南方科技大学 SOUTHERN UNIVERSITY OF SCIENCE AND TECHNOLOGY | IEEE | 哈爾濱工業大學 HARBIN INSTITUTE OF TECHNOLOGY | 山东科技大学 SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY | IEEE CSS 深圳分会 IEEE CONTROL SYSTEMS SOCIETY SHENZHEN CHAPTER | electronics an Open Access Journal by MDPI

8th

IEEE-RICAI 2026

2026 IEEE 8th International Conference on Robotics, Intelligent Control and Artificial Intelligence

第八届IEEE机器人、智能控制与人工智能国际学术会议

会议手册

Conference Manual

2026年11月20日-22日 中国·深圳

November 20-22, 2026 Shenzhen, China

- 主办单位：南方科技大学、IEEE
- 承办单位：南方科技大学自动化与智能制造学院
- 协办单位：哈尔滨工业大学、山东科技大学
- 联办单位：IEEE CSS Shenzhen Chapter
- 媒体支持：《electronics》期刊



参会指引
Guidelines

会议地点/Venue

南方科技大学-商学院
School of Business, Southern University of Science and Technology

详细地址/Address

广东省深圳市南山区学苑大道1088号
No. 1088 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong Province

线上参会方式 /Online Participation

ZOOM link:
https://us02web.zoom.us/j/86969941793?pwd=olByPQs11UU0ev4qXNuzRfL5XLZdtU.1

