

The 14th International Conference on Intelligent Control and Information Processing (ICICIP 2026)

February 21-24, 2026 Chiang Mai, Thailand

Final Program



Sponsor and Co-Sponsors



Chiang Mai University



**Guilin University of
Electronic Technology**



**City University of
Hong Kong**

Technical Co-Sponsor



**IEEE
SMC**
Systems, Man, and Cybernetics Society

**IEEE Systems, Man, and
Cybernetics Society**

Welcome Messages

On behalf of the Organizing Committee of the 14th International Conference on Intelligent Control and Information Processing (ICICIP 2026), we are pleased to welcome you to this event, to be held in Chiang Mai, Thailand, from February 21-24, 2026. Building on the success of previous events, ICICIP has become a well-established series of high-quality conferences in intelligent control and information processing. ICICIP 2026 aims to provide a high-level international forum for scientists, engineers, and educators to present the latest advancements in intelligent control and information processing research and their applications in related fields. The conference will feature plenary speeches by world-renowned scholars, regular sessions with broad coverage, and special sessions focusing on trending topics.

This year, the conference received 102 submissions from 10 countries worldwide. Each submission was reviewed by at least two and, on average, three program committee members. After rigorous peer reviews, the committee accepted 62 papers for publication in the proceedings, resulting in an acceptance rate of 60.8%. These papers cover a wide range of topics, including theory, methodology, and applications. In addition to the contributed papers, the conference's technical program featured keynote speeches by three world-renowned scholars Prof. Qing-Long Han (*IEEE Fellow, IFAC Fellow, 2021 IEEE Norbert Wiener Awardee*) from the Swinburne University of Technology, Australia, Prof. Derong Liu (*IEEE Fellow, INNS Fellow, IAPR Fellow, and IEEE Neural Network Pioneer Awardee*) from Anhui University, China, and Dacheng Tao (*IEEE Fellow, ACM Fellow, Australian Laureate Fellow, and Fellow of the Australian Academy of Science*) from Nanyang Technological University, Singapore.

Many organizations and volunteers contributed greatly to the success of this conference. We would like to express our sincere gratitude to Chiang Mai University, Guilin University of Electronic Technology, and City University of Hong Kong for their sponsorship/co-sponsorship, and to the IEEE Systems, Man, and Cybernetics Society for its technical co-sponsorship. We also extend our heartfelt thanks to all the committee members for their efforts in organizing the conference. Special thanks go to the program committee members and reviewers, whose insightful reviews and timely feedback ensured the high quality of the accepted papers and the smooth flow of the conference. Finally, we would like to thank all the speakers, authors, and participants for their support.

Sansanee Auephanwiriyaikul, Han-Xiong Li, and Ya Zhou, *General Chairs*
Xiaonan Luo and Jun Wang, *Organizing Chairs*
Shaofu Yang and Xiaoshu Zhu, *Program Chairs*

Organizing Committee

General Chairs

Sansanee Auephanwiriyaikul, Chiang Mai University, Chiang Mai, Thailand
Hanxiong Li, City University of Hong Kong, Hong Kong
Ya Zhou, Guilin University of Electronic Technology, Guilin, China

Organizing Chairs

Xiaonan Luo, Guilin University of Electronic Technology, Guilin, China
Jun Wang, City University of Hong Kong, Hong Kong

Program Chairs

Shaofu Yang, Southeast University, Nanjing, China
Xiaoshu Zhu, Guilin University of Electronic Technology, Guilin, China

Special Sessions Chairs

Rushi Lan, Guilin University of Electronic Technology, Guilin, China
Man-Fai Leung, Anglia Ruskin University, Cambridge, UK

Workshop & Tutorial Chairs

Jonathan Chan, King Mongkut's University of Technology Thonburi, Bangkok, Thailand
Xinyi Le, Shanghai Jiao Tong University, Shanghai, China

Publicity Chairs

Li Liu, Kunming University of Science and Technology, Kunming, China
Yang Liu, Zhejiang Normal University, Jinhua, China
Nian Zhang, University of the District of Columbia, Washington, DC, USA

Registration Chairs

Shenshen Gu, Shanghai University, Shanghai, China
Samuel Chun Pong Lau, City University of Hong Kong, Hong Kong

Publications Chairs

Bo Cai, Harbin Institute of Technology, Harbin, China
Zhongying Chen, Southeast University, Nanjing, China
Shuting Sun, Zhejiang Normal University, Jinhua, China
You Zhao, Southwest University, Chongqing, China

Registration Chairs

Shenshen Gu, Shanghai University, Shanghai, China
Samuel Chun Pong Lau, City University of Hong Kong, Hong Kong

