

Technical Sessions (Onsite Presentation)

†: Research Presenter. Each presenter will be given 15 minutes in total, including 10-min presentation at the most and 5-min for Q&A after every presentation.

September 11, 2024, Wednesday (Beijing Time)

13:20 – 15:20 Beihai Hall, B2

A1: Control Theory and Applications

**Chairs: Prof. Huiyan Zhang (Chongqing Technology and Business University, China)
Dr. Ning Zhao (Bohai University, China)**

A1-1

ICICIC2024-SS14-01

A General Chip Subpixel Segmentation Localization Method Based on Improved Mayfly Algorithm

Jiangyan Zou[†], Huiyan Zhang, Hao Sun and Weifeng Qian (China)

A1-2

ICICIC2024-SS14-02

Adaptive Predefined-Time H_∞ Control for Uncertain Stochastic Systems with Stochastic Disturbances and Input Saturation

Tianliang Zhang[†], Xiushan Jiang and Weihai Zhang (China)

A1-3

ICICIC2024-SS14-04

Resilient Hybrid-Triggered Control for Networked Stochastic Systems under Denial-of-Service Attacks

Zixian Chen[†], Huiyan Zhang and Ning Zhao (China)

A1-4

ICICIC2024-SS14-05

Resilient Sampled-Data Event-Triggered Control for Switched Systems under Denial-of-Service Attacks

Yu Huang[†], Huiyan Zhang, Ning Zhao and Zufeng Li (China)

A1-5

ICICIC2024-SS14-07

SPLM-Based Adaptive Self-Triggered Resilient Control for Nonlinear CPSs under Input Saturation and Deception Attacks

Yongjie Tian, Ning Zhao[†], Huiyan Zhang and Ge Song (China)

A1-6

ICICIC2024-SS14-08

Observer-Based Sampled-Data Adaptive Tracking Control for Heterogeneous Nonlinear Multi-Agent Systems under Denial-of-Service Attacks

Huiyan Zhang[†], Ning Zhao, Hao Sun and Peng Shi (China)

A1-7

ICICIC2024-SS14-09

Protocol-Based Asynchronous Filtering for Interval Type-2 Fuzzy Systems with Time-Varying Saturation Function

Qiongwen Zhang and Jun Cheng[†] (China)

A1-8

ICICIC2024-SS14-10

Adaptive Predefined-Time Tracking Control for Robotic Manipulator with Event-Triggered Mechanism

Yuan Sun[†] and Huiyan Zhang (China)

September 11, 2024, Wednesday (Beijing Time)

13:20 – 15:20 Bohai Hall, B2

B1: Operations Management of Agricultural Service, and Optimization

Chair: Prof. Junhu Ruan (Northwest A&F University, China)

B1-1

ICICIC2024-SS18-01

Early-Season Estimation of Winter Wheat Yield: A Hybrid Machine Learning-Enabled Approach

Di Qiao[†], Tianteng Wang, David Jingjun Xu, Ruize Ma, Xiaochun Feng and Junhu Ruan (China)

B1-2

ICICIC2024-SS18-02

Digital Transformation of China's Agricultural Supply Chain: Connotative Characteristics, Theoretical Logic and Implementation Paths

Huan Liu[†], Zilai Sun, Yue Wang and Junhu Ruan (China)

B1-3

ICICIC2024-SS18-03

Adaptive and Communication-Efficient Zeroth-Order Optimization for Distributed Internet of Things

Qianlong Dang[†], Shuai Yang, Qiqi Liu and Junhu Ruan (China)

B1-4

ICICIC2024-SS18-04

Prediction of Dairy Cow Biochemical Indicators in Small Sample Data Using a Bidirectional Dependency LSTM Model

Yuanwei Sun[†], Qianlong Dang, Xiaochun Feng, Feng Ji and Junhu Ruan (China)

B1-5

ICICIC2024-027

Breast Cancer Patient Recognition Algorithm Based on Optimal Aggregation Theory

Xinyu Qi[†], Tong Li and Weiling Su (China)

B1-6

ICICIC2024-032

Information Effectiveness of Heterogeneous Data in Credit Risk Management: A Cost-Sensitive Perspective

Haomin Wang (China)

B1-7

ICICIC2024-036

Effects of Cap-and-Trade and Subsidy Mechanisms on Renewable Energy Constraint Investment in an Electricity Supply Chain

Wei Chen[†], Mengyao Cui, Chunguang Bai and Yongkai Ma (China)

B1-8

ICICIC2024-093

A Multi-Factor Quantitative Stock Selection Strategy Based on TabNet-Boost

Jianming Li, Yuhan Wang[†] and Xiangpei Hu (China)

September 11, 2024, Wednesday (Beijing Time)

13:20 – 15:20 Huanghai Hall, B2

C1: Advances on Artificial Intelligence and Control Engineering

Chair: Prof. Kou Yamada (Gunma University, Japan)

C1-1

ICICIC2024-041

Research on Detection Algorithm for Finding Lost Pets Based on Improved YOLOv5

*Shuo Wang[†], Nghia Thi Mai, Kotaro Hashikura, Md Abdus Samad Kamal
Iwanori Murakami and Kou Yamada (Japan)*

C1-2

ICICIC2024-046

Autonomous Driving Vehicle in Highway Recognition Based on YOLOv8

*Xueheng Niu[†], Nghia Thi Mai, Kotaro Hashikura, Md Abdus Samad Kamal
Iwanori Murakami and Kou Yamada (Japan)*

C1-3

ICICIC2024-077

Enhancing Safety on Unfrequented Paths: An Improved YOLOv5 Algorithm for Fall Detection

*Quanshu Song[†], Dayu Zhang, Nghia Thi Mai, Kotaro Hashikura, Md Abdus Samad Kamal
Iwanori Murakami and Kou Yamada (Japan)*

C1-4

ICICIC2024-084

Traffic Speed Prediction on Highways Based on Machine Learning

Wanlong Huang[†], Kou Yamada and Md Abdus Samad Kamal (Japan)

C1-5

ICICIC2024-097

Defect Detection in Printed Circuit Boards Based on Improved YOLOv8

*Shuyang Ning[†], Wanlong Huang, Nghia Thi Mai, Kotaro Hashikura
Md Abdus Samad Kamal, Iwanori Murakami and Kou Yamada (Japan)*

C1-6

ICICIC2024-129

Road Target Detection in Foggy Weather Based on YOLOv8

*Zehao Zhang[†], Nghia Thi Mai, Kotaro Hashikura, Md Abdus Samad Kamal
Iwanori Murakami and Kou Yamada (Japan)*

C1-7

ICICIC2024-131

Design of an Attitude Controller for an Unmanned Quadrotor Aerial Vehicle

*Hanchun Wang[†], Dayu Zhang, Nghia Thi Mai, Kotaro Hashikura, Md Abdus Samad Kamal
Iwanori Murakami and Kou Yamada (Japan)*

September 11, 2024, Wednesday (Beijing Time)

13:20 – 15:20 Nanhai Hall 2, B2

D1: Domain-Driven Design (DDD) Application Development (1)

Chair: Dr. Winai Wongthai (Naresuan University, Thailand)

D1-1

ICICIC2024-SS24-01

Impact of Digitalization: Technological, Economic, and Social Perspectives

*Suwaphat Preeprem, Pudtan Phanthunane, Winai Wongthai[†]
and Thiraphat Meesumrarn (Thailand)*

D1-2

ICICIC2024-SS24-03

Education Enhancing Career-Oriented English Learning in Thai University Level
through Claude-Based Situated Chatbot Models

*Isara Kongmee[†], Pat Watanasin, Puriwan Waranusast, Winai Wongthai, Panus Nattharith
and Pakorn Chan-in (Thailand)*

D1-3

ICICIC2024-SS24-04

Design and Construction of Electric Vehicle Charging Station in the Lower Northern Region
by Installing Charging Station at Yan Mussri Education Center, Nakhon Sawan Rajabhat University

*Piyalap Manakit, Winai Wongthai[†], Panupon Trairat, Weerachat Jaritngam
Isara Kongmee and Pakorn Chan-in (Thailand)*

