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Date/Time	15:50-17:50	
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Co-Chair	Hualong Yang , <i>Dalian Maritime Univ.</i>	
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16:30-16:50	SatA13-3	Disruption Management Model for VRPSDP with New Customer Request for Pickup 423 Liang Zhao, <i>Dalian Maritime Univ.</i> Xiaoping Liang, <i>Dalian Maritime Univ.</i> Hualong Yang, <i>Dalian Maritime Univ.</i>
16:50-17:10	SatA13-4	Truthful multi-unit double auctions with quantity discount 428 Sheng Chen, <i>Northeastern Univ.</i> Min Huang, <i>Northeastern Univ.</i>
17:10-17:30	SatA13-5	One-to-many stable logistics matching in the fourth party logistics 433 Denig Gu, <i>Northeastern Univ.</i> Min Huang, <i>Northeastern Univ.</i>
17:30-17:50	SatA13-6	Multi-type products collaborative vehicle routing problem with time windows under consideration of transshipment 439 Qihuan Zhang, <i>Northeastern Univ.</i> Min Huang, <i>Northeastern Univ.</i> Yang Yu, <i>Northeastern Univ.</i>

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Venue	Room14	
Date/Time	15:50-17:50	
Chair	Xungao Zhong , <i>Xiamen Univ. of Tech.</i>	
Co-Chair	Min Yang , <i>Sun Yat-sen Univ.</i>	
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16:50-17:10	SatA14-4	Autonomous following indoor omnidirectional mobile robot 461 Kaibo Zhang, <i>Beijing Univ. of Civil Engineering and Architecture.</i> Lei Zhang, <i>Beijing Univ. of Civil Engineering and Architecture.</i>
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17:30-17:50	SatA14-6	Robust H_∞ Controller Based on Variable Gain Linear Parameter Varying and Pole Assignment of Nonholonomic Mobile Robot Trajectory Tracking 472 Haifeng Guo, <i>Shenyang Ligong Univ.</i> Ningbo Lu, <i>Shenyang Ligong Univ.</i>

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Co-Chair	Sheng Li , <i>Nanjing Univ. of Science and Tech.</i>	
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Co-Chair	Jianmin Zhang, <i>State Grid Shaoxin Electric Power Supply Company</i>	
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Session	SunA01:Adaptive Control (II)
Venue	Room01
Date/Time	08:00-10:00
Chair	Libing Wu , <i>Univ. of Scie. and Tech. Liaoning</i>
Co-Chair	Xiaoyan Yun , <i>Univ. of Scie. and Tech. Liaoning</i>

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Tong Liu, *Huizhou Univ.*
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Qiang Li, *Harbin Univ. of Scie. and Tech.*
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- 08:40-09:00 SunA01-3 Generalized Predictive Control of Time-Delay Nonlinear Systems Based on Extreme Learning Machine 789**
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Ying Zhou, *Nanjing Univ. of Posts and Telecommunications*
Qiang Wu, *Nanjing Univ. of Posts and Telecommunications*

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09:20-09:40	SunA01-5	Adaptive Cooperative Tracking Control for A Class of High-Order Nonaffine Nonlinear Multi-Agent Systems 801 Anguo Zhang, <i>Ruijie Networks Co., Ltd</i> Yongcheng Zhou, <i>Zhuzhou CRRC Times Elec. Co., Ltd</i> Qing Chen, <i>Chongqing Univ.</i> Shiyin Gong, <i>Hunan Railway Professional Tech. Inst. of Scie. and Tech.</i>
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Session	SunA02:Process Control (I)
Venue	Room02
Date/Time	08:00-10:00
Chair	Yong Zhang , <i>Univ. of Scie. and Tech. Liaoning</i>
Co-Chair	Chuanjin Li , <i>Dalian Maritime Univ.</i>

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 Xuqiang Liu, *Univ. of Scie. and Tech. Liaoning*
 Yong Zhang, *Univ. of Scie. and Tech. Liaoning*
 Siqi Wang, *Beijing univ. of scie. and Tech.*

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Venue	Room03	
Date/Time	08:00-10:00	
Chair	Yadong Liu, <i>Northeastern Univ.</i>	
Co-Chair	Qingliang Ma, <i>Xi'an Research Inst. of High-Tech</i>	
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08:40-09:00	SunA03-3	Improved H2 / H∞ Controller Design for Polynomial Fuzzy Systems Based on Iterative Sum-of-Squares Optimization 858 Qingliang Ma, <i>Xi'an Research Inst. of High-Tech</i> Hai-yan Yang, <i>Northwestern Polytechnical Univ.</i> Rui-hua Yue, <i>Xi'an Research Inst. of High-Tech</i> Jun Pu, <i>Xi'an Research Inst. of High-Tech</i>
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09:20-09:40	SunA03-5	On Minimum Time Equilibrium Targeting in Epidemic Diseases 868 M. De la Sen, <i>IIDP, UPV/EHU, Campus of Leioa</i> A.Ibeas, <i>Universitat Autònoma de Barcelona</i> S. Alonso-Quesada, <i>IIDP, UPV/EHU, Campus of Leioa</i> R. Nistal, <i>IIDP, UPV/EHU, Campus of Leioa</i>
09:40-10:00	SunA03-6	UCAVs online collaborative path planning method based on dynamic task allocation 872 Zhenglei Wei, <i>Air Force Engi. Univ.</i> Changqiang Huang, <i>Air Force Engi. Univ.</i> Tong Han, <i>Air Force Engi. Univ.</i> Kangsheng Dong, <i>Air Force Engi. Univ.</i> Yintong Li, <i>Air Force Engi. Univ.</i>

Session	SunA04: Fractional Calculus and Fractional-order Systems (I) (Special Session)	
Venue	Room04	
Date/Time	08:00-10:00	
Chair	Dingyu Xue , <i>Northeastern Univ.</i>	
Co-Chair	Fudong Ge , <i>China Univ. of Mining Tech.</i>	
08:00-08:20	SunA04-1	Fractional Order PID Control of Two-wheel Electric Balance Vehicle 878 Kai Zhou, <i>Nanjing Forestry Univ.</i> Yongpeng Tai, <i>Nanjing Forestry Univ.</i> Ning Chen, <i>Nanjing Forestry Univ.</i>
08:20-08:40	SunA04-2	Existence of Solutions for a Class of Fractional Ordinary Differential Equations with Integral and Antiperiodic Boundary Value Conditions 883 Haiyan Zhai, <i>Beijing Normal Univ.</i> Chenchen Yu, <i>Beijing Univ. of Chemical Tech.</i> Jing Wang, <i>Beijing Univ. of Chemical Tech.</i>
08:40-09:00	SunA04-3	Fractional-Order Memcapacitor-Based Chua's Circuit and its Chaotic Behaviour Analysis 889 Kai Qu, <i>Xian Jiaotong Univ.</i> Gangquan Si, <i>Xian Jiaotong Univ.</i> Zhang Guo, <i>Xian Jiaotong Univ.</i> Xiang Xu, <i>Xian Jiaotong Univ.</i> Shuang Li, <i>Xian Jiaotong Univ.</i> Yanbin Zhang, <i>Xian Jiaotong Univ.</i>
09:00-09:20	SunA04-4	A New Modeled Fractional-Order Memristor and Its Analysis in Series Circuit 895 Xiang Xu, <i>Xian Jiaotong Univ.</i> Gangquan Si, <i>Xian Jiaotong Univ.</i> Zhang Guo, <i>Xian Jiaotong Univ.</i> Kai Qu, <i>Xian Jiaotong Univ.</i> Shuang Li, <i>Xian Jiaotong Univ.</i> Yanbin Zhang, <i>Xian Jiaotong Univ.</i>
09:20-09:40	SunA04-5	Hopf Bifurcation in Fractional Red Blood Cells Model via Time-delayed Feedback Control 901 Fan Qing, <i>Nanjing Univ. of Posts and Telecommunications</i> Min Xiao, <i>Nanjing Univ. of Posts and Telecommunications</i>
09:40-10:00	SunA04-6	Consensus of fractional-order multi-agent systems via LMI approach 907 Yude Ji, <i>Hebei Univ. of Scie. and Tech.</i> Yuejuan Liu, <i>Hebei Univ. of Scie. and Tech.</i> Yanping Guo, <i>Hebei Univ. of Scie. and Tech.</i>

Session	SunA05: IntelliSense and Advanced Sensing, Detection Technology (I) (Special Session)	
Venue	Room05	
Date/Time	8:00-10:00	
Chair	Ouyang Qi , <i>Chongqing Univ.</i>	
Co-Chair	Yong Zhao , <i>Northeastern Univ.</i>	
8:00-8:20	SunA05-1	Study on Electromagnetic Ultrasonic Testing Method for Determining Solidified Shell Thickness during Continuous Casting 913 Ouyang Qi, <i>Chongqing Univ.</i> Mengxue Hu, <i>Chongqing Univ.</i> Xinglan Zhang, <i>Chongqing Univ. of Tech.</i> Siming Wei, <i>Chongqing Univ.</i> Wenqiang Peng, <i>Chongqing Univ.</i>
8:20-8:40	SunA05-2	Lane Detection Algorithm Based on Density Clustering and RANSAC 919 Jitong Wang, <i>Jilin Univ.</i> Wei Hong, <i>Jilin Univ.</i> Lei Gong, <i>Jilin Univ.</i>
8:40-9:00	SunA05-3	Crowd Counting Oriented To Indoor Scenes Based On FCN With Inception Modules and Residual Networks 925 Ze Sui, <i>Northeastern Univ.</i> Jingbo Sun, <i>Northeastern Univ.</i> Jingwei Li, <i>Northeastern Univ.</i> Yuze Jiao, <i>Northeastern Univ.</i> Jiao Wang, <i>Northeastern Univ.</i>
9:00-9:20	SunA05-4	Outlier-Factor-Based Cluster Analysis for Infrared Image Segmentation of Electric Equipment 931 Panpan Zhang, <i>Xian Jiaotong Univ.</i> Yanbin Zhang, <i>Xian Jiaotong Univ.</i> Hui Cao, <i>Xian Jiaotong Univ.</i> Shang Liu, <i>Xian Jiaotong Univ.</i> Dapeng Yan, <i>Xian Jiaotong Univ.</i> Yajie Yu, <i>Xian Jiaotong Univ.</i> Guifeng Zhang, <i>China Southern Power Grid</i> Zhiren Tian, <i>China Southern Power Grid</i>
9:20-9:40	SunA05-5	Multi-part Pedestrian Tracking Algorithm with Fuzzy Decision for Partial Occlusion 937 Lin Mao, <i>Dalian Minzu Univ.</i> Yehao Xu, <i>Dalian Minzu Univ.</i> Fan Cheng, <i>Dalian Minzu Univ.</i> Rubo Zhang, <i>Dalian Minzu Univ.</i>
9:40-10:00	SunA05-6	Pedestrian Detection Algorithm Based on Integral Channel Features 941 Lei Gong, <i>Jilin Univ.</i> Wei Hong, <i>Jilin Univ.</i> Jitong Wang, <i>Jilin Univ.</i>

Session	SunA06:Nonlinear Systems (II)		
Venue	Room06		
Date/Time	08:00-10:00		
Chair	Fei Hao , <i>Beihang Univ.</i>		
Co-Chair	Ken Chen , <i>Shanghai Branch of China Ship Scientific Research Center China Ship Scientific Research Center Shanghai Oriental Maritime Engineering Tech. Co., Ltd.</i>		
08:00-08:20	SunA06-1	ADS Adaptive Sliding Mode Course Controller with Slow Time-varying Disturbance Observer 947	Ken Chen, <i>Shanghai Branch of China Ship Scientific Research Center</i> Xinguang Du, <i>Shanghai Branch of China Ship Scientific Research Center</i> Tao Liu, <i>China Ship Scientific Research Center</i> Che Xu, <i>Shanghai Oriental Maritime Engineering Tech. Co., Ltd.</i>
08:20-08:40	SunA06-2	Active Disturbance Rejection Control for a DEAP Rotation Actuator with Hysteresis using a Bouc-Wen Model 953	Yu Chen, <i>Capital Normal Univ.</i> Dehui Qiu, <i>Capital Normal Univ.</i> Yuan Li, <i>Beijing Inst. of Tech.</i>
08:40-09:00	SunA06-3	Improved Results of Changing Supply Functions and the Applications to Nonlinear Systems in Cascade 958	Hao Yu, <i>Beihang Univ.</i> Fei Hao, <i>Beihang Univ.</i>
09:00-09:20	SunA06-4	Backstepping-based Robust H_∞ Tracking Control Design for a Class of Stochastic Nonlinear Systems 964	Hui Liu, <i>Univ. of Scie. & Tech. Liaoning</i> Xiaohua Li, <i>Univ. of Scie. & Tech. Liaoning</i>
09:20-09:40	SunA06-5	Research on a New Hybrid UWB Location System Algorithm Based on Double Base Station 970	Li Li, <i>Naval Univ. of Engineering PLA 92941 army</i> Zhong Liu, <i>Naval Univ. of Engineering</i>
09:40-10:00	SunA06-6	Formation Path-following of Multiple Underwater Vehicles Based on Fault Tolerant Control and Port-controlled Hamiltonian systems 974	Pengfei Zhang, <i>Dalian Maritime Univ.</i> Tingting Yang, <i>Dalian Maritime Univ.</i>

Session	SunA07:Intelligent Systems (II)		
Venue	Room07		
Date/Time	08:00-10:00		
Chair	Xiaodong Liu , <i>Dalian Univ. of Tech.</i>		
Co-Chair	Songhao Zhu , <i>Nanjing Univ. of Posts and Telecommunications</i>		
08:00-08:20	SunA07-1	Road extraction based on KFCM clustering and Morphological operations 980	Rui Luo, <i>Dalian Univ. of Tech.</i> Xiaodong Liu, <i>Dalian Univ. of Tech.</i> Yan Ren, <i>Shenyang Aerospace Univ.</i> Tianci Ao, <i>Dalian Univ. of Tech.</i> Jie Xi, <i>Shenyang Shenlan Aviation Tech. co., Ltd</i>

08:20-08:40	SunA07-2	Study on a Kind of Shore-to-ship Power Supply Smart Billing System 986 Lin Pan, <i>Wuhan Univ. of Tech.</i> Guanhong Ye, <i>Wuhan Univ. of Tech.</i> Jiying Wang, <i>Wuhan Univ. of Tech.</i>
08:40-09:00	SunA07-3	Design of Human Eye Information Detection System 992 Li Hou, <i>Dalian Neusoft Univ. of Information</i> Xiaoyu Zhang, <i>Dalian Neusoft Univ. of Information</i> Qisong Zhang, <i>Dalian Neusoft Univ. of Information</i>
09:00-09:20	SunA07-4	An approach to scene matching algorithm for UAV autonomous navigation 996 Tianci Ao, <i>Dalian Univ. of Tech.</i> Xiaodong Liu, <i>Dalian Univ. of Tech.</i> Yan Ren, <i>Shenyang Aerospace Univ.</i> Rui Luo, <i>Dalian Univ. of Tech.</i> Jie Xi, <i>Shenyang Shenlan Aviation Tech. co., Ltd</i>
09:20-09:40	SunA07-5	Improved SVD algorithm based on Slope One 1092 Gongbing Ye, <i>South China Univ. of Tech.</i> Xueyan Zhao, <i>South China Univ. of Tech.</i>
09:40-10:00	SunA07-6	Deep Learning Based Pedestrian Detection 1007 Weicheng Sun, <i>Nanjing Univ. of Posts and Telecommunications</i> Songhao Zhu, <i>Nanjing Univ. of Posts and Telecommunications</i> Xuewen Ju, <i>Nanjing Univ. of Posts and Telecommunications</i> Dongsheng Wang, <i>Nanjing Univ. of Posts and Telecommunications</i>

Session	SunA08:Decision-Making Theory and Method (II)	
Venue	Room08	
Date/Time	08:00-10:00	
Chair	Kui Zhou , <i>Naval Univ. of Engineering</i>	
Co-Chair	Maoxiang Chu , <i>Univ. of Scie. and Tech. Liaoning</i>	
08:00-08:20	SunA08-1	Grey Relational Evaluation Method of Combat Effectiveness Based on Rough Set and Unascertained Rational Number of Weapon System 1012 Hongfa Ke, <i>Aerospace Engineering Univ.</i> Jilu Zhu, <i>Aerospace Engineering Univ.</i> Yong Xu, <i>Aerospace Engineering Research Inst.</i>
08:20-08:40	SunA08-2	Analysis on Container Fleet Competitiveness after COSCO and China Shipping Reorganization Based on Multi- Attribute Decision Making 1020 Yue Guo, <i>Beijing Jiaotong Univ.</i> Yuanhua Jia, <i>Beijing Jiaotong Univ.</i> Zhipeng Li, <i>Beijing Jiaotong Univ.</i>
08:40-09:00	SunA08-3	Classification Method Based on Global and Local Support Vector Machine 1025 Liming Liu, <i>Univ. of Scie. and Tech. Liaoning</i> Maoxiang Chu, <i>Univ. of Scie. and Tech. Liaoning</i> Rongfen Gong, <i>Univ. of Scie. and Tech. Liaoning</i> Dapeng Xu, <i>State Grid Anshan Electric Power Supply Company</i>
09:00-09:20	SunA08-4	On Shooting Effectiveness about Terminal Guided Ammunition of Naval Guns and Analysis of Ammunition Reserve on Naval Ships 1031 Kui Zhou, <i>Naval Univ. of Engineering</i> Shiyan Sun, <i>Naval Univ. of Engineering</i> Qiang Sun, <i>Naval Univ. of Engineering</i>

09:20-09:40	SunA08-5	Optimization location model of emergency bases on ISLOC and cost allocation of multilateral cooperation 1037 Yunfei Ai, <i>China Transport Telecommunications and Information Center</i> Bing Shen, <i>China Transport Telecommunications and Information Center</i> Weixin Luan, <i>Dalian Maritime Univ.</i>
09:40-10:00	SunA08-6	Product Line Pricing with the Improved MMM 1043 Wei Qi, <i>Henan Univ.</i> <i>Northeastern Univ.</i> Xinggong Luo, <i>Northeastern Univ.</i> Xuwan Liu, <i>Henan Univ.</i>

Session	SunA09:Fault Diagnosis and Fault-tolerant Control (II)
Venue	Room09
Date/Time	08:00-10:00
Chair	Baoye Song , <i>Shandong University of Science and Tech.</i>
Co-Chair	Jinhai Liu , <i>Northeastern Univ.</i>

08:00-08:20	SunA09-1	An Improved Fault Diagnosis Method Based on Deep Wavelet Neural Network 1048 Yibo Liu, <i>Xi'an Jiaotong Univ.</i> Qingyu Yang, <i>Xi'an Jiaotong Univ.</i> Dou An, <i>Xi'an Jiaotong Univ.</i> Yongqiang Nai, <i>Xi'an Jiaotong Univ.</i> Zhiqiang Zhang, <i>Xi'an Jiaotong Univ.</i>
08:20-08:40	SunA09-2	A New Approach to Fault Diagnosis of Multilevel Inverter 1054 Jiwei Xu, <i>Shandong University of Science and Tech.</i> Baoye Song, <i>Shandong University of Science and Tech.</i> Jiansheng Zhang, <i>Shandong University of Science and Tech.</i> Lin Xu, <i>Shandong University of Science and Tech.</i>
08:40-09:00	SunA09-3	Markov Chain-Based Feature Extraction for Anomaly Detection in Time Series and Its Industrial Application 1059 Dong Zang, <i>Northeastern Univ.</i> Jinhai Liu, <i>Northeastern Univ.</i> Huaizhen Wang, <i>Northeastern Univ.</i>
09:00-09:20	SunA09-4	Anomaly Detection of Orbit Satellite Telemetry Sequence Based on Two-Window Mode 1064 Ying Du, <i>63758 Unit of PLA</i> Fei Wang, <i>63758 Unit of PLA</i> Chao Sun, <i>63758 Unit of PLA</i> Jie Bao, <i>63758 Unit of PLA</i> Qi Yang, <i>63758 Unit of PLA</i>
09:20-09:40	SunA09-5	Image denoising in security inspection of pantograph catenary 1069 Yanqin Teng, <i>Beijing Jiaotong Univ.</i> Xiukun Wei, <i>Beijing Jiaotong Univ.</i> Yongguang Li, <i>Beijing Shenzhou Tongzhen Co.</i>

09:40-10:00 SunA09-6 Diagnosing Weak Fault of Rolling Bearing Using Duffing System 1075
 Kai Wang, *Xi'an University Of Tech.*
 Lulu Li, *Xi'an University Of Tech.*
 Shaobo Dong, *Xi'an University Of Tech.*
 Zilin Yu, *Xi'an University Of Tech.*

Session	SunA10:Neural Networks (II)
Venue	Room10
Date/Time	08:00-10:00
Chair	Xiao-Heng Chang , <i>Wuhan University of Science and Tech.</i>
Co-Chair	Fei Yan , <i>Taiyuan University of Tech.</i>

08:00-08:20 SunA10-1 Position IP Control of a Permanent Magnet Synchronous Motor based on Fuzzy Neural Network 1081
 Qi Liu, *Wuhan University of Science and Tech.*
 Xiao-Heng Chang, *Wuhan University of Science and Tech.*

08:20-08:40 SunA10-2 Soft Sensor of Wet Ball Mill Load Based on DAMKELM Model 1087
 Gang Bai, *Taiyuan University of Tech.*
 Fei Yan, *Taiyuan University of Tech.*
 Min He, *Taiyuan University of Tech.*
 Gao-wei Yan, *Taiyuan University of Tech.*

08:40-09:00 SunA10-3 Synchronization of fractional-order three-neuron complex-valued BAM neural networks with multiple time delays via discontinuous neuron activations 1093
 Jianmei Zhang, *Southwest Univ.*
 Haibo Bao, *Southwest Univ.*

09:00-09:20 SunA10-4 A Model of Music Perceptual Theory Based on Markov Chains 1099
 Ru Wen, *Xi'an Jiaotong Univ.*
 Kai Chen, *Rutgers Univ.*
 Yilin Zhang, *Xi'an Jiaotong Univ.*
 Wenmin Huang, *Xi'an Jiaotong Univ.*
 Jiyuan Tian, *Xi'an Jiaotong Univ.*
 Kuan Xu, *Xi'an Jiaotong Univ.*
 Jiang Wu, *Xi'an Jiaotong Univ.*

09:20-09:40 SunA10-5 A Dendritic Neuron Based Very Short-Term Prediction Model for Photovoltaic Power 1106
 Kewei Zhao, *Nanjing University of Posts and Telecommunications*
 Tengfei Zhang, *Nanjing University of Posts and Telecommunications*
 Xiaolu Lai, *Guodian Nanjing Automation Co.*
 Chunxia Dou, *Nanjing University of Posts and Telecommunications*
 Dong Yue, *Nanjing University of Posts and Telecommunications*

09:40-10:00 SunA10-6 Beijing Carbon Trading Forecast by BP Neural Network 1111
 Zhaojun Wang, *Qingdao University of Science and Tech.*
 Zongdi Sun, *Qingdao University of Science and Tech.*
 Zhiyuan Liu, *Qingdao University of Science and Tech.*

Session	SunA11:Control Applications (II)	
Venue	Room11	
Date/Time	08:00-10:00	
Chair	Zhiqiang Long , <i>National Univ. of Defense Tech.</i>	
Co-Chair	Jinyang Zhao , <i>Jilin Univ.</i>	
08:00-08:20	SunA11-1	Design of Fuzzy PI Controller for Asynchronous Motor Direct Torque 1116 Fu-cheng Lang, <i>Electric Power Research Institute of State Grid Liaoning Electric Power Co., Ltd.</i> Lin Yuan, <i>State Grid Shen Yang Electric Power Supply Company</i> Jia-yi Ma, <i>State Grid Shen Yang Electric Power Supply Company</i>
08:20-08:40	SunA11-2	Research on Control System of Intelligent Shore-to-ship Power Connecting Pile Based on PLC Technology 1120 Lin Pan, <i>Wuhan Univ. of Tech.</i> Jingshi Wang, <i>Wuhan Univ. of Tech.</i> Jiying Wang, <i>Wuhan Univ. of Tech.</i>
08:40-09:00	SunA11-3	PID Slip Control Based On Vertical Suspension System For In-Wheel-Motored Electric Vehicles 1126 Jinyang Zhao, <i>Jilin Univ.</i> Yan Ma, <i>State Key Laboratory of Automotive Simulation and Control Jilin Univ.</i> Haiyan Zhao, <i>State Key Laboratory of Automotive Simulation and Control Jilin Univ.</i> Yanfang Cui, <i>Jilin Univ.</i> Hong Chen, <i>State Key Laboratory of Automotive Simulation and Control Jilin Univ.</i>
09:00-09:20	SunA11-4	Non-dissipative Equalization with Voltage-difference Based on FPGA for Lithium-ion Battery 1132 Fan Zhang, <i>Jilin Univ.</i> Mingchao Chen, <i>Jilin Univ.</i> Hong Chen, <i>Jilin Univ.</i>
09:20-09:40	SunA11-5	Levitation Control of PEMS High Speed Maglev Train Considering the Coupling Effects Within a Joint Structure 1138 Zhiqiang Wang, <i>National Univ. of Defense Tech.</i> Cuicui Huang, <i>National Univ. of Defense Tech.</i> Xiaolong Li, <i>National Univ. of Defense Tech.</i> Zhiqiang Long, <i>National Univ. of Defense Tech.</i> Mingda Zhai, <i>National Univ. of Defense Tech.</i>
09:40-10:00	SunA11-6	Parafoil Path Tracking Control Based on GPC Parameters Self-correction with Interval Type-2 Fuzzy Logic 1144 Kuansheng Zou, <i>Jiangsu Normal Univ.</i> Qian Zhang, <i>Jiangsu Normal Univ.</i> Zhaojun Zhang, <i>Jiangsu Normal Univ.</i>

Session	SunA12:Data Processing (II)	
Venue	Room12	
Date/Time	08:00-10:00	
Chair	Dingyu Xue , <i>Northeastern Univ.</i>	
Co-Chair	Ting Zhang , <i>Beijing Inst. of Tech.</i>	
08:00-08:20	SunA12-1	Improvement of Industrial System Identification by Outlier Detection 1150 Jing Jiang, <i>Liaoning Water Conservancy Vocational College</i>
08:20-08:40	SunA12-2	A Novel Outlier Detection Method for Improving Industrial Process Monitoring 1155 Yanfeng Zhang, <i>Liaoning Water Conservancy Vocational College</i>
08:40-09:00	SunA12-3	Study on the Relationship between Investor Sentiment and Stock Bubble 1160 Weidong Yao, <i>Xi'an Jiaotong Univ.</i> Gang Liu, <i>Xi'an Jiaotong Univ.</i>
09:00-09:20	SunA12-4	Improved Explicit Shape Regression Face Alignment Algorithm 1166 Cong Lin, <i>Beijing Inst. of Tech.</i> Ting Zhang, <i>Beijing Inst. of Tech.</i> Chongshan Lv, <i>Beijing Inst. of Tech.</i> Wei Wu, <i>Beijing Univ. of Tech.</i> Xiang Zhan, <i>Beijing Inst. of Tech.</i> Weiyang Feng, <i>Beijing Inst. of Tech.</i>
09:20-09:40	SunA12-5	Secure support vector machines with Data Perturbation 1170 Xinning Li, <i>Jiangnan Univ.</i> Zhiping Zhou, <i>Jiangnan Univ.</i>
09:40-10:00	SunA12-6	Survey of Weakly Supervised Semantic Segmentation Methods 1176 Zheng Lu, <i>Northeastern Univ.</i> Dali Chen, <i>Northeastern Univ.</i> Dingyu Xue, <i>Northeastern Univ.</i>

Session	SunA13:Supply Chain and Logistics Management (II)	
Venue	Room13	
Date/Time	08:00-10:00	
Chair	Huihui Wang , <i>Northeastern Univ.</i>	
Co-Chair	Xueyan Li , <i>Beijing jiaotong Univ.</i>	
08:00-08:20	SunA13-1	Optimal Replenishment Policy for Items with Imperfect Quality and Shortages under Permissible Delay in Payments 1181 Yueli Lu, <i>XingJian Coll. of Science and Liberal Arts of Guangxi Univ.</i> Jiangtao Mo, <i>XingJian Coll. of Science and Liberal Arts of Guangxi Univ.</i> Hengming Zhao, <i>XingJian Coll. of Science and Liberal Arts of Guangxi Univ.</i>
08:20-08:40	SunA13-2	Fourth Party Logistics Location-Routing Problem 1187 Liwei Dong, <i>Northeastern Univ., Shenyang Normal Univ.</i> Hanbin Kuang, <i>Northeastern Univ.</i> Min Huang, <i>Northeastern Univ.</i>

08:40-09:00	SunA13-3	Contract Design for tardiness risk management of Fourth Party Logistics 1192 Hongyan Wang, <i>Northeastern Univ.</i> Min Huang, <i>Northeastern Univ.</i> Hongfeng Wang, <i>Northeastern Univ.</i>
09:00-09:20	SunA13-4	Pricing Research of 'Photo-earning' Task Based on Logistic Regression and BP Neural Network 1196 Yulin Wang, <i>Beihang Univ.</i> Jiaxi Han, <i>Northeastern Univ.</i> Xuhang Zhang, <i>Beihang Univ.</i> Wei Luo, <i>Beihang Univ.</i>
09:20-09:40	SunA13-5	Fourth Party Logistics Network Design Considering Satisfaction of Supply-side and Demand-side 1202 Huihui Wang, <i>Northeastern Univ.</i> Min Huang, <i>Northeastern Univ.</i> Mingqiang Yin, <i>Northeastern Univ.</i>
09:40-10:00	SunA13-6	Crowdsourcing Takeout Distribution Route Optimization Considering Pickup and Delivery 1208 Xueyan Li, <i>Beijing jiaotong Univ.</i> Yisong Li, <i>Beijing jiaotong Univ.</i>

Session	SunA14:Robot Control (II)	
Venue	Room14	
Date/Time	08:00-10:00	
Chair	Yi An, <i>Jilin Univ.</i>	
Co-Chair	Hongbin Ma, <i>Beijing Institute of Tech.</i>	
08:00-08:20	SunA14-1	Ground Moving Target Tracking Algorithm for Multi-rotor Unmanned Aerial Vehicle 1214 Haiyang Huang, <i>Jilin Univ.</i> Lei Zhang, <i>Jilin Univ.</i> Chunyang Fu, <i>Jilin Univ.</i> Yonggang Zhou, <i>Jilin Univ.</i> Yantao Tian, <i>Jilin Univ.</i>
08:20-08:40	SunA14-2	A General 6-DOF Industrial Robot Arm Control System Based on Linux and FPGA 1220 Cong Han, <i>Beijing Institute of Tech.</i> Hongbin Ma, <i>Beijing Institute of Tech.</i> Wenchao Zuo, <i>Beijing Institute of Tech.</i> Sunjie Chen, <i>Beijing Institute of Tech.</i> Xinghong Zhang, <i>Beijing Institute of Tech.</i>
08:40-09:00	SunA14-3	Adaptive fuzzy command filtered control with error compensation mechanism for AUVs via backstepping 1226 Yaqiang Hu, <i>Qingdao Univ.</i> Jinpeng Yu, <i>Qingdao Univ.</i> Haisheng Yu, <i>Qingdao Univ.</i> Lin Zhao, <i>Qingdao Univ.</i> Cheng Fu, <i>Qingdao Univ.</i>

09:00-09:20	SunA14-4	Research on Spacial Trajectory Optimization for Spray Painting Robot Oriented to 3D Entities 1231 Wei Chen, <i>Jiangsu Univ. of Science and Tech. Southeast Univ.</i> Hao Liu, <i>Jiangsu Univ. of Science and Tech.</i> Yang Tang, <i>Jiangsu Univ.</i> Junjie Liu, <i>Jiangsu Univ. of Science and Tech.</i>
09:20-09:40	SunA14-5	Decentralized Guaranteed Cost Control of Modular and Reconfigurable Robots Based on Adaptive Dynamic Programming 1237 Yi An, <i>Jilin Univ.</i> Bo Dong, <i>Changchun Univ. of Tech.</i> Fan Zhou, <i>Changchun Univ. of Tech.</i> Fu Liu, <i>Jilin Univ.</i> Yuanchun Li, <i>Changchun Univ. of Tech.</i>
09:40-10:00	SunA14-6	Mobile Robot Navigation Based on Lidar 1243 Yi Cheng, <i>Tianjin Polytechnic Univ.</i> Gong Ye Wang, <i>Tianjin Polytechnic Univ.</i>

Session	SunA15:Robot Sensing and Data Fusion (II)	
Venue	Room15	
Date/Time	08:00-10:00	
Chair	Guoshan Zhang , <i>Tianjin Univ.</i>	
Co-Chair	Lei Sun , <i>Tianjin Univ. of Tech.</i>	
08:00-08:20	SunA15-1	A Dense Mapping Method Based on CNN 1247 Xinbo Wang, <i>Tianjin Univ.</i> Guoshan Zhang, <i>Tianjin Univ.</i>
08:20-08:40	SunA15-2	Research on Fast Recognizing Ball Method Based on Multisensor Data Fusion in Robotic Game 1253 Junrong Zhao, <i>Chongqing Univ.</i> Niu Wang, <i>Chongqing Univ.</i> Hua Pu, <i>Chongqing Univ.</i> Tengfei Wang, <i>Chongqing Univ.</i> Tao Peng, <i>Chongqing Univ.</i>
08:40-09:00	SunA15-3	A new Fast SLAM algorithm based on the Unscented Particle Filter 1259 Jie Luo, <i>Tianjin Univ. of Tech.</i> Lei Sun, <i>Tianjin Univ. of Tech.</i> Yunhui Jia, <i>Tianjin Univ. of Tech.</i>
09:00-09:20	SunA15-4	Research on 3D Point-cloud Registration Technology Based on Kinect V2 Sensor 1264 Hong He, <i>Tianjin Univ. of Tech.</i> Hailing Wang, <i>Tianjin Univ. of Tech.</i> Lei Sun, <i>Tianjin Univ. of Tech.</i>
09:20-09:40	SunA15-5	A robust method of fusing Ultra-Wideband range measurements with odometry for wheeled robot state estimation in indoor environment 1269 Yuchuan Liu, <i>Tsinghua Univ.</i> Yixu Song, <i>Tsinghua Univ.</i>

09:40-10:00 **SunA15-6** **Motion Target Correlation Method Based on Structural Similarity in Camera Array** **1275**
 Chunhui Zhao, *Northwestern Polytechnical Univ.*
 Bin Fan, *Northwestern Polytechnical Univ.*
 Jinwen Hu, *Northwestern Polytechnical Univ.*
 Zhiyuan Zhang, *Northwestern Polytechnical Univ.*
 Boyin Zheng, *Northwestern Polytechnical Univ.*

Session	SunAIS:Interactive Session
Venue	Room17
Date/Time	08:00-10:00

SunAIS-01 **Adaptive Cluster Synchronization with Network Failures in Community Networks** **1281**
 Dan Wang, *Shenyang Univ.*
 Kefei Liu, *Shenyang Univ.*
 Lina Wang, *Liaoning Province Expressway Operation Management Co., LTD*

SunAIS-02 **Time-Delay Dependent H-infinity Control for Networked Control Systems with Singular System and Markovian Jumping Parameters** **1285**
 Tao Liu, *Qilu Univ. of Tech.*

SunAIS-03 **A Transformation Method for Consensus of General Linear Multi-agent Systems** **1291**
 Mingyu Ma, *Beihang Univ.*
 Chaoyang Dong, *Beihang Univ.*
 Qing Wang, *School of Automation Scie. and Electrical Engineering*
 Siqian Ma, *Beihang Univ.*

SunAIS-04 **Coordination Control for Supercapacitor Charge and Discharge in PV Energy Storage System Based on EL and Backstepping** **1299**
 Fanghui Li, *Qingdao Univ.*
 Haisheng Yu, *Qingdao Univ.*

