

Detailed program of the International Conference on AI and Sustainability Advances (ICASA 2026)

**University of East London,
School of Architecture, Computing and Engineering,
Docklands Campus, University Way,
E16 2RD, London, United Kingdom**

Note that all times are in BST (British Summer Time) Zone

Wednesday 3rd June 2026

Workshops

08:30 – 09:00 **Registration & Arrival Coffee** **Location: RDCS Entrance**

09:00 – 13:00

Workshop #7

FROM DATA TO DEPLOYMENT: END-TO-END AI WITH MINIMAL CODE USING MATLAB

Organiser: James Drummond (MathWorks)

Workshop #9

AI Co-Design

Workshop #10

From Rules to Emergence - Shape Grammars in the Age of AI

Workshop #11

Innovative Restoration of Heritage Sites using Robotics and 3D Printing

13:00 – 13:30 **Lunch Break**

13:30 – 17:30

Workshop #8

FROM PROTOTYPE TO EDGE

DESIGN, OPTIMIZE, & DEPLOY AI MODELS USING MATLAB & SIMULINK

Organisers: Akhil Gopinath (MathWorks)

Workshop #9

AI Co-Design

Workshop #10

From Rules to Emergence - Shape Grammars in the Age of AI

Workshop #11

Innovative Restoration of Heritage Sites using Robotics and 3D Printing

Thursday 4th June 2026

Conference Day 1

08:30 – 09:00 **Registration & Arrival Coffee** **Location: WB.G.01**

09:00 - 09:30 **Opening Session, Welcome** **Location: WB.G.02**

Mr Gaurav Malik, ICASA 2026 Communication Chair

Prof. Md Atiqur Rahman Ahad, Technical Programme Chair

Prof. David Tann, Dean of ACE and UEL Vice-Provost (Technology)

Prof. Matt Belgard, Pro-Vice Chancellor Impact & Innovation

Prof. Hasan Abdalla, UEL Vice-President

09:30 - 10:00 **Morning Keynote Address 1** **Location: WB.G.02**

Prof. Nic Lane, University of Cambridge, UK

Title: "The first AGI (Artificial General Intelligence) will be Federated"

10:00 - 10:30

Morning Keynote Address 2

Location: WB.G.02

Dr Lisa Cameron, Former Member of Parliament, UK

Title: "Engaging in Frontier Technology for Community Leaders"

10:30 - 11:00

Morning Tea & Networking Break

Location: WB.G.01

<p>11:00 - 12:30 Location: WB.G.01 Paper Presentation Morning Sessions</p> <p>Session Chairs: Dr Ravindra Jayaratne Dr Komali Kantamaneni, University of Lancashire</p>	<p>11:00 - 12:30 Location: WB.G.02 Paper Presentation Morning Sessions</p> <p>Session Chairs: Dr Amin Karami Dr Mustansar Ghazanfar</p>
<p>11:00 - 11:15 Location: WB.G.01 Paper ID: 58 -Track 5</p> <p>Title: Field Measurements for Agent-Based Evacuation Model Calibration in the Canadian Arctic: Supporting Data Driven Modelling Approaches</p> <p>Authors: Calum Mackenzie, Joseph Kim, Ioan Nistor, Amir Ali Khan, Abolghasem Pilechi</p>	<p>11:00 - 11:15 Location: WB.G.02 Paper ID: 14 -Track 1</p> <p>Title: Optimizing the Plastic Recycling Chain in Smart Cities: A Quantitative Approach Using YOLOv8 and Smart Contracts</p> <p>Authors: Ana Paula Oliveira da Nobrega Costa, Lucas De Sa Gomes Licio, Claudia Jacy Barenco Abbas</p>
<p>11:15 - 11:30 Location: WB.G.01 Paper ID: 84 -Track 5</p> <p>Title: Data-Centric Geotechnics: Explainable Tabular AI to Reconstruct Soil Parameters for Digital Ground Models</p> <p>Authors: Nikita Tishin , Sergei Chipeev , Oleg Ozmidov , Andrey Proletarskii</p>	<p>11:15 - 11:30 Location: WB.G.02 Paper ID: 12 -Track 1</p> <p>Title: Mechanistic Analysis of Rubber Particle Coagulation in Industrial Wastewater Using Computer Vision</p> <p>Authors: Nguyen Pham Hong Dao</p>
<p>11:30 - 11:45 Location: WB.G.01 Paper ID: 181 -Track 5</p> <p>Title: Bayesian Reliability Analysis of Heterogeneous Coal Tip Slopes under Rainfall Infiltration by Integrating Field Observations and Spatial Variability</p> <p>Authors: Honghu Jie, Guotao Ma, Mohammad Rezania, Shuihua Jiang</p>	<p>11:30 - 11:45 Location: WB.G.02 Paper ID: 52 -Track 1</p> <p>Title: ENERGY-EFFICIENT ANTI-JAMMING ACCESS IN COGNITIVE RADIO NETWORKS: A DECEPTION-BASED TRANSFORMER-DDQN APPROACH</p> <p>Authors: ÖMER FARUK Dikmen, Burak Dikmen, Hasari Çelebi</p>
<p>11:45 - 12:00 Location: WB.G.01 Paper ID: 149 -Track 5</p> <p>Title: Toward a Unified Dimensionless Equation for Plunging Jet Scour Using Machine Learning</p>	<p>11:45 - 12:00 Location: WB.G.02 Paper ID: 143 -Track 1</p> <p>Title: Probabilistic AI for Smarter and Healthier Cities: A Case Study of Crime Prediction with Uncertainty in Birmingham</p>

