Full Time Marie Curie Early Stage Researcher Positions in the fields of *large scale spatiotemporal reconstruction and Environmental factors for digital Cultural Heritage*

Applications are invited from candidates who possess the necessary qualifications in order to fill two (2) full time Marie Curie Early Stage Researcher (ESR) Fellow Positions within the Faculty of Civil and Geodetic Engineering of University of Ljubljana (UL FGG) in the fields of heritage documenting, assessment and development of computer supported procedures for Cultural Heritage inspection and visualization. The selected Marie Curie ESR will work for 25 months each 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 Cultural Heritage are fragmented and mostly design 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 aims for the first time worldwide that top universities, research centers, industries and CH stakeholders, end-users and standardized bodies will collaborate 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 a cost–effective preservation, documentation, protection and presentation of CH. ITN-DCH targets innovations that covers 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 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. **Two ESR's will be recruited by the host organization of the Faculty of Civil and Geodetic Engineering of University of the Ljubljana (UL FGG), Chair of Testing for Materials and Structures (KPMK).**

Position 1 (ESR6):

One ESR to be recruited by the host organization of the Faculty of Civil and Geodetic Engineering of University of the Ljubljana (UL FGG) for the duration of 25 months under full employment contract. The fellow will work on the:

Development of efficient concept of data collecting and processing in order to understand and follow the processes in buildings fabric of historic buildings and objects due to long term environmental impacts and sudden environmental events. The traditional (historic) materials (such as wood, clay products, stone and mineral plasters) will be addressed. The ICT tools will serve in development of criteria and protocols for decision-making regarding usage, maintenance and alternations of heritage buildings and objects.

Moreover, the fellow will focus his/her work on the:

- Study of the current approaches for the non-destructive and low destructive investigations of material properties and conditions.
- Study of the current approaches for knowledge data collections formalization, presentation and storage.
- Study of the current solutions for numerical modeling of decay processes and experimentally based predictions of building fabric and heritage objects long-term behavior taking into consideration the "uncertainty".
- Study and analysis of the object's 3D virtual model in relation to the above numerical model and the semantics, metadata and ontologies.
- Development of the novel protocols for data processing and models for prediction of long term behavior of building fabrics and object materials in order to establish maintenance strategies and procedures.

Position 2 (ESR14):

One ESR to be recruited by the host organization of the Faculty of Civil and Geodetic Engineering of University of the Ljubljana (UL FGG) for the duration of 25 months under full employment contract. The fellow will work on the:

Environmental issues and the materials for CH objects as well as on the needed metadata, semantics and ontologies for CH object materials and their environmental factors.

The ESR's are expected to present their research results on project meetings, international conferences and in scientific publications and to contribute to patents applications.

Research Fields

Structural and Civil Engineering – Cultural Heritage assessment
Architecture – Cultural Heritage assessment
Geodetic Engineering – Photogrammetry supporting Cultural Heritage documentation
Computer Sciences – Programming in the field of Database Management Systems of Cultural Heritage (BIM Systems)

Career Stage

Early stage researcher or 0-4 years of experience (Post graduate) – According to the FP7-PEOPLE (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

First Stage Researcher (R1)

Benefits

- Competitive salary to cover living and, mobility costs, social and health insurance **(according to the FP7-PEOPLE 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.
- Opportunity to register for a PhD at the University of Ljubljana, Slovenia.
- Training in a range of state-of-the-art scientific skills, intellectual property and project management skills.
- Secondment placements within the network's partners (max. duration 2 months).

For more details on salary and other benefits 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 with all the copies of their awards translated in English.
2. Motivation Letter
3. Official 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 a graduate PhD programme
4. Official certified copies of titles and documents in English
5. Names of three referees who, upon request, can provide recommendation letters
6. Copies of any related research papers or other significant work by the applicant

Applications must be submitted in a closed express courier envelope marked as "Application for Marie Curie ITN-DCH Research Fellow Position" – ***Prof. Roko Žarnić, University of Ljubljana, Faculty of Civil and Geodetic Engineering, Jamova 2, 1000 Ljubljana, Slovenia.*** Otherwise it must be sent via regular registered post with a clearly visible post office stamp of a date not later than 30th of March 2014, 24:00 that is the deadline for the submission of the applications.
Applicants are also requested to send their applications electronically to these email addresses roko.zarnic@fgg.uni-lj.si and marinos.ioannides@cut.ac.cy before the deadline of 30th of March 2014, 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 enquiries: roko.zarnic@fgg.uni-lj.si and Tel. +386 4768 500 / 669

Start of the fellowship: 1st of June 2014

Comment/web site for additional job details

The Applicant should have:

- Master of Science Degree from a recognized university in Civil Engineering, Architecture, Geodesy or Computer Science has to pass the recognition according to Article 121 of the Statute of University of Ljubljana (**http://www.uni-lj.si/university/organization_legal_framework_and_reports/statutes_of_ul/**), **or**

- Equivalent university education (8 semesters and diploma thesis) that have to pass the recognition according to Article 121 of the Statute of University of and in addition at least 8 exams totaling 50 ECTS selected from the list presented in the document entitled "Doctoral programme Built Environment at University of Ljubljana, Faculty of civil and geodetic engineering and Faculty of natural sciences and engineering" and recognized by lecturers responsible for the selected courses (**http://www3.fgg.uni-lj.si/uploads/media/Presentation_of_the_study_programme_-_3rd_cycle_-_Built_Environment.pdf**).