Local Arrangements Chair

Sutasinee Thovuttikul, Chiang Mai University, Chiang Mai, Thailand

Program Committee

Gang Bao	China Three Gorges University
Ruxandra Liana Costea	Polytechnic University of Bucharest
Guangyan Cui	Shanghai Ocean University
Jizhuang Cui	Dalian Polytechnic University
Yingchao Dong	Dalian Polytechnic University
Yun Feng	Hunan University
Vinod Goje	Bank of America
Shenshen Gu	Shanghai University
Ping Guo	Beijing Normal University
Junlin He	Dalian Polytechnic University
Ze Zheng Hou	Dalian Polytechnic University
Jin Hu	Chongqing Jiaotong University
Rushi Lan	Guilin University of Electronic Technology
Man-Fai Leung	Anglia Ruskin University
Hongzong Li	City University of Hong Kong
Houcheng Li	University of the Chinese Academy of Sciences
Tieshan Li	Dalian Maritime University
Jun Liu	Chengdu University of Information Technology
Mei Liu	The Chinese University of Hong Kong
Xiao-Fang Liu	Nankai University
Yang Meng	Dalian Polytechnic University
Dharmalingam Muthusamy	Bharathiar University
Zhongjin Sha	Dalian Polytechnic University、
Xinli Shi	Southeast University
Pingzhuo Wang	Dalian Polytechnic University
Xiaoping Wang	Huazhong University of Science and Technology
Xin Wang	Sichuan University
Yadi Wang	Henan University
Zhuo Wang	Dalian Polytechnic University
Zhenghui Xu	Dalian Polytechnic University
Suqing Yan	Guilin University of Electronic Technology
Rui Yang	Guilin University of Electronic Technology
Shaofu Yang	Southeast University
Xujun Yang	Chongqing Jiaotong University
Wenwu Yu	Southeast University
Guodong Zhang	South-Central Minzu University
Nian Zhang	University of the District of Columbia
Xianxiu Zhang	Chongqing Three Gorges University
Yang Zhang	Dalian Polytechnic University
Zhihui Zhang	Dalian Polytechnic University
Bo Zhao	Beijing Normal University
Qiuyue Zuo	Hunan Normal University
ZiXuan Zuo	Dalian Polytechnic University

Program at a Glance

February 21, 2026

Duantawan Hotel Lobby	
14:00 - 17:00	On-site registration

February 22, 2026

Chiang Saen Hall (third floor), Duantawan Hotel	
8:30 - 8:40	Opening Ceremony
8:40 - 9:40	Plenary Talk I - Prof. Qing-Long Han
9:40 - 10:00	Coffee Break
10:00 - 11:00	Plenary Talk II - Prof. Derong Liu
11:00 - 12:00	Plenary Talk III - Prof. Dacheng Tao
12:00 - 13:00	Lunch @ Tawan Restaurant (second floor)
13:00 - 15:00	Session 1 and Session 2
15:00 - 15:20	Coffee Break
15:20 - 17:40	Session 3 and Session 4

18:00 - 19:30	Gala Dinner @ Chiang Dao Hall (third floor)
---------------	---

February 23, 2026

Online Sessions via Zoom	
9:00 - 12:00	Session 5 (online)
12:00 - 13:00	Lunch break
13:00 - 17:00	Session 6 (online)

February 24, 2026

Online Sessions via Zoom	
9:00 - 12:00	Session 7 (online)
12:00 - 13:00	Lunch break
13:00 - 17:00	Session 8 (online)

NB: The conference is scheduled in a hybrid mode with both onsite sessions and online sessions. All times are in the local zone. Chiang Mai time is 1 hour behind Beijing time, 12 hours ahead of New York Time.

Plenary Talk I

Distributed Coordination Control of Multi-agent Systems under Intermittent Sampling and Communication

Professor Qing-Long Han

Swinburne University of Technology, Melbourne, Australia

Sampling and communication are both crucial for coordination in multi-agent systems (MASs), with sampling capturing raw data from the environment for control decision-making, and communication ensuring that data is shared effectively for synchronized, informed control decisions across agents. However, practical MASs often operate in environments where continuous, synchronous data sampling and exchange are impractical, necessitating strategies that can handle intermittent sampling and communication constraints. This talk will provide a comprehensive survey of recent advances in distributed coordination control of MASs under intermittent sampling and communication, focusing on both foundational principles and state-of-the-art techniques. After introducing fundamentals, such as communication topologies, agent dynamics, control laws, and typical coordination objectives, the distinctions between sampling and communication are elaborated, exploring deterministic versus random, synchronous versus asynchronous, and instantaneous versus sequential scenarios. A detailed review of emerging trends and techniques is then presented, covering time-triggered, event-triggered, communication-protocol-based, and denial-of-service-resilient coordination control. These techniques are analyzed across various attack models, including data-loss, sampled-data, time-constraint, and topology-switching attacks. By synthesizing these developments, this talk aims to equip listeners with a clear understanding of current challenges and methodologies and to conclude with insights into promising future directions.



