Energy-Efficient Networking for Severely Constrained Wireless Embedded Devices and the IoT

As part of this PhD project you will focus on energy-efficient networking for IEEE 802.15.4 / .4g networks, emphasising on the TSCH/6LoWPAN/RPL stack. You will devise, prototype and evaluate novel networking algorithms and protocols suitable for battery-powered devices with severe computation and communication constraints. It is expected that this project will advance current state-of-the-art in one or more of the following indicative areas:

- Multicast forwarding in 6LoWPANs
- Mobility in TSCH/6tisch networks
- SDN for 6LoWPANs / networks of severely constrained wireless embedded devices.

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.

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)".