



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

### **PHD STUDENT PROJECT**

#### **Application instructions:**

Detailed instructions are available at :

<https://www.napier.ac.uk/research-and-innovation/doctoral-college/how-to-apply>

*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: Dr Ashley Morton (Email: [a.morton@napier.ac.uk](mailto:a.morton@napier.ac.uk))
- 2<sup>ND</sup> SUPERVISOR:

**Subject Group:** Applied Informatics

**Research Areas:** Computer Science

**Project Title:** The role of digital technologies in shifts towards sustainable behaviours – empowering end user engagement through user-centred design

#### **Project description:**

New digital technologies and interactive experiences offer the potential to help enhance our day to day lives and mitigate many of the challenges our society faces today, but many of these are reliant on end user acceptance. One such challenge where digital technologies have been increasingly utilised relates to the current climate crisis, with digital technology not only being used to enhance energy efficiency within many industrial areas but also to encourage more sustainable, and often energy efficient behaviours at an individual user level. Recognising that collective action is needed to tackle the sheer scale of the global crisis. Alongside the long-standing need to shift towards more energy efficient behaviours, many countries globally are now facing a cost-of-living crisis, which has caused an increase in awareness of individuals' actions, and often a recognition that many digital technologies could be implemented to support sustainable behaviour change.

However, many of these digital technologies are not developed using user-centred design approaches which then results in subpar or sustained changes in behavioural actions. It is widely recognised that awareness raising alone is not enough for sustained energy-related behaviour change, issues of trust, individual vs collective attitudes, and individual benefit from many of these technologies. Taking a user-centred/UX design approach this research would seek to effectively empower and engage end users towards more sustainable behaviour change.

## **Candidate characteristics**

### **Education:**

A first-class honours degree, or a distinction at master level, or equivalent achievements in User Experience, Human-Computer Interaction or a related subject with a good fundamental knowledge of behavioural theories.

### **Subject knowledge:**

- User Experience Design
- User-centred Design

### **Essential attributes:**

- Experience of fundamental Human-Computer Interaction theories
- Competent in UX research methodologies
- Knowledge of behaviour change interventions
- Good written and oral communication skills
- Strong motivation, with evidence of independent research skills relevant to the project
- Good time management