



Acting, in my capacity as Rector of the Universidad Politécnica de Madrid (UPM), on behalf of the university's educational community, it is my pleasure to introduce you to what is Spain's leading higher education institution in the fields of engineering, architecture, sports science and fashion design.



Guillermo Cisneros Pérez

UPM is the country's largest technical university, and an influential European higher education institution. I am proud to say that the UPM stands out for its intensive research activity, its internationally accredited and recognized academic excellence, and its interweaving into the fabric of national and international industry, which are its mainstays as a public higher education institution.

Around 36,000 students are training on our 4+1 university campuses distributed across the city of Madrid. UPM also has research centres and institutes where research groups are working on many projects that also serve to train our students at the cutting edge of their fields and where they

participate in the generation of new knowledge. Thanks to the effort of UPM's academic and research staff, administrative staff and alumni around the globe, UPM is acknowledged to be one of the best 60 global universities for engineering and architecture and ranks within the world's top 94 in terms of employability.

UPM is a public university committed to and working towards the 17 Sustainable Development Goals set up by the United Nations General Assembly. UPM is open to anyone wanting to learn, research and share their talent in the branches of knowledge in we specialize. I invite you to learn more about us in this presentation.



UNIVERSIDAD POLITÉCNICA DE MADRID

UPM Facts and Figures

- 15 schools, 1 faculty and 1 affiliated college
- Almost **2,900** teaching staff and researchers
- Over **30,000** undergraduate students (2021/22)
- **6,500** master students (2021/22)
- Over **2,000** PhD students (2021/22)
- Budget of 400 million euros
- 53 accredited bachelor degree programmes
- 95 accredited master degree programmes
- 17 accredited combined bachelor and master degree programmes
- 44 accredited PhD programmes
- **248** UPM academic programmes (executive master, expert specialization and lifelong training programmes)
- **74** double degree programme agreements with international universities
- **1,600** agreements with international universities
- International exchanges by around 1,500 UPM students every year
- 18 cooperation for development groups

- Over **6,500** work placements in the 2021/22 academic year
- 17 sports clubs
- A total of **150** student associations
- 215 research groups
- Funding of around 80 million euros from regional, national and international projects in cooperation with industry and foundations (2021)
- Funding totalling 209.5 million euros from projects with industry (art. 83) from 2009 to 2021
- **69** university-industry partnerships
- Over 310 actúaUPM-supported start-ups since 2022 with a five-year survival rate of over 60%, 18 of which were set up in 2021
- 549 H2020 project awards, including 80 projects coordinated by UPM, which is the top Spanish university in terms of H2020 returns
- UPM is a core partner of the EIT Digital, EIT Health, EIT Raw Materials and EIT Climate-KIC and network partner of EIT Urban Mobility
- 43 internationally accredited degree programmes

The UPM is one of Europe's top universities, renowned for its academic and research quality, innovation and close ties with society. The UPM offers 53 accredited single or joint bachelor degree programmes and its degree programmes are highly rated by industry.

With over 36,000 students and 2,900 academic staff, its activities (teaching, research and technology transfer) focus on all branches of engineering, architecture, sports science and fashion design.

UPM in the rankings

For the fifth year running, the UPM is one of the 100 best universities in the world in the field of engineering and technology*

UPM has 3 degree programmes within the top 50 and 6 within the top 100 in the world*

- Architecture/ Built Environment
- Engineering Civil & Structural
- Engineering Mineral & Mining
- Engineering Mechanical, Aeronautical & Manufacturing
- Agriculture & Forestry
- Engineering Electrical & Electronic

*QS World University Ranking (2022)

UPM has a degree programme within the top 6 in the world*

Civil Engineering

*ARWU-Shanghai Ranking (2022)

UPM is the top-ranked Spanish technical university for employability*, ranking 94 in the world

*QS Employability Ranking (2022)

According to the 2022 QS World University Ranking by subject of interest, the Universidad Politécnica de Madrid is one of the 100 best universities in the world in the field of engineering and technology. UPM is also one of the best world universities for employability, ranking as the top Spanish technical university.



QS WORLD UNIVERSITY RANKING (2022)

Analysing 4000 institutions, where the UPM is ranked 58 in the world in the field of engineering and technology. By disciplines, the UPM's world ranking is as follows:

- Architecture: 27
- Engineering Civil & Structural: 31
- Engineering Mineral & Mining: 36
- Engineering Mechanical, Aeronautical & Manufacturing: 59
- Agriculture & Forestry: 67
- Engineering Electrical & Electronic: 76
- Computer Science & Information Systems: 127
- Art & Design: 101-150
- Environmental Science: 151-200
- Materials Science: 151-200
- · Mathematics: 151-200
- Engineering Chemical: 201-250
- Social Science & Management: 365
- Biological Sciences: 351-400
- Chemistry: 541-500



QS GRADUATE EMPLOYABILITY RANKING (2022)

The UPM is ranked 94th in the world for employability.



ARWU-SHANGHAI (2022)

Analysing over 1,200 universities, where the UPM's world ranking by disciplines as follows:

- Civil Engineering: 6
- Instruments Science & Technology: 43
- Agricultural Sciences: 51-75
- Mining & Mineral Engineering: 76-100
- Transportation Science & Technology: 101-150
- Water Resources: 151-200
- Mechanical Engineering: 151-200
- Telecommunication Engineering: 201-300
- Food Science & Technology: 201-300
- Mathematics: 201-300
- Biological sciences: 201-300
- Energy Science & Engineering: 301-400
- Computer Science & Engineering: 301-400
- Electrical & Electronic Engineering: 401-500
- Chemical Engineering: 401-500



TAIWAN (2022)

Analysing over 800 universities, where the UPM's world ranking by disciplines is as follows:

- Civil Engineering: 148
- Agricultural Sciences: 167
- Plant & Animal Science: 186
- Mechanical Engineering: 195
- Computer Science: 219
- Environment/Ecology: 279
- Electrical Engineering: 281
 Social Science: 401-500
- Materials Science: 451-500
- Physics: 451-500

INTERNATIONALLY RENOWNED UNIVERSITY

International Accreditations

The UPM is the Spanish university with the most internationally accredited engineering and architecture degree programmes.