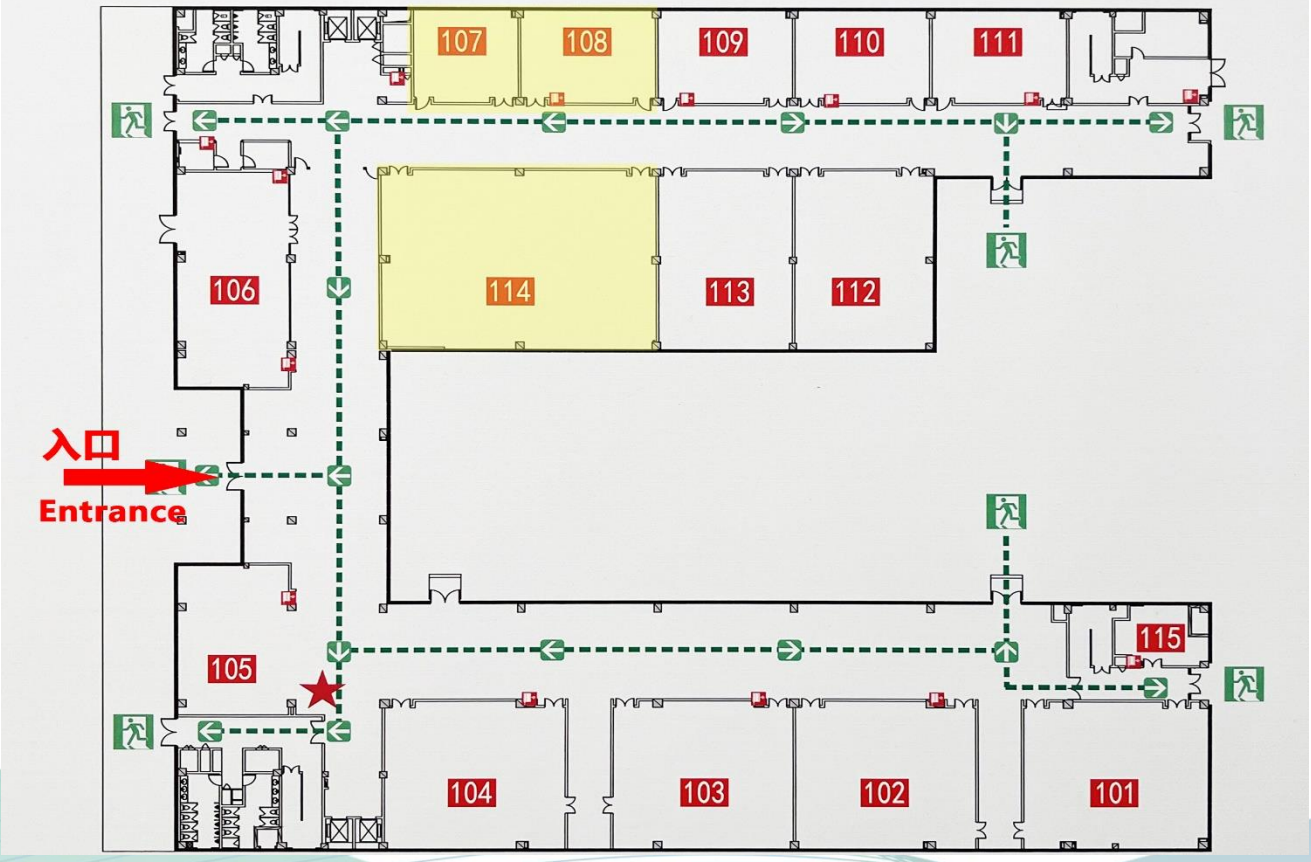
会议号/ ID：869 6994 1793
密码 Password：1121



参会指引
Guidelines



商学院一楼平面图/First Floor Plan of Business School



会议议程
Conference Program

总议程安排/Program at a Glance

地点：南方科技大学-商学院
Venue: School of Business, Southern University of Science and Technology

日期 Date	时间 Time	活动 Activity	地点 Venue
11月20日（周五） November 20, 2026	15:30-18:00	签到 Registration	一楼114大成礼堂 114 Lecture Hall, 1F
11月21日（周六） November 21, 2026	08:15-09:00	签到 Registration	一楼114大成礼堂 114 Lecture Hall, 1F
	09:00-12:10	主会场 （大会报告+圆桌论坛） Plenary Session	
	12:10-14:00	午餐 Lunch	学生餐厅 Student Restaurant
	14:00-16:00	主会场（特邀报告） Plenary Session	一楼114大成礼堂 114 Lecture Hall, 1F
	16:00-16:15	茶歇 Tea Break	
	16:15-18:00	分会场 1 Parallel Session 1	
	16:15-18:00	分会场 2 Parallel Session 2	一楼107教室 107 Classroom, 1F
	16:15-18:00	分会场 3 Parallel Session 3	一楼108教室 108 Classroom, 1F
	16:15-18:00	分会场 4 Parallel Session 4	线上 Online
	18:00-19:30	晚餐 Dinner	学生餐厅 Student Restaurant

会议议程
Conference Program

主会场/Plenary Session （114大成礼堂/114 Lecture Hall）	
开幕式 | Opening Ceremony	
09:00-09:05	大会主席致辞 | Opening Speech by Conference General Chair
09:05-09:10	合影 | Group Photo
大会报告 | Keynote Speeches	
主持人：林志赟 教授，南方科技大学自动化与智能制造学院院长 Chair: Prof. Zhiyun Lin, Southern University of Science and Technology	
09:10-09:50	大会报告1：多智能体系统的安全控制:从故障诊断、容错控制迈向容错博弈控制 Keynote Speech 1: Resilience of Multi-Agent Systems: From Fault Diagnosis to Tolerant Control Toward a Game-Theoretic Framework 报告者：姜斌 教授/校长，南京航空航天大学（IEEE Fellow、国家级高层次人才） Speaker: Prof. Bin Jiang, Nanjing University of Aeronautics and Astronautics
09:50-10:30	大会报告2：意见动力学和多机器人聚类及任务分配算法的进展 Keynote Speech 2: Opinion Dynamics and Robot Clustering 报告者：張福民 教授，香港科技大学（IEEE Fellow） Speaker: Prof. Fumin Zhang, Hong Kong University of Science and Technology
10:30-10:50	茶歇+海报展示 | Coffee Break & Poster Presentation
主持人：刘涛 副教授，南方科技大学 Chair: Assoc. Prof. Tao Liu, Southern University of Science and Technology	
10:50-11:30	大会报告3：动态结构神经网络在开放环境下的离线智能计算 Keynote Speech 3: Offline Intelligent Computing with Dynamically Structured Neural Networks in Open Environments 报告者：陈俊龙 教授，华南理工大学（欧洲科学院外籍院士、欧洲科学与艺术学院院士、IEEE Life Fellow） Speaker: Prof. C. L. Philip Chen, South China University of Technology
11:30-12:10	圆桌论坛：人工智能浪潮下：机器人与自动化的产学研机遇与挑战 Roundtable Forum: Amid the AI Wave: Opportunities and Challenges for Industry-Academia-Research Collaboration in Robotics and Automation 嘉宾/Speakers： 张福民，香港科技大学/ Fumin Zhang, Hong Kong University of Science and Technology 张一楠，锦绣科学园/ Yinan Zhang, GS Park 周博宇，南方科技大学/ Boyu Zhou, Southern University of Science and Technology 白松楠，香港大学/ Songnan Bai, The University of Hong Kong
12:10-13:30	午餐 | Lunch

