
30751	Nuevas tecnologías para la codificación y el streaming de video	A	ESP	FORMACIÓN ELECTIVE	3
30752	Plataformas IoT	A	ESP	FORMACIÓN ELECTIVE	3

CODE	COURSE	SEMESTER	LANGUAGE	BRANCH	ECTS CREDITS
35481	Redes definidas por software	A	ENG	TELEMÁTICA	6
35485	Integración de tecnologías y sistemas de telecomunicación	A	ENG	GESTIÓN TECNOLÓGICA DE PROYECTOS DE TELECOMUNICACIÓN	6
35677	Advanced methods of artificial vision	A	ENG	FORMACIÓN ELECTIVE	6
35678	Signal and natural language processing with deep learning	A	ENG	FORMACIÓN ELECTIVE	6
35679	Reinforcement learning	A	ENG	FORMACIÓN ELECTIVE	6
35680	Photonic integration, manufacturing, and test	A	ENG	FORMACIÓN ELECTIVE	6
35681	Advanced fiber optics	A	ENG	FORMACIÓN ELECTIVE	6
35682	Sensing, quantum, and computing applications	A	ENG	FORMACIÓN ELECTIVE	6
33463	FINAL MASTER'S THESIS	A/B	ENG/ESP	-	30

The MUIT Final Master's Thesis (TFG) comprises 30 ECTS. It consists of a presentation and defence of an original exercise carried out individually before a university tribunal, involving a novel research project in one of the areas contemplated.

If you take it, doing the dissertation at the ETSIT is compulsory. The Master's Thesis can be defended in July or September, **face-to-face or via videoconferencing**. Please check the calendar for TFG/TFM on the ETSIT webpage <https://instudentetsit.blogs.upv.es/bachelor-and-master-thesis/>

*\*Terminantemente prohibidas las que pertenecen a otros centros.*

## 7. Courses are available for exchange students at Degree 2179, “Master's Degree in Communication Technologies, Systems, and Networks” (MUTSRC).

### Admission criteria for Erasmus students in the MUTSRC master’s program. Department of Communications

- **Accepted Degrees:** Final-year students of:

- Telecommunication Engineering
- Electronic Engineering
- Computer Science or similar

Or Master’s students in the area of:

- Telecommunication Engineering
- Electronic Engineering
- Computer Science or similar

- Final-year students from the following degrees are **NOT accepted**:

- Civil Engineering
- Industrial Engineering
- Business Organisation Engineering
- Mechanical Engineering

Nor are students from earlier years (not the final year) of Telecommunication Engineering, Electronic Engineering, or Computer Science accepted.

In cases such as *Aeronautical Engineering*, the IRO will consult the Master’s Academic Director (DAT), as it depends on the subject requested and the student’s curriculum.

### Language and Country of Origin:

- **Portuguese and Italian students:** accepted in all subjects of the MUTSRC Master’s program. They are informed that the subjects are taught in Spanish (except for two seminars in English), although some subjects offer “English-Friendly Courses” options.
- **Students from other non-Spanish-speaking countries:** their English level is verified to be at least B2 or equivalent. They are informed that the subjects are taught in Spanish by default (except for two seminars in English), although some subjects offer “English-Friendly Courses” options. Therefore, their Spanish level is expected to be low or intermediate.

They are accepted **ONLY** in the subjects and seminars listed on the following two pages:

CODE	COURSE TITLE IN ENGLISH AND SPANISH	CRED.	SLIDES	EXAMS WRITING	EXAMS WORDING	CLASSES
30740 S	Photonic technologies in wireless networks <i>Tecnologías fotónicas en redes inalámbricas</i>	3 ECTS	E	E	E	S*
30752 S	Internet of Things (IoT) platforms <i>Plataformas IoT</i>	3 ECTS	E	E	E <sup>1</sup>	S*
30739 S	Aerospace communications systems <i>Sistemas de comunicaciones aeroespaciales</i>	3 ECTS	S/E	S/E	S/E	S
30738 S	Next generation mobile communications networks <i>Redes de comunicaciones móviles de nueva generación</i>	3 ECTS	E	E	E	S*
30748 S	Architecture and protocols in mobile communications <i>Arquitectura y protocolos en comunicaciones móviles</i>	3 ECTS	S/E	E	S	S
30734 S	Signal processing in Wireless communications <i>Procesado de señal en comunicaciones inalámbricas</i>	3 ECTS	S	E	E	S

CODE	COURSE TITLE IN ENGLISH AND SPANISH	CRED.	SLIDES	EXAMS WRITING	EXAMS WORDING	CLASSES
30737 S	Electromagnetism in advanced materials design <i>Electromagnetismo en el diseño de materiales avanzados</i>	3 ECTS	S/E	E	E	S*
35666 S	Systems virtualization <i>Virtualización de sistemas</i>	3 ECTS	S	S/E	S/E	S
35670 S	Applications in mobile communications systems <i>Aplicaciones en sistemas de comunicaciones móviles</i>	3 ECTS	E	E	E	S*
35671 S	RADAR applications <i>Aplicaciones RADAR</i>	3 ECTS	E	E	E	S*