Professor Qing-Long Han is Pro Vice-Chancellor and a Distinguished Professor at Swinburne University of Technology, Australia. He held various academic and management positions at Griffith University and Central Queensland University, Australia. He was awarded the 2024 IEEE Dr.-Ing. Eugene Mittelmann Achievement Award, the 2021 Norbert Wiener Award, 2021 M.A. Sargent Medal, the IEEE Systems, Man, and Cybernetics Society

Andrew P. Sage Best Transactions Paper Award in 2019, 2020, and 2022, and the IEEE/CAA Journal of Automatica Sinica Norbert Wiener Review Award in 2020, and the IEEE Transactions on Industrial Informatics Outstanding Paper Award in 2020. He is a Member of the Academia Europaea, a Fellow of IFAC, IEEE, an Honorary Fellow of the Institution of Engineers Australia, and a Fellow of the Chinese Association of Automation. He is a Highly Cited Researcher in both Engineering and Computer Science (Clarivate). He has served on the AdCom of the IEEE Industrial Electronics Society (IES), the IEEE IES Fellows Committee, and the IEEE IES Publications Committee, as Chair of the IEEE IES Technical Committee on Network-Based Control Systems and Applications, and as Co-Editor-in-Chief of the *IEEE Transactions on Industrial Informatics*. He is the President-Elect and a member of the Executive Board and the Steering Committee of the Asian Control Association. He is the Editor-in-Chief of *IEEE/CAA Journal of Automatica Sinica* and the Co-Editor of *Australian Journal of Electrical and Electronic Engineering*.

Plenary Talk II

Artificial Intelligence-Based Self-Learning Control Methods

Professor Derong Liu
Anhui University, Hefei, China

Artificial Intelligence-Based Self-Learning Control Methods have emerged as a transformative approach to optimal control of nonlinear systems in dynamic, complex environments. Unlike traditional control techniques that rely on predefined models and manual tuning, self-learning control leverages AI-driven algorithms, such as reinforcement learning and neural networks, to adapt and optimize control strategies in real time. These methods enable autonomous decision-making, improved robustness, and enhanced adaptability, making them particularly useful in robotics, autonomous vehicles, industrial automation, and smart energy systems. This lecture explores the fundamental principles of AI-driven self-learning control, discusses key methodologies including adaptive dynamic programming and parallel control approaches, and examines their practical applications across various domains. Furthermore, this lecture explores trade-offs among learning efficiency, real-time adaptability, and deployment feasibility, offering insights into overcoming these challenges in real-world implementations. Additionally, meta-control is a higher-level mechanism that dynamically adjusts self-learning strategies, thereby improving the efficiency and robustness of AI-driven control systems. By integrating AI with control theory, self-learning control is poised to revolutionize intelligent automation, enabling more efficient and autonomous systems.



Derong Liu received the PhD degree in electrical engineering from the University of Notre Dame, USA, in 1994. He became a Full Professor of Electrical and Computer Engineering and of Computer Science at the University of Illinois Chicago in 2006. He was selected for the “100 Talents Program” by the Chinese Academy of Sciences in 2008, and he served as the Associate Director of the State Key Laboratory of Management and Control for Complex Systems at the Institute of Automation from 2010 to 2016. He is currently a professor at Anhui University, Hefei, China. He has published 13 books. He received the International Neural

Network Society’s Dennis Gabor Award in 2018 and the IEEE CIS Neural Network Pioneer Award in 2022. He has been named a Highly Cited Researcher by Clarivate since 2017. He was the Editor-in-Chief of the IEEE Transactions on Neural Networks and Learning Systems from 2010 to 2015. He is the Editor-in-Chief of Artificial Intelligence Review (Springer). He is a Fellow of the IEEE, a Fellow of the International Neural Network Society, a Fellow of the International Association of Pattern Recognition, and a Member of Academia Europaea (The Academy of Europe).

Plenary Talk III

Deep Model Fusion

Professor Dacheng Tao
Nanyang Technological University, Singapore

In recent years, we have witnessed a profound transformation in the learning paradigm of deep neural networks, especially in the applications of large language models and other foundation models. While conventional deep learning methodologies remain significant, they are now augmented by emergent model-centric approaches, such as knowledge transfer, model editing, model fusion, and leveraging unlabeled data to tune models. Among these advances, deep model fusion techniques have demonstrated particular efficacy in boosting model performance, accelerating training, and mitigating the dependency on annotated datasets. Nevertheless, substantial challenges persist in the research and application of effective fusion methodologies and their scalability to large-scale foundation models. In this talk, we systematically present the recent advances in deep model fusion techniques. We provide a comprehensive taxonomical framework for categorizing existing model fusion approaches, and introduce our recent developments, including (1) weight learning-based model fusion and data-adaptive MoE upscaling, (2) subspace learning approaches to model fusion, and (3) enhanced multi-task model fusion incorporating pre- and post-finetuning to minimize representation bias between the merged model and task-specific models.



