Title: Dynamically Adaptive Cyber Security for Infrastructure Systems (supported by Airbus Group UK)

Type of award  PhD Research Studentship

Department  Computer Science

Scholarship Details  Scholarship covers full UK/EU (EU applicants who have been resident in the UK for 3 years prior to 1st September 2018) PhD tuition fees and a tax-free stipend at the current RCUK rate (14,777 in 2018/19) plus £4000 per year stipend enhancement.

Duration  4 years

Eligibility  Home/EU applicants only

Start Date  1 October 2018

PhD Topic Background/Description

A fully funded PhD studentship is available within the Bristol Cyber Security Group, led by Professor Awais Rashid. The group forms part of the Academic Centre of Excellence in Cyber Security Research (ACE-CSR) at Bristol.

This project will tackle the critical need for dynamically formulating and adapting security policies, rapidly and on-demand, in the face of unfolding attacks on industrial control systems (ICS). Such systems underpin critical national infrastructure such as power, water and gas. The research will aim to transform policies from simply a means to enforce pre-defined security properties to policies as living, evolving objects that play a central role in reasoning about the security state of an ICS and responding to unfolding attacks. The studentship will involve close collaboration with the project partner – the security innovation team at Airbus – to understand and mitigate emerging cyber threats to ICS. The ideal candidate will have a background in computer science (in particular programming languages) or software engineering or control systems. The student will have access to a state-of-the-art industrial control systems testbed in the Bristol Cyber Security Group.

Further Particulars

Doing research at the University of Bristol

The quality of research at the University of Bristol places it within the top five Universities in the UK based on the Research Excellence Framework and Times higher Education rankings 2014-15. The PhD candidate will be a part of a friendly and diverse community. The University has a Doctoral College (BDC) which offers approximately 200 courses, interactive workshops and seminars as a part of the University's Personal and Professional Development Programme for PGR students. The BDC organises University-wide events and provides a hub of information, guidance and resources to help researchers to get the most of their time at Bristol.
Candidate Requirements
We are looking for an enthusiastic student with a first-class degree or Master’s in computer science, human-computer interaction, software engineering or control systems.

Interested candidates are strongly encouraged to contact the supervisor informally to discuss their research interests before making an application.

Informal enquiries
Please email Prof Awais Rashid (Awais.Rashid@bristol.ac.uk)
For general enquiries, please email sceem-pgr@bristol.ac.uk

Application Details
To apply for this studentship submit a PhD application using our online application system [www.bristol.ac.uk/pg-howtoapply]

Please ensure that in the Funding section you tick “I would like to be considered for a funding award from the Computer Science Department” and specify the title of the scholarship in the “other” box below with the name of the supervisor.

Interested candidates should apply as soon as possible; applications will be evaluated as they are submitted and once a suitable candidate has been selected the studentship will close.

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