会议议程
Conference Program

主会场/Plenary Session （114大成礼堂/114 Lecture Hall）	
特邀报告 | Invited Speeches	
主持人：王莉莉 副教授，南方科技大学 Chair: Assoc. Prof. Lili Wang, Southern University of Science and Technology	
14:00-14:30	特邀报告1：多源融合无人机智能视觉导航与感知 Invited Speech 1: Multi-Source Information Fusion for UAV Visual Navigation and Target Detection 报告者：刘准钆 教授，西北工业大学（国家级高层次人才） Speaker: Prof. Zhunga Liu, Northwestern Polytechnical University
14:30-15:00	特邀报告2：知识学习驱动的进化优化 Invited Speech 2: Knowledge Learning-Driven Evolutionary Optimization 报告者：詹志辉 教授，南开大学（IEEE Fellow、国家级高层次人才） Speaker: Prof. Zhihui Zhan, Nankai University
主持人：王宏霞 副教授，山东科技大学 Chair: Assoc. Prof. Hongxia Wang, Shandong University of Science and Technology	
15:00-15:30	特邀报告3：无人机敏捷飞行轨迹规划与具身交互技术 Invited Speech 3: Agile Flight Trajectory Planning and Embodied Interaction for UAVs 报告者：杨庆凯 教授，北京理工大学（国家级青年人才） Speaker: Prof. Qingkai Yang, Beijing Institute of Technology
15:30-16:00	特邀报告4：历史信息驱动的优化算法 Invited Speech 4: Enhancing Optimization with Historical Information 报告者：吴旭阳 副教授，南方科技大学（国家级青年人才（海外）） Speaker: Assoc. Prof. Xuyang Wu, Southern University of Science and Technology
16:00-16:15	茶歇+海报展示 | Coffee Break & Poster Presentation

会议议程
Conference Program

分会场1/Parallel Session 1 （114大成礼堂/114 Lecture Hall）	
主持人：张旭，南方科技大学 Chair: Xu Zhang, Southern University of Science and Technology	
口头报告 | Oral Presentations	
16:15-16:25	报告1/Speech 1: Physics-Guided Temporal Pattern Recognition of Photovoltaic String Operating States 报告者：陈昕怡，东南大学 Speaker: Xinyi Chen, Southeast University
16:25-16:35	报告2/Speech 2: UAV-Based Online Bridge Exploration and Structural Surface Coverage 报告者：朱玉平，桂林电子科技大学 Speaker: Yuping Zhu, Guilin University of Electronic Technology
16:35-16:45	报告3/Speech 3: Path Planning Algorithm for Adaptive Mixed Sampling RRT* Robotic Arm Based on Enhanced Feedback-Driven Self-Adaptive Mixed-Sampling 报告者：王启轩，大连海洋大学 Speaker: Qixuan Wang, DaLian Ocean University
16:45-16:55	报告4/Speech 4: Cognitive-Behavioral Data Fusion for Intention Prediction and Novice Assistance in Complex Human-Machine Systems 报告者：钱春颖，北京航空航天大学 Speaker: Chunying Qian, Beihang University
16:55-17:05	报告5/Speech 5: Path Planning and Trajectory Tracking Control of a Negative-Pressure Wall-Climbing Robot in Environments with Obstacles 报告者：龙飞企，中交第一航务工程局有限公司 Speaker: Feiqi Long, Tianjin Port Engineering Institute Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.
17:05-17:15	报告6/Speech 6: Constraint-Aware Natural Language Task Planning for Communication-Constrained Multi-UAV Systems 报告者：庄朝淳，南京航空航天大学 Speaker: Zhaochun Zhuang, Nanjing University of Aeronautics and Astronautics
17:15-17:25	报告7/Speech 7: BODY3D: Whole-Body Projection Heuristics for Hybrid A-Star in Confined 3D Environments 报告者：张得豪，中国科学技术大学 Speaker: Dehao Zhang, University of Science and Technology of China
17:25-17:40	颁奖仪式 | Award Ceremony