<p>Title: Risk Posed by Artificial Intelligence Systems in United States Immigration: Results from Applying Risk Frameworks</p> <p>Authors: Dinesh Chacko, Monika Wahi</p> <p>15:00 - 15:15 Location: WB.G.01</p> <p>Paper ID: 32 -Track 1</p> <p>Title: Beyond Human Control: Legal and Ethical Challenges of Applying International Humanitarian Law to Autonomous Weapons Systems</p> <p>Authors: Marina Narbuntaite, Mark Tsagas</p> <p>15:15 - 15:30 Location: WB.G.01</p> <p>Paper ID: 91 -Track 1</p> <p>Title: Creating a Large-Scale Environmental, Social and Governance (ESG) Document Corpus from Corporate PDF Sources</p> <p>Authors: Chanchal Jain, Fahimeh Jafari, Nitish Chooramun, Michael Harrison</p>	<p>Title: Bed Load Transport Dynamics in a River Meander: Validation of Empirical Models Using Hydrodynamic and Laboratory Data</p> <p>Authors: Charuni Imalsha, Elnaz Naghibi, Ravindra Jayaratne, Yan Zhou, Xiaoyan Wei</p> <p>15:00 - 15:30 Location: WB.G.02</p> <p>Invited Talk</p> <p>Sebastian Sahlender & Till Krumbholz (Siemens),</p> <p>Title: AI-Enabled Model Predictive Energy Optimization in Buildings: A Scalable Framework for Flexibility and Sustainable Operation using BEOS</p>
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15:30 - 16:00 Afternoon Tea Break Location: WB.G.01

16:00 - 17:30 Panel Discussion Location: WB.G.02

Moderator: Dr Nicola Hogan (UEL), Panellists: Sebastian Sahlender & Till Krumbholz (Siemens), Akhil Gopinath (MathWorks), Prof. Anusha Shah (Plan for Earth), Dr Anwar Khan (UEL), Prof. Keeley Crockett (Manchester Metropolitan university), Prof. Amirali Baniasadi (University of Victoria, Canada).

17:30 - 17:45 Day 1 Closing Remarks/Announcements Location: WB.G.02

Prof. David Tann, Dean of ACE and UEL Vice-Provost (Technology)
Dr Seyed Ali Ghorashi, Director of Impact & Innovation, ACE

Friday 5th June 2026 Conference Day 2

08:30 - 09:00 Arrival Coffee Location: WB.G.01

09:00 - 09:30 Morning Keynote Address 1 Location: WB.G.02

Prof. Ioan Nistor, University of Ottawa, Canada
Title: "Tsunami Impacts and Effects: From Forensic Engineering, to Research Breakthroughs, to Development of Design Standard; a +two decades journey"

09:30 - 10:00 Morning Keynote Address 2 Location: WB.G.02

Mr Ambarish Mitra, Greyparrot, UK
Title: "Making waste visible with AI - the untapped opportunity of the shadow economy"