SunAIS-05 **Containment Control for Multiple Underactuated Surface Vessels Systems** **1305**
 Kai Tang, *Systems Engineering Research Inst.*
 Xiaodong Wang, *Systems Engineering Research Inst.*
 Wenzhi Hu, *Systems Engineering Research Inst.*
 Zixuan Fang, *Systems Engineering Research Inst.*

SunAIS-06 **Sampled-data Leader-following Consensus of Second-order Nonlinear Multi-agent Systems with Disturbance and Missing Data** **1311**
 Yueying Huang, *Nanjing Univ. of Scie. and Tech.*
 Ronghao Wang, *Army Engineering Univ. of PLA*

SunAIS-07 **The Modified RRT-based Cooperative Searching for Human and UAV** **1317**
 Yunhao Cui, *Beihang Univ.*
 Ming Zhu, *Beihang Univ.*
 Xiao Guo, *Beihang Univ.*

SunAIS-08 **Cooperative Guidance Law based on Second-Order Sliding Mode Control** **1323**
 Zhen Shi, *Harbin Engineering Univ.*
 Chendi He, *Harbin Engineering Univ.*
 Saisai Wang, *Harbin Engineering Univ.*

- SunAIS-09 Distributed Finite-time Tracking Algorithm for Multiple Uncertain Euler - Lagrange Systems based on Backstepping Technique 1329**
 Dingran Dong, *Harbin Inst. of Tech.*
 Chuanjiang Li, *Harbin Inst. of Tech.*
 Yanchao Sun, *Harbin Inst. of Tech.*
Harbin Engineering Univ.
- SunAIS-10 Adaptive Consensus for Second-order Uncertain Multi-agent Systems under a Directed Graph 1335**
 Chunjing Jiang, *Harbin Inst. of Tech.*
 Jie Mei, *Harbin Inst. of Tech.*
- SunAIS-11 Application of Improved Particle Swarm Optimization in System Identification 1341**
 Hua Xing, *Dalian Univ. of Tech.*
 Xuejun Pan, *Dalian Univ. of Tech.*
- SunAIS-12 The Multi-innovation Stochastic Gradient Method for Double-frequency Signals through Dynamical Sampled Data 1347**
 Ling Xu, *Wuxi Vocational Inst. of Commerce Jiangnan Univ.*
 Feng Ding, *Wuxi Vocational Inst. of Commerce Jiangnan Univ.*
- SunAIS-13 Multiple Feature Inputs Support Vector Regression 1352**
 Conggui Yuan, *Dongguan Polytechnic*
 Shuqiong Xu, *Dongguan Polytechnic*
- SunAIS-14 Stabilization Control of Underactuated Cranes with Guaranteed Transient Performance 1358**
 Rui Hu, *Chongqing Univ.*
 Lin Han, *Chongqing Univ.*
 Jiangshuai Huang, *Chongqing Univ.*
- SunAIS-15 Attitude Control for a Quadrotor base on ADRC with GSO Parameter Optimization 1364**
 Jianfeng Che, *Tianjin Univ. of Tech.*
 Dahua Li, *Tianjin Univ. of Tech.*
 Yuehui Ji, *Tianjin Univ. of Tech.*
 Qiang Gao, *Tianjin Univ. of Tech.*
- SunAIS-16 Stability Analysis of Continuous-time Linear System with Sampled-data Observer 1370**
 Hui Fang, *Wenzhou Univ.*
 Wenhai Chen, *Wenzhou Univ.*
 Lixin Gao, *Wenzhou Univ.*
- SunAIS-17 A Unified Stability Analysis Approach for a Class of Interconnected System 1376**
 Yong Wang, *Beijing Inst. of Control Engineering*
 Peihua Zhang, *China Tobacco Henan Industrial CO. LTD*
 Ying Wang, *China Tobacco Henan Industrial CO. LTD*
- SunAIS-18 High-Order Disturbance Observer for Nonlinear Systems Using Sliding-Mode Technology 1382**
 Lining Tan, *Xi'an Research Inst. of High Tech.*
 Guodong Jin, *Xi'an Research Inst. of High Tech.*
 Changjiang Sun, *Beijing Inst. of Tech.*
 Zhiguo Xiong, *Beijing Inst. of Tech.*

- SunAIS-19 Control Design for Nonlinear Electromechanical Actuation System Based on Fuzzy PID and Active Disturbance Rejection Control 1387**
 Jianzhong Yang, *Civil Aviation Univ. of China*
 Zhenshu Yang, *Civil Aviation Univ. of China*
 Xiaozhe Sun, *Civil Aviation Univ. of China*
- SunAIS-20 Research on PMSM Model Predictive Control for Ship Electric Propulsion 1392**
 Hui Li, *Dalian Maritime Univ.*
 Hua Xie, *Dalian Maritime Univ.*
 Yingnan Xie, *Dalian Maritime Univ.*
- SunAIS-21 Neural Adaptive Output-Feedback Control of Non-affine Nonlinear Systems with Unknown Control Direction 1399**
 Jiahua Dai, *Chongqing Univ.*
 Gang Chen, *Chongqing Univ.*
- SunAIS-22 Research on Visual Information Accessible Website Design System Control 1405**
 ShunQing Li, *West Anhui Univ.*
 Yang Qin, *West Anhui Univ.*
 Ming Yang, *West Anhui Univ.*
- SunAIS-23 Wavelet Neural Network Prediction Algorithm Based on Improved Implicit Generalized Predictive Control 1410**
 Qiang Wu, *Nanjing Univ. of Posts and Telecommunications*
 Ying Zhou, *Nanjing Univ. of Posts and Telecommunications*
 Muwei Li, *Nanjing Univ. of Posts and Telecommunications*
- SunAIS-24 H_∞ Output Tracking Control for Networked Control Systems with Network-induced Delays 1416**
 Lei Lu, *Nanjing Univ. of Posts and Telecommunications*
 Jinxing Lin, *Nanjing Univ. of Posts and Telecommunications*
 Kanglei Ren, *Nanjing Univ. of Posts and Telecommunications*
- SunAIS-25 Observer-based Event-triggered Control for Cyber-physical Systems under Unknown Periodic DoS Jamming Attacks 1422**
 Songlin Hu, *Nanjing Univ. of Posts and Telecommunications*
 Yongfang Gu, *Nanjing Univ. of Posts and Telecommunications*
 Xiaoli Chen, *Nanjing Univ. of Posts and Telecommunications*
 Hui Ge, *Nanjing Univ. of Posts and Telecommunications*
- SunAIS-26 Consensus of Third-Order Multi-Agent Systems with Communication Delay 1428**
 Jin Liu, *China Academy of Engineering Physics*
 Baoran An, *China Academy of Engineering Physics*
 Huai Wu, *China Academy of Engineering Physics*
- SunAIS-27 Event-triggered H_∞ Filtering over Wireless Sensor Networks under Unknown Periodic DoS Jamming Attacks 1433**
 Songlin Hu, *Nanjing Univ. of Posts and Telecommunications*
 Yixiu Han, *Nanjing Univ. of Posts and Telecommunications*
 Xiaoli Chen, *Nanjing Univ. of Posts and Telecommunications*
 Zihao Cheng, *Nanjing Univ. of Posts and Telecommunications*
- SunAIS-28 Research on Design and Implementation of Relay Protection in Smart Grid 1439**
 Li Wei, *State Grid Liaoning Electric Power Supply Co. Ltd*
 Yanfeng Qi, *State Grid Liaoning Electric Power Supply Co. Ltd*
 Hongxu Qi, *State Grid Liaoning Electric Power Supply Co. Ltd*

- SunAIS-29 An Improved Adaptive Artificial Bee Colony Algorithm 1444**
 Peng Chen, *Univ. of Scie. and Tech.*
 Qing Li, *Univ. of Scie. and Tech. Beijing*
 Cong Xu, *Univ. of Scie. and Tech.*
 Yue-fei Zhao, *Univ. of Scie. and Tech. Beijing*
 En-ji Dong, *Shandong Gold Group Co., Ltd*
 Jia-rui Cui, *Univ. of Scie. and Tech. Beijing*
- SunAIS-30 Role allocation tactics of soccer robots on RoboCup3D Simulation Platform 1450**
 Tongxin Cui, *Nanjing Univ. of Posts and Telecommunications Southeast Univ.*
 Zhiwei Liang, *Nanjing Univ. of Posts and Telecommunications Southeast Univ.*
 Keji He, *Nanjing Univ. of Posts and Telecommunications Southeast Univ.*
 Zhiying Ke, *Nanjing Univ. of Posts and Telecommunications Southeast Univ.*
 Qian Zhao, *Nanjing Univ. of Posts and Telecommunications Southeast Univ.*
 Fang Fang, *Nanjing Univ. of Posts and Telecommunications Southeast Univ.*
 Yuyan Liu, *Nanjing Univ. of Posts and Telecommunications Southeast Univ.*
- SunAIS-31 The Vectorization Research of Military Map base on Micro Variation Chaos Genetic Algorithm 1456**
 Chengjiang Jia, *Army Artillery and Air Defense Forces Academy*
 Jianyu Jin, *Army Artillery and Air Defense Forces Academy*
 Yi Zhang, *Army Artillery and Air Defense Forces Academy*
 Xiao Han, *Northeastern Univ.*
- SunAIS-32 Point Cloud Registration Based on Improved ICP Algorithm 1461**
 Wei Guan, *Shenyang Inst. of Aeronautical Engineering*
 Wentao Li, *Shenyang Inst. of Aeronautical Engineering*
 Yan Ren, *Shenyang Inst. of Aeronautical Engineering*
- SunAIS-33 Controllability of Multi-Agent Networks Based on Almost Equitable Partitions 1466**
 Zhenzhen Pan, *Qingdao Univ.*
 Zhijian Ji, *Qingdao Univ.*
 Haisheng Yu, *Qingdao Univ.*
- SunAIS-34 Design of Intelligent Plant Growth Cabinet Environment Monitoring and Control System 1472**
 Lin He, *Tianjin Univ. of Tech. and Education*
 Ruiqi Meng, *Tianjin Univ. of Tech. and Education*
 Shigang Cui, *Tianjin Univ. of Tech. and Education*
 Yongli Zhang, *Tianjin Univ. of Tech. and Education*
 Xingli Wu, *Tianjin Univ. of Tech. and Education*
- SunAIS-35 Research on Recommendation Systems in the Electronic Commerce 1476**
 Chuanlin Huang, *Dalian Neusoft Univ. of Information*
 Jiacong Zhao, *Dalian Neusoft Univ. of Information*
 Yanqing Cui, *Dalian Neusoft Univ. of Information*
- SunAIS-36 Study on the Structure of Smart Manufacturing System from the Perspective of Super-network 1482**
 Qiongqiong Wei, *Qingdao Univ. of Scie. and Tech.*
- SunAIS-37 Design and Realization of Two-Degree-of-Freedom Light Intensity Detection and Tracking PTZ 1488**
 Fu-yan Zhang, *Dalian Neusoft Univ. of Information*
- SunAIS-38 Localization-Based Distributed Control for Large Discrete-Event Systems under Partial Observation 1492**
 Renyuan Zhang, *Northwestern Polytechnical Univ.*
 Kai Cai, *Osaka City Univ.*

- SunAIS-39 Modeling and Optimal Feedback Control of High Throughput Screening System with Dioid 1498**
Ping Wei, *Shanghai Inst. of Tech.*
Minkai Li, *Shanghai Inst. of Tech.*
- SunAIS-40 Simulation Analysis of Multi-stage Gate Operation in Container Terminals 1504**
Chunjun Zhang, *Wuhan Univ. of Scie. and Tech.*
Zhixiong Liu, *Wuhan Univ. of Scie. and Tech.*
Yuting Chen, *Wuhan Univ. of Scie. and Tech.*
- SunAIS-41 The Nonzero-sum Games of Discrete-time Stochastic Singular Systems 1510**
Haiying Zhou, *Guangzhou Maritime Coll.*
- SunAIS-42 Research on Evacuation Control of Panic Crowds 1515**
Peijuan Xu, *Nanjing Univ. of Posts and Telecommunications*
Kecai Cao, *Nanjing Univ. of Posts and Telecommunications*
Bisen Liu, *Univ. of Electronic Scie. and Tech. of China*
- SunAIS-43 Influential Factors and Strategic Analysis on the Development of Cross-border E-commerce between China and Russia under "the Belt and Road" Initiative 1521**
Jiuru Zhao, *Guangdong Univ. of Foreign Studies*

Session	SunB01:Adaptive Control (III)	
Venue	Room01	
Date/Time	10:20-12:20	
Chair	Dongsheng Yang , <i>Northeastern Univ.</i>	
Co-Chair	Hongbin Ma , <i>Beijing Inst. of Tech.</i>	
10:20-10:40	SunB01-1	Flight path planning of agriculture UAV based on improved artificial potential field method 1526 Yingkun Zhang, <i>Hebei Academy of Sciences Hebei Authentication Technology Engineering Research Center</i>
10:40-11:00	SunB01-2	Design of Distributed Adaptive Control for a Class of Discrete-time Multi-agent Systems with Nonlinearity and Uncertainty 1531 Nannan Li, <i>Beijing Inst. of Tech.</i> Hongbin Ma, <i>Beijing Inst. of Tech.</i> Xinghong Zhang, <i>Beijing Inst. of Tech.</i>
11:00-11:20	SunB01-3	Adaptive Dynamic Programming for Optimal Control of van der Pol Oscillator 1537 Zheng Ji, <i>Jiangnan Univ.</i> Xuyang Lou, <i>Jiangnan Univ.</i>
11:20-11:40	SunB01-4	Design of Adaptive Lighting System Based on Fuzzy PID 1543 Hongpeng Liao, <i>Northeastern Univ.</i> Xihua Sheng, <i>Northeastern Univ.</i> Dongsheng Yang, <i>Northeastern Univ.</i>
11:40-12:00	SunB01-5	A Channel Bonding Scheme with Packet Dropping Mechanism in Centralized Cognitive Radio Networks 1548 Yuan Zhao, <i>Northeastern Univ. at Qinhuangdao</i> Minglei Peng, <i>Northeastern Univ. at Qinhuangdao</i> Hongyi Li, <i>Northeastern Univ. at Qinhuangdao</i>

12:00-12:20	SunB01-6	Model-Free Adaptive Control Based on Local Dynamic Linearization 1552 Ronghu Chi, <i>Qingdao Univ. of Scie. and Tech.</i> Shuhua Zhang, <i>Qingdao Univ. of Scie. and Tech.</i> Yu Hui, <i>Qingdao Univ. of Scie. and Tech.</i>
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Session	SunB02: Intelligent Building Control and Management (I) (Special Session)	
Venue	Room02	
Date/Time	10:20-12:20	
Chair	Yahui Wang , <i>Beijing Univ. of Civil Engineering and Architecture</i>	
10:20-10:40	SunB02-1	New Ways and Applications of Cancellation Toll to City Highway 1557 Dejun Li, <i>CCCC First Highway Consultants</i>
10:40-11:00	SunB02-2	How Can Industrial Structure Affect Carbon Emissions: Facilitating or Inhibiting? Research Based on Spatial Panel Econometric Models: Direct Effects and Spatial Spillover 1561 Xin Tong, <i>Central Univ. of Finance and Economics</i> Xuesen Li, <i>Shenyang Polytechnic Coll.</i> Lin Tong, <i>Dalian Maple Leaf Coll. of Tech.</i>
11:00-11:20	SunB02-3	Research on the Inspection and Monitoring System of Power Equipment Based on Cloud Storage Platform 1567 Xianglin Meng, <i>Wuhan Univ.</i>
11:20-11:40	SunB02-4	The Application of Convolutional Neural Networks in Bidding Price Estimation Decision 1572 Ying Zhou, <i>Univ. of Chinese Academy of Scie.</i>
11:40-12:00	SunB02-5	Capacity sizing in the presence of repeated customer behavior: Dimensioning an inbound call center 1577 Miao Yu, <i>Shenyang Jianzhu Univ.</i> Mengting Zhang, <i>Shenyang Jianzhu Univ.</i> Hongchao Jiao, <i>Shenyang Jianzhu Univ.</i>
12:00-12:20	SunB02-6	Correlation Analysis of Haze Governance Influencing Factors and Regulation Mechanism in Beijing-Tianjin-Hebei Region 1582 Xin Tong, <i>Central Univ. of Finance and Economics</i> Xuesen Li, <i>Shenyang Polytechnic Coll.</i> Lin Tong, <i>Dalian Maple Leaf Coll. of Tech.</i>

Session	SunB03: Optimal Control and Optimization (II)	
Venue	Room03	
Date/Time	10:20-12:20	
Chair	Shouping Guan , <i>Northeastern Univ.</i>	
Co-Chair	Zhongquan Hu , <i>Yanshan Univ.</i>	
10:20-10:40	SunB03-1	Application of Adaptive Fractional Order Control in Wire Rod Looper System 1588 Yong Zhang, <i>Univ. of Scie. and Tech. Liaoning</i> Hai-bo Zhu, <i>Univ. of Scie. and Tech. Liaoning</i>

10:40-11:00	SunB03-2	Research on Impact and Utilization of Elec. Vehicle Integration into Power Grid 1594 Jisheng Cui, <i>State Grid Liaoning Elec. Power Supply Co. Ltd</i> Yu Li, <i>State Grid Liaoning Elec. Power Supply Co. Ltd</i> Wenli Zhang, <i>State Grid Liaoning Elec. Power Supply Co. Ltd</i> Chuan Chen, <i>State Grid Liaoning Elec. Power Supply Co. Ltd</i>
11:00-11:20	SunB03-3	A New Gray Prediction Method for Elec.al Motor Life 1598 Xiaohua Gai, <i>Nanyang Inst. of Tech. Engi.</i> Xuejun Guo, <i>Nanyang Inst. of Tech. Engi.</i> Dengdi Liu, <i>Air Force Command Coll.</i>
11:20-11:40	SunB03-4	Adaptive Dual Model Differential Evolution Algorithm Based on Cloud Model 1603 Zhongquan Hu, <i>Yanshan Univ.</i> Zhen Zhou, <i>Yanshan Univ.</i> Hongbin Wang, <i>Yanshan Univ.</i>
11:40-12:00	SunB03-5	Fuel and Heating Performances of Periodic Hypersonic Cruise: A Mechanism Analysis 1609 Wenkai Wang, <i>National Univ. of Defense Tech.</i> Zhongxi Hou, <i>National Univ. of Defense Tech.</i> Shangqiu Shan, <i>National Univ. of Defense Tech.</i> Lili Chen, <i>National Univ. of Defense Tech.</i>
12:00-12:20	SunB03-6	An Interval Particle Swarm Optimization Algorithm for Evolving Interval Neural Networks 1615 Shouping Guan, <i>Northeastern Univ.</i> Jingjing Zhang, <i>Northeastern Univ.</i> Li-fu Zou, <i>Northeastern Univ.</i>

Session	SunB04:Fractional Calculus and Fractional-order Systems (II) (Special Session)
Venue	Room04
Date/Time	10:20-12:20
Chair	Junguo Lu , <i>Shanghai Jiaotong Univ.</i>
Co-Chair	Jing Wang , <i>Beijing Univ. of Chemical Tech.</i>

10:20-10:40	SunB04-1	Robust decentralized control of perturbed fractional-order linear interconnected systems via LMI approach 1620 Xuefeng Zhang, <i>Northeastern Univ.</i> Yuanwei Lv, <i>Northeastern Univ.</i> Linghui Long, <i>Northeastern Univ.</i> LingLing Zhao, <i>Northeastern Univ.</i>
10:40-11:00	SunB04-2	Attractivity for multi-term Riemann-Liouville fractional differential equations 1625 Yu Sun, <i>Xinjiang Normal Univ.</i> Haibo Gu, <i>Xinjiang Normal Univ.</i> Yanhui Zhang, <i>Xinjiang Normal Univ.</i> Xiuxiu Yan, <i>Xinjiang Normal Univ.</i> Yunji Shi, <i>Xinjiang Normal Univ.</i>
11:00-11:20	SunB04-3	Razumikhin-type Stability Theorems for One Class of Coupled System of Time-delay Fractional-Order Differential Equations on Network 1631 Xin Tong, <i>Daqing Normal Univ.</i> Yang Gao, <i>Daqing Normal Univ.</i> Wei Zhao, <i>Daqing Normal Univ.</i>

11:20-11:40	SunB04-4	Fractal dimension of Hadamard fractional integral of continuous functions with countable UV points 1636 Xiaoer Wu, <i>Southeast Univ.</i> Yongshun Liang, <i>Nanjing Univ. of Scie. and Tech.</i> Yahui Zhu, <i>Nanjing Univ. of Scie. and Tech.</i>
11:40-12:00	SunB04-5	Construction and analysis of a special continuous function based on Von Koch curve 1642 Yang Li, <i>Nanjing Univ. of Scie. and Tech.</i> Yongshun Liang, <i>Nanjing Univ. of Scie. and Tech.</i> Yahui Zhu, <i>Nanjing Univ. of Scie. and Tech.</i>
12:00-12:20	SunB04-6	Primal-dual optimization of the fractional-order variational optical flow model for image registration 1646 Qi Yang, <i>ShenYang LiGong Univ.</i> Yanzhu Zhang, <i>ShenYang LiGong Univ.</i> Tiebiao Zhao, <i>Univ. of California</i> Qi Zhang, <i>YingKou Power Supply Company</i>

Session	SunB05: IntelliSense and Advanced Sensing, Detection Technology (II) (Special Session)	
Venue	Room05	
Date/Time	10:20-12:20	
Chair	Junguo Lu , <i>Shanghai Jiaotong Univ.</i>	
Co-Chair	Jiao Wang , <i>Northeastern Univ.</i>	
10:20-10:40	SunB05-1	A Novel Method for Fast Arbitrary-oriented Scene Text Detection 1652 Shaohui Ruan, <i>Shanghai Jiao Tong Univ.</i> Junguo Lu, <i>Shanghai Jiao Tong Univ.</i> Fengming Xie, <i>Shanghai Jiao Tong Univ.</i> Zhongxiao Jin, <i>Shanghai Automotive Industry Corporation</i>
10:40-11:00	SunB05-2	A New Plane Segmentation Method of Point Cloud Based on Mean Shift and RANSAC 1658 Wenlong Yue, <i>Shanghai Jiao Tong Univ.</i> Junguo Lu, <i>Shanghai Jiao Tong Univ.</i> Weihang Zhou, <i>Shanghai Jiao Tong Univ.</i> Yubin Miao, <i>Shanghai Jiao Tong Univ.</i>
11:00-11:20	SunB05-3	A Combined Clustering and Image Mapping based Point Cloud Segmentation for 3D Object Detection 1664 Fangchao Hu, <i>Chongqing Univ. of Posts and Telecommunications</i> Zhen Tian, <i>Chongqing Univ. of Posts and Telecommunications</i> Yinguo Li, <i>Chongqing Univ. of Posts and Telecommunications</i> Shuai Huang, <i>Chongqing Univ. of Posts and Telecommunications</i> Mingchi Feng, <i>Chongqing Univ. of Posts and Telecommunications</i>
11:20-11:40	SunB05-4	Estimating Wheel-road Vertical Load for Nonlinear Vehicle Vibration System Based on Cubature Kalman Filter 1670 Yuexin Zhang, <i>Southeast Univ.</i> Lihui Wang, <i>Southeast Univ.</i>

11:40-12:00	SunB05-5	A PM2.5 Monitoring System for Buildings Based on Zigbee and Qt Technology 1675 Feng Jin, <i>Zhejiang Univ.</i> Wei Yao, <i>Zhejiang Univ.</i> Wei Zhang, <i>Zhejiang Univ.</i>
12:00-12:20	SunB05-6	A New Two-Stage Object Detection Network without RoI-Pooling 1680 Chao Yan, <i>Beihang Univ.</i> Weihai Chen, <i>Beihang Univ.</i> Peter C. Y. Chen, <i>National Univ. of Singapore</i> Kendrick Amezcua S, <i>National Univ. of Singapore</i> Xingming Wu, <i>Beihang Univ.</i>

Session	SunB06:Nonlinear Systems (III)	
Venue	Room06	
Date/Time	10:20-12:20	
Chair	Haisheng Yu, <i>Qingdao Univ.</i>	
Co-Chair	Xiong Chen, <i>Nanjing Univ. of Scie. and Tech.</i>	
10:20-10:40	SunB06-1	Nonlinear Robust Motion Control of Hydraulic Servo System with Matched and Mismatched Disturbance Compensation 1686 Xudong Li, <i>Nanjing Univ. of Scie. and Tech.</i> Xiong Chen, <i>Nanjing Univ. of Scie. and Tech.</i> Jianyong Yao, <i>Nanjing Univ. of Scie. and Tech.</i> Jinsheng Xu, <i>Nanjing Univ. of Scie. and Tech.</i> Changsheng Zhou, <i>Nanjing Univ. of Scie. and Tech.</i>
10:40-11:00	SunB06-2	Study on Nonlinear Dynamic Characteristics of Wheel Shimmy of 4WID Electric Vehicle with Nonlinear Damping and Stiffness 1692 Gang Li, <i>Southeast Univ.</i> Nan Chen, <i>Southeast Univ.</i>
11:00-11:20	SunB06-3	Nonlinear Dynamic Analysis for a Permanent Magnet Synchronous Motor Model and Its Application in Magnetic Flux Optimization 1698 Qian Xie, <i>Xi'an Univ. of Tech.</i> Changhui Mu, <i>Xi'an Univ. of Tech.</i> Rong Jia, <i>Xi'an Univ. of Tech.</i> Gang Wu, <i>PetroChina Changqing Oilfield Company</i> Ningning Yang, <i>Xi'an Univ. of Tech.</i> Chaojun Wu, <i>Xi'an Polytechnic Univ.</i>
11:20-11:40	SunB06-4	Speed and Heading Control of Unmanned Surface Vehicle Based on IDA-PBC and L2 Gain Disturbance Attenuation Approach 1704 Chengxing Lv, <i>Qingdao Univ.</i> Haisheng Yu, <i>Qingdao Univ.</i> Jieru Chi, <i>Qingdao Univ.</i> Tao Xu, <i>Qingdao Univ.</i>
11:40-12:00	SunB06-5	Research on Guidance Algorithm Based on Strap-down Devices 1709 Yongshan Liu, <i>Beijing Inst. of Tech.</i> Xin Lu, <i>Beijing Inst. of Tech.</i>

12:00-12:20 SunB06-6 Finite Time Integral Sliding Mode Fault-tolerant Control for Airbreathing Hypersonic Vehicle with External Disturbances 1715
 Baozeng Fu, *Southeast Univ. Key Laboratory of Measurement and Control of CSE*
 Shihua Li, *Southeast Univ. Key Laboratory of Measurement and Control of CSE*
 Kunfeng Lu, *Beijing Aerospace Automatic Control Inst.*

Session	SunB07: Intelligent Systems (III)
Venue	Room07
Date/Time	10:20-12:20
Chair	Ning Wang, Zhejiang Univ.
Co-Chair	Hongyan Guo, Jilin Univ.

10:20-10:40 SunB07-1 Human Face Gender Identification System Based on MB-LBP 1721
 Tianyu Liu, *Shenyang Aerospace Univ.*
 Fei Li, *Shenyang Aerospace Univ.*
 Rui Wang, *Shenyang Aerospace Univ.*

10:40-11:00 SunB07-2 Grey Wolf RNA-GA modeling method for FCCU Main Fractionator 1726
 Xiu Liu, *Zhejiang Univ.*
 Ning Wang, *Zhejiang Univ.*
 Jili Tao, *Zhejiang Univ.*

11:00-11:20 SunB07-3 Nonlinear Moving Horizon Control for Following Vehicles in Truck Platooning 1732
 He Huang, *Jilin Univ.*
 Hongyan Guo, *Jilin Univ.*
 Qikun Dai, *Jilin Univ.*
 Hong Chen, *Jilin Univ.*

11:20-11:40 SunB07-4 A semantic trust model of large scale distributed system based on Ontology 1738
 Mingsheng Hu, *Zhengzhou Normal Univ.*
 Kai Yang, *Zhengzhou Normal Univ.*
 Zhijuan Jia, *Zhengzhou Normal Univ.*

11:40-12:00 SunB07-5 Decentralized Backstepping Adaptive Iterative Learning Control for a class of Interconnected Nonlinear Systems 1744
 Lili Sun, *Yancheng Inst. of Tech.*
 Xiaorong Fu, *Yancheng Inst. of Tech.*
 Wenyong Duan, *Yancheng Inst. of Tech.*

12:00-12:20 SunB07-6 Pruning Channels and Fully Convolutional Deep Learning Based Target Detection 1750
 Zheng Xu, *Nanjing Univ. of Posts and Telecommunications*
 Songhao Zhu, *Nanjing Univ. of Posts and Telecommunications*
 Bowen Lu, *Nanjing Univ. of Posts and Telecommunications*

Session	SunB08:Decision-making Theory and Method (III)		
Venue	Room08		
Date/Time	10:20-12:20		
Chair	Wei Yao , <i>North China Electric Power Univ.</i>		
Co-Chair	Minglang Cui , <i>Air Force Engineering Univ.</i>		
10:20-10:40	SunB08-1	Effectiveness Evaluation Method for Warning Radar in Jamming Environment 1735 Deting Hou, <i>Information Engineering Univ.</i> Zongfeng Qi, <i>The State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System</i> Teng Jiang, <i>Information Engineering Univ.</i> Minpeng Zhu, <i>Information Engineering Univ.</i>	
10:40-11:00	SunB08-2	Multi-granularity Rough Set and Measure Based on Weighted Granularity on the Dual Universes 1761 Liangui Peng, <i>Shanghai Univ. of Engineering Scie.</i> Ruixia Yan, <i>Shanghai Univ. of Engineering Scie.</i> Zhaojun Chen, <i>Shanghai Univ. of Engineering Scie.</i>	
11:00-11:20	SunB08-3	Analysis of the behaviors about scientific research innovation and management in university based on evolutionary game 1766 Xuwang Liu, <i>Henan Univ.</i> Zhengxuan Zhang, <i>Henan Univ.</i> Wei Qi, <i>Northeastern Univ.</i>	
11:20-11:40	SunB08-4	Air combat situation assessment for UAV based on improved decision tree 1772 Kexin Zhao, <i>Air Force Univ.</i> Changqiang Huang, <i>Air Force Univ.</i>	
11:40-12:00	SunB08-5	Improved AHP Based on Moody Chart Method and Its Application in the Evaluation of Thermal Power Plant Operation 1777 Le Wei, <i>North China Electric Power Univ.</i> Wei Yao, <i>North China Electric Power Univ.</i>	
12:00-12:20	SunB08-6	Maneuvering decision in short range air combat for Unmanned Combat Aerial Vehicles 1783 Minglang Cui, <i>Air Force Engineering Univ.</i> Haiwen Du, <i>Air Force Engineering Univ.</i> Zhenglei Wei, <i>Air Force Engineering Univ.</i> Qingpeng Sun, <i>Air Force Engineering Univ.</i>	

Session	SunB09:Fault Diagnosis and Fault-tolerant Control (III)		
Venue	Room09		
Date/Time	10:20-12:20		
Chair	Shuai Yang , <i>Henan Univ.</i>		
Co-Chair	Bin Guo , <i>Univ. of Electronic Scie. and Tech. of China</i>		
10:20-10:40	SunB09-1	Finite-time fault tolerant control for spacecraft attitude systems based adding a powerintegrator approach 1789 Zhao Wang, <i>China University of Petroleum (East China)</i> Qi Li, <i>China University of Petroleum (East China)</i> Shenghui Jiang, <i>China University of Petroleum (East China)</i> Shurong Li, <i>Beijing University of Posts and Telecommunications</i>	

10:40-11:00	SunB09-2	Fault Monitoring and Classification of Rotating Machine Based on PCA and KNN 1795 Yinghua Yang, <i>Northeastern Univ.</i> Guoqiang Shi, <i>Northeastern Univ.</i> Xiang Shi, <i>Northeastern Univ.</i>
11:00-11:20	SunB09-3	Improved DAE and Application in Fault Diagnosis 1801 Funa Zhou, <i>Henan Univ.</i> Shuai Yang, <i>Henan Univ.</i> Chenglin Wen, <i>Hangzhou Dianzi Univ.</i> Ju H.Park, <i>Yeungnam Univ.</i>
11:20-11:40	SunB09-4	Fault estimation for time varying delay nonlinear systems with actuator fault and external disturbance 1807 Bin Guo, <i>University of Electronic Science and Technology of China</i> Yong Chen, <i>University of Electronic Science and Technology of China</i> Xia Liu, <i>Xihua Univ.</i>
11:40-12:00	SunB09-5	Fuzzy Logic Control of the Fault-tolerant PMSM Servo System Based on MRAS Observer 1812 Hong Zhao, <i>Dalian Maritime Univ.</i> Peng Luo, <i>Dalian Maritime Univ.</i> Ning Wang, <i>Dalian Maritime Univ.</i> Zhongjiu Zheng, <i>Dalian Maritime Univ.</i> Yiting Wang, <i>Dalian Maritime Univ.</i>
12:00-12:20	SunB09-6	Fault Tolerant Control of a Quadrotor UAV using Control Allocation 1818 Xulin Liu, <i>Southwest University of Science and Tech.</i> Yuying Guo, <i>Southwest University of Science and Tech.</i>

Session	SunB10:Neural Networks (III)	
Venue	Room10	
Date/Time	10:20-12:20	
Chair	Bin Ding, <i>Hehai Univ.</i>	
Co-Chair	Ying Tian, <i>University of Science and Technology Liaoning</i>	
10:20-10:40	SunB10-1	Classification of Gastric Slices based on Deep Learning and Sparse Representation 1825 Bo Liu, <i>Harbin Institute of Tech.</i> Ming Zhang, <i>Harbin Institute of Tech.</i> Tongyu Guo, <i>Northeastern Univ.</i> Yuanzhi Cheng, <i>Harbin Institute of Tech.</i>
10:40-11:00	SunB10-2	Human ear recognition based on deep convolutional neural network 1830 Ying Tian, <i>University of Science and Technology Liaoning</i> Shining Wang, <i>University of Science and Technology Liaoning</i> Wanxiang Li, <i>Northeastern Univ.</i>
11:00-11:20	SunB10-3	Activation Functions and Their Characteristics in Deep Neural Networks 1836 Bin Ding, <i>Hehai Univ.</i> Huimin Qian, <i>Hehai Univ.</i> Jun Zhou, <i>Hehai Univ.</i>

11:20-11:40	SunB10-4	Human gait recognition based on deterministic learning and Kinect sensor 1842 Hao Zhen, <i>Hangzhou Dianzi Univ.</i> Muqing Deng, <i>Hangzhou Dianzi Univ.</i> Peng Lin, <i>Hangzhou Dianzi Univ.</i> Cong Wang, <i>South China University of Tech.</i>
11:40-12:00	SunB10-5	Research on Wavelet Neural Network Decoupling Control of Variable-Air Volume Air-Conditioning System 1848 Xinyang Ji, <i>Shenyang Urban Construction Univ.</i> Jiejia Li, <i>Shenyang Jianzhu Univ.</i> Tianhao Gao, <i>Shenyang jianzhu Univ.</i>
12:00-12:20	SunB10-6	Echo state network-based visibility graph method for nonlinear time series prediction 1854 Qian Li, <i>Chongqing Univ.</i> Yuguang Chen, <i>Chongqing Univ.</i> Nian Ao, <i>Chongqing Univ.</i> Xu Han, <i>Chongqing Univ.</i> Zhou Wu, <i>Chongqing Univ.</i>

