



CYPRUS UNIVERSITY OF TECHNOLOGY (CUT)

DEPARTMENT OF ELECTRICAL and COMPUTER ENGINEERING and INFORMATICS

Full Time Marie Curie Experience Researcher Position (ER3) in the field of *Machine learning in processing 2D/3D/4D cultural assets.*

Applications are invited from candidates who possess the necessary qualifications in order to fill one (1) full time Marie Curie Experience Researcher (ER) Fellow Position in the Digital Heritage Research Lab of the Cyprus University of Technology (CUT) in the research fields of 2D/3D/4D Digitalization (automated methodologies for 2D and 3D data acquisition: photogrammetry, Laser Scanning, depth camera sensors, SfM etc.), Computer Vision (Image processing, geometric invariant visual features, data-preprocessing/filtering, Pattern recognition), Computer Graphics (modeling), Metadata enrichment for tangible and intangible Cultural Heritage (CH), Big Data and Cloud Computing applications in CH.

The selected Marie Curie ER will work for 15 months within the ITN-Digital Cultural Heritage (ITN-DCH) Marie Curie ITN Programme which, is the only EU funded programme bringing together fourteen (14) leading European Institutions as full partners and nine (9) other as associated partners in a transnational network, aiming at implementing a multidisciplinary and intersectorial research and training programme between the academic and the industrial partners.

Description

Cultural Heritage (CH) is an integral element of Europe and vital for the creation of a common European identity and one of the greatest assets for steering Europe's social, economic development and job creation. However, the current research training activities in CH are fragmented and mostly designed to be of a single-discipline, failing to cover the whole lifecycle of Digital Cultural Heritage (DCH) research, which is by nature a multi-disciplinary and intersectorial research agenda. ITN-DCH brings for the first time worldwide top Universities, research centers, industries and CH stakeholders, end-users and standardized bodies together to collaborate in order to train the next generation of researchers in DCH. The project aims to analyze, design, research, develop and validate an innovative multi-disciplinary and intersectorial research training framework that covers the whole lifecycle of digital CH research for cost-effective preservation, documentation, protection and presentation of CH. ITN-DCH targets innovations that cover all aspects of CH ranging from tangible (books, newspapers, images, drawings, manuscripts, uniforms, maps, artifacts, archaeological sites, monuments) to intangible content (e.g., music, performing arts, folklore, theatrical performances) and their inter-relationships. The project also aims to boost the added value of CH assets by re-using them in real application environments (protection of CH, education, tourism industry, advertising, fashion, films, music, publishing, video games and TV) through research on (i) new personalized, interactive, mixed and augmented reality enabled e- services, (ii) new recommendations in data acquisition, (iii) new forms of representations (3D/4D) of both tangible /intangible assets and (iv) interoperable metadata forms that allow easy data exchange and archiving. One ER will be recruited by the host organization of the Cyprus University of Technology.

Position:

One ER to be recruited by the host organization of the Cyprus University of Technology in Limassol, Cyprus for the duration of 15 months under full employment contract. The ER fellow will work on: **Machine learning in processing 2D/3D/4D cultural assets.**

Moreover, the fellowship research training will focus on the following objectives:

- *Study and analysis of the state of the art on machine learning (unsupervised, semi supervised, supervised) for summarization, classification, and identification in cultural heritage applications*
- *Classification of relevant content in time dimension for cultural monuments (4D)*
- *Multimedia summarization in 4 dimensions.*

The Applicant should:

1. Have completed his/her PhD from a recognized university in Computer Science, Library and Information Science, Geomatics, Computer- / Electrical Engineering, and/or Surveying Engineering and at the time of recruitment by the host organisation, have less than five years of full-time equivalent research experience in the above fields, with excellent programming skills and very good language and communication / implementation skills, **or**
2. In case that the candidate has no PhD: have completed at least a four or five years education cycle (e.g. Diploma in Engineering, Master's Degree etc) from a recognized university in Computer Science, Library and Information Science, Geomatics, Computer- / Electrical Engineering, and/or Surveying Engineering. **Moreover**, the candidate shall have *at least four (4) but no more than five (5) years of full-time equivalent research experience* in the above fields, with excellent programming and very good language and communication / implementation skills.
3. At the time of recruitment, **not have resided** (or carried out his/her main activity e.g. work, studies, etc.) in Cyprus, **for more than 12 months in the last 3 years** immediately prior to the reference recruitment date.
4. **Excellent** knowledge of the English language at a proficiency level (spoken and written)

Career Stage

Experience Researcher according to the FP7-PEOPLE ITN2013 (Marie Curie Actions) Regulations. Eligibility rules for the Marie Curie fellows can be found at the FP7-PEOPLE 2013 Work programme:

http://ec.europa.eu/research/mariecurieactions/documents/about-mca/actions/itn/marie-curie-actions-fellowships-people-wp-201301_en.pdf

Research Profile

Experience Researcher

Benefits

- Competitive salary to cover living, mobility costs, social and health insurance (**according to the FP7-PEOPLE ITN2013 Marie Curie Actions Programme regulations**).
- In the context of a personal Career Development Plan, opportunities for international collaboration and exchanges to world-class academic and industrial partners will take place.
- Training in a range of state-of-the-art scientific skills, intellectual property and project management skills and visiting GR language courses.
- Secondment placements within the network's partners (up to max. two months).

For more details on the fellow salary and other benefits/eligibility criteria please refer to the FP7-

PEOPLE Marie Curie actions website at:

http://ec.europa.eu/research/mariecurieactions/careers_en.htm and the FP7-PEOPLE ITN2013 work programme: http://ec.europa.eu/research/mariecurieactions/documents/about-mca/actions/itn/marie-curie-actions-fellowships-people-wp-201301_en.pdf

Applicants are requested to submit the following:

1. **Detailed Curriculum Vitae - 2 copies**
2. **Motivation Letter - 2 copies**
3. **Official certified transcripts of grades from all academic institutions of higher education listed in his/her application, certified copies of degrees, or/and certifications of fulfillment of the required obligations for entering the ER position - 2 copies**
4. **Official certified copies of titles in English language - 2 copies**
5. **Names of three referees who, upon request, can provide recommendation letters - 2 copies**
6. **Copies of any related research papers or other significant work by the applicant - 2 copies**

Applications must be submitted in a closed envelope marked as "*Application for FP7-PEOPLE Marie Curie ITN-DCH Research Fellow Position(ER3)*" – Department of Electrical and Computer Engineering and Informatics at the premises of the Cyprus University of Technology, Human Resource Department, Limassol Savings Co-operative Bank Building, 4th Floor, Arch. Kyprianos 31, 3036 Limassol via express courier or must be sent via registered post (P.O. Box 50329, CY-3603 Limassol) with a clearly visible post office stamp of a date not later than 1st of September 2015, 24:00 which is the deadline for the submission of the applications.

Applicants are also requested to send their applications electronically to these email addresses marinos.ioannides@cut.ac.cy before the deadline of 1st of September 2015, 24:00, however, please note that the electronic submission alone will not be considered as a formal application unless the printed application is received as requested in the previous paragraph.

For further information please contact Dr. Marinos Ioannides at email marinos.ioannides@cut.ac.cy and telephone number +357-25-002020 or visit the website www.itn-dch.eu and www.itn-dch.org.

Research Fields

Computer Science, Geomatics, Photogrammetry, Computer Vision, Computer Graphics, Big Data

Start of the fellowship: 15th January 2016