10:00 - 10:30 Morning Tea & Networking Break Location: WB.G.01

<p>10:30 - 12:30 Location: WB.G.01 Paper Presentation Morning Sessions Session Chairs: Dr Antigoni Memou Dr Anastasia Karandinou</p>	<p>10:30 - 12:30 Location: WB.G.02 Paper Presentation Morning Sessions Session Chairs: Dr Ameer Al-Nemrat Dr Ali Abbas</p>
<p>10:30 - 10:45 Location: WB.G.01 Paper ID: 41 -Track 5 Title: Advanced Forecasting in Road Infrastructure Planning Using Machine Learning Approaches Authors: Sami Khairi, Ali Abbas, Alex Apeageyi, Saeed Sharif</p>	<p>10:30 - 10:45 Location: WB.G.02 Paper ID: 43 -Track 2 Title: Journalism under Digital Repression: AI-Driven Surveillance and Cybersecurity as Professional Self-Defense in the MENA Region Authors: Miral AlAshry, Ketan Bhatt, Vibhu Johar, Dilip Kumar, Abhishek Dubey, Claudia Seabra</p>
<p>10:45 - 11:00 Location: WB.G.01 Paper ID: 75 -Track 6 Title: Restoration of historical ruins through 3d printing: 3d printing, structural filling and artificial intelligence Authors: Isaac Cobo Displas, Deborah Benros</p>	<p>10:45 - 11:00 Location: WB.G.02 Paper ID: 99 -Track 2 Title: Dynamic Load Balancing in Hybrid Quantum-Classical Systems: A Quantum-Aware Reinforcement Learning Approach Authors: Hashir Ansari, Shahzaib Abdul Mateen Asad, Jawad Hussain Awan, Shahzad Memon</p>
<p>11:00 - 11:15 Location: WB.G.01 Paper ID: 103 -Track 6 Title: A Bibliometric Analysis of AI Trends in the AEC Industry Authors: BUKOLA ADEWALE, Luana Parisi, Vincent Ene, Clinton Ohis Aigbabova</p>	<p>11:00 - 11:15 Location: WB.G.02 Paper ID: 64 -Track 2 Title: Media-Driven AI Fear and Its Implications for Sustainable AI Governance: A Temporal Computational Analysis Authors: Rahime Belen Saglam, Laureen Zuzarte</p>
<p>11:15 - 11:30 Location: WB.G.01 Paper ID: 38 -Track 6 Title: Oil & gas pipeline critical points estimation using deep reinforcement learning algorithm Authors: Mazin ALAVAD , Shoorangiz Shams Shamsabad Farahani , Roohollah Barzamini , Mohammad Arabian , Vahid Behnamgol , Vahid Hassani</p>	<p>11:15 - 11:30 Location: WB.G.02 Paper ID: 177 -Track 5 Title: Experimental investigation of coastal structure vulnerability to sea level rise. Authors: Hasan Uz Zaman Limon</p> <p>11:30 - 11:45 Location: WB.G.02 Paper ID: 26 -Track 5 Title: Optimising Temporary Accommodation Placement Across London</p>

<p>11:30 - 11:45 Location: WB.G.01 Paper ID: 74 -Track 6</p> <p>Title: Use of Artificial Intelligence as Co-Design assistant: Design exploration in education</p> <p>Authors: Isaie Bloch, Teoman Ayas, Deborah Benros</p> <p>11:45 - 12:30 Location: WB.G.01 Invited Talk</p> <p>Dr Nicola Hogan, Vincy Kannatheri Valsan (UEL),</p> <p>Title: "Sustainability at UEL"</p>	<p>with AI-Powered SaaS in E-Governance Systems</p> <p>Authors: Hankun He, Jordan Richards, Gopal Netuveli, Kumar Aniket, Ramya Panchatcharam, Binta Adelusile, Nathan Nagaiah, Matt Bellgard</p> <p>11:45 - 12:00 Location: WB.G.02 Paper ID: 175 -Track 5</p> <p>Title: Benchmarking LSTM and Transformer Rainfall–Runoff Models for East London Catchments Using CAMELS-GB v1 and v2</p> <p>Authors: Mohammed Noman Mohammed Arif, Ravindra Jayaratne, Mustansar Ghazanfar</p> <p>12:00 - 12:30 Location: WB.G.02 Invited Talk</p> <p>Dr Fragkoulis Kanavaris, Arup</p> <p>Title: "Sustainability in materials and structures: cases and opportunities for a sustainable built environment"</p>
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12:30 – 13:30	Lunch Break	Location: WB.G.01
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13:30 - 14:00 **Afternoon Keynote Address 1** **Location: WB.G.02**

Dr Komali Kantamaneni, University of Lancashire, UK

Title: Coastal Vulnerability and Climate Resilience: Emerging Perspectives on People, Processes, and AI Insights

