



TUS

**Technological University of the Shannon:
Midlands Midwest**
Ollscoil Teicneolaíochta na Sionainne:
Lár Tíre Iarthar Láir

POSTGRADUATE RESEARCH OPPORTUNITY

Project Title: Synthetic Data Generation for Digital Enhanced Engagement

Short Project Description:

This project offers the successful applicant the opportunity to create synthetic data, data that is indistinguishable from genuine data, with application in the Digital Enhanced Engagement (DEE) domain. The work will involve collaboration across a number of disciplines with an emphasis on VR/AR/XR model development. The issues with collecting and collating experimental data, both ethically and logistically, especially with human subjects, has led to the need for realistic synthetic data generation. Such data can be used to create accurate Machine Learning (ML) models without the need for prolonged human subject interaction. The work will be carried out at the TUS Athlone Campus under the supervision of Dr Mark Daly and Dr Niall Murray. Expected deliverables will be peer reviewed publications and effective ML based models for use in a number of domains under DEE.

Duration of Project: 2 Years

Funding Agency: SFI through ADAPT

Type of Degree Offered: MSc by Research

Minimum Qualifications/Experience Necessary/Any Other Requirements:

Candidates with primary degrees in Software Engineering, Computer Science, or Computer Engineering with experience of developing code in Python. Machine Learning, and/or Computer Vision, and/or VR/XR experience is also desirable.

Minimum classification of 2.1 honours

IELTS [International English Testing System] Applicants must have a minimum of 6.0 with no component score less than 6.0.

Research Supervisors: Dr Mark Daly, Dr Niall Murray

For further information, please contact: Dr Mark Daly (mark.daly@tus.ie) or Dr Niall Murray (niall.murray@tus.ie).

Closing date for receipt of completed application form is 24th January 2025. Interviews will take place within subsequent weeks.

Download TUS RISE application form here and send to pro@tus.ie:

<https://tus.ie/rdi/research/office/funded-research/>