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PhD Studentship (4 years)

in the Areas of Software Engineering and Self-Adaptive Systems, Digital Investigations, Cyber-Physical Systems, and Related Areas

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Project Title

Engineering Forensic-Ready Cyber-Physical Systems

Description

This PhD project is part of the SFI (Science Foundation Ireland) funded research project For-CoPS¹ (Forensic Investigations for Cyber-Physical Incidents). The distinguishing goal of the research programme is to develop a novel and practical platform to support investigations of incidents targeting or exploiting cyber-physical systems. To achieve this goal, the PhD student is expected to develop a rigorous **methodology to engineer forensic-ready cyber and physical systems**. Such systems should be capable of recording data in a **privacy preserving manner** and **adaptively** -- depending on the likelihood of an offence happening, the degree of data ephemerality, and the constraints on organisation's resources. Collected data should be forensically sound in order to be used by law enforcement agencies in future investigations.

The Principal Investigator (PI) of the For-CoPS project is Dr. Liliana Pasquale (<http://lili-pasquale.lero.ie>), who will supervise the PhD student, and will be based in the Performance Engineering Lab at the University College Dublin School of Computer Science and Informatics.

Person Specification

The successful applicant will have:

- a strong undergraduate (first class or upper second class) and/or Masters degree in computer science, engineering, or a closely related field.
- Excellent software programming skills
- Excellent written, communication and presentation skills.

Environment

The performance Engineering Laboratory (PEL) combines engineering research in the areas of computer, multimedia, and data networks. PEL brings together researchers from different professional and cultural backgrounds. People in PEL come from a number of different countries: Ireland, Germany, Italy, France, and more. Expert knowledge varies from post-graduate to experienced senior researchers and academic staff.

The PhD student will also be member of Lero (www.lero.ie), the Irish Software Research Centre, which brings together software engineering researchers based in the main Irish Universities. The student will also have the opportunity

¹ <http://for-cops.lero.ie>

to collaborate with Prof. Bashar Nuseibeh and his groups based at the University of Limerick and the Open University and working on security, privacy, digital forensics and adaptive systems (www.asap-project.eu).

Contract Type: Fixed Term (4 Years)

To be undertaken within the School of Computer Science and Informatics at University College Dublin and **to start from December 2016 (or later in 2017)**.

The successful candidate will receive a tax-free salary stipend and full coverage of their UCD PhD scholarship fees. UCD student status gives access to UCD facilities and services (such as, clubs, sport centre, campus pubs, etc.). UCD is the leading Irish University and gives access to many other on-campus facilities.

Contact

Please send a CV and a covering letter explaining your interest in the position to: Dr. Liliana Pasquale – liliana.pasquale@ucd.ie

Application Deadline: applications are accepted immediately until the position is filled.