

UKCI 2026 Conference Program

St Mary's Guildhall, Bayley Lane, Coventry
09-11 September 2026

Registration:		Sep. 09 th (8:30 am – 6:00 pm), Sep. 10 th and 11 th (8:45 am – 5:00 pm)
Date	Time	
Sep. 9	8:45-9:00	Opening Remarks , Prof. Elena Gaura, Associate Pro-VC Research, Coventry University Conference Room 1 (Great Hall)
	9:00-10:00	Keynote Talk: “Geometry-Driven Intelligence: Reshaping Manufacturing through AI-Driven Design and Process Planning” Prof. Charlie C.L. Wang, University of Manchester, UK Conference Room 1 (Great Hall)
		Oral Presentation Session (20 minutes each paper, including Q & A)
	10:00 - 11:00	Conference Room 1 (Great Hall) Chair: Prof. James Brusey How Far Does Audio Help Meeting Summarisation? The Limited Role of Prosody in Speech LLMs Ashima Sood (Ulster University); Bryan Gardiner (Ulster University); Joan Condell (Ulster University) Evaluating the Impact of Dataset Selection on Façade Segmentation for Building-Integrated Photovoltaic (BIPV) Applications Mohammed Sadeq (Edinburgh Napier University); Firdaus Muhammad-Sukki (Edinburgh Napier University); Md Zia Ullah (Edinburgh Napier University); Nazmi Sellami (Edinburgh Napier University) A Proof-of-Concept Multimodal Framework for Threat-Score Estimation Using rPPG-Based Emotion Inference and mmWave Weapon Detection Ogonna Okafor (Nottingham Trent University), Ahmed Taha Tauquir (Nottingham Trent University), Muhammad Zeeshan (Nottingham Trent University), Doratha Vinkemeier (Nottingham Trent University), and David Ada Adama (Nottingham Trent University)
	11:00 - 11:20	Coffee Break
		Oral Presentation Session (20 minutes each paper, including Q & A)
	11:20 - 12:40	Conference Room 1 (Great Hall) Chair: Dr Quang Nguyen On-Policy vs Off-Policy Deep Reinforcement Learning for Multi-Objective Navigation: A Controlled Architecture Comparison Muhammad Hasham Nadeem (Ulster University); Amanda Logan McCook (Ulster University); Haiying Wang (Ulster University) A Harmonised Open Panel Benchmark for Causal, Fairness-Aware, and Explainable Machine Learning in Educational Equity and SDG 4 Monitoring Sona Hashempour (Loughborough University); Elizabeth Ratcliffe (Loughborough University); Karen Coopman (Loughborough University) An Explainable Interval Type-2 Fuzzy Adaptive Many-Objective Framework for Resilient Smart-Grid Energy Management Systems Mahmoud Alfayan (University of Essex); Hani Hagrais (University of Essex) IDE Assistants vs Autonomous Coding Agents: Evidence from a PR-Level Comparison Using the AIDev Dataset Shiva Kumar Kodigeni (Edinburgh Napier University); Ashkan Sami (Edinburgh Napier University)
	12:40 - 13:30	Lunch Break