D1-4

ICICIC2024-SS24-05

Transforming Software Architecture: A Strangler Fig Pattern Approach

*Thammarat Thamma, Thanapong Nitayaprapha, Thiraphat Meesumrarn, Pudtan Phanthunane
Atipan Suwatmakin, Supasit Pannarunothai and Winai Wongthai[†] (Thailand)*

D1-5

ICICIC2024-SS24-06

Optimizing College Course Timetables Using a Genetic Algorithm Approach

Nattapon Kumyaito[†] and Apiradee Bunkerdkoon (Thailand)

D1-6

ICICIC2024-SS24-07

Parameter Estimation of the Epidemic Model for Forecasting the COVID-19 Transmission
in Thailand Using a Particle Swarm Optimization Algorithm

Nuttatida Pohplook[†] and Wannika Sawangtong (Thailand)

D1-7

ICICIC2024-SS24-08

Numerical Simulation to Investigate the Behavior of the Bone Remodeling Process in Healthy
and Tumorous Bone Using Fractional Derivatives with Time-Delay

Chayanit Janngarm[†] and Nathnarong Khajohnsaksumeth (Thailand)

D1-8

ICICIC2024-SS24-09

UMVUE of Stress Strength Reliability under Two Parameter Exponential Distributions When
the Scale Parameters are Equal

Kanokwan Channgam[†], Manisha Pal and Suntaree Unhapipat (Thailand)

September 11, 2024, Wednesday (Beijing Time)

13:20 – 15:20 Nanhai Hall 3, B2

E1: Modelling, Control and Coordination of Unmanned Systems

Chair: Prof. Yongming Li (Liaoning University of Technology, China)

E1-1

ICICIC2024-SS10-01

Distributed Adaptive Fuzzy Fixed Time Control for Nonlinear Vehicle Platoon Systems

Kewen Li[†], Xiao Liu and Yongming Li (China)

E1-2

ICICIC2024-SS10-02

Fuzzy Adaptive Fault-Tolerant Control for Nonlinear Multi-Agent Systems with Sensor Faults and Input Hysteresis

Guowei Dong[†], Ziyang Chen and Peitong Xu (China)

E1-3

ICICIC2024-SS10-03

Predefined-Time Fuzzy Adaptive Fault-Tolerant Control for Heterogeneous Port Unmanned Container Transporter Platoon with Security Constraints

Shuo Ma, Kewen Li and Yongming Li[†] (China)

E1-4

ICICIC2024-SS10-04

Adaptive Fuzzy Control for Fractional-Order Nonlinear Systems with State Quantization

Ke Sun and Zhiyao Ma[†] (China)

E1-5

ICICIC2024-SS10-05

Anti-Attack Control of Positive Cyber-Physical Systems Using LP

Pengcheng Zhu[†], Siyu Zhong, Wei Xing and Junfeng Zhang (China)

E1-6

ICICIC2024-SS10-06

Mode- and State-Feedback Control of Positive Markov Jump Systems with Time-Varying Mode Transition Rate Matrix

Shouting Hong[†], Linyan Han, Wei Xing and Junfeng Zhang (China)

E1-7

ICICIC2024-004

Distributed Cooperative Control for Nonlinear Heterogeneous Platoon Systems with Unknown Uncertainties

Xiaojie Li[†] and Yiguang Wang (China)

E1-8

ICICIC2024-023

A Fault Localization Method for Star Sensor Based on Adaptive Observer

Wenkun Hu, Jiaying Jin, Ziyu Wang and Zemiao Hua[†] (China)

September 11, 2024, Wednesday (Beijing Time)

13:20 – 15:20 Donghai Hall, B2

F1: New Development of Analysis and Synthesis of Multi-Agent Systems

Chairs: Prof. Zhiguang Feng and Dr. Wen Xing (Harbin Engineering University, China)

F1-1

ICICIC2024-SS21-02

Improvement of SqueezeNet Utilizing an Attention Mechanism for Sonar Target Recognition

Wen Xing and Chunyu Lu[†] (China)

F1-2

ICICIC2024-SS21-03

Communication Topology Optimization for Autonomous Underwater Vehicle Swarm via Minimum Arborescence Algorithm

Jian Xu, Fubin Zhao[†], Yuyang Yu and Wen Xing (China)

F1-3

ICICIC2024-SS21-04

A Fast and Energy-Saving Path Planning Method for AUV with Maneuverability Constraints

Wen Xing, Haohao Cao[†], Xuqi Pang and Zhenghao Ma (China)

F1-4

ICICIC2024-SS21-05

Distributed Observer-Based Target-Fencing Control for Underactuated Multi-AUV System

Zheping Yan, Yuyang Yu[†], Yingxia Wan and Wen Xing (China)

F1-5

ICICIC2024-SS21-06

Data-Driven Distributed State Estimation in the Presence of Unknown Cross-Covariance

Jianbo Liu and Zhiguang Feng[†] (China)

F1-6

ICICIC2024-SS21-07

Prescribed Performance Tracking Control for Fully Actuated Vessels with Preset Convergence Time

Jianxu Liu[†], Yujie Xu, Jiawen Wu, Mingyu Fu, Yun Chen and Xinchun Lin (China)

F1-7

ICICIC2024-075

An Improvement of Attention Mechanism-Based Network Using Q-Learning

Licheng Zhao[†], Yi Zuo, Shuaishuai Shi and Shaocheng Tong (China)

F1-8

ICICIC2024-137

Fast Attention: An Approximate Approach of Self-Attention Using Taxicab Geometry with Less Representation Vectors

Junhao Jiang[†], Yi Zuo and Shaocheng Tong (China)

September 11, 2024, Wednesday (Beijing Time)

15:40 – 18:00 Beihai Hall, B2

A2: Intelligent Robotic Control

Chairs: Dr. Pengda Liu and Prof. Wengang Ao (Chongqing Technology and Business University, China)

A2-1

ICICIC2024-SS14-03

Dynamics Modeling and Trajectory Tracking Control for Life Support Robots Based on Sliding-Mode Control with Extended State Observer

Hao Yin[†], Wengang Ao and Longfa Zhang (China)

A2-2

ICICIC2024-SS14-06

Intelligent Application of Emergency Plan for Construction Engineering Accidents

Hui Xu[†] and Sitian Liu (China)

A2-3

ICICIC2024-SS20-01

Event-Triggered and Self-Triggered Approximate Optimal Control for Constrained-Input Nonlinear Systems via Reinforcement Learning

Pengda Liu[†], Huiyan Zhang, Wengang Ao and Enrique Herrera-Viedma (China)

A2-4

ICICIC2024-SS20-02

Improved Event-Triggered Optimal Consensus Control for Heterogeneous Multi-Agent Systems with Adaptive Critic Learning

Huichao Wang[†], Pengda Liu, Yunfei Mu and Yu Huang (China)

A2-5

ICICIC2024-SS20-03

Anthropomorphic Design and Control Researches of a Waist Structure for Life Support Robots

Jiarui Fan, Zufeng Li[†], Wengang Ao and Lei Du (China)

A2-6

ICICIC2024-SS20-04

Redundant Channels-Based Stabilization for Discrete Interval Type-2 Fuzzy Models with Semi-Markov Parameters

Runkun Li and Wenhai Qi[†] (China)

A2-7

ICICIC2024-SS20-05

A Novel Probability Hesitant Fuzzy DNMEREC-Borda-CoCoSo Multi-Criteria Group Decision-Making Framework

Jiafu Su[†], Baojian Xu, Jie Jian, Hongyu Liu, Yijun Chen and Xiaoli Zhang (China)

A2-8

ICICIC2024-SS20-06

Adaptive Event-Triggered Fuzzy Control for Networked Control Systems under Denial-of-Service Attacks

Qing Lu[†] and Huiyan Zhang (China)

A2-9

ICICIC2024-SS20-07

Acceleration Compensation Guidance Law for Terminal Guidance Target with Side Window Constraint

Liya Li[†], Xulong Zhang, Guoyuan Qi and Shishen Wang (China)

September 11, 2024, Wednesday (Beijing Time)

