Digital Forensics for Severely Constrained Wireless Embedded Devices and the IoT

As part of this PhD project you will focus on digital forensics for networks of severely constrained wireless embedded devices. You will devise, prototype and evaluate novel methods and techniques for the extraction, triage and analysis of digital evidence from battery-powered devices with severe computation and communication constraints. The work will focus on IEEE 802.15.4 / .15.4g networks and the TSCH/6LoWPAN/RPL stack. It is expected that this project will advance current state-of-the-art in the area of digital forensics for the Internet of Things.

This project will be co-supervised by Dr George Oikonomou and Dr Theo Tryfonas, two Smart Internet Lab experts in the area of Digital Forensics for Emerging Technologies.

As part of this PhD project, you will be required to write extensive code using the C programming language. Prior experience with C is a requirement. You will also be familiar with the fundamentals of cryptography and internet security.

For your research you will make extensive use of the Contiki-NG open source operating system for the Internet of Things. If you so desire, you will have the opportunity to contribute your research work back to the Contiki-NG project, to be considered for inclusion in the official release.

More Details and Contact:

Please visit my departmental web page for more information, including information about required skills and qualifications. For informal enquiries please email Dr George Oikonomou.

How To Apply:

Please submit a PhD application using the University's online application system: http://www.bristol.ac.uk/study/postgraduate/apply/. In the application form mention the project title above and list Dr George Oikonomou under "Proposed supervisor(1)" and Dr Theo Tryfonas under "Proposed supervisor(2)".