

**School of Computer Science**  
**Research Students' Public Presentations Schedule (v1.2)**  
**22<sup>nd</sup> and 23<sup>rd</sup> May 2023**  
**IT125G, Ground Floor Computer Science Building**

**Monday, 22<sup>nd</sup> May 2023**

Name	Monday 22 <sup>nd</sup> May	Presentation Titles	Chair
<b>9.00 Welcome Address – Professor Michael Madden, Head of School of Computer Science</b>			
Muhammad Asad	9.15	<i>Leveraging Adversarial Autoencoders for Generative Probabilistic Novelty Detection</i>	<b>Dr James McDermott</b>
Michael Duignan	9.30	<i>Using NTFS File System Analysis to Detect Ransomware Attacks</i>	
Mary Loftus	9.45	<i>Teaching Critical Thinking at the Intersection of Human &amp; Artificial Intelligence</i>	
Nafea Muhanna Alanazi	10.00	<i>Unsupervised Machine Learning Techniques for Grouping and Predicting Student Performance</i>	
Jonaid Shianifar	10.15	<i>Reinforcement Learning for Adaptive Robotic Arm Control</i>	
Sumana Biswas	10.30	<i>Multimodal Sentiment Analysis of Social Media Data</i>	
Bentolhoda (Hoda) Binaei	10.45	<i>Confidence Estimation for Speech Recognition</i>	
<b>BREAK 11.00 – 11.15</b>			
Daniel Kelly	11.15	<i>Classification of Denial of Wallet Attacks on Visual Representations of Serverless Function Request Traffic</i>	<b>Dr Ihsan Ullah</b>
Muhammad Adeel Hafeez	11.30	<i>Self-Supervised Temporal Depth Estimation for Autonomous Vehicles</i>	
Michael Gian Gonzales	11.45	<i>On-Device Neural Speech Understanding for Consumer Devices</i>	
Seán Caulfield Curley	12.00	<i>Adversarial Policies: Detecting and Defending Against Attacks by Deep Reinforcement Learning Agents</i>	
Eléa Thuilier	12.15	<i>AR/VR Pose Tracking for Task-Oriented Physical Therapy Training for the Treatment of Osteoporosis</i>	
Ilas Faiud	12.30	<i>Modelling Solar PV Adoption in Irish Dairy Farms using Agent-Based Modelling</i>	
Adam Callaghan	12.45	<i>Single and Multi-Objective Approaches to Evolutionary Reinforcement Learning</i>	
<b>LUNCH 13.00 – 14.00</b>			
Nawazish Ali	14.00	<i>Reinforcement Learning for Battery Management in Dairy Farming</i>	<b>Dr Enda Barrett</b>
Andreas Almqvist	14.15	<i>Design for Nature Connectedness</i>	
Sai Abinesh Natarajan	14.30	<i>Deep Learning and Synthetic Data Generation for Computer Vision</i>	
Kevlyn Stanly Kadamala	14.45	<i>Comparative Analysis of RL Algorithms with Transfer Learning for Cross-Building HVAC Optimisation</i>	
Xue Yang	15.00	<i>Agent-based Dynamic Thresholding for Anomaly Detection</i>	
Fitria Wulandari	15.15	<i>Genetic Programming with Synthetic Data for Interpretable Regression Modelling and Limited Data</i>	
<b>BREAK 15.30 – 15.45</b>			
Alexandru Martin Locodi	15.45	<i>Controlling The Game: A Look at Interesting Graph Topologies in Spatial Evolutionary Game Theory</i>	<b>Dr Patrick Mannion</b>
Kevin O'Brien	16.00	<i>Improving Explainability of AI and Machine Learning Algorithms</i>	
Gearóid Reilly	16.15	<i>Designing a Multiuser Virtual Reality Environment for People Living with Dementia</i>	

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**Tuesday, 23<sup>rd</sup> May 2023**

Name	Tuesday 23 <sup>rd</sup> May	Presentation Title	Chair
Aileen Kennedy	9.15	<i>Data Analysis and Integration of Marine Data</i>	<b>Dr Karl Mason</b>
Nabeela Mumtaz	9.30	<i>Epidemiology of Seasonal Influenza: Use of Mathematical Modeling and Bayesian Inference to Estimate the Disease Burden</i>	
Donal Kelly	9.45	<i>Navigating Noise: Evolutionary Search for Strategy in a Perturbable Environment</i>	
Hossein Khaleghy	10.00	<i>Modelling Electricity Consumption in Irish Dairy Farms Using Agent-Based Modelling</i>	
Irish Senthilkumar	10.15	<i>An Integrated Finite-Element and Agent-Based Model for Mechanosensitive Tumour Growth</i>	
Mian Ibad Ali Shah	10.30	<i>Rule-Based Multi-Agent System for Autonomous P2P Energy Trading in Dairy Farming</i>	
Mashal Khan	10.45	<i>Federated Learning</i>	
<b>BREAK 11.00 – 11.15</b>			
Aaron Flanagan	11.15	<i>A Comparative Analysis of Data Synthesis Techniques to Improve Classification Accuracy of Raman Spectroscopy Data</i>	<b>Dr Matthias Nickles</b>
Danny Diamond	11.30	<i>Tune Family Detection via Pattern-Based Similarity Metrics in the Session Corpus of Irish Traditional Music</i>	
Shubhajit Basak	11.45	<i>Contributions Towards 3D Synthetic Facial Data Generation and 3D Face Analysis with Weak Supervision</i>	
Muzhaffar Hazman	12.00	<i>Analysing User-Generated Multimodal Memes in an Online Social Media Domain</i>	
Raymond Conlin	12.15	<i>Approaches for Identifying Music Similarity</i>	
Rana Zeeshan	12.30	<i>Employing Blockchain and Artificial Intelligence to Innovate Sensitive Data Handling Practices in Mental Health Services</i>	
<b>LUNCH 12.45 – 14.00</b>			
Junlin Lu	14.00	<i>Preference Inference in Multi-Objective Reinforcement Learning</i>	<b>Prof Jim Duggan</b>
Evan O'Riordan	14.15	<i>The Emergence of Fairness from the Evolutionary Ultimatum Game</i>	
Mark Campbell	14.30	<i>Cardiac Rehab: Patient Experience Design Addressing Challenges, Opportunities, Education and Digital Interventions in the Patient Journey</i>	
Maziar Kanani	14.45	<i>Executable Design: AI Tools for Music</i>	