

# Doctorate Areas and their Programs

# POLITÉCNICA

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DOCTORATE PROGRAMS

## A WIDE AND ATTRACTIVE DOCTORATE OFFER!

### HUMAN RESOURCES

21 R&D&I Centres and Institutes

Strong collaboration with industry and foreign universities

46 Doctorate programs

### WHY UPM FOR DOCTORATE?

- MAIN TECHNOLOGICAL UNIVERSITY IN SPAIN
- SPECIALISED IN ENGINEERING, ARCHITECTURE, SPORTS AND FASHION
- SOURCE OF HIGH IMPACT KNOWLEDGE

Nº 1 IN ATTRACTING R&D CONTRACTS WITH INDUSTRY  
Nº 1 IN UNIVERSITY PATENT APPLICATIONS  
Nº 1 IN NEW TECHNOLOGY VENTURES CREATION

### RESEARCH & INNOVATION CENTRES

#### R&D&I CENTRES

- Biomedical Technology Centre (CTB)
- Centre for Advanced Materials and Devices for ICT (CEMDATIC)
- Centre for Automation and Robotics (CAR, UPM-CSIC)
- Center for Supercomputation & Simulation (CCS)
- Centre of Electronics for the Industry (CEI)
- Centre on Software Technologies and Multimedia Systems for Sustainability (CITSEM)
- Information Processing and Telecommunications Center (IPTC)
- Integral Domotics Center (CeDInt)
- Laser Centre
- Research Centre for Biotechnology and Plant Genomics (CBGP)
- Research Centre for the Management of Agricultural and Environmental Risks (CEIGRAM)
- Structural Material Research Centre (CIME)
- Transport Research Centre (TRANSyT)

#### R&D&I INSTITUTES

- Institute for Automobile Research "Francisco Aparicio" (INSIA)
- Institute for Microgravity "Ignacio da Riva" (IDR)
- Institute for Nuclear Fusion (IFN)
- Institute for Optoelectronic Systems and Microtechnology (ISOM)
- Institute for Solar Energy (IES)

#### INNOVATION CENTRES

- Centre for Support for Technological Innovation (CAIT)
- Innovation and Technology for Development Centre (itdUPM)
- AI.Innovation Space (UPM-Accenture Innovation Centre in Artificial Intelligence)

### STRONG COLLABORATION WITH INDUSTRY

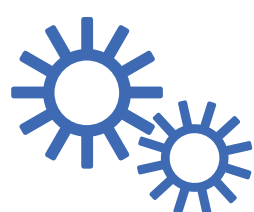
#### RESEARCH

- + 54 M€ in financed projects
- 14.75 M€ Regional projects
- 8.65 M€ National projects
- 15.71 M€ International projects
- 15.27 M€ Private projects and technical assistance to companies
- + 2,300 indexed publications

#### TECHNOLOGICAL INNOVATION

- 539 patents registered (from 1999)
- 40 patents currently in exploitation
- 71 University-Company Chairs
- + 200 spin-offs created and coached from 1998
- > 70% spin-off survival rate (3rd year)
- + 60M€ from investors (from 2007)

### DOCTORATE AREAS AND THEIR PROGRAMS



MANUFACTURING & INDUSTRY

#### MANUFACTURING & INDUSTRY

- Aerospace Engineering
- Automation and Robotics
- Economy and Innovation Management
- Engineering in Industrial Organization
- Environmental, Chemical and Material Engineering
- Electrical and Electronic Engineering
- European Doctorate in Industrial Management
- Fluid Mechanics
- Mechanical Engineering
- Production Engineering and Industrial Design
- Research, Modeling and Risk Analysis of the Environment
- Sustainable, Nuclear and Renewable Energy



ICT

#### ICT

- Artificial Intelligence
- Biomedical Engineering
- Communication Systems and Technologies
- Computation Science and Technology for Smart Cities
- Electronic Systems Engineering
- Mathematical Eng., Statistics and Operations Research
- Photovoltaic Solar Energy
- Systems and Services Engineering for the Information Society
- Software, Systems and Computing
- Telematic System Engineering



AGRICULTURE, FORESTRY AND ENVIRONMENT

#### AGRICULTURE, FORESTRY AND ENVIRONMENT

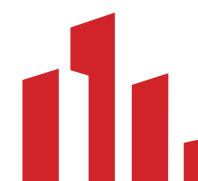
- Advanced Forest Research
- Agricultural Engineering
- Biotech and Genetic Resources of Plants and Assoc. Microorganisms
- Complex Systems
- Engineering and Management of Environment
- Environmental Technology for Sustainable Agriculture
- Project Planning for Rural Development and Sustainable Mngt



CIVIL ENGINEERING

#### CIVIL ENGINEERING

- Civil Engineering Systems
- Structural, Geotechnical and Material Engineering
- Naval Architecture, Marine and Ocean Engineering
- Technological Innovation in Building Construction
- Earth Informatics Engineering



ARCHITECTURE

#### ARCHITECTURE

- Advanced Architectural Design
- Architecture and Urban Planning
- Architecture Heritage
- Building and Architecture Technology
- Edification Structures
- Sustainability and Urban Regeneration



ARTS & SOCIAL SCI.

#### ARTS & SOCIAL SCI.

- Architecture Communication
- Architecture, Design, Fashion and Society
- Physical Activity and Sport Sciences
- Music and its Sciences and Technologies

+ 2,800 FACULTY ACADEMICS  
+ 670 RESEARCHERS CONTRACTED TO WORK IN R&D PROJECTS  
+ 450 STUDENTS GRANTED BY PROJECTS  
+ 1,200 ADMINISTRATION AND TECHNICAL STAFF  
+ 2,000 PhD STUDENTS



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DOCTORATE PROGRAMS ACCESS

[http://www.upm.es/Estudiantes/Estudios\\_Titulaciones/Estudios\\_Doctorado](http://www.upm.es/Estudiantes/Estudios_Titulaciones/Estudios_Doctorado)

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