

## The 2024 International Conferences on Life System Modeling and Simulation (LSMS2024) & The 2024 Intelligent Computing for Sustainable Energy and Environment (ICSEE2024)

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## CALL FOR PAPERS

Suzhou, China, September 13-15, 2024

The 2024 International Conference on Life System Modeling and Simulation (LSMS2024) and 2024 International Conference on Intelligent Computing for Sustainable Energy and Environment (ICSEE2024) aim to bring together researchers and practitioners in the field of life system modeling and simulation as well as intelligent computing theory and methodology with applications to sustainable energy and environment across the world. These events build on the success of previous LSMS conferences held in Shanghai, Wuxi, Nanjing and Hangzhou in 2004, 2007, 2010, 2014, 2017, and 2021, and ICSEE conferences held in Wuxi, Shanghai, Nanjing, Chongqing and Hangzhou in 2010, 2012, 2014, 2017, 2018 and 2021 respectively, and are based on large-scale UK-China collaboration projects on sustainable energy. At LSMS2024 and ICSEE2024, technical exchanges within the research community will take the form of keynote speeches, panel discussions, special sessions, innovation workshops and competitions, as well as oral and poster presentations. Participants will be treated with a series of social functions, receptions and networking sessions, which will serve to establish new connections, foster friendships, and forge partnerships and collaborations. The conferences in particular welcome proposals for special sessions and workshops related to the key themes of the conferences.

## PAPER SUBMISSION

Prospective authors are invited to submit full-length papers before the submission deadline through the online submission system. Further, proposals for special sessions and workshops within the technical scopes of the conference are most welcome. Papers submitted for special sessions and innovation workshops will be peer-reviewed with the same criteria as used with regular papers. A special session proposal should include the session title, a brief description, and the names, contact details and bio-sketch of the organizers.

Accepted papers are scheduled to be published in the Springer Communications in Computer and Information Science (CCIS) proceedings (EI Compendex). Some high-quality papers will be recommended for possible publication in SCI indexed international journals after expansion and further review, such as Journal of Modern Power Systems and Clean Energy, Transactions of the Institute of Measurement and Control, Expert System with Applications, Swarm and Evolutionary Computation, Cognitive Computation, Enterprise Information Systems, Advances in Manufacturing, IET Energy Systems Integration, etc.

## IMPORTANT DATES

Paper submission ----- **April 1, 2024** **April 15, 2024**  
Acceptance----- **June 1, 2024**  
Final paper submission----- **June 7, 2024**

## SUBMISSION PAGE

<http://www.lsms-icsee.cn/submit/index.html>

## WEBSITE AND EMAIL

<http://www.lsms-icsee.cn/index.html>

[lsms\\_icsee2024@163.com](mailto:lsms_icsee2024@163.com)



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### A. COMPUTATIONAL METHODS AND INTELLIGENCE IN LIFE SYSTEM MODELLING AND SIMULATION

- A1 Biological and biomedical data integration, mining and visualization
- A2 Biomedical signal processing, imaging, and visualization
- A3 Biorobotics, surgical robotics and surgical planning
- A4 Brain stimulation, neural dynamics and neural Interfacing
- A5 Computational intelligence in bioinformatics and biometrics
- A6 Computational methods and intelligence in modelling genetic and chemical networks and regulation
- A7 Computational methods and intelligence in modelling molecular, cellular and multi-cellular behaviour and dynamics
- A8 Computational methods and intelligence in organism modeling
- A9 Computational methods and intelligence in ontology and taxonomy study and drug design
- A10 Computational methods and intelligence in modelling and design of synthetic biological systems
- A11 Computational methods and intelligence in biomechanical systems, tissue engineering and clinical bioengineering
- A12 High performance bio-computing
- A13 Modelling software and makeup language in systems biology
- A14 Intelligent medical apparatus and clinical applications
- A15 Intelligent design of biochips, bioinstrumentations
- A16 Modelling and simulation of societies and collective behaviour
- A17 Innovative education in systems modeling and simulation

### B. INTELLIGENT COMPUTING AND NET-ZERO APPLICATIONS, INCLUDING SUSTAINABLE ENERGY AND ENVIROMENT

- B1 Advanced neural network theory and algorithms, including deep neural networks and graph neural networks, and their applications
- B2 Advanced evolutionary computing theory and algorithms, including multi-objective optimization algorithms, and their applications
- B3 Advanced theory and methodology in fuzzy systems and soft computing, and their applications
- B4 Autonomy-oriented computing and multi-agents, and their applications
- B5 Fuzzy, neural, and fuzzy-neuro hybrids and their applications
- B6 Intelligent modelling, monitoring, and control of complex nonlinear systems and their applications
- B7 Computational intelligence in production and utilization of clean and renewable power and energy resources, including fuel cell, hydrogen, solar and wind power, wave and tidal power, and biomass
- B8 Intelligent methods for energy saving and pollution reduction in manufacturing
- B9 Intelligent methods in developing electric vehicles, engines and equipment to support transport decarbonization
- B10 Intelligent methods in power and energy operation and infrastructure development with significant penetration of renewable energy and mass roll-out of electric vehicles
- B11 Intelligent computing in operation and control of distributed power generation systems including microgrids
- B12 Intelligent methods in modeling, simulation and control of power electronics and power networks to support sector decarbonization
- B13 Intelligent methods in road management and electricity market to support decarbonization
- B14 Intelligent methods for building energy management and decarbonization
- B15 Intelligent modeling and simulation of climate change
- B16 Intelligent water treatment and waste management technologies
- B17 Innovative education to support net zero transition
- B18 Intelligent autonomous systems and intelligent robotic systems
- B19 Industrial innovations in accelerating decarbonization in all sectors, such as power, transport, manufacturing, construction, buildings and farms.

### C. COMPUTATIONAL BIOMEDICINE

- C1 Biological and brain networks
- C2 Data analysis and data mining of biosignals
- C3 Biomarker discovery
- C4 Feature selection
- C5 Computational neuroscience
- C6 Robust optimization and data analysis
- C7 Genome data analysis
- C8 Molecular conformation and protein folding
- C9 Biocomputing