Session	SunB11:Control Applications (III)	
Venue	Room11	
Date/Time	10:20-12:20	
Chair	Yaoming Zhou , <i>Beihang Univ.</i>	
Co-Chair	Yujie Shi , <i>Zhejiang Univ. of Tech.</i>	
10:20-10:40	SunB11-1	Reentry Tracking Control of Hypersonic Glider Based on Legendre Pseudospectral Method 1860 Zifeng Gong, <i>Rocket Force Univ. of Engineering</i> Hexin Zhang, <i>Rocket Force Univ. of Engineering</i> Xiaoxiang Hu, <i>Rocket Force Univ. of Engineering</i> Yubin Wu, <i>Rocket Force Univ. of Engineering</i> Rui Song, <i>Rocket Force Univ. of Engineering</i>
10:40-11:00	SunB11-2	Integrated Real Time Obstacle Avoidance Algorithm Based on Fuzzy Logic and L1 Control Algorithm for Unmanned Helicopter 1865 Jiang'an Zheng, <i>Aviation Industry Development Research Center of China</i> Bo Liu, <i>Beihang Univ.</i> Zhijun Meng, <i>Beihang Univ.</i> Yaoming Zhou, <i>Beihang Univ.</i>
11:00-11:20	SunB11-3	A New Sliding Mode Tracking Guidance Based on Three-dimensional Trajectory 1871 Yuan-long Zhang, <i>National Univ. of Defense Tech.</i> Guo-jian Tang, <i>National Univ. of Defense Tech.</i> Wei-min Bao, <i>National Univ. of Defense Tech. China Aerospace Scie. and Tech. Corporation</i>
11:20-11:40	SunB11-4	Cooperative control for the hypersonic vehicle lateral attitude tracking 1877 Chao Huang, <i>Huazhong Univ. of Scie. and Tech.</i> Ye Yang, <i>Beijing Aerospace Automatic Control Inst.</i> Yongji Wang, <i>Huazhong Univ. of Scie. and Tech.</i> Lei Liu, <i>Huazhong Univ. of Scie. and Tech.</i> Xiaomeng Yin, <i>Huazhong Univ. of Scie. and Tech.</i>

11:40-12:00	SunB11-5	Utopia-Tracking Multi-Performance Predictive Cruise Control for a Group of Connected Vehicles on Urban Roads 1883 Yujie Shi, <i>Zhejiang Univ. of Tech.</i> Xiulan Song, <i>Zhejiang Univ. of Tech.</i> Defeng He, <i>Zhejiang Univ. of Tech.</i>
12:00-12:20	SunB11-6	Model-Based Adaptive Control of Eddy Current Retarder 1889 Jun Yang, <i>Shandong Jiaotong Univ.</i> Fengyan Yi, <i>Shandong Jiaotong Univ.</i> Jinbo Wang, <i>Shandong Jiaotong Univ.</i>

Session	SunB12:Data Processing (III)	
Venue	Room12	
Date/Time	10:20-12:20	
Chair	Jianxun Li, <i>Shanghai Jiao Tong Univ.</i>	
Co-Chair	Limei Zhao, <i>Heilongjiang Univ.</i>	
10:20-10:40	SunB12-1	Retinal Blood Vessels Semantic Segmentation Method Based on Modified U-Net 1892 Ling Luo, <i>Northeastern Univ.</i> Dali Chen, <i>Northeastern Univ.</i> Dingyu Xue, <i>Northeastern Univ.</i>
10:40-11:00	SunB12-2	One-dimensional Data Augmentation Using a Wasserstein Generative Adversarial Network with Supervised Signal 1896 Huan Lou, <i>Shanghai Jiao Tong Univ.</i> Zongfeng Qi, <i>State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System</i> Jianxun Li, <i>Shanghai Jiao Tong Univ.</i>
11:00-11:20	SunB12-3	Bibliometric analysis and visualization on International Mobile Library Research Output, 2007-2016 1902 Limei Zhao, <i>Heilongjiang Univ.</i> Luyao Shen, <i>Heilongjiang Univ.</i>
11:20-11:40	SunB12-4	Application of Frequent Item Set Mining Algorithm in IDS Based on Hadoop Framework 1908 Zhang Tong, <i>Xi'an Univ. of Tech.</i> Hou Ying, <i>Xi'an Univ. of Tech.</i> Liansheng Sui, <i>Xi'an Univ. of Tech.</i>
11:40-12:00	SunB12-5	A High-dimensional Data Analysis Method Based on PCA and Density Clustering in Clinical Diagnosis 1912 Danmei Zhu, <i>Liaoning Shihua Univ.</i> Qing Tong, <i>Liaoning Shihua Univ.</i> Qijin Xiao, <i>Liaoning Shihua Univ.</i>
12:00-12:20	SunB12-6	Performance Analysis of Deeply Integrated BDS /INS 1916 Yong-sheng Cui, <i>Chang Jiang yi chang waterway ureau</i>

Session	SunB13:Supply Chain and Logistics Management (III)	
Venue	Room13	
Date/Time	10:20-12:20	
Chair	Xian Feng , <i>Xi'an Univ. of Tech.</i>	
Co-Chair	Qian-ru Li , <i>Southeast Univ.</i>	
10:20-10:40	SunB13-1	Research on Robust Decision of Emergency Material Distribution for Chain Retail Supply Chain 1922 Hong Xue, <i>Beijing Tech. and Business Univ.</i> Boyu Cai, <i>Beijing Tech. and Business Univ.</i> Chi Jiang, <i>Beijing Tech. and Business Univ.</i> Yi Yuan, <i>Beijing Tech. and Business Univ.</i>
10:40-11:00	SunB13-2	An incentive mechanism for the negotiation of green supply chain 1928 Fang Yu, <i>Shanghai Maritime Univ.</i> Yongsheng Yang, <i>Shanghai Maritime Univ.</i> Chun Zhang, <i>Nanjing Univ. of Posts and Telecommunications.</i> Daofang Chang, <i>Shanghai Maritime Univ.</i>
11:00-11:20	SunB13-3	E-commerce Order Batching Algorithm based on Association Rule Mining in the Era of Big Data 1934 Yafang Li, <i>Beijing Jiaotong Univ.</i> Yisong Li, <i>Beijing Jiaotong Univ.</i>
11:20-11:40	SunB13-4	Evolutionary Game Analysis on Contributing Factors of Confirming Storage Financing Mode's Credit Risk 1940 Lang Zhang, <i>Xi'an Univ. of Tech.</i> Xian Feng, <i>Xi'an Univ. of Tech.</i> Tingting Fan, <i>Xi'an Univ. of Tech.</i> Haiqing Hu, <i>Xi'an Univ. of Tech.</i>
11:40-12:00	SunB13-5	Optimal core pricing and financing strategies for remanufacturers 1948 Qian-ru Li, <i>Southeast Univ.</i>
12:00-12:20	SunB13-6	Truck Appointment at Container Terminals: Status and Perspectives 1954 Huiyun Yang, <i>Dalian Maritime Univ.</i> Xin Lin, <i>Dalian Maritime Univ.</i> Lixuan Xu, <i>Dalian Maritime Univ.</i> Xiangjun Li, <i>Dalian Ocean Univ.</i> Zhihong Jin, <i>Dalian Maritime Univ.</i> Zhan Bian, <i>Capital Univ. of Economics and Business.</i>

Session	SunB14:Robot Control (III)	
Venue	Room14	
Date/Time	10:20-12:20	
Chair	Zhenning Yu , <i>Beijing Normal University.</i> <i>Univ. of Macau.</i>	
Co-Chair	Bin Zhou , <i>National Univ. of Defense Tech.</i>	
10:20-10:40	SunB14-1	Design of Automatic Handling Robot Control System 1961 Chunbo Xiu, <i>Tianjin polytechnic Univ.</i> Taihu Lai, <i>Tianjin polytechnic Univ.</i> Zuohong Chai, <i>Tianjin polytechnic Univ.</i>

10:40-11:00	SunB14-2	Design of Quad-rotor Target Tracking System 1966 Chunbo Xiu, <i>Tianjin polytechnic Univ.</i> Yalong Zhao, <i>Tianjin polytechnic Univ.</i> , <i>Tianjin polytechnic Univ.</i> Ruosi Wang, <i>Tianjin polytechnic Univ.</i>
11:00-11:20	SunB14-3	Trajectory Re-planning and Tracking Control of Unmanned Underwater Vehicles on Dynamic Model 1971 Caicha Cui, <i>Shanghai Maritime Univ.</i> Daqi Zhu, <i>Shanghai Maritime Univ.</i> Bing Sun, <i>Shanghai Maritime Univ.</i>
11:20-11:40	SunB14-4	Finite-Time Formation Control of Mobile Robots Under Limited Sensing Range 1977 Shi-Lu Dai, <i>South China Univ. of Tech.</i> Xin Chen, <i>South China Univ. of Tech.</i> Shude He, <i>South China Univ. of Tech.</i>
11:40-12:00	SunB14-5	Experiment and Controller Design for Two-wheeled Robot with Nonlinear Damping and Road Disturbance 1983 Zhenning Yu, <i>Beijing Normal University. Univ. of Macau.</i> Tianyi Tong, <i>Beijing Jiaotong Univ.</i> Seng Fat Wong, <i>Univ. of Macau.</i>
12:00-12:20	SunB14-6	A novel robust attitude control method for small-scale unmanned helicopters based on quaternion feedback 1988 Bin Zhou, <i>National Univ. of Defense Tech.</i> Peng Li, <i>National Univ. of Defense Tech.</i> Zhiqiang Zheng, <i>National Univ. of Defense Tech.</i> Shuai Tang, <i>Army Logistics Univ. of PLA.</i>

Session	SunB15:Modeling, Control and Simulations of Biological Systems
Venue	Room15
Date/Time	10:20-12:20
Chair	Jinian Yang, <i>Central South Univ.</i>
Co-Chair	Jianyong Tuo, <i>Beijing Univ. of Chemical Tech.</i>

10:20-10:40	SunB15-1	Analysis of Electrical Impedance Tomography sensitivity field based on Electroencephalograph electrodes model 1994 Tianyu Xia, <i>Guangxi Univ.</i> Jinchuang Zhao, <i>Guangxi Univ.</i> Wenli Fu, <i>Guangxi Univ.</i> Ping Song, <i>Guangxi Univ.</i>
10:40-11:00	SunB15-2	Early warning model for marine organism detection in nuclear power stations 1999 Wei Meng, <i>Suzhou Nuclear Power Research Inst.</i> Yang Liu, <i>Dalian Jiaotong Univ.</i> Humin Zong, <i>Key Laboratory for Ecological Environment in Coastal Areas</i> Xiaolin Liu, <i>Suzhou Nuclear Power Research Inst.</i> Yahui Meng, <i>Suzhou Nuclear Power Research Inst.</i> Jianwen Li, <i>Suzhou Nuclear Power Research Inst.</i>
11:00-11:20	SunB15-3	Stabilization of Switched Boolean Control Networks with State-dependent Constraints 2005 Jinian Yang, <i>Central South Univ.</i> Yuqian Guo, <i>Central South Univ.</i>

11:20-11:40	SunB15-4	Artificial Immune Algorithm Convergence Rate Estimation Based on Stochastic Process Theory 2011 Hong Lu, <i>Huaihai Inst. of Tech.</i> Chu Yu, <i>Huaihai Inst. of Tech.</i> Xiao Wen, <i>Monash Univ.</i>
11:40-12:00	SunB15-5	Chaotic Time Series Analysis Approach for Prediction Blood Glucose Concentration Based on Echo State Networks 2017 Ning Li, <i>Beijing Univ. of Chemical Tech.</i> Jianyong Tuo, <i>Beijing Univ. of Chemical Tech.</i> Youqing Wang, <i>Beijing Univ. of Chemical Tech.</i>
12:00-12:20	SunB15-6	Application of Gauss Process Regression Modeling Based on NN-MIV for Marine Enzyme Fermentation Process 2023 Peisuo Yang, <i>Jiangsu Univ.</i> Yuhan Ding, <i>Jiangsu Univ.</i> Guohai Liu, <i>Jiangsu Univ.</i> Congli Mei, <i>Jiangsu Univ.</i> Xu Chen, <i>Jiangsu Univ.</i> Hui Jiang, <i>Jiangsu Univ.</i>

Session	SunBIS:Interactive Session
Venue	Room17
Date/Time	10:20-12:20

- SunBIS-01 Research on the task assignment of heterogeneous UAV formation in the anti-radar combat 2028**
Juncan Lin, *National Univ. of Defense Tech.*
Gaowei Jia, *National Univ. of Defense Tech.*
Zhongxi Hou, *National Univ. of Defense Tech.*
- SunBIS-02 Research on Quantum Particle Swarm Optimization in Mobile Robot Path Planning for Aged Service 2034**
Minghai Jiao, *Northeastern Univ.*
Xibin Chen, *Northeastern Univ.*
Xuewen Ju, *Northeastern Univ.*
Haoqian Liu, *Northeastern Univ.*
Yiran Cheng, *Northeastern Univ.*
Hao Zhang, *Northeastern Univ.*
- SunBIS-03 Study on Market risk of Oversea Merger and Acquisition of Resource-Based Enterprises 2040**
Haiqing Hu, *Xi'an Univ. of Tech.*
Di Chen, *Xi'an Univ. of Tech.*
Dan Zhang, *Xi'an Univ. of Tech., Xi'an Jiao Tong Univ.*
Lang Zhang, *Xi'an Univ. of Tech.*
- SunBIS-04 Optimization of Multi-queue In-ward Patients Routing from Outpatient Department to Internal Wards 2046**
Huabo Zhu, *Liaoning Shihua Univ.*
Lizhou Zhao, *Liaoning Shihua Univ.*
Hongfu Ding, *Liaoning Shihua Univ.*
Dan Chen, *Liaoning Inst. of Scie. and Tech.*

- SunBIS-05 Multi-attribute Gray Clustering Decision Based on Three Parameter Interval Number 2050**
 Di Wu, *Dalian Neusoft Univ. of Information*
 Jingshu Wang, *Dalian Neusoft Univ. of Information*
 Yanxia Lu, *Dalian Neusoft Univ. of Information Dalian Univ. of Tech.*
 Yuxin Zhao, *Dalian Neusoft Univ. of Information*
- SunBIS-06 Analysis of the Influence of Tourism on Ancient Buildings-Taking Ningxia Tourism as an Example 2056**
 Qiuxia Qu, *Qingdao Univ. of Scie. and Tech.*
 Jiyang Yuan, *Qingdao Univ. of Scie. and Tech.*
 Xiangping Fang, *Qingdao Univ. of Scie. and Tech.*
- SunBIS-07 Improved Teaching-Learning-Based Optimization Algorithm and Its Application for Fast Control Switched Systems 2060**
 Junchang Zhai, *Bohai Univ.*
 Zhen Zhao, *Bohai Univ.*
 Minghai Yao, *Bohai Univ.*
- SunBIS-08 Evaluation of Rail Transit Route Selection Scheme Based on Fuzzy Soft Set Theory 2066**
 Jianwei Ai, *Northeastern Univ. At Qinhuangdao*
 Zhi Kong, *Northeastern Univ. At Qinhuangdao*
 Qingfeng Yang, *Northeastern Univ. At Qinhuangdao*
 Shicheng Li, *Northeastern Univ. At Qinhuangdao*
 Liqian Wang, *State Grid Liaoning Information and Communication Company*
 Lifu Wang, *Northeastern Univ. At Qinhuangdao*
- SunBIS-09 Research on Modeling Method of Firepower Collaborative Process for Shipboard Cooperative Air Defense N/A**
 Hongyan Shan, *Dalian Naval Academy*
 Liang Ma, *Dalian Naval Academy*
- SunBIS-10 Approach of Linguistic Group Decision Making Based on Combination Weighting 2-Tuple Linguistic VIKOR 2075**
 Haolun Wang, *East China Jiaotong Univ.*
 Ranjun Deng, *East China Jiaotong Univ.*
- SunBIS-11 Design Military and Civil Information Exchange Organization Management System Based on Structural Entropy 2080**
 Xiaosong Li, *PLA Academy of Military Scie.*
 Bin Lv, *PLA Academy of Military Scie.*
 Zhenhua Xiao, *PLA Academy of Military Scie.*
- SunBIS-12 Study of Monthly Electricity Sales Forecasting Based on Seasonal Adjustment and Multi-factor Correction Method 2086**
 Jian Zhuang, *State Grid of Tianjin Electric Power Company*
 Kai Li, *State Grid of Tianjin Electric Power Company*
 Zhanzhan Liu, *State Grid of Tianjin Electric Power Company*
 Ruimin Liu, *Beijing China-Power Information Tech. Co., Ltd*
- SunBIS-13 Research on Online Target Allocation of Multiple Air-defense Missiles 2091**
 Hongze Qiu, *National Univ. of Defense Tech.*
 Lei He, *National Univ. of Defense Tech.*
 Jianjun Ma, *National Univ. of Defense Tech.*
 Zhiqiang Zheng, *National Univ. of Defense Tech.*

- SunBIS-14 An Improved Hybrid Algorithm for Minimizing Energy Consumption and Cycle Time in Flexible Process Planning 2097**
Min Dai, *Yangzhou Univ.*
Yuwei Zhang, *Yangzhou Univ.*
- SunBIS-15 Cloud Service Selection Optimization Method Based on Parallel Discrete Particle Swarm Optimization 2103**
Yimin Zhang, *Dalian Neusoft Inst. of Information Dalian*
Guojun Sheng, *Dalian Neusoft Inst. of Information Dalian*
Xiaoguang Yang, *Dalian Neusoft Inst. of Information Dalian*
- SunBIS-16 Optimization of Ideology and Politics Education Process based on Evolutionary Game Theory 2108**
Zhiyi Zhang, *Army Support Department of PLA in Northern Theater*
Xiaohu Yin, *Army Unit 72465 of PLA*
Haiyan Liu, *Party School of Ji'nan Municipal Committee*
Lu Zhang, *Univ. of Jinan*
Xinghai Yang, *Univ. of Jinan*
Changzhi Wei, *Univ. of Jinan*
- SunBIS-17 Technician Scheduling in IT Service with the Consideration of Service Level 2112**
Ruiying Chen, *Huazhong Univ. of Scie. and Tech.*
Zhenyuan Liu, *Huazhong Univ. of Scie. and Tech.*
Shaoping Wei, *Huazhong Univ. of Scie. and Tech.*
- SunBIS-18 A Recursive Algorithm for Generating Four-block Cutting Pattern of Circular Blanks 2118**
Weiping Pan, *Northeastern Univ.*
Ruiyou Zhang, *Northeastern Univ.*
- SunBIS-19 Interval observer design for switched systems by linear programming method 2123**
Xiang Ma, *Soochow Univ.*
Jun Huang, *Soochow Univ.*
Liang Chen, *Soochow Univ.*
- SunBIS-20 A Semi-active fuzzy vibration control strategy on narrowband Random Excitation 2129**
Zhenyu Dai, *Chongqing Univ.*
Jie Fu, *Chongqing Univ.*
Junjie Lai, *Chongqing Univ.*
Zening Yang, *Chongqing Univ.*
Junfeng Bai, *Chongqing Univ.*
Miao Yu, *Chongqing Univ.*
- SunBIS-21 Non-fragile H_∞ filtering for Markov jump systems with incomplete transition probabilities and intermittent measurements 2133**
Shen Yan, *Nanjing Tech. Univ.*
Mouquan Shen, *Nanjing Tech. Univ.*
Li-Wei Li, *Nanjing Tech. Univ.*
Bo-Chao Zheng, *Southeast Univ.*
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Yining Zhang, *Lanzhou Univ.*
Gang Cheng, *Lanzhou Univ.*
Dongdong Zhao, *Akita Prefectural Univ.*
Li Xu, *Akita Prefectural Univ.*
Shi Yan, *Lanzhou Univ.*

- SunBIS-23 Self-tuning Reduced-order Kalman Smoother for the Descriptor System 2143**
Chengxiang Liu, *Heilongjiang Univ.*
Chenjian Ran, *Heilongjiang Univ.*
- SunBIS-24 A Sliding Mode Approach for Uncertain Markovian Neutral-Type Singular Systems 2149**
Shi Lu, *Shandong Univ. of Scie. and Tech.*
Weihai Zhang, *Shandong Univ. of Scie. and Tech.*
- SunBIS-25 Stability Analysis in the Numerical Implementation of Delayed Output Feedback 2153**
Chuanchuan Xu, *Harbin Inst. of Tech.*
Qingsong Liu, *Harbin Inst. of Tech.*
- SunBIS-26 Distributed Power System Control of New Energy Ship 2159**
Xinsheng Wang, *Harbin Inst. Of Tech. at Weihai*
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Yuan Fan, *Anhui Univ.*
Yang Zhang, *Anhui Univ.*
Mingwei Sheng, *Anhui Univ.*
- SunBIS-28 Fuzzy sliding mode projective synchronization of HX-type hyperchaotic Liu system disturbances 2171**
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- SunBIS-29 The Matrix Representation of Fuzzy Rough Set Model in Intuitionistic Fuzzy Ordered Information System 2177**
Zhiming Li, *Hexi Univ.*
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- SunBIS-30 Modeling and Control for a Descriptor Epidemic System with Nonlinear Incidence Rates 2183**
Chunling Chang, *Northeastern Univ. Shenyang Jianzhu Univ.*
Yuanwei Jing, *Northeastern Univ.*
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- SunBIS-31 Reachable Set Estimation for Discrete-time T-S Fuzzy Singular Systems Based on Piecewise Lyapunov Function 2189**
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Zhiguang Feng, *Victoria Univ.*
Harbin Engineering Univ.
- SunBIS-32 Intuitionistic fuzzy averaging Schweizer-Sklar operators based on interval-valued intuitionistic fuzzy numbers and its applications 2194**
Lishi Zhang, *Dalian Ocean Univ.*
- SunBIS-33 Pythagorean Hamacher fuzzy averaging operators based on intuitionistic fuzzy decision makings 2198**
Lishi Zhang, *Dalian Ocean Univ.*
Lili Tao, *Dalian Ocean Univ.*
Hua Sun, *Dalian Ocean Univ.*
- SunBIS-34 Multiple Attributes Group Decision Making under Intuitionistic fuzzy preference settings 2202**
Lishi Zhang, *Dalian Ocean Univ.*

- SunBIS-35 Research on Partial Discharge Detection Through Ultra High Frequency Signal Diffusing from GIS Pouring Aperture 2207**
 Liang Wang, *State Grid Shanxi Electric Power Research Institute*
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 Rui Li, *State Grid Shanxi Electric Power Research Institute*
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- SunBIS-37 Mechanism of immune system based topology control clustering algorithm in wireless sensor networks 2217**
 Cheng Zeng, *Guizhou Institute of Tech.*
 Hongbing Li, *Three Gorges Univ.*
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- SunBIS-38 Multi-Leak Diagnosis and Isolation in Oil Pipelines Based on Unscented Kalman Filter 2222**
 Peng Liu, *China University of Petroleum*
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- SunBIS-39 Robust Fault Tolerant Control for Interconnected Systems with Dynamic Uncertainties and Actuator Faults 2228**
 Sheng-Juan Huang, *University of Science and Technology Liaoning*
 Da-Qing Zhang, *University of Science and Technology Liaoning*
 Liang-Dong Guo, *University of Science and Technology Liaoning*
 Li-Bing Wu, *University of Science and Technology Liaoning*
- SunBIS-40 Trend-based Symbolic Aggregate Approximation for Time Series Representation 2234**
 Ke Zhang, *Chongqing Univ.*
 Yuan Li, *Chongqing Univ.*
 Yi Chai, *Chongqing Univ.*
 Lei Huang, *Huaiyin Normal Univ.*
- SunBIS-41 Dynamic threshold computation in fault detection for discrete-time linear systems 2241**
 Xinyang Liu, *Harbin Institute of Tech.*
 Zhenhua Wang, *Harbin Institute of Tech.*
 Ye Wang, *Universitat Politecnica de Catalunya-BarcelonaTech*
 Yi Shen, *Harbin Institute of Tech.*
- SunBIS-42 Fault Tolerant Scheme Design for the Flight Control Systems Using Adaptive Control Allocation Technique 2247**
 Lang Bai, *Nanjing University of Posts and Telecommunications*
 Zhifeng Gao, *Nanjing University of Posts and Telecommunications*
 Moshu Qian, *Nanjing Tech Univ.*
 Bing Han, *Nanjing University of Posts and Telecommunications*
- SunBIS-43 Alternative Estimation Method for Nonlinear Systems with Gain Fault 2252**
 Xiaoliang Feng, *Henan University of Tech.*
 Yixuan Song, *Henan University of Tech.*
 Chenglin Wen, *Henan University of Tech.*

Session	SunC01:Adaptive Control (IV)
Venue	Room01
Date/Time	13:30-15:30
Chair	Yong-Hua Liu , <i>Guangdong Univ. of Tech.</i>
Co-Chair	Zhitao liu , <i>Zhejiang Univ.</i>

13:30-13:50	SunC01-1	Kalman Filter Based Iterative Learning Control for Discrete Time MIMO Systems 2257 Rangana N. Jayawardhana, <i>Texas Tech Univ.</i> Bijoy K. Ghosh, <i>Texas Tech Univ.</i>
13:50-14:10	SunC01-2	H_∞ Control of Constrained-Input Nonlinear Systems with Unknown Model Base on Adaptive Dynamic Programming 2265 Jun Pu, <i>Xi'an Research Inst. of High-Tech</i> Qingliang Ma, <i>Xi'an Research Inst. of High-Tech</i> Fan Gu, <i>Xi'an Research Inst. of High-Tech</i> Zexiang Yu, <i>Xi'an Research Inst. of High-Tech</i>
14:10-14:30	SunC01-3	An Event-Triggered ADP Controller for Single Link Robot Arm System Based on Output Position 2271 Yang Yang, <i>Nanjing Univ. of Posts and Telecommunications</i> Chuang Xu, <i>Nanjing Univ. of Posts and Telecommunications</i> Qing Meng, <i>Nanjing Univ. of Posts and Telecommunications</i> Jie Tan, <i>Nanjing Univ. of Posts and Telecommunications</i>
14:30-14:50	SunC01-4	Robust Control for a Class of Uncertain Nonlinear Systems Using Adaptive Filters 2277 Dongming Xiao, <i>Hunan Univ. of Scie. and Tech.</i> Yong-Hua Liu, <i>Guangdong Univ. of Tech.</i>
14:50-15:10	SunC01-5	Event-triggered Adaptive Control for a Class of Discrete-time Uncertain Nonlinear Systems 2282 Wenxiu Zhuang, <i>Zhejiang Univ.</i> Changyun Wen, <i>Nanyang Technological Univ.</i> Lei Wang, <i>Nanyang Technological Univ.</i> Zhitao Liu, <i>Zhejiang Univ.</i> Hongye Su, <i>Zhejiang Univ.</i>
15:10-15:30	SunC01-6	Research on Battery Charging Strategy Based on Multi-model Adaptive 2288 Dandan Ma, <i>Beihua Univ.</i> Jing Bai, <i>Beihua Univ.</i> Chenghui Su, <i>Beihua Univ.</i>

Session	SunC02:Intelligent Building Control and Management (II) (Special Session)
Venue	Room02
Date/Time	13:30-15:15
Chair	Yahui Wang , <i>Beijing Univ. of Civil Engi. and Arch.</i>

13:30-13:45	SunC02-1	Design of Fractional PID Control System for BLDC motor Based on FPGA 2293 Fan Zhang, <i>Beijing Univ.of Civil Engi. and Arch. Inst.</i> Zhuangju Li, <i>Beijing Univ.of Civil Engi. and Arch. Inst.</i>
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13:45-14:00	SunC02-2	Research on the Assignment of Ground Support Tasks for Civil Aviation Airport 2297 Gang Liu, <i>The Faculty of Computer Science and Engineering, Xi'an University of Technology, Xi'an, China</i> Lei Wang, <i>The Faculty of Computer Science and Engineering, Xi'an University of Technology, Xi'an, China, Shaanxi University of Technology, Hanzhong, Shaanxi province, China</i> Tian Ni, <i>The Faculty of Computer Science and Engineering, Xi'an University of Technology, Xi'an, China</i> Zhiqiang Zhao, <i>The Faculty of Computer Science and Engineering, Xi'an University of Technology, Xi'an, China</i>
14:00-14:15	SunC02-3	Analysis on the Adaptability of Bus Rapid Transit System in Zibo 2303 Chen Li, <i>Beijing Jiaotong Univ.</i> Jianguo Feng, <i>Beijing Jiaotong Univ.</i> Hui Zhang, <i>Beijing Jiaotong Univ.</i>
14:15-14:30	SunC02-4	Study on Evacuation Simulation of Medical Pension Building Based on Anylogic 2307 Yuyang Jiao, <i>Beijing Univ. of Civil Engi. and Arch.</i> Hongyan Ma, <i>Beijing Univ. of Civil Engi. and Arch.</i>
14:30-14:45	SunC02-5	A Consensus Algorithm-Based Power Dispatch Method with the Consideration of Power Outage in Smart Home 2313 Yiying Li, <i>Dalian Maritime Univ.</i> Qihe Shan, <i>Dalian Maritime Univ.</i> Tieshan Li, <i>Dalian Maritime Univ.</i>
14:45-15:00	SunC02-6	Research on BACnet Building Controller Based on ARM9 and Embedded Linux 2318 Jianchang Huang, <i>Univ. of Chinese Academy of Sciences, Beijing, First Harbor Engineering Company Limited of CCCC, Tianjin</i>
15:00-15:15	SunC02-7	Design and Implementation of Blind Sidewalk Recognition System Based on FPGA 2325 Jinghong Li, <i>Northeastern Univ.</i> Yanan Tian, <i>Northeastern Univ.</i> Yantao Zhang, <i>Northeastern Univ.</i> Shuoyang Li, <i>Northeastern Univ.</i>

Session	SunC03:Optimal Control and Optimization (III)	
Venue	Room03	
Date/Time	13:30-15:30	
Chair	Wenbing Chang , <i>Beihang Univ.</i>	
Co-Chair	Qing Yang , <i>Qingdao Univ. of Scie. & Tech.</i>	
13:30-13:50	SunC03-1	The study on optimization model of emergency resource migration cost in Multi-cycle 2330 Yuliang Zhou, <i>Beihang Univ.</i> Shenghan Zhou, <i>Beihang Univ.</i> Silin Qian, <i>Beihang Univ.</i> Wenbing Chang, <i>Beihang Univ.</i>

13:50-14:10	SunC03-2	Optimal Low-thrust Control for GEO Satellite Reorbiting Based on Gauss Pseudo-Spectral Method 2335 Haitao Liu, <i>Aerospace Engi. Univ.</i> Xuming Song, <i>Aerospace Engi. Univ.</i> Kunpeng Lin, <i>Beijing Satellite Navigation Center</i>
14:10-14:30	SunC03-3	Approximate Optimal Disturbance Rejection Control with Application to Near-surface AUVs 2341 Qing Yang, <i>Qingdao Univ. of Scie. & Tech.</i> De-xin Gao, <i>Qingdao Univ. of Scie. & Tech.</i> Hao Su, <i>Ocean Univ. of China</i> Gong-you Tang, <i>Ocean Univ. of China</i>
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14:50-15:10	SunC03-5	An Improved Artificial Bee Colony Algorithm with History Best Points 2353 Xingyu Xia, <i>Nanjing Univ. of Posts and Telecommunications</i> Xi Wang, <i>Nanjing Univ. of Posts and Telecommunications</i> Haidong Hu, <i>Beijing Inst. of Control Engi.</i> Dongmei Wu, <i>Nanjing Univ. of Posts and Telecommunications</i> Hao Gao, <i>Nanjing Univ. of Posts and Telecommunications</i>
15:10-15:30	SunC03-6	Efficiency Analysis of Public Cultural Services Organizations in Poverty Areas 2359 Ping Li, <i>Harbin University of Commerce Suihua Univ.</i>

Session	SunC04: Fractional Calculus and Fractional-order Systems (III) (Special Session)
Venue	Room04
Date/Time	13:30-15:30
Chair	Yongguang Yu, <i>Beijing Jiaotong Univ.</i>
Co-Chair	Yan Li, <i>Shandong Univ.</i>

13:30-13:50	SunC04-1	Adaptive Generalized Projective Synchronization of a New Fractional Chaotic System with uncertain parameters 2365 Jiaoru Huang, <i>Xi'an Technological Univ</i> Kun Zhong, <i>Xi'an Technological Univ</i> Fucai Qian, <i>Xi'an Technological Univ Xi'an Univ. of Tech.</i>
13:50-14:10	SunC04-2	Hopf Bifurcation of Fractional-Order Small-World Networks with Time Delay 2370 Fanchao Zhu, <i>Nanjing Univ. of Posts and Telecommunications</i> Min Xiao, <i>Nanjing Univ. of Posts and Telecommunications</i> Binbin Tao, <i>Nanjing Univ. of Posts and Telecommunications</i>
14:10-14:30	SunC04-3	Dimension of Riemann-Liouville fractional integral of Takagi function 2376 Ning Liu, <i>Army Engi. Univ.</i> Kui Yao, <i>Army Engi. Univ.</i> Yong Shun Liang, <i>Nanjing Univ. of Scie. and Tech.</i>

14:30-14:50	SunC04-4	An infrared dim and small target detection method based on fractional differential 2381 Peng Li, <i>Univ. of Elec. Scie. and tech.</i> Bin Yan, <i>Univ. of Elec. Scie. and tech.</i> Run Ye, <i>Univ. of Elec. Scie. and tech.</i> GuangHui Sun, <i>Harbin Inst. of Tech.</i>
14:50-15:10	SunC04-5	Chaos Control of Fractional Order Systems Based on Least Square Support Vector Machines and Genetic Algorithm 2387 Xiaomei Yan, <i>Xi'an Univ. of Tech.</i> Ting Shang, <i>Xi'an Univ. of Tech.</i> Ruirui Ji, <i>Xi'an Univ. of Tech.</i> Xiaoguo Zhao, <i>Xi'an Univ. of Architecture and Tech.</i>
15:10-15:30	SunC04-6	Fault tolerant control of fractional-order singular systems against actuator faults 2392 Xuefeng Zhang, <i>Northeastern Univ.</i> Yepeng He, <i>Northeastern Univ.</i>

Session	SunC05:Co-operative Control (II)	
Venue	Room05	
Date/Time	13:30-15:30	
Chair	Zhiyong Geng , <i>Peking Univ.</i>	
Co-Chair	Heng Wei , <i>Academy of Army Armored Forces</i>	
13:30-13:50	SunC05-1	Consensus Control for Vehicles with Nonholonomic Constraints on Special Euclidean Group SE (2) 2398 Xiaodong He, <i>Peking Univ.</i> Zhiyong Geng, <i>Peking Univ.</i> Xiuhui Peng, <i>Peking Univ.</i>
13:50-14:10	SunC05-2	Formation Control of Multi Robot based on UWB Distance Measurement 2404 Qiang Lv, <i>Academy of Army Armored Forces</i> Heng Wei, <i>Academy of Army Armored Forces</i> Huican Lin, <i>Academy of Army Armored Forces</i> Shuqi Qin, <i>Academy of Army Armored Forces</i> Nanxun Duo, <i>Academy of Army Armored Forces</i> Bing Liang, <i>Jiangxi Univ. of Scie. and Tech.</i>
14:10-14:30	SunC05-3	The Finite-time Average Consensus Problems in Multi-agent Systems with Switching Topology 2409 Xiaobo Wang, <i>Army Engineering Univ. of PLA</i> Juelong Li, <i>Research Center of Costal Defense Engineering</i> Zhikai Fu, <i>96754 PLA Troops</i> Jianchun Xing, <i>Army Engineering Univ. of PLA</i> Ronghao Wang, <i>Army Engineering Univ. of PLA</i>
14:30-14:50	SunC05-4	A Cooperative Control Approach of UAV Autonomous Formation and Reconfiguration 2415 Tao Zhu, <i>Army Engineering Univ. of PLA</i> Haifeng Ling, <i>Army Engineering Univ. of PLA</i> Weixiong He, <i>Army Engineering Univ. of PLA</i>

