

Call for Papers, New Submission deadline: 1 March 2024

UKSim-AMSS 26th International Conference on Mathematical/Analytical Modelling and Computer Simulation, UKSim2024

Dates 26 to 28 March 2024 (to be confirmed), Cambridge University (Emmanuel College), UK.

Conference website: <http://uksim2024.info>

Special theme this year: Modelling and Simulation in Artificial Intelligence

Publication: in the journal IJSSST special issue, available online as fully open-access files from the time of the conference and indexed in doi.org, EBSCO, Research Gate, Scope, Google Scholar and searchable online by all global search engines. Application in progress to index the papers in Scopus.

Best papers authors will be invited to submit an extended version for publication as a Chapter in a special issue of IJSSST on AI and Complexity Theory.

The conference will be held in mixed physical/virtual mode, with special discounted registration fee for virtual mode, see website. All registered papers will be published as planned and made available from the conference website. All PowerPoint files, including keynote speakers, will be available from the website.

Papers are invited on any aspect of mathematical modelling and computer simulation to be presented at UKSim2024, Cambridge, United Kingdom. The event provides authors with an outstanding opportunity for networking and presenting their work at a top quality international conference.

Themes

- Simulated Reality and Artificial Intelligence
- Deep Learning
- Bio-Informatics and Bio-Medical Simulation
- Complexity Theory
- Hybrid Intelligent Systems
- Soft Computing and Hybrid Soft Computing
- Computational Intelligence
- Control of Intelligent Systems
- Robotics, Cybernetics, Engineering, Manufacturing and Control
- Methodologies, Tools and Operations Research
- Discrete Event and Real Time Systems
- Image, Speech and Signal Processing
- Natural Language Processing/language technologies
- Computer Generated Art (images to be exhibited at the conference and included in the proceedings)
- AI in Industry, Business and Management
- Human Factors and Social Issues
- Energy, Power Generation and Distribution
- Transport, Logistics, Harbour, Shipping and Marine Simulation
- Supply Chain Management
- Virtual Reality, Visualization and Computer Games
- Parallel and Distributed Architectures and Systems
- Internet Modelling, Semantic Web and Ontologies
- Mobile/Ad hoc wireless networks, mobicast, sensor placement, target tracking
- Performance Engineering of Computer & Communication Systems
- Circuits, Sensors and Devices
- Speculative issues: is our universe a simulation? Why classical physics break down and quantum mechanics take over at the subatomic level?
- AI related simulation methodologies and practice, languages, tools and techniques.
- Models and modelling tools. Data/object bases. Analytical and statistical tools.
- AI in Simulators and simulation hardware, training simulators.
- Agent-based simulation, decision support systems
- Philosophical issues: virtual and simulated reality, metaphors, knowledge modelling, deep learning, acquisition and synthesis of new knowledge/models, intelligent/adaptive behavior

- Man/robot/machine interaction, control systems.
- Artificial Intelligence in parallel and distributed simulation, discrete event systems.
- Artificial neural networks

Applications: aerospace; remote sensing; electronic circuits and systems; communication and networks; business; management; finance; economics; leisure, games, war/conflict/rebellion modelling; psychology, cognitive functions, behaviour, emotion, subjectivity; humanities, literature, semantics modelling/dynamics; biology; medicine; public health; energy, power generation and distribution, manufacturing; planning; control; robotics; measurement; monitoring; energy; safety critical systems; transportation; structural mechanics and civil engineering, oil and gas; education and training; military.

Exhibitors: manufacturers of software and hardware, publishers, etc., are invited to apply to exhibit their products.

Submission Guidelines

You are invited to submit:

- full paper of 6 pages or short paper of 4 pages (Letter format) for oral presentation,
- proposal to organize a technical session and/or workshop.

Submissions must be original, unpublished work containing new and interesting results that demonstrate current research in all areas of modelling and simulation and their applications in science, technology, business and commerce. The conference is supported/co-sponsored by

- Nottingham Trent University, UK
- Cardiff Metropolitan University, Wales, UK
- University of Wales Trinity Saint David, Wales, UK.
- University of Stavanger, Norway.
- University of Kent in Canterbury, UK
- Aberystwyth University, Wales, UK.
- European Simulation Federation, EUROSIM
- European Council for Modelling and Simulation, ECMS

Submission implies the willingness of at least one of the authors to register and present the paper. All papers are to be submitted electronically, - see full instructions under **Paper Submission** below, in PDF or Word format. All papers and artwork will be peer reviewed by at least three independent referees of the international program committee.

Paper Submission: UKSim2024 is using EDAS for submission, paper processing and registration, authors need to:

- create an account with EDAS (if not already have one) at <http://edas.info>
- open the list of conferences managed by EDAS & find UKSim2024
- click on Submit button on the right to enter your paper title & abstract
- upload file.

In case of difficulty send your paper file directly to the general chair: david.al-dabass@ntu.ac.uk or david.al-dabass@btinternet.com.

Kindly promote UKSim2024 to all your contacts in your university, country and worldwide. Cambridge University, Cambridge city and England are great places to visit and explore. UKSim2024 is promising to be a great conference and is a golden opportunity to network with world specialists and forge new friendships and cooperation with colleagues in the UK, Europe and worldwide.

Best regards and hope to see you in Cambridge at UKSim2024.

On behalf of
Conference committee.