CODE	SEMINARS IN ENGLISH	CRED.
34477 E	Object localisation with focus on RFID-based systems (ORFID)	1 ECTS
34478 E	Modern antennas for vehicles and mobile devices (MAVB)	1 ECTS

#### Acronym meanings:

- S: Spanish
- E: English

#### Observations:

- **Code:** no. of code and official language of the course
- **Slides:** the language of slides
- **Exam writing:** You can write your exam in E/S
- **Exam wording:** The wording of the exam is in E/S
- **Classes.** The teacher can change the official language to
  - S: Spanish, even if all the students understand English
  - S\*: English if all the students agree on it.
- 1 In case of any multiple-choice tests, those exams will be only in Spanish.

## MODULE "FINAL DEGREE THESIS" (SUMMER TERM)

The MUTSRC Master's Thesis comprises 24 ECTS. It consists of a presentation and defence of an original exercise carried out individually before a university tribunal, involving a novel research project in one of the areas contemplated.

If you take it, doing the dissertation at the ETSIT is compulsory. The Master's Thesis can be defended in July or September, **face-to-face or via videoconferencing**. Please check the calendar for TFG/TFM on the ETSIT webpage

<https://instudentetsit.blogs.upv.es/bachelor-and-master-thesis/>

CODE	
31078	Final degree thesis of Master's in Telecommunication Technologies, Systems and Networks ( <b>24 ECTS</b> , summer term)

## 8. Courses available for exchange students at the Degree 2319 “Master's Degree in Electronic Systems Engineering” (MUISE)

Usually, Laboratory and Practices take place in the mornings, and Theory lessons during the evenings.

**A strong background in Electronics is required.**

Students must upload their home university's CV and a Transcript of Records in the AIRE application.

- If you are a BSc student, ToR of the BSc.
- If you are an MSc student, the ToR of the previous BSc and the ToR of the MSc level must be enclosed in a single PDF.

**DEADLINES:** The students who want to apply for the Master's Degree in Electronic Systems Engineering courses must apply and upload all the required documents in the AIRE system before **July 1st, 2025**, considering that the following will be used for their course selection.

Students will know whether they are accepted by around **24th July 2025**.

LIMITED PLACES: Please check the number of places available for every course.

**Acronym meanings:**

- S: Spanish
- E: English

**Observations:**

- **Code:** no. of code and official language of the course
- **Slides:** the language of slides
- **Exam writing:** You can write your exam in E/S
- **Exam wording:** The wording of the exam is in E/S
- **Classes:** The teacher can change the official language to S: Spanish, even if all the students understand English
- **S\*:** English if all the students agree on it

CODE	COURSE	THE OFFICIAL LANGUAGE OF THE COURSE	YEAR	SEMESTER	ECTS	SLIDES	EXAMS WRITING	EXAMS WORDING	CLASSES	PLACES AVAILABLE (*)
34628	Diseño de Circuitos Impresos <a href="#">Printed Circuit Design</a>	S	1	B	4,5	S/E	S/E	S/E	S/E	5
34627	Diseño Térmico y Compatibilidad Electromagnética en Productos Electrónicos <a href="#">Thermal design and electromagnetic compatibility for electronic products</a>	S	1	A	6	S	S/E	S/E	S/E	5
34624	Procesado de Señal en Sistemas Electrónicos <a href="#">Signal Processing in Electronic Systems</a>	S	1	A	4,5	S	S/E	S/E	S/E	5
34629	Sistemas Embebidos <a href="#">Embedded Systems</a>	S	1	A	4,5	S	S/E	S/E	S/E	5
34634	Diseño Microelectrónico – SED <a href="#">Microelectronics Design</a>	S	1	A	6	S	S/E	S/E	S/E	3