UPM degree programmes hold around 60 international accreditations by ABET, NAAB, EUR-ACE or EURO-INF. Awarded by independent European and US agencies, these quality labels improve the prospects of its graduates on the international labour market by certifying that the UPM's training process meets the standards of the best universities in the world

43 Internationally Accredited Degree Programmes

ABET

What is ABET?

The highly reputed Accreditation Board for Engineering and Technology (ABET) is a US non-profit non-governmental organization that accredits higher education or post-secondary education programmes in applied science, computer science and engineering and technology disciplines.

EUR-ACE®

What is EUR-ACE®?

The EUR-ACE® label is a certificate awarded by an agency authorized by the European accreditation network ENAEE to a higher education institution with respect to a bachelor or master programme evaluated according to a number of standards defined according to the principles of quality, relevance, transparency, recognition and mobility governing the European Higher Education Area.

NAAB

What is NAAB?

The National Architectural Accrediting Board (NAAB) is the only agency authorized in the United States to accredit professional architecture degree programmes.

EURO-INF

What is EURO-INF?

The EURO-INF label is a certificate promoted by EQANIE and awarded to a higher education institution with respect a bachelor or master programme evaluated according to a number of standards defined according to the principles of quality, relevance, transparency, recognition and mobility governing the European Higher Education Area.

INTERNATIONAL ACCREDITATIONS

ACCREDITATION	DOMAIN	SCOPE	NUMBER OF ACCREDITED UPM BACHELOR PROGRAMMES	NUMBER OF ACCREDITED UPM MASTER PROGRAMMES
EUR-ACE	Engineering	Europe	22	10
	Computer Science	Europe	4	4
ABET	Engineering and Computer Science	US	12	4
NīvīB.	Architecture	US	1	1

SPAIN'S LEADING
UNIVERSITY IN TERMS
OF INTERNATIONAL
ENGINEERING AND
ARCHITECTURE
ACCREDITATIONS

Scientific and technological expertise

PROJECTS

Funding of around 80 million euros from regional, national and international projects in cooperation with industry and foundations (2021)



RESEARCH GROUPS

215 research groups, staffed by over 2,800 researchers, of which 380 are full professors

AWARDED PROJECTS

290 projects awarded under FP7 and 549 under H2020, of which 80 were coordinated by UPM, where UPM ranks as the top Spanish university in terms of H2020 return

UPM at the forefront of innovation in Spain



UNIVERSIDAD POLITÉCNICA DE MADRID

PARTICIPATION IN THE EUROPEAN INSTITUTE OF INNOVATION AND TECHNOLOGY

The UPM is a core partner of EIT Digital, EIT Health, EIT Raw Materials and EIT Climate-KIC, and network partner of EIT Urban Mobility, and UPM's EIT participation since 2014 is worth over 14 million euros

QUALIFIED RESEARCHERS

Every year, on average 3 researchers are hired under Ramón y Cajal contracts, five-year contracts designed to attract internationally experienced researchers with additional funding for research activities, and 6 researchers are employed under Juan de la Cierva contracts, two-year contracts for postdoctoral researchers

Technology transfer activities are the source of 15% of the UPM's budget.



BOOSTING R&D&I

One strategic policy line at the Universidad Politécnica de Madrid is to boost R&D&I and knowledge transfer to society. As a result of these two commitments, the UPM

ranks among the most active Spanish universities with respect to research activity and is first in terms of competitively secured funds.



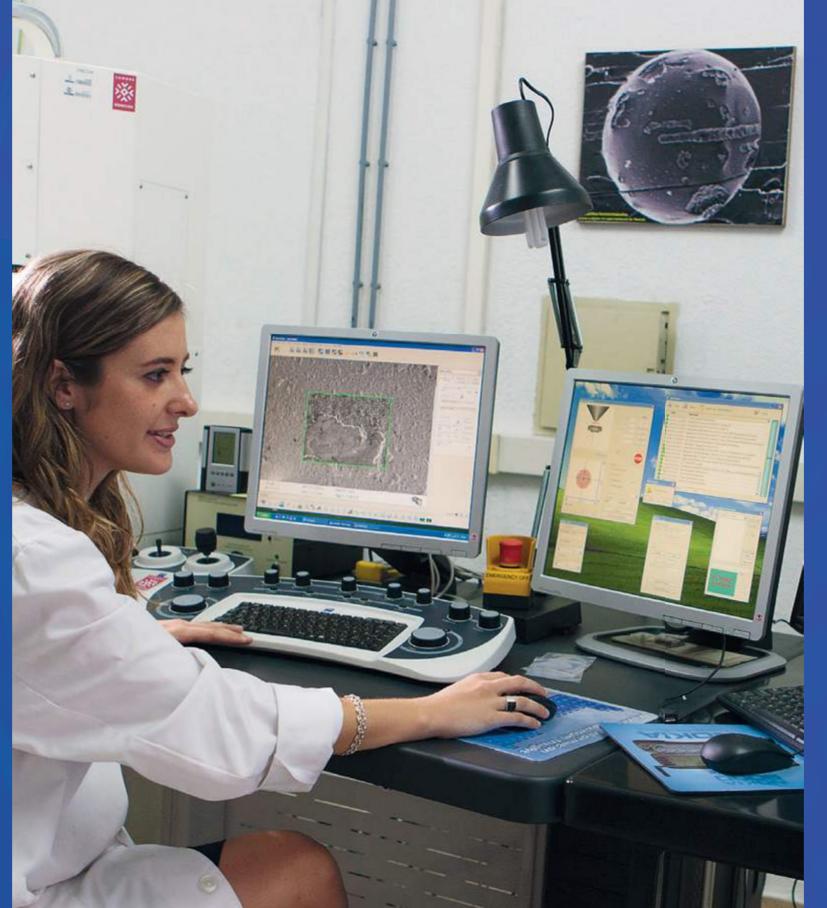


UNIVERSIDAD POLITÉCNICA DE MADRID

Close ties with industry

R&D&I cooperation with industry is one of the UPM's strengths. It is the Spanish university that collaborates most with industry in terms of both the number of projects and funding awards and agreements. It is home to one of the most active entrepreneurship environments with over 200 start-ups over the last 10 years as part of its entrepreneurship programme.







