School of Computing, Engineering, and the Built Environment
Edinburgh Napier University

PHD STUDENT PROJECT

Funding and application details

Funding status: Self funded students only

Application instructions:
Detailed instructions are available at https://blogs.napier.ac.uk/scebe-research/available-phd-student-projects/

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. Temidayo Osunsanmi (Email: T.Osunsanmi@napier.ac.uk)
- 2ND SUPERVISOR: Dr. Lina Khaddour

Subject Group: Built environment

Research Areas: Architecture and Built Environment

Project Title: Enhancing Real Estate Transactions through the Metaverse: Focus on Property Tours and Design Visualization

Project description:

Property inspection and visualization is an important aspect of ensuring effective and efficient real estate transactions. Traditionally property is inspected online over numerous listing sites which as failed to provide accurate and complete information about the property. This in return leads to the need to organize physical inspections which are not cost and time efficient. The intended PhD student would develop a platform that supports the virtual visualization of property while leveraging the technologies driven by the metaverse. This is possible owing to the transformation in the real estate sector as digital technologies and virtual environments gain

prominence. In this context, the concept of the Metaverse has emerged as a potential game-changer. The Metaverse is a virtual collective space that encompasses augmented reality (AR), virtual reality (VR), and other immersive technologies, offering novel ways to interact with digital assets and environments. This PhD project proposal seeks to explore the application of Metaverse technologies in the real estate sector, with a specific focus on property tours and design visualization.

This PhD project is expected to contribute to several key areas:

Advancements in Real Estate Marketing: The research will advance the understanding of how Metaverse-based property tours can enhance marketing strategies, engagement, and decision-making in real estate.

Innovative Design Visualization: The project will provide insights into the application of the Metaverse for design visualization, potentially revolutionizing architectural planning and interior design in the real estate industry.

Practical Frameworks: By developing accessible and scalable frameworks, this research will enable the integration of Metaverse technologies into real estate transactions, fostering innovation in the sector.

Metaverse Adoption: The findings of this project have the potential to promote the adoption of Metaverse technologies in real estate, ensuring its readiness for future challenges and opportunities.

Environmental Sustainability:

The project is committed to environmental sustainability through the reduced need for physical travel, leading to a decrease in carbon emissions. Additionally, exploring sustainable architectural design through Metaverse technologies aligns with eco-conscious real estate practices.

Conclusion

This PhD project aims to explore the innovative use of the Metaverse, including AR and VR technologies, in the real estate sector. By focusing on property tours and design visualization, the research is poised to redefine real estate marketing and design practices, ensuring readiness for the digital future. It offers significant potential to transform real estate transactions and align the industry with emerging technologies and changing consumer preferences.

References:

Candidate characteristics

Education:

A first-class honours degree, or a distinction at master level, or equivalent achievements in Real Estate, Estate management, Estate Surveying, Property management and/or Computer science

Subject knowledge:

Property Valuation
Real estate Marketing
English
Mathematics

Essential attributes:

- Good time management
- Competent use of statistical software
- Experience in fundamental Python coding techniques, SQL, JAVA or others
- Knowledge of AMOS or SmartPLS
- Good written and oral communication skills
- Evidence of strong research publication skills