Dacheng Tao is currently a Distinguished University Professor and the Inaugural Director of the Generative AI Lab in the College of Computing and Data Science at Nanyang Technological University. He was an Australian Laureate Fellow and the founding director of the Sydney AI Centre at the University of Sydney, the inaugural director of JD Explore Academy, senior vice president at JD.com, and the chief AI scientist at UBTECH Robotics. He primarily applies statistics and mathematics to artificial intelligence, and his research is detailed in a single monograph and over 300 publications. His publications have been cited over 140K times, and he has an h-index of 180+ in Google Scholar. He received the 2015 and 2020 Australian Eureka Prizes, the 2018 IEEE ICDM Research Contributions Award, the 2020 Research Superstar by The Australian, the 2019 Diploma of The Polish Neural Network Society, and the 2021 IEEE Computer Society McCluskey Technical Achievement Award. He is a Fellow of the Australian Academy of Science, ACM, and IEEE.

February 22, 2026

- 8:30 - 8:40 Opening Ceremony
8:40 - 9:40 Plenary Talk I by Prof. Qing-Long Han
9:40 - 10:00 Coffee Break
10:00 - 11:00 Plenary Talk II by Prof. Derong Liu
11:00 - 12:00 Plenary Talk III by Prof. Dacheng Tao

Session 1: Control & Estimation

Chairs: Bo Zhao and Bowen Hou

Room: Chiang Saen Meeting Rooms 1-2

- 13:00-13:20 *Value Iteration-Based Optimal Asynchronous Control for Markov Jump Systems with Application to Power Systems*
Jian Fu, Mingduo Lin, Bo Zhao, Derong Liu
- 13:20-13:40 *Synchronization Control of Complex Cyber-physical Networks Subject to Malicious Attack*
Manchun Tan, Zhiqiang Song
- 13:40-14:00 *Predefined-Time Distributed State Estimation for Nonlinear Systems over Directed Networks*
Haotian Wu, Qinlong Lin, Yang Liu, Jun Wang
- 14:00-14:20 *The Shapley Dividend: A Stability-Oriented Solution Concept for Superadditive Games*
Jichao He, He Wang, Wenwu Yu
- 14:20-14:40 *Attitude Estimation and Quasi-Consistent Norm-Constrained Extended Kalman Filter*
Yadan Jiang, Bowen Hou, Jiongqi Wang, Yijie Zhang, Xuanying Zhou
- 14:40-15:00 *Monocular State Estimation for the Space Target Based on Global Robust Extended Kalman Filter*
Yijie Zhang, Bowen Hou, Jiongqi Wang, Xuanying Zhou, Yadan Jiang

Session 2: Information Processing

Chairs: Tuan D. Pham and Hironori Takimoto

Room: Chiang Saen Meeting Rooms 3-4

- 13:00 - 13:20 *Enhancing Image Aesthetic Quality Using Deep Learning Based on Image Color Aesthetics Assessment*
Takumi Nakagama, Kazuki Koike, Hironori Takimoto
- 13:20 - 13:40 *Small Object Detection in Aerial Images based on Cross-Attention and Semantic Denoising*

Yuan Wang, Ling Li, Xiaonan Luo

- 13:40 - 14:00 *Transformer with Multi-Strategy Fusion for Quantitative Trading: A Direction-Value Joint Loss*
Cong Liu, Jicheng Yao, Xiaonan Luo
- 14:00 - 14:20 *CampusSyn: A Real-world Complex Environment Dataset for Vehicle-to-vehicle Collaborative Perception*
Weiwen Gao, Li Zhou, Xiaonan Luo
- 14:20 - 14:40 *An Underwater Fish Detection Method Based on Dual-path Optimized YOLOv7*
Lingfeng Peng, Xiaoshu Zhu, Xiaonan Luo, Delhi Huang, Huhuang Huang
- 14:40 - 15:00 *Similarity of Extravasation on Computed Tomography*
Tuan D. Pham, Maki Kitamura, Taichiro Tsunoyama
- 15:00 - 15:20 Coffee Break

Session 3: Learning & Optimization

Chairs: Hongzong Li and Qiang Wang

Room: Chiang Saen Meeting Rooms 1-2

- 15:20 - 15:40 *A Comparative Study on the Convergence Rate of Two Online Quantum State Reconstruction Algorithms*
Shuang Cong, Weiyi Qin
- 15:40 - 16:00 *Decentralized Bilevel Optimization with the Penalty Method*
Keqin Che, Haoda Qu, Shaofu Yang
- 16:00 - 16:20 *Low Burden Communication in Distributed Online Saddle Point Optimization*
Zikang Xu, Wenying Xu, Jinde Cao
- 16:20 - 16:40 *Online Continual Learning via Spiking Neural Networks with Sleep Enhanced Latent Replay*
Erliang Lin, Wenbin Luo, Wei Jia, Shaofu Yang, Wenying Xu
- 16:40 - 17:00 *Minimum Adversarial Attack on Industrial Fault Classification Systems via Fully Iterative DeepFool*
Qiang Wang, Zhiqiang Ge, Hongzhe Liu, Wenwu Yu
- 17:00 - 17:20 *A Collaborative Neurodynamic Optimization Algorithm for Capacitated Vehicle Routing Problem*
Hongzong Li, Luwei Liao, Yihao Zhang, Xiangguang Dai