- 16 research centres (including the Plant Biotechnology and Genomics Research Centre (CBGP) which is a Severo Ochoa Centre of Excellence), 5 research institutes and 3 innovation centres.
- **73 laboratories**, registered in the laboratory network.
- A *singular* scientific and technical infrastructure (ICTS): Institute of Optoelectronic Systems and Microtechnology (ISOM).



- **69** university-industry partnerships.
- **516** patents in force and 570 patents granted.
- Since its launch in 2002, **actúaUPM** has supported the creation of over **310** start-ups with a five-year survival rate of over 60%, businesses that have attracted investments worth over 18 million euros a year.



- From 2009-2021, UPM projects received national funding worth 257.56 million euros.
- From 2009-2021, industry provided funding worth **209** million euros (art. 83)



- 44 PhD programmes
- Over **2,000 PhD students** enrolled in 2019/20
- About **200 PhD thesis defences** defences per year

R&D&I Centres and Institutes



UNIVERSIDAD POLITÉCNICA DE MADRID

Institutes

- Solar Energy Institute (IES)
- Institute of Nuclear Fusion "Guillermo Velarde" (IFN-GV)
- Institute of Automobile Research (INSIA)
- Ignacio da Riva Microgravity Institute (IDR)
- Institute of Optoelectronic Systems and Microtechnology (ISOM)

R&D&I Centres

- Transport Research Centre (TRANSyt)
- Laser Centre
- R&D&I Centre for Energy Efficiency, Virtual Reality, Optical Engineering and Biometry (CEDINT)
- Plant Biotechnology and Genomics Centre (CBGP)
- Centre for Industrial Electronics (CEI)
- UPM-AGROMUTUA-ENESA Joint Research Centre for the Management of Agricultural and Environmental Risks (CEIGRAM)
- Centre for Biomedical Technology (CTB)
- UPM-CSIC Joint Research Centre for Automation and Robotics (CAR)
- Centre for Advanced Materials and Devices for Information and Communications Technologies (CEMDATIC)
- Research Centre on Software Technologies and Multimedia Systems for Sustainability (CITSEM)
- Research Centre on Structural Materials (CIME)
- Centre for Computational Simulation (CCS)
- Information Processing and Telecommunications Centre (IPTC)
- Artificial Intelligence R&D&I Centre (AI.NNOVATION SPACE)
- Biodiversity Conservation and Sustainable Development R&D&I Centre (CBDS)
- Safety and Quality Technology Centre for the Energy and Mining Industries (TECMINERGY)

Other Technology Development, Innovation and Transfer Support Centres

- Technology Innovation Support Centre (CAIT)
- Technology Innovation Centre for Development (itdUPM)
- Centre for International Cultural Heritage Studies (CIESPC)

HIGHER
EDUCATION
AREAS IN
THE MADRID
REGION



UPM CAMPUSES

The Universidad Politécnica de Madrid has four university campuses distributed throughout the Madrid region. With fantastic public transport links, UPM campuses are urban spaces designed for teaching and research and offering cultural and sports services to build an exceptional scientific and intellectual environment.





Ciudad

Universitaria

(Moncloa)

Campus



Madrid City

Centre

Campus



which are home to 15 schools, 1 faculty, 1 affiliated centre, 5 research institutes and 16 R&D&I centres



ETS DE INGENIERÍA

Y DISEÑO INDUSTRIAL



CIUDAD UNIVERSITARIA (MONCLOA) **CAMPUS**

UPM SCHOOLS AND RESEARCH CENTRES

CEMDATIC CENTRO DE MATERIALES Y DISPOSITIVOS AVANZADOS PARA TECNOLOGÍAS DE LA INFORMACIÓN

ETS DE INGENIEROS

DE TELECOMUNICACIÓN

IPTC CENTRO DE PROCESADO

IES INSTITUTO DE ENERGÍA SOLAF

DE LA INFORMACIÓN Y LAS TELECOMUNICACIONES

ISOM INSTITUTO DE SISTEMAS OPTOELECTRONICOS Y MICROTECNOLOGIA

ETS DE INGENIEROS DE CAMINOS. **CANALES Y PUERTOS**

ICE INSTITUTO DE CIENCIAS

CIME CENTRO DE INVESTIGACIÓN

TRANSYT CENTRO DE

ETS DE INGENIERÍA AGRONÓMICA. **ALIMENTARIA Y DE BIOSISTEMAS ETS DE ARQUITECTURA**

ITDUPM CENTRO DE INNOVACIÓN EN TECNOLOGÍA PARA EL DESARROLLO HUMANO

CEIGRAM CENTRO DE ESTUDIOS INVESTIGACIÓN PARA LA GESTIÓN DE RIEGOS AGRARIOS Y MEDIOAMBIENTALES.
CENTRO MIXTO UPM-ENESA-AGROSEGURO

FACULTAD DE CIENCIAS **DE LA ACTIVIDAD FÍSICA**

CIESPC CENTRO INTERNACIONAL DE

ETS DE

EDIFICACIÓN

ESTUDIOS SORRE EL PATRIMONIO CUI TURAL

DE MONTES. FORESTAL

Y DEL MEDIO NATURAL

CBDS CENTRO DE I+D+I

DE LA BIODIVERSIDAD V

RECTORADO UPM

Escuela Técnica Superior de Arquitectura

Escuela Técnica Superior de Edificación

Forestal y del Medio Natural

Canales y Puertos

Telecomunicación

Deporte (INEF)

Rectorado

Microtecnología (ISOM)

Instituto de Energía Solar (IES)