14:50-15:10	SunC05-5	An Event-triggered Robust Cruise Control Strategy for Multiple High-speed Trains 2421 Hui Zhao, <i>Northeastern Univ.</i> Xuewu Dai, <i>Northeastern Univ.</i> Miao Zhang, <i>China Academy of Railway Sciences</i> Qi Zhang, <i>China Academy of Railway Sciences</i>
15:10-15:30	SunC05-6	Longitudinal Cooperative Control for a Bidirectional Platoon of Vehicles with Constant Time Headway Policy 2427 Xiaohai Yu, <i>Dalian Maritime Univ.</i> Ge Guo, <i>Dalian Maritime Univ.</i> Hongbo Lei, <i>Dalian Maritime Univ.</i>

Session	SunC06:Nonlinear Systems (IV)	
Venue	Room06	
Date/Time	13:30-15:30	
Chair	Ping Li, <i>Huaqiao Univ.</i>	
Co-Chair	Yaozong Dai, <i>Information Engineering Univ.</i>	
13:30-13:50	SunC06-1	Combat Effectiveness Evaluation of Real Combat Exercise Based on Data-driven 2433 Yaozong Dai, <i>Information Engineering Univ.</i> Jia Guo, <i>Information Engineering Univ.</i> Yisen Wang, <i>Information Engineering Univ.</i> Xiaofeng Guo, <i>Information Engineering Univ.</i>
13:50-14:10	SunC06-2	Simultaneous Stabilization for a Set of Multi-Input Nonlinear Systems with Time-Delay 2439 Dingchao Wang, <i>Zhejiang Normal Univ.</i> Linxin Meng, <i>Zhejiang Normal Univ.</i> Cong Lin, <i>Zhejiang Normal Univ.</i> Xiushan Cai, <i>Zhejiang Normal Univ.</i>
14:10-14:30	SunC06-3	New Exact Solutions for the Generalized Kuramoto-Sivashinsky Equation 2444 Jianguo Liu, <i>Jiangxi Univ. of Traditional Chinese Medicine</i> Zhifang Zeng, <i>Jiangxi Vocational and Technical College of Communication</i> Qing Ye, <i>Jiangxi Univ. of Traditional Chinese Medicine</i>
14:30-14:50	SunC06-4	Admissibility Analysis for Discrete-time Bilinear Singular Systems Using Bilinear State-Feedback Controller 2448 Jiangrong Li, <i>Yanan Univ.</i> Juan Shi, <i>Victoria Univ.</i>
14:50-15:10	SunC06-5	Backstepping Control for a Quadrotor Based on the Structure of Inner and Outer Loops 2453 Jiajing Zheng, <i>Huaqiao Univ.</i> Ping Li, <i>Huaqiao Univ.</i>
15:10-15:30	SunC06-6	Stability and H-gain Analysis for Positive 2D fuzzy Systems in Roesser Model 2459 Zhaoxia Duan, <i>Hohai Univ.</i> Jian Shen, <i>The 28th Research Inst. of China Electronics Tech. Group Corporation</i> Imran Ghous, <i>Comsats Inst. of Information Tech.</i>

Session	SunC07: Intelligent Systems (IV)	
Venue	Room07	
Date/Time	13:30-15:30	
Chair	Songhao Zhu , <i>Nanjing Univ. of Posts and Telecommunications</i>	
Co-Chair	Xiushan Cai , <i>Zhejiang Normal Univ.</i>	
13:30-13:50	SunC07-1	Simultaneous Stabilization for A Collection of Single-Input Nonlinear Time-Delay Systems with Uncertain Parameters 2465 Dingchao Wang, <i>Zhejiang Normal Univ.</i> Jie Cai, <i>Shanghai Maritime Univ.</i> Linxin Meng, <i>Zhejiang Normal Univ.</i> Cong Lin, <i>Zhejiang Normal Univ.</i> Xiushan Cai, <i>Zhejiang Normal Univ.</i>
13:50-14:10	SunC07-2	Adaptive Codebook Modeling Based Multiple Objects Detection 2471 Bowen Lu, <i>Nanjing Univ. of Posts and Telecommunications, Nanjing, Jiangsu ZhenYun Computing Technology Limited Liability Companies, Yangzhou</i> Songhao Zhu, <i>Nanjing Univ. of Posts and Telecommunications, Nanjing</i> Xuewen Ju, <i>Nanjing Univ. of Posts and Telecommunications, Nanjing, Jiangsu ZhenYun Computing Technology Limited Liability Companies, Yangzhou</i> Lingling Chen, <i>Nanjing Univ. of Posts and Telecommunications, Nanjing, Nanjing ZhuoShi Electric Limited Liability Companies, Nanjing</i>
14:10-14:30	SunC07-3	Search engine advertising optimization strategy based on Ontology and Multi-attribute Entropy Weight Fuzzy Comprehensive Evaluation 2476 Kai Yang, <i>Zhengzhou Normal Univ.</i> MingSheng Hu, <i>Zhengzhou Normal Univ.</i> ZhiJuan Jia, <i>Zhengzhou Normal Univ.</i>
14:30-14:50	SunC07-4	Image Classification via Structured Dictionary Learning 2484 Bowen Lu, <i>Nanjing Univ. of Posts and Telecommunications, Nanjing, Jiangsu ZhenYun Computing Technology Limited Liability Companies, Yangzhou</i> Songhao Zhu, <i>Nanjing Univ. of Posts and Telecommunications, Nanjing</i> Xuewen Ju, <i>Nanjing Univ. of Posts and Telecommunications, Nanjing, Jiangsu ZhongXing PaiNeng Battery Limited Liability Companies, Yangzhou</i>
14:50-15:10	SunC07-5	Controllability of Edge Dynamics on Directed Multi-Agent Systems 2489 Xu Zheng, <i>Qingdao Univ.</i> Zhijian Ji, <i>Qingdao Univ.</i> Haisheng Yu, <i>Qingdao Univ.</i>
15:10-15:30	SunC07-6	An Improved Grey Wolf Algorithm for Global Optimization 2494 Wendong Gai, <i>Shandong Univ. of Scie. and Tech.</i> Chengzhi Qu, <i>Shandong Univ. of Scie. and Tech.</i> Jie Liu, <i>Shandong Univ. of Scie. and Tech.</i> Jing Zhang, <i>Shandong Univ. of Scie. and Tech.</i>

Session	SunC08:Decision-making Theory and Method (IV)	
Venue	Room08	
Date/Time	13:30-15:30	
Chair	Hui Li , <i>Harbin Univ. of Commerce</i>	
Co-Chair	Xianxian Hou , <i>Northeastern Univ.</i>	
13:30-13:50	SunC08-1	An Improved Approach for Adversarial Decision Making under Uncertainty based on Simultaneous Game 2499 Zeyu Ma, <i>Northwestern Polytechnical Univ.</i> Shiyu Wang, <i>Northwestern Polytechnical Univ.</i> Xinyang Deng, <i>Northwestern Polytechnical Univ.</i> Wen Jiang, <i>Northwestern Polytechnical Univ.</i>
13:50-14:10	SunC08-2	A new method to air target threat evaluation based on Dempster-Shafer evidence theory 2504 Haibin Liu, <i>Northwestern Polytechnical Univ.</i> Zeyu Ma, <i>Northwestern Polytechnical Univ.</i> Xinyang Deng, <i>Northwestern Polytechnical Univ.</i> Wen Jiang, <i>Northwestern Polytechnical Univ.</i>
14:10-14:30	SunC08-3	Stock Price Prediction based on Grey Relational Analysis and Support Vector Regression 2509 Xianxian Hou, <i>Northeastern Univ.</i> Shaohan Zhu, <i>Northeastern Univ.</i> Li Xia, <i>Northeastern Univ.</i> Gang Wu, <i>Northeastern Univ.</i>
14:30-14:50	SunC08-4	3D Distances of Intuitionistic Fuzzy Sets Based on Hesitating Index 2514 Hui Li, <i>Harbin Univ. of Commerce</i>
14:50-15:10	SunC08-5	UAV Path Evaluation Method based on RE-ITOPSIS 2519 Qiang Zhang, <i>Air Force Engineering Univ.</i> Jinfu Feng, <i>Air Force Engineering Univ.</i> Jian Yang, <i>Air Force Engineering Univ.</i> Zongcheng Ma, <i>Air Force Engineering Univ.</i> Guoming Chen, <i>Air Force Engineering Univ.</i>
15:10-15:30	SunC08-6	A method to extend TOPSIS for decision-making problems with interval weight 2523 Weiwei Hu, <i>Northwestern Polytechnical Univ.</i> Xinyang Deng, <i>Northwestern Polytechnical Univ.</i> Wen Jiang, <i>Northwestern Polytechnical Univ.</i>

Session	SunC09:Fault Diagnosis and Fault-tolerant Control (IV)	
Venue	Room09	
Date/Time	13:30-15:30	
Chair	Fuzhong Wang , <i>Shenyang Jianzhu Univ.</i>	
Co-Chair	Huaitao Shi , <i>Shenyang Jianzhu Univ.</i>	
13:30-13:50	SunC09-1	Fault diagnosis based on pole learning and MCS-LSSVM 2527 Siyue Liang, <i>Shenyang Jianzhu Univ.</i> Fuzhong Wang, <i>Shenyang Jianzhu Univ.</i>

13:50-14:10	SunC09-2	Specific index-related process monitoring using a two-step information extraction method 2533 Bo Zhao, <i>East China University of Science and Tech.</i> Bing Song, <i>East China University of Science and Tech.</i> Shuai Tan, <i>East China University of Science and Tech.</i> Hongbo Shi, <i>East China University of Science and Tech.</i>
14:10-14:30	SunC09-3	Process Monitoring Method Based on Improved Dynamic Multi-Scale Principal Component Analysis 2539 Huaitao Shi, <i>Shenyang Jianzhu Univ.</i> Lei Guo, <i>Shenyang Jianzhu Univ.</i> Lixiu Zhang, <i>Shenyang Jianzhu Univ.</i> Gang Han, <i>Shenyang Ya Dong Science and Technology Co.</i> Jianchang Liu, <i>Northeastern Univ.</i>
14:30-14:50	SunC09-4	Improved Canonical Correlation Analysis for Detecting Faults Related to Key Performance Indicator 2545 Hao Zhang, <i>Beijing University of Chemical Technology, Beijing, China</i> Youqing Wang, <i>Beijing University of Chemical Technology, Beijing, China,</i> <i>Shandong University of Science and Technology, Qingdao, China</i>
14:50-15:10	SunC09-5	SQP-Based Testability Index Allocation Method for Avionics System 2551 Zhen Zhao, <i>Civil Aviation University of China</i> Yixin Hu, <i>Civil Aviation University of China</i> Yigang Sun, <i>Civil Aviation University of China</i>
15:10-15:30	SunC09-6	Oscillatory failure case detection in the missile Actuators electrical flight control system by adaptive unknown input observer 2557 Siting Peng, <i>Beihang Univ.</i> Hong Jiang, <i>Beihang Univ.</i> Pianpian Zuo, <i>Beihang Univ.</i> Xiwang Dong, <i>Beihang Univ.</i> Qingdong Li, <i>Beihang Univ.</i> Ren Zhang, <i>Beihang Univ.</i>

Session	SunC10:Neural Networks (IV)	
Venue	Room10	
Date/Time	13:30-15:30	
Chair	Jinna Wang , <i>North China Electric Power Univ.</i>	
Co-Chair	Liang Chen , <i>Soochow Univ.</i>	
13:30-13:50	SunC10-1	Delay-Dependent State Estimation Criteria for Uncertain Neural Networks via Parameter-Dependent Lyapunov Functional 2563 Qian Ye, <i>Wuxi Institute of Tech.</i> X. Y. Lou, <i>Jiangnan Univ.</i>
13:50-14:10	SunC10-2	Study on Insulator Recognition Method Based on Simulated Samples Expansion 2569 Haiyan Cheng, <i>North China Electric Power Univ.</i> Rui Chen, <i>North China Electric Power Univ.</i> Jinna Wang, <i>North China Electric Power Univ.</i> Xinyue Liu, <i>North China Electric Power Univ.</i> Muliu Zhang, <i>North China Electric Power Univ.</i> Yongjie Zhai, <i>North China Electric Power Univ.</i>

14:10-14:30	SunC10-3	A novel Air Quality Evaluation method based on AP Clustering and VAE model 2574 Liang Chen, <i>Soochow Univ.</i> Sheng Jin, <i>Soochow Univ.</i> Yuxuan Zhuang, <i>Soochow Univ.</i> Haichao Xu, <i>Soochow Univ.</i>
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14:50-15:10	SunC10-5	Device-Free Localization Using Empirical Wavelet Transform-based Extreme Learning Machine 2585 Jie Zhang, <i>University of Science and Tech., Beijing Engineering Research Center of Industrial Spectrum Imaging</i> Yifang Lu, <i>University of Science and Tech., Beijing Engineering Research Center of Industrial Spectrum Imaging</i> Baoqiang Zhang, <i>State Grid Jincheng Power Supply Co.</i> Wendong Xiao, <i>University of Science and Tech., Beijing Engineering Research Center of Industrial Spectrum Imaging</i>
15:10-15:30	SunC10-6	Classification of flour types based on PSO-BP neural network 2591 Maomao Chen, <i>Heilongjiang Univ.</i> Mingliang Liu, <i>Heilongjiang Univ.</i>

Session	SunC11:Control Applications (IV)
Venue	Room11
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Chair	Miao Yu, <i>Chongqing Univ.</i>
Co-Chair	Fang He, <i>Univ. of Jinan</i>

13:30-13:50	SunC11-1	Design and Implementation of the Control System for Magnetorheological Suspension of All-terrain Vehicle 2596 Jijun Xue, <i>Chongqing Univ.</i> Miao Yu, <i>Chongqing Univ.</i> Xiumei Du, <i>Chongqing Univ.</i> Xiaoying Xu, <i>Chongqing Univ.</i> Jie Fu, <i>Chongqing Univ.</i> Zhiwei Xing, <i>Chongqing Univ.</i>
13:50-14:10	SunC11-2	Development and simulation evaluation of a magnetorheological elastomer isolator for transformer vibration control 2600 Luwen Xu, <i>Electric Power Research Inst. of Chongqing Electric Power Company</i> Anxin Zou, <i>Electric Power Research Inst. of Chongqing Electric Power Company</i> Jie Fu, <i>Chongqing Univ.</i> Miao Yu, <i>Chongqing Univ.</i> Junfeng Bai, <i>Chongqing Univ.</i>
14:10-14:30	SunC11-3	Hardware Acceleration Of Finite Set Model Predictive Control For Three Phase Inverter 2605 Yali Qu, <i>Jilin Univ.</i> Fang Xu, <i>Jilin Univ.</i> Dinan Liang, <i>Jilin Univ.</i> Hong Chen, <i>Jilin Univ.</i>

14:30-14:50	SunC11-4	Position-type Engine Control Design and Experiment Research of an Unmanned Tracked Vehicle 2611 Yongdan Chen, <i>China North Vehicle Research Inst.</i> Canyu Wang, <i>China North Vehicle Research Inst.</i> Chunmin Li, <i>China North Vehicle Research Inst.</i> Guangming Zhou, <i>China North Vehicle Research Inst.</i>
14:50-15:10	SunC11-5	Inverse Arnoldi Algorithm for Construction of Tridiagonal Quaternion Matrix 2616 Jingpin Huang, <i>Guangxi Univ. for Nationalities, Nanning, China, Guangxi Key Laboratories of Hybrid Computation and Integrated Circuit Design Analysis, Nanning, China</i> Liman Chen, <i>Guangxi Univ. for Nationalities, Nanning, China</i> Cong Shen, <i>Guangxi Univ. for Nationalities, Nanning, China</i>
15:10-15:30	SunC11-6	Control Technology and Strategy of Tension Control System 2620 Shoubin Wang, <i>Univ. of Jinan</i> Fang He, <i>Univ. of Jinan</i>

Session	SunC12:Data Processing (IV)	
Venue	Room12	
Date/Time	13:30-15:30	
Chair	Yunong Zhang, <i>Sun Yat-sen Univ.</i>	
Co-Chair	Yantao Tian, <i>Jilin Univ.</i>	
13:30-13:50	SunC12-1	Optic Disc Segmentation Method based on Low Rank Matrix Recovery Theory 2626 Danlei Mei, <i>Northeastern Univ.</i> Dali Chen, <i>Northeastern Univ.</i>
13:50-14:10	SunC12-2	Behavioral Characteristics Analysis and Prediction of Ocean Production Data Based on the Gray System Theory 2631 Jun-tian Yin, <i>Beijing Forestry Univ.</i> Rui Lu, <i>Beijing Forestry Univ.</i> Zhe-xuan Wang, <i>Beijing Forestry Univ.</i> Ting Lei, <i>Beijing Forestry Univ.</i>
14:10-14:30	SunC12-3	Attribute reduction of incomplete information system using characteristic multigranulation model 2636 Jun Yu, <i>Harbin Univ. of Scie. and Tech.</i> Bo Ding, <i>Harbin Univ. of Scie. and Tech.</i> Liwei Deng, <i>Harbin Univ. of Scie. and Tech.</i>
14:30-14:50	SunC12-4	A Modified Motor Protection Algorithm Based on Complex Wavelet Transform 2641 Xiaolan Li, <i>Hohai Univ.</i> Jun Zhou, <i>Hohai Univ.</i>
14:50-15:10	SunC12-5	Intelligent Vehicle Pose Estimation Based on Kalman Filtering Algorithm 2647 Lin Liu, <i>Jilin Univ.</i> Guangming Nie, <i>Jilin Univ.</i> Yantao Tian, <i>Jilin Univ.</i>

15:10-15:30 SunC12-6 Using Full-Traversal Addition-Subtraction Frequency (ASF) Method to Predict Possible El Nino Events in 2019, 2020 and so forth 2652
 Yunong Zhang, *Sun Yat-sen Univ.*
 Ruifeng Wang, *Sun Yat-sen Univ.*
 Min Yang, *Sun Yat-sen Univ.*
 Mingjie Zhu, *Sun Yat-sen Univ.*
 Chengxu Ye, *Qinghai Normal Univ.*

Session	SunC13: Intelligent Automation
Venue	Room13
Date/Time	13:30-15:30
Chair	Yi Cheng , <i>Tianjin Polytechnic Univ.</i>
Co-Chair	Hao Wang , <i>Inner Mongolia Univ.</i>

13:30-13:50 SunC13-1 Research on path planning of intelligent shopping cart in large shopping mall 2658
 Yi Cheng, *Tianjin Polytechnic Univ.*
 Yun Wang, *Tianjin Polytechnic Univ.*

13:50-14:10 SunC13-2 Fusion of Infrared and Visible Image Based on HIS and Wavelet Transform 2662
 Chengtao Cai, *Harbin Engineering Univ.*
 Xin Ding, *Harbin Engineering Univ.*

14:10-14:30 SunC13-3 Research on Planning Method of Tunneling Cutting Trajectory with Uncertain Constraints 2668
 Suyu Wang, *China Univ. of Mining and Tech.*
 Xu Li, *China Univ. of Mining and Tech.*
 Miao Wu, *China Univ. of Mining and Tech.*

14:30-14:50 SunC13-4 Design of DSP-based Monitoring System for Control Transformer Operating Parameters 2673
 Fucheng Lang, *Electric Power Research Institute of State Grid Liaoning Electric Power Co., Ltd., Shenyang, Liaoning, China, High Voltage and Large Current Laboratory of State Grid Corporation, Shenyang, Liaoning, China*
 Jinsong Liu, *Electric Power Research Institute of State Grid Liaoning Electric Power Co., Ltd., Shenyang, Liaoning, China, High Voltage and Large Current Laboratory of State Grid Corporation, Shenyang, Liaoning, China*
 Xiaoxue Tai, *Electric Power Research Institute of State Grid Liaoning Electric Power Co., Ltd., Shenyang, Liaoning, China, High Voltage and Large Current Laboratory of State Grid Corporation, Shenyang, Liaoning, China*

14:50-15:10 SunC13-5 Simulation of Buck-Boost Torque Ripple Suppression Technique for Hoisting and Conveying of Motor 2677
 Lang Fu-cheng, *Electric Power Research Institute of State Grid Liaoning Electric Power Co., Ltd., Shenyang, Liaoning, China, High Voltage and Large Current Laboratory of State Grid Corporation, Shenyang, Liaoning, China*
 Liu Jin-song, *Electric Power Research Institute of State Grid Liaoning Electric Power Co., Ltd., Shenyang, Liaoning, China, High Voltage and Large Current Laboratory of State Grid Corporation, Shenyang, Liaoning, China*
 Yuan Lin, *State Grid Shen Yang Electric Power Supply Company, Shenyang, Liaoning, China*
 Ma Jia-yi, *State Grid Shen Yang Electric Power Supply Company, Shenyang, Liaoning, China*

15:10-15:30 SunC13-6 Design of high-speed image acquisition system based on FPGA 2682
Hao Wang, *Inner Mongolia Univ.*
Zhi Weng, *Inner Mongolia Univ.*
Yan Li, *Inner Mongolia Univ.*

Session	SunC14:Robot Control (IV)
Venue	Room14
Date/Time	13:30-15:30
Chair	Wanpeng Zhang , <i>National Univ. of Defense Tech.</i>
Co-Chair	Weiguang Ding , <i>Northeastern Univ.</i>

13:30-13:50 SunC14-1 Expert Knowledge Based Multi-Agent Reinforcement Learning and Its Application in Multi-Robot Hunting Problem 2687
Zhanyang Wei, *National Univ. of Defense Tech.*
Wanpeng Zhang, *National Univ. of Defense Tech.*
Jing Chen, *National Univ. of Defense Tech.*
Zhen Yang, *National Univ. of Defense Tech.*

13:50-14:10 SunC14-2 A Practical Grasping System Using HSV Modelled Kinect2 Vision and YouBot 2693
Feng Ye, *Northeastern Univ.*
Zixi Jia, *Northeastern Univ.*
Weiguang Ding, *Northeastern Univ.*

14:10-14:30 SunC14-3 Modeling and Analysis of A Bionic Flexible Arm Inspired by Octopus Arm 2699
Xuecheng Zhang, *Hangzhou Dianzi Univ.*
Dongfei Xu, *Hangzhou Dianzi Univ.*
Qiuxuan Wu, *Hangzhou Dianzi Univ.*
Botao Zhang, *Hangzhou Dianzi Univ.*

14:30-14:50 SunC14-4 Trajectory Tracking Control of Photovoltaic Cleaning Robot Based on Lyapunov Theory and Barbalat Lemma 2705
Ji Li, *Tianjin Univ. of Tech.*
Peng Miao, *Tianjin Univ. of Tech.*
Lei Shao, *Tianjin Univ. of Tech.*
Hongli Liu, *Tianjin Univ. of Tech.*
Xiaoqi Chen, *Tianjin Univ. of Tech.*

14:50-15:10 SunC14-5 Improved Artificial Potential Field Method for Dynamic Target Path Planning in LBS 2710
Qian Chen, *Dalian Neusoft Univ. of Information.*
Qisong Zhang, *Dalian Neusoft Univ. of Information.*
Li Hou, *Dalian Neusoft Univ. of Information.*

15:10-15:30 SunC14-6 Path Planning for Mobile Robots in Complex Environment via Laser Sensor 2715
Dingyao Ji, *Univ of Jinan.*
Jin Cheng, *Univ of Jinan.*
Bin Wang, *Univ of Jinan.*

Session	SunC15:Electric Vehicles and Intelligent Transportation (I)		
Venue	Room15		
Date/Time	13:30-15:30		
Chair	Huixin Tian , <i>Tianjin Polytechnic Univ.</i>		
Co-Chair	Xin Wang , <i>Dalian Maritime Univ.</i>		
13:30-13:50	SunC15-1	Estimation of EV battery SOC based on KF dynamic neural network with GA 2720 Huixin Tian, <i>Tianjin Polytechnic Univ.</i> Beiping Ouyang, <i>Tianjin Polytechnic Univ.</i>	
13:50-14:10	SunC15-2	Bayes' Theorem Based Maritime Safety Information Classifier 2725 Hongze Liu, <i>Dalian Maritime Univ.</i> Zhengjiang Liu, <i>Dalian Maritime Univ.</i> Xin Wang, <i>Dalian Maritime Univ.</i> Yao Cai, <i>Dalian Maritime Univ.</i>	
14:10-14:30	SunC15-3	Comparison of UKF and EKF Filter Algorithm in INS / BDS Tightly Mode 2730 Zhipeng Chen, <i>Guangzhou Maritime University, Guangzhou, China</i> Ming Bai, <i>Guangzhou Maritime University, Guangzhou, China</i> Jie Lei, <i>Guangzhou Maritime University, Guangzhou, China</i> Yuping Huang, <i>Guangzhou Maritime University, Guangzhou, China</i> Jingsen Wang, <i>Guangzhou Maritime University, Guangzhou, China</i> Xinhai Xia, <i>Guangzhou Maritime University, Guangzhou, China</i>	
14:30-14:50	SunC15-4	Strategy for Heterogeneous Vehicular Platoons Merging in Automated Highway System 2736 Hao Liu, <i>Southeast Univ.</i> Weichao Zhuang, <i>Southeast Univ.</i> Guodong Yin, <i>Southeast Univ.</i> Zhuoren Tang, <i>Southeast Univ.</i> Liwei Xu, <i>Southeast Univ.</i>	
14:50-15:10	SunC15-5	A Transportation Network Stability Analysis Method Based On Betweenness Centrality Entropy Maximization 2741 Zundong Zhang, <i>North China Univ. of Tech.</i> Weixin Ma, <i>North China Univ. of Tech.</i> Zhaoran Zhang, <i>North China Univ. of Tech.</i> Changzhen Xiong, <i>North China Univ. of Tech.</i>	
15:10-15:30	SunC15-6	A Car-following Model Considering Two Different Time Delays and Stability Analysis 2746 Yongfu Li, <i>Chongqing Univ. of Posts and Telecommunications</i> Meng Guo, <i>Chongqing Univ. of Posts and Telecommunications</i> Yinguo Li, <i>Chongqing Univ. of Posts and Telecommunications</i>	

Session	SunCIS:Interactive Session		
Venue	Room17		
Date/Time	13:30-15:30		
	SunCIS-01	Fault Diagnosis Method for Sub-module in Modular Multi-level Converters 2752 Longzhang Ke, <i>Wuhan University of Science and Tech., Huanggang Normal University</i> Zhenxing Liu, <i>Wuhan University of Science and Tech.</i> Cui Li, <i>Wuhan University of Science and Tech.</i>	

- SunCIS-02 Non-fragile H_∞ Filter Design for Two-dimensional Foransini-Marchesini Systems 2758**
Xiao-xue Wu, *University of Science and Technology Beijing, Liaoning Technical University*
Tian-Xing Yang, *University of Science and Technology Beijing*
He-ping Liu, *University of Science and Technology Beijing*
- SunCIS-03 Studies on Denoising Method of the Stator Current Based on PCA Kalman Filter and Window Processing 2763**
Kun Zhai, *Hebei Normal Univ.*
Feng Lyu, *Hebei Normal Univ.*
Wen-xia Du, *Hebei Normal Univ.*
Meng-ya Shao, *Hebei Normal Univ.*
Zhan-ping Huang, *Hebei Normal Univ.*
- SunCIS-04 On line fault diagnosis of rolling bearings based on feature fusion 2769**
Guowen Wu, *Donghua Univ.*
Yangyang Tian, *Donghua Univ.*
Wentao Mao, *Donghua Univ.*
- SunCIS-05 Statistical Modeling and Monitoring for the Between-mode Transition of Multimode Processes 2775**
Zhenpeng Gao, *Northeastern Univ.*
Mingxing Jia, *Northeastern Univ.*
Zhizhong Mao, *Northeastern Univ.*
Luping Zhao, *Northeastern Univ.*
- SunCIS-06 Simultaneous Diagnosis of Multiple Parametric Faults Based on Differential Evolution Algorithm 2781**
Xiaoliu Yang, *Guizhou Univ.*
Zetao Li, *Guizhou Univ.*
Fabian Zhang, *Chongqing Yinghua Energy Tech.*
- SunCIS-07 Design of Cable Detection System for Real - Time Imaging 2787**
Han Bai, *State Grid Shenyang Electric Power Supply Co.*
Keqiang Sun, *State Grid Shenyang Electric Power Supply Co.*
Baozhong Luo, *State Grid Shenyang Electric Power Supply Co.*
Tao Tang, *State Grid Shenyang Electric Power Supply Co.*
- SunCIS-08 Fault Diagnosis and Estimation for Nonlinear Systems with Unmodeled Dynamics 2791**
Jianye Gong, *Yangzhou Univ.*
Qikun Shen, *Yangzhou Univ.*
Tianping Zhang, *Yangzhou Univ.*
- SunCIS-09 A Method of Classified HV Circuit Breaker Fault signal Based on EEMD and SOM Neural Network 2796**
YaoWen Xing, *Heilongjiang Univ.*
MingLiang Liu, *Heilongjiang Univ.*
- SunCIS-10 An Improved Stability Criterion for a Class of Linear Systems with Interval Time-varying Delay 2801**
Li Yao, *Hangzhou Dianzi Univ.*
Xiefu Jiang, *Hangzhou Dianzi Univ.*
Meichen Wang, *Hangzhou Dianzi Univ.*
Yiwen Zhang, *Hangzhou Dianzi Univ.*

- SunCIS-11 Design of Distributed Delay-Controllers for Multi-agent Systems 2806**
Xinyi Yu, *Zhejiang University of Tech.*
Qing Xu, *Zhejiang University of Tech.*
Linlin Ou, *Zhejiang University of Tech.*
Fan Yang, *Zhejiang University of Tech.*
- SunCIS-12 On the Forward Razumikhin Approach for Discrete-Time Time-Varying Time-Delay Systems 2814**
Tianrui Zhao, *Harbin Institute of Tech.*
Bin Zhou, *Harbin Institute of Tech.*
- SunCIS-13 New exponential synchronization for delayed chaotic neural networks with reliable sampled-data control 2820**
Jun Wang, *Southwest Minzu Univ.*
Qinzhen Huang, *Southwest Minzu Univ.*
Kaibo Shi, *Chengdu Univ.*
Shouming Zhong, *University of Electronic Science and Technology of China*
- SunCIS-14 Fault reconstruction for stochastic distribution system with time-delay 2826**
Yu Cheng, *Beihang Univ.*
Long Chen, *Nanjing University of Information Science and Tech.*
Tao Li, *Nanjing University of Information Science and Tech.*
- SunCIS-15 State Feedback Finite-time Tracking Controller of Nonholonomic Mobile Robot with Actuator Delay 2832**
Qingyu Xue, *Jiangsu Univ.*
Xin Yu, *Jiangsu Univ.*
- SunCIS-16 RBF Neural Network Based RFID Indoor Localization Method Using Artificial Immune System 2837**
Zhonghua Li, *Sun Yat-sen Univ., Guangzhou College of South China University of Tech.*
Guannan He, *Sun Yat-sen Univ.*
Muyuan Li, *Sun Yat-sen Univ.*
Le Ma, *Guangzhou College of South China University of Tech.*
Qiaofang Chen, *Guangzhou College of South China University of Tech.*
Jinqiu Huang, *Huizhou Univ.*
Jianzhong Cao, *Huizhou Univ.*
Shuo Feng, *Huizhou Univ.*
Haijian Gao, *Dongguan University of Tech.*
Shanjin Wang, *Dongguan University of Tech.*
- SunCIS-17 Research on Classification of LBS Service Facilities Based on Rough Sets Neural Network 2843**
Xiaoguang Yang, *Dalian Neusoft Institute of Information*
Qisong Zhang, *Dalian Neusoft Institute of Information*
Guojun Sheng, *Dalian Neusoft Institute of Information*
- SunCIS-18 Research on Object Detection Technique in High Resolution Remote Sensing Images Based on U-Net 2849**
Wu Zhihuan, *Space Engineering Univ., 63883 Troops, Luoyang, China*
Gao Yongming, *Space Engineering Univ.*
Li Lei, *Space Engineering Univ.*
Fan Junliang, *Space Engineering Univ.*
- SunCIS-19 Application and analysis of forecasting stock price index based on combination of ARIMA model and BP neural network 2854**
Yulin Du, *Fudan Univ., East China University of Political and Science of Law*
- SunCIS-20 Prediction of Consumer Price Index Based on RBF Neural Network 2858**
Yulin Du, *Fudan Univ., East China University of Political and Science of Law*

- SunCIS-21 Axial Suspension Control for P.M.D with Pitch Stiffness Improvement 2862**
Xiaoguang Chu, *Qufu Normal Univ.*
Qiang Wang, *Qufu Normal Univ.*
Bin Cai, *Qufu Normal Univ.*
Dengpeng Guo, *Qufu Normal Univ.*
Xuetao Yi, *Qufu Normal Univ.*
- SunCIS-22 Design of Robust Adaptive Neural Course Controller for Unmanned Surface Vehicle Based on Trajectory Linearization Control 2868**
Bingbing Qiu, *University of Dalian Maritime*
Guofeng Wang, *University of Dalian Maritime*
Yunsheng Fan, *University of Dalian Maritime*
Houde Wu, *University of Dalian Maritime*
Dongdong Mu, *University of Dalian Maritime*
Xiaojie Sun, *University of Dalian Maritime*
- SunCIS-23 Resonance Analysis and Suppression of Harmonic Reducer in Low Speed Servo System 2873**
Pengfei Liu, *Beihang Univ.*
Zhong Wu, *Beihang Univ.*
- SunCIS-24 The Research of Permanent Magnet Synchronous Motor Drive Based on the IGBT Intelligent Power Module 2879**
Siqiang Gao, *Shanghai Institute of Tech.*
Huailin Zhao, *Shanghai Institute of Tech.*
- SunCIS-25 Design and Implementation of Multi-functional Digital Servos Control System 2884**
Houde Liu, *Tsinghua Univ.*
Kangkang Dong, *Tsinghua Univ.*
Xiaojun Zhu, *Beijing University of Posts and Telecommunications*
Xueqian Wang, *Tsinghua Univ.*
Bin Liang, *Tsinghua Univ.*
- SunCIS-26 MPC-based Fault Tolerant Robust Control of Surface Vessel Equipped with T-foil 2889**
Zhi-lin Liu, *Harbin Engineering Univ.*
Yue Sun, *Harbin Engineering Univ.*
- SunCIS-27 A backstepping controller design for underactuated crane system 2895**
Yonggang Li, *Central South Univ.*
Shuqing Zhou, *Central South Univ.*
Hongqiu Zhu, *Central South Univ.*
- SunCIS-28 Trajectory Planning and Tracking for Maneuverable Quadrotors 2900**
Zhiping Liu, *Xian Technological Univ.*
Yawen Wang, *Xian Technological Univ.*
- SunCIS-29 A Method Of Catamaran Pitching Stabilization Based On Predictive Control 2906**
Zhilin Liu, *Harbin Engineering University, Harbin, China*
Linhe Zheng, *Harbin Engineering University, Harbin, China, Nanjing BBK Communication Technology Co., Ltd, Nanjing, China*
Wei Zhang, *Nanjing BBK Communication Technology Co., Ltd, Nanjing, China*
- SunCIS-30 Single Degree of Freedom Suspension Control for Permanent Magnet Disk with the Thickness Optimization 2912**
Xiaoguang Chu, *Qufu Normal Univ.*
Xuetao Yi, *Qufu Normal Univ.*
Bin Cai, *Qufu Normal Univ.*
Qiang Wang, *Qufu Normal Univ.*
Dengpeng Guo, *Qufu Normal Univ.*

