

TECHNOLOGY CENTER

UNIVERSITAT POLITÈCNICA DE CATALUNYA BARCELONATECH

HEALTH TECHNOLOGIES

RESEARCH, DEVELOPMENT AND INNOVATION AT THE UNIVERSITAT POLITÈCNICA DE CATALUNYA (UPC)

The Universitat Politècnica de Catalunya · BarcelonaTech (UPC) specializes in the areas of architecture, science and engineering, including health technologies. In this field, the main focus areas are:

- Sensors
- Biomechanics
- Instrumentation
- Materials
- Robotics
- Optics
- Digital Health

As a result of the UPC's recognized research track record in its areas of specialization, we can offer a wide range of services:

- R&D technology transfer projects
- Consortium for national and H2020 projects
- Patents
- Technology assessment
- Specialized facilities

The UPC is the leading university in Spain in volume of research and technology transfer to companies, and has become one of the major hubs of knowledge in Southern Europe.

TECHNOLOGICAL CAPABILITIES



SENSORS

- Wearables
- · IoT
- Social media
- Biosensors



BIOMECHANICS

- Modelling of human movement
- Dynamic walking active orthoses



INSTRUMENTATION

- Biomedical signal processing
- Electronics
- Clinical equipment



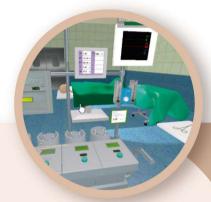
MATERIALS

- Biomaterials
- Prostheses
- Bioabsorbents
- Smart textiles
- Nanotechnology
- Characterization



SPORT

- Injury prevention
- Performance improvement
- Healthy lifestyle



EDUCATION & TRAINING

- Serious games
- Visualization of data and 3D modelling
- Anatomical reconstruction
- Simulation





ROBOTICS & VISION

- Robotics and surgery
- Infrastructures
- Assistive robotics



REHABILITATION

- Physical and cognitive virtual rehabilitation
- Sight, speech, hearing devices for mobility
- Fixation devices robotics



ROBOTICS

- Surgical robotics
- Rehabilitation engineering
- Mobile robotics



OPTICS

- Biophotonics
- Physiological optics
- Ophthalmic optics
- Visual optics



DIGITAL HEALTH

- Big data
- Bioinformatics
- Cybersecurity
- Mobile health
- Computer graphics
- Serious games



PERSONALIZED HEALTH

- Illness prevention
- Diagnosis
- Treatments
- Patient care



ACTIVE & ASSISTED LIVING

- Connected health
- Data compaction and knowledge extraction
- eHealth
- Elderly assistance

