

# Template for adverting PhD project on FindAPhD.com

\*\*\*Please read accompanying guidance notes\*\*\*

<b>Department</b>	School of Engineering and the Built Environment
<b>Supervisors</b>	Dr Masoud Sajjadian
<b>Funding Status</b>	Funded PhD Project (Worldwide)
<b>Application Deadline</b>	14/04/2021
<b>Project Title</b>	Collective Intelligence with Agent-Based Modelling for Energy Flexibility and Net Zero Delivery
<b>PROJECT DESCRIPTION</b> <p>Many engineering techniques have been used to predict building energy consumption including neural networks, clustering analysis, data mining techniques, support vector machines, fuzzy logic. etc. Among these, Agent-Based Modeling (ABM) is very new in predicting building performance. The aim of ABM in building performance modelling is generally to mimic occupants' behaviour in a real-world scenario. ABM can act as an inclusive artificial intelligence by perceiving its environment and adjusting to changes to accomplish certain targets. It can also complete the existing simulation programs (operating by if-then rule) by allowing changes in agent behaviour. This PhD aims to use ABM method in improving simulation tools.</p> <b>Academic qualifications</b> <p>A first degree (at least a 2.1) ideally in Computer science with a good fundamental knowledge of Agent Based Modelling.</p> <b>English language requirement</b> <p>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> <b>Essential attributes:</b> <ul style="list-style-type: none"><li>• Experience of fundamental ABM</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> <b>Desirable attributes:</b> <p>Candidate with a postgraduate qualification and work experience in the related area</p>	
<b>Indicative Bibliography</b>	<a href="#">Click here to enter text.</a>
<b>Funding notes</b>	This project may be funded by a scholarship of the School of Engineering and Built and Environment. Please see <a href="#">School-funded PhD scholarships - RESEARCH AND INNOVATION (napier.ac.uk)</a> for information on the scholarships and how to apply for them.
<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>

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