



## **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: Prof. Mark Deakin (Email: [m.deakin@napier.ac.uk](mailto:m.deakin@napier.ac.uk))
- 2<sup>ND</sup> SUPERVISOR: Dr Suha Jaradat

**Subject Group:** Built Environment

**Research Areas:** Architecture, Building and Planning

**Project Title:** Fuel Poverty and the Fabric First Strategy: Drawing on the Analytic of an Innovation System-based Solution

#### **Project description:**

The commitment of governments across the world to tackle the rise in fuel poverty is commendable. However, the commitment is also proving controversial for the reason the intention to close the gap between the disproportionately high-cost low-income households pay for heating relative to others in society is predicated on the so-called fabric first strategy. That strategy which is based on the mistaken belief building science can defy gravity and push the technological frontier of energy efficiency beyond the physical boundary of 50% Beyond this physical boundary and towards that extra 25% which is needed. That is needed but which marks out the frontier of that 75% threshold which cannot be sourced from a fabric first strategy.

The research this PhD study shall conduct into fuel poverty will address the criticism the fabric first strategy has begun to attract as a solution that closes the gap between the disproportionately high cost which low-income households pay for heating relative to others in society. Meeting this growing criticism, the research shall draw on the insights of those cities that have been smart in responding to fuel poverty by drawing

on the analytic of an innovation system-based solution which does close the gap in the disproportionately high costs low-income households pay for heating. That disproportionately high cost which low-income households pay for heating and the 75% fabric-plus concordat on the wise management of natural resources this research study assembles, offers to free them from the burden of. Offers to free them from the burden of as a second cut into that proportion of heating costs which low-income households are otherwise left burdened with and forces them into making difficult choices about whether to heat the home, buy food, cook, eat, wash clothes, shower, or bath. Difficult choices that deprive the most vulnerable members of society access to those life chances which other households prosper from the health and well-being of as a climate neutral and just transition to net zero.

## **Candidate characteristics**

### **Education:**

Minmum 2:1 degree in the following subject areas – Architecture, Construction, Built Environment, Sustainable Development

### **Subject knowledge:**

Building science, Energy, Metabolism, Urban morphology

### **Essential attributes:**

- Independent learner
- Analytical
- Critical thinker
- Interdisciplinary