会议议程
Conference Program

分会场2/Parallel Session 2 （107教室/107 Classroom）	
主持人：吕健豪，南方科技大学 Chair: Jianhao Lv, Southern University of Science and Technology	
口头报告 | Oral Presentations	
16:15-16:25	报告1/Speech 1: Research on Path Planning and Trajectory Tracking Control for Magnetic Adhesive Wall-Climbing Robots 报告者：龙飞企，中交第一航务工程局有限公司 Speaker: Feiqi Long, Tianjin Port Engineering Institute Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.
16:25-16:35	报告2/Speech 2: Corruption-robust Offline Reinforcement Learning for Decision Making 报告者：徐云建，香港中文大学 Speaker: Yunjian Xu, The Chinese University of Hong Kong
16:35-16:45	报告3/Speech 3: Dynamic Event-Triggered Optimal Consensus of Networked Nonlinear Systems 报告者：王丹丹，北京理工大学长三角研究院（嘉兴） Speaker: Dandan Wang, Yangtze Delta Region Academy of Beijing Institute of Technology (Jiaxing)
16:45-16:55	报告4/Speech 4: History-Conditioned Push Estimation and Bounded Command Compensation for Open Duck Mini V2 报告者：帅劲，苏州大学 Speaker: Jing Shuai, Soochow University
16:55-17:05	报告5/Speech 5: Cooperative Perimeter-to-Interior Path Planning for Multi-UAV Fire Suppression 报告者：张庭瑞，重庆三峡科技大学 Speaker: Tingrui Zhang, Chongqing Sanxia University of Science and Technology
17:05-17:15	报告6/Speech 6: Cross-View Co-Training for Source-Free Cross-Sensor Bearing Fault Diagnosis 报告者：吴东航，闽南理工学院 Speaker: Donghang Wu, Minnan University of Scienceand Technology
17:15-17:25	报告7/Speech 7: Risk-Aware Multi-Candidate Edge Expansion RRT for UAV Path Planning in GNSS-Denied Environments 报告者：王宇，长春大学 Speaker: Yu Wang, Changchun University

会议议程
Conference Program

分会场3/Parallel Session 3 （108教室/108 Classroom）	
主持人：刘席铭，南方科技大学 Chair: Ximing Liu, Southern University of Science and Technology	
口头报告 | Oral Presentations	
16:15-16:25	报告1/Speech 1: Physics-Data Fusion Digital Twin-Driven Intelligent Thermal Damage Assessment for Statically Indeterminate Structures 报告者：周志武，湖南科技学院 Speaker: Zhiwu Zhou, Hunan Institute of Science and Engineering
16:25-16:35	报告2/Speech 2: LLM-Based Anomaly Detection and Root Cause Analysis for Smart Logistics Microservices 报告者：张林，南京南瑞瑞中数据股份有限公司 Speaker: Lin Zhang, Nanjing Nanrui Ruizhong Data Co., Ltd
16:35-16:45	报告3/Speech 3: A Suction Grasping Method for Edge-Deformed Sheets via Vision-Torque Decoupling 报告者：曾家辉, 西交利物浦大学 Speaker: Jiahui Zeng, Xi'an Jiaotong-Liverpool University
16:45-16:55	报告4/Speech 4: Visual Perception and Rule-Based Decision-Making Methods for Unmanned Aircraft Wastewater Handling 报告者：张加奕，中国民航大学 Speaker: JiaYi Zhang, Civil Aviation University of China
16:55-17:05	报告5/Speech 5: LLM-KG-RAG: An Intelligent Question Answering Method for Sheep Diseases Integrating Large Language Models, Domain Knowledge Graphs, and Retrieval-Augmented Generation 报告者：古丽扎达·海沙，新疆农业大学 Speaker: Gulizada Haisa, Xinjiang Agricultural University
17:05-17:15	报告6/Speech 6: A Generic Haptic Teleoperation Architecture Integrating Dobot X-Trainer Controllers Across YARP and ROS 2 Speaker: Bartosz Piotr Lukawski, Universidad Carlos III de Madrid, Spain
17:15-17:30	报告7/Speech 7: Active Disturbance-Rejection-Control-Based PID Type Neural Network for Mobile Robots Speaker: Raouf Fareh, University of Sharjah, Sharjah, UAE