15:40 – 18:00 Bohai Hall, B2

B2: Logistics Finance and Supply Chain Finance

Chair: Prof. Huipo Wang (Hebei University of Engineering, China)

B2-1

ICICIC2024-SS05-01

Evolutionary Game Analysis of Supply Chain Finance System Based on Fourth-Party Logistics
Huipo Wang[†] and Meng Liu (China)

B2-2

ICICIC2024-SS05-02

Research on E-Commerce Supply Chain Financing Strategy Considering Random Demand
Huipo Wang and Zilong Su[†] (China)

B2-3

ICICIC2024-SS05-03

Research on the Selection of 4PL Supply Chain Finance Models Based on the Hotelling Model
Huipo Wang and Huiping Qiu[†] (China)

B2-4

ICICIC2024-SS05-04

The Influence of Different Carbon Quota Supervision Methods on the Effect of 3PL Low-Carbon Financing
Huipo Wang and Xiaozhen Fu[†] (China)

B2-5

ICICIC2024-012

Research on Service Quality Improving Strategy of Self-Study Hall Industry from the Perspective of Shared Economy
Liang Sun[†], Meng He, Yingyi Huang and Lin Ma (China)

B2-6

ICICIC2024-013

Research on Digital Transformation Strategy for Coastal Tourism Industry from Hidden Asset Perspective
Lin Ma[†], Huan Wang, Liang Sun and Zhaolong Li (China)

B2-7

ICICIC2024-025

Financial Risks and Causes of Beijing Tourism Group Hotels
Ran Liu[†] and Liantian Jiang (China)

B2-8

ICICIC2024-162

Analysis on the Honey Pomelo Industry Situation of Pinghe County in Fujian Province and Its Development Suggestions
Zixin Huang (China)

September 11, 2024, Wednesday (Beijing Time)

15:40 – 18:00 Huanghai Hall, B2

C2: Data Mining and Evolutionary Computation

Chairs: Prof. Hajime Murao and Dr. Asako Ohno (Kobe University, Japan)

C2-1

ICICIC2024-096

Visualization of Local Author Features Using Decision Trees

Asako Ohno (Japan)

C2-2

ICICIC2024-102

Evaluation of Similarity Coefficients by Multi-Dimensional Scaling

Hiroaki Uesu[†], Yuuki Takai, Tetsuya Taniguchi, Keita Nishioka, Hayato Nakagawa

Shinkai Kimiaki, Shuya Kanagawa and Norihiro Someyama (Japan)

C2-3

ICICIC2024-110

Consideration of the Difference in Accuracy between Synthetic and Non-Synthetic Speech in Diarization

Kaito Uemura[†] and Keiichi Horio (Japan)

C2-4

ICICIC2024-128

A New Network Model Structure Using Error Learning Scheme

Lianming Sun and Jianing Liu[†] (Japan)

C2-5

ICICIC2024-135

Explaining Facial Muscle Movements of Japanese Learners and Native Speakers Using SHAP

Jiawen Xu[†] and Hajime Murao (Japan)

C2-6

ICICIC2024-151

Analysis of Open Data Japanese Municipalities with Increasing Young Populations

Itsuki Kuwahara[†] and Hajime Murao (Japan)

C2-7

ICICIC2024-155

Dynamic Simulation Based Analysis of Assisted Standing-Up Motion

Sheng Cao[†], Zhiwei Luo and Changqin Quan (Japan)

C2-8

ICICIC2024-157

Research on the Optimal Driving Voltage, Gain Adjustment Method, and System for Dynamic Monitoring of Near-Infrared Cerebral Blood Oxygen across the Whole Brain

Xinying Wang[†], Chunguang Li, Haozhe Ma and Jianwei Wang (China)

C2-9

ICICIC2024-160

The Effect of Leakage on Inhaled Oxygen Concentration in Combined Ventilator and Oxygen Therapy Used during Exacerbations of Chronic Obstructive Pulmonary Disease

Takeshi Ifuku[†], Kazuto Doi, Takashi Hitosugi, Mitsuhiro Nishitani, Yoshifumi Kawakubo and Takeshi Yokoyama (Japan)

September 11, 2024, Wednesday (Beijing Time)

15:40 – 18:00 Nanhai Hall 2, B2

D2: Domain-Driven Design (DDD) Application Development (2)

Chair: Dr. Winai Wongthai (Naresuan University, Thailand)

D2-1

ICICIC2024-SS24-10

Dirt Detection System for Solar Panel Using Machine Vision and Mobile Robot

Panus Nattharith[†], Winai Wongthai and Isara Kongmee (Thailand)

D2-2

ICICIC2024-SS24-11

Tuning in to Well-Being: The Potential of Music Streaming Apps in Enhancing Elder Care Experiences

Vich Boonrod[†] and Isara Kongmee (Thailand)

D2-3

ICICIC2024-SS24-12

Developing a Thai Vocabulary Set for Implementing Vowel Recognition in a Computer-Assisted Pronunciation Training (CAPT)

Sutthiphod Phiranawong[†] and Niyada Rukwong (Thailand)

D2-4

ICICIC2024-SS24-13

Virtual Reality — Instructional Media for the Bacterial Culture Method

*Jaruwan Thongsanit Okamura, Janjira Payakpate[†]
and Rapikorn Chalongsuppanyoo (Thailand)*

D2-5

ICICIC2024-SS24-15

Utilizing Cloud-Based Internet of Things (IoT) Applications for Smart and Creative Local Exhibitions: An Analysis of Laplae District, Uttaradit Province

Rachata Yooyim[†] and Thaveerat Promrat (Thailand)

D2-6

ICICIC2024-SS24-16

Enhancing Thai Classical Music Education with Digital Tools: A Case Study of Sibelius and MIDI Art among Thai Classical Music Students at Naresuan University, Thailand

*Waraporn Cherdchoo[†], Decha Srikongmuang, Isara Kongmee
and Pakorn Chan-in (Thailand)*

D2-7

ICICIC2024-SS24-17

Immersive Learning: A VR Educational Game on Thai Weaponry in the History Hall of King Naresuan the Great

Linda Intralak[†], Sakeson Yanpanyanon and Nipatsara Bureepia (Thailand)

September 11, 2024, Wednesday (Beijing Time)

15:40 – 18:00 Nanhai Hall 3, B2

E2: Modeling, Control and Decision of Intelligent System

Chairs: Prof. Degang Wang (Dalian University of Technology, China)

Prof. Li Zou (Shandong Jianzhu University, China)

E2-1

ICICIC2024-SS11-03

The Impact of Home Care on the Health of the Elderly: An Analysis Based on Machine Learning Methods

Mingli Tang and Wenyan Song[†] (China)

E2-2

ICICIC2024-SS11-04

Multi-Agent Path Finding Based on Graph Transformer

Wei Pang[†] and Degang Wang (China)

E2-3

ICICIC2024-SS11-05

A Modified Ensemble Stochastic Configuration Network with Focal Loss Function for High-Altitude Sickness Data Modeling

Jie Li[†], Feng Xu, Yan Chen, Yongbiao Zhu and Degang Wang (China)

E2-4

ICICIC2024-SS11-06

Controller Design for Unmanned Bicycles Based on Tensor Product Model Transformation and Variable Universe Fuzzy Control

Degang Wang[†], Depeng Xie, Guoliang Zhao and Hongxing Li (China)

E2-5

ICICIC2024-SS01-01

A Two-Stage Retrieval-Augmented Generation for Conversational Recommender System

Benshuai Wang[†], Yujie Cao, Xinlei Cao, Dongqiang Yang and Yi Liu (China)

E2-6

ICICIC2024-SS01-02

An Improved Approach to Construct Fuzzy Concept Lattice

Junjun Feng, Wei Gao, Chengyi Song, Yandi Zhang, Li Zou[†] and Jin Guo (China)

E2-7

ICICIC2024-SS01-03

Rule Extraction Based on Fuzzy Linguistic Triadic Decision Context

Yujie Cao[†], Benshuai Wang, Lixian Xu, Zihao Li and Hengfei Li (China)

E2-8

ICICIC2024-161

The Zero-Inflated Binary Classification Model and Its Applications

Tzong-Ru Tsai[†], Hsien-Ching Chen and Hua Xin (Taiwan, China)