<p>14:00 - 15:15 Location: WB.G.01 Paper Presentation Afternoon Sessions</p> <p>Session Chairs: Dr Sohrab Donyavi Dr Luana Parisi</p>	<p>14:00 - 15:15 Location: WB.G.02 Paper Presentation Afternoon Sessions</p> <p>Session Chairs: Dr Jaswinder Lota (UEL) Dr Elaheh Homayounvala (London Metropolitan University)</p>
<p>14:00 - 14:15 Location: WB.G.01 Paper ID: 115 -Track 6</p> <p>Title: Preventing Stakeholder-Driven Scope Creep in BIM-Enabled Megaprojects: A Process Framework and an AI Early-Warning Extension for Regenerative Outcomes</p> <p>Authors: Mohsen Jamshidi, Sohrab Donyavi</p> <p>14:15 - 14:30 Location: WB.G.01 Paper ID: 130 -Track 6</p>	<p>14:15 - 13:45 Location: WB.G.02 Paper ID: 72 -Track 4</p> <p>Title: Smart Optimization of EV Charging for Peak Impact Mitigation and User Satisfaction in Campus Microgrid</p> <p>Authors: Mohamed Ibrahim Abdi</p> <p>14:15 - 14:30 Location: WB.G.02 Paper ID: 9 -Track 4</p>

<p>Title: Evaluating Practical Constraints in Robotic 3D Concrete Printing: Lessons from Laboratory-Scale Fabrication</p> <p>Authors: Mohan Dungrani, Arman Hashemi, Deborah Do-Rosario-Benros, Fulvio Wirz</p> <p>14:30 - 14:45 Location: WB.G.01 Paper ID: 132 -Track 6</p> <p>Title: Enhancing Construction Supply Chain Efficiency Through Integrated AI, BIM, and Robotics: A Lifecycle Digital Framework</p> <p>Authors: Zohreh Alijani, Sohrab Donyavi</p> <p>14:45 - 15:00 Location: WB.G.01 Paper ID: 24 -Track 6</p> <p>Title: A Hybrid Large Language Model–TOPSIS Agent for Intelligent, Context-Aware Façade Material Selection with Environmental Impact Focus</p> <p>Authors: Elahehsadat sedighianastaneh, Sohrab Donyavi</p> <p>15:00 - 15:15 Location: WB.G.01 Paper ID: 44 -Track 6</p> <p>Title: Integrating Blockchain, Smart Contracts, and BIM for Sustainable Construction: A Comprehensive Review</p> <p>Authors: Sayed Erfan Kazem, Sohrab Donyavi, Seoung Wook Whang</p>	<p>Title: Real-time Accident Severity Detection and Classification Using Deep Neural Networks and Edge Computing</p> <p>Authors: Rashed Mustafa, Miskat Sultana</p> <p>14:30 - 14:45 Location: WB.G.02 Paper ID: 105 -Track 2</p> <p>Title: Post-Quantum Cryptography in Healthcare IoT: A Systematic Review of Deployment Constraints, Architectures, and AI-Based Security Practice</p> <p>Authors: Mustak Ahmed</p> <p>14:45 - 15:00 Location: WB.G.02 Paper ID: 97 -Track 2</p> <p>Title: Accountability in AI Driven Cyber Incident Response: A Leadership Decision Framework</p> <p>Authors: Adekunle Alabi, Elias Eze, Ameer Al-Nemrat, Opeyemi Adepoju</p> <p>15:00 - 15:15 Location: WB.G.02 Paper ID: 57 -Track 3</p> <p>Title: Fairness-Aware and Explainable Machine Learning for Predicting Incomplete Childhood Immunisation: Evidence from Nigeria</p> <p>Authors: KOBLOOBASE USANI, Augustus Osborne, Bobola Ajibola</p>
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15:15 - 15:30 Afternoon Tea Break Location: WB.G.01

15:30 - 16:00 Afternoon Keynote Address 2 Location: WB.G.02

Prof. Roger Flanagan, University of Reading, UK.

Title: "From bytes to benefits: digital transformation for managing construction"

16:00 - 16:30 Afternoon Keynote Address 3 Location: WB.G.02

Dr Imran Latif, Johnson Controls International, USA

Title: AI Helping AI: Agentic Thermal Intelligence for Sustainable AI Factories

16:30 - 17:00 Closing Remarks & Awards Ceremony Location: WB.G.02

Prof. Matt Belgard, Pro-Vice Chancellor Impact & Innovation

Prof. David Tann, Dean of ACE and UEL Vice-Provost (Technology)

Dr Mohammad Hossein Amirhosseini, Publication Chair

Dr Seyed Ali Ghorashi, Director of Impact & Innovation, ACE

***The posters will be on display on the ground floor of the West Building.**