

The conference program adheres to CMT +8.

October 28th Host Prof. Yang Li
Beihang University, China

Ao'erliang Hall

09:00 **Welcome Address**
Prof. Yang Li
Beihang University

09:15 **Intelligent Robots: From Concept to Industry**
Prof. Jianrong Tan
Zhejiang University, China

09:55 **Optimal Safe-critical Autonomy for Multi-agent Systems: Making Autonomous Vehicles a Reality**
Prof. Christos G. Cassandras
Boston University, USA

10:35 **Coffee Break & Group Photo**

11:05 **TBD**
Prof. Yang Li
Beihang University, China

11:35 **Lunch Break** 二楼西餐厅

Ao'erliang Hall Host Prof. Gang Wang
Beijing Institute of Technology, China

14:00 **R016** *Oral Presentation*
Weiran Wu, Beijing Institute of Technology, China
Reinforcement Learning-based Trajectory Planning for Cooperative Source Seeking

14:10 **R045** *Oral Presentation*
Weiran Wu, Beijing Institute of Technology, China
Formation Planning with Multi-agent Trajectory Prediction

14:20 **R058** *Oral Presentation*
Yinmin Sun, Southwest Jiaotong University, China
AB-LSTM: Long-Short Term Memory with Artificial Bee Colony for Predicting Coal Mine Gas Concentration

14:30 **R066** *Oral Presentation*
Dechang Zhang, Xihua University, Chengdu, China
Path Tracking Method of Forklift AGV Based on Fuzzy Adaptive PID

14:40 **R031** *Oral Presentation*
Ruonan Yun, Beijing University of Technology, China
Design of PMSM Controller with Continuous Function Reaching Law and Integral Sliding Surface

14:50 **R054** *Oral Presentation*
Mingming Shi, Unit No 32322. Urumqi 830002, China
Research on the Development Status and Future Trends of Foreign Unmanned Ground Equipment

15:00 **R034** *Oral Presentation*
Dongyu Tian, Xi'an Polytechnic University, China
Sliding Mode Active Disturbance Rejection Control for Robotic Manipulators Considering Saturation and Dead Zone

15:10 **R041** *Oral Presentation*
Adiya Bao, Shenyang University of Technology, China
A Lyapunov-Based Small-Gain Theorem for Interconnected Nonuniform in Time Input-to-State Stable Systems

15:20 **Efficient Computational Approaches and Their Applications**
Prof. Tingwen Huang
Texas A&M University, Qatar

16:00 **Coffee Break**

16:30 **Bayesian Reinforcement Learning for Robot Control: Bayes meets Bellman meets Lyapunov**
Assoc. Prof. Wei Pan
University of Manchester, UK

17:10 **R060** *Oral Presentation*
Jiacheng Yun, Beihang University, China
Swin Transformer Encoder and Local Attention Network via Transfer Learning Strategy for Retinal Vessel Segmentation

17:20 **R056** *Oral Presentation*
Kun Yang, Beijing Institute of Technology, China
A Deep Reinforcement Learning Tracking Algorithm Based on Task Decomposition

17:30 **R065** *Oral Presentation*
Haiyang Huang, Intelligent Driving Development Department, China
Path Tracking for Intelligent Vehicle considering Steering Delay Characteristic

17:40 **Award Ceremony**

17:50 **Closing Address**
Prof. Xiaobo Zhang
Southwest Jiaotong University, China

Parallel Sessions Host Prof. Yuzhu Guo
Beihang University University, China

Zhiyi Hall

13:50 **R050** *Oral Presentation*
Zhicheng Liao, Central South University, China
Mixed Node and Edge GraphSAGE Based Schema Encoding for Text-to-SQL

14:00 **R044** *Oral Presentation*
Xiangqing Li, Harbin Institute of Technology, China
Amplitude Identification for Ultrasonic Transducer Based on Instantaneous Current

14:10 **R033** *Oral Presentation*
Yuxiang Bian, State Grid Information and Telecommunication Branch, China
Fuzzy Analytic Hierarchy Process Based Health Evaluation of Business Systems

14:20 **R048** *Oral Presentation*
Peng Chen, Southwest Jiaotong University, China
An Assist-as-Needed Controller with Fault-tolerant Region for Safe and Effective Training on End-effector Upper Limb Rehabilitation Robot

14:30 **R024** *Oral Presentation*
Qian Zhao, Sichuan Normal University, China
Research on An Improved Collaborative Filtering Algorithm Based on Multi-Community Integration

14:40 **R021** *Oral Presentation*
Xu Liu, Sichuan Normal University, China
Modeling a Cross-domain Distributed Personnel Records System Based on Zookeeper and Erasable Bloom Filters

14:50 **R026** *Oral Presentation*
Peng Lu, Sichuan Normal University, China
A Personalised Course Recommendation Algorithm Based on Global Directed Graphs and User Behavioural Sequences

15:00 **R022** *Oral Presentation*
Ziying Zhang, Sichuan Normal University, China
A Study on Redis-Based Aided Caching Pattern for Relational Database Hotspot Data

15:10 **R053** *Oral Presentation*
Yifan Wang, Beihang University, China
Multi-Scale-Rhythm Attention Feature Contrastive Learning for Epileptic Seizure Prediction

15:20 **R042** *Oral Presentation*
Yajun Zhang, Shenyang University of Technology, China
Laser Weld Defect Detection Based on Laser Vision and Region Growth

