APPLICATIONS AND REQUIREMENTS

International candidates must have a Bachelor's degree in an engineering discipline or have an equivalent diploma. Adequate knowledge of English is mandatory (B2 level).

Candidates must apply online at www.bionicsengineering.com. Successful applicants must follow the University of Pisa's standard enrolment procedure.

More details at: https://www.unipi.it/index.php/enrolment.

ENROLMENT AND FEES

Enrolment instructions are available at matricolandosi.unipi.it.
Fees depend on the student's country of origin and vary from € 356 to € 2,556 for each academic year.
Information on fee waivers and scholarships can be found at www.unipi.it/tuition-fees.

Website
www.bionicsengineering.com

Study Programme Director
Prof. Giovanni Vozzi
g.vozzi@ing.unipi.it

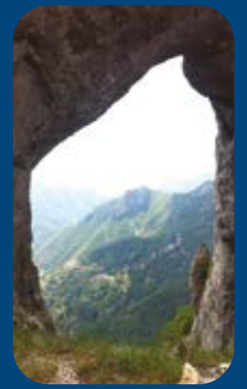
Programme Coordinator and Welcome Officer
Barbara Conte
barbara.conte@unipi.it

General Information
Dr. Federica Radici
federica.radici@santannapisa.it

www.unipi.it
http://sssa.bioroboticsinstitute.it/

UNIVERSITÀ DI PISA

MSc Programme in Bionics Engineering



UNIVERSITÀ DI PISA

The University of Pisa (UNIPI) is a public institution composed of twenty departments, with high level research centres in the fields of agriculture, astrophysics, computer science, engineering, medicine and veterinary medicine. Established in 1343, UNIPI is one of the most prestigious Italian higher education institutions and a modern centre for teaching and advanced research.

SCUOLA SUPERIORE SANT'ANNA

The Scuola Superiore Sant'Anna di Studi Universitari e di Perfezionamento (SSSA) is a public university, with special autonomy, working in the field of applied sciences: Economics and Management, Law, Political Sciences, Agricultural Sciences and Plant Biotechnology, Medicine, and Industrial and Information Engineering. SSSA aims at pursuing excellence by experimenting with innovative methods in research and education.

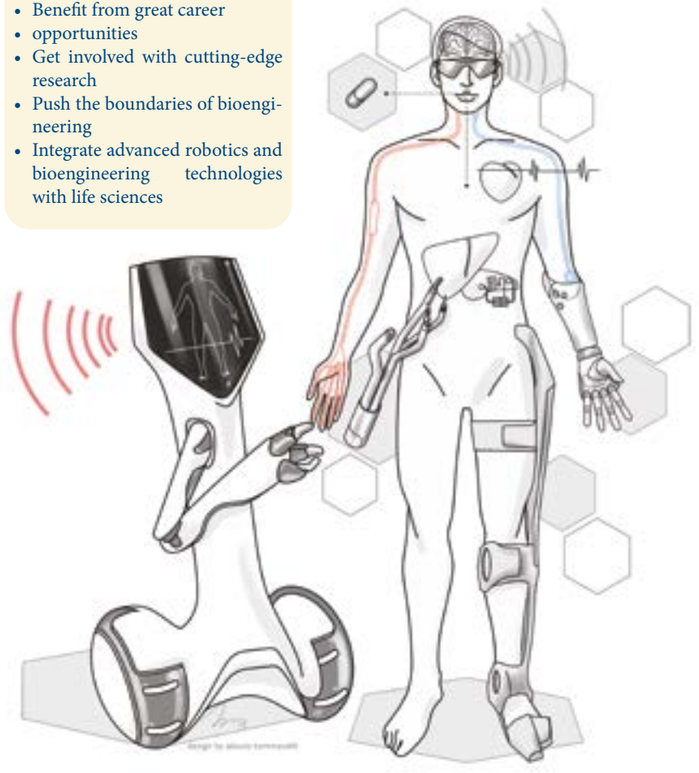
Study at the Department of Information Engineering (UNIPI) and at the BioRobotics Institute (SSSA)

The Department of Information Engineering has relevant expertise in the following areas: Biomedical Engineering, Electromagnetics, Electronics, Computer Engineering and Communications.

The BioRobotics Institute is at the forefront of advanced research in biorobotics and bioengineering.
It aims at furthering the knowledge of recent engineers graduates and supporting them in becoming scientists, inventors and entrepreneurs who areable to invent and solve problems, as well as to create new companies in high technological sectors, such as biomedical engineering, microengineering and robotics.

COME AND THRIVE

- Enjoy a valuable and multicultural learning experience
- Benefit from great career
- opportunities
- Get involved with cutting-edge research
- Push the boundaries of bioengineering
- Integrate advanced robotics and bioengineering technologies with life sciences



PROGRAMME OVERVIEW

FIRST YEAR	ECTS
Methods and techniques of measurement and data analysis	6
Statistical signal processing	6
Bioinspired computational methods	12
Analysis of bionic and robotic system	12
STUDENTS MAY CHOOSE ONE OF TWO TRACKS	
NEURAL ENGINEERING	
Applied Brain Science	12
BIOROBOTICS	
Bioinspired and soft robotics	12
ELECTIVE COURSES	**ECTS**
Robot programming frameworks and IoT platforms Electronics for Bionics engineering	6
Advanced materials for bionics	6
Neuromorphic engineering	6
Artificial intelligent systems for human identification	6
Probability and Biostatistics	6
Electronics for Bionics Engineering	6
SECOND YEAR	**ECTS**
Lab Training	3
Final Examination	15
NEURAL ENGINEERING	
Interactive systems and affective computing	12
Neural Prostheses	12
Integrative cerebral function and image processing	12
Bionic senses	6
BIOROBOTICS	
Design principles for bionic tissue engineering	6
Wearable robotics	12
Rehabilitation and assistive technologies	12
Advanced interventional and therapeutic technologies	12

Bionics is a new frontier of biomedical engineering. Our Bionics engineering programme aims at integrating robotics and bioengineering technologies with life sciences, such as medicine and neuroscience and materials science with the ultimate goal of inventing and deploying a new generation of biomimetic machines, human-centred healthcare and more generally assistive technologies.

PROFESSIONAL PROSPECTS

Our graduates develop strong interdisciplinary skills and learn how to use an approach which is oriented towards problem solving. By the end of the programme they will possess a high quality engineering curriculum attractive to many innovative industries based on biomedical engineering, on micro/nano biotechnologies, and on advanced robotics.