

Politecnico di Milano

PhD in Bioengineering

**Research Title: ART 3.5D – a novel algorithm to label
arteries and veins from 3D angiography**

Scholarships and Financial support	
Monthly net income of PhD scholarship (max 36 months)	€. 1200.00 (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	1/02/2017
Deadline for application	05/12/2016
Context of the research activity	
Motivations and objectives of the research in this field	The PhD candidate will work in close collaboration with engineers and neurosurgeons in order to develop methods and tools for dynamic classification of veins and arteries of the brain vasculature using the angiogram dataset. The webpages of the research groups involved are: www.nearlab.polimi.it
Methods and techniques that will be developed and used to carry out the research	The PhD candidate will use medical image analysis methods for developing innovative tools/ instruments for surgical applications.
Educational objectives	The student will attend the PhD program in Bioengineering and summer/winter schools in the field of medical imaging/signal processing.
Job opportunities	After 3-year course, the PhD will have opportunities of applying for positions in companies and research centres dealing with imaging techniques and image processing methods.

Composition of the research group	1 Assistant Professor: Elena De Momi 1 Full Professor: Giuseppe Baselli 1 Full Professor: Giancarlo Ferrigno 1 Neurosurgeon: Francesco Cardinale
Names of the research directors	<i>Elena De Momi</i> <i>Giuseppe Baselli</i>
E-mail address, phone number and web-page	elena.demomi@polimi.it 0039 02 2399 9017 http://www.nearlab.polimi.it/index.php/home
List of Universities, Companies, Agencies and/or National or International Institutions that are cooperating in the research	Centro Claudio Munari per l'epilessia, Ospedale Niguarda Medtronic, USA
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>