13:30 - 14:30	Keynote Talk: “<i>From the Next World to the Next World</i>” Prof. Simon See, NVIDIA AI Technology Centre, Singapore Conference Room 1 (Great Hall)
	Oral Presentation Session (20 minutes each paper)
14:30 - 15:50	Conference Room 1 (Great Hall) Chair: Dr. Ashkan Sami The Bitter Lesson in Industrial Inspection: Empirical Evidence from Electrical Power Systems Protection Manufacturing Walter Lee (GE Vernova); Peter Andras (Edinburgh Napier University) Phase-Aware Machine Learning (ML) for Lifting Posture Classification: Comparing Inertial Measurement Unit (IMU)-Only and Video-Based Pipelines Ihsan Ul Haq (Coventry University; Deakin University); James Brusey (Coventry University); Farnad Nasirzadeh (Deakin University); Chandan Karmakar (Deakin University) AI-driven improvements for existing Acoustic Monitoring Systems in care homes Quang Nguyen (University of Westminster; Coventry University); Dingchang Zheng (Coventry University); Petra Wark (Coventry University); Louise McCabe (Stirling University); Yanguo Jing (Leeds Trinity University) Inferring Emotional Intensity from Early Dialogue Context Julia Wieczorek (Coventry University); Vasile Palade (Coventry University); Xiaorui Jiang (University of Sheffield); Joanna Trela (Coventry University)
15:50 - 16:10	Coffee Break
	Oral Presentation Session (20 minutes each paper)
16:10 - 17:30	Conference Room 1 (Great Hall) Chair: Dr. Xiaorui Jiang Integrating Feature Extraction and Spatial Attention for Explainable Medical Image Analysis Abtin Ghorbani (Nottingham Trent University); Amir Pourabdollah (Nottingham Trent University) Enhancing Automated Machine Learning via Homogeneous Train-Test Splitting Methods Yearn Tan Yin Tze (University of Sheffield); Charles Grellois (University of Sheffield) Defeating Trust Laundering in Software-Defined Vehicle Software Supply Chain Moksha Thisarani (Coventry University); Abdur Rakib (Coventry University); Naeem Syed (Deakin University); Adnan Anwar (Deakin University); Soufiene Djahel (Coventry University) Computational Intelligence for Separating Thermal Signatures: A Spatial-Attention Framework for Dual-Occupancy Sleep Posture Recognition Selwan Abdussalam (Nottingham Trent University); Abdallah Naser (Nottingham Trent University); Ahmad Lotfi (Nottingham Trent University); Salisu Yahaya (Nottingham Trent University)
17:30 - 18:30	Conference Reception, Poster Presentations (Medieval Kitchen and Great Hall) EmotionAI: A Privacy-Preserving Computational Intelligence Pipeline for Speech-Emotion-Grounded Conversational Analysis Wai Laam Mak (Nottingham Trent University); Isibor Kennedy Ihianle (Nottingham Trent University); Pedro Machado (Nottingham Trent University) Prediction of Gene Expression Signatures for Heart Failure using Explainable Machine Learning Approaches Duncan Alexander (The University of Sheffield); Zeyneb Kurt (The University of Sheffield)

Supporting Data-Driven Automotive Reliability Research through a Review of Public Vehicle Recall Datasets

Alexey Uglanov (University of Bradford); Amr Abdullatif (University of Bradford); Felician Campean (SAFI Verse Ltd); Ciprian Daniel Neagu (University of Bradford)

From NASA SMAP Level-1B Satellite Radiometer Observations to Explainable RFI-Aware Quality Screening: A Threshold-Optimised Boosted-Tree Framework

Zahid Hasan Shovon (University of Bradford); Ciprian Daniel Neagu (University of Bradford)

Quantifying Diagnostic Trade-offs in Reduced-Lead ECG Systems Using the PTB-XL Dataset

Izaak Kennedy Hamblin (Nottingham Trent University); Isibor Ihianle (Nottingham Trent University); Jordan J. Bird (Nottingham Trent University); Taha Osman (Nottingham Trent University)

MVPlag: A Multi-View Source Code Plagiarism Detection Framework

Fahad Ebrahim (University of Warwick); Mike Joy (University of Warwick)

Estimating the Number of Solutions in Program Space Using Random Sampling

Benjamin J. Craine (Lancaster University); Barry Porter (Lancaster University)

Evolutionary Optimisation of a Multi-Criteria Bottleneck Severity Index for Semiconductor Wafer Fabrication

Mohammad Sharifur Rahman (Ulster University); M M Manjurul Islam (Ulster University); Karl McCreadie (Ulster University); Saugat Bhattacharyya (Ulster University); Cormac McAteer (Seagate Technology); Bryan John Baker (Seagate Technology); Nuala Parker (Seagate Technology); Girijesh Prasad (Ulster University)

CFC-GTN: A Cross-Frequency Coupling Graph Transformer Network Framework for EEG Classification

Haili Ye (Coventry University; Deakin University); Kaidong Wu (Coventry University); Timothy J. Silk (Deakin University); Fei He (Coventry University)

Adaptive Operator Selection via Q-Learning for the Vehicle Routing Problem with Time Windows

Mohammed Ahmed Yousif Abuharira (University of Leicester); Ashiq Anjum (University of Leicester)

Cognitive Edge Device (CED) for Real-Time Environmental Monitoring in Aquatic Ecosystems

Dennis Monari (Nottingham Trent University); Farhad Fassihi Tash (Nottingham Trent University); Jordan J. Bird (Nottingham Trent University); Ahmad Lotfi (Nottingham Trent University); Salisu Wada Yahaya (Nottingham Trent University); Isibor Kennedy Ihianle (Nottingham Trent University); Md Mahmudul Hasan (MediprospectsAI Limited); Pedro Sousa (OnControl); Pedro Machado (Nottingham Trent University)