- SunCIS-31 On Information Disclosure of Social Responsibility of China's Chemical Enterprises-Taking 308 Listed Companies as an Example 2918**
Xinhua Zhao, *Qingdao University of Science & Tech.*
- SunCIS-32 Assessment of Coal Mine Safety Based on Bayesian Method with Entropy Weight 2924**
Lizhen Mao, *Shenyang Agricultural Univ.*
Daguang Feng, *Shenyang Agricultural Univ.*
- SunCIS-33 Trajectory Linearization Method Based on Sliding Mode Observer for Unmanned Helicopter Trajectory Tracking Control 2929**
Hong Tang, *China Helicopter Research and Development Inst.*
Haipeng Yang, *Beihang Univ.*
Yaoming Zhou, *Beihang Univ.*
- SunCIS-34 Attitude-Constrained Feedback Control for Spacecraft Reorientation under Actuator Saturation and Compound Disturbance 2934**
Yu Cheng, *Harbin Inst. of Tech.*
Zhaowei Sun, *Harbin Inst. of Tech.*
Dong Ye, *Harbin Inst. of Tech.*
- SunCIS-35 Unmanned Helicopter Trajectory Tracking Control Based on L1 Adaptive and Backstepping Method 2940**
Jiang' an Zheng, *Aviation Industry Development Research Center of China*
Ying Guo, *Beihang Univ.*
Yaoming Zhou, *Beihang Univ.*
Zhijun Meng, *Beihang Univ.*
- SunCIS-36 Adaptive Intelligent Detection Based On 6-DOF Manipulator 2947**
Chun Yin, *Univ. of Electronic Scie. and Tech. of China*
Bo Zhang, *Univ. of Electronic Scie. and Tech. of China*
Jianhong Xue, *Univ. of Electronic Scie. and Tech. of China*
Xuegang Huang, *China Aerodynamics Research & Development Center*
Jing Zhou, *Univ. of Electronic Scie. and Tech. of China*
Yuhua Cheng, *Univ. of Electronic Scie. and Tech. of China*
- SunCIS-37 Electric Vehicle Drive-Motor Test and Analysis System Based on Least Square Method 2953**
Qing Yang, *Qingdao Univ. of Scie. & Tech.*
Jian-Fei Bai, *Qingdao Univ. of Scie. & Tech.*
Jun-Jie Hou, *Qingdao Univ. of Scie. & Tech.*
Ke Liang, *Qingdao Univ. of Scie. & Tech.*
De-Xin Gao, *Qingdao Univ. of Scie. & Tech.*
- SunCIS-38 Study on a Fire Distribution Model of Integrated Naval Gun and Laser Weapon System 2959**
Guoqiang Liu, *Naval Univ. of Engineering*
Weiyi Chen, *Naval Univ. of Engineering*
Han Cheng, *Naval Univ. of Engineering*
Huadong Chen, *Naval Univ. of Engineering*
- SunCIS-39 Research on Control System of Quadrotor based on ADRC 2966**
Yani Xu, *Guangxi Univ. of Scie. & Tech.*
Wenguang Luo, *Guangxi Univ. of Scie. & Tech.*
Liang Zhang, *Guangxi Univ. of Scie. & Tech.*
- SunCIS-40 Continuous Passive TDOA Location Method Based on Multi-Flight-Vehicle Cooperation 2972**
Jie Zhang, *Beijing Inst. of Control and Electronics Tech.*
Dong Zhang, *Beijing Inst. of Control and Electronics Tech.*
Xue-mei Huang, *Beijing Inst. of Control and Electronics Tech.*
Xiao-rong Shi, *Beijing Inst. of Control and Electronics Tech.*

- SunCIS-41 Fuzzy control study on a transformer vibration isolation system 2977**
 Anxin Zou, *Electric Power Research Inst. of Chongqing Electric Power Company*
 Luwen Xu, *Electric Power Research Inst. of Chongqing Electric Power Company*
 Mi Zhu, *Chongqing Univ.*
 Song Qi, *Chongqing Univ.*
 Miao Yu, *Chongqing Univ.*
- SunCIS-42 Application of self-adaptive TDF-IMC in grinding classification process 2982**
 Lin Xu, *Northeastern Univ.*
 Shun-qing Ge, *Northeastern Univ.*
 Jing-yi Guo, *Northeastern Univ.*
- SunCIS-43 Classifying Algorithm for Watermarks Based on Mathematical Morphology 2985**
 Jie Meng, *Tianjin Vocational Inst.*
 Wen Zhang, *Tianjin Vocational Inst.*
 Conglong Ma, *Tianjin Vocational Inst.*

Session	SunD01:Robust Control (I)	
Venue	Room01	
Date/Time	15:50-17:50	
Chair	Shigang Wang, <i>Heilongjiang Univ.</i>	
Co-Chair	Yanyu Huang, <i>Zhejiang Univ. of Tech.</i>	
15:50-16:10	SunD01-1	Realization and Improvement Algorithm of GMM - UBM Model in Voiceprint Recognition 2989 Jing Zhang, <i>Guangdong Univ. of Foreign Studies</i>
16:10-16:30	SunD01-2	Miu-Synthesis Controller Design of the Transverse and Lateral Channels for High Angle of Attack Air-to-Air Missile 2993 Huannian Liao, <i>Shanghai Aerospace Control Tech. Inst.</i> Kewei Zhong, <i>Shanghai Aerospace Control Tech. Inst.</i> Saixian Ye, <i>Shanghai Aerospace Control Tech. Inst.</i> Guangshan Chen, <i>Shanghai Aerospace Control Tech. Inst.</i> Bin Xia, <i>Shanghai Aerospace Control Tech. Inst.</i>
16:30-16:50	SunD01-3	Stabilization for a class of neutral Markovian jump delayed systems with input saturation 2996 Bo Li, <i>Jiangsu Univ. of Tech.</i> Junjie Zhao, <i>Jiangsu Univ. of Tech.</i> Songlin Wo, <i>Jiangsu Univ. of Tech.</i>
16:50-17:10	SunD01-4	Observer-based additive H_{∞} control for a class of uncertain time-delay sampled-data system 3003 Shigang Wang, <i>Heilongjiang Univ.</i> Yongli Bi, <i>Heilongjiang Univ.</i> Xueliang Wang, <i>Heilongjiang Univ.</i> Jun Bi, <i>Harbin Univ. of Commerce</i>
17:10-17:30	SunD01-5	Control under Tracking and Weights: Parameterization of Stabilizing Controllers and H_{∞} Performance 3007 Yanyu Huang, <i>Zhejiang Univ. of Tech.</i> Yu Feng, <i>Zhejiang Univ. of Tech.</i>
17:30-17:50	SunD01-6	Research of Moving Target Detection and Tracking Based on Background Difference and CamShift 3014 Jun Xiao, <i>Northeastern Univ.</i> Xin Huang, <i>Shanghai Institute of Satellite Engineering</i>

Session	SunD02: Intelligent Building Control and Management (III) (Special Session)		
Venue	Room02		
Date/Time	15:50-17:35		
Chair	Yahui Wang , <i>Beijing Univ. of Civil Engi. and Arch.</i>		
15:50-16:05	SunD02-1	Impact of Perceived Value on Smart City Application 3020	
		Caixia Liu, <i>Linyi Univ.</i> Daosheng Li, <i>Linyi Univ.</i>	
16:05-16:20	SunD02-2	Design and Implementation of Smart Home Control System Based on STM32 3023	
		Xiaodong Zhang, <i>Henan Univ. of Tech.</i> Jie Zhang, <i>Henan Univ. of Tech.</i>	
16:20-16:35	SunD02-3	The Application of the New Three Theory in the Emergency Disposal of Outdoor Gas Leakage Events 3028	
		Ying Wang, <i>Beijing Univ. of Arch. & Civil Enge.</i> Yahui Wang, <i>Beijing Univ. of Arch. & Civil Enge.</i>	
16:35-16:50	SunD02-4	Emergency Response Gas Emergency Intelligent Auxiliary Information Terminal Software Development Based on The Android Operating System 3034	
		Lihui Xing, <i>Beijing Univ. of Arch. & Civil Enge.</i> Yahui Wang, <i>Beijing Univ. of Arch. & Civil Enge.</i>	
16:50-17:05	SunD02-5	Urban Multimodal Transportation System Simulation Modeling Considering Carbon Emissions 3040	
		Jingshu Wang, <i>Dalian Neusoft Univ. of Info.</i> Di Wu, <i>Dalian Neusoft Univ. of Info.</i> Xiaolong Wang, <i>Dalian Cyber Indu. Controls & Security Technologies</i>	
17:05-17:20	SunD02-6	Study on the Distribution Density of Commercial Facilities in the Main Urban Area of Shenyang Based on POI Data 3046	
		Yanhua Fu, <i>Northeastern Univ.</i> Xiqiong Shan, <i>Northeastern Univ.</i>	
17:20-17:35	SunD02-7	The Research on Construction of College Student Online Tour Guide Platform Base on Wisdom Tourism 3051	
		Mengying Zhou, <i>Shenyang Aerospace Univ.</i> Danhong Chen, <i>Shenyang Aerospace Univ.</i> Tianyu Yi, <i>Univ. of South Australia</i>	

Session	SunD04: Fractional Calculus and Fractional-order Systems (IV) (Special Session)		
Venue	Room04		
Date/Time	15:50-17:50		
Chair	Chaobo Chen , <i>Xian Tech. Univ.</i>		
Co-Chair	Chunyang Wang , <i>Changchun Univ. of Scie. and Tech.</i>		
15:50-16:10	SunD04-1	Boundary feedback stabilization for a time fractional-order wave equation 3055	
		Hongyan Deng, <i>Southwest Univ.</i> Zhongcheng Zhou, <i>Southwest Univ.</i>	
16:10-16:30	SunD04-2	Research on PEMFC Fractional Impedance Characteristic Modeling 3060	
		Changsen Xue, <i>Nanjing Univ. of Scie. & Tech.</i> Zhidong Qi, <i>Nanjing Univ. of Scie. & Tech.</i> Minqiang Xu, <i>Nanjing Univ. of Scie. & Tech.</i> Weiping Ge, <i>Nanjing Univ. of Scie. & Tech.</i>	

16:30-16:50	SunD04-3	Robust H_∞ Dynamic Output Feedback Control of Linear Time-Varying Periodic Fractional order Singular Systems 3066 Xuefeng Zhang, <i>Northeastern Univ.</i> Ming Xiao, <i>Northeastern Univ.</i> Peng Jiang, <i>Northeastern Univ.</i>
16:50-17:10	SunD04-4	Improvements and comments on "New admissibility conditions for singular linear continuous-time fractional-order systems" 3072 Xuefeng Zhang, <i>Northeastern Univ.</i>
17:10-17:30	SunD04-5	The hopf bifurcation analysis in a delayed fractional SIR epidemic model 3078 Feng Pan, <i>Northeastern Univ.</i> Xinshu Cui, <i>Northeastern Univ.</i> Dingyu Xue, <i>Northeastern Univ.</i> Lu Liu, <i>Northeastern Univ.</i>
17:30-17:50	SunD04-6	High-precision Analysis of Discrete-time Fractional-order Sliding Mode Control 3083 Zhian Kuang, <i>Harbin Inst. of Tech.</i> Xiangyu Shao, <i>Harbin Inst. of Tech.</i> Xiaolei Li, <i>Harbin Inst. of Tech.</i> Guanghui Sun, <i>Harbin Inst. of Tech.</i>

Session	SunD05:Identification and Estimation (I)	
Venue	Room05	
Date/Time	15:50-17:50	
Chair	Huajing Fang, <i>Huazhong Univ. of Scie. and Tech.</i>	
Co-Chair	Kang Yang, <i>Xi'an Tech. Univ.</i>	
15:50-16:10	SunD05-1	Fault Diagnosis Method for Stochastic Systems with Unknown Parameters 3088 Hengzhan Yang, <i>Xi'an Tech. Univ.</i> Kang Yang, <i>Xi'an Tech. Univ.</i> Fucai Qian, <i>Xi'an Univ. of Tech.</i>
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 Chengcheng Mao, *Shenyang Univ. of Tech.*
 Gang Wang, *Shenyang Univ. of Tech.*
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Date/Time	15:50-17:50
Chair	Shurong Li , <i>China Univ. of Petroleum</i>
Co-Chair	Chun Yin , <i>Univ. of Electronic Scie. and Tech. of China</i>

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 Binyang Hu, *Univ. of Electronic Scie. and Tech. of China*
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 Yuhua Cheng, *Univ. of Electronic Scie. and Tech. of China*
 Xuegang Huang, *China Aerodynamics Research & Development Center*

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 Pandeng Xu, *China Univ. of Petroleum*
 Shurong Li, *China Univ. of Petroleum, Beijing Univ. of Posts and Telecommunications*
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 Watcharapong Khovidhungij, *Chulalongkorn Univ.*

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Co-Chair	Yuncheng Wang , <i>Zheng Zhou Inst. of Information Scie. and Tech.</i>	
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Co-Chair	Leilei Chang , <i>High-tech Inst. of Xi'an</i>	
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Co-Chair	Zhifeng Gao , <i>Nanjing University of Posts and Telecommunications</i>

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Venue	Room10
Date/Time	15:50-17:50
Chair	Ting Qu, Jilin Univ.
Co-Chair	Yunsheng Fan, Dalian Maritime Univ.

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Yonghui Lu, *Huazhong University of Science and Tech.*
Jin Zhao, *Huazhong University of Science and Tech.*

Session	SunD11:Signal Processing (I)
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Co-Chair	Fangrong Wang, <i>Jilin Univ.</i>

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Yong Xie, *Hunan Univ. of Tech.*
Lin Liu, *Hunan Univ. of Tech.*
Kaili Wang, *Hunan Univ. of Tech.*

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Junkai Ma, *Naval Univ. of Engineering*
Hongbo Liu, *Naval Univ. of Engineering*

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Chen Shen, *Zhejiang Gongshang Univ.*
Jing Li, *Zhejiang Gongshang Univ.*
Wei Huang, *China Ship Development and Design Center*

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Nannan Zhao, *Univ. of Scie. and Tech. Liaoning*
Zhiwen Zhang, *Univ. of Scie. and Tech. Liaoning*
Xinyu Ouyang, *Univ. of Scie. and Tech. Liaoning*
Na Lv, *Research and Development, Julong Co., Ltd.*
Zihui Zang, *Univ. of Scie. and Tech. Liaoning*

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Dan Tian, *Shenyang Univ.*
Xiaodan Zhang, *Shenyang Univ. of Chemical Tech.*
Yu Ding, *Shenyang Univ.*

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Xinyu Yue, *Jilin Univ.*
Fangrong Wang, *Jilin Univ.*
Baicang Guo, *Jilin Univ.*
Pengzhi Xu, *Jilin Univ.*
Jian Shi, *Jilin Univ.*

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Chair	Yiran Ding , <i>Wuhan Univ. of Tech.</i>	
Co-Chair	Daqi Zhu , <i>Shanghai Maritime Univ.</i>	
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Chair	Zhenhao Tang , <i>Northeast Electric Power Univ.</i>	
Co-Chair	Qingyun Yuan , <i>Shenyang Agricultural Univ.</i>	

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Chair	Junxiang Li, <i>National Univ. of Defense Tech.</i>	
Co-Chair	Ning Li, <i>Shanghai Jiao Tong Univ.</i>	
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Chair	Hao Chen, <i>Tsinghua Univ.</i>	
Co-Chair	Yantao Tian, <i>Jilin Univ.</i>	
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	SunDIS-02	Simulation of Electromagnetic Field Based on Simplorer and Maxwell Software 3461 Yayun Zheng, <i>Univ. of Jinan</i> Fang He, <i>Univ. of Jinan</i> Qiang Wang, <i>Univ. of Jinan</i>
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	SunDIS-04	Improved face recognition based on the fusion of PCA feature extraction and sparse representation 3473 Jie Gao, <i>Beijing Univ. of Civil Engineering and Architecture</i> Liquan Zhang, <i>Beijing Univ. of Civil Engineering and Architecture</i>
	SunDIS-05	A Clustering-Plane Based Energy Optimization Method for Image Segmentation 3480 Xiaomin Xie, <i>Hohai Univ.</i> Tingting Wang, <i>Hohai Univ.</i> Bo Liu, <i>Hohai Univ.</i> Kui Li, <i>Hohai Univ.</i>
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- SunDIS-07 Frequency Characteristic Test of Electric Servo Mechanism Based on Multitone Signal 3491**
Hua-feng He, *Xi'an Research Inst. of Hi-tech*
You He, *Xi'an Research Inst. of Hi-tech*
Jia-qi Dai, *Xi'an Research Inst. of Hi-tech*
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Ruiyao Liu, *Wuhan Univ. of Scie. and Tech.*
Xiaoyong Bian, *Wuhan Univ. of Scie. and Tech.*
Yuxia Sheng, *Wuhan Univ. of Scie. and Tech.*
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Anshan Normal Univ.
Xiaosheng Yu, *Northeastern Univ.*
Chengdong Wu, *Northeastern Univ.*
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Yu Qin, *Wuhan Univ. of Scie. and Tech.*
Xiaoyong Bian, *Wuhan Univ. of Scie. and Tech.*
Yuxia Sheng, *Wuhan University of Scie. and Tech.*
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Hongli Liu, *Tianjin Univ. of Tech.*
Jian Song, *Tianjin Univ. of Tech.*
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Xiaoqi Chen, *Tianjin Univ. of Tech.*
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Yongwen Jin, *Shanghai Jiao Tong Univ.*
Zongfeng Qi, *State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System*
Jianxun Li, *Shanghai Jiao Tong Univ.*
- SunDIS-13 Unsupervised Depth Estimation Using Feature Matching Method 3525**
Jiangzhuo Wang, *Shanghai Jiao Tong Univ.*
Hongliang Chen, *Inst. of Electro-optical Equipment*
Jianxun Li, *Shanghai Jiao Tong Univ.*
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Meng Cai, *Luoyang Institute of Electro-optical Equipment*
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- SunDIS-17 A Method of Educational News Classification Based on Emotional Dictionary 3547**
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- SunDIS-18 Calibration of UR5 Manipulator based on Kinematic Models 3552**
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- SunDIS-23 The auxiliary controller design based on model-free control in the brain-machine interface 3578**
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- SunDIS-29 Design of Water Level Control System High Pressure Heater in Power Plant Based on Honeywell TPS 3612**
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- SunDIS-30 The Research and Application on Full-automatic Strapping Machine in Packing Technology of Entire-pallet Stack of Cigarette Product 3618**
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- SunDIS-31 Design of Automatic Feeding Control System in Tank Area Based on SIEMENS PLC 3622**
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- SunDIS-32 Design and implementation of an automatic handling system with Mechanical arm and intelligent vehicle 3628**
 JiaJun Zhou, *Shenyang Aerospace Univ.*
 LinLin Wang, *Shenyang Aerospace Univ.*
- SunDIS-33 Optimization of Warehouse Layout Based on Genetic Algorithm and Simulation Technique 3632**
 Changhong Pan, *Dalian Neusoft Univ. of Information.*
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 Xiaojing Du, *Dalian Neusoft Univ. of Information.*
- SunDIS-34 Solving a Fuzzy Flowshop Problem with a Self-adaptive DE Algorithm 3636**
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- SunDIS-35 Research on the Impact of Retailers' Online Channel on Supply Chain 3641**
 Hao Liu, *Dalian Maritime Univ.*
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- SunDIS-36 Research on Demand Forecasting of Retail Supply Chain Emergency Logistics Based on NRS-GA-SVM 3647**
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Yi Yuan, *Beijing Tech. and Business Univ.*
- SunDIS-37 Sequential introduction of quality-differentiated add-ons in advance bundling 3653**
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XueYan Zhao, *South China Univ. of Tech.*
- SunDIS-40 Research on Information Fusion Method for Mobile Electronic Commerce based on Improved Monte Carlo Algorithm under Big Data Environment 3671**
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Peng Zhang, *Dalian Jiaotong Univ. School.*
Qisong Zhang, *Dalian Neusoft Univ. of Information.*
- SunDIS-41 Face Recognition Algorithm Based on Cascading BGP Feature Fusion 3676**
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Haibin Xie, *National Univ. of Defence Tech.*
- SunDIS-42 An Agent-based Simulation Model to Analyze Journal Impact Factor 3681**
Zong-Yuan Tan, *Northwest Minzu Univ.*
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- SunDIS-43 An improved particle filter based on cuckoo search for visual tracking 3687**
Guixia Fu, *Shandong Univ. of Tech.*
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Lina Liu, *Shandong Univ. of Tech.*

Session	MonA01:Robust Control (II)	
Venue	Room01	
Date/Time	08:00-10:00	
Chair	Xinxin Liu, <i>Chongqing Univ.</i>	
Co-Chair	Xingjian Fu, <i>Beijing Info. Scie. and Tech. Univ.</i>	
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08:40-09:00	MonA01-3	Nonlinear Tracking Control for Quadrotor Aircraft with Disturbance Observer 3703 Shun-xiang Hou, <i>Zhejiang Coll. of Security Tech.</i> Xing-guo Zhang, <i>Nanchang Inst. of Scie. and Tech.</i>
09:00-09:20	MonA01-4	Homogeneous Polynomial Lyapunov Functional for Stability Analysis of Systems with Delays 3710 Xingwen Liu, <i>Southwest Minzu Univ.</i> Yaojun Liu, <i>Sichuan univ. Jincheng Coll.</i>
09:20-09:40	MonA01-5	Sliding Mode Observer-based Load Frequency Control of Multi-Area Power Systems under Delayed Inputs Attack 3716 Jian Li, <i>The First Research Inst. of the Ministry of Public Security</i> Xinxin Liu, <i>Chongqing Univ.</i> Xiaojie Su, <i>Chongqing Univ.</i>
09:40-10:00	MonA01-6	Robust Non-fragile H_∞ Control for Nonlinear Uncertain Discrete Systems with Time-delays in State and Input 3721 Xingjian Fu, <i>Beijing Info. Scie. and Tech. Univ.</i> Xinrui Pang, <i>Beijing Info. Scie. and Tech. Univ.</i> Yingchun Li, <i>Beijing Zongdngoc Automatic Tech.</i>

Session	MonA02:Variable Structure Control	
Venue	Room02	
Date/Time	08:00-10:00	
Chair	Hongwei Wang, <i>Northeastern Univ. at Qinhuangdao</i>	
Co-Chair	Jianguo Guo, <i>Northwestern Polytechnical Univ.</i>	
08:00-08:20	MonA02-1	Finite Time Control for Generic Hypersonic Vehicle 3727 Jianguo Guo, <i>Northwestern Polytechnical Univ.</i> Yifei Li, <i>Northwestern Polytechnical Univ.</i> Jun Zhou, <i>Northwestern Polytechnical Univ.</i>
08:20-08:40	MonA02-2	Multi-variable continuous higher-order sliding mode control for PMSM 3732 Shunxiang Hou, <i>Zhejiang Colle. of Security Tech.</i> Xingguo Zhang, <i>Nanchang Inst. of Scie. and Tech.</i>

08:40-09:00	MonA02-3	Trajectory Tracking Control for Airships Based on Command-filtered Slide Mode Control with Neural Network Approximation 3738 Wenjie Lou, <i>Beihang Univ.</i> Ming Zhu, <i>Beihang Univ.</i> Xiao Guo, <i>Beihang Univ.</i> Yangyang Song, <i>Beihang Univ.</i>
09:00-09:20	MonA02-4	An Improved Siding Mode Controller in PMSM Control System for Smoother Speed Response and Stronger Robustness 3744 Hong Zhao, <i>Dalian Maritime Univ.</i> Peng Luo, <i>Dalian Maritime Univ.</i> Ning Wang, <i>Dalian Maritime Univ.</i> Zhongjiu Zheng, <i>Dalian Maritime Univ.</i> Derun Zhao, <i>Dalian Maritime Univ.</i>
09:20-09:40	MonA02-5	Looper and Tension Control in Hot Rolling Mills: An Adaptive Sliding Mode Approach 3749 Hongwei Wang, <i>Northeastern Univ. at Qinhuangdao</i> Kesheng Zhang, <i>Northeastern Univ. at Qinhuangdao</i> Chi Yu, <i>Northeastern Univ. at Qinhuangdao</i>
09:40-10:00	MonA02-6	Global integral sliding mode control for ultra-low-altitude airdrop in extraction parachute failure state 3755 Yu-hao Mao, <i>Air Force Engi. Univ.</i> Wen-han Dong, <i>Air Force Engi. Univ.</i> Jia-hai Zhu, <i>Air Force Engi. Univ.</i> Ri Liu, <i>Air Force Harbin Flight Academy</i>

Session	MonA03:Optimal Control and Optimization (IV)	
Venue	Room03	
Date/Time	08:00-10:00	
Chair	BaoZhu Jia, <i>Dalian Maritime Univ.</i>	
Co-Chair	Rong Liang, <i>Xi'an Univ. of Scie. and Tech.</i>	
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08:20-08:40	MonA03-2	An improved differential evolution algorithm for artificial neural networks 3767 Wei Li, <i>Xi'an Univ. of Tech.</i> Lei Yu, <i>Xi'an Univ. of Tech.</i>
08:40-09:00	MonA03-3	An Energy-Efficient Operation Strategy for High-Speed Trains 3771 Zhiyu He, <i>China Academy of Railway Scie.</i> Zhijie Yang, <i>China Academy of Railway Scie.</i> Jingyang Lv, <i>Beijing Univ. of Posts and Telecommunications</i>
09:00-09:20	MonA03-4	Study on Optimizing Influence of Mooring Angle in Multi-point Mooring Positioning System 3777 Sen Han, <i>Dalian Maritime Univ.</i> BaoZhu Jia, <i>Dalian Maritime Univ.</i> YiMing Gu, <i>Dalian Maritime Univ.</i>

09:20-09:40	MonA03-5	Orbit Injection Control of Low Thrust Low Energy Moon Return via STK 3783 Yue Liu, <i>DFH Satellite Co. Ltd.</i> Yingjing Qian, <i>Beijing Univ. of Tech.</i> Wuxing Jing, <i>Harbin Inst. of Tech.</i>
09:40-10:00	MonA03-6	Coal Mine Gas Concentration Prediction Model Based on Selective Ensemble Learning 3789 Rong Liang, <i>Xi'an Univ. of Scie. and Tech.</i> Pengtao Jia, <i>Xi'an Univ. of Scie. and Tech.</i>

Session	MonA04:Complex Networks and Systems (II)
Venue	Room04
Date/Time	08:00-10:00
Chair	Dun Ao, <i>Beijing Univ. of Tech.</i>
Co-Chair	Dongyan, <i>Harbin Univ. of Scie. and Tech.</i>

08:00-08:20	MonA04-1	Credibility Evaluation of Hardware-in-the-Loop Simulation Systems 3794 Ke Fang, <i>Harbin Inst. of Tech.</i> Yuchen Zhou, <i>Harbin Inst. of Tech.</i> Ping Ma, <i>Harbin Inst. of Tech.</i> Ming Yang, <i>Harbin Inst. of Tech.</i>
08:20-08:40	MonA04-2	Resilient State Estimation for Complex Networks under Stochastic Communication Protocol 3800 Ning Yang, <i>Harbin Univ. of Scie. and Tech.</i> Dongyan Chen, <i>Harbin Univ. of Scie. and Tech.</i>
08:40-09:00	MonA04-3	Reduced-Order State Observers for Genetic Regulatory Networks with Time-Varying Delays 3806 Xiaofei Fan, <i>Northeastern Univ.</i> Xin Li, <i>Heilongjiang Univ.</i> Xian Zhang, <i>Heilongjiang Univ.</i> Shasha Xiao, <i>Heilongjiang Univ.</i>
09:00-09:20	MonA04-4	Research on Consensus Problems with Second-Order Sliding Mode Algorithm in Multi-agent Systems 3812 Xiaofang Zhang, <i>Changchun Univ. of Tech.</i> Niaona Zhang, <i>Changchun Univ. of Tech.</i> Xuanxuan Bao, <i>Changchun Univ. of Tech.</i>
09:20-09:40	MonA04-5	H_∞ Consensus for Multi-Agent Systems with Restricted Frequency-Domain Specifications 3818 Dun Ao, <i>Beijing Univ. of Tech.</i> Xueli Wang, <i>Beijing Univ. of Tech.</i>
09:40-10:00	MonA04-6	A Novel Epidemic Model Coupling the Infectious Disease with Awareness Diffusion on Multiplex Networks 3824 Chunyuan Zheng, <i>Tianjin Univ. of Tech.</i> Zhishuang Wang, <i>Tianjin Univ. of Tech.</i> Chengyi Xia, <i>Tianjin Univ. of Tech.</i>

Session	MonA05:Identification and Estimation (II)	
Venue	Room05	
Date/Time	08:00-10:00	
Chair	Liang Shan , <i>Nanjing Univ. of Scie. and Tech.</i>	
Co-Chair	Jianhua Xu , <i>Beijing Inst. of Tech.</i>	
08:00-08:20	MonA05-1	An Improved BFO Algorithm for Optimising the PID Parameters of Servo System 3831 Lu Liu, <i>Nanjing Univ. of Scie. and Tech.</i> Liang Shan, <i>Nanjing Univ. of Scie. and Tech.</i> Jianhu Yan, <i>Nanjing Univ. of Scie. and Tech.</i> Chenglin Liu, <i>Jiangnan Univ.</i> Yuewei Dai, <i>Nanjing Univ. of Scie. and Tech.</i>
08:20-08:40	MonA05-2	Visual-inertial Odometry Using Iterated Cubature Kalman Filter 3837 Jianhua Xu, <i>Beijing Inst. of Tech.</i> Huan Yu, <i>Beijing Inst. of Tech.</i> Rui Teng, <i>Beijing Inst. of Tech.</i>
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09:20-09:40	MonA05-5	Detection of Rotating Stall of Axial Compressors Based on Mixed Pattern Library 3853 Min Wang, <i>South China Univ. of Tech.</i> Zhiguang Chen, <i>South China Univ. of Tech.</i> Peng Lin, <i>South China Univ. of Tech.</i>
09:40-10:00	MonA05-6	Rotating Stall Detection of Axial Compressor Based on LabVIEW 3859 Min Wang, <i>South China Univ. of Tech.</i> Jiaming Ou, <i>South China Univ. of Tech.</i> Peng Lin, <i>South China Univ. of Tech.</i>

Session	MonA06:Networked Control Systems (I)	
Venue	Room06	
Date/Time	08:00-10:00	
Chair	Huajing Fang , <i>Huazhong Univ. of Scie. and Tech.</i>	
Co-Chair	Weiwei Yuan , <i>Army Engineering Univ. of PLA</i>	
08:00-08:20	MonA06-1	Research and Design of Precision Irrigation System Based on Artificial Neural Network 3865 Xuanrong Peng, <i>Guangdong Industry of Polytechnic South China Univ. of Tech.</i> Tingdong Ye, <i>Guangdong Industry of Polytechnic</i> Yuesheng Wang, <i>Guangdong Industry of Polytechnic</i>

08:20-08:40	MonA06-2	TOPSIS based Earth Station Marking Method 3871 Weiwei Yuan, <i>Army Engineering Univ. of PLA</i> Richu Liu, <i>Army Engineering Univ. of PLA</i> Yanqing Zhang, <i>Beijing Inst. of Remote Sensing Information</i> Yanbin Sun, <i>Ping Dingshan Univ.</i> Li Jiang, <i>PLA 61336 Army</i> Lianxin Cui, <i>PLA 61336 Army</i>
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09:00-09:20	MonA06-4	Consensus of Third-Order Multi-Agent Systems with Fixed Topology and Input Delay 3879 Huai Wu, <i>China Academy of Engineering Physics</i> Baoran An, <i>China Academy of Engineering Physics</i> Yahui Song, <i>China Academy of Engineering Physics</i>
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09:40-10:00	MonA06-6	Quantized H_∞ State Estimation for Networked Control Systems: a Hybrid-triggered Method 3890 Yushun Tan, <i>Southeast Univ.</i> <i>Nanjing Univ. of Finance and Economics</i> Menghui Xiong, <i>Nanjing Univ. of Finance and Economics</i>

Session	MonA07:Decision Supporting System and Production Planning and Scheduling	
Venue	Room07	
Date/Time	08:00-10:00	
Chair	Ye Wang , <i>Dongbei Univ. of Finance and Economics</i>	
Co-Chair	Yafei Li , <i>Northeastern Univ.</i>	
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08:40-09:00	MonA07-3	Multi-objective Optimal Load Distribution Based on Improved Gravitational Search Algorithm in Power Plants 3910 Le Wei, <i>North China Electric Power Univ.</i> Qilin Tian, <i>North China Electric Power Univ.</i>

09:00-09:20	MonA07-4	A modified CONWIP production control strategy for lamp production line 3916 Yanhong Wang, <i>Shenyang Univ. of Tech.</i> Junxia Huang, <i>Shenyang Univ. of Tech.</i> Yuanyuan Tan, <i>Shenyang Univ. of Tech.</i> Zhongda Tian, <i>Shenyang Univ. of Tech.</i> Jun Zhang, <i>Shenyang Univ. of Tech.</i>
09:20-09:40	MonA07-5	Multi-objective Optimization of Scrap Steel Electric Furnace SCC Scheduling Considering CO2 Emission and Minimization of Maximal Heat Waiting Time 3922 Ye Yang, <i>Southeast Univ.</i> Weida Chen, <i>Southeast Univ.</i> Li Wei, <i>Southeast Univ.</i>
09:40-10:00	MonA07-6	A Petri Net Based Model for a Cloud Healthcare System 3928 Yafei Li, <i>Northeastern Univ.</i> Yingying Li, <i>Northeastern Univ.</i> Na Wang, <i>Northeastern Univ.</i> <i>Shenyang Normal Univ.</i> Hongfeng Wang, <i>Northeastern Univ.</i>

Session	MonA08:Hybrid Systems (I)
Venue	Room08
Date/Time	08:00-10:00
Chair	Ben Niu, <i>Bohai Univ.</i>
Co-Chair	Ruimin Cao, <i>Northeastern Univ.</i>

08:00-08:20	MonA08-1	Adaptive Neural Tracking Control for Nonlinear Switched Systems with Dynamic Uncertainties 3932 Wanlu Zhou, <i>Bohai Univ.</i> Huan Li, <i>Bohai Univ.</i> Ben Niu, <i>Bohai Univ.</i>
08:20-08:40	MonA08-2	PFC and Fuzzy based PI controller for bidirectional DC/DC converter of Buck mode in HEV 3938 Kai Han, <i>Zhejiang Univ.</i> Jili Tao, <i>Zhejiang Univ.</i> Ridong Zhang, <i>Hangzhou Dianzi Univ.</i> Huiyu Zhou, <i>Univ. of Leicester</i>
08:40-09:00	MonA08-3	Sampled-data Control of Switched Nonlinear Systems via T-S Fuzzy Models 3944 Can Li, <i>Dalian Univ. of Tech.</i> Jie Lian, <i>Dalian Univ. of Tech.</i> Hongwei Wang, <i>Dalian Univ. of Tech.</i> <i>Xinjiang Univ.</i>
09:00-09:20	MonA08-4	Disturbance-observer-based control for Markovian jump systems with saturation nonlinearity 3950 Qian Gao, <i>Northeastern Univ.</i> Xianwen Gao, <i>Northeastern Univ.</i> Wenhai Qi, <i>Qufu Normal Univ.</i>
09:20-09:40	MonA08-5	Characteristic Analysis of Hybrid Stochastic Timed Petri Net 3955 Ruimin Cao, <i>Northeastern Univ.</i> Lina Hao, <i>Northeastern Univ.</i> Guoli Bai, <i>Northeastern Univ.</i> Qiang Gao, <i>Northeastern Univ.</i>

09:40-10:00 MonA08-6 Observer Design for Sporadic Measurements of Switched Linear Systems 3961
 Xu Cai, *Jiangnan Univ.*
 Xuyang Lou, *Jiangnan Univ.*

Session	MonA09:Fault Diagnosis and Fault-tolerant Control (VI)
Venue	Room09
Date/Time	08:00-10:00
Chair	Zhong Luo , <i>Northeastern Univ.</i>
Co-Chair	Po Hu , <i>Henan Univ.</i>

08:00-08:20 MonA09-1 RUL Prognostics Method Based on Real Time Updating of LSTM Parameters 3966
 Funa Zhou, *Henan Univ.*
 Po Hu, *Henan Univ.*
 Xiaohui Yang, *Henan Univ.*