Escuela Técnica Superior de Ingeniería Aeronáutica

Escuela Técnica Superior de Ingeniería Agronómica, Alimentaria y de Biosistemas

Escuela Técnica Superior de Ingenieros de Caminos,

Escuela Técnica Superior de Ingenieros de

Instituto de Sistemas Optoelectrónicos y

Instituto de Ciencias de la Educación (ICE)

Escuela Técnica Superior de Ingenieros Navales

Facultad de Ciencias de la Actividad Física y del

Escuela Técnica Superior de Ingeniería de Montes,

ETS DE INGENIERÍA AERONÁUTICA. Y DEL ESPACIO

PARQUE DEL OESTE

ETS DE INGENIEROS NAVALES

Centro de Estudios e Investigación para la Gestión de Riegos Agrarios y Medioambientales (CEIGRAM). Centro Mixto UPM-ENESA-AGROSEGURO

Centro de Investigación del Transporte (TRANSyT)

Centro de Materiales y Dispositivos Avanzados para Tecnologías de la Información y Comunicaciones (CEMDATIC)

Centro de Innovación en Tecnología para el Desarrollo Humano (itdUPM)

Centro de Investigación en Materiales Estructurales

Centro de Procesado de la información y las Telecomunicaciones (IPTC)

Centro Internacional de Estudios sobre el Patrimonio Cultural (CIESPC)

Centro de I+D+i para la Conservación de la Biodiversidad y el Desarrollo Sostenible (CBDS)

MADRID CITY CENTRE CAMPUS

Bretón de los Herr

UPM SCHOOLS AND RESEARCH CENTRES Espronceda

ETS DE **INGENIEROS INDUSTRIALES**

CEI CENTRO DE ELECTRÓNICA INDUSTRIAL

GUILLERMO VELARDE INSTITUTO DE FUSIÓN NUCLEAR (IFN-GV)

CAR CENTRO DE AUTOMÁTICA Y ROBÓTICA. CENTRO MIXTO UPM-CSIC

- Escuela Técnica Superior de Ingeniería y Diseño Industrial
- Escuela Técnica Superior de Ingenieros de Minas y Energía
- Escuela Técnica Superior de Ingenieros Industriales
- Escuela Técnica Superior de Ingenieros de Caminos, Canales y Puertos (Edificio Retiro)

- Calle Dr. Vallejo Nájera • Instituto de Fusión Nuclear "Guillermo Velarde" (IFN-GV)
- Centro de Electrónica Industrial (CEI)
- Centro de Automática y Robótica (CAR). Centro Mixto UPM-CSIC



DESCUBRIDOR

DIEGO DE ORDÁS

CANAL DE

Calle Espronceda





MONTEGANCEDO **CAMPUS UPM SCHOOLS AND** RESEARCH CENTRES **ETS DE INGENIEROS INFORMÁTICOS** AI.NNOVATION SPACE EN INTELIGENCIA ARTIFICIAL

- Madrid (CeSVIMA)





UPM Degree Programmes

The UPM delivers 53 single and joint bachelor programmes. Its degree programmes are highly regarded especially by industry. Language training and skills developed through co-curricular activities and professional accreditation are some of the distinctive traits of the UPM course catalogue.







The UPM also has a Leadership and Technology Centre (CLYT). The CLYT represents UPM's commitment to all-round student training. It builds upon the education students receive as part of their curriculum, providing professional training based on

the latest knowledge and terminologies used in the world of work. Ever since its creation, the UPM's CLYT has focused on personal capacity building for current and future leaders, offering training in leadership in a technological environment.

UNDERGRADUATE STUDIES

UPM bachelor degree programmes cover all fields of engineering, architecture, sport sciences and fashion design, key to modern-day society on which technological advances have a decisive impact and engineers and scientists play an increasingly important role. Renowned for its

teaching quality, the Universidad Politécnica de Madrid provides its students with an all-round scientific and technological training. Its course catalogue draws upon the excellence and experience of its schools.

UNDERGRADUATE DEGREE CATALOGUE BY FIELDS



- BEng in Food Engineering
 SCHOOL OF AGRICULTURAL, FOOD AND BIOSYSTEMS ENGINEERING
- BSc in Agricultural Engineering
 (+ MSc in Agricultural Engineering Fast-Track Option)

 SCHOOL OF AGRICULTURAL, FOOD AND BIOSYSTEMS ENGINEERING
- BSc in Agricultural Science and Bioeconomics school of Agricultural, FOOD AND BIOSYSTEMS ENGINEERING
- BSc in Agroenvironmental Engineering
 School of Agricultural, FOOD AND BIOSYSTEMS ENGINEERING
- BSc in Biotechnology
 School of Agricultural, FOOD AND BIOSYSTEMS ENGINEERING
- BSc in Environmental Technologies Engineering SCHOOL OF FOREST ENGINEERING AND NATURAL RESOURCES
- BSc in Forest Engineering
 (+ MSc in Forest Engineering Fast-Track Option)
 SCHOOL OF FOREST ENGINEERING AND NATURAL RESOURCES
- BSc in Natural Areas and Environmental Engineering
 SCHOOL OF FOREST ENGINEERING AND NATURAL RESOURCES



- BEng in Mining Technology
 SCHOOL OF MINING AND ENERGY ENGINEERING
- BSc in Aerospace Engineering
 SCHOOL OF AEROSPACE ENGINEERING
- BSc in Air Transport Management and Operations SCHOOL OF AEROSPACE ENGINEERING
- BSc in Chemical Engineering
 SCHOOL OF INDUSTRIAL ENGINEERING
 SCHOOL OF INDUSTRIAL DESIGN AND ENGINEERING
- BSc in Electrical Engineering
 SCHOOL OF INDUSTRIAL DESIGN AND ENGINEERING
- BSc in Energy Engineering
 SCHOOL OF MINING AND ENERGY ENGINEERING
 SCHOOL OF INDUSTRIAL ENGINEERING