September 11, 2024, Wednesday (Beijing Time)

15:40 – 18:00 Donghai Hall, B2

F2: Assistive Engineering and Information Technology

Chairs: Prof. Zhen Liu (Nagasaki Institute of Applied Science, Japan)

Prof. Lirong Wang (Soochow University, China)

F2-1

ICICIC2024-WS06-01

Context and Boundary Enhanced Networks for Liver Tumor Segmentation

Tiange Zhang[†], Yuefeng Liu, Qiyao Zhao, Guoyue Xue and Hongyu Shen (China)

F2-2

ICICIC2024-WS06-02

Dairy Cow Identity Search with Scene Information and Feature Fusion

Guoyue Xue[†], Yuefeng Liu, Qiyao Zhao, Tiange Zhang and Hongyu Shen (China)

F2-3

ICICIC2024-WS06-03

Deep Learning Method for ECG Compression Based on Wavelet Lifting Transform

Xingyu Liu[†], Lirong Wang, Jiangxu Liu, Jiacheng Li and Sisi Lu (China)

F2-4

ICICIC2024-WS06-04

Inter-Patient End-to-End Atrial Fibrillation Detection Method Based on RR Intervals and a Convolutional Neural Network

Jiangxu Liu[†], Lirong Wang, Xingyu Liu, Jiacheng Li and Sisi Lu (China)

F2-5

ICICIC2024-WS06-05

Myocardial Infarction Identification Method Based on Multi-Scale Feature Fusion Model

Jiacheng Li[†], Lirong Wang, Xingyu Liu, Jiangxu Liu and Sisi Lu (China)

F2-6

ICICIC2024-WS06-06

Prediction of ECG Signals Using Radar Signals Based on Fuse-Unet Network

Sisi Lu[†], Lirong Wang, Jing Liu, Xingyu Liu, Jiangxu Liu and Jiacheng Li (China)

F2-7

ICICIC2024-WS06-07

Unsupervised Anomaly Detection of Lithium-Ion Batteries for Imbalanced Samples

Hongyu Shen[†], Yuefeng Liu, Qiyao Zhao, Guoyue Xue and Tiange Zhang (China)

F2-8

ICICIC2024-WS06-08

A Method for Bacterial Object Detection Based on Convolutional Transform Feature Extraction

Ying Liang[†], Lesong Zheng, Chen Ru, Zihao Li and Lirong Wang (China)

F2-9

ICICIC2024-055

End-to-End Chinese Handwriting Archives Page Text Spotter

Qiyao Zhao[†], Lanying Liang, Zheng Li, Guoyue Xue and Yuefeng Liu (China)

September 12, 2024, Thursday (Beijing Time)

08:30 – 10:00 Beihai Hall, B2

A3: Multi-Robot Collaborative Control

Chairs: Dr. Shaoxin Sun and Prof. Xiaojie Su (Chongqing University, China)

A3-1

ICICIC2024-SS29-01

Global Convergence of Similar Formation Control for Cliques via Local Displacement Measurements

Gen He[†] and Gangshan Jing (China)

A3-2

ICICIC2024-SS29-02

Distributed Cooperative Control and Robust Optimization for Nonlinear Connected Automated Vehicles with Unknown Reaction Time Delays and Jerk Dynamics

Bohui Wang[†] and Chao Shen (China)

A3-3

ICICIC2024-SS29-03

Deep Synchronization Control for Grid-Forming Converters: A Reinforcement Learning Approach

Zhuorui Wu, Meng Zhang[†] and Chao Shen (China)

A3-4

ICICIC2024-SS29-04

Image Feature Matching Algorithm Based on Object Detection

Shaoxin Sun[†] and Yanjiang Wu (China)

A3-5

ICICIC2024-SS29-05

Bipartite Consensus of Multi-Agent Systems via Intermittent Impulsive Control

Zhengle Zhang[†] and Tiedong Ma (China)

A3-6

ICICIC2024-156

Input-to-State Stability for Nonlinear Stochastic Time-Varying Switched Delay Systems

Huabin Chen[†], Peng Shi and Imre Rudas (China)

September 12, 2024, Thursday (Beijing Time)

08:30 – 10:00 Bohai Hall, B2

B3: Sustainable Maritime Logistics: Innovations for Safety, Efficiency, and Clean Port

Chairs: Dr. Dohee Kim and Prof. Hyerim Bae (Pusan National University, Korea)

B3-1

ICICIC2024-SS12-02

Integrated Optimization Model for Investment and Operation of Eco-Friendly Vessels

Jiyeon Lee[†] and Ilkyeong Moon (Korea)

B3-2

ICICIC2024-SS12-03

Dual-Dimensional Dependency Fusion Transformer for Long-Term Spatiotemporal Flow Prediction

Younghwi Kim[†], Jaehoon Lee, Seungwoo Lee and Sunghyun Sim (Korea)

B3-3

ICICIC2024-SS12-04

Efficient Fish Body Height and Length Estimation Using Convolutional Neural Network Models and Morphological Operation

*Ji-Yeon Kim, In-ho Jeong, Byeong Jun Gong, Hosang Lee, Ki-Hwan Kim, Young-Jin Kang[†]
 Myungil Kim and Seok-Chan Jeong (Korea)*

B3-4

ICICIC2024-SS12-05

Enhancing Predictive Power and Interpretability Power Model Based on Feature Engineering

Jaeeun Kwon[†], Sunghyun Sim and Hyerim Bae (Korea)

B3-5

ICICIC2024-SS30-01

Intelligent Dispatching System for Container Transportation Using Reinforcement Learning

*Chang Seong Ko, HaeKyung Lee, Sung Hoon Lee, Taoun Kim[†]
 and Young Seok Ock (Korea)*

B3-6

ICICIC2024-SS38-05

Biomechanical Characteristics of Pushing and Pulling a Manual Hand Truck

Junjie Deng[†] and Hong-In Cheng (Korea)

September 12, 2024, Thursday (Beijing Time)

08:30 – 10:00 Huanghai Hall, B2

C3: Control and Optimization of Complex Networked Systems

Chair: Prof. Rongni Yang (Shandong University, China)

C3-1

ICICIC2024-SS27-01

Adaptive Event-Triggered and Optimization Control of Nonlinear Switched Lower Triangular Systems

Chengyuan Yan and Jianwei Xia[†] (China)

C3-2

ICICIC2024-SS27-03

Mode Observer-Based Security Control for Cyber-Physical Systems under Periodic DoS Attacks via a Switching Strategy

Jingqiu Li[†] and Rongni Yang (China)

C3-3

ICICIC2024-SS27-04

Robust \mathcal{H}_∞ Estimation for 2-D Uncertain Systems under Asynchronous Multi-Channel Delays: A Partition Reconstruction Approach

Wei Wang[†] and Yu Chen (China)

C3-4

ICICIC2024-SS27-05

Interpolation Function Based Bumpless Transfer Fault-Tolerant Control for Mass-Switched Marine Vehicles with Sensor Faults

Jian Zhang and Yanzheng Zhu[†] (China)

C3-5

ICICIC2024-SS27-06

Observer-Based Finite-Time Tracking Control of Soft Continuum Robot under Unknown Uncertainty

Ziyao Qu and Renjie Ma[†] (China)

C3-6

ICICIC2024-SS27-07

Distributed Prescribed-Time Observer Design under Homologous Sensor Attacks

Ming Zhu[†], Gongdi Fu and Shuai Liu (China)

September 12, 2024, Thursday (Beijing Time)

08:30 – 10:00 Nanhai Hall 2, B2

D3: Autonomous Unmanned System and Control Theory

Chairs: Prof. Guanghui Sun and Dr. Xiaolei Li (Harbin Institute of Technology, China)

D3-1

ICICIC2024-SS19-01

Adaptive Super-Twisting Sliding Mode Tracking Control of H-Type Linear Motor Platform

Jiawei Liu, Xiaolei Li[†], Zhihua Xiang, Feilong Tang and Wenqing Liu (China)

D3-2

ICICIC2024-SS19-02

Configuration Maintenance of Satellite Formation System with Space Environment Perturbation

