Department	School of Engineering and the Built Environment
Supervisors	Dr Masoud Sajjadian
Project Title	Decision Support Models for Modern Insulations

PROJECT DESCRIPTION

Greenhouse gas emission reduction in the built environment requires lower U-Values for external building envelopes, the traditional insulation types may no longer be optimum solutions for new dwellings or refurbishment of the existing homes. As such, thinner layers of modern insulation types such as Vacuum Insulated Panels (VIP), multifoil insulations, aerogels and nano insulations could be used due to their lower thermal conductivity compared to traditional ones. Further growth of such insulations in the UK markets, requires the development of a robust decision support model for industry professionals. Through dynamic thermal modelling, this PhD aims to provide such a support model to accelerate the development of modern insulations by uncovering their potentials and barriers.

Academic qualifications

A first degree (at least a 2.1) ideally in architecture, architectural technology or building engineering with a good fundamental knowledge of building physics.

English language requirement

IELTS score must be at least 6.5 (with not less than 6.0 in each of the four components). Other, equivalent qualifications will be accepted. Full details of the University's policy are available online.

Essential attributes:

- Experience of fundamental materials and heat transfer related topics
- Competent in building simulations
- Knowledge of building physics
- Good written and oral communication skills
- Strong motivation, with evidence of independent research skills relevant to the project
- Good time management

Desirable attributes:

Candidate with postgraduate qualifications and relevant work experience

Enquiries	For informal enquiries about this PhD project, please contact m.sajjadian@napier.ac.uk
Web page	https://www.napier.ac.uk/research-and-innovation/research-degrees/application-process