- BSc in Energy Resources, Fuels and Explosives Engineering (+ MSc in Mining Engineering Fast-Track Option)
 SCHOOL OF MINING AND ENERGY ENGINEERING
- BSc in Geological Engineering
 SCHOOL OF MINING AND ENERGY ENGINEERING
- BSc in Industrial Design and Product Development SCHOOL OF INDUSTRIAL DESIGN AND ENGINEERING
- BSc in Industrial Electronics and Automation Engineering school of Industrial Engineering and Design
- BSc in Industrial Technologies
 (+ MSc in Industrial Engineering Fast-Track Option)
 school of Industrial Engineering
- BSc in Marine Engineering
 School of Naval Architecture and Marine Engineering
- BSc in Materials Engineering
 (+ MSc in Materials Engineering Fast-Track Option)
 school of CIVIL ENGINEERING (MONCLOA CAMPUS)
- BSc in Mechanical Engineering
 School of Industrial Design and Engineering
- BSc in Naval Architecture
 (+ MSc in Naval and Oceanic Engineering Fast-Track Option)

 SCHOOL OF NAVAL ARCHITECTURE AND MARINE ENGINEERING
- BSc in Organizational Engineering
 SCHOOL OF INDUSTRIAL ENGINEERING
- Joint BSc in Industrial Design and Product Development and Mechanical Engineering
 SCHOOL OF INDUSTRIAL ENGINEERING AND DESIGN
- Joint BSc in Electrical Engineering and Industrial Electronics and Automation Engineering

SCHOOL OF INDUSTRIAL ENGINEERING AND DESIGN



MATHEMATICS

BSc in Mathematics
 Technical Higher Education School





- BEng in Informatics Engineering (+ MSc in Informatics Engineering Fast-Track Option)
 SCHOOL OF COMPUTER ENGINEERING
- BEng in Software Engineering (+ MSc in Software Engineering)
 SCHOOL OF COMPUTER SYSTEMS ENGINEERING
- BEng in Telecommunication Technologies and Services Engineering
 (+ MSc in Telecommunication Engineering Fast-Track Option)
 SCHOOL OF TELECOMMUNICATIONS ENGINEERING
- BSc in Biomedical Engineering
 (+ MSc in Biomedical Engineering Fast-Track Option)
 SCHOOL OF TELECOMMUNICATIONS ENGINEERING
- BSc in Computer-Based Systems Engineering
 (+ MSc in Distributed and Embedded Computer Systems Engineering Fast-Track Option)

 SCHOOL OF COMPUTER SYSTEMS ENGINEERING
- BSc in Data Engineering and Systems
 SCHOOL OF TELECOMMUNICATIONS ENGINEERING
 SCHOOL OF TELECOMMUNICATIONS SYSTEMS ENGINEERING
- BSc in Data Science and Artificial Intelligence school of computer engineering school of computer systems engineering
- BSc in Electronic Communications Engineering school of Telecommunications systems engineering
- BSc in Geomatics
 School of Land Surveying, Geodesy and Mapping Engineering
- BSc in Geospatial Information Technologies Engineering school of Land Surveying, Geodesy and Mapping Engineering
- BSc in Information Society Technologies SCHOOL OF COMPUTER SYSTEMS ENGINEERING
- BSc in Information Systems
 SCHOOL OF COMPUTER SYSTEMS ENGINEERING
- BSc in Mathematics and Computing school of computer engineering
- BSc in Sound and Image Engineering
 (+ MSc in Sound Engineering Fast-Track Option)
 school of Telecommunications systems Engineering
- BSc in Telecommunications Systems Engineering school of Telecommunications systems engineering
- BSc in Telematics Engineering
 (+ MSc in Internet of Things Engineering Fast-Track Option)
 school of Telecommunications systems engineering

- Joint BSc in Computer Engineering and Business Administration and Management SCHOOL OF COMPUTER ENGINEERING
- Joint BSc in Communications Electronics Engineering and Telematics Engineering
 SCHOOL OF TELECOMMUNICATIONS SYSTEMS ENGINEERING



- BEng in Civil Engineering
 (+ MSc in Civil Engineering Fast-Track Option)
 SCHOOL OF CIVIL ENGINEERING (MONCLOA CAMPUS)
- BSc in Building Science
 (+ MSc in Technological Innovation in Building / Building Management Fast-Track Options)
 SCHOOL OF BUILDING TECHNOLOGY
- BSc in Foundations of Architecture (+ MSc in Architecture Fast-Track Option) school of Architecture
- Joint BSc in Building and Business Management and Administration
 SCHOOL OF BUILDING TECHNOLOGY
- Joint BSc in Civil Engineering and Business Management and Administration
 SCHOOL OF CIVIL ENGINEERING (MONCLOA CAMPUS)



SPORTS

BSc in Sport Sciences
 FACULTY OF PHYSICAL ACTIVITY AND SPORT SCIENCES (INEF)



FASHION AND DESIGN

- BA in Fashion Design
 MADRID COLLEGE OF FASHION DESIGN
- Joint BSc in Fashion Design (UPM) and Commerce (UCM)
 MADRID COLLEGE OF FASHION DESIGN (UPM) FACULTY OF TRADE AND TOURISM (UCM)

POSTGRADUATE STUDIES MASTER DEGREE PROGRAMME CATALOGUE BY FIELDS



AEROSPACE ENGINEERING

- MSc in Aeronautical Engineering SCHOOL OF AEROSPACE ENGINEERING
- MSc in Air Transport Systems SCHOOL OF AEROSPACE ENGINEERING
- MSc in Space Systems SCHOOL OF AFROSPACE ENGINEERING