CODE	COURSE	THE OFFICIAL LANGUAGE OF THE COURSE	YEAR	SEMESTER	ECTS	SLIDES	EXAMS WRITING	EXAMS WORDING	CLASSES	PLACES AVAILABLE (*)
34631	Procesado Digital de la Señal en FPGA Digital signal processing on FPGA devices	S	1	B	6	S/E	S/E	S/E	S/E	4
34630	Sistemas Integrados Digitales <a href="#">Digital Integrated Systems</a>	S	1	B	6	S/E	S	S/E	S/E	2
35549	Control electrónico de accionamientos y sistemas de tracción <a href="#">Electronic control of electric drives and traction systems</a>	S	1	B	6	S	S	S/E	S/E	2
35552	Instrumentación en red y comunicaciones industriales – SECE <a href="#">Network instrumentation and industrial communications</a>	S	1	A	6	S/E	S	S/E	S/E	2
35554	Sistemas digitales de control de potencia Digital Systems For Power Control	S	1	B	6	S/E	S/E	S/E	S/E	2
35555	Seminarios Profesionales y Conferencias <a href="#">Professional Seminars and Conferences</a>	S	1	B	6	S	S	S	S	5
35556	Sistemas Embebidos Avanzados <a href="#">Advanced Embedded Systems</a>	S	2	A	6	S	S/E	S/E	S/E	5
35557	Trabajo de Fin de Máster <a href="#">MSc. Thesis</a>	S/E	2	A	12	S/E	S/E	S/E	S/E	No limit

The MUISE Master's Thesis comprises 12 ECTS. It consists of a presentation and defence of an original exercise carried out individually before a university tribunal, involving a novel research project in one of the areas contemplated.

If you take it, doing the dissertation at the ETSIT is compulsory. The Master's Thesis can be defended in July or September, **face-to-face or via videoconferencing**. Please check the calendar for TFG/TFM on the ETSIT webpage <https://instudentetsit.blogs.upv.es/bachelor-and-master-thesis/>

## 9. Courses available for exchange students at the Degree 2345 “Quantum Technologies and Photonics” (MUQIP)

**A strong background in Quantum Technologies and Photonics is required.**

Students must upload their home university's CV and a Transcript of Records in the AIRE application.

- If you are a BSc student, ToR of the BSc.
- If you are an MSc student, the ToR of the previous BSc and the ToR of the MSc level must be enclosed in a single PDF.

**DEADLINES:** The students who want to apply for the Master’s Degree in Quantum Technologies and Photonics courses must apply and upload all the required documents in the AIRE system before **July 1st, 2025**, considering that the following will be used for their course selection.

Students will know whether they are accepted by around **24th July 2025**.

LIMITED PLACES: Please check the number of places available for every course.

### Admission criteria for Erasmus students in the MUQIP program (ETSI Telecommunications)

- **Accepted Degrees:** Final-year students of:

- Engineering Physics
- Physics
- Telecommunication Engineering
- Computer Science

Or Master’s students in the area of:

- Engineering Physics
- Physics
- Telecommunication Engineering
- Computer Science

### Language and Country of Origin:

This Master is fully taught in English so only students who have studied the Bachelor's Degree in English or demonstrate B2 level are accepted, as follows:

- **Students coming from English-speaking countries:** accepted.
- **Students coming from Non-English-speaking countries:** Applicants must demonstrate a minimum B2 level of English (CEFR) through an internationally recognised certificate, such as: Cambridge B2 First, IELTS (minimum 5.5–6.5), TOEFL iBT (minimum 72), Pearson PTE Academic (minimum 59), Oxford Test of English (B2), LanguageCert B2, or equivalent.

**English** is the language of instruction for all courses, including teaching materials, classes, laboratory sessions, and examinations.

#### Acronym meanings:

- S: Spanish
- E: English

#### Observations:

- **Code:** no. of code and official language of the course
- **Slides:** the language of slides
- **Exam writing:** You can write your exam in E/S
- **Exam wording:** The wording of the exam is in E/S
- **Classes:** The teacher can change the official language to S: Spanish, even if all the students understand English
- **E\*:** English if all the students agree on it

CODE	COURSE	THE OFFICIAL LANGUAGE OF THE COURSE	YEAR	SEMESTER	ECTS	SLIDES	EXAMS WRITING	EXAMS WORDING	CLASSES	PLACES AVAILABLE (*)
36091	Solid State Physics	E	1	A	6	E	E	E	E	3
36092	Quantum Photonics	E	1	A	6	E	E	E	E	3
36093	Quantum computing and programming	E	1	A	6	E	E	E	E	3
36094	Classical and Quantum Information Theory	E	1	A	3	E	E	E	E	3
36095	Open Quantum Systems And Thermodynamics I	E	1	A	3	E	E	E	E	3
36096	Procesado Digital de la Señal en FPGA Digital signal processing on FPGA devices	E	1	A	3	E	E	E	E	3
36097	Integrated Photonics Signal Processing	E	1	A	3	E	E	E	E	3
36100	Electronics for Quantum Systems	E	1	B	3	E	E	E	E	3
36104	Integrated Photonics Computing	E	1	B	3	E	E	E	E	3
36102	Open Quantum Systems and Thermodynamics II	E	1	B	3	E	E	E	E	3
36101	Quantum Computing for Industrial and Economic Sectors	E	1	B	3	E	E	E	E	3
36103	Quantum Cryptography	E	1	B	3	E	E	E	E	3
36098	Quantum Machine Learning	E	1	B	3	E	E	E	E	3