Session 4: AI Applications

Chairs: Vinayakumar Ravi and Jose J. Lopez

Room: Chiang Saen Meeting Rooms 3-4

- 15:20 - 15:40 *A Deep Learning-Powered Smartphone Application for Real-Time Vertical Jump Height Measurement in Sports Science*
Jose J. Lopez, Lucas Banchero
- 15:40 - 16:00 *An Optimized Approach towards Classical Poetry Generation based on LSTM Models*
Maocheng Li, Ling Li, Xiaonan Luo
- 16:00 - 16:20 *Multi-model Based Transfer Learning for Battery Thermal Process*
Xingchen Zhang, Han-Xiong Li
- 16:20 - 16:40 *FPGA-Based Low Power CNN-LSTM System for Audio Blind Source Separation*
Ezilarasan M R, G.kavitha, Rahul S G, Hangjun Che, Xiangguang Dai, Yuming Feng, Man-Fai Leung
- 16:40 - 17:00 *A Comprehensive Review of Data Analysis Methods for Spatially Transcriptomics*
Zhicheng Mei, Xiaoshu Zhu, Fei Teng, Feng Ding, Huanyuan Wang
- 17:00 - 17:20 *A Review of Intelligent Sensing Technology for Lithium Battery Production Lines*
Haoran Chai, Xiaoshu Zhu, Chuqi Wu, Jingwei Zhang, Feng Ding, Zhanbo Gu
- 17:20 - 17:40 *Network Intrusion Detection in Industrial Healthcare Environment using Ensemble Deep Neural Decision Tree*
Vinayakumar Ravi
- 18:00 - 19:30 Gala Dinner (Chiang Dao Hall, third floor)

February 23, 2026

Session 5: Machine Learning

Chairs: Xinzhe Wang and Yuzhou Wang

Zoom link: <https://cityu.zoom.us/j/82751989090> (no passcode)

- 9:00 - 9:20 *Semi-Supervised Hyperspectral Image Classification Using Low-Confidence Pseudo-Labeling*
Nian Zhang, Timeka Gomillion
- 9:20 - 9:40 *Deep Spectral-Spatial Residual Networks for High-Precision Hyperspectral Classification*
Nian Zhang, Tewelde Semere

- 9:40 - 10:00 *Multimodal Knowledge Graph Convolutional Networks for SAR Image Semantic Segmentation*
Jianchao Fan, Yizhi Zhao, Zixuan Zuo, Xinzhe Wang
- 10:00 - 10:20 *QR-MAPPO: A Quantum Multi-Agent Reinforcement Learning Algorithm for Microgrid Energy Optimization Scheduling*
Zhenyu Zhang, Xianzhe Meng, Manqiu Huang, Zhigang Zeng
- 10:20 - 10:40 *Addressing Training Challenges in Federated Learning Using Adaptive Gradient Reshaping*
Chenhua Yang
- 10:40 - 11:00 *LG-MSUNet: Local-Global Dual-Branch Network with Lightweight Attention for Medical Image Segmentation?*
Xiaohong Qi, Xin Xia, Fang Chen, Yuzhou Wang
- 11:00 - 11:20 *Shape-guided Instance Segmentation of Cell Nuclei*
Hong Zheng, Zupei Huang, Xiaonan Luo
- 11:20 - 11:40 *Fund Recommendation Algorithm Based on AI model*
Pengfei Tang, Yuhan Li, Xiaonan Luo
- 11:40 - 12:00 *Enhanced U-Net for Car Segmentation with Residual Attention and Adaptive Feature Fusion*
Hanyang Huang, Fang Li, Xiaonan Luo

12:00 - 13:00 Lunch break

Session 6: Intelligent Control

Chair: Nan Gu and Anqing Wang

Zoom link: <https://cityu.zoom.us/j/82751989090> (no passcode)

- 13:00 - 13:20 *Line-of-Sight Guidance Strategy for Collaborative Berthing of Autonomous Tugs*
H. Liu, Anping Wang, L. Li, J. Xu, Nan Gu, Zhouhua Peng
- 13:20 - 13:40 *A Novel Electric Vehicle V2G Control Strategy for Weak Communication Scenario*
Jiaming He, Zhichen Li, Huaicheng Yan, Dahu Yu, Jing Xu, Bing Song
- 13:40 - 14:00 *R-NODE: A Time-Continuous Approach for Fault Diagnosis with Recurrent Neural ODEs*
Xu Wang, Dong Pang, Cailian Chen, Xinping Guan, Xinyi Le
- 14:00 - 14:20 *Trajectory Tracking Control of Second-order Uncertain Nonlinear Systems based on Integral Concurrent Learning Predictor*
Huijuan Li, Nan Gu, Zhouhua Peng, Lu Liu, Haoliang Wang, Anqing Wang