AGRICULTURAL, FOREST AND **ENVIRONMENTAL ENGINEERING**

- Joint MSc in Agronomic Engineering and Agricultural Economics SCHOOL OF AGRICULTURAL, FOOD AND BIOSYSTEMS ENGINEERING
- MSc in Agricultural Engineering SCHOOL OF AGRICULTURAL, FOOD AND BIOSYSTEMS ENGINEERING
- MSc in Agro-Environmental Technology for a Sustainable Agriculture
- SCHOOL OF AGRICULTURAL, FOOD AND BIOSYSTEMS ENGINEERING
- MSc in Animal Production and Health SCHOOL OF AGRICULTURAL FOOD AND BIOSYSTEMS ENGINEERING
- MSc in Economics Applied to Agriculture, Food and Natural Resources
- SCHOOL OF AGRICULTURAL, FOOD AND BIOSYSTEMS ENGINEERING • MSc in Ecosystem Restoration
- SCHOOL OF FOREST ENGINEERING AND NATURAL RESOURCES
- MSc in Forest Engineering
 SCHOOL OF FOREST ENGINEERING AND NATURAL RESOURCES
- MSc in Forest Firefighting Technology SCHOOL OF FOREST ENGINEERING AND NATURAL RESOURCES
- MSc in Landscaping and Gardening SCHOOL OF AGRICULTURAL, FOOD AND BIOSYSTEMS ENGINEERING
- MSc in Uses and Management of Water Resources in the Natural Environment SCHOOL OF FOREST ENGINEERING AND NATURAL RESOURCES

ARCHITECTURE AND BUILDING TECHNOLOGY

- Joint MSc in Technological Innovation in Building and Building **Refurbishing and Restoration Works** SCHOOL OF BUILDING TECHNOLOGY
- Master of Architecture SCHOOL OF ARCHITECTURE
- MSc in Advanced Architectural Projects SCHOOL OF ARCHITECTURE
- MSc in Architectural Communication SCHOOL OF ARCHITECTURE
- MSc in Architectural Heritage Conservation and Restoration SCHOOL OF ARCHITECTURE
- MSc in Building Management SCHOOL OF BUILDING TECHNOLOGY
- MSc in Building Structures SCHOOL OF ARCHITECTURE
- MSc in Construction and Architectural Technology SCHOOL OF ARCHITECTURE
- · MSc in Building Refurbishment and Restoration Works SCHOOL OF ARCHITECTURE
- MSc in Cultural Heritage in the 21th century SCHOOL OF ARCHITECTUR
- MSc in Urban and Spatial Planning Urban planning track Urban studies track SCHOOL OF ARCHITECTURE
- MSc in Technological Innovation in Building SCHOOL OF BUILDING TECHNOLOGY

BIOTECH

- MSc in Biotechnology Agroforestry SCHOOL OF AGRICULTURAL, FOOD AND BIOSYSTEMS ENGINEERING
- MSc in Biomedical Engineering (*) SCHOOL OF TELECOMMUNICATIONS ENGINEERING
- MSc in Computational Biology (*) SCHOOL OF AGRICULTURAL, FOOD AND BIOSYSTEMS ENGINEERING SCHOOL OF COMPUTER ENGINEERING

MSc in Food Engineering Applied to Health SCHOOL OF AGRICULTURAL, FOOD AND BIOSYSTEMS

CIVIL, ENERGY, SUSTAINABILITY AND **ENVIRONMENTAL ENGINEERING**

- Joint MSc in Civil Engineering and Civil Engineering Systems SCHOOL OF CIVIL ENGINEERING (MONCLOA CAMPUS)
- MSc in Civil Engineering
 SCHOOL OF CIVIL ENGINEERING (MONCLOA CAMPUS)
- MSc in Civil Engineering Systems SCHOOL OF CIVIL ENGINEERING (MONCLOA CAMPUS)
- MSc in Energy Efficiency in Buildings, Industry and Transport SCHOOL OF MINING AND ENERGY ENGINEERING
- · MSc in Environmental Engineering SCHOOL OF INDUSTRIAL ENGINEERING
- MSc in Infrastructure Planning and Management SCHOOL OF CIVIL ENGINEERING (CITY CENTRE CAMPUS)
- MSc in Seismic Engineering: Soil and Structural Dynamics SCHOOL OF INDUSTRIAL ENGINEERING
- MSc in Soil and Groundwater Contamination (*) SCHOOL OF MINING AND ENERGY ENGINNEERING
- MSc in Engineering for Structures, Foundations and

SCHOOL OF CIVIL ENGINEERING (MONCLOA CAMPUS)

ENERGY. BUILDING CONSTRUCTION. CIVIL ENGINEERING. SUSTAINABILITY AND ENVIRONMENT

- MSc in Circular Economy Specialization in Minerals and Construction Products SCHOOL OF FOREST ENGINEERING AND NATURAL RESOURCES
- MSc in Circular Economy Especiality Consum and Sustainable Management of Natural Capital SCHOOL OF FOREST ENGINEERING AND NATURAL RESOURCES
- MSc in Energy Engineering SCHOOL OF INDUSTRIAL ENGINEERING

INDUSTRIAL ENGINEERING

- Joint MSc in Industrial Engineering and Automation and Robotics SCHOOL OF INDUSTRIAL ENGINEERING
- Joint MSc in Industrial Engineering and Industrial Electronics SCHOOL OF INDUSTRIAL ENGINEERING
- Joint MSc in Industrial Engineering and Nuclear Science and Technology
- SCHOOL OF INDUSTRIAL ENGINEERING Joint MSc in Industrial Engineering and Seismic Engineering SCHOOL OF INDUSTRIAL ENGINEERING
- MSc in Automation and Robotics SCHOOL OF INDUSTRIAL ENGINEERING
- MSc in Chemical Engineering SCHOOL OF INDUSTRIAL ENGINEERING
- MSc in Electrical Engineering SCHOOL OF INDUSTRIAL ENGINEERING
- MSc in Electromechanical Engineering SCHOOL OF INDUSTRIAL ENGINEERING AND DESIGN
- MSc in Industrial Design Engineering SCHOOL OF INDUSTRIAL ENGINEERING AND DESIGN MSc in Industrial Electronics (*)
- SCHOOL OF INDUSTRIAL ENGINEERING MSc in Industrial Engineering
- SCHOOL OF INDUSTRIAL ENGINEERING MSc in Mechanical Engineering
- SCHOOL OF INDUSTRIAL ENGINEERING MSc in Nuclear Science and Technology SCHOOL OF INDUSTRIAL ENGINEERING

