



PhD in BIOINGEGNERIA / BIOENGINEERING - 38th cycle

THEMATIC Research Field: CONTROL METHODS FOR SOFT ROBOTS IN HEALTHCARE

Monthly net income of PhDscholarship (max 36 months)
€ 1250.0
In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity	
Motivation and objectives of the research in this field	Continuum robots allow for minimally invasive surgical intervention, also in the cardiovascular domain. The aim of the PhD project is to implement real-time control methods for an innovative continuum robot, guaranteeing shared autonomy with the human expert, who is still in the loop. https://www.artery-project.eu/
Methods and techniques that will be developed and used to carry out the research	<ul style="list-style-type: none"> - Kinematics and dynamics modelling - Path planning and path re-planning - Learning based-control methods - Testing/ validation and results analysis
Educational objectives	<ul style="list-style-type: none"> - Learning to organize and manage a research project - Programming/ robot control/ data analysis - Team-work capabilities - Student supervision and mentoring - Public speaking and outreach activities
Job opportunities	Academia (in Italy or abroad) Research centers Hospitals Industry: medical robotics, industrial robotics
Composition of the research group	1 Full Professors 1 Associated Professors 3 Assistant Professors 15 PhD Students



Name of the research directors	PROF. ELENA DE MOMI
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Contacts	
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Additional support - Financial aid per PhD student per year (gross amount)	
Housing - Foreign Students	--
Housing - Out-of-town residents (more than 80Km out of Milano)	--

Scholarship Increase for a period abroad	
Amount monthly	625.0 €
By number of months	6

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information
Leonardo Robotics Lab facilities