A Modular Part-of-Speech Tagger for Scottish Gaelic using spaCy

Péter Stefán (Edinburgh Napier University); Peter J. Barclay (Edinburgh Napier University); Alistair Lawson (Edinburgh Napier University)

Evaluating Prompt Strategies for Radiology Report Generation with Lightweight Multimodal LLMs

Amirparsa Rouhi (Bournemouth University)

From 3D Body-Scan Landmarks to Front Waist Dart References: An AI-Assisted Workflow

Renhao Wang (University of Manchester); Simeon Gill (University of Manchester); Yingjun Tian (University of Manchester); Steven Hayes (University of Manchester); Kristina Brubacher (University of Manchester)

Sanity-Gated Evaluation of Feature Importance Explanations in Structured Data

Bahareh Daneshvar (De Montfort University); Conor Fahy (De Montfort University); Shengxiang Yang (De Montfort University)

Date	Time	
Sep. 10		Oral Presentation Session (20 minutes each paper)
	09:00-10:40	Conference Room 1 (Great Hall) Chair: Prof. Vasile Palade Parallel Program Analysis for Linear Genetic Programming William B. Langdon (University College London) PCA Landscape Projections for Meta-Analysis of Genetic Improvement for Source Code

		Zsolt Németh (Lancaster University); Penn Faulkner Rainford (University of York); Barry Porter (Lancaster University) Improving Robustness to Varying Dynamics through Incremental Context Feature Learning David Barragan-Alcantar (University of Essex); Michael Fairbank (University of Essex); Spyridon Samothrakis (University of Essex) Evolvable Particle Automata for Engineering Design Exploration Simon Hickinbotham (University of York); Edgar Buchanan (University of York); Imelda Friel (Queen's University Belfast); Mark Price (Queen's University Belfast); Andy Tyrrell (University of York) LessonBench-V1: A Benchmark Dataset for Evaluating AI Lesson Generation Agents Ravidu Suien Rammuni Silva (Nottingham Trent University); Ahmad Lotfi (Nottingham Trent University); Isibor Kennedy Ihianle (Nottingham Trent University); Golnaz Shahtahmassebi (Nottingham Trent University); Jordan J. Bird (Nottingham Trent University)
	10:40-11:00	Coffee Break
		Oral Presentation Session (20 minutes each paper)
	11:00-12:40	Conference Room 1 (Great Hall) Chair: Dr. Fei He Reliability Modelling for Off-Grid PV-Battery E-Cooking Using Day Ahead Forecasts Iqra Jilani (Coventry University); Matthew England (Coventry University); M.P.G. Sirimanna (Coventry University); Jonathan Nixon (University of Kent) Prune and Merge: Text-Guided Anchor Refinement for Long Video Temporal Grounding Di Zhou (Ulster University; Shandong Jianzhu University); Haiying Wang (Ulster University); Matthew Burns (Ulster University) When Noise Matters: A Region-Wise Robustness Study of 3D Human Shape Estimation Under Clothing Kinza Arshad (Coventry University); Mingzhu Fan (Vrije Universiteit Brussel); Vasile Palade (Coventry University); Pengpeng Hu (The University of Manchester) Exclusive Lasso Assisted Fuzzy-Rough Feature Selection using Co-clustering for Medical Diagnosis Yi Tan (Northumbria University); Yanpeng Qu (Dalian Maritime University); Longzhi Yang (Northumbria University) REFlectAI: An Agentic Retrieval-Augmented Framework for Automated Research Impact Assessment and Evidence-Based REF Narratives Soham Dharne (University of Essex); Raza Haider (University of Essex)
	12:40-13:30	Lunch Break
	13:30-14:30	Keynote Talk: “From Data to Decisions: Computational Intelligence in Biosciences and Personal Health” Prof. Huiru (Jane) Zheng, Ulster University, UK Conference Room 1 (Great Hall)
		Oral Presentation Session (20 minutes each paper)
	14:30-15:50	Conference Room 1 (Great Hall) Chair: Prof. William Langdon YOLO-GCL: An Enhanced YOLOv11 Framework for Small-Object Detection in UAV Infrared Imagery Aliyu Sani Sambo (University of Wales Trinity Saint David); Yanpei Huang (University of Wales Trinity Saint David); Abdallah Naser (Nottingham Trent University); Nouh Elmitwally (Birmingham City University) Agrifetch: Hybrid Deep Feature, Depth and SIFT-Based Image Retrieval for Visual Place Recognition Calvin John (University of East Anglia); Yingliang Ma (University of East Anglia) Learning to Modulate, Not to Cycle: Soft Actor-Critic Recovers Inverter-Style Heat-Pump Control Faizan Ahmed (Coventry University); Aniket Dixit (Coventry University); James Brusey (Coventry University)