In both above described positions, candidates should document the research experience by means of published or for publishing accepted paper(s) in SCI or SSCI or A&HCI data libraries. The requested research experience is of at most two (2) years of a continuous full-time work in the above listed fields, programming skills and language implementation skills.

Excellent knowledge of the English language at a proficiency level (spoken and written) is required.

Requirements

- **The ESR candidate, at the time of recruitment, not have resided (or carried out his/her main activity e.g. work, studies, etc.) in Slovenia (host country), for more than 12 months in the last 3 years immediately prior to the reference recruitment date!**

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

- Required Education Level

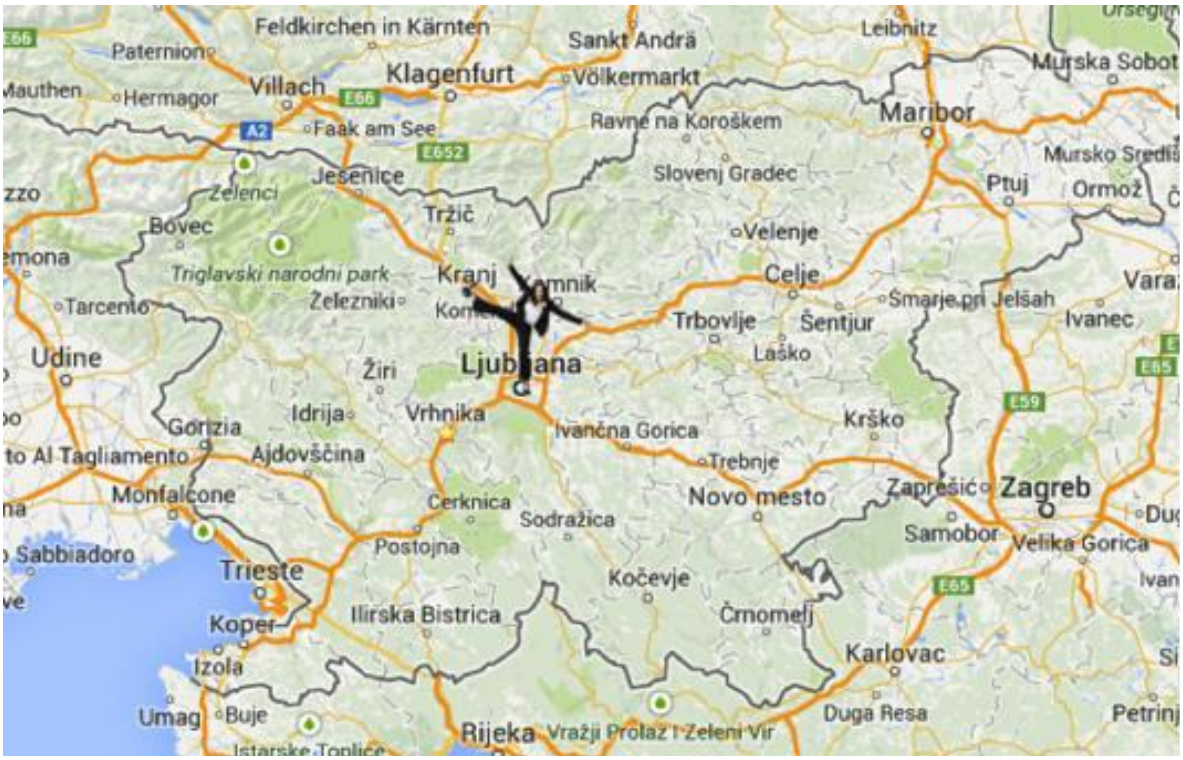
Degree	Scientific Master Degree or equivalent, as described above
Degree Field	Structural Engineering, Geodetic Engineering, Architecture, Computer Science

Required Languages

Language	ENGLISH
Language Level	Excellent

Additional Languages (optional)

Language	SLOVENIAN, CROATIAN or SERBIAN
Language Level	Good


Feldkirchen in Kärnten
Sankt Andrä
Leibnitz
Paternion
Klagenfurt
Völkermarkt
Murska Sobota
Villach
Hermagor
Maribor
Faak am See
Ravne na Koroškem
Jesenice
Slovenj Gradec
Ptuj
Ormož
Želenci
Tržič
Bovec
Velenje
Triglavski narodni park
Kranj
Celje
Železniki
Šmarje pri Jelšah
Ivanec
Trbovlje
Šentjur
Laško
Udine
Žiri
Ljubljana
Gorizia
Idrija
Vrhnika
Ivančna Gorica
Krško
Ajdovščina
Trebnje
Monfalcone
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Novo mesto
Zagreb
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Samobor
Postojna
Velika Gorica
Trieste
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Ilirska Bistrica
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Izola
Umag
Buje
Duga Resa
Rijeka
Vražji Prolaz i Zeleni Vir