 MSc in Production Engineering SCHOOL OF INDUSTRIAL ENGINEERING AND DESIGN

INFORMATION AND COMMUNICATIONS **TECHNOLOGIES**

- Ioint MSc in Telecommunication Engineering and Electronic Systems Engineering (*) SCHOOL OF TELECOMMUNICATIONS ENGINEERING
- Joint MSc in Telecommunication Engineering and Signal Theory and Communications (*) SCHOOL OF TELECOMMUNICATIONS ENGINEERING
- Joint MSc in Master in Telecommunication Engineering and Telematics Services and Network Engineering SCHOOL OF TELECOMMUNICATIONS ENGINEERING
- Master's Programme in Data Science (*) SCHOOL OF COMPUTER ENGINEERING
- MSc in Artificial Intelligence (*) SCHOOL OF COMPUTER ENGINEERING
- MSc in Cybersecurity SCHOOL OF TELECOMMUNICATIONS ENGINEERING
- MSc in Digital Innovation (*)
- SCHOOL OF COMPUTER ENGINEERING
- MSc in Digital Innovation / Health and Medical Data Analytics (*)
- SCHOOL OF COMPUTER ENGINEERING
- MSc in Distributed and Embedded Systems Software SCHOOL OF COMPUTER SYSTEMS ENGINEERING
- MSc in Electronic Systems Engineering SCHOOL OF TELECOMMUNICATIONS ENGINEERING
- MSc in Formal Methods in Computer Science (*) SCHOOL OF COMPUTER ENGINEERING
- MSc in Informatics Engineering SCHOOL OF COMPUTER ENGINEERING
- MSc in Internet of Things (IoT) (*)
- SCHOOL OF TELECOMMUNICATIONS SYSTEMS ENGINEERING MSc in Mobile Applications and Services Development for Mobile Devices
- SCHOOL OF COMPUTER SYSTEMS ENGINEERING
- MSc in Photonics Engineering (*)
 SCHOOL OF TELECOMMUNICATIONS ENGINEERING
- MSc in Photovoltaic Solar Energy (*) SCHOOL OF TELECOMMUNICATIONS ENGINEERING
- MSc in Signal Theory and Communications (*) SCHOOL OF TELECOMMUNICATIONS ENGINEERING
- MSc in Software and Systems (*) SCHOOL OF COMPUTER ENGINEERING
- MSc in Software Engineering SCHOOL OF COMPUTER ENGINEERING
- MSc in Statistical and Computational Information
- SCHOOL OF TELECOMMUNICATIONS ENGINEERING MSc in Telecommunication Engineering (*)
- SCHOOL OF TELECOMMUNICATIONS ENGINEERING • MSc in Telematics Services and Network Engineering SCHOOL OF TELECOMMUNICATIONS ENGINEERING
- MSc in Web Engineering
 SCHOOL OF COMPUTER SYSTEMS ENGINEERING
- MSc in Wireless Communications (*) SCHOOL OF TELECOMMUNICATIONS SYSTEMS ENGINEERING

MANAGEMENT AND ORGANIZATION

- MSc in Disaster Management SCHOOL OF MINING AND ENERGY ENGINEERING
- MSc in Ecological and Sustainable Tourism Management SCHOOL OF FORESTRY ENGINEERING AND NATURAL RESOURCES
- MSc in Economics and Innovation Management SCHOOL OF INDUSTRIAL ENGINEERING
- MSc in Organizational Engineering SCHOOL OF INDUSTRIAL ENGINEERING
- MSc in Project Planning for Rural Development and Sustainable Management SCHOOL OF AGRICULTURAL. FOOD AND BIOSYSTEMS ENGINEERING

 MSc in Strategies and Technologies for Development: Cooperation in a Changing World SCHOOL OF AGRICULTURAL, FOOD AND BIOSYSTEMS

OTHER BRANCHES OF ENGINEERING AND RELATED PROFESSIONS

- MSc in Acoustic Engineering SCHOOL OF TELECOMMUNICATIONS SYSTEMS ENGINEERING
- MSc in Applied Geomatics in Engineering and Architecture SCHOOL OF LAND SURVEYING, GEODESY AND MAPPING **ENGINEERING**
- MSc in Geological Engineering
 SCHOOL OF MINING AND ENERGY ENGINEERING
- MSc in Industrial Mathematics SCHOOL OF AEROSPACE ENGINEERING
- MSc in Materials Engineering SCHOOL OF CIVIL ENGINEERING (MONCLOA CAMPUS)
- MSc in Mining Engineering SCHOOL OF MINING AND ENERGY ENGINEERING
- MSc in Naval and Oceanic Engineering SCHOOL OF NAVAL ARCHITECTURE AND MARINE ENGINEERING
- MSc in Seismic Risk Analysis through Geospatial Technologies
- SCHOOL OF LAND SURVEYING, GEODESY AND MAPPING **ENGINEERING**
- MSc in Sustainable Mining SCHOOL OF MINING AND ENERGY ENGINEERING

SPORT SCIENCES

 MSc in Physical Activity and Sports Sciences FACULTY OF PHYSICAL ACTIVITY AND SPORT SCIENCES (INEF)

TECHNOLOGY AND INNOVATION IN FASHION DESIGN

 MSc in Engineering and Fashion Design MADRID COLLEGE OF FASHION DESIGN

- MSc in Secondary School Teacher Training (Graphical Expression Major) SCHOOL OF TECHNICAL HIGHER EDUCATION
- MSc in Secondary School Teacher Training (Mathematics Major) SCHOOL OF TECHNICAL HIGHER EDUCATION
- MSc in Secondary School Teacher Training (Physics and Chemistry Major) SCHOOL OF TECHNICAL HIGHER EDUCATION
- MSc in Secondary School Teacher Training (Physical **Education Major**) FACULTY OF PHYSICAL ACTIVITY AND SPORT SCIENCES (INEF)
- MSc in Secondary School Teacher Training (Technology Major) SCHOOL OF TECHNICAL HIGHER EDUCATION

(*) **Programme** taught in English



UNIVERSIDAD POLITÉCNICA DE MADRID

UPM, a window on the world

The UPM has two permanent international representations: UPM Representation to North America (based at Harvard University) and UPM Representation to Asia and Oceania (based at Tongji University).