08:20-08:40 MonA09-2 Fault Diagnosis Based on Deep Learning Subject to Missing Data 3972
 Weibo Liu, *Henan Univ.*
 Dan Wei, *Henan Univ.*
 Funa Zhou, *Henan Univ.*

08:40-09:00 MonA09-3 The NRSF-SVM based method for nonlinear rotor bearing fault diagnosis 3978
 Ying Ma, *Northeastern Univ.*
 Zhong Luo, *Northeastern Univ.*
 Haopeng Liu, *Northeastern Univ.*
 Yunpeng Zhu, *University of Sheffield*

09:00-09:20 MonA09-4 Fault-tolerant control for a saturated limited system with simultaneous faults 3984
 Cong Dai, *Air Force Engineering Univ.*
 Yong-zhi Liu, *Air Force Engineering Univ.*
 Hao-shui Sun, *Air Force Engineering Univ.*

09:20-09:40 MonA09-5 Neural Network-Based Fault Diagnosis Scheme for Satellite Attitude Control System 3990
 Sheng Gao, *Chinese Academy of Scie.*
 Wei Zhang, *Chinese Academy of Scie.*
 Xu He, *Chinese Academy of Scie.*
 Yunxia Cao, *Chinese Academy of Scie.*

09:40-10:00 MonA09-6 Robust Fault Tolerant Control for T-S Fuzzy Systems with Interval Time-Varying Delay 3996
 Fuqiang You, *Northeastern Univ.*
 Mingjian Li, *Northeastern Univ.*

Session	MonA10:Motion Control (II)	
Venue	Room10	
Date/Time	08:00-10:00	
Chair	Xin Huo , <i>Harbin Institute of Tech.</i>	
Co-Chair	Rui Zhang , <i>Naval University of Engineering</i>	
08:00-08:20	MonA10-1	Analysis of Maneuver Occupying Angle of Submarine Launching Anti-torpedo Torpedo 4002 Rui Zhang, <i>Naval University of Engineering</i> Zhiyong Yuan, <i>Naval University of Engineering</i> Limin Ye, <i>Naval University of Engineering</i> Zhongle Liu, <i>Naval University of Engineering</i> Chong Zhang, <i>Naval University of Engineering</i>
08:20-08:40	MonA10-2	Synchronous Controller Design of a Dual-axis Turntable Based on an Amended Reference Model 4008 Mengyu Wang, <i>Harbin Institute of Tech.</i> Xin Huo, <i>Harbin Institute of Tech.</i> Baoxiang Xing, <i>Harbin Institute of Tech.</i> Weijia Shi, <i>Harbin Institute of Tech.</i> Kaiyong Liao, <i>Shanghai Aerospace Control Technology Institute</i>
08:40-09:00	MonA10-3	Horizontal Positioning and Anti-swinging Control Tower Crane Using Adaptive Sliding Mode Control 4013 Wen Wen Bai, <i>Xian University of Tech.</i> Hai-Peng Ren, <i>Xian University of Tech.</i>
09:00-09:20	MonA10-4	On Estimation Algorithm of Angular Velocity for Servo Motors with Resolvers 4019 Liu Huan, <i>Beihang Univ.</i> Wu Zhong, <i>Beihang Univ.</i>
09:20-09:40	MonA10-5	Adaptive Backstepping Speed Control and Sliding Mode Current Regulation of Permanent Magnet Synchronous Motor 4025 Xiangcai Meng, <i>Qingdao Univ.</i> Haisheng Yu, <i>Qingdao Univ.</i> Xudong Liu, <i>Qingdao Univ.</i>
09:40-10:00	MonA10-6	DTC of Induction Motor Based on Adaptive Sliding Mode Control 4030 Ning Wang, <i>Qingdao Univ.</i> Haisheng Yu, <i>Qingdao Univ.</i> Xudong Liu, <i>Qingdao Univ.</i>

Session	MonA11:Signal Processing (II)	
Venue	Room11	
Date/Time	08:00-10:00	
Chair	Xuan Cheng , <i>Xidian Univ.</i>	
Co-Chair	Zhuojun Xu , <i>Jilin Univ.</i>	
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08:20-08:40	MonA11-2	Virtual Implementation of Radar Full Pulse Description Word for Battlefield Electromagnetic Environment 4040 Chunxu Li, <i>Jilin Univ.</i> Zhuojun Xu, <i>Jilin Univ.</i> Chengzhi Yang, <i>Aviation Univ. of Air Force</i> Hongchao Wu, <i>Aviation Univ. of Air Force</i> Yantao Tian, <i>Jilin Univ.</i>
08:40-09:00	MonA11-3	Multiple Group Target Tracking with Evolving Networks and Labeled Box Particle PHD Filter 4046 Xuan Cheng, <i>Xidian Univ.</i> Liping Song, <i>Xidian Univ.</i> Zhibin Zou, <i>Xidian Univ.</i>
09:00-09:20	MonA11-4	Planet Gear Fault Diagnosis Based on HVD and Envelope Time-domain Synchronous Average 4052 Yong Long, <i>Kunming Univ. of Scie. and Tech.</i> Yu Guo, <i>Kunming Univ. of Scie. and Tech.</i> Lei Zhao, <i>Kunming Univ. of Scie. and Tech.</i>
09:20-09:40	MonA11-5	A Wavelet Denoising Method Based on Improved Threshold and Autocorrelation 4058 Ying Qian, <i>North Minzu Univ.</i>
09:40-10:00	MonA11-6	Using Adaptive Multi-populations GA and GANN to Select Signal Features and Classify Signals 4064 Ting An, <i>Linyi Univ.</i> Nan Zhao, <i>Linyi Univ.</i>

Session	MonA12:Data Processing (VI)	
Venue	Room12	
Date/Time	08:00-10:00	
Chair	Qiang Ling, <i>Univ. of Scie. and Tech. of China</i>	
Co-Chair	Gaoqiang Hu, <i>Wuhan Univ. of Tech.</i>	
08:00-08:20	MonA12-1	Clustering and Discrimination Analysis of Telemetric Pulse Numbers of Inertial Navigation System 4070 Jinhua Fan, <i>Taiyuan Satellite Launch Center</i>
08:20-08:40	MonA12-2	MIMU/GPS Information Fusion: Normal Cloud Model Based Fuzzy Adaptive Filtering 4076 LinLin Xia, <i>Northeast Electric Power Univ.</i> Yao Zhao, <i>Northeast Electric Power Univ.</i> Wenjie Ma, <i>Northeast Electric Power Univ.</i> Chenxi Su, <i>Northeast Electric Power Univ.</i> Fadong Huang, <i>Northeast Electric Power Univ.</i>
08:40-09:00	MonA12-3	Network Log Analysis based on the Topic Word Mover's Distance 4082 Renai Chen, <i>Univ. of Scie. and Tech. of China</i> Qing Gao, <i>Weichai Power Co., Ltd., Hebei Univ. of Tech.</i> Weiliang Ji, <i>Univ. of Scie. and Tech. of China</i> Fei Long, <i>Chinaso Inc</i> Qiang Ling, <i>Univ. of Scie. and Tech. of China</i>

09:00-09:20	MonA12-4	A CNN-based Network Failure Prediction Method with Logs 4087 Weiliang Ji, <i>Univ. of Scie. and Tech. of China</i> Shihui Duan, <i>China Academy of Information and Communications Tech. of MIIT</i> Renai Chen, <i>Univ. of Scie. and Tech. of China</i> Song Wang, <i>Univ. of Scie. and Tech. of China</i> Qiang Ling, <i>Univ. of Scie. and Tech. of China</i>
09:20-09:40	MonA12-5	Empirical Analysis on the Impact of Innovation and Entrepreneurship on Economic Development in Heilongjiang Province, P.R.China 4091 Wei Wang, <i>Harbin Univ. of Commerce</i> Jiankang Yang, <i>Harbin Univ. of Commerce</i> Jieting Li, <i>Harbin Univ. of Commerce</i>
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Session	MonA13:Factory Modeling and Simulation (II)	
Venue	Room13	
Date/Time	08:00-10:00	
Chair	Xiaohua Li, <i>Univ. of Science and Tech. Liaoning.</i>	
Co-Chair	Yongling Li, <i>State Grid Jibei Electric Power Co. Ltd. Skill Training Center.</i>	
08:00-08:20	MonA13-1	Temperature Optimization Setting Model of the Reheating Furnace on 1700 Line in Tangsteel 4099 Aoxiang Wang, <i>Univ. of Science and Tech. Liaoning.</i> Xiaohua Li, <i>Univ. of Science and Tech. Liaoning.</i> Xiaolin Wang, <i>Univ. of Science and Tech. Liaoning.</i>
08:20-08:40	MonA13-2	Research on Double Frequency Signal Single-phase Grounding Fault Location Technology Based on Low Excitation Impedance Transformer Grounding Device 4104 Chuanzong Zhao, <i>State Grid Liaoning Electronic Power Supply Co. Ltd.</i> Wanchao Jiang, <i>State Grid Liaoning Electronic Power Supply Co. Ltd.</i> Jinglong Mu, <i>State Grid Liaoning Electronic Power Supply Co. Ltd.</i> Yujie Pei, <i>State Grid Liaoning Electronic Power Supply Co. Ltd.</i> Yu Nie, <i>State Grid Liaoning Electronic Power Supply Co. Ltd.</i> Ju Zhang, <i>State Grid Liaoning Electronic Power Supply Co. Ltd.</i> Ying Wang, <i>State Grid Liaoning Electronic Power Supply Co. Ltd.</i> Kaishun Niu, <i>State Grid Liaoning Electronic Power Supply Co. Ltd.</i>

08:40-09:00	MonA13-3	Research on Rapid Modeling Method and Simulation Platform of the Gas-Steam Combined Cycle System 4109 Tong Xu, <i>State Power Economic and Technological Research Institute Co., Ltd.</i> Yang Hou, <i>Beijing Inst. of Tech.</i> Xueqin Tian, <i>State Power Economic and Technological Research Institute Co., Ltd.</i> Senchun Chai, <i>Beijing Inst. of Tech.</i> Chongming Song, <i>State Power Economic and Technological Research Institute Co., Ltd.</i> Jiasong Luo, <i>State Power Economic and Technological Research Institute Co., Ltd.</i> Yujie Guo, <i>State Power Economic and Technological Research Institute Co., Ltd.</i> Xinlei Wang, <i>State Power Economic and Technological Research Institute Co., Ltd.</i>
09:00-09:20	MonA13-4	Two-Phase Flow Mechanism Model and Dynamic Simulation of Steam Generator in Nuclear Power Plant 4115 Yongling Li, <i>State Grid Jibei Electric Power Co. Ltd. Skill Training Center.</i> Lihui Zhao, <i>North China Electric Power Univ.</i> Shujun Ma, <i>Huahai Engineering Co. Ltd of Crec ShangHai.</i>
09:20-09:40	MonA13-5	Modeling of Avionic Display System for Civil Aircraft Based on AADL 4121 Zhen Zhao, <i>Civil Aviation Univ. of China.</i> Jun Zhang, <i>Civil Aviation Univ. of China.</i> Yigang Sun, <i>Civil Aviation Univ. of China.</i> Zhexu Liu, <i>Civil Aviation Univ. of China.</i>
09:40-10:00	MonA13-6	Modeling and Delay Compensation for On-Line Control System of Fabric Weight 4127 Pengxing Wang, <i>Huaqiao Univ.</i> Ping Li, <i>Huaqiao Univ.</i>

Session	MonA14:Mobile Robotics (II)	
Venue	Room14	
Date/Time	08:00-10:00	
Chair	Chengguo Zong , <i>Qingdao Univ.</i>	
Co-Chair	Hao Qin , <i>Chongqing Univ.</i>	
08:00-08:20	MonA14-1	Adsorption Structure Analysis of Photovoltaic Cleaning Robot Based on Negative Pressure Adsorption 4133 Lei Shao, <i>Tianjin Univ. of Tech.</i> Yudong Xing, <i>Tianjin Univ. of Tech.</i> Ji Li, <i>Tianjin Univ. of Tech.</i> Hongli Liu, <i>Tianjin Univ. of Tech.</i> Xiaoqi Chen, <i>Tianjin Univ. of Tech.</i>
08:20-08:40	MonA14-2	Chinese Speech Recognition and Task Analysis of Aldebaran Nao Robot 4138 Yuanyuan Han, <i>Northeast Normal Univ.</i> Mengyu Zhang, <i>Northeast Normal Univ.</i> Qiao Li, <i>Northeast Normal Univ.</i> Shuhua Liu, <i>Northeast Normal Univ.</i>

08:40-09:00	MonA14-3	Speech Emotion Recognition Based on Convolution Neural Network combined with Random Forest 4143 Li Zheng, <i>Northeast Normal Univ.</i> Qiao Li, <i>Northeast Normal Univ.</i> Hua Ban, <i>Northeast Normal Univ.</i> Shuhua Liu, <i>Northeast Normal Univ.</i>
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09:40-10:00	MonA14-6	Local Logic Optimization Algorithm for Autonomous Mobile Robot Based on Fuzzy Logic 4160 Fei Xu, <i>Xi'an Technological Univ.</i> ShaoChang Wang, <i>Xi'an Technological Univ.</i> WeiXia Yang, <i>Xi'an Technological Univ.</i>

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Venue	Room15	
Date/Time	08:00-10:00	
Chair	Jun Yang , <i>Northeastern Univ.</i>	
Co-Chair	Huajun Zhang , <i>Shanghai Univ.</i>	
08:00-08:20	MonA15-1	Research on New Algorithm of Droop Control 4166 Xiaofei Xue, <i>Beijing Information Science & Tech. Univ.</i> Hong Li, <i>Beijing Information Science & Tech. Univ.</i> Zhipeng Lv, <i>China Electric Power Research Inst.</i>
08:20-08:40	MonA15-2	The Research on Control Strategy of Cascade STATCOM 4171 Dejin Liu, <i>Beihua Univ.</i> Liming Bai, <i>Beihua Univ.</i> Wenqi Li, <i>Beihua Univ.</i> Laiyong Zhang, <i>Beihua Univ.</i>
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09:00-09:20	MonA15-4	Research Review on Control Strategies of Energy Storage Inverter 4182 Xuesong Zhou, <i>Key Research Laboratory for Control Theory & Applications in Complicated Systems</i> Zhihao Fan, <i>Key Research Laboratory for Control Theory & Applications in Complicated Systems</i> Youjie Ma, <i>Key Research Laboratory for Control Theory & Applications in Complicated Systems</i> Zhiqiang Gao, <i>Key Research Laboratory for Control Theory & Applications in Complicated Systems</i> Xudong Zhang, <i>State Grid Hebei Electric Power</i> Jingping Zhang, <i>State Grid Hebei Electric Power</i>
09:20-09:40	MonA15-5	Equilibrium Models of Electricity Market Considering Wind Power Producer and Electric Vehicle Aggregator 4188 Huajun Zhang, <i>Shanghai Univ.</i> Xian Wang, <i>Shanghai Univ.</i> Shaohua Zhang, <i>Shanghai Univ.</i>
09:40-10:00	MonA15-6	Equilibrium Analysis of Electricity Market with Microgrids Bidding 4194 Ying Zhang, <i>Shanghai Key Laboratory of Power Station Automation Tech.</i> Xian Wang, <i>Shanghai Key Laboratory of Power Station Automation Tech.</i> Shaohua Zhang, <i>Shanghai Key Laboratory of Power Station Automation Tech.</i>

Session	MonA16:Renewable Energies (I)	
Venue	Room16	
Date/Time	08:00-10:00	
Chair	Haikun Wei, <i>Southeast Univ.</i>	
Co-Chair	Mudan Li, <i>North China Electric Power Univ. Science & Tech. College</i>	
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08:20-08:40	MonA16-2	A Tree-based Clear Sky Model for DNI Forecasting 4206 Yu Shen, <i>Southeast Univ.</i> Haikun Wei, <i>Southeast Univ.</i> Xin Zhao, <i>Southeast Univ.</i> Tingting Zhu, <i>Southeast Univ.</i> Kanjian Zhang, <i>Southeast Univ.</i>
08:40-09:00	MonA16-3	Improved Additional Inertia Control of Frequency for D-PMSG Wind Turbine 4212 Mudan Li, <i>North China Electric Power Univ. Science & Tech. College</i> Yinsong Wang, <i>North China Electric Power Univ.</i> Shuang Liu, <i>North China Electric Power Univ.</i>
09:00-09:20	MonA16-4	Power System Transient Stability with Aggregated and Dispersed Penetration of Hybrid Distributed Generation 4217 Ujjwal Datta, <i>Victoria Univ.</i> Akhtar Kalam, <i>Victoria Univ.</i> Juan Shi, <i>Victoria Univ.</i>

09:20-09:40	MonA16-5	Simulation Research on Improved Perturbation and Observation Method Based on Variable Step Size 4223 Jianbo Chen, <i>Nantong Univ.</i> Yi Yang, <i>Nantong Univ.</i> Tianxiang Mei, <i>Nantong Univ.</i> Guihong Zhang, <i>Nantong Univ.</i> Yuanpei Yang, <i>Nantong Univ.</i> Jianshan Wang, <i>Nantong Univ.</i> Haiqin Gu, <i>Nantong Univ.</i> Shuxian Huang, <i>Nantong Univ.</i>
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Session	MonAIS:Interactive Session
Venue	Room17
Date/Time	08:00-10:00

MonAIS-01	Simulation Training System of Marine Auxiliary Boiler and Its Application 4236 Fucheng Ai, <i>Dalian Maritime Univ.</i> Jian-bo Sun, <i>Dalian Maritime Univ.</i>
MonAIS-02	Modeling and Analysis of Material Layer Thickness in Slag Powder Process 4241 Shiqi Shen, <i>Beijing Univ. of Tech.</i> Xiaoli Li, <i>Beijing Univ. of Tech.</i> Yang Li, <i>Communication Univ. of China.</i> Jie Gao, <i>Beijing Univ. of Tech.</i>
MonAIS-03	Research on Thermal Deformation Modeling of High Speed Motorized Spindle Based on PLS 4247 Liting Fan, <i>Shenyang Jianzhu Univ.</i> Xiaorui Jing, <i>Shenyang Jianzhu Univ.</i> Jiakai Chen, <i>Shenyang Jianzhu Univ.</i> Ke Zhang, <i>Shenyang Jianzhu Univ.</i> Dong Li, <i>Shenyang Jianzhu Univ.</i> Huaitao Shi, <i>China Airborne Missile Academy.</i>
MonAIS-04	A Matlab-Based Digital-Physical Hybrid Real-time Simulation Platform for Power System 4253 Xinyun Feng, <i>Xi'an Jiao Tong Univ.</i> Tian Yan, <i>National Key Laboratory of Science and Technology on Fuse and Dynamic Characteristics</i> Aimin Zhang, <i>Xi'an Jiao Tong Univ.</i> Hang Zhang, <i>Xi'an Jiao Tong Univ.</i> Huan Liu, <i>Xi'an Jiao Tong Univ.</i> XiuLing Wei, <i>Xi'an Si Yuan Univ.</i>
MonAIS-05	Design of Smart Home Environment Monitoring System Based on Raspberry Pi 4259 Xinlong Wen, <i>Tianjin Univ. of Tech.</i> Yunliang Wang, <i>Tianjin Univ. of Tech.</i>

- MonAIS-06 Maximal relevance feature selection for human activity recognition in smart home 4264**
 Pei Tang, *Hohai Univ.*
 Hongqing Fang, *Hohai Univ.*
 Hao Si, *Hohai Univ.*
- MonAIS-07 A New Family Monitoring Alarm System Based on Improved YOLO Network 4269**
 Chengtao Cai, *Harbin Engineering Univ.*
 Boyu Wang, *Harbin Engineering Univ.*
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- MonAIS-08 Development and Design of Virtual Experiment System Based on 3dsMax and Virtools Technology 4275**
 Chunjie Li, *Bohai Univ.*
 Jiapei Li, *Bohai Univ.*
Dalian Univ. of Tech.
- MonAIS-09 Fast Access for ZigBee-enabled IoT Devices Using Raspberry Pi 4281**
 Ming Tao, *Dongguan Univ. of Tech.*
 Xiaoyu Hong, *Dongguan Univ. of Tech.*
 Chao Qu, *Dongguan Univ. of Tech.*
 Jie Zhang, *Dongguan Univ. of Tech.*
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 Yiwei Feng, *LanZhou Univ. of Tech.*
 Yuanbo Yang, *LanZhou Univ. of Tech.*
- MonAIS-11 Research on DSDV Routing Protocol Based on Wireless Mesh Network 4292**
 Fengjie Yin, *Liaoning Univ.*
 Hui Yang, *Liaoning Univ.*
 Ying Zhang, *Liaoning Univ.*
- MonAIS-12 On Optimization Technology in 4G System 4298**
 Jin Jin, *Northwest Minzu Univ.*
 Chen Diao, *Northwest Minzu Univ.*
 Ning Cai, *Northwest Minzu Univ.*
- MonAIS-13 Stability for NCSs with T-S fuzzy systems and interval time-varying 4303**
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- MonAIS-14 Design of conformance verification system for intelligent substation configuration file 4307**
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 Zhenhong Yan, *State Grid Liaoning Electric Power Co., Ltd. Electric Power Research Inst.*
 Tongwei Yu, *State Grid Liaoning Electric Power Co., Ltd. Electric Power Research Inst.*
- MonAIS-15 Flow-shop Deteriorating Scheduling Problem via A Hybrid Chemical Reaction Optimization Algorithm 4311**
 Lili Chen, *Liaoning JianZhu Vocational Coll.*
 Yaping Fu, *Qingdao Univ.*

- MonAIS-16 Research on the Control Strategy of Phase-Change Heat Storage Station with Automatic Generation System in Power Network Peak Regulation and Frequency Modulation 4315**
 Qingqi Zhao, *State Grid Liaoning Electric Power Supply Co.LTD.*
 Yongbo Li, *Northeastern Univ.*
 Hongyu Zhang, *State Grid Liaoning Electric Power Supply Co.LTD.*
 Tingxu Gao, *Northeastern Univ.*
 Yi Yang, *State Grid Liaoning Electric Power Supply Co.LTD.*
 Wen Zheng, *Baicheng Power Supply Company, Jilin Provincial Power Grid Corp.*
- MonAIS-17 Study on Integrated Scheduling Model of CHP including Wind Power, Electric Boiler and Phase Change Thermal Storage Station 4321**
 Jun Li, *NARI Group Corporation/State Grid Electric Power Research Inst.*
 Tingxu Gao, *Northeastern Univ.*
 Song Guo, *NARI Group Corporation/State Grid Electric Power Research Inst.*
 Qingqi Zhao, *State Grid Liaoning Electric Power Supply Co.LTD.*
 Pengpai Feng, *NARI Group Corporation/State Grid Electric Power Research Inst.*
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 Yeguang Peng, *Changchun Univ. of Science and Tech.*
 Hongwei Shi, *Changchun Univ. of Science and Tech.*
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 Xu Liu, *Changchun Univ. of Science and Tech.*
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- MonAIS-21 Prevent Twisting Wire Rope Inspection Based on Neural Network 4341**
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 Tao Liu, *Liaoning Power Transmission and Transformation Engineering Company.*
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 Ning Liu, *Beijing Information Science & Technological Univ.*
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 Qing Li, *Beijing Information Science & Technological Univ.*

- MonAIS-23 Research of MIMU/GPS Integrated Navigation Based on Improved Kalman Filter 4350**
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 Bin Shan, *Xi'an High-Tech Research Inst.*
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 Honglei Teng, *Xi'an High-Tech Research Inst.*
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 Ding Wang, *Beijing Inst. of spaceflight control instruments.*
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 Yongxian Liu, *Northeastern Univ.*
 Hualong Xie, *Northeastern Univ.*
 Peng Tian, *Northeastern Univ.*
- MonAIS-26 Design and FE Simulation of a Novel Electromagnetic Blank Holder System in Sheet Metal Drawing Process 4366**
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 Qiang Wang, *Univ. of Jinan.*
 Fang He, *Univ. of Jinan.*
- MonAIS-27 Fault detection for semiconductor quality control based on Spark using data mining technology 4372**
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 Junguo Lu, *Shanghai Jiao Tong Univ.*
 Kihyeon Yun, *Department of Quality Team, Samsung Electronics Co., Ltd., Asan-City.*
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 Xiaofu Du, *Northeastern Univ.*
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 Huilin Liu, *Northeastern Univ.*
- MonAIS-29 Development of Automated Mast Hoisting Equipment 4383**
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- MonAIS-30 Research on the Dynamic Target Distribution Path Planning in Logistics System Based on Improved Artificial Potential Field Method-Fish Swarm Algorithm 4388**
 Tingbin Chen, *Dalian Neusoft Univ. of Information.*
 Peng Zhang, *Dalian Jiaotong Univ. School.*
 Shuang Gao, *Dalian Neusoft Univ. of Information.*
 Qisong Zhang, *Dalian Neusoft Univ. of Information.*

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 Haisheng Yu, *Qingdao Univ.*
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 Bingkun Zhao, *Qingdao Univ.*
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 Rongzhao Gao, *High Speed Aerodynamics Institute, CARD C.*
 Xuhui Huang, *High Speed Aerodynamics Institute, CARD C.*
 Ping Li, *High Speed Aerodynamics Institute, CARD C.*
 Zhengyu Zhang, *High Speed Aerodynamics Institute, CARD C.*
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 Bingkun Zhao, *Qingdao Univ.*
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- MonAIS-34 Locomotion Control of Quadruped Robot Based on Central Pattern Generators 4409**
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 Hongwei Mo, *Harbin Engineering Univ.*
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 Linlin Qin, *Univ. of Science and Tech.of China.*
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 Qing Ling, *Sun Yat-Sen Univ.*
- MonAIS-37 Based on Bridge Detection UAV's Path Planning and Analysis of Wind Field under Bridge Based on Bridge Detection 4425**
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 Hongwei Mo, *Harbin Engineering Univ.*
 Chaomin Luo, *Univ. of Detroit Mercy.*
- MonAIS-38 Robust Attitude Control for Quadrotor UAV System with Two Kinds of Disturbances 4431**
 Ning Cao, *Nanjing Univ. of Posts and Telecommunications.*
 Yingjiang Zhou, *Nanjing Univ. of Posts and Telecommunications.*
 Guoping Jiang, *Nanjing Univ. of Posts and Telecommunications.*
 Fan Zhou, *Nanjing Univ. of Posts and Telecommunications.*

- MonAIS-39 Nonlinear Dynamic and Effect Parameters Analysis for Extension Pneumatic Muscle 4437**
 Zhiyuan Zhang, *Tsinghua Univ.*
 Xueqian Wang, *Tsinghua Univ.*
 Houde Liu, *Tsinghua Univ.*
 Songtao Wang, *Tsinghua Univ.*
 Bin Liang, *Tsinghua Univ.*
- MonAIS-40 Mobile Sink Path Planning Research for Underwater Heterogeneous Sensor Network 4443**
 Yifan Hu, *Qilu Univ. of Tech.*
 Yi Zheng, *Qilu Univ. of Tech.*
 Hailin Liu, *Qilu Univ. of Tech.*
 Zhen Wang, *Qilu Univ. of Tech.*
 Yufeng Mao, *Qilu Univ. of Tech.*
 Hua Han, *Shanghai Univ. of Engineering Science.*
- MonAIS-41 Improved Target Tracking Algorithm Based on Camshift 4449**
 Chunbo Xiu, *Tianjin polytechnic Univ.*
 Xuemiao Su, *Tianjin polytechnic Univ.*
 Xiaonan Pan, *Tianjin polytechnic Univ.*
- MonAIS-42 Target Tracking Based on the Feature Fusion 4455**
 Xinyu Zhang, *Tianjin polytechnic Univ.*
 Tianjin Special Equipment Inspection Inst.
 Chunbo Xiu, *Tianjin polytechnic Univ.*
 Xiaopeng Wang, *Tianjin polytechnic Univ.*
- MonAIS-43 Monocular Dense Reconstruction by Depth Estimation Fusion 4460**
 Tian Chen, *Univ. of Chinese Academy of Sciences.*
 Wendong Ding, *Univ. of Chinese Academy of Sciences.*
 Dapeng Zhang, *Univ. of Chinese Academy of Sciences.*
 Xilong Liu, *Univ. of Chinese Academy of Sciences.*

Session	MonB01:Robust Control (III)
Venue	Room01
Date/Time	10:20-12:20
Chair	Guangbin Cai , <i>Xi'an High Tech. Research Inst.</i>
Co-Chair	Binbin Shen , <i>Tianjin Univ. of Polytechnic</i>

- 10:20-10:40 MonB01-1 LPV Model Reference Control Method for Hypersonic Vehicle Control System 4466**
 Yang Zhao, *Xi'an High Tech. Research Inst.*
 Guang-bin Cai, *Xi'an High Tech. Research Inst.*
 Sheng-xiu Zhang, *School of Astronautics Northwestern Polytechnical Univ.*
- 10:40-11:00 MonB01-2 Wirtinger's inequality is applied to event-driven output control of networked control systems with H1 performance 4472**
 Binbin Shen, *Tianjin Univ. of Polytechnic*
 Liankun Sun, *Tianjin Univ. of Polytechnic*
 Zhanshan Zhao, *Tianjin Key Laboratory of Optoelectronic Detection Tech. and System*

11:00-11:20	MonB01-3	Research progress of applying digital watermarking Tech. for printing 4479 Wen Zhang, <i>Tianjin Vocational Inst.</i> Jie Meng, <i>Tianjin Vocational Inst.</i> Conglong Ma, <i>Tianjin Vocational Inst.</i>
11:20-11:40	MonB01-4	Event Based Robust Consensus for Multi-Agent Systems via Sliding-Mode Control 4483 Kun Li, <i>Nanjing Univ. of Info. Scie. and Tech.</i> Bo-Chao Zheng, <i>Nanjing Univ. of Info. Scie. and Tech.</i> Ju H. Park, <i>Yeungnam Univ.</i>
11:40-12:00	MonB01-5	A Weighting Function Design Method for the H-infinity Loop-shaping Design Procedure 4489 Lihui Geng, <i>Tianjin Univ. of Tech. and Education</i> Zhicheng Yang, <i>Tianjin Univ. of Tech. and Education</i> Yongli Zhang, <i>Tianjin Univ. of Tech. and Education</i>
12:00-12:20	MonB01-6	Observer-based Output-feedback Control for Uncertain Linear Systems with Event-triggered 4494 Chuanbao Dong, <i>Anhui Univ.</i> Yuan Fan, <i>Anhui Univ.</i> Cheng Song, <i>Nanjing Univ. of Scie. and Tech.</i>

Session	MonB02:Optimal Control and Optimization (V)	
Venue	Room02	
Date/Time	10:20-12:20	
Chair	Defeng He, <i>Zhejiang Univ. of Tech.</i>	
Co-Chair	Xiaoping Xu, <i>Xi'an Univ. of Tech.</i>	
10:20-10:40	MonB02-1	Different-Level Dynamic Quadratic Minimization Using Square Root Matrix Based Zhang Equivalency 4499 Min Yang, <i>Sun Yat-sen Univ.</i> Huanchang Huang, <i>Sun Yat-sen Univ.</i> Jian Li, <i>Sun Yat-sen Univ.</i> Haifeng Hu, <i>Sun Yat-sen Univ.</i> Yunong Zhang, <i>Sun Yat-sen Univ.</i>
10:40-11:00	MonB02-2	Output Tracking of Time-Varying Linear and Nonlinear Systems Using ZN and ZG Controllers with Pseudo Division-by-Zero Phenomena Shown 4505 Jinjin Guo, <i>Sun Yat-sen Univ.</i> Xuyun Yang, <i>Sun Yat-sen Univ.</i> Yunong Zhang, <i>Sun Yat-sen Univ.</i> Jian Li, <i>Sun Yat-sen Univ.</i> Min Yang, <i>Sun Yat-sen Univ.</i>
11:00-11:20	MonB02-3	Optimal Control Problem of Boolean Control Networks: A Graph-theoretical Approach 4511 Xingbang Cui, <i>Shandong Univ.</i> Jun-e Feng, <i>Shandong Univ.</i> Sen Wang, <i>Shandong Univ.</i>

11:20-11:40	MonB02-4	Lexicographic NMPC Algorithms with Changing Criteria Prioritization 4517 Defeng He, <i>Zhejiang Univ. of Tech.</i> Liangye Lu, <i>Zhejiang Univ. of Tech.</i> Xiulan Song, <i>Zhejiang Univ. of Tech.</i>
11:40-12:00	MonB02-5	Micro Variation Chaos Genetic Algorithm 4523 Wei Pan, <i>Army Artillery and Air Defense Forces Academy</i> Mingming Yan, <i>Army Artillery and Air Defense Forces Academy</i> Yuejun Tan, <i>Army Artillery and Air Defense Forces Academy</i> Huixiang Xie, <i>Army Artillery and Air Defense Forces Academy</i>
12:00-12:20	MonB02-6	A Kind of Improved Monkey Algorithm 4529 Xiaoping Xu, <i>Xi'an Univ. of Tech.</i> Shan Zhang, <i>Xi'an Univ. of Tech.</i> Fucui Qian, <i>Xi'an Univ. of Tech.</i> Long Liu, <i>Xi'an Univ. of Tech.</i> Bin Wang, <i>Xi'an Univ. of Tech.</i> Kangkang Jing, <i>Xi'an Univ. of Tech.</i> Xiya Zhang, <i>Xi'an Univ. of Tech.</i>

Session	MonB03:Optimal Control and Optimization (VI)
Venue	Room03
Date/Time	10:20-12:20
Chair	Junchang Zhai , <i>Bohai Univ.</i>
Co-Chair	Chunguang Chang , <i>Shenyang Jianzhu Univ.</i>

10:20-10:40	MonB03-1	Improved Novel Global Harmony Search Optimization for Robust Pole Assignment in Descriptor Systems 4533 Junchang Zhai, <i>Bohai Univ.</i> Liqun Gao, <i>Bohai Univ.</i>
10:40-11:00	MonB03-2	A Research on Strategy of Plume Impingement De-Tumbling Tech. 4539 Yuqi Liu, <i>China Academy of Space Tech.</i> Yi Pan, <i>China Academy of Space Tech.</i> Qiang Li, <i>China Academy of Space Tech.</i>
11:00-11:20	MonB03-3	Successive Approximation Optimal Control for a Class of Chaotic Systems 4545 Yurou Wen, <i>Jiangnan Univ.</i> Xuyang Lou, <i>Jiangnan Univ.</i>
11:20-11:40	MonB03-4	Research on Fleet Deployment for Liners under Low-carbon Economy Based on Simulation Optimization Method 4550 Shaozheng Yu, <i>Dalian Neusoft Univ. of Info.</i> Dongshi Sun, <i>Dalian Neusoft Univ. of Info.</i> Xinyu Wang, <i>Dalian Neusoft Univ. of Info.</i> Yaxin Wang, <i>Dalian Neusoft Univ. of Info.</i>
11:40-12:00	MonB03-5	A Particle Swarm Optimization Algorithm with Time Varying Parameters 4555 Zhen Hu, <i>Jiangsu Normal Univ.</i> Dexuan Zou, <i>Jiangsu Normal Univ.</i> Zhi Kong, <i>Northeastern Univ. at Qinhuangdao</i> Xin Shen, <i>Jiangsu Normal Univ.</i>

12:00-12:20 **MonB03-6** **Two level optimization model of construction safety for prefabricated construction and its artificial immune algorithm** 4562
 Chunguang Chang, *Shenyang Jianzhu Univ.*
 Jiayuan Wang, *Shenyang Jianzhu Univ.*

Session	MonB04:Complex Networks and Systems (III)
Venue	Room04
Date/Time	10:20-12:20
Chair	Dongmei Xie , <i>Tianjin Univ.</i>
Co-Chair	Dun Ao , <i>Beijing Univ. of Tech.</i>

