



## **School of Computing, Engineering, and the Built Environment Edinburgh Napier University**

### **PHD STUDENT PROJECT**

#### **Funding and application details**

**Funding status:** Fully funded project (worldwide)

**Application instructions:**

Detailed instructions are available at <https://blogs.napier.ac.uk/scebe-research/available-phd-student-projects/>

*Prospective candidates are encouraged to contact the Director of Studies (see details below) to discuss the project and their suitability for it.*

#### **Project details**

**Supervisory Team:**

- DIRECTOR OF STUDY: JP Vargheese (Email: [J.Vargheese@napier.ac.uk](mailto:J.Vargheese@napier.ac.uk))
- 2<sup>ND</sup> SUPERVISOR:

**Subject Group:** Applied informatics

**Research Areas:** Computer Science

**Project Title:** Behaviour change for Cybersecurity

**Project description:**

Cyberattacks are often designed to exploit and manipulate users' behaviour to encourage actions and behaviour that may compromise security. This may include imitating or use of compromised and previously legitimate sources of communication, to encourage insecure behaviours. Understanding the underlying causes of users' susceptibility to cyberattacks is challenging due to the inherent complexity of human behaviour and the influence of confounding factors across the users' social and technological environment. This has led to increasing calls for a greater understanding of the role of human factors in cybersecurity to identify potential solutions to address insecure users' behaviour.

Behaviour change interventions and persuasive technologies are designed to encourage changes in behaviour without coercion. These have been demonstrated to be effective across a broad range of domains including education, commerce, safety, health, and well-being.

This project will investigate the potential role of behaviour change interventions and persuasive technologies for increasing users' awareness of and reducing susceptibility to cyberattacks. This research will involve engaging with users and conducting experiments designed to measure susceptibility to common cyberattacks and the design and evaluation of suitable countermeasures.

## **References:**

## **Candidate characteristics**

### **Education:**

A first-class honours degree, or a distinction at master level, or equivalent achievements in Computing Science, Human Computer Interaction

### **Subject knowledge:**

- Human Computer interaction,
- User experience design,
- research methods

### **Essential attributes:**

- Self motivated, self learning, organisational and time-management skills, persistence and resilience, attention to detail, ability and willingness to collaborate with others

### **Desirable attributes:**

- Knowledge and experience of machine learning, statistical analysis, user research, programming