



# LSMS2024 & ICSEE2024 Call for Papers



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

### SPONSORS

China Simulation Federation (CSF)  
China Instrument and Control Society (CIS)  
IEEE Systems, Man & Cybernetics Society Technical Committee on Systems Biology  
IEEE CC Ireland Chapter

### ORGANIZERS

Suzhou University of Science and Technology, China  
Shanghai University, China  
Shanxi University, China  
University of Leeds, UK  
Xiangtan University, China  
Life System Modeling and Simulation Technical Committee of CSF, China  
Embedded Instrument and System Technical Committee of China Instrument and Control Society, China

### CO-SPONSORS

IEEE Industrial Electronics Society  
UK China University Consortium on Engineering Education and Research  
International Scientific Research Alliance on Intelligent Measurement Control and Applications of Complex Networked Systems  
Shanghai Association for System Simulation  
Shanghai Instrument and Control Society  
Shanghai Association of Automation

### CO-ORGANIZERS

Queen's University Belfast, UK  
Nanjing University of Posts and Telecommunications, China  
University of Essex, UK  
Queensland University of Technology, Australia  
Tsinghua University, China  
Peking University, China  
Nantong University, China  
Shenzhen Institute of Advanced Technology, CAS, China  
Cardiff University, UK  
Shanghai Key Laboratory of Power Station Automation Technology, China  
Shanghai International Joint Laboratory of Intelligent Automation and Networked Control, China  
Discipline Innovation and Talent Introduction Base for Intelligent Measurement & Control for Complex Networked Systems and Applications, Ministry of Science and Technology, China  
Joint Laboratory for Intelligent Measurement and Control of Low-carbon Energy Systems, China-UK  
The Key Laboratory of Complex Systems and Data Science, Ministry of Education, China  
Jiangsu Industrial Intelligent and Low-carbon Technology Engineering Center, China  
Suzhou Key Laboratory of Intelligent Low-carbon Technology Application, China  
Suzhou Blockchain Data Privacy Protection Innovation Application Laboratory, China  
Anhui Key Laboratory of Electric Drive and Control, China

### INTERNATIONAL ADVISORY COMMITTEE CHAIRS

Wang, Chengshan (Tianjin University, China)  
Hu, Huosheng (University of Essex, UK)  
Pedrycz, Witold (University of Alberta, Canada)  
Dong, Xinzhou (Tsinghua University, China)  
Zhao, Xudong (University of Hull, UK)  
Rosei, Federico (University of Trieste, Italy)

### HONORARY CHAIRS

Fei, Minrui (Shanghai University, China)  
Han, Qing-Long (Swinburne University of Technology, Australia)  
Spurgeon, Sarah (University College London, UK)  
Umezumi, Mitsuo (Waseda University, Japan)

### GENERAL CHAIRS

Peng, Chen (Shanghai University, China)  
Li, Kang (University of Leeds, UK)  
Gu, Juping (Suzhou University of Science and Technology, China)  
Wu, Jianzhong (Cardiff University, UK)

### INTERNATIONAL INDUSTRIAL ADVISORY COMMITTEE CHAIRS

Yu, James (SP Energy Networks, UK)  
Li, Yun (CRRC, China)  
Chen, Kai (SAIC, China)

### INTERNATIONAL PROGRAM COMMITTEE CHAIRS

Du, Dajun (Shanghai University, China)  
Ma, Shiwei (China Simulation Federation, China)  
Jia, Xinchun (Shanxi University, China)  
Qiao, Junfei (Beijing University of Technology, China)  
Fang, Fang (North China Electric Power University, China)  
Chen, Luonan (The University of Tokyo, Japan)  
Coombs, Tim (University of Cambridge, UK)  
McLoone, Sean (Queen's University Belfast, UK)  
Ma, Lei (Southwest Jiaotong University, China)  
Li, Bin (Tianjin University, China)  
Tian, Yuchu (Queensland University of Technology, Australia)  
Rakić, Aleksandar (University of Belgrade, Serbia)  
Yao, Zhiqiang (Xiangtan University, China)

## 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**  
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)



## INTERNATIONAL ADVISORY COMMITTEE

Ding, Zhengtao (University of Manchester, UK)  
Fan, Wenhui (Tsinghua University, China)  
Frangi, Alejandro (University of Manchester, UK)  
Gao, Zhi-Wei (Northumbria University, UK)  
He, Jinghan (Beijing Jiaotong University, China)  
Jia, Hongjie (Tianjin University, China)  
Jin, Yan (Queen's University Belfast, UK)  
Morris, Kevin (University of Leeds, UK)  
Pang, Chee Khiang (Singapore Institute of technology, Singapore)  
Varga, Liz (University College London, UK)  
Wang, Jihong (Warwick University, UK)  
Wang, Ling (Tsinghua University, China)  
You, Keyou (Tsinghua University, China)  
Yu, Wen (National Polytechnic Institute, Mexico)  
Zhang, Wenjun (University of Saskatchewan, Canada)