- 14:20 - 14:40 *A Hybrid PSO-SDDiP Framework for Overcoming Local Optimality in Multi-Stage Hydrothermal Scheduling with Maintenance Constraints*
Jichao Wang, Xiangjun Kong, Liang Liang
- 14:40 - 15:00 *A NURBS Curve Approximation Method Based on GA-PSO Hybrid Optimization*
Zhidong Zhang, Ya Zhou
- 15:00 - 15:20 *A Lightweight Multiscale Super-Resolution Reconstruction Method for Microscopic Images*
Guangwu Yang, Ya Zhou, Xiaoshu Zhu, Taiwu Yao
- 15:20 - 15:40 *A Class of Dual-frame Passively-tilting Fully-Actuated Hexacopter*
Jiajun Liu, Yimin Zhu, Xiaorui Liu, Mingye Cao, Mingchao Li, Lixian Zhang
- 15:40 - 16:00 *Data-Driven BMI Stratification-Based Determination of Optimal Timing for Non-Invasive Prenatal Testing (NIPT) in Pregnant Women*
Bo Li, Fang Li
- 16:00 - 16:20 *Spatial Attention-Guided Multi-Scale Fusion for EfficientNet-Based Fine-Grained Vegetable Classification*
Junjian Jie, Fang Li, Xiaonan Luo
- 16:00 - 16:20 *Bridge Connecting Multitask and Dynamic: A New Approach for Multitask Optimization via Dynamic Optimization*
Si-Cheng Wang, Kejing Du, Chun-Hua Chen, Zhi-Hui Zhan
- 16:40 - 17:00 *MSCI: Multi-Scale Time Series Forecasting with Cross-Channel Feature Interaction*
Lei Gong, Ya Zhou, Xiaoshu Zhu, Taiwu Yao

February 24, 2026

Session 7: Data Processing

Chairs: Xinze Wang and Yuyou Qin

Zoom link: <https://cityu.zoom.us/j/86726963169> (no passcode)

- 9:00 - 9:20 *Comparative Study of Transformer-Based Character-Level and Word-Level Text Prediction Models*
Zesen Zhang, Huanfu Huang, Xiaonan Luo
- 9:20 - 9:40 *Evaluating Sentiment Analysis Models for Tourist Reviews: Implications for Guilin Scenic Area Management*
Jianming Song, Ling Li, Xiaonan Luo

- 9:40 - 10:00 *A Comprehensive Study on Cat-Dog Image Classification Method Based on MobileNetV2 Transfer Learning*
Jinghan He, Yuhan Li, Xiaonan Luo
- 10:00 - 10:20 *An Alternating Mamba Selective Mechanism GANs for Oil Spill Semantic Segmentation*
Dongliang Shi, Yuhan Li, Xiaonan Luo
- 10:20 - 10:40 *Automatic Department Performance Assessment via Strategic Prompt Engineering*
Lie Chen, Songhua Xu, Xiaonan Luo, Yuyou Qin
- 10:40 - 11:00 *Research on the Application of EfficientNet-B4 Model Enhanced with Attention Mechanism in Animal Image Classification*
Zhanpeng Zheng, Fang Li, Xiaonan Luo
- 11:00 - 11:20 *An Alternating Mamba Selective Mechanism GANs for Oil Spill Semantic Segmentation*
Zhongjin Sha, Xinzhe Wang, Jianchao Fan, Min Han
- 11:20 - 11:40 *Can Large Language Models Truly Assist Managers in Performance Evaluations? A Feasibility Study on Evaluating Departments Using Assessment Data*
Hangyu Li, Songhua Xu, Yuyou Qin
- 11:40 - 12:00 *Harnessing Advanced LLMs for Fair and Efficient Performance Evaluation: An Empirical Study on DeepSeek*
Qiaosheng Lu, Songhua Xu, Xiaonan Luo, Yuyou Qin