		Feature Engineered Reinforcement Learning for S-pair Selection in Buchberger’s Algorithm Uzma Shafiq (Coventry University; Deakin University); Matthew England (Coventry University); Nayyar Zaidi (Deakin University)
	15:50-16:10	Coffee Break
		Oral Presentation Session (20 minutes each paper)
	16:10-17:10	Conference Room 1 (Great Hall) Chair: Prof. Longzhi Yang Fault Detection in Control Software via Program Flow Monitoring using Spiking Neural Networks Andrew Walter (University of York); Shimeng Wu (University of York); Andy M. Tyrrell (Ulster University); Liam McDaid (Ulster University); Malachy McElholm (Ulster University); Nidhin Thandassery Sumithran (Ulster University); Jim Harkin (Ulster University); Martin A. Trefzer (University of York) Physics-Informed Multi-Quantile Forecasting for Risk-Averse NHS Critical-Care Surge Allocation Michael Ajao-Olarinoye (Coventry University); Abiola Babatunde (Coventry University); AmirHosein Sadeghimanesh (Coventry University); Fei He (Coventry University); Matthew England (Coventry University) Translating Frequentist Meta-Analytic Priors into Bayesian Spatial Models of Flood-Related Mental Health Suleiman Yakubu (Coventry University); Judith Kabajulizi (Coventry University); Jonathan Eden (Coventry University); Alireza Daneshkhah (Emirates Aviation University)
	17:10-18:00	UKCI Business Meeting (Great Hall)
	18:30-21:00	Conference Dinner (Medieval Banquet Hall) Awards Presentation (Best Paper, Best Student Paper, Best Poster)

Date	Time	
Sep. 11	9:00-10:00	Keynote Talk: “AI-Based Multimodal Sensor Processing” Prof. Adrian Munteanu, Vrije Universiteit Brussel, Belgium Conference Room 1 (Great Hall)
		Oral Presentation Session (online, 20 minutes each paper, including Q & A)
	10:00-11:00	Conference Room 1 (Great Hall) Chair: Prof. Matthew England Automated Machine Learning in Stone Processing: A Case Study for Blade Head Performance Prediction Jian Zhang (Zhejiang University); Runze Liu (Zhejiang University); Xiaoge Shen (The University of Edinburgh); Hongwei Wang (Zhejiang University) Transfer Learning-based Surrogate-assisted Optimization Method for Hull Form Design Chao Li (Jiangnan University); Yaqiang Bai (China Ship Scientific Research Center); Min Shan (Jiangnan University); Yong Wang (Jiangnan University); Jun Sun (Jiangnan University) Multimodal Fusion for Contextual Emotion Recognition in Mass Social Events: The Maha Kumbh 2025 Case Study Sahil Awatramani (Symbiosis Institute of Technology); Sheetal Kusal (Symbiosis Institute of Technology); Ketan Kotecha (Symbiosis Institute of Technology)
	11:00-11:20	Coffee Break
		Oral Presentation Session (Hybrid, 20 minutes each paper)