Wuyang Cheng, Guanghui Sun[†], Yinhao Ju, Peng Cheng and Yewei Lu (China)

D3-3

ICICIC2024-SS19-03

Differential Game of Spacecraft Pursuit and Escape Based on Dynamic Compensation

Yiming Wang, Chengwei Wu[†], Baizheng Huan, Qixin Kui and Yida Wang (China)

D3-4

ICICIC2024-SS19-04

Model Predictive Control-Based Trajectory Planning and Tracking for Unmanned Vehicles

Fenghe Tian, Weiran Yao[†], Qixin Kui, Haoyu Tian and Mengyang Wang (China)

D3-5

ICICIC2024-SS19-05

A Self-Supervised Method for Trilateral Sensing: Localization, Angular Measurement, and Defect Detection

Xiang Li, Dong Zhou[†] and Xiangyu Shao (China)

D3-6

ICICIC2024-SS19-06

Reinforcement Learning Based Sliding Mode Control for Space Manipulator

Tongyu Zhao, Xiangyu Shao[†], Jiaxing Zhang, Shaojie Zhang and Haoyi Wang (China)

September 12, 2024, Thursday (Beijing Time)

08:30 – 10:00 Nanhai Hall 3, B2

E3: Management and Innovative Approaches in Education (1)

Chair: Prof. Dian-Fu Chang (Tamkang University, Taiwan, China)

E3-1

ICICIC2024-SS23-01

Exploring the Effect of Unmarried or Non-Married Status on Job Participation and Job Loss
Using Time Series Data with PLS-SEM

Mei-Ling Chang[†], Yilin Lee and Dian-Fu Chang (Taiwan, China)

E3-2

ICICIC2024-SS23-02

Factors Influencing Chinese Recognition of Online Overseas Degrees

Sining Wang (Malaysia)

E3-3

ICICIC2024-SS23-05

Predicting the Trend of Poor Eyesight in Schoolchildren Using Quadratic Modeling
and Index Analysis

Jhen-Yu You[†] and Dian-Fu Chang (Taiwan, China)

E3-4

ICICIC2024-SS23-06

Examining the Impact of International Marriages on Newborns in a Declining Birthrates Society
Using PLS-SEM

Mei-Ling Chang[†], Yilin Lee and Dian-Fu Chang (Taiwan, China)

E3-5

ICICIC2024-SS23-08

Testing the Effect of Contextual Factors on College Students' Entrepreneurship, Competencies
and Mindsets with PLS-SEM

Dian-Fu Chang[†], Wen-Ching Chou and Ming-Wei Lin (Taiwan, China)

E3-6

ICICIC2024-SS23-11

Forecasting Teacher Demand in China's Compulsory Education: A Time Series Analysis
Approach

Fan Xia[†] and Tianshun Jin (China)

September 12, 2024, Thursday (Beijing Time)

10:20 – 12:20 Beihai Hall, B2

A4: Safety Control for Service Robot

Chair: Prof. Xiaojie Su (Chongqing University, China)

A4-1

ICICIC2024-SS17-03

Balance Gait Control of Humanoid Robots in Unstructured Environments under Multiple Constraint Conditions

Yucheng Liu[†] and Yufeng Tian (China)

A4-2

ICICIC2024-SS17-04

Personal Credit Risk Assessment Based on Swarm Intelligence and Random Forest

Facheng Dai[†] and Xiangguang Dai (China)

A4-3

ICICIC2024-SS17-05

Efficient 7-DoF Grasp Configurations Generation in Complex Environments

Tianjiao Lei[†] and Yizhuo Sun (China)

A4-4

ICICIC2024-089

Fixed-Time Observer-Based Adaptive Sliding Mode Control for Aerial Manipulator

Hongwei Qian, Liang Chen, Yueyuan Zhang[†] and Yuan Sun (China)

A4-5

ICICIC2024-091

Model-Free Q-Learning for Optimal Secure Control of Networked Takagi-Sugeno Fuzzy Systems under Network Attacks

Ning Liu and Xiangpeng Xie[†] (China)

September 12, 2024, Thursday (Beijing Time)

10:20 – 12:20 Bohai Hall, B2

B4: Intelligent Data Analytics and Smart Production System

Chair: Prof. Jaehun Park (Changwon National University, Korea)

B4-1

ICICIC2024-SS37-02

A Comparative Analysis of Korean Startups Based on Corporate Financial Data

Haram Kim[†] and Dongsoo Kim (Korea)

B4-2

ICICIC2024-SS37-05

Two Integral-Based Methods for Evaluating Intelligent Agricultural Greenhouses
with Fuzzy Information

Yong Jin Kim[†], Ho Jun Park, Minjung Kwak, Changmuk Kang and Dongsoo Kim (Korea)

B4-3

ICICIC2024-SS37-06

Aspect-Based Customer Satisfaction Evaluation in Low-Resource Languages of Filipino
Online Reviews

Raphael Gonda[†] and Jaehun Park (Korea)

B4-4

ICICIC2024-SS37-07

Evaluating the Credibility of Product Testing Marketing by Comparing Online Review
Satisfaction

Hyeyeong Koo[†], Minji Ma and Jaehun Park (Korea)

B4-5

ICICIC2024-SS37-08

Evaluating Potential Occurrence of Quality Anomalies for Inspection Item Using Quality
Test Data

Minji Ma[†], Hyeyeong Koo and Jaehun Park (Korea)

B4-6

ICICIC2024-SS38-03

Relationship between Contract Parameters in Revenue-Sharing and Option Contracts
under Supply Chain Coordination

Ze-jin Tao[†] and Pyung-Hoi Koo (Korea)

B4-7

ICICIC2024-SS38-06

Optimizing Genetic Process Mining with Heuristic and Honey Bee Approaches for Enhanced
Initial Population Design and Neighborhood Search

Yutika Amelia Effendi[†] and Minsoo Kim (Korea)

B4-8

ICICIC2024-SS38-07

Process Mining-Based Identification of Inefficiencies and Nonconformities in Manufacturing
Processes

Hwan-Hee Park[†] and Tai-Woo Chang (Korea)

September 12, 2024, Thursday (Beijing Time)

10:20 – 12:20 Huanghai Hall, B2

C4: Robust Control, Intelligent Control and the Applications

Chairs: Prof. Zhuang Ma and Prof. Cheng Gong (Tangshan University, China)

C4-1

ICICIC2024-SS15-01

Event-Triggered H_∞ Consensus of Leader-Follower Multi-Agent Systems

Cheng Gong[†], Zhuang Ma and Xuemin Zuo (China)

C4-2

ICICIC2024-SS15-02

Optimal Design of Synchronous Reluctance Motor with Tetracuspid-Shaped Rotor Structure

Jing Liang[†], Zhuang Ma, Wanwei Tang, Wenli Lian and Cheng Gong (China)

C4-3

ICICIC2024-SS15-03

Adaptive Dual-Layer Disturbance Observer-Based Fully Distributed Fixed Time Consensus Control for Uncertain Nonlinear Multi-Agent Systems with Deception Attacks

Miao Xu[†], Zhuang Ma, Cheng Gong and Xuemin Zuo (China)

C4-4

ICICIC2024-SS15-04

Outage Probability Analysis of Cooperative PDMA with Adaptive Relaying

Wanwei Tang[†], Maodan Ren, Lixia Wang, Zedai Wang and Jiayu Liu (China)

C4-5

ICICIC2024-SS15-05

Design and Implementation of the Path Following for Spherical Underwater Robot by MPC with Parameter Self Adjustment Based on Reinforcement Learning

Xihuan Hou[†] and Zhuang Ma (China)

C4-6

ICICIC2024-150

Adaptive Control Based on Disturbance Observer of Dual-Arm Service Robots

Ziteng Wang[†], Yina Wang, Junyou Yang and Shuoyu Wang (China)

September 12, 2024, Thursday (Beijing Time)

10:20 – 12:20 Nanhai Hall 2, B2

D4: Intelligence for Electrical and Energy Systems

Chair: Prof. Dezhi Xu (Southeast University, China)