会议议程
Conference Program

分会场4（线上）/Parallel Session 4 (Online) ZOOM link: https://us02web.zoom.us/j/86969941793?pwd=olByPQs11UU0ev4qXNuzRfL5XLZdtU.1 会议号/ ID：869 6994 1793　　密码 Password：1121	
主持人：张洁，南方科技大学 Chair: Jie Zhang, Southern University of Science and Technology	
口头报告 | Oral Presentations	
16:15-16:25	报告1/Speech 1: Hardware-in-the-Loop Dynamic Priority Evaluation for Low-Altitude UAVs Based on Game-Theory Combination Weighting and Improved TOPSIS 报告者：王磊，中国舰船研究院 Speaker: Lei Wang, China Ship Research and Development Academy
16:25-16:35	报告2/Speech 2: D3QN with Adversarial Expert Guidance and Adaptive Exploration for 3-D UGV Path Planning 报告者：吴嘉豪，成都理工大学 Speaker: Jiahao Wu, Chengdu University of Technology
16:35-16:45	报告3/Speech 3: Topology Optimization and Rigid-Flexible Dynamic Analysis of a SCARA Manipulator 报告者：张亚辉，上海交通大学 Speaker: Yahui Zhang, Shanghai Jiao Tong University
16:45-16:55	报告4/Speech 4: Risk-Aware Hierarchical Policy Learning for Humanoid Navigation in Dynamic Environments with Residual Adaptation 报告者：叶俊，中国科学院深圳先进技术研究院 Speaker: Jun Ye, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences
16:55-17:05	报告5/Speech 5: Learning Visual Feedback Control for Fine Cophasing of Segmented Mirrors with a Privileged Physical Teacher in Simulation 报告者：董涛，北京空间机电研究所 Speaker: Tao Dong，Beijing Institute of Space Mechanics and Electricity
17:05-17:15	报告6/Speech 6: Strategies for Improving Performance Beyond Network Modification: A Review of Deep-Learning-Based Stroke Lesion Segmentation 报告者：方书程，天津商业大学 Speaker: Shucheng Fang, School of Information Engineering, Tianjin University of Commerce
17:15-17:25	报告7/Speech 7: Lightweight MRI-Oriented Acute Ischemic Stroke Lesion Prediction Using Non-Contrast CT 报告者：方书程，天津商业大学 Speaker: Shucheng Fang, School of Information Engineering, Tianjin University of Commerce

会议议程
Conference Program

分会场4（线上）/Parallel Session 4 (Online) ZOOM link: https://us02web.zoom.us/j/86969941793?pwd=olByPQs11UU0ev4qXNuzRfL5XLZdtU.1 会议号/ ID：869 6994 1793　　密码 Password：1121	
口头报告 | Oral Presentations	
17:25-17:35	报告8/Speech 8: Multi-Objective Complementary Control of the Coarse Tracking System in Laser Communication Based on H∞ Mixed Sensitivity 报告者：吕嘉汝，山东科技大学 Speaker: Jiaru Lv, Shandong University of Science and Technology
17:35-17:45	报告9/Speech 9: A Two-Level Optimization Approach for UAV UKF Localization Using PSO Parameter Tuning and Data-Driven Post-Processing 报告者：饶苇杭，中国石油大学 Speaker: Weihang Rao, China University of Petroleum (East China)