# Universitat Politècnica de Catalunya **BarcelonaTech**

2019-2020 ACADEMIC YEAR



1115

**UNIVERSITAT POLITÈCNICA** DE CATALUNYA BARCELONATECH

### 30,161

### students

22,682 bachelor's degree students 5,269 master's degree students 2,210 doctoral degree students

18 schools on 8 campuses

### 3,147

teaching and research staff

2,006

### administrative and service staff

# 2,870

45.8%

international doctoral degree students (34.9% of them non EU)

64

bachelor's degrees 2020-2021



master's degrees 2020-2021 (30 taught in English) THE UPC IN FIGURES

32.3%

international master's degree students

46

doctoral programmes 2020-2021

# KNOWLEDGE AREAS

AERONAUTICAL AND AEROSPACE ENGINEERING

AGRICULTURE AND BIOSYSTEMS ENGINEERING

APPLIED SCIENCES: MATHEMATICS, STATISTICS, PHYSICS, OPTICS AND PHOTONICS

ARCHITECTURE, URBAN PLANNING AND BUILDING CONSTRUCTION

CIVIL, ENVIRONMENTAL AND GEOLOGICAL ENGINEERING

**INFORMATICS ENGINEERING** 

ENGINEERING FOR INDUSTRY: ENERGY, BIOMEDICAL, CHEMICAL, ELECTRICAL, MECHANICAL AND MATERIALS ENGINEERING

NAVAL, MARINE AND NAUTICAL ENGINEERING

TELECOMMUNICATIONS AND ELECTRONIC SYSTEMS

Library of the Barcelona School of Architecture (ETSAB)

# TEACHING

At the UPC students are trained to become professionals in engineering, architecture, sciences and technology who have the knowledge, abilities and skills to take on new challenges in keeping with technological efficiency and sustainability criteria. The UPC teaches bachelor's. master's and doctoral degrees and continuing education courses that are complemented by international mobility and double degree programmes. Students' participation and leadership in research projects and work placements foster their relations with the world of work and bolster their autonomy and initiative. The University is therefore a space for knowledge that stimulates learning and personal growth with a dynamic, motivating teaching model.

### 4,586 students on internship



international double-degree agreements with 32 universities

5,463

graduates of bachelor's and master's degrees

Various groups of students design and build single-seater vehicles and motorcycles with which they participate in international competitions such as Formula Student. (Photo: single-seater vehicle of students at the Barcelona East School of Engineering, EEBE)

708

higher education institutions with student exchange agreements

454

new doctoral degree students

40.6%

of UPC master's degrees are taught in English

58,860

former students registered in UPC Alumni 2,717

students on international mobility programmes 1,380 incoming students 1,337 outgoing students

# RESEARCH

Its leadership in research and innovation projects, the talent and rigor of its researchers and its network of cuttingedge facilities and equipment are the basis of the UPC's impressive positions in the main international scientific output rankings.

Over the last few years, the University has consolidated its role as a key agent in the progress of an economy that is increasingly based on knowledge and innovation and on collaboration and alliances with other research centers and researchers the world over.

292 doctoral theses defended

157

2,058

papers published

in indexed journals

scientific and technical awards received

21 focused research centers

4

research institutes

### 14

research centers that are members of the TECNIO network

Intelligent robotics to improve people's quality of life. (Photo: Tibi and Dabo, humanoid robots developed by the Institute of Robotics in Barcelona) www.iri.upc.edu

206

research groups

15 associated research centers

## KNOWLEDGE TRANSFER

The UPC generates knowledge and transfers it to industry with the aim of increasing businesses' capacity for innovation and competitiveness. One of its most significant lines of work is forging alliances, which are often international in nature, with large companies, institutions and corporations. It also attends to the needs of small and medium-sized businesses that wish to innovate, for which cooperating with the UPC has a multiplying effect. This activity takes shape in numerous agreements and research projects, the creation of technology-based companies, the generation and exploitation of patents and the scientific and technical services and facilities that Parc UPC makes available in order to generate progress and create jobs.

## 2,605

companies and entities with collaboration agreements

### 58 MEUR

income from R&D projects (2018)

A recreation of the rover that will explore Mars on the Mars 2020 mission. The Micro and Nanotechnology Research Group (MNT) participated in developing the wind sensor of the MEDA instrument on board the rover. Image: NASA/JPL-Caltech 327

spin-offs and start-ups set up since 1998



patents registered in the last year

654

research agreements and projects signed in 2018

1,713 ongoing research projects

# ALLIANCES

The UPC has woven, through the actions of the people of which it is composed, a complex network of international alliances with other universities, research institutions and companies. These alliances lead to new projects and are the basis for a good number of initiatives in which the word 'collaboration' plays a key part. A global, interconnected world that fosters the sharing of knowledge and experiences is the setting for these alliances without borders. academic cooperation agreements with international institutions



Universidade de Lisboa, Portugal; Grenoble INP Institut d'ingénierie et de management, France; Politecnico di Torino, Italy; Technische Universität Darmstadt, Germany; Royal Institute of Technology, Sweden; and Aalto University, Finland partner with the UPC under the European Commission's European Universities Initiative to attract and export talent. SINO-SPANISH CAMPUS



A university campus set up by the UPC and the Technical University of Madrid at Tongji University, China.

View of the city of Barcelona from the Güell Park, an exceptional point of reference that also plays a part in the international and creative spirit of the UPC.



| European Institute of | Innovation & Technology

he EIT is a body of the European L



The UPC is an active member in diverse Knowledge and Innovation Communities (KICs) founded by the European Institute of Technology. The KICs provide a framework where diverse stakeholders work in collaboration to generate innovative responses to diverse social challenges. Specifically, the UPC is a founding member of **KIC Innoenergy**, devoted to renewable energy and energy transition, and **KIC Urban mobility**, devoted to urban mobility and transition to zero carbon emissions. UPC is also an associate member of **KIC Raw materials** and **KIC Health**.

### AUIP

Asociación Universitaria Iberoamericana de Postgrado



Consortium for Advanced Studies Abroad

#### CESAER

Conference of European Schools for Advanced Engineering Education and Research

#### CINDA

Centro Interuniversitario de Desarrollo

#### CLUSTER

Consortium Linking Universities of Science and Technology for Education and Research

#### EUA

European University Association

### GUNI

Global University Network for Innovation

Heritage

Magalhães

### RedEmprendia

**RMEI** Réseau Méditerranéen des Écoles d'Ingénieurs

### TELESCOPI

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