DEPARTMENT OF NAVAL ARCHITECTURE, OCEAN & MARINE ENGINEERING

University of Strathclyde Engineering

Research Assistant (Associate) in Cyber-Security

The Maritime Safety Research Centre (MSRC), Department of Naval Architecture, Ocean and Marine Engineering, University of Strathclyde (Glasgow, Scotland, UK).

Job description

Safety and security are at the heart of sustainable marine operations. However, given the dynamic nature and the growing size and complexity of modern vessels, effective management of pertinent risks remains a serious issue. There has hardly been a year with no maritime accident, let alone incidents and near misses. The growing prevalence of on-board automation and autonomy (cyber-physical systems, Industry 4) is improving design and operational flexibility of modern ships, but it also makes them more complex and potentially vulnerable. Hence, marine cyber-security is becoming a very hot topic offering excellent career prospects in both the industry and academia.

The Maritime Safety Research Centre (MSRC) of the University of Strathclyde is engaged in a number of high impact, industrial research with focus on on-board risk management with cyber-security being an integral part of it. A talented individual with the background in engineering or science is sought to fill an open research position in the topic of cyber-security. The main research focus will be cyber-security risk modelling and decision support, using both quantitative and qualitative approaches.

We offer a vibrant, nurturing environment with excellent, well-established prospects for professional development. You will be engaged with various industrial partners across the world, the likes of DNV GL and Royal Caribbean Cruises, and have a real opportunity to make it a safer and securer place.

A successful candidate would be offered to commence immediately.

REF UK TOP 20 RESEARCH-INTENSIVE UNIVERSITY

THE UK UNIVERSITY OF THE YEAR WINNER

THE UK ENTREPRENEURIAL UNIVERSITY OF THE YEAR WINNER

The place of useful learning

The University of Strathclyde is a charitable body, registered in Scotland, number SC015263

Required skills

The position does not require prior experience nor formal background in cyber-security per se, although it would obviously be a decisive advantage. However, relevant background and experience (e.g., computer science, safety engineering, electronics/electrical engineering, control engineering, etc.) would be necessary to have a solid basis to build the expertise in cyber-security upon. So, talented individuals who are eager to learn and become experts in cyber-security are invited to apply.

You are expected to be highly motivated, independent and yet an excellent team player, well organised, and result-oriented. As this domain requires a multi-disciplinary approach, a wide set range of relevant skills and aspirations would be advantageous. Academically, you must have MSc/MEng or PhD.

Specific requirements include:

Requirement	**Category (essential / desirable)**
Good programming skills (e.g., C++, python, R)	Essential
Computer simulations, modelling (e.g., Matlab)	Essential
Excellent communication skills	Essential
Time efficient problem solving and learning	Essential
Probabilistic system analysis methods (e.g. probabilistic model checking, statistical model checking, probabilistic model learning)	Desirable
Familiarity with cyber-security standards and certification requirements (e.g., ISPS Code) and hazard analysis methods	Desirable
Good understanding of complex/cyber-physical systems	Desirable

Working conditions

- Appointment at Grade 6 – 7 (£27k – £36k p.a.).
- Increments are paid each year, when the employee has a minimum of 6 full months of service, allowing progression to the next point on the salary scale.
- The normal working week is 35 hours.
- Annual leave entitlement is 31 days per year.
- Pension: new members of staff, aged under 75, will be admitted automatically to membership of the Universities Superannuation Scheme (USS) on taking up appointment.

Click further details

Information and applying

Please send your CV and cover letter to Dr Luminita Bujorianu, luminita.bujorianu@strath.ac.uk

Application closing date: 22 February 2018. Prompt application is advised, as this position is only available until a suitable candidate is found.