11:20-12:20	Conference Room 1 (Great Hall) Chair: Dr. Pengpeng Hu SIFAS: Selective Interpolative Fuzzy Action Shield for Post-Policy Robot Control Jiayu Yang (Xiamen University); Tao Yang (Xiamen University); Fei Chao (Xiamen University; Aberystwyth University); Xiang Chang (Aberystwyth University); Jinle Lin (Fuzhou University of International Studies and Trade); Changhong Jiang (Northwestern Polytechnical University); Meng-an Wang (Aberystwyth University); Changjing Shang (Aberystwyth University); Qiang Shen (Aberystwyth University) Multimodal Machine Learning and Deep Learning Framework for Thermal Preference Prediction Using Environmental and Physiological Sensor Data (online) Danish Rahman (Ulster University); Matias Garcia-Constantino (Ulster University); Alexandros Konios (Nottingham Trent University) Property-Based Fitness from Examples: Guiding GP with LLM-Discovered Invariants (online) Fraser Garrow (Heriot-Watt University); Michael A. Lones (Heriot-Watt University); Robert Stewart (Heriot-Watt University)
12:20-13:00	Lunch Break
	Oral Presentation Session (online, 20 minutes each paper, including Q&A)
13:00-14:00	Conference Room 1 (Great Hall) Chair: Prof. James Brusey GDGraphNet: A Geodemographic Graph Neural Network for Sociodemographics Kefan Chen (Heriot-Watt University) ; Andy Edmondson (Heriot-Watt University); Yingfang Yuan (Heriot-Watt University); Mehdi Rizvi (Heriot-Watt University); Lynllie Baillie (Heriot-Watt University); Wei Pang (Heriot-Watt University) A Multi-Timescale Safety Architecture for Developmentally Adaptive Child-AI Interaction via Nested Policy Learning Raja Abraheem Rashid Ejaz (Brunel University of London); Faisal Iradat (Institute of Business Administration); Muhammad Kumail (Purdue University Northwest) FedSRIMU: Spectral Regularized Federated Unlearning for IoT Intrusion Detection Systems Aliza Muhammad Warris (Institute of Business Administration); Zain Ul Ebad (Institute of Business Administration); Faisal Iradat (Institute of Business Administration); Raja Abraheem Rashid Ejaz (Brunel University of London)
14:00-14:20	Coffee Break
14:20-15:20	Conference Room 1 (Great Hall) Chair: Dr. Fei He Safety of Collaborative Embodied AI: a framework for benchmarking multi-turn adversarial attacks Charan Sai Soma (Heriot-Watt University); Joseph Abdo (Heriot-Watt University); Immanuel Reuben (Heriot-Watt University); Akash Vijayakumar (Heriot-Watt University); Oriol Linan (Heriot-Watt University); Weihan Yap (Heriot-Watt University); Isabel Samuel Rajdeep (Heriot-Watt University); Bharth Krishnachettiyar Saravanan (Heriot-Watt University); Usmaan Chohan (Heriot-Watt University); Abhiram Reddy Konda (Heriot-Watt University); Kimia Nazari (Heriot-Watt University); Paul Siffrin (Heriot-Watt University); Damien Bourgeois (Heriot-Watt University); Lohith Pentakota (Heriot-Watt University); Oliver Lemon (Heriot-Watt University) Human-Centric Reinforcement Learning for the Intelligent Built Environment: A Position on Context-Awareness, Fairness, and Trust Majid Mohsenpour (Nottingham Trent University); Jordan J. Bird (Nottingham Trent University); Alexander Sumich (Nottingham Trent University); Yangang Xing (Nottingham Trent University) A Domain-Aware Framework for Data Error Detection and Correction: Towards Financial-Sector Applications Preetham Yuvaraju (Bigspark); Shaine Ismael (Bigspark); Kate Hughes (Bigspark); Salisu Wada Yahaya (Nottingham Trent University); Pedro Machado (Nottingham Trent University); Isibor Kennedy Ihianle

		(Nottingham Trent University); Jordan J. Bird (Nottingham Trent University); Farhad Fassihi Tash (Nottingham Trent University); Ahmad Lotfi (Nottingham Trent University)
	15:20-16:20	Conference Room 1 (Great Hall) Chair: Prof Vasile Palade A Context-Aware Weighted Fairness Framework for Healthcare AI: Prioritising False Negative and False Positive Disparities by Clinical Harm Weighting Meenakshi Chaudhary (University of Bradford); Ankitt Mathur (University of Bradford); Ciprian Daniel Neagu (University of Bradford); Zied Mnasri (University of Bradford); Raluca Lefticaru (University of Bradford) Single-Client GAN Poisoning with Anti-Averaging in Federated Learning Liang Chen (University of Hertfordshire); Jingyue Dou (University of Hertfordshire); Qingbo Meng (University of Hertfordshire); Yiwei Miao (University of Warwick); Raghu Mishra (DemandScience) Computer Vision-based Occupancy Monitoring of Playground Equipment Areas for Community Infrastructure Planning: A Case Study of the SuDS+ Stanley Project Usman Adeel (Teesside University); Jie Li (Teesside University); Ammara Laeeq (Teesside University); Ehtsham Riaz (Teesside University)
	16:20-16:30	UKCI 2027/2028 Announcement and Closing Remarks