D4-1

ICICIC2024-WS01-01

Identification of Internal Short Circuit Faults in Lithium-Ion Batteries Based on Recurrence Plot Spectra and MobileNetV3 Network

Chuanjun Gong[†], Weilin Yang, Dezhi Xu and Tinglong Pan (China)

D4-2

ICICIC2024-WS01-02

Model Predictive Control of Parallel Photovoltaic-Storage Electric Springs

Zuhang Zhang[†], Jinlei Pei, Dezhi Xu and Tinglong Pan (China)

D4-3

ICICIC2024-WS01-03

Sensor Fault Diagnosis for Lithium-Ion Battery Management System Based on Capacity Estimation

Yu Ma[†], Weilin Yang, Dezhi Xu and Jinlei Pei (China)

D4-4

ICICIC2024-WS01-04

Prescribed-Time Sliding Mode Consensus Tracking Control for Multiple Permanent Magnet Synchronous Linear Motors

Panlong Mu[†], Guanyang Hu, Tinglong Pan, Weilin Yang and Dezhi Xu (China)

D4-5

ICICIC2024-WS01-05

Research on Model-Free Sliding Mode Current Predictive Control Technology for Linear Motors

Suyao Zhang[†], Guanyang Hu, Tinglong Pan, Weilin Yang and Dezhi Xu (China)

D4-6

ICICIC2024-WS01-06

Event Triggered Model-Free Adaptive MPPT Control

Zhenchao Han[†], Tinglong Pan and Dezhi Xu (China)

September 12, 2024, Thursday (Beijing Time)

10:20 – 12:20 Nanhai Hall 3, B2

E4: Management and Innovative Approaches in Education (2)

Chair: Prof. Angel Chang (Chung Yuan Christian University, Taiwan, China)

E4-1

ICICIC2024-SS23-07

Detecting Aging Labor Participation Issues in OECD Countries Using PLS-SEM

Yilin Lee[†], Mei-Ling Chang and Dian-Fu Chang (Taiwan, China)

E4-2

ICICIC2024-SS23-10

Comparing Teacher-Student Ratio and Gender Diversity Transformation in Taiwan and Korea Based on Higher Education Expansion

En-Yu Liu[†] and Angel Chang (Taiwan, China)

E4-3

ICICIC2024-SS23-12

Data-Driven Enrollment Planning in Higher Education with Predictive Approaches

Angel Chang (Taiwan, China)

E4-4

ICICIC2024-081

Human Resource Needs and Core Knowledge in Developing the ESG Industry: A Fuzzy Delphi Approach with Importance-Urgency Matrix

Colin W. K. Chen[†] and Yu-Ting Chen (Thailand)

E4-5

ICICIC2024-124

A Comparative Study of Labor Force Participation Rates among Older Adults in Taiwan and Japan: Trends, Structural Changes, and Gender Disparities

Yilin Lee[†], Mei-Ling Chang and Dian-Fu Chang (Taiwan, China)

E4-6

ICICIC2024-132

Comparing the Progress of Human Development and Gender Diversity in India and China with Time Series Approaches

Shui Lien Chen and Paichou Huang[†] (Taiwan, China)

E4-7

ICICIC2024-158

Meet the One: Analyzing the Algorithm behind the Dating App

Angel Chang (Taiwan, China)

September 12, 2024, Thursday (Beijing Time)

13:20 – 15:20 Beihai Hall, B2

A5: Complexity Systems and Intelligent Control

Chair: Prof. Jinpeng Yu (Qingdao University, China)

A5-1

ICICIC2024-SS07-01

Design of Path Tracking Sliding Mode Control Method for USV Based on LOS Guidance Law

Jiayu Liu and Baofang Wang[†] (China)

A5-2

ICICIC2024-SS07-02

Adaptive Fuzzy Constraint Control for Flexible-Joint Robot Stochastic Systems with Unknown Dead Zones

Yuanbao Dong[†], Jiapeng Liu and Jinpeng Yu (China)

A5-3

ICICIC2024-SS07-03

Extended State Estimation for Unknown Nonlinear Complex Networks with Colored Noise

Weiguo Shi[†], Jiapeng Liu and Jinpeng Yu (China)

A5-4

ICICIC2024-SS07-04

Discrete-Time Position Tracking Control for Multi-Motor Driving Systems via Multi-Power Terminal Sliding-Mode Technique

Chun Yang[†], Mingjie Cai and Xiang Wang (China)

A5-5

ICICIC2024-SS07-05

Frame-Level Teacher-Student Learning with Data Privacy for EEG Emotion Recognition

Xiaoyue Gu[†] and Tianhao Gu (China)

A5-6

ICICIC2024-SS07-06

Stabilization and Stability Analysis of Conic-Type Nonlinear Sampled-Data Markovian Jumping System with Time-Varying Delays

Hao Shen and Wenjuan Lin[†] (China)

A5-7

ICICIC2024-SS07-07

Hazards Analysis Methodology for Continuous Physical Assistant Robot-Human Interactions

Xuewei Mao[†] and Xiaoyang Li (China)

A5-8

ICICIC2024-SS07-08

Adaptive Finite-Time Fuzzy Fractional Sliding Mode Control for a Quadrotor Unmanned Aerial Vehicle with Actuator Faults and Slung Load

Fangzheng Li, Zhen Liu[†], Tengting Xun and Chengkun Dong (China)

September 12, 2024, Thursday (Beijing Time)

13:20 – 15:20 Bohai Hall, B2

B5: Environmental, Social, and Governance (ESG) for Digital Business

Chair: Prof. Bo Lin (Guangzhou College of Technology and Business, China)

B5-1

ICICIC2024-WS03-01

An Empirical Study on the Coordinated Development of Cross-Border E-Commerce and Cross-Border Logistics in Guangdong Province

Zewei Wu and Jie Tang[†] (China)

B5-2

ICICIC2024-WS03-02

The Influence of Network Marketing on College Students' Travel and Consumption Willingness

Shurui Gu[†] and Rui Wang (China)

B5-3

ICICIC2024-WS03-03

The Influence Mechanism of Real-Time Online Education Platform on Learner User Behavior

Siyang Mei[†], Shengxiang She and Xin Liu (China)

B5-4

ICICIC2024-WS03-04

Coupling Mechanism of New Media Supervision and Government Regulation of FinTech Innovation

Xi Zhou (China)

B5-5

ICICIC2024-WS03-05

Carbon Emission Abatement in a Monopolistic Market with Green Awareness

Xiaoliang Li[†], Shuie Sun and Yuhao Cheng (China)

B5-6

ICICIC2024-WS03-06

Evolutionary Game Study on Government Regulation and Corporate Emissions Reduction Decision-Making in Industrial Clusters

Yuhao Cheng[†] and Xiaoliang Li (China)

B5-7

ICICIC2024-WS03-07

FinTech under the Resource Dependence Theory: A New Path to Financing for Chinese Listed Companies

Wenou Lin and Jianbo Guan[†] (China)

B5-8

ICICIC2024-WS03-08

The Impact Mechanism of Green Influencers on Followers' Pro-Environmental Behaviors

Shengxiang She[†], Boxiong Wang and Shicheng Li (China)

September 12, 2024, Thursday (Beijing Time)

13:20 – 15:20 Huanghai Hall, B2

C5: AI-Based Fault Diagnosis and Predictive Health Management

Chairs: Prof. Chao Zhang (Northwestern Polytechnical University, China)

Mr. Shilie He (China Electronic Product Reliability and Environmental Testing Institute, China)

C5-1

ICICIC2024-SS22-01

Parameter Tuning of an Extended Kalman Filter with Highly Noisy Measurement via Reinforcement Learning

Chunshi Fan, Jinhui Li, Zhiwen Wang, Meng Lu, Ruixing Yang and Chao Zhang[†] (China)

C5-2

ICICIC2024-SS22-02

LiDAR-Based Positioning for V2V Using Double Difference Method

Zhijie Dong, Peng Du[†], Chao Zhang and Wei Tian (China)

C5-3

ICICIC2024-SS22-03

Prediction of Power Conversion Efficiency Degradation Based on Temporal Convolutional Network

