

**THEME: Cyberspace, Privacy and Data Protection**

**PROJECT: When is your smart device my problem?**

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**Primary Location:** CSIT

Recent industry reports identify that an unprotected Internet of Things (IoT) device is infected within 3 minutes or less of being connected to the network. To date, millions of IoT devices have been compromised and used in a range of network-based attacks. In addition, research and industry reports have identified how smart home devices can be used to “spy” on people in the home, whether deliberately or through poor design. Network connectivity can enable global access to the IoT devices.

The focus of this PhD is to explore the security and privacy of IoT devices at the intersection of technical design and social constructs.

We specifically ask:

- How can we integrate IoT devices into our home and office networks to adopt the benefits of the smart devices while ensuring that we’re not leaking private information from our home/offices?
- How can we manage the use of these devices with visitors to our homes and offices?
- Are technical mechanisms capable of solving these challenges?
- Are regulatory directives effective in addressing these challenges?

*The student will have access to a state-of-the-art network testbed in the Centre for Secure Information Technologies (CSIT), Belfast.*

**Primary Academic Discipline:** Network Security