10:40-11:00 **MonB04-2** **Operation Loop Based Optimization Model for Resource Allocation in Defense** 4568
 Chunqi Wan, *National Univ. of Defense Tech.*
 Weitao Xiong, *National Univ. of Defense Tech.*
 Qingsong Zhao, *National Univ. of Defense Tech.*
 Kewei Yang, *National Univ. of Defense Tech.*
 Wenying Chen, *Beijing Special Vehicle Inst.*

11:00-11:20 **MonB04-3** **Pinning Cluster Synchronization for Multiple Subnetworks of Complex Networks with Nonidentical Nodes and Stochastic Disturbances** 4574
 Ruifeng Wang, *Shenzhen Univ.*
 Jianwen Feng, *Shenzhen Univ.*
 Jingyi Wang, *Shenzhen Univ.*
 Yi Zhao, *Shenzhen Univ.*

11:20-11:40 **MonB04-4** **Influence of Double Layer Network Coupling Mode on Information Propagation Speed** 4580
 Keda Fan, *Nanjing Univ. of Posts and Telecommunications*
 Guo-Ping Jiang, *Nanjing Univ. of Posts and Telecommunications*

11:40-12:00 **MonB04-5** **Study on the Cascading Failure Model of Double-layer Coupling Network** 4586
 Liang Zhang, *Nanjing Univ. of Posts and Telecommunications*
 Guo-Ping Jiang, *Nanjing Univ. of Posts and Telecommunications*

12:00-12:20 **MonB04-6** **H_∞ Consensus Control of Multi-Agent Systems: a Dynamic Output Feedback Controller with Time-Delays** 4591
 Dun Ao, *Beijing Univ. of Tech.*
 Guoan Yang, *Beijing Univ. of Tech.*
 Xueli Wang, *Beijing Univ. of Tech.*

Session	MonB05:Identification and Estimation (III)
Venue	Room05
Date/Time	10:20-12:20
Chair	Wenle Zhang , <i>Univ. of Arkansas at Little Rock</i>
Co-Chair	Liang Li , <i>The No.719 Research Inst. of CSIC National Lab of Scie. and Tech. on Steam Power for NS</i>

10:20-10:40 **MonB05-1** **Optimal Linear Estimators for Time-delay Systems with Fading Measurement** 4597
 Yazhou Li, *Heilongjiang Univ.*
 Xin Wang, *Heilongjiang Univ.*

10:40-11:00	MonB05-2	Identification of Steam-driven Centrifugal Pump System 4603 Liang Li, <i>The No.719 Research Inst. of CSIC National Lab of Scie. and Tech. on Steam Power for NS</i> Jiannan Liu, <i>The No.719 Research Inst. of CSIC National Lab of Scie. and Tech. on Steam Power for NS</i> Wei Zheng, <i>The No.719 Research Inst. of CSIC National Lab of Scie. and Tech. on Steam Power for NS</i> Huaqing Wan, <i>The No.719 Research Inst. of CSIC</i>
11:00-11:20	MonB05-3	Identification of Wind Turbine Model by Subspace Method and Prediction Error Method 4609 Xinjing Chen, <i>Suzhou Univ. of Scie. and Tech.</i> Wan Jun Hao, <i>Suzhou Univ. of Scie. and Tech.</i> Yanhui Qiao, <i>Suzhou Univ. of Scie. and Tech.</i> Songqing Cao, <i>Suzhou Univ. of Scie. and Tech.</i> Ze Li, <i>Suzhou Univ. of Scie. and Tech.</i> Guocheng Pan, <i>Suzhou Univ. of Scie. and Tech.</i>
11:20-11:40	MonB05-4	System Identification of Linear Systems with A Linear Neural Network 4615 Wenle Zhang, <i>Univ. of Arkansas at Little Rock</i>
11:40-12:00	MonB05-5	Self-tuning Full-order Kalman Smoothers for Singular System 4621 Yinfeng Dou, <i>Heilongjiang Univ.</i> Chenjian Ran, <i>Heilongjiang Univ.</i>
12:00-12:20	MonB05-6	Roller Parameters Prediction of Steel Tube Based on Principal Component Analysis and BP Neural Network 4627 Xu Feng, <i>Tianjin Univ. of Tech.</i> Qiang Gao, <i>Tianjin Univ. of Tech.</i> Mingyuan Liu, <i>Tianjin Univ. of Tech.</i>

Session	MonB06:Networked Control Systems (II)	
Venue	Room06	
Date/Time	10:20-12:20	
Chair	Zhenwei Liu , <i>Northeastern Univ.</i>	
Co-Chair	Jun Hu , <i>Harbin Univ. of Scie. and Tech. Univ. of South Wales</i>	
10:20-10:40	MonB06-1	A Recursive Approach to Event-based Resilient Filtering for Time-varying Systems with Stochastic Uncertainties 4632 Chaoqing Jia, <i>Harbin Univ. of Scie. and Tech.</i> Jun Hu, <i>Harbin Univ. of Scie. and Tech., Univ. of South Wales</i> Dongyan Chen, <i>Harbin Univ. of Scie. and Tech.</i>
10:40-11:00	MonB06-2	Distributed Variance-Constrained Filtering for Time-Varying Systems with Multiplicative Noises and Randomly Occurring Nonlinearities over Sensor Networks 4638 Zhigong Wang, <i>Harbin Univ. of Scie. and Tech.</i> Dongyan Chen, <i>Harbin Univ. of Scie. and Tech.</i> Jun Hu, <i>Harbin Univ. of Scie. and Tech., Univ. of South Wales</i>
11:00-11:20	MonB06-3	Stability Conditions for Event-triggered Control Systems with Limited Bandwidth and Network Delay 4644 Qing Gao, <i>Weichai Power Co., Ltd., Hebei Univ. of Tech.</i> Bolun Li, <i>Univ. of Scie. and Tech. of China</i> Rundong Dou, <i>Univ. of Scie. and Tech. of China</i>

11:20-11:40	MonB06-4	A Method of TOA Positioning for Mine to Effectively Reduce the Impact of Non - Line of Sight Error Propagation 4650 Xiaoqiang Shao, <i>Xi'an Univ. of Scie. and Tech.</i> Li Kang Le, <i>Xi'an Univ. of Scie. and Tech.</i> Xi Chen, <i>Xi'an Univ. of Scie. and Tech.</i>
11:40-12:00	MonB06-5	Event-triggered Resilient Filtering for Time-varying Systems with Randomly Occurring Nonlinearity and Missing Measurements 4656 Ming Gao, <i>Harbin Univ. of Scie. and Tech.</i> Jun Hu, <i>Harbin Univ. of Scie. and Tech.</i> Hongxu Zhang, <i>Harbin Univ. of Scie. and Tech.</i>
12:00-12:20	MonB06-6	Passivity based State Synchronization of Multi-agent Systems via Static or Adaptive Nonlinear Dynamic Protocols 4662 Zhenwei Liu, <i>Northeastern Univ.</i> Meirong Zhang, <i>Gonzaga Univ.</i> Ali Saberi, <i>Washington State Univ.</i> Anton A. Stoorvogel, <i>Univ. of Twente</i>

Session	MonB07:Distributed Control Systems	
Venue	Room07	
Date/Time	10:20-12:20	
Chair	Pu Yang , <i>Nanjing Univ. of Aeronautics and Astronautics</i>	
Co-Chair	Xiasheng Shi , <i>Zhejiang Univ.</i>	
10:20-10:40	MonB07-1	Consensus Control of A Class of Second-order Nonlinear Multi-agent Systems Based on Distributed Adaptive Protocol 4668 Anguo Zhang, <i>Research Inst. of Ruijie, Ruijie Networks Co.,Ltd</i> Shuxun Zhang, <i>The Xinjiang Technical Inst. of Physical & Chemical, Chinese Academy of Scie.</i> Qing Chen, <i>Chongqing Univ.</i> Wei Zhu, <i>Research Inst. of Ruijie, Ruijie Networks Co.,Ltd</i>
10:40-11:00	MonB07-2	Adaptive Sliding Mode Control for Distributed Control Systems with Mismatched Uncertainty 4673 Yuxia Wang, <i>Nanjing Univ. of Aeronautics and Astronautics</i> Pu Yang, <i>Nanjing Univ. of Aeronautics and Astronautics</i> Qibao Shu, <i>Nanjing Univ. of Aeronautics and Astronautics</i>
11:00-11:20	MonB07-3	Consensus of first-order Multi-Agent Systems under Event-Triggered Communication 4679 Xiasheng Shi, <i>Zhejiang Univ.</i> Ronghao Zheng, <i>Zhejiang Univ.</i> Zhiyun Lin, <i>Hangzhou Dianzi Univ.</i> Gangfeng Yan, <i>Zhejiang Univ.</i>
11:20-11:40	MonB07-4	Multi-Agent Event-Triggered Consensus Bqased on Distributed State Observer 4684 Yang Zhang, <i>Anhui Univ.</i> Yuan Fan, <i>Anhui Univ.</i> Chengxiao Zhang, <i>Anhui Univ.</i> Haohan Chen, <i>Anhui Univ.</i>

11:40-12:00	MonB07-5	Application of Siemens PLC and WinCC in the Monitoring-Control System of Bulk Grain Silo 4689 Zhan Sheng, <i>Hohai Univ.</i> Cuicui Ji, <i>Hohai Univ.</i> Sheng Hua, <i>Hohai Univ.</i>
12:00-12:20	MonB07-6	Event-Based Consensus Control of Multi-Agent Systems with Input Saturation Constraint 4694 Jinran Wang, <i>Yanshan Univ.</i> Xianluo Li, <i>Yanshan Univ.</i> Yating Li, <i>Yanshan Univ.</i> Xiaolei Li, <i>Yanshan Univ.</i> Xiaoyuan Luo, <i>Yanshan Univ.</i>

Session	MonB08:Hybrid Systems (II)	
Venue	Room08	
Date/Time	10:20-12:20	
Chair	Zairui Gao , <i>Weifang Univ.</i>	
Co-Chair	Li Peng , <i>Jiangnan Univ.</i> <i>Internet of Things Applied Tech. Engineering Research Center</i>	
10:20-10:40	MonB08-1	Exponential Stabilization via Event-triggered Control for Linear Discrete-time Delayed Systems 4700 Bin Liu, <i>Hunan Univ. of Tech.</i> Jinxia Huang, <i>Hunan Univ. of Tech.</i> Meng Yang, <i>Hunan Univ. of Tech.</i> Dongnan Liu, <i>Hunan Univ. of Tech.</i>
10:40-11:00	MonB08-2	Input and Output Strictly Passive H-infinity Control of Switched Linear Systems 4705 Zairui Gao, <i>Weifang Univ.</i> Xiaojin Wu, <i>Weifang Univ.</i> Yunlong Liu, <i>Weifang Univ.</i>
11:00-11:20	MonB08-3	Finite-time Stabilization for Discrete Markov Jump Systems with Actuator Saturation 4709 Yuanjing Zhang, <i>Jiangnan Univ.</i> Li Peng, <i>Jiangnan Univ., Internet of Things Applied Tech., Engineering Research Center</i> Xuefang Zhu, <i>Wuxi High Electromechanical Tech., Vocational School</i>
11:20-11:40	MonB08-4	Output Feedback Control for a Class of Switched Fuzzy System with Control Time-delay 4715 Le Zhang, <i>Shenyang Univ.</i> Meiyu Jia, <i>Shenyang Univ.</i> Ziqi Yang, <i>Shenyang Univ.</i> Fei Xu, <i>Shenyang Univ.</i> Hong Yang, <i>Shenyang Univ.</i> Chuang Cong, <i>Shenyang Health Statistics Information Center</i> Dongyan Dong, <i>Shenyang Univ. Dalian Autovocational Technical Inst.</i>

11:40-12:00	MonB08-5	Observer-based Exponential Stability for Time-varying Delay Switched Fuzzy System with Unmeasurable Premise Variables 4721 Le Zhang, <i>Shenyang Univ.</i> Fei Xu, <i>Shenyang Univ.</i> Ziqi Yang, <i>Shenyang Univ.</i> Meiyu Jia, <i>Shenyang Univ.</i> Hong Yang, <i>Shenyang Univ.</i> Chuang Cong, <i>Shenyang Health Statistics Information Center</i> Dongyan Dong, <i>Shenyang Univ. Dalian Autovocational Technical Inst.</i>
12:00-12:20	MonB08-6	Quadratic Stabilization of Switched Uncertain Linear Systems 4727 Yufang Chang, <i>Hubei Univ. of Tech.</i> Bo Fu, <i>Hubei Univ. of Tech.</i> Guisheng Zhai, <i>Shibaura Inst. of Tech.</i>

Session	MonB09:Delay Systems
Venue	Room09
Date/Time	10:20-12:20
Chair	Lanning Wang , <i>Nanjing University of Posts and Telecommunications</i>
Co-Chair	Yu-bin Wu , <i>High-Tech Institute of Xi'an</i>

10:20-10:40	MonB09-1	Dynamic Output Feedback Control for Neutral Stochastic Delay Sysems with Markovian Switching Parameters 4732 Weimin Chen, <i>Nanjing University of S cience and Tech.</i> Lanning Wang, <i>Nanjing University of Posts and Telecommunications</i>
10:40-11:00	MonB09-2	New results on extended dissipativity analysis for discrete-time Markovian jump systems with time-varying delay 4738 Weifeng Xia, <i>Nanjing University of Science and Tech.</i> Baoyong Zhang, <i>Nanjing University of Science and Tech.</i> Yuanzhen Feng, <i>Nanjing University of Posts and Telecommunications</i> Yongmin Li, <i>Huzhou Teachers College</i>
11:00-11:20	MonB09-3	Novel robust stability criteria for interval time-varying delay systems with nonlinear perturbations 4744 Yu-bin Wu, <i>High-Tech Institute of Xi'an</i> He-xin Zhang, <i>High-Tech Institute of Xi'an</i> Guo-liang Li, <i>High-Tech Institute of Xi'an</i> Da-wei Sun, <i>High-Tech Institute of Xi'an</i> Yong-qiang Li, <i>High-Tech Institute of Xi'an</i>
11:20-11:40	MonB09-4	Relaxed Stability and Dissipativity Criteria for Static Delayed Neural Networks Using Matrix-Refined-Function Approach 4750 Hong-Hai Lian, <i>Hunan Electrical College of Tech.</i> Shen-Ping Xiao, <i>Hunan Electrical College of Tech.</i> Gang Chen, <i>Hunan Electrical College of Tech.</i> Xiao-Hu Zhang, <i>Hunan Electrical College of Tech.</i> Peng Deng, <i>Hunan Electrical College of Tech.</i>
11:40-12:00	MonB09-5	Construction Pruning for Optimal Control of Process with Deadtime under Extreme High Degree of Control Difficulty 4757 Yali Xue, <i>Tsinghua Univ.</i> Guobo Xiang, <i>Wuhan University of Tech.</i> Yuqiong Zhang, <i>Chinese Electric Power Research Insitute</i>

12:00-12:20 MonB09-6 On Stability of A Class of Stochastic Neutral-Type Time-Delay Systems 4764
 Zhao-Yan Li, *Harbin Institute of Tech.*
 James Lam, *Univ. of Hong Kong*
 Ru Fang, *Harbin Institute of Tech.*

Session	MonB10:Motion Control (III)
Venue	Room10
Date/Time	10:20-12:20
Chair	Guodong Yin , <i>Southeast Univ.</i>
Co-Chair	Shaobai Zhang , <i>Nanjing University of Posts and Telecommunications</i>

10:20-10:40 MonB10-1 PID Parameters Self-tuning Based on Simplex Method 4769
 Lanhui Fu, *South China Robotics Innovation Research Institute*
 Lei Zhou, *South China Robotics Innovation Research Institute*
 Jianan Liang, *South China Robotics Innovation Research Institute*
 Mingyong Lin, *South China Robotics Innovation Research Institute*

10:40-11:00 MonB10-2 Design of Automatic Guided Vehicle Motion Control System Based on Magnetic Navigation 4775
 Fang Liu, *Wuhan University of Tech.*
 Xueqi Li, *Wuhan University of Tech.*
 Yilin Wang, *Wuhan University of Tech.*

11:00-11:20 MonB10-3 Research on Construction Method of Neural Network Model with Spatiotemporal Coordination during Arm Transport and Hand Preshape 4780
 Shaobai Zhang, *Nanjing University of Posts and Telecommunications*
 Mengtian Shi, *Nanjing University of Posts and Telecommunications*

11:20-11:40 MonB10-4 Cross-line-Turn Path Tracking of Intelligent Agricultural Vehicle Based on MPC in Standard Orchard 4786
 Yiheng Lin, *Southeast Univ.*
 Guodong Yin, *Southeast Univ.*
 Qingfeng Liang, *Southeast Univ.*
 Li Wang, *Southeast Univ.*

11:40-12:00 MonB10-5 Hardware in the Loop Experimental Study of 3-DOF Helicopter 4792
 Ju Zhang, *Zhejiang University of Tech.*
 Tian Zheng, *Zhejiang University of Tech.*
 Wenqiang Cui, *Zhejiang University of Tech.*
 Minchao Liu, *Zhejiang University of Tech.*

12:00-12:20 MonB10-6 A Position Observer Design for Interior Permanent Magnet Synchronous Motor Based on Fuzzy PI Model Reference Adaptive Control 4798
 Jianying Xu, *University of Science and Technology Liaoning*
 Ting Wu, *University of Science and Technology Liaoning*
 Weizhi Gu, *University of Science and Technology Liaoning*
 Ying Wang, *University of Science and Technology Liaoning*
 Riyao Chen, *University of Science and Technology Liaoning*

Session	MonB11:Signal Processing (III)	
Venue	Room11	
Date/Time	10:20-12:20	
Chair	Yanan Tian , <i>Northeastern Univ.</i>	
Co-Chair	Baoqi Huang , <i>Inner Mongolia Univ.</i>	
10:20-10:40	MonB11-1	The Research of Two-dimensional Heart Sound Recurrence Plot 4804 Xiefeng Cheng, <i>Nanjing Univ. of Posts and Telecommunications</i> Jing Wang, <i>Nanjing Univ. of Posts and Telecommunications</i> Pengjun Zhao, <i>Xin Hua Hospital Affiliated to Shanghai Jiao Tong Univ. School of Medicine</i>
10:40-11:00	MonB11-2	Research on an Image Mosaic Algorithm Based on Improved ORB Feature Combined with SURF 4809 Yuping Feng, <i>Qingdao Univ. of Scie. and Tech.</i> Shuguang Li, <i>Qingdao Univ. of Scie. and Tech.</i>
11:00-11:20	MonB11-3	A Method for Image Segmentation Based on DC-SVM 4815 Yanan Tian, <i>Northeastern Univ.</i> Jinghong Li, <i>Northeastern Univ.</i>
11:20-11:40	MonB11-4	An Experimental Study on Measurement Errors of Inertial Sensors in Smartphones 4819 Jian Song, <i>Inner Mongolia Univ.</i> Baoqi Huang, <i>Inner Mongolia Univ.</i> Runze Yang, <i>Inner Mongolia Univ.</i>
11:40-12:00	MonB11-5	Simulation Research of UWB location algorithm 4825 Jihong Liu, <i>Northeastern Univ.</i> He Jing, <i>Northeastern Univ.</i> Yanxia Xiang, <i>Northeastern Univ.</i> Zhiyu Guan, <i>Northeastern Univ.</i>
12:00-12:20	MonB11-6	A NSP-based dictionary learning for image fusion 4831 Hai Luo, <i>Jiangnan Univ.</i> Ruichao Hou, <i>Yunnan Univ.</i> Weimin Qi, <i>Jiangnan Univ.</i>

Session	MonB12:Data Processing (VII)	
Venue	Room12	
Date/Time	10:20-12:20	
Chair	Jian Tang , <i>Beijing Univ. of Tech. Beijing Key Laboratory of Computational Intelligence and Intelligent System</i>	
Co-Chair	Jianxun Li , <i>Shanghai Jiao Tong Univ.</i>	
10:20-10:40	MonB12-1	An Improved Algorithm for Multi-source Location Information Fusion Based on Comprehensive Probability Distance Matrix 4835 Cai Xi, <i>DFH Satellite Co. Ltd.</i> Liu Yue , <i>DFH Satellite Co. Ltd.</i> Xie Song , <i>DFH Satellite Co. Ltd.</i>

10:40-11:00	MonB12-2	The Impact of Microblog User Cognition and User Emotion on Microblog Behavior in Social Emergencies 4839 Yanxia Lu, <i>Dalian Univ. of Tech.</i> Jiangnan Qiu, <i>Dalian Univ. of Tech.</i> Liwei Xu, <i>Dalian Univ. of Tech.</i> Jingshu Wang, <i>Dalian Neusoft Univ. of Information</i> Chun Jin, <i>Dalian Univ. of Tech.</i>
11:00-11:20	MonB12-3	Optic Disc Segmentation Method Based on Rules 4845 Xia Zheng, <i>Northeastern Univ.</i> Dali Chen, <i>Northeastern Univ.</i> Jia Zheng, <i>Northeastern Univ.</i>
11:20-11:40	MonB12-4	Multi-source Mechanical Signal Analysis Based on Linear Latent Structure Model for Mill Load Parameter Forecasting 4850 Jian Tang, <i>Beijing Univ. of Tech.</i> Zhuo Liu, <i>Northeastern Univ.</i> Xiaoli Li, <i>Beijing Univ. of Tech.</i> Gang Yu, <i>State Key Laboratory of Process Automation in Mining & Metallurgy</i> Jianjun Zhao, <i>State Key Laboratory of Process Automation in Mining & Metallurgy</i>
11:40-12:00	MonB12-5	A Real-time RGB-D tracker based on KCF 4856 Han Zhang, <i>Shanghai Jiao Tong Univ.</i> Meng Cai, <i>Luoyang Inst. of Electro-optical Equipment</i> Jianxun Li, <i>Shanghai Jiao Tong Univ.</i>
12:00-12:20	MonB12-6	Faster 3D Object Detection in RGB-D Image Using 3D Selective Search and Object Pruning 4862 Jiang Liu, <i>Shanghai Jiao Tong Univ.</i> Hongliang Chen, <i>Inst. of Electro-optical Equipment</i> Jianxun Li, <i>Shanghai Jiao Tong Univ.</i>

Session	MonB13:Planning, Scheduling and Coordination
Venue	Room13
Date/Time	10:20-12:20
Chair	Hongyang Chen, <i>Univ. of Science and Tech. Liaoning.</i>
Co-Chair	Deming Lei, <i>Wuhan Univ. of Tech.</i>

10:20-10:40	MonB13-1	Optimization Scheduling of Multi-Battery Energy Storage System and Interruptible Load With Iterative Adaptive Dynamic Programming 4867 Yanxiao Shan, <i>Nanjing Univ. of Posts and Telecommunications.</i> Dong Yue, <i>Nanjing Univ. of Posts and Telecommunications.</i> Huifeng Zhang, <i>Nanjing Univ. of Posts and Telecommunications.</i> Chunxia Dou, <i>Nanjing Univ. of Posts and Telecommunications.</i>
10:40-11:00	MonB13-2	A Hybrid Scatter Search Algorithm for QoS Multicast Routing Problem 4875 Chunxin Shi, <i>Univ. of Science and Tech. Liaoning.</i> Xiaoxia Zhang, <i>Univ. of Science and Tech. Liaoning.</i> Hongyang Chen, <i>Univ. of Science and Tech. Liaoning.</i> Jiao Yang, <i>Univ. of Science and Tech. Liaoning.</i> Peng Wang, <i>Univ. of Science and Tech. Liaoning.</i> Yu Wei, <i>Univ. of Science and Tech. Liaoning.</i>
11:00-11:20	MonB13-3	Teaching-learning-based optimization algorithm for hybrid flow shop scheduling problem with assembly operations 4879 Zhiwei Xu, <i>Wuhan Univ. of Tech.</i> Deming Lei, <i>Wuhan Univ. of Tech.</i>

11:20-11:40	MonB13-4	Hybrid flow shop scheduling with assembly operations and key objectives: a novel neighborhood search 4885 Cong Lv, <i>Wuhan Univ. of Tech.</i> Deming Lei, <i>Wuhan Univ. of Tech.</i>
11:40-12:00	MonB13-5	Attitude Scheduling for Dynamic Imaging of Agile Earth Observation Satellite along a Curve Target 4891 Xiongzi Chen, <i>DFH Satellite Co. Ltd., China Academy of Space Tech.</i> Song Xie, <i>DFH Satellite Co. Ltd., China Academy of Space Tech.</i>
12:00-12:20	MonB13-6	A multi-objective invasive weed optimization for task assignment in prefabricated systems 4896 Jia-ke Li, <i>Liaocheng first middle school.</i> Junqing Li, <i>Shandong Normal Univ., Liaocheng Univ.</i> Peiyong Duan, <i>Shandong Normal Univ.</i> Peng Duan, <i>Shenyang Univ., Liaocheng Univ.</i> Qun Sun, <i>Shenyang Univ., Liaocheng Univ.</i>

Session	MonB14:Mobile Robotics (III)	
Venue	Room14	
Date/Time	10:20-12:20	
Chair	Hongpeng Wang , <i>NanKai Univ.</i>	
Co-Chair	Xiao Chen , <i>Naval Univ. of Engineering.</i>	
10:20-10:40	MonB14-1	Global path planning algorithm based on the IPSO algorithm for USVs 4901 Jingjing Zhang, <i>Naval Univ. of Engineerin. Unit 91053 of PLA.</i> Xiao Chen, <i>Naval Univ. of Engineering.</i> Hongning Hu, <i>Naval Univ. of Engineering.</i> Jianqiang Zhang, <i>Naval Univ. of Engineering.</i> Lian Wang, <i>Naval Univ. of Engineering.</i>
10:40-11:00	MonB14-2	Simultaneous Location and Map Construction Based on RBPF-SLAM Algorithm 4907 Hong He, <i>Tianjin Univ. of Tech.</i> YunHui Jia, <i>Tianjin Univ. of Tech.</i> Lei Sun, <i>Tianjin Univ. of Tech.</i>
11:00-11:20	MonB14-3	Continuous-Curvature Path Generation Using Fermat's Spiral for Unmanned Marine and Aerial Vehicles 4911 Xiao Chen, <i>Naval Univ. of Engineering.</i> Jianqiang Zhang, <i>Naval Univ. of Engineering.</i> Min Yang, <i>Unit 91650 of PLA.</i> Liu Zhong, <i>Naval Univ. of Engineering.</i> Jiao Dong, <i>Naval Univ. of Engineering.</i>
11:20-11:40	MonB14-4	Maneuver Control of a Four-Wheel Differentially Driven Robot Based on Instantaneous Center of Rotation 4917 Pengpeng Li, <i>NanKai Univ.</i> Hongpeng Wang, <i>NanKai Univ.</i> Mingyue Zhu, <i>NanKai Univ.</i> Jingtai Liu, <i>NanKai Univ.</i>

11:40-12:00	MonB14-5	Motion tracking and object manipulation of a hyper-redundant MDAMS under joint limits based on task-priority & relative Jacobian 4923 Yan Wei, <i>Centrale Lille, UMR 9189 - CRISTAL - Centre de, Recherche en Informatique Signal et Automatique de Lille.</i> Ahmed Rahmani, <i>Centrale Lille, UMR 9189 - CRISTAL - Centre de, Recherche en Informatique Signal et Automatique de Lille.</i>
12:00-12:20	MonB14-6	Path Planning and Following of Omnidirectional Mobile Robot Based on B-spline 4931 Dehong Cong, <i>Northeastern Univ.</i> Chen Liang, <i>Northeastern Univ.</i> Qichen Gong, <i>Northeastern Univ.</i> Xiu Yang, <i>Northeastern Univ.</i> Jiayi Liu, <i>Northeastern Univ.</i>

Session	MonB15:Smart Grids (III)	
Venue	Room15	
Date/Time	10:20-12:20	
Chair	Liqun Shang, <i>Xi'an Univ. of Science & Tech.</i>	
Co-Chair	Zhi Zhang, <i>Dongguan Univ. of Tech.</i>	
10:20-10:40	MonB15-1	Research on Analysis and Suppression Strategy of Subsynchronous Oscillation in Wind Power Grid-Connected System 4937 YanJun Zhang, <i>State Grid Liaoning Electric Power Supply Yu Gao Northeastern Univ.</i> Kai Gao, <i>State Grid Liaoning Electric Power Supply</i> Yin Wang, <i>State Grid Liaoning Electric Power Supply</i> Jun Yang, <i>Northeastern Univ.</i>
10:40-11:00	MonB15-2	An Overview on Harmonic Suppression 4943 Youjie Ma, <i>Tianjin Univ. of Tech.</i> Faping Hong, <i>Tianjin Univ. of Tech.</i> Xuesong Zhou, <i>Tianjin Univ. of Tech.</i> Zhiqiang Gao, <i>Tianjin Univ. of Tech.</i>
11:00-11:20	MonB15-3	An Overview of Photovoltaic Systemesearch on Analysis and Suppression Strategy of Subsynchronous Oscillation in Wind Power Grid-Connected System 4949 Xuesong Zhou, <i>Key Research Laboratory for Control Theory & Application s in Complicated Systems</i> Mao Liu, <i>Tianjin Univ. of Tech.</i> Youjie Ma, <i>Key Research Laboratory for Control Theory & Application s in Complicated Systems</i> Zhiqiang Gao, <i>Key Research Laboratory for Control Theory & Application s in Complicated Systems</i>
11:20-11:40	MonB15-4	Research on Power System Restoration Based on Multi-agent Systems 4955 Xuesong Zhou, <i>Key Research Laboratory for Control Theory & Application s in Complicated Systems</i> Hui Wang, <i>Tianjin Univ. of Tech.</i> Youjie Ma, <i>Key Research Laboratory for Control Theory & Application s in Complicated Systems</i> Zhiqiang Gao, <i>Key Research Laboratory for Control Theory & Application s in Complicated Systems</i>

11:40-12:00	MonB15-5	Research on Micro-Grid Inverter and its Operation Control 4961 Liqun Shang, <i>Xi'an Univ. of Science & Tech.</i> Pengwei Li, <i>Xi'an Univ. of Science & Tech.</i> Yifeng Zhang, <i>Xi'an Univ. of Science & Tech.</i>
12:00-12:20	MonB15-6	A Flicker-Free High Power Factor Isolated LED Driver 4966 Zhi Zhang, <i>Dongguan Univ. of Tech.</i> Hao Zhou, <i>Dongguan Univ. of Tech.</i> Li Kang, <i>Dongguan Univ. of Tech.</i> Zhaoyun Zhang, <i>Dongguan Univ. of Tech.</i> Bin Ren, <i>Dongguan Univ. of Tech.</i> Ming Jiang, <i>Dongguan Univ. of Tech.</i>

Session	MonB16:Renewable Energies (II)
Venue	Room16
Date/Time	10:20-12:20
Chair	Kai Liu , <i>Inner Mongolia Univ. of Tech.</i>
Co-Chair	Feifei Jiang , <i>Key Laboratory of Solar Thermal Energy and Photovoltaic System, Inst. Of Electrical Engineering</i>

10:20-10:40	MonB16-1	Research and Design of PV MPPT Based on STM32 4971 Dengsheng Wu, <i>Shenyang Agricultural Univ.</i> Lidi Wang, <i>Shenyang Agricultural Univ.</i> Chuncheng Han, <i>Anshan Electric Power Supply Bureau</i> Tong Liu, <i>Shenyang Agricultural Univ.</i> Chenglong Zhou, <i>Shenyang Agricultural Univ.</i> Chenyang Li, <i>Shenyang Agricultural Univ.</i>
10:40-11:00	MonB16-2	A Study on the Technology of LVRT for DFIG 4975 Xuesong Zhou, <i>Key Research Laboratory for Control Theory & Applications in Complicated Systems</i> Cheng Ma, <i>Key Research Laboratory for Control Theory & Applications in Complicated Systems</i> Zhiqiang Gao, <i>Key Research Laboratory for Control Theory & Applications in Complicated Systems</i> Youjie Ma, <i>Key Research Laboratory for Control Theory & Applications in Complicated Systems</i> Xudong Zhang, <i>State Grid Hebei Electric Power</i> Jingping Zhang, <i>State Grid Hebei Electric Power</i>
11:00-11:20	MonB16-3	Small Signal Stability Analysis of Micro-source Inverter System in Series Micro-grids 4980 Xinggui Wang, <i>Lanzhou Univ. of Tech.</i> Jianhua Zhang, <i>Lanzhou Univ. of Tech.</i> Xisheng Cao, <i>State Key Laboratory Project of Large Scale Electrical Drive System and Equipment Tech.</i> Weiman Yang, <i>Lanzhou Univ. of Tech.</i>
11:20-11:40	MonB16-4	Study On Capacity Allocation Optimization of Independent Wind/PV/Storage Generation System 4986 Lin jing Hu, <i>Inner Mongolia Univ. of Tech.</i> Kai Liu, <i>Inner Mongolia Univ. of Tech.</i> Yang Zhao, <i>Inner Mongolia Univ. of Tech.</i> Peipei Li, <i>Inner Mongolia Univ. of Tech.</i>

11:40-12:00	MonB16-5	Test and Analysis of Potential Induced Degradation in Crystalline Silicon PV Modules 4993 Feifei Jiang, <i>Key Laboratory of Solar Thermal Energy and Photovoltaic System, Inst. of Electrical Engineering</i> Haitao Liu, <i>Key Laboratory of Solar Thermal Energy and Photovoltaic System, Inst. of Electrical Engineering</i> Xinjing Zou, <i>Key Laboratory of Solar Thermal Energy and Photovoltaic System, Inst. of Electrical Engineering</i>
12:00-12:20	MonB16-6	Study on Operation Management of Grid-connected Wind Generation Units Based on Intelligent Theory 4997 Changqing Liu, <i>Jinzhou Power Supply Branch, State Grid Liaoning Electric Power Supply</i> Xin Jing, <i>Jinzhou Power Supply Branch, State Grid Liaoning Electric Power Supply</i> Yueying Yang, <i>Jinzhou Power Supply Branch, State Grid Liaoning Electric Power Supply</i>

Session	MonBIS:Interactive Session
Venue	Room17
Date/Time	10:20-12:20
MonBIS-01	An Event Camera Tracking Based on MLS Surface Fitting Algorithm 5001 Xinye Zong, <i>Northeastern Univ.</i> Peng Xiao, <i>Northeastern Univ.</i> Shiguang Wen, <i>Northeastern Univ.</i>
MonBIS-02	An Improvement Algorithm for OctoMap Based on RGB-D SLAM 5006 Junjie Zhang, <i>Hangzhou Dianzi Univ.</i> Shirong Liu, <i>Hangzhou Dianzi Univ.</i> Bingshu Gao, <i>Hangzhou Dianzi Univ.</i> Chaoliang Zhong, <i>Hangzhou Dianzi Univ.</i>
MonBIS-03	A 3D Point Cloud Segmentation Method Based on Local Convexity and Dimension Features 5012 Shuning Fan, <i>Hangzhou Dianzi Univ.</i> Na Huang, <i>Hangzhou Dianzi Univ.</i> Pengfei Fang, <i>Australian National Univ.</i> Junjie Zhang, <i>Hangzhou Dianzi Univ.</i>
MonBIS-04	Real-Time Stairs Geometric Parameters Estimation for Lower Limb Rehabilitation Exoskeleton 5018 Xiaoming Zhao, <i>Beihang Univ.</i> Weihai Chen, <i>Beihang Univ.</i> Xing Yan, <i>Beijing Inst. of Control Engineering.</i> Jianhua Wang, <i>Beihang Univ.</i> Xingming Wu, <i>Beihang Univ.</i>
MonBIS-05	Pose Estimation Algorithm Based on Improved RANSAC with an RGB-D Camera 5024 Bingshu Gao, <i>Hangzhou Dianzi Univ.</i> Shirong Liu, <i>Hangzhou Dianzi Univ.</i> Junjie Zhang, <i>Hangzhou Dianzi Univ.</i> Botao Zhang, <i>Hangzhou Dianzi Univ.</i>

