**PhD Project Proposal**

School of Electronics, Electrical Engineering and Computer Science

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| **Proposed Project Title:** Privacy-aware cybercrime tracking |
| **Principal Supervisor:** Dr. Sandra Scott-Hayward **Second Supervisor:** |
| **Project Description:**  Cryptocurrencies are extremely popular and growing in adoption, as evidenced by the 2,000+ cryptocurrencies in use today, with a total market capitalization of 219 billion USD (October 2018). Today, many traders and organizations accept payment by cryptocurrency for anything from flights to coffee. In parallel to the legitimate use, however, cryptocurrencies are commonly used in criminal markets and as payment for cyber-related extortion attempts, such as from ransomware or a Distributed Denial-of-Service attack. Techniques used by law enforcement agencies to monitor cryptocurrency transactions in cybercrime tracking activities can compromise the privacy of individual users.  The main goal of this PhD thesis is to leverage new network technologies such as Software Defined Networking and Network Functions Virtualisation to develop a privacy-aware approach to network analysis for cybercrime detection.  *The student will have access to a state-of-the-art network testbed in the Centre for Secure Information Technologies (CSIT), Belfast.* |
| **Contact details**  Supervisor Name: Dr. Sandra Scott-Hayward Tel: +44 (0)28 9097 1898  QUB Address: Email: [s.scott-hayward@qub.ac.uk](mailto:s.scott-hayward@qub.ac.uk) |