15:30 **R038** *Oral Presentation*
Zhaoliang Xu, Beihang University, China
Temporal-Spectral Generative Adversarial Network Based Multi-Level Consistency Learning for Epileptic Seizure Prediction

15:40 **R057** *Oral Presentation*
Yunyang Wu, Southwest Jiaotong University, China
YOLO-CD YOLOv5-Based Neural Network for Empty Position Recognition of Dispatch Center

15:50 **R049** *Oral Presentation*
Weidong Yan, Beihang University, China
An IoMT Based Epileptic Seizure Predictor Using Dual-Path Temporal-Spectral Encoded Spatial Dynamic Graph Convolution Network

16:00 **Coffee Break**

16:25 **R055** *Oral Presentation*
Wenkang Liu, Beihang University, China
Body Partition Refinement Dynamic Graph Convolutional Network for Skeleton-based Action Recognition

16:35 **R032** *Oral Presentation*
Peng Chen, Southwest Jiaotong University, China
CNN Structure Optimization Based on MI-EEG Channel Information Density

16:45 **R015** *Oral Presentation*
Xiaoming Zhang, Southwest Jiaotong University, China
MR Image Super-Resolution via Diffusion Model for Large Up-Scale Factors

16:55 **R039** *Oral Presentation*
Mingyi Sun, Beihang University, China
A Channel-Augmented Multi-Domain Graph Convolutional Network for Fatigue Driving Detection

17:05 **R004** *Oral Presentation*
Daifeng Zhang, Qilu University of Technology, China
Self-tuning Speed Tracking for Autonomous Vehicles Based on Cascaded GRU Predictive Control

17:15 **R012** *Oral Presentation*
Maosheng Yang, Shanghai University, China
Design and Trajectory Planning of an Underwater Delta Robot for Marine Harvest

17:25 **R013** *Oral Presentation*
Lin Xiao, Shanghai University, China
Real-time Visual Perception for Rapid Grasping of Underwater Delta Robot



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SOUTHWEST JIAOTONG UNIVERSITY



北京航空航天大学
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R002

Poster

Dandan Lu, Southwest University of Science and Technology, China
Intelligent Manufacturing Education and Tutoring Experimental Platform Studies Based on Reconfigurable Module

R003

Poster

Yongxing Liu, Huazhong University of Science and Technology, China
A Single-point Pose Constraint Based 6R Robot Kinematic Calibration Method Through Monocular Vision

R011

Poster

Ce Chen, Shanghai University, China
A Variable Stiffness Soft Gripper Based on Shape Memory Polymer and Giant Electrorheological Fluidic Layer Jamming

R014

Poster

Yanyan Fang, Beijing Institute of Technology, China
DS-SGAN: Driving Style-Guided Spatial-Graph Attention Network for Trajectory Prediction of Vehicle

R030

Poster

Bo Wang, The Second Research Institute of Civil Aviation Administration of China, China
Comprehensive Evaluation Method for The Visibility Ability of ATCT Based on BP Network

R046

Poster

Yating Chen, Hunan University of Science and Technology, China
Research on D3QN-PER Path Planning Method Based on LSTM-GRU Composite Model

R047

Poster

Wangqi Sheng, Hunan University of Science and Technology, China
Steel Surface Defect Detection Based on Improved YOLOv8 Algorithm

R036

Poster

ChangHao Zhang, Beihang University, China
A Vision-Only Drone Formation Waypoint Navigation Method

R061

Poster

Huihui Guo, Hunan University of Science and Technology, China
Lightweight Underwater Target Detection Algorithm Based on Improved YOLOv7

R063

Poster

Qiang Zhou, Beijing University of Aeronautics and Astronautics, China
Technology of Mobile Robot Localization Assisted by QR Codes

R069

Poster

Yongteng Sun, Hohai university, Nanjing, China
Recognition of Loosening Position of Reactor Windings Based on FBG Signal

R009

Poster

Xu Ji, Guilin University of Electronic Technology, China
MAAS-Net: Efficient Multi-Scale Attention Aggregation Supervision Network for Tire Tread Segmentation

R1005

Poster

Shu Wu, Beijing University of Posts and Telecommunications, China
Transformer Text Recognition Based on Deep Learning

R006

Poster

Chuanhui Zhang, Northern Information Control Research Institute Group limited corporation, China
Equipment Utilization and Maintenance Task Assignment

R064

Poster

Shiyu Guo, East China University of Science and Technology, China
Multiple Multiplicative Neurons Model for Time Series Prediction

Online (Webex)

9:00-11:00 am and 2:00-4:00 pm

October 27th, 2023:

Technical Test Session: [Click here](#)

<https://hksra.my.webex.com/hksra.my/j.php?MTID=mb32d18bf08c98f5dbe705c388366f205>

Meeting number: 2643 535 1634

Password: VcwsCGDG936

08:30-18:00 October 28th, 2023:

Conference Session: [Click here](#)

<https://hksra.my.webex.com/hksra.my/j.php?MTID=mf70347246c08cb002ae14d0a67cc763c>

Meeting number: 2641 019 0676

Password: rjT2HtXPx73

Onsite Conference Venue Address:

Howard Johnson Zunyue Hotel Chengdu: 528 Yingbin Ave, Jinniu District, Chengdu, Sichuan Province, China

线下会议地址: 成都尊悦豪生酒店(中国四川省成都市金牛区迎宾大道 528 号)

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