

PhD Marie Curie ITN postions available

WHERE:

Jožef Stefan Institute (JSI) is the leading research institution for natural sciences in **Slovenia** with over 900 researchers within 25 departments working in the areas of computer science, physics, and chemistry and biology. **The Artificial Intelligence Laboratory**, with approximately 40 researchers, is one of the largest European research groups working in the areas of machine learning, data mining, language technologies, semantic technologies and sensor networks. Its key research direction is combining modern statistical data analytic techniques with more semantic/logic based knowledge representations and reasoning techniques with the purpose to make progress in solving complex problems such as text understanding, large scale probabilistic reasoning, building broad coverage knowledge bases, and dealing with scale. The team is a dynamic, young and international with the Institute located close to the city centre of Ljubljana. We are looking for bright, motivated and driven individuals and look forward to welcoming you to our team!

FUNDING:

Marie Skłodowska-Curie ITN project CLEOPATRA:

CLEOPATRA, a Marie Skłodowska-Curie Innovative Training Network “Cross-lingual Event-centric Open Analytics Research Academy”, (<http://cleopatra-project.eu/>) offers a unique interdisciplinary and intersectoral research and training programme in multilingual information science for 17 researchers. The main objectives are to 1) facilitate advanced cross-lingual processing of event-centric textual and visual information on a large scale; 2) develop innovative methods for efficient and intuitive user access and interaction with multilingual information; 3) facilitate large-scale analytics of multilingual event-centric information and cross-cultural studies; 4) educate a group of top-level scientists with unique interdisciplinary and intersectoral expertise in multilingual information science who will be enabled to take leading roles in research and industry in the future; and 5) establish an interdisciplinary curriculum for cross-lingual information analytics. The main outcomes of Cleopatra include: 1) novel methods for event-centric cross-lingual processing; 2) highly innovative user interaction paradigms for multilingual information; 3) open large-scale data sets and software components for a variety of EU languages; and 4) an interdisciplinary curriculum and educational materials. Overall, Cleopatra will contribute to the European digital economy in several application domains and strengthen the European position in multilingual information science.

Beneficiaries

Gottfried Wilhelm Leibniz Universitaet (Coordinator), Germany: www.uni-hannover.de

University of Southampton, UK, <http://www.southampton.ac.uk>

Rheinische Friedrich-Wilhelms-Universitat Bonn, Germany: www.uni-bonn.de

Technische Informationsbibliothek, Germany: www.tib.eu

Jožef Stefan Institute, Slovenia: <http://www.ijs.si/ijsw/JSI>

Universiteit Van Amsterdam, Netherlands: www.uva.nl

Sveuciliste u Zagrebu Filozofski Fakultet, Croatia: <http://hnk.ffzg.hr/mt>

Partner organisations

Fundacao para a Ciencia e a Tecnologia, Portugal: www.fct.pt

Wolters Kluwer Deutschland, Germany: www.wolterskluwer.de

Jožef Stefan International Postgraduate School, Slovenia: www.mps.si

The British Library Board, UK: www.bl.uk

The National Archives, UK: www.nationalarchives.gov.uk

Ontotext Ad, Bulgaria: www.ontotext.com

Slovenska Tiskovna Agencija, Slovenia: www.sta.si

Vico Research & Consulting, Germany: www.vico-research.com

Tilde, Latvia: www.tilde.eu

PhD Topic Descriptions

PhD Position No. 1: Information propagation with barriers

Duration: 36 months

Job description: Position 1 (ESR 11)

Research theme: Event-centric cross-lingual analytics and cross-cultural studies

Objectives: Model the phenomenon of information propagation within the dynamic network of interconnected events. In other words, the objective is to model the characteristics of information spreading once a physical event happens somewhere in the world.

Expected Results: A model that facilitates tracking how the information about events spreads across languages, borders and cultures including the relations between barriers and the information spreading (e.g. delays, blocks, filters). Two journal submissions (Machine Learning) and a PhD submission are expected.

Planned secondments:

1. UoL, J. Winters, M11-M12, 2 months, to analyse requirements in the Digital Humanities.
2. BL, I. Cooke, M29-M31, 3 months, for adaptation and evaluation of the models in the context of archives.

PhD Position No. 2: Cross-lingual news reporting bias

Duration: 36 months

Job description: Position 2 (ESR 12)

Research theme: Event-centric cross-lingual analytics and cross-cultural studies

Objectives: Analyse cross-lingual news reporting bias along several dimensions: topic, language, geography, political orientation, source, sentiment, time, attention and some other contextual features.

Expected Results: Models describing information consumption in different parts of the world and feature analysis with respect to bias. This project will produce two working papers (journal submissions to Machine Learning and/or Economics) and a PhD manuscript.

Planned secondments:

1. UvA, R. Rogers, M11-M12, 2 months, to analyse requirements in the Digital Humanities.
2. NA, J. Sheridan, M29-M31, 3 months, to adapt and evaluate models on archived collections

Requirements

We are looking for talented, creative and highly motivated researchers. A suitable background for this open position includes Data Engineering, Knowledge Engineering, Statistics, Signal Processing, Artificial Intelligence, Machine Learning and other related areas. Fluent written and spoken English and solid programming (C/C++/Python/R/Matlab) and sufficient data engineering skills (e.g. SQL, Hadoop or Spark) are required. Excellent skills in statistics, applied mathematics and data science are essential. Skills in news analysis are acknowledged.

If separately asked from a candidate, a suitable English language proficiency test may be required.

- Candidates applying for the doctoral student position must hold Master's degree or equivalent in a relevant field and the recruited candidate is expected to enroll as a PhD student at the Jožef Stefan International Postgraduate School.
- Applicants shall, at the time of recruitment by the host organization, be in the first four years (full-time equivalent research experience) of their research careers and not yet have been awarded a doctoral degree. Full-Time Equivalent Research Experience is measured from the date when a researcher obtained the degree that would formally entitle him/her to embark on a doctorate.
- H2020 MSCA Mobility Rule: at the time of recruitment by the host organization, researchers must not have resided or carried out their main activity (work, studies, etc.) in the country of their host organization (Slovenia) for more than 12 months in the 3 years immediately prior to the recruitment date. Compulsory national service and/or short stays such as holidays are not taken into account.

Salary: The salary will be set in accordance with MSCA ESR rates. The monthly salary is subject to country coefficient rate.

Trial period: Trial period of 4 months applies.

For more information, please contact: Dr. Polona Škraba Stanič
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++386-1-477-3778

How to apply: Applications can be submitted via electronic application system and email by the **August 20th 2019**. In case no suitable candidates are found in this application round, the call will be re-opened.

The application should include the following annexes:

- Letter of motivation
- CV (including names and contact details of at least two references)
- Copy of MSc degree certificate
- List of publications

Open until: August 20th, 2019