12:00 - 13:00 Lunch Break

Session 8: Optimization & Learning

Chairs: Xinrui Jiang and Na Liu

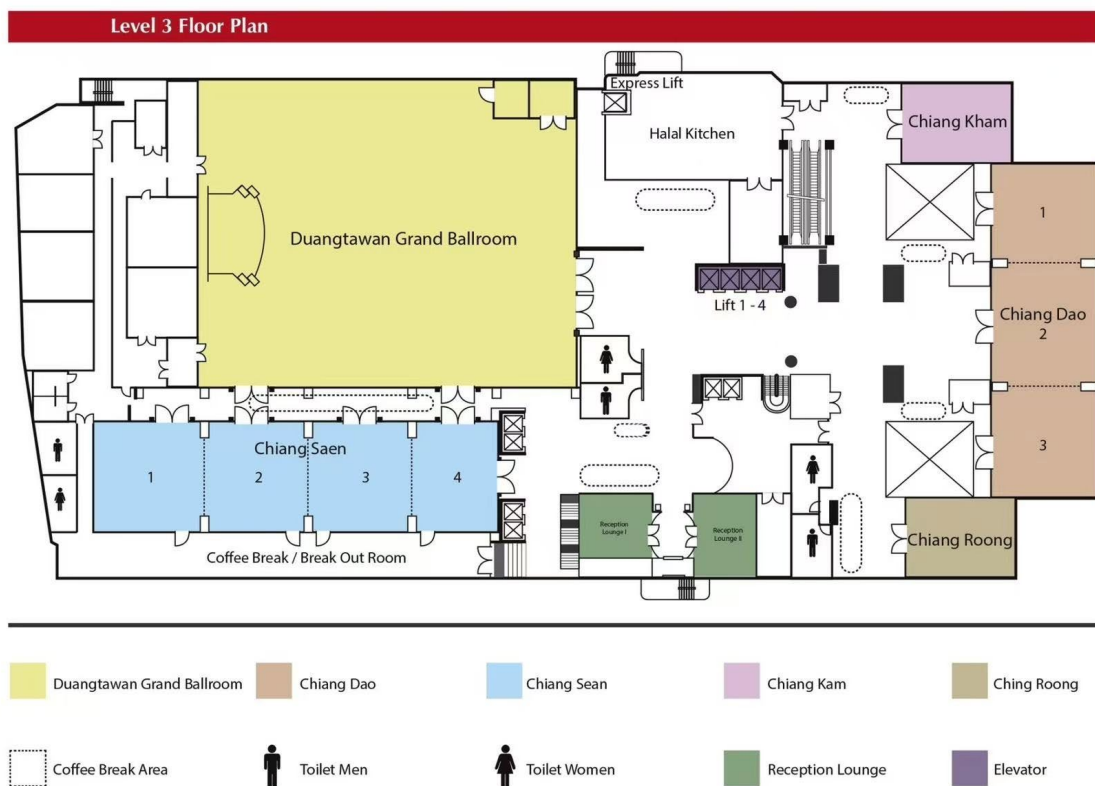
Zoom link: <https://cityu.zoom.us/j/86726963169> (no passcode)

- 13:00 - 13:20 *Marine Floating Raft Aquaculture Extraction Based on SegFormer Using Hippopotamus Optimization*
Kaibo Kang, Jun Xing, Xinzhe Wang, Min Han, Bing Han, Jianchao Fan
- 13:20 - 13:40 *A Review of Smart Lithium-Ion Battery Manufacturing: AI-enabled Decision and Control Approaches*
Feng Ding, Xiaoshu Zhu, Chuqi Wu, Jun Li, Qifeng He
- 13:40 - 14:00 *Review on Core Design Technologies and System Integration of Flexible Production Lines for Lithium-Ion Batteries*
Zhanbo Gu, Xiaoshu Zhu, Chuqi Wu, Changna Qian, Haoran Chai
- 14:00 - 14:20 *A Survey On Technical Analysis Model For Stock Market Trading*

Qifeng He, Xiaoshu Zhu, Yihua Zhou, Feng Ding, Wenbin Chen

- 14:20 - 14:40 *A Full U-net Architecture Evolutionary Approach*
Runjia Wu, Hai-Lin Liu, Yuping Wang
- 14:40 - 15:00 *A Neurodynamic Approach for Interval-Valued Optimization Problems with General Set Constraints*
Xiaowen Zhang, Xinrui Jiang, Sitian Qin
- 15:00 - 15:20 *An Adaptive Neurodynamic Approach with Finite-Time Consensus for Constrained Distributed Nonsmooth Nonconvex Optimization*
Na Liu, Sitian Qin
- 15:20 - 15:40 *Coordinated Optimization of PV-ES Charging Stations and Integrated Energy Communities with Energy Sharing and Revenue Allocation*
Jijiao Wei, Zhichen Li, Huaicheng Yan, Jing Xu, Bing Song, Zhongqi Zhao
- 15:40 - 16:00 *A Behavior Analysis Framework for Cynomolgus Macaque Food Retrieval Duration Estimation Based on YOLOv8n*
Wenbin Chen, Xiaoshu Zhu, Guo Chen, Jianpeng Zhang

-Adjournment-





16th International Conference on Information Science and Technology

October 1 - 6, 2026

Coimbra, Portugal

General Chairs

Cristiano Premebida, University of Coimbra, Coimbra, Portugal
Bernardete Ribeiro, University of Coimbra, Coimbra, Portugal
Jun Wang, City University of Hong Kong, Hong Kong

Advisory Chairs

Jorge Dias, Khalifa University, Abu Dhabi, UAE
Jie Huang, The Chinese University of Hong Kong, Hong Kong
Han-Xiong Li, City University of Hong Kong, Hong Kong
Jose Principe, University of Florida, Gainesville, FL, USA

Program Chairs

Alexandre Bernardino, University of Lisbon, Lisbon, Portugal
Nian Zhang, University of the District of Columbia, Washington, DC, USA

Special Sessions Chairs

Jianchao Fan, Dalian University of Technology, Dalian, China
Xiaolin Hu, Tsinghua University, Beijing, China
Cunjia Liu, Loughborough University, Loughborough, UK
César Teixeira, University of Coimbra, Coimbra, Portugal