Shilie He[†], Chao Zhang, Zhikang Lai, Linlin Shi and Zhenwei Zhou (China)

C5-4

ICICIC2024-SS22-04

A New Method for Determining the Testability Index Based on Generalized Stochastic Petri Net

Yingtao Fang[†], Zhijie Dong, Shilie He, Liye Cheng and Chao Zhang (China)

C5-5

ICICIC2024-SS22-05

Design of Hybrid Control Strategy for Permanent Magnet Synchronous Motor Based on Fuzzy PI Control

Yiyang Huang[†], Shilie He, Yong Zhou, Chao Zhang and Liye Cheng (China)

C5-6

ICICIC2024-SS22-06

Research on Stability Control Method of Multistage Electro-Mechanical Actuator under Load Disturbance

Xingye Ding[†], Yong Zhou, Chao Zhang and Chunshi Fan (China)

C5-7

ICICIC2024-SS22-07

Dynamic Analysis of Backlash Factors in Electromechanical Actuation Systems

Ruixuan Wu[†], Yong Zhou, Chao Zhang and Chunshi Fan (China)

C5-8

ICICIC2024-SS22-08

Research on Simulation Modeling of Complex Dynamic System under Vertical Condition

Chaowei Yan[†], Yong Zhou, Chao Zhang and Chunshi Fan (China)

September 12, 2024, Thursday (Beijing Time)

13:20 – 15:20 Nanhai Hall 2, B2

D5: Intelligent Fault Diagnosis and Fault Tolerant Control for Complex Dynamic Systems

Chairs: Prof. Bin Jiang (Nanjing University of Aeronautics and Astronautics, China)

Prof. Li Guo (Anhui Polytechnic University, China)

D5-1

ICICIC2024-SS28-01

Neural Network-Based Adaptive Fault-Tolerant Control of Hydraulic Turbine Governing Systems with Unknown Measurement Drifts

Chen Xu[†] and Qikun Shen (China)

D5-2

ICICIC2024-SS28-02

Neural Network-Based Fault-Tolerant Control of Genetic Regulatory Networks

Ziri Xu[†] and Qikun Shen (China)

D5-3

ICICIC2024-SS28-03

Distributed Fault Diagnosis and Fault Tolerant Control for Interconnected Nonlinear Systems

Hao Wu, Wenjing Ren[†] and Dong Zhao (China)

D5-4

ICICIC2024-SS28-04

Fault Tolerant Optimal Control for Strict Feedback Nonlinear Systems Using Backstepping Technology

Di Liu, Moshu Qian[†], Bin Jiang, Yaohui Jiang and Zhifeng Gao (China)

D5-5

ICICIC2024-SS28-05

Finite-Time Fault-Tolerant Control of Heterogeneous Multiple UAV Systems Based on Fault Observer

Meng Hu and Huiliao Yang[†] (China)

D5-6

ICICIC2024-SS28-06

An Improved RT-DETR Based Aircraft Detection Algorithm for Aerial Photography

Yiming Ren, Dongsheng Du[†], Xiangshuai Deng, He Lian and Zheming Zhao (China)

D5-7

ICICIC2024-SS28-07

Adaptive Dynamic Programming for Online Solutions of Stackelberg Game-Based Path Planning and Formation Control

Yuhang Xu[†], Bingyun Li, Jiao Hu and Bin Jiang (China)

September 12, 2024, Thursday (Beijing Time)

13:20 – 15:20 Nanhai Hall 3, B2

E5: Intelligent Control of Networked Nonlinear Systems and Its Applications

Chairs: Prof. Changchun Hua and Prof. Yafeng Li (Yanshan University, China)

E5-1

ICICIC2024-SS06-01

Improved Model-Free Adaptive Control Based Unmanned Excavator Operation Scheme

Bo Geng, Kuo Chen[†], Chang Liu and Xi Luo (China)

E5-2

ICICIC2024-SS06-02

Research on the Tail Top Control System of Spinning Process

Shaoming Sun, Xiangda He, Jiafeng Zhou and Xi Luo[†] (China)

E5-3

ICICIC2024-SS06-03

Intelligent Anti-Swing Control of Underactuated Crane System Based on Digital Twin Technology

Tengfei Zhang, Yana Yang[†], Changchun Hua and Yafeng Li (China)

E5-4

ICICIC2024-SS06-04

Data-Driven Optimal Consensus Control for Nonlinear Multiagent Systems

Chunguang Huang and Guanglei Zhao[†] (China)

E5-5

ICICIC2024-SS06-05

Model Predictive Control for Gantry Crane with the Swing Control

Yueqiang Zhao, Heng Zhang and Weili Ding[†] (China)

September 12, 2024, Thursday (Beijing Time)

15:40 – 18:00 Beihai Hall, B2

A6: Intelligent Autonomous Control of Industrial Electronic Systems

Chairs: Prof. Jianxing Liu (Harbin Institute of Technology, China)

Prof. Xinxin Liu (Nanjing University of Information Science and Technology, China)

Dr. Xiaoning Shen (Harbin Institute of Technology, China)

A6-1

ICICIC2024-SS26-01

Robust Fixed-Time Sliding Mode Control for Buck Converters

Guangxin Liu, Jie Jin, Lei Zhang and Xiaoning Shen[†] (China)

A6-2

ICICIC2024-SS26-02

An ESO-Based Improved Super-Twisting Sliding Mode Control for Permanent Magnet Synchronous Motors

Zhuang Kang, Xinpo Lin and Xiaoning Shen[†] (China)

A6-3

ICICIC2024-SS26-03

Tracking Control of Insulator Sweep Robot with Generalized Super-Twisting Algorithm

Jie Jin, Guangxin Liu and Xiaoning Shen[†] (China)

A6-4

ICICIC2024-SS26-04

Reduced-Order Filtering of Autonomous Vehicle System via Mixed Event-Triggered Mechanism

Weiye Zhao, Yaxin Gu and Xinxin Liu[†] (China)

A6-5

ICICIC2024-SS26-05

Digital Twin Based Monitoring and Control for Buck Converters

Zhongcheng Lei[†], Hong Zhou, Xiaoran Dai, Wenshan Hu and Guo-Ping Liu (China)

A6-6

ICICIC2024-SS17-06

Sliding-Mode Control for Unmanned Autonomous Helicopter Based on Memory-Based Event-Triggered Strategy

Yaxin Gu, Weiye Zhao and Xinxin Liu[†] (China)

A6-7

ICICIC2024-152

A Subtype Classification Method for Breast Tumor Pathology Images Based on Multi-Scale Feature Fusion and Pooled Residual Networks

Yue Teng, Bing Li[†], Fangying Song and Peng Yuan (China)

A6-8

ICICIC2024-153

Synchronization Control of Complex Networks with Bit Rate Constraints

Ling Huang[†], Yutong Gao and Jing Guo (China)

September 12, 2024, Thursday (Beijing Time)

15:40 – 18:00 Bohai Hall, B2

B6: Big Data Analysis and Data-Driven Intelligent Optimization for Decision Making

Chairs: Prof. Xiangpei Hu (Dalian University of Technology, China)

Prof. Minfang Huang (North China Electric Power University, China)

Prof. Lijun Sun and Dr. Yonggang Li (Dalian University of Technology, China)

B6-1

ICICIC2024-WS02-01

Research on Blockchain-Based Marketing Model for Digital Books

Dequan Meng (China)

B6-2

ICICIC2024-WS02-02

Reputation-Based Trusted Authentication Method for Data Transaction Subjects

Xueying Zhai[†] and Xiangpei Hu (China)

B6-3

ICICIC2024-WS02-03

Data-Driven Capacity Configuration for Bus Depot Integrated Energy Systems

Minfang Huang[†], Chumeng Sun and Yi Zhang (China)

B6-4

ICICIC2024-WS02-04

Research and Development Project Evaluation Model Based on the Focus Points

Yonggang Li[†], Shufen Yu and Shuting Guo (China)

B6-5

ICICIC2024-WS02-05

Colorectal Cancer Risk Prediction in Liaoning Province Based on Big Data Analysis

Huilin Ke, Lijun Sun[†], Mu Du, Hongtao Yu and Bo Zhu (China)

