

Department	School of Computing
Supervisors	Dr Dimitrios Darzentas
Project Title	Enabling Tangible Interactions for Mixed Reality Experiences
<p>PROJECT DESCRIPTION</p> <p>The broad aim of this project is to investigate the feasibility of using 3D Object Recognition and Tracking to facilitate tangible interactions in Mixed Reality Experiences. The objective is to enable more natural interactions with physical objects that can act as natural interfaces for MR experiences.</p> <p>The intent is for the project to be application-focused. Therefore a suitable application area should be chosen, which can be broadly range from Digital Cultura Heritage and Playful Interactions to Wellbeing, Sustainability and Entertainment, but can include others of interest to the candidate.</p> <p>Over the course of the project, the candidate will evaluate and determine which approach and technology (e.g. Computer Vision, Machine Learning, etc.) is most suitable for this challenge, and ideally develop a workflow that can be adopted by end-users in the chosen appliaiton area, with a preference for the integration of game-engine technology.</p> <p>The workflow should be co-designed and evaluated by practitioners of the chosen application area to determine real-world impact.</p> <p>Perspective applicants are encouraged to contact the Supervisor before submitting their applications. Applications should make it clear the project you are applying for and the name of the supervisors.</p> <p>Academic qualifications</p> <p>A first degree (at least a 2.1) ideally in Computer Science with a good fundamental knowledge of Mixed Reality Technologies, Game Development and Machine Learning.</p> <p>English language requirement</p> <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. Full details of the University's policy are available online.</p> <p>Essential attributes:</p> <ul style="list-style-type: none"> • Experience of fundamental Computer Science concepts • Competent in Programming • Knowledge of Mixed Reality Technologies and Machine Learning • Good written and oral communication skills • Strong motivation, with evidence of independent research skills relevant to the project • Good time management <p>Desirable attributes:</p> <p>Interest, Knowledge or Experience in Experience Design and/or Game Design and Development</p>	
Enquiries	For informal enquiries about this PhD project, please contact Dr Darzentas at d.darzentas@napier.ac.uk
Web page	https://www.napier.ac.uk/research-and-innovation/research-degrees/application-process