

Politecnico di Milano

PhD in Bioengineering

Research Title: METODI E DISPOSITIVI PER CHIRURGIA MININVASIVA ASSISTITA DA ROBOT

Scholarships and Financial support	
Monthly net income of PhD scholarship (max 36 months)	€ 1200 (In case of a change of the welfare rates during the three-year period, the amount could be slightly modified)
Number of scholarships	1
Beginning of PhD	February 1, 2018
Deadline for application	<i>December 4, 2017</i>
Context of the research activity	
Motivations and objectives of the research in this field	See: http://www.smartsurg-project.eu/ The research aims at improving surgical robotics effectiveness by adding augmented reality capabilities and introducing autonomy in guidance or avoidance deformable active constraints.
Methods and techniques that will be developed and used to carry out the research	During/at the completion of this PhD, the student will be able to: <ul style="list-style-type: none">• Autonomously design and implement augmented reality modules related to active constraint management• Work in a real-world scenario by operating with both engineers and clinicians• Develop a solid background robotic assisted surgery

Educational objectives	<ul style="list-style-type: none"> - Team work in surgical robotics research - International collaboration - Testing on ad/hoc designed phantoms
Job opportunities	After the completion of the PhD, the candidate will have opportunities of continuing the research as postdoc in robotics worldwide, or to be hired by European main robotics and/or biomedical devices players
Composition of the research group	Number of Full Professors 1 Number of Assistant Professors 1 Number of Post-Docs 1 Number of PhD students 10 www.nearalb.polimi.it
Names of the research directors	<i>Proff. Giancarlo Ferrigno, Elena De Momi</i>
Contacts	<i>Giancarlo Ferrigno. +390223993371</i> <i>giancarlo.ferrigno@polimi.it</i>
Additional support	
<u>Funding for educational activities</u> (purchase of study books and material, funding for participation in courses, summer schools, workshops and conferences): funding per PhD student per year	<i>2nd year: euros per student (min € 1370 obbligatorio)</i> <i>3rd year: euros per student (min € 1370 obbligatorio)</i>
<u>Teaching assistantship:</u> availability of funding in recognition of support to teaching activities by the PhD student	There are various forms of financial aid for activities of support to the teaching practice. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.
<u>Computer availability:</u>	<i>1st year: individual use</i> <i>2nd year: individual use</i> <i>3rd year: individual use</i>
<u>Desk availability:</u>	<i>1st year: individual use</i> <i>2nd year: individual use</i> <i>3rd year: individual use</i>
Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other informations	
A shared desk and computer will be given to the student for the time needed to carry out research. Short periods of teaching assistantship are foreseen during the program.	