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 Mina Jowkar (Email: m.jowkar@napier.ac.uk)
- 2ND SUPERVISOR: tbc

Subject Group: Built Environment

Research Areas: Built Environment, Environmental Engineering, Urban Planning

Project Title: Personalised Workstations in Open Plan Office Using ML and AI/ Digital Twin

Project description:
Maintaining an ideal thermal environment within multidisciplinary environments such as open plan offices and higher education classrooms is crucial for promoting effective performance and teaching and learning. Traditional methods of managing thermal comfort often fall short in adapting to the dynamic and diverse needs of individuals in a shared space. Artificial Intelligence (AI), with its capacity to process vast amounts of data and adapt to changing conditions, can significantly improve our ability to create and sustain comfortable working environments. This study aims to develop a user-centric AI interface that enables occupants in multidisciplinary environments to customise their thermal preferences, thereby providing a more personalized and comfortable setting.

Candidate characteristics

Education:
The candidates should have a first degree and academic background in Computer Science-related subjects including Artificial Intelligence (AI), Data Science and AI, Machine Learning, AI and Data Engineering, etc.

Subject knowledge:
This project requires a solid foundation in various Artificial Intelligence (AI) and computer science applications.

Essential attributes:
- Strong fundamental knowledge of AI application
- Conceptual and design thinking skills
- Willingness to undertake training in these areas
- Knowledge about Sustainability and Environmental studies
- Knowledge of Architectural and Environmental Engineering
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Desirable attributes:
- An academic background or involvement in research projects related to sustainability and environmental studies is desirable