Tutorials/Workshop Chairs

Micael Couceiro, Ingeniarius Lda, Porto, Portugal
Xinyi Le, Shanghai Jiao Tong University, Shanghai, China
Rosaldo Rosseti, University of Porto, Porto, Portugal

Publicity Chairs

Fenglei Fan, City University of Hong Kong, Hong Kong
Diego Faria, Loughborough University, Loughborough, UK
Iago Pacheco Gomes, Federal University of São Carlos, Brazil
Jorge Henriques, University of Coimbra, Coimbra, Portugal
Man-Fai Leung, Anglia Ruskin University, Cambridge, UK
Denis Wolf, University of São Paulo, São Paulo, Brazil

Publications Chairs

Francisco Nibau, University of Coimbra, Coimbra, Portugal
Hongzong Li, Hong Kong University of Science and Technology, Hong Kong
Dan Su, Central South University, Changsha, China
Yu Tian, Nanjing University of Information Science and Technology, Nanjing, China
Yadi Wang, Henan University, Kaifeng, China

Registration Chairs

Nuno Goncalves, University of Coimbra, Coimbra, Portugal
Shenshen Gu, Shanghai University, Shanghai, China
Ning Miao, City University of Hong Kong, Hong Kong

Local Arrangements Chairs

Tiago Barros, Luis Garrote, Jerome Mendes, and Angela Pinto, University of Coimbra, Coimbra, Portugal

Secretariat

icist@cs.cityu.edu.hk

Website

<https://conference.cs.cityu.edu.hk/icist/>

Call for Papers

Sponsors and Organizers: University of Coimbra and City University of Hong Kong
Technical Co-sponsor: IEEE Systems, Man and Cybernetics Society

Following the success of previous events, the 16th International Conference on Information Science and Technology (ICIST 2026) will be held in Coimbra, Portugal, on October 1-6, 2026. Located between the two largest Portuguese cities, the conference site features a historic royal city with numerous historical buildings, classified as a UNESCO World Heritage site. ICIST2026 aims to provide a high-level international forum for scientists, engineers, and educators to present the state-of-the-art research and applications in neural networks and related fields. The symposium will feature plenary speeches given by world-renowned scholars, regular sessions with broad coverage, and special sessions focusing on popular topics.

Call for Papers and Special Sessions

Prospective authors are invited to contribute high-quality papers to ICIST2026. Additionally, proposals for special sessions within the technical scope of the conference are solicited. Special sessions, organized by internationally recognized experts, aim to bring together researchers in specialized, focused topics. Papers submitted for special sessions are peer-reviewed using the same criteria as those for contributed papers. Researchers interested in organizing special sessions are invited to submit formal proposals to ICIST2026. A special session proposal should include the session title, a brief description of the scope and motivation, names, contact information, and brief biographical information on the organizers.

Topic Areas: The topics of contributing papers include, but are not limited to, the following areas:

Intelligent Control and Automation

Autonomous systems, linear and nonlinear control, learning and adaptive control, intelligent control, optimization-based and optimal control, fault detection and identification, hybrid intelligent systems, networked control, fuzzy logic control, industrial automation, neural control, process control, robot control, mechatronic systems, environmental monitoring and control, intelligent manufacturing systems, microprocessor-based control, motor control, power systems, vehicle control, aerospace applications, and other applications.

Intelligent Information Processing

Machine learning, adaptive filtering, signal processing, audio/speech processing and coding, higher-order spectral analysis, nonlinear & blind signal processing, neural signal processing, component analysis, array signal processing, parallel and distributed processing, time series analysis, multimedia signal processing, design and implementation of signal processing systems, DSP implementations, embedded systems, image and multidimensional signal processing, image processing & understanding, computer vision & pattern recognition, bioimaging and signal processing, multimedia communications, computer vision & virtual reality, next-generation mobile communications, communication signal processing, modulation and channel coding, network coding, sensor networks, cryptography and information security, and other applications.

Paper Submission

Authors are invited to submit full-length papers (8 pages maximum) by the submission deadline through the online submission system. Potential organizers are also invited to enlist five or more papers with cohesive topics to form special sessions. The submission of a paper implies that the paper is original and has not been submitted under review or is not copyright-protected elsewhere, and will be presented by an author if accepted. All submitted papers will be refereed by experts in the field based on the criteria of originality, significance, quality, and clarity. The authors of accepted papers will have the opportunity to revise their papers, taking into consideration the referees' comments and suggestions. All accepted papers will be submitted for inclusion into IEEE Xplore, subject to meeting IEEE Xplore's scope and quality requirements. Selected high-quality papers will be included in several journal special issues.

Important Dates

Paper submission deadline.....May 15, 2026
Notification of acceptance.....June 15, 2026
Camera-ready copy and author registration.....July 15, 2026
Abstract submission deadline.....September 15, 2026



IEEE
SMC
Systems, Man, and Cybernetics Society