

<b>Department</b>	School of Engineering and the Built Environment
<b>Supervisors</b>	Dr Masoud Sajjadian
<b>Project Title</b>	Building Performance in a Changing Climate
<p><b>PROJECT DESCRIPTION</b></p> <p>Despite the fact that many studies have been undertaken relating to climate change risks, there is still an urgent need for further investigations on the future performance of buildings under a changing climate. This PhD aims to create a simplified numerical tool to model, using cutting edge simulation tools in combination with AI methods, the following four aspects of building performance in the UK:</p> <ul style="list-style-type: none"> <li>· Energy</li> <li>· Thermal Comfort</li> <li>· Indoor air quality</li> <li>· Acoustic</li> </ul> <p>Based on future climate scenarios developed by IPCC, the project also develops AI-based algorithms to identify the influential factors on building performance during operation and discover where in design or construction phase, processes need refinements.</p> <p><b>Academic qualifications</b> A first degree (at least a 2.1) ideally in Architectural Engineering with a good fundamental knowledge of Simulations and willingness to learn AI methods.</p> <p><b>English language requirement</b> 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. <a href="#">Full details of the University's policy</a> are available online.</p> <p><b>Essential attributes:</b></p> <ul style="list-style-type: none"> <li>• Experience of fundamental Building Performance</li> <li>• Competent in Artificial Intelligence</li> <li>• Knowledge of computer science</li> <li>• Good written and oral communication skills</li> <li>• Strong motivation, with evidence of independent research skills relevant to the project</li> <li>• Good time management</li> </ul> <p><b>Desirable attributes:</b> Candidate with a postgraduate qualification and work experience in the related area</p>	
<b>Enquiries</b>	For informal enquiries about this PhD project, please contact <a href="mailto:m.sajjadian@napier.ac.uk">m.sajjadian@napier.ac.uk</a>
<b>Web page</b>	<a href="https://www.napier.ac.uk/research-and-innovation/research-degrees/application-process">https://www.napier.ac.uk/research-and-innovation/research-degrees/application-process</a>