

### Marie Curie Initial Training Network

# MEDICAL IMAGING USING BIO-INSPIRED AND SOFT COMPUTING



Sixteen 3-year positions (starting July 1<sup>st</sup>, 2010) as Early Stage Researcher are available to work in the EU project "Medical Imaging using Bio-inspired and Soft Computing" (MIBISOC), a Marie Curie Initial Training Network funded by the European Commission's 7th Framework Programme. We are looking to recruit an Early Stage Researcher with less than 4 years of research experience after graduation. Successful candidates will have the opportunity to study for a research-level degree (PhD) and work within a highly collaborative and interdisciplinary network of leading researchers.

#### Job description

The MIBISOC network offers an intensive research training programme between 12 participating institutions. The successful candidate will be expected to take part actively in the training activities organized by MIBISOC (courses, secondments, workshops, etc) and to develop her/his research project.

#### **Benefits**

Employment contract with full social security. The contract will be with the partner employing. Payment according to the rules of Marie Curie Initial Training Networks.

The salary of a PhD position is set in accordance with the regulations of the Marie Curie Initial Training Network (<a href="http://ec.europa.eu/research/mariecurieactions/careers\_en.htm">http://ec.europa.eu/research/mariecurieactions/careers\_en.htm</a>) within the European Commission's 7th Framework Programme, the labour laws and regulations of the hosting institution and its country. Additional, non-salaried, non-taxable contributions toward moving and travel to MIBISOC activities and conferences are available from MIBISOC's funds.

#### **How To Apply**

We particularly encourage women to apply for these positions.

Send the following documents:

- Application Form filled out (available on www.mibisoc-itn.eu)
- Curriculum Vitae (maximum 2 pages)
- Letter of motivation, including aptitude for pursuance of the programme
- Summary (1 page) of the most relevant previous experience (if any) in related fields
- Scanned copies of academic transcripts and degree certificates
- Proof of English proficiency (E.g. IELTS, TOEFL)
- Letters of recommendation are welcomed

to this e-mail address: applications@mibisoc-itn.eu

The selection of ESRs will follow a process based on:

- Equal access opportunities between men and women
- The academic and scientific skills and the relevance of their experience with the research area
- The expected impact of the proposed training on the researchers' career
- The conformity with the required criteria for eligibility of the researchers within Marie Curie Initial Training Networks



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#### **Application Deadline**

First call: 28/02/2010. The first call decision by the 24<sup>th</sup> March 2010.

Second call (if required): 07/05/10. The second call decision by the 28<sup>th</sup> May 2010

The EU has strict eligibility criteria for Early Stage researchers:

- Applicants should be in the first 4 years (full-time equivalent) of their research careers, including the period of research training, starting at the date of obtaining the degree which would formally entitle them to embark on a doctorate. Students who are completing their master's degree during the current semester, with the intention of starting the doctoral position in the spring semester of 2010, are also invited to apply. The qualifying education must be completed before enrolment in the MIBISOC project.
- The researcher shall not be a national of a State in which the beneficiary's research team appointing her/him is located.
- At the time of appointment, the researcher should not have resided or carried out her/his main activity in the country of the beneficiary for more than 12 months in the 3 years immediately prior to her/his appointment

Applicants need to have a good working knowledge of English, as all the scientific communication and the MIBISOC events will be in English.

#### **Available Research Projects:**

Job Description	Host Institution	Reference
Deformable Registration of Medical Images Using	European Centre for Soft	ESR 1
Soft Computing	Computing (Spain)	
Genetic Fuzzy Systems and Deformable Models for	European Centre for Soft	ESR 2
Medical Image Segmentation	Computing (Spain)	
Image Restoration: Noise Reduction	University of Gent (Belgium)	ESR 3
Image Restoration: Similarity Measures	University of Gent (Belgium)	ESR 4
Application of Automatic Algorithm Configuration in Image Analysis	Université Libre de Bruxelles (Belgium)	ESR 5
Development of Tools for Automatic Algorithm Configuration	Université Libre de Bruxelles (Belgium)	ESR 6
Manifold Learning for Medical Imaging: developing a 3D interactive MR image segmentation system	University of Nottingham (UK)	ESR 7
Manifold Learning for Medical Imaging: developing methods for identifying non-linear structures in medical imaging data	University of Nottingham (UK)	ESR 8
Detection and analysis of anatomical structures in multi-dimensional image sets	Università degli Studi di Parma (Italy)	ESR 9
Bio-inspired techniques for multi-dimensional image analysis	Università degli Studi di Parma (Italy)	ESR 10
Multi-objective Genetic Fuzzy Systems	University of Granada (Spain)	ESR 11
Evolutionary Algorithms for continuous optimization	University of Granada (Spain)	ESR 12
Vision-based assisted flexible endoscopy	Henesis (Italy)	ESR 13
Multimodal behavioural assessment and prediction in rehabilitation	Henesis (Italy)	ESR 14
Development of novel image analysis techniques for preclinical and clinical studies, involving the problems of segmentation and non-rigid registration in real time medical imaging data	Universitätsklinikum Freiburg (Germany)	ESR 15
Development of novel image analysis techniques for preclinical and clinical studies, monitoring of preclinical or clinical pharmaceutical studies with imaging technologies	Universitätsklinikum Freiburg (Germany)	ESR 16