

UKCI 2026 Conference Program

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

Registration: Sep. 09th (8:30 am – 6:00 pm), Sep. 10th and 11th (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)

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)

A Proof-of-Concept Multimodal Framework for Threat-Score Estimation Using rPPG-Based Emotion Inference and mmWave Weapon Detection

Ogonna Okafor (Nottingham Trent University); David Ada Adama (Nottingham Trent University); Muhammad Zeeshan (Nottingham Trent University); Doratha Vinkemeier (Nottingham Trent University); David Ada Adama (Nottingham Trent University)

11:00
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11:20

Coffee Break

Oral Presentation Session (20 minutes each paper, including Q & A)

11:20
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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 Hagrass (University of Essex)

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)

12:40
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13:30

Lunch Break

13:30 - 14:30	Keynote Talk: “From the Next World to the Next World” 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)

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)

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	9:00-10:00	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)
	10:00-11:00	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)
	11:00-11:20	Coffee Break
		Oral Presentation Session (20 minutes each paper)
	11:20-12:40	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)
	12:40-13:30	Lunch Break
		Oral Presentation Session (20 minutes each paper)
	13:30-15:10	Conference Room 1 (Great Hall) Chair: Prof. William Langdon 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) 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) Multimodal Machine Learning and Deep Learning Framework for Thermal Preference Prediction Using Environmental and Physiological Sensor Data Danish Rahman (Ulster University); Matias Garcia-Constantino (Ulster University); Alexandros Konios (Nottingham Trent University)
	15:10-15:30	Coffee Break
		Oral Presentation Session (20 minutes each paper)

15:30-17:10	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) LessonBench-V1: A Benchmark Dataset for Evaluating AI Lesson Generation Agents Ravidu Suiem 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) 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) 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) 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) 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)
	11:00-11:20	Coffee Break
		Oral Presentation Session (online, 20 minutes each paper)

11:20-
13:00

Conference Room 1 (Great Hall)

Chair: Dr. Pengpeng Hu

Property-Based Fitness from Examples: Guiding GP with LLM-Discovered Invariants

Fraser Garrow (Heriot-Watt University); Michael A. Lones (Heriot-Watt University); Robert Stewart (Heriot-Watt 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)

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)

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)

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)

13:00-
13:30

Lunch Break

Oral Presentation Session (20 minutes each paper)

13:30-
15:10

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 Krishnachettiar 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)

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)

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)

15:10-15:30	Coffee Break
15:30-16:10	Conference Room 1 (Great Hall) Chair: Prof Vasile Palade 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) 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)
16:10-16:20	UKCI 2027/2028 Announcement and Closing Remarks