



DEIB

BIOENGINEERING RESEARCH AREA

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The Bioengineering Area applies Engineering methodologies and technologies to research on biological systems and health sciences. Methods, devices, and systems are developed with a multidisciplinary approach, which starts from the molecular and the cellular level and goes all the way up to complex living organism, with the purposes of improving diagnosis and therapy as well as health and daily life structures and services.

The Bioengineering Area supports education and training activities encompassing the undergraduate and graduate Courses in Biomedical Engineering, as well as the interdepartmental Bioengineering PhD program. It also promotes the dissemination of activities and results to private and public health organizations, industrial environments, biomedical engineering professionals, and society, through technical support, consulting, research and development as well as transfer of knowhow, innovative products and technologies.

The research activities of the Bioengineering Area are divided into three main lines, which reflect the different aspects of Biological and Health Technologies:

"Analysis of biological systems and e-health", "Biological and Biomechanical Engineering", "Technologies for diagnosis, therapy and rehabilitation".

These application research lines integrate several fields of expertise concerning data, signal and image processing, modeling, ICT, instrumentation technologies, motion capturing, robotics, tissue engineering, biomechanics, bio and microfluidics and micro and nano-technologies.

The 32 faculty and permanent staff members are supported by about 80 post-docs and PhD students, contributing to both research and educational activities.



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