## IPC LOCAL CHAIRS

Athanasopoulos, Nikolaos (Queen's University Belfast, UK)  
Azizi, Sadegh (University of Leeds, UK)  
Cheng, Long (Institute of Automation, Chinese Academy of Sciences, China)  
Fang, Qing (Yamagata University, Japan)  
Gan, Shaojun (Beijing University of Technology, China)  
Gao, Shan (Southeast University, China)  
Guo, Yuanjun (SIAT, CAS, China)  
Hou, Weiyang (Zhengzhou University, China)  
Hu, Fuyuan (Suzhou University of Science and Technology, China)  
Hu, Yukun (University College London, UK)  
Huang, Congzhi (NCEPU, China)  
Huang, Deqing (Southwest Jiaotong University, China)  
Jiang, Lin (University of Liverpool, UK)  
Jiang, Wei (Southeast University, China)  
Jahromi, Amir (University of Leeds, UK)  
Li, Fuqiang (Henan Agricultural University, China)  
Li, Shuai (University of Oulu, Finland)  
Li, Xiaou (National Polytechnic Institute, Mexico)  
Li, Yongliang (University of Birmingham, UK)  
Liu, Kailong (Shandong University, China)  
Liu, Yang (Harbin Institute of Technology, China)  
Long, Teng (University of Cambridge, UK)  
Menhas, Muhammad Ilyas (Mirpur University of Science and Technology, Pakistan)  
Naem, Wasif (Queen's University Belfast, UK)  
Pfaender, Fabien (Université de technologie de Compiègne, France)  
Stefanovski, Jovan D. Control & Informatics Div., JP "Strežvo", Bitola, Macedonia  
Tan, Mao (Xiangtan University, China)  
Teng, Fei (Imperial College, UK)  
Uddin, Mohammad Monir (North South University, Bangladesh)  
Wang, Qi (Shanxi University, China)  
Wang, Wei (NCEPU, China)  
Wang, Xinli (Shandong University, China)  
Wei, Lisheng (Anhui Polytechnic University, China)  
Xu, Xiangdong (Tianjin University, China)  
Yang, Fuwen (Griffith University, Australia)  
Yang, Guangya (Danmarks Tekniske Universitet, Denmark)  
Yan, Juan (Anhui University, China)  
Zhang, Jianhua (NCEPU, China)  
Zhang, Kun (Nantong University, China)  
Zhang, Long (University of Manchester, UK)  
Zhang, Tengfei (Nanjing University of Posts and Telecommunications, China)  
Zhang, Xing (University of Sheffield, UK)  
Zhou Huiyu (University of Leicester, UK)  
Zhou, Wenju (Shanghai University, China)

## ORGANIZING COMMITTEE CHAIRS

Wang Yulong (Shanghai University, China)  
Wang, Ling (Shanghai University, China)  
Li, Ni (CSF, China)  
Wu, Hongjie (Suzhou University of Science and Technology, China)  
Wu, Zhengtian (Suzhou University of Science and Technology, China)  
Guo, Shenghui (Suzhou University of Science and Technology, China)  
Guan, Yanpeng (Shanxi University, China)

## NET ZERO INNOVATION WORKSHOP CHAIRS

Yang, Zhile (SIAT CAS, China)  
Zhang, Li (MediaTek, China)  
Liu, Yanli (Tianjin University, China)  
Ma, Nan (Beijing University of Technology, China)

## SPECIAL SESSION CHAIRS

Wang, Sen (Imperial College London, UK)  
Liu, Qiang (University of Bristol, UK)  
Ma, Nan (Beijing University of Technology, China)  
Mou, Xiaolin (Shenzhen Technology University, China)  
Li, Yihuan (NCEPU, China)

## PUBLICATION CHAIRS

Niu, Qun (Shanghai University, China)  
Zhao, Wanqing (Newcastle University, UK)

## PUBLICITY CHAIRS

Yang, Erfu (University of Strathclyde, UK)  
Fei, Zixiang (Shanghai University, China)  
Hua, Haochen (Hohai University, China)  
Shao, Weiming (China University of Petroleum, China)

## REGISTRATION CHAIRS

Song, Yang (Shanghai University, China)  
Ding, Shuchen (Suzhou University of Science and Technology, China)

## SECRETARY-GENERAL

Li, Xin (Shanghai University, China)  
Sun, Xin (Shanghai University, China)  
Chen, Zhi (Shanghai University, China)  
Wang, Xiaoliang (Suzhou University of Science and Technology, China)

## PROGRAM TOPICS

### 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