COOPERATIVE AGREEMENTS

Around 1,600 academic and scientific agreements with international universities.



DOUBLE DEGREE AGREEMENTS

74 double degree agreements with European, Latin American, US and Chinese institutions.



STUDENTS STUDYING ABROAD

Around 1,500 UPM students participate in study abroad programmes every year, two-thirds under the Erasmus+ umbrella.

UPM INTERNATIONAL

The UPM attaches huge importance to international education as a means of learning about different cultures, relating to other societies and, ultimately, rounding out student training and improving their integration into a multicultural environment.

UPM leads the Magalhaes academic exchange network, as well as cooperation between Europe, Latin America and the Caribbean.



EELISA European Universities Alliance

The Universidad Politécnica de Madrid leads the EELISA alliance. EELISA brings together a higher education community of over 180,000 students, 16,000 academic, and 11,000 administrative and service staff that will benefit from the initiatives developed across this new European network. EELISA also aspires to transform higher education and play a key role in the search for solutions to the social and environmental challenges facing European society today.

The members of the EELISA alliance, coordinated by the UPM, are the technical universities of Bucharest, Budapest, Istanbul and the Friedrich-Alexander-Universität Erlangen-Nürnberg, three French grandes écoles specializing in science and energy linked to the Université Paris Sciences et Lettres (École de Ponts ParisTech, Mines ParisTech, Chimie ParisTech), and the renowned Pisa-based Scuola Normale Superiore and Scuola Superiore di Studi Universitari e di Perfezionamento Sant'Anna.



18 COOPERATION FOR DEVELOPMENT GROUPS



DISABILITY SUPPORT UNIT



GENDER EQUALITY UNIT

One UPM action line is to **promote a barrier-free university** guaranteeing equal opportunities and non-discrimination of people with disabilities. Another is to **encourage gender equality policies** within the university.

The UPM also has a strong and deep-rooted commitment to solidarity and development problems. Students and scholars put their knowledge, inventiveness and creativity to the service of good causes.



Social commitment

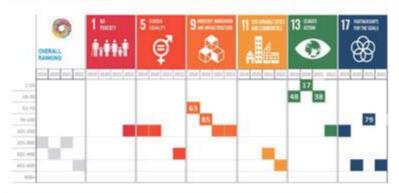
Sustainability as an economic, social and environmental whole is a core concern at the Universidad Politécnica de Madrid. This commitment to energy saving and environmental sustainability underlies UPM activities in all institutional, academic, research and business partnership spheres.

UPM and **SDGs**



THE IMPACT RANKINGS

UPM is positioned in the global and individual SDG rankings as follows:



UPM is one of the top 200 universities worldwide in terms of SDG1, SDG9 and SDG13 compliance.

The Universidad Politécnica de Madrid places sustainable development goals (SDGs) at the heart of its key fields of action. Within research, it aligns projects with and trains researchers in SDGs through the promotion of multi-stakeholder alliances. Within teaching, it includes SDGs in educational

programmes. Currently, the contents of 27% of the courses taught at UPM focus on SDG development. UPM set up the MSc in Development Strategies and Technologies and launched specialized training courses on sustainable cities. Within technology transfer, it promotes SDGs through the Centre of Technology Innovation for Development (itdUPM), Madrid City Council's Circular Economy Innovation Centre or development and sustainability university-industry partnerships.

Since 2018, the UPM holds UPM Technology and Innovation for Sustainable Development Goals Seminars aimed at increasing the visibility of research on key issues that are part of the international sustainability agenda. Over 700 researchers and 140 research groups have participated in these seminars.

Additionally, a number of UPM schools have SDG hubs. The SDG hubs are responsible for organizing actions aimed at achieving SDGs, promoting collaboration between students, and teaching and administrative staff and generating synergies that transform their school.



The UPM Language Centre delivers a flexible offering of language courses adapted to the demands of the higher education community and organizes different language accreditation examinations. Its primary

aim is to provide the members of the UPM's higher education community with more options to improve their communication in foreign languages and offer Spanish language and culture learning opportunities to improve the integration of students and staff that visit UPM.

The UPM Language Centre is one more example of the university's international spirit and active participation in academic mobility projects inside and outside Spain.

Campus life

Life at university is much more than just studying. The UPM offers extra-curricular activities promoting culture, sports, teamwork and solidarity.

- 152 student associations
- 17 sports clubs
- UPM symphony orchestra and band



Culture

The UPM sponsors a remarkable number of both institutional and student-led cultural activities. Students organize the annual *tuna*¹ contest and theatre festivals.

UPM cultural events revolve around music, including its annual concert cycle held at the National Auditorium of Music, Madrid's main concert hall, together with performances by the UPM's Choir (founded over 25 years ago), and the recently established UPM Symphony Orchestra and Band.



Sports

The UPM fosters sports. It has sports facilities at several schools, as well as a on the South and Montegancedo Campuses, also adapted for people with reduced mobility. Its school-based sports clubs encourage their students to partake of physical activity. Every year a large student contingent from the Universidad Politécnica de Madrid participates in the Spanish Higher Education Championships, and the UPM is high up in the medal table.



Associations

Student associations are the most important driving force behind culture, leisure and sports at UPM. There are over 160 associations, whose members cultivate personal relationships, develop their creativity and take pleasure in the wideranging activities that they organize.

UNIVERSIDAD

POLITÉCNICA

DE MADRID



1.- Group of university students in traditional university dress playing traditional instruments and singing serenades.



UNIVERSIDAD POLITÉCNICA DE MADRID

UNIVERSIDAD POLITÉCNICA DE MADRID

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