B6-6

ICICIC2024-WS02-06

Integrated Differentiated Time Slot Pricing and Order Dispatching with Uncertain Customer Demand in On-Demand Food Delivery

Bo Zhang[†], Elkafi Hassini, Yun Zhou, Meng Zhao and Xiangpei Hu (China)

B6-7

ICICIC2024-WS02-07

Electricity Consumption Prediction Based on an Ensemble Method

Xiangpei Hu, Yaxian Zhou[†] and Lijun Sun (China)

B6-8

ICICIC2024-WS02-08

Research on the Influence Mechanism of Offshore Pollution from the Perspective of Spatial Effects

Lili Zhang[†], Siyao Li and Yanan Zhao (China)

B6-9

ICICIC2024-062

Risk Identification and Evaluation of Safety Inventory in the Coal Supply Chain

Yu Zheng[†], Shen Luo and Minfang Huang (China)

September 12, 2024, Thursday (Beijing Time)

15:40 – 18:00 Huanghai Hall, B2

C6: Modeling, Optimization and Control of Marine Intelligent Unmanned Systems

Chairs: Prof. Ning Wang and Prof. Yi Wei (Dalian Maritime University, China)

C6-1

ICICIC2024-SS35-01

Spatio-Temporal Context for Robust Surface Obstacle Segmentation

Yuan Feng[†], Yi Wei and Ning Wang (China)

C6-2

ICICIC2024-SS35-02

Collaborative Path Planning for Unmanned Surface Vehicle Swarm via Deep Reinforcement Learning

Xin Hui[†] and Ning Wang (China)

C6-3

ICICIC2024-SS35-03

Dynamic Surface Back-Stepping Control for Path Following of an Underactuated Surface Vehicle with Multiple Actuator Constraints

Chengxiang Zhang[†] and Ning Wang (China)

C6-4

ICICIC2024-SS35-04

A Cooperative Hunting Method for an Unmanned Surface Vehicle Swarm System in Dynamic Environments

Yaping Zhang[†], Yejin Lin and Ning Wang (China)

C6-5

ICICIC2024-SS35-05

Surge-Heading Guidance-Based Adaptive Fuzzy Path Following of Autonomous Underactuated Ships with Fixed-Time Convergence

Wei Jia, Ning Wang[†] and Haojun Wu (China)

C6-6

ICICIC2024-009

Individual Tree-Trunk Position Based on a UAV Lidar Using Kalman Filter

Haixin Zhang, Qinying Zhang, Shaopeng Sun and Hongjiu Yang[†] (China)

C6-7

ICICIC2024-121

UAV Path Planning Based on Parallel Whale Optimization Algorithm

Jiawei Wang[†], Ruibin Hu, Chairui Chen, Lin Xu and Ruobin Wang (China)

C6-8

ICICIC2024-122

UAV Path Planning Utilizing Mutation and Parallel Strategies with Evolutionary Algorithms

Chairui Chen[†], Ruibin Hu, Jiawei Wang, Lin Xu and Ruobin Wang (China)

September 12, 2024, Thursday (Beijing Time)

15:40 – 18:00 Nanhai Hall 2, B2

D6: Intelligent Sensing and System Control

Chairs: Prof. Fengda Zhao, Prof. Lin Wang and Prof. Peiliang Wu (Yanshan University, China)

D6-1

ICICIC2024-SS33-01

Investigating LLMs' Proficiency in Bundle Detection with Interactive Retrieval

Kaidong Feng, Zhu Sun, Pengxiang Du and Wenyuan Liu[†] (China)

D6-2

ICICIC2024-SS33-02

Skill Learning for Service Robots via Large Language Model and Deep Reinforcement Learning

Fengtao Sun[†], Peiliang Wu, Liqiang Tian and Wenbai Chen (China)

D6-3

ICICIC2024-SS33-03

PG-KGLLM: Policy Generation for Household Service Robots via Knowledge Graph and Large Language Model

*Changdong Zhou[†], Peiliang Wu, Muqun Gao, Tiancheng Wang, Zhengyu Wang
Wenbai Chen, Guowei Gao and Yan Shi (China)*

D6-4

ICICIC2024-SS33-04

VoLe: A Transfer Learning-Based mm-Wave Acoustic Sensing for Enhanced Voice Interface

Yuhan Zhao, Juntao Hao and Lin Wang[†] (China)

D6-5

ICICIC2024-SS33-05

Lithology Identification of Imbalanced Logging Data Based on Diffusion Model and Multiscale CNN

Fengda Zhao[†], Zhuoyi Zhao, Hongjin Lv, Pengwei Zhang and Xianshan Li (China)

D6-6

ICICIC2024-SS03-02

Toward a Complete Concept-Level Explanation of Graph Neural Networks: A Side-Channel Concept Enhancement Strategy

Yicong Li[†], Jie Wang, Tianchi Feng, Muhammad Usman Arshad and Kuanjiu Zhou (China)

D6-7

ICICIC2024-SS03-03

State Transition Matrix Based Formal Modeling Methods of Embedded Multithreaded Software

Kuanjiu Zhou[†], Yicong Li, Tianchi Feng and Jie Wang (China)

D6-8

ICICIC2024-SS03-04

USAFE: Utilizing Counterfactual Reasoning-Based Safety Alerts for Trustworthy Intelligent Driving

*Muhammad Usman Arshad[†], Jie Wang, Tianchi Feng, Yicong Li
Muhammad Sheikh Luqman Ijaz and Kuanjiu Zhou (China)*

September 12, 2024, Thursday (Beijing Time)

15:40 – 18:00 Nanhai Hall 3, B2

E6: Optimal Design of Metamaterials Based on Data-Driven Method

Chair: Prof. Qinxì Dong (Hainan University, China)

E6-1

ICICIC2024-WS04-01

A Novel Two-Dimensional Mechanical Metamaterial Performance Design Based on Machine Learning

Yafeng Chang[†], Hui Wang and Qinxì Dong (China)

E6-2

ICICIC2024-WS04-02

Data-Driven Inverse Design of the Perforated Auxetic Phononic Crystals for Elastic Wave Manipulation

Yutong Yuan[†], Hongyuan Liu, Yating Gao, Yongpeng Lei, Hui Wang and Qinxì Dong (China)

E6-3

ICICIC2024-WS04-04

Machine Learning Prediction in Distortion Behavior of Unsymmetric Laminates under Hygrothermal Environments

Mengfei Han[†], Yongpeng Lei and Qinxì Dong (China)

E6-4

ICICIC2024-WS04-05

Realization of Bandgap Design with Ultra-Width and Low Frequency by Auxeticity-Based Resonator for Elastic Wave Manipulation

Yating Gao[†], Yafeng Chang, Yang Bai, Qinxì Dong and Hui Wang (China)

E6-5

ICICIC2024-058

An Integrative Method of Detection and Localization of Surrounding Vehicles Using GPS and RGB Camera Device Attachments

Jargal Davaanyam[†], Takahiro Koga, Obada Al Aama, Tomoki Taniguchi, Hakaru Tamukoh and Hiroaki Wagatsuma (Japan)

E6-6

ICICIC2024-059

An Analytical Method for Human Gait Analysis and Exoskeletal Design Optimization Using Flexible Multibody Dynamics with ANCF

Purevdorj Choisuren[†], Yiqian Ge, Shintaro Kasai and Hiroaki Wagatsuma (Japan)

E6-7

ICICIC2024-142

A Study on Acceleration of Course Attitude Indicator Visualization System for Data Analysis by LLM

Hiroshi Shiratsuchi[†], Hayato Tanaka, Kozo Horiuchi and Takanori Matsuzaki (Japan)

E6-8

ICICIC2024-145

Study on Estimating the Operating State of NC Machine Tools Using CSI Sensing with an ESP32 Module

Kozo Horiuchi[†], Hiroshi Shiratsuchi and Takanori Matsuzaki (Japan)

E6-9

ICICIC2024-147

Evaluation of Cutting Condition Classification of NC Machine Tools Using Wi-Fi Sensing

Takanori Matsuzaki[†], Kozo Horiuchi and Hiroshi Shiratsuchi (Japan)