- MonBIS-06 Photography Constraint Aided Keyframe Selection and Matching Method for UAV 3D Reconstruction 5030**
 Cheng Zhang, *NanKai Univ.*
 Hongpeng Wang, *NanKai Univ.*
 Shubao He, *NanKai Univ.*
 Hanzhen Li, *NanKai Univ.*
 Jingtai Liu, *NanKai Univ.*
- MonBIS-07 Robust Visual Tracking based on Deep Spatial Transformer Features 5036**
 Ximing Zhang, *Northwestern Polytechnical Univ.*
 Mingang Wang, *Northwestern Polytechnical Univ.*
 Jinkang Wei, *Northwestern Polytechnical Univ.*
 Can Cui, *Northwestern Polytechnical Univ.*
- MonBIS-08 Research of Mobile Robot Control System Based on SSVEP Brain Computer Interaction 5042**
 Shaolin Liu, *Northeastern Univ.*
 Fei Wang, *Northeastern Univ.*
 Shichao Wu, *Northeastern Univ.*
 Yahui Zhang, *Northeastern Univ.*
 Ying Wei, *Northeastern Univ.*
 Wei Wu, *Northeastern Univ.*
 Haobo Zhao, *Northeastern Univ.*
 Yuze Zhang, *Northeastern Univ.*
- MonBIS-09 A collaborative vulnerability assessment method considering communication systems in the active distribution network 5047**
 Xinrui Liu, *Northeastern Univ.*
 Xin Li, *Northeastern Univ.*
 Peng Jin, *Shenyang Power Supply Company*
 Tianqi Lu, *State Grid Liaoning Electric Power Company Limited Economic Research Inst.*
- MonBIS-10 Losses Calculation and Ventilation Cooling of Air-Cooled Axial-Flux Permanent Magnet Asynchronous Couplings 5053**
 Linxin Yu, *Northeastern Univ.*
 Xiaohan Zhao, *Suihua Univ.*
 Dazhi Wang, *Northeastern Univ.*
 Xue Bao, *Northeastern Univ.*
- MonBIS-11 Design of Intelligent Alarm System for Petrochemical Process 5059**
 Han Huawei, *SINOPEC Research Institute for Safety Engineering Key State Laboratory of Safety and Control for Chemicals*
 Wang Chunli, *SINOPEC Research Institute for Safety Engineering Key State Laboratory of Safety and Control for Chemicals*
 Shi Ning, *SINOPEC Research Institute for Safety Engineering Key State Laboratory of Safety and Control for Chemicals*
 Jiang Weiwei, *SINOPEC Research Institute for Safety Engineering Key State Laboratory of Safety and Control for Chemicals*
- MonBIS-12 A Gray RBF Model Improved by Genetic Algorithm for Electrical Power Forecasting 5065**
 Yilong Li, *Tianjin Univ. of Tech.*
 Qiang Gao, *Tianjin Univ. of Tech.*
 Dahua Li, *Tianjin Univ. of Tech.*

- MonBIS-13 Cascaded Fractional Kalman Filtering for State and Current Estimation of Large-Scale Lithium-Ion Battery Packs 5071**
 Martin Kupper, *Inst. of Control Systems, Karlsruhe Inst. of Tech.*
 Jochen Brenneisen, *Inst. of Control Systems, Karlsruhe Inst. of Tech.*
 Oliver Stark, *Inst. of Control Systems, Karlsruhe Inst. of Tech.*
 Stefan Krebs, *Inst. of Control Systems, Karlsruhe Inst. of Tech.*
 Soren Hohmann, *Inst. of Control Systems, Karlsruhe Inst. of Tech.*
- MonBIS-14 Design of Intrinsically Safe Soft Switching Buck Converter: A Two Time Scale Method 5079**
 Ningfan Zhong, *Shandong Univ. of Scie. and Tech.*
 Zhanhua Feng, *Shandong Univ. of Scie. and Tech.*
 Xiaojing Wang, *Shandong Univ. of Scie. and Tech.*
- MonBIS-15 Optimal Energy Flow of Electricity-Gas Integrated Energy System Using Second-order Cone Program 5085**
 Bowen Zhang, *Hohai Univ.*
 Yonghui Sun, *Hohai Univ.*
 Yongjie Zhong, *Hohai Univ.*
 Mouquan Shen, *Southeast Univ.*
- MonBIS-16 Research on Control Strategy of General Control System for Building Cold and Heat Sources Based on Energy Internet 5090**
 Feng Chen, *State Grid Corporation of China*
 Qingda Meng, *State Grid Corporation of China*
 Guang Yang, *State Grid Liaoning Electric Power Supply*
 Zhuang Zuo, *State Grid Liaoning Electric Power Supply*
 Xin Zhang, *State Grid Liaoning Electric Power Supply*
 Shicong Zhang, *Northeastern Univ.*
 Weinan Liu, *State Grid Corporation of China*
- MonBIS-17 Power control of DC electric heater based on voltage regulation 5096**
 Guangdong Yang, *Shenyang Agricultural Univ.*
 Lidi Wang, *Shenyang Agricultural Univ.*
 Liang Yan, *Chaoyang Power Supply Company*
 Yan Liu, *Economic Research Inst.*
 Zihang Ma, *Shenyang Agricultural Univ.*
- MonBIS-18 Numerical Simulation and Research about Fixed-point Cooling Control of Air Conditioning 5099**
 Tongli Jia, *Changchun Univ. of Scie. and Tech.*
 Yunqing Liu, *Changchun Univ. of Scie. and Tech.*
 Biao Shang, *Chinese Society for Urban Studies National Smart City Joint Lab*
 Qinyin Fan, *Osaka Univ.*
 Hongwu Qin, *Changchun Univ.*
- MonBIS-19 Study of Direct Air-Cooled Condenser for Variable Working Characteristics Based on the Simulation Model 5105**
 Peng Tong, *North China Electric Power Univ.*
 Yinsong Wang, *North China Electric Power Univ.*
 Jianqiang Gao, *North China Electric Power Univ.*
- MonBIS-20 A Review on Energy-efficient Technology in Large Data Center 5109**
 Yaqi Wu, *Suzhou Univ. of Scie. and Tech.*
 Baochuan Fu, *Suzhou Univ. of Scie. and Tech.*
 Zhengtian Wu, *Suzhou Univ. of Scie. and Tech.*
 Shuang Ge, *Suzhou Univ. of Scie. and Tech.*

- MonBIS-21 Simulation and experiments of fire for transport aircraft cabin environment control system 5115**
 Zhuohuan Hu, *Univ. of Shanghai for Scie. and Tech.*
 Yang Gao, *Univ. of Shanghai for Scie. and Tech.*
 Lina Zhang, *Univ. of Shanghai for Scie. and Tech.*
- MonBIS-22 Design of Air Source Heat Pump System Based on BP Network Prediction 5120**
 Guihong Zhang, *Nantong Univ.*
 Yi Yang, *Nantong Univ.*
 Jianbo Chen, *Nantong Univ.*
 Tianxiang Mei, *Nantong Univ.*
 Haiqin Gu, *Nantong Univ.*
 Shuaibing Qin, *Nantong Univ.*
- MonBIS-23 Research Progress and Strategy on Stand-alone DC Micro-grid with Multi-sources and Multi-loads 5126**
 Lanlan Zhen, *Shanghai Univ. of Electric Power*
 Jianping Zhou, *Shanghai Univ. of Electric Power*
 Hongqing Li, *Shanghai Univ. of Electric Power*
 Xinyu Li, *Shanghai Univ. of Electric Power*
 Chengyi Hu, *Shanghai Univ. of Electric Power*
 Yujun Deng, *Shanghai Univ. of Electric Power*
 Yujiao Guo, *Shanghai Univ. of Electric Power*
- MonBIS-24 Simulation Study on the Effect of AC Single-phase Fault on a± 800kV DC Transmission System 5131**
 Huidong Guo, *Electric Power Research Inst.*
 Mengqiong Wang, *Electric Power Research Inst.*
 Yuxin Shi, *Electric Power Research Inst.*
- MonBIS-25 Substation Protection Based on Current Merged Credible Factor 5136**
 Yuxin Shi, *State Grid Shanxi Electric Power Research Inst.*
 Liang Wang, *State Grid Shanxi Electric Power Research Inst.*
 Huidong Guo, *State Grid Shanxi Electric Power Research Inst.*
 Rui Li, *State Grid Shanxi Electric Power Research Inst.*
 Yuhao Shi, *Sichuan Univ.*
- MonBIS-26 Voltage stability analysis based on short circuit capacity 5141**
 Xueting Cheng, *State Grid Shanxi Electric Power Research Inst.*
 Tan Wang, *State Grid Shanxi Electric Power Research Inst.*
 Xinyuan Liu, *State Grid Shanxi Electric Power Research Inst.*
 Jun Pi, *State Grid Shanxi Electric Power Research Inst.*
 Tao Meng, *State Grid Shanxi Electric Power Company*
 Zhipeng Wang, *State Grid Shanxi Electric Power Research Inst.*
- MonBIS-27 Algorithm design and simulation for one double loop UPQC system 5144**
 Mingbo Yang, *North China Univ. of Tech.*
 Bo Zhai, *North China Univ. of Tech.*
- MonBIS-28 Analysis of Voltage Stability of Power Systems Using the Bifurcation Theory 5150**
 Youjie Ma, *Tianjin Univ. of Tech.*
 Shaofeng Lv, *Tianjin Univ. of Tech.*
 Xuesong Zhou, *Tianjin Univ. of Tech.*
 Zhiqiang Gao, *Tianjin Univ. of Tech.*
 Xudong Zhang, *State Grid Hebei Electric Power*
 Jingping Zhang, *State Grid Hebei Electric Power*

- MonBIS-29 UPQC Harmonic Detection Algorithm Based on Improved p-q Theory and Design of Low-Pass Filter 5156**
 Silun Shen, *Jiangsu Univ.*
 Hong Zheng, *Jiangsu Univ.*
 Yong Lin, *Jiangsu Univ.*
 Wei Zhao, *Jiangsu Univ.*
- MonBIS-30 An Improved Sub-Module Topology for Protecting MMC Power Devices under DC-side Short Circuit Fault 5161**
 Huihui Zhang, *Xi'an Jiaotong Univ.*
 Longfei Luo, *Xi'an Jiaotong Univ.*
 Lixin Jia, *Xi'an Jiaotong Univ.*
 Lixia Yang, *Xi'an Jiaotong Univ.*
 Shuo Yang, *Xi'an Jiaotong Univ.*
- MonBIS-31 Research on Internal Typical Partial Discharge Characteristics for Gas Insulation Switchgear 5166**
 Yongxiang Li, *Electric Power Research Inst.*
 Tao Jin, *Electric Power Research Inst.*
 Tianzheng Wang, *Electric Power Research Inst.*
 Gang Yang, *Electric Power Research Inst.*
 Yanpeng Li, *Electric Power Research Inst.*
- MonBIS-32 Instructions Data Compression for Smart Grid Monitoring using Wavelet Domain Singular Value Decomposition 5171**
 Qin Li, *Hubei Univ. for Nationalities*
 Ming Zhang, *Wuhan Textile Univ.*
 Shunfan He, *South Central Univ. for Nationalities*
 Shaowu Li, *Hubei Univ. for Nationalities*
- MonBIS-33 Event-triggered Based Rolling Optimization in a Microgrid under Uncertainties 5176**
 Guanguan Li, *Shandong Univ.*
 Jiannan Liu, *Shandong Univ.*
 Bingying Zhang, *Shandong Univ.*
 Qiqiang Li, *Shandong Univ.*
- MonBIS-34 Research on Safe Management Operation and Reliability of Relay Protection in Power Plant 5182**
 Yan Li, *Jinzhou Power Supply Branch, State Grid Liaoning Electric Power Supply*
 Chuan Chen, *Jinzhou Power Supply Branch, State Grid Liaoning Electric Power Supply*
 Peng Qiu, *Jinzhou Power Supply Branch, State Grid Liaoning Electric Power Supply*
- MonBIS-35 An Overview on Application Analysis of Power Electronic Technology in Smart Grid 5186**
 Mizhen Zhao, *Jinzhou Power Supply Branch, State Grid Liaoning Electric Power Supply*
 Zhijun Wang, *Jinzhou Power Supply Branch, State Grid Liaoning Electric Power Supply*
 Yiming Xue, *State Grid Jibei Electric Power Company Limited*

- MonBIS-36 A Novel Location Method for Single-phase Grounding Fault for Distribution Network Based on Transient Technique 5190**
 Peng Ji, *State Grid Liaoning Electric Power Supply*
 Yujie Pei, *Fushun Power Supply Branch, State Grid Liaoning Electric Power Supply*
 Shihui Zhao, *Fushun Power Supply Branch, State Grid Liaoning Electric Power Supply*
 Chunling Bai, *Fushun Power Supply Branch, State Grid Liaoning Electric Power Supply*
 Wei Wu, *Fushun Power Supply Branch, State Grid Liaoning Electric Power Supply*
 Liguang Liang, *Fushun Power Supply Branch, State Grid Liaoning Electric Power Supply*
 Pin Dong, *Fushun Power Supply Branch, State Grid Liaoning Electric Power Supply*
 Hongxin Sun, *Fushun Power Supply Branch, State Grid Liaoning Electric Power Supply*
 Zhi Tang, *Jinzhou Power Supply Branch, State Grid Liaoning Electric Power Supply*
- MonBIS-37 The Study of the Existing Problems and Processing Measures Based on Power Grid Scheduling and Safe Operation 5194**
 Chunfeng Wang, *Jinzhou Power Supply Branch, State Grid Liaoning Electric Power Supply*
 Chao Wang, *Jinzhou Power Supply Branch, State Grid Liaoning Electric Power Supply*
- MonBIS-38 Maximum daily load forecasting based on support vector regression considering accumulated temperature effect 5199**
 Qirong Lin, *Jinan Power Supply Company*
 Qiaoqiao Wang, *Jinan Power Supply Company*
 Guilin Zhang, *Shandong Univ. of Scie. and Tech.*
 Yu Shi, *Jinan Power Supply Company*
 Hongxia Liu, *Jinan Power Supply Company*
 Lijun Deng, *Jinan Power Supply Company*
- MonBIS-39 On-line Real-time Evaluation of Urban Power Grid Recovery Ability 5204**
 Yueyue Li, *Shenyang Power Supply Company*
 Shiyu Zhang, *Northeastern Univ.*
 Yanyan He, *State grid Inner Mongolia east power*
 Tianqi Lu, *State Grid Liaoning Electric Power Company Limited Economic Research Inst.*
 Xintui Liu, *Northeastern Univ.*
- MonBIS-40 Low Voltage Ride Through Control Method of Photovoltaic Grid-connected Inverter Based on Model Current Predictive Control 5209**
 Liqun Shang, *Xi'an Univ. of Scie. & Tech.*
 Pengwei Li, *Xi'an Univ. of Scie. & Tech.*
 Zhuojun Li, *Xi'an Univ. of Scie. & Tech.*
- MonBIS-41 Frequency Domain Identification-Based Feedforward-Feedback Controller for Coordinated Power Control of Wind and Gas Joint Power Generation 5215**
 Xiaofeng Li, *Electric Power Research Inst. of Guangdong Power Group*
 Haixin Luo, *Electric Power Research Inst. of Guangdong Power Group*
 Ya Gao, *Electric Power Research Inst. of Guangdong Power Group*
 Yi You, *Electric Power Research Inst. of Guangdong Power Group*
 Yueyang Li, *Univ. of California at Berkeley*

MonBIS-42 Variable Pitch Sliding Mode Control of Wind Turbine Based on Disturbance Observer 5221

Wanjun Hao, *Suzhou Univ. of Scie. and Tech.*
 Shiyuan Hao, *Technical Univ. of Denmark*
 Yishi Jia, *Technical Univ. of Denmark*
 Xinjing Chen, *Suzhou Univ. of Scie. and Tech.*
 Songqing Cao, *Suzhou Univ. of Scie. and Tech.*
 Yanhui Qiao, *Technical Univ. of Denmark*
 Zhe Li, *Suzhou Univ. of Scie. and Tech.*

MonBIS-43 Robust Visual Tracker via Cascade Classifying 5226

Hao Wan, *South China Univ. of Tech.*
 Weiguang Li, *South China Univ. of Tech.*
 Huidong Lou, *South China Univ. of Tech.*
 Guoqiang Ye, *South China Univ. of Tech.*
 Xing Lin, *South China Univ. of Tech.*

Session	MonC01:Robust Control (IV)		
Venue	Room01		
Date/Time	13:30-15:30		
Chair	Kun Wang , <i>Northeast Univ.</i>		
Co-Chair	Yanhui Li , <i>Northeast Petroleum Univ.</i>		
13:30-13:50	MonC01-1	Robust Passive Control of Nonlinear Time-Dealy Uncertain System 5232	
		Yanfeng Chen, <i>Tonghua Normal Univ.</i>	
13:50-14:10	MonC01-2	Robust Non-fragile L1 Filtering for Networked Control Systems with Stochastic Missing Measurements and Random Delays 5238	
		Yanhui Li, <i>Northeast Petroleum Univ.</i>	
		Yingying Tao, <i>Northeast Petroleum Univ.</i>	
14:10-14:30	MonC01-3	Controlling The Uncertain Time-Delayed Lipschitz Nonlinear System: The Finite-time Non-fragile Design Approach 5244	
		Longfang Li, <i>Anhui Univ.</i>	
		Qilong Ai, <i>Anhui Univ.</i>	
		Shuping He, <i>Anhui Univ.</i>	
14:30-14:50	MonC01-4	H_{∞} Robust Adaptive Controller for a Morphing Aircraft Based on SRAD and LPV model 5250	
		Jie Zhang, <i>Beijing Inst. of Control and Elec. Tech.</i>	
14:50-15:10	MonC01-5	Application of fuzzy clustering algorithm in the evaluation of abandoned wind power 5256	
		Aoran Xu, <i>Shenyang Agricultural Univ.</i>	
		Tao Yang, <i>Shenyang Agricultural Univ.</i>	
		Jianwei Ji, <i>Shenyang Agricultural Univ.</i>	
		Yang Gao, <i>Shenyang Inst. of Engi.</i>	
15:10-15:30	MonC01-6	Minimax Controller Design Based on AQM Scheme for TCP Network Systems 5260	
		Kun Wang, <i>Northeastern Univ.</i>	
		Yuanwei Jing, <i>Northeastern Univ.</i>	
		Siying Zhang, <i>Northeastern Univ.</i>	

Session	MonC02:Optimal Control and Optimization (VII)		
Venue	Room02		
Date/Time	13:30-15:30		
Chair	Ju Zhang , <i>Zhejiang Univ. of Tech.</i>		
Co-Chair	Gang Liu , <i>Naval Univ. of Engi.</i>		
13:30-13:50	MonC02-1	Predicting Residual Life Model Based on Bayesian 5266 Gang Liu, <i>Naval Univ. of Engi.</i> Fang Li, <i>Naval Univ. of Engi.</i> Bin Hu, <i>Naval Univ. of Engi.</i>	
13:50-14:10	MonC02-2	General Cargo Yard Storage Allocation Optimization Based on Layout 5271 Hongwei Tian, <i>Wuhan Univ. of Scie. and Tech.</i> Zhixiong Liu, <i>Wuhan Univ. of Scie. and Tech.</i> Xingxu Deng, <i>China Post Express Logistics Co., Ltd</i>	
14:10-14:30	MonC02-3	A Hybrid Gravitational Search Algorithm for Unconstrained Problems 5277 Xin Zhang, <i>Jiangsu Normal Univ.</i> Dexuan Zou, <i>Jiangsu Normal Univ.</i> Zhi Kong, <i>Northeastern Univ. at Qinhuangdao</i> Xin Shen, <i>Jiangsu Normal Univ.</i>	
14:30-14:50	MonC02-4	LPV based Gain Scheduling Control for 3 DOF Helicopter 5285 Ju Zhang, <i>Zhejiang Univ. of Tech.</i> Jun Zhou, <i>Zhejiang Univ. of Tech.</i> Biaobiao Hu, <i>Zhejiang Univ. of Tech.</i>	
14:50-15:10	MonC02-5	Explicit Model Predictive Control for PEM Fuel Cell Systems 5291 Ju Zhang, <i>Zhejiang Univ. of Tech.</i> Kailun Zhao, <i>Zhejiang Univ. of Tech.</i> Yanfang Ma, <i>Zhejiang Univ. of Tech.</i>	
15:10-15:30	MonC02-6	Multimodal Estimation of Distribution Algorithm Based on Cooperative Clustering Strategy 5297 Shanshan Huang, <i>Nari Group Corporation (State Grid Elec. Power Research Inst.)</i> Houming Jiang, <i>Nari Group Corporation (State Grid Elec. Power Research Inst.)</i>	

Session	MonC03:Optimal Control and Optimization (VIII)		
Venue	Room03		
Date/Time	13:30-15:30		
Chair	Weiwei Zhang , <i>Hohai Univ.</i>		
Co-Chair	Yong Zhang , <i>Univ. of Scie. and Tech. Liaoning</i>		
13:30-13:50	MonC03-1	A Method of Single Line Diagram Layout and Optimization for Regional Distribution System Based on GA 5303 Boxi Zhou, <i>State Grid of China Tech. Coll.</i> Guojing Zhang, <i>State Grid of China Tech. Coll.</i> Ting Guo, <i>State Grid of China Tech. Coll.</i> Jinliang Wang, <i>State Grid of China Tech. Coll.</i> Wendong Niu, <i>State Grid of China Tech. Coll.</i> Nina Lv, <i>State Grid of China Tech. Coll.</i> Lianxi Sun, <i>State Grid of China Tech. Coll.</i>	

13:50-14:10	MonC03-2	Prediction of concentrate grade and recovery rate of tailings in the process of production based on chaotic ant colony algorithm 5308 Jing Zhu, <i>Anshan Normal Univ.</i> Jinling Niu, <i>Univ. of Scie. and Tech. Liaoning</i> Yong Zhang, <i>Univ. of Scie. and Tech. Liaoning</i>
14:10-14:30	MonC03-3	Research on Magnetic Suspended Vibration Isolation System Based on Stiffness Control under Base Motion 5314 Weiwei Zhang, <i>Hohai Univ.</i> Tingting Wang, <i>Hohai Univ.</i>
14:30-14:50	MonC03-4	Cooperative Jamming Resource Allocation of UAV Swarm Based on Multi-objective DPSO 5319 Qingwen Qin, <i>Air Force Early Warning Academy</i> Wenfeng Dong, <i>Air Force Early Warning Academy</i> Meiqing Lin, <i>Air Force Early Warning Academy</i> Yang Yang, <i>Air Force Early Warning Academy</i>
14:50-15:10	MonC03-5	A Hybrid Immune Algorithm for Solving Dynamic Optimization Problems 5326 Zhou Yang, <i>Guizhou Univ.</i> Yichua Yuan, <i>Guizhou Univ.</i> Tingxing Luo, <i>Guiyang Info. Industry Development Center</i> Jin Qin, <i>Guizhou Univ.</i>
15:10-15:30	MonC03-6	Improved Harmony Search Algorithm Applied in Power System Economic Load Dispatch 5333 Yining Zhang, <i>Anshan Normal Univ.</i>

Session	MonC04:Complex Networks and Systems (IV)
Venue	Room04
Date/Time	13:30-15:30
Chair	Cunwu Han, <i>North China Univ. of Tech.</i>
Co-Chair	Yulian Jiang, <i>Changchun Univ. of Tech.</i>

13:30-13:50	MonC04-1	Robust Active Queue Management for Internet with Multiple Time Delays 5337 Cunwu Han, <i>North China Univ. of Tech.</i> Wei Tong, <i>North China Univ. of Tech.</i> Mengqi Li, <i>North China Univ. of Tech.</i> Lei Liu, <i>North China Univ. of Tech.</i>
13:50-14:10	MonC04-2	Distributed Leader-following Consensus Control based Optimal Design for Multi-agent Systems with Intermittent Communications 5341 Yulian Jiang, <i>Changchun Univ. of Tech.</i> Yuhang Zhang, <i>Changchun Univ. of Tech.</i> Shenquan Wang, <i>Changchun Univ. of Tech.</i>
14:10-14:30	MonC04-3	Identifying Influence for Community in Complex Networks 5346 Mingli Lei, <i>HuBei Univ. for Nationalities</i> Daijun Wei, <i>HuBei Univ. for Nationalities</i>
14:30-14:50	MonC04-4	Quantitatively Computational Controllability of Complex Networks 5350 Yali Zhang, <i>Northeastern Univ. at Qinhuangdao</i> Lifu Wang, <i>Northeastern Univ. at Qinhuangdao</i> Zhi Kong, <i>Northeastern Univ. at Qinhuangdao</i> Liqian Wang, <i>State Grid Liaoning Information and Communication Company</i>

14:50-15:10	MonC04-5	The Structural Controllability of Edge Dynamics in Complex Networks 5356 Cong Shen, <i>Qingdao Univ.</i> Zhijian Ji, <i>Qingdao Univ.</i> Haisheng Yu, <i>Qingdao Univ.</i>
15:10-15:30	MonC04-6	The Determination of Fixed Controllable Subspace in Complex Networks 5361 Zhiang Chen, <i>Qingdao Univ.</i> Zhijian Ji, <i>Qingdao Univ.</i> Haisheng Yu, <i>Qingdao Univ.</i>

Session	MonC05:Nonlinear Systems (VI)	
Venue	Room05	
Date/Time	13:30-15:30	
Chair	Xiaoling Chen, <i>Hubei Univ. of Scie. and Tech.</i>	
Co-Chair	Yeguo Sun, <i>Huainan Normal Univ.</i>	
13:30-13:50	MonC05-1	Adaptive Fuzzy Prescribed Performance Control for a class of Uncertain Chaotic Economical System 5367 Ling Li, <i>Huainan Normal Univ.</i> Yeguo Sun, <i>Huainan Normal Univ.</i>
13:50-14:10	MonC05-2	An Approximate Solution for Period-1 Motions in a Periodically Forced Oscillator with Quadratic Nonlinearity 5372 Xiaoling Chen, <i>Hubei Univ. of Scie. and Tech.</i> Guopeng Zhou, <i>Hubei Univ. of Scie. and Tech.</i>
14:10-14:30	MonC05-3	The Fuzzy PID Controller Design Base on Nonlinear U-model 5378 Fengxia Xu, <i>Qiqihar Univ.</i> Zhilong Wang, <i>Qiqihar Univ.</i> Xiaohui Song, <i>Qiqihar Univ.</i> Shanshan Wang, <i>Qiqihar Univ.</i>
14:30-14:50	MonC05-4	Decoupling Strong Tracking Cubature Kalman Filter for Nonlinear Systems with One-step Randomly Delayed Measurements and Correlated Noises 5384 Hongtao Yang, <i>Changchun Univ. of Tech.</i> Xinxin Meng, <i>Changchun Univ. of Tech.</i> Xiulan Li, <i>Changchun Univ. of Tech.</i> Zhanhua Zhang, <i>Changchun Univ. of Tech.</i>
14:50-15:10	MonC05-5	Chosen Ciphertext Attack on a Chaotic Stream Cipher 5390 Zhuosheng Lin, <i>Guangdong Univ. of Tech.</i> Simin Yu, <i>Guangdong Univ. of Tech.</i> Jinhu Lv, <i>Chinese Academy of Sciences</i>
15:10-15:30	MonC05-6	Improved Adaptive Backstepping Sliding Mode Control for Multi-Machine System with TCSC 5395 Liyang Sun, <i>Liaoning Univ. of Tech.</i> Yan Zhao, <i>State Grid Jibei Electric Power Co., Ltd.</i>

Session	MonC06:Stochastic Systems (I)	
Venue	Room06	
Date/Time	13:30-15:30	
Chair	Weihai Zhang , <i>Shandong Univ. of Scie. and Tech.</i>	
Co-Chair	Guici Chen , <i>Wuhan Univ. of Scie. and Tech.</i>	
13:30-13:50	MonC06-1	Disturbance Observer-Based Disturbance Attenuation Control for A Class of Stochastic Systems with Nonlinear Exosystem and White Noises 5399 Lewei Dong, <i>Ludong Univ.</i> Xinjiang Wei, <i>Ludong Univ.</i>
13:50-14:10	MonC06-2	Robust Stability, Stabilization and H^∞ Control for a Class of Nonlinear Uncertain Stochastic Time-Varying Delayed Systems 5405 Pengxiang Sun, <i>China Univ. of Petroleum</i> Tianliang Zhang, <i>South China Univ. of Tech.</i> Weihai Zhang, <i>Shandong Univ. of Scie. and Tech.</i>
14:10-14:30	MonC06-3	Capacity Evaluation Method for Parallel Runway Based on Monte Carlo Simulation 5411 Fei Wang, <i>Civil Aviation Univ. of China</i> Ligang Zhao, <i>Civil Aviation Administration of China</i>
14:30-14:50	MonC06-4	Finite-time passive control for interval energy-storing electrical circuit model with time-delay and Markov switching 5416 Shasha Zhu, <i>Wuhan Univ. of Scie. and Tech.</i> Guici Chen, <i>Wuhan Univ. of Scie. and Tech.</i> Yali Yang, <i>Wuhan Univ. of Scie. and Tech.</i>
14:50-15:10	MonC06-5	A Kalman Filtering for Linear Discrete-time System with Unknown Inputs 5423 Weiran Li, <i>Zhejiang Univ. City Coll.</i> Jie Pan, <i>Univ. of Western Australia</i> Yanjun Li, <i>Zhejiang Univ. City Coll.</i> Shuwen Pan, <i>Zhejiang Univ. City Coll.</i> Yan Liu, <i>Zhejiang Univ. City Coll.</i>
15:10-15:30	MonC06-6	Random Walk Model based Statistical Analysis and Application on Transport simulation 5429 Rong Fei, <i>Xi'an Univ. of Tech.</i> Shasha Li, <i>Xi'an Univ. of Tech.</i> Fang Liu, <i>Xi'an Univ. of Tech.</i> Aimin Li, <i>Xi'an Univ. of Tech.</i> Qingzheng Xu, <i>National Univ. of Defense Tech.</i>

Session	MonC07:Fuzzy Systems (I)	
Venue	Room07	
Date/Time	13:30-15:30	
Chair	Xiao Min, <i>Liaoning Univ. of Tech.</i>	
Co-Chair	Wenjing Huang, <i>Sichuan Univ.</i>	
13:30-13:50	MonC07-1	Fuzzy Output-feedback Control for Nonlinear Stochastic Systems with Unknown-Time-Delays 5435 Xiao Min, <i>Liaoning Univ. of Tech.</i> Shaocheng Tong, <i>Liaoning Univ. of Tech.</i> Yongming Li, <i>Liaoning Univ. of Tech.</i> Wei Wu, <i>Liaoning Univ. of Tech.</i>
13:50-14:10	MonC07-2	An Improved Event-triggered H_∞ Filtering for Nonlinear Systems 5439 Zhongda Lu, <i>Qiqihar Univ.</i> Harbin Univ. of Scie. and Tech. Guangtao Ran, <i>Qiqihar Univ.</i> Fengbin Zhang, <i>Harbin Univ. of Scie. and Tech.</i> Fengxia Xu, <i>Qiqihar Univ.</i>
14:10-14:30	MonC07-3	Power Grid Security Risk Assessment Based On Fuzzy Cluster and State Homogeneity 5445 Xiaoxiao Qi, <i>Electric Power Research Inst.</i> Wenjing Huang, <i>Sichuan Univ.</i> Huaqiang Li, <i>Sichuan Univ.</i> Yongjun Yu, <i>Electric Power Research Inst.</i> Dagui Llu, <i>Electric Power Research Inst.</i>
14:30-14:50	MonC07-4	Active Collision Avoidance Fuzzy Control for four-in-wheel-motor- driven Electric Vehicles 5450 Keyu Hao, <i>Changchun Univ. of Tech.</i> Yufeng Lian, <i>Changchun Univ. of Tech.</i> Keping Liu, <i>Changchun Univ. of Tech.</i>
14:50-15:10	MonC07-5	The Performance of an Adaptive Aggregate Smoothing Training Algorithm for Max-min Fuzzy Neural Networks 5456 Yunlong Lu, <i>Dalian Univ. of Tech. Beihua Univ.</i> Wenyu Li, <i>Dalian Univ. of Tech. Beihua Univ.</i> Bo Yu, <i>Dalian Univ. of Tech.</i>
15:10-15:30	MonC07-6	Research and Analysis of 300MW Boiler Combustion System Based on Fuzzy Control 5460 Weiping Liang, <i>North China Electric Power Univ.</i> Jinshuai Zhang, <i>North China Electric Power Univ.</i>

Session	MonC08:Sensor Network Systems		
Venue	Room08		
Date/Time	13:30-15:30		
Chair	Peng Ji , <i>Northeastern Univ.</i>		
Co-Chair	Yueyang Huang , <i>Liaoning Shihua Univ.</i>		
13:30-13:50	MonC08-1	A Multi-node Overlap Sensor Ratio Based Coverage Enhancing Algorithm in Wireless Multi-media Sensor Networks 5464	
		Peng Ji, <i>Northeastern Univ.</i> Hao Chu, <i>Northeastern Univ.</i> Xiaosheng Yu, <i>Northeastern Univ.</i> Pengju Si, <i>Northeastern Univ.</i>	
13:50-14:10	MonC08-2	Key Management Scheme Based on Nodes Capture Probability for Wireless Sensor Networks 5470	
		Ying Zhang, <i>Shanghai Maritime Univ.</i> Peisong Li, <i>Shanghai Maritime Univ.</i>	
14:10-14:30	MonC08-3	Multi-Sensor Node Fusion Localization Using Unscented Kalman Filter in Rough Environments 5476	
		Yueyang Huang, <i>Liaoning Shihua Univ., Northeastern Univ.</i> Yuanwei Jing, <i>Northeastern Univ.</i> Yuanbo Shi, <i>Liaoning Shihua Univ., Northeastern Univ.</i>	
14:30-14:50	MonC08-4	Forest fire monitoring, detection and decision making systems by wireless sensor network 5482	
		YongMin Liu, <i>Central South Univ. of Forestry and Tech.</i> YiMing Liu, <i>Central South Univ. of Forestry and Tech.</i> HongLei Xu, <i>Curtin Univ.</i> Kok Lay Teo, <i>Curtin Univ.</i>	
14:50-15:10	MonC08-5	Research on APIT Localization Algorithm in Wireless Sensor Networks 5487	
		Ying Zhang, <i>Shanghai Maritime Univ.</i> Qiman Zhang, <i>Shanghai Maritime Univ.</i>	
15:10-15:30	MonC08-6	On the Crowdsourcing-based Radio Map Construction with Noisy Location Labels 5492	
		Baoqi Huang, <i>Inner Mongolia Univ.</i> Jian Song, <i>Inner Mongolia Univ.</i> Bing Jia, <i>Inner Mongolia Univ.</i> Long Zhao, <i>Beihang Univ.</i>	

Session	MonC09:Neural Networks (V)		
Venue	Room09		
Date/Time	13:30-15:30		
Chair	Xiaoli Li , <i>Beijing University of Tech.</i>		
Co-Chair	Jie-sheng Wang , <i>Univ. of Scie. and Tech. Liaoning</i>		

13:30-13:50	MonC09-1	An Adaptive Unified Artificial Bee Colony Algorithm for Global Optimization 5497	
		Yang Yang, <i>Nanjing University of Posts and Telecommunications</i> Feiyi Xu, <i>Nanjing University of Posts and Telecommunications</i> Haidong Hu, <i>Beijing Institute of Control Engineering</i> Hao Gao, <i>Nanjing University of Posts and Telecommunications</i>	

13:50-14:10	MonC09-2	Research on Anti-swaying of Crane Based on T-S Type Adaptive Neural Fuzzy Control 5503 Zhao Wang, <i>China University of Petroleum</i> Yuhuan Shi, <i>China University of Petroleum</i> Shurong Li, <i>Beijing University of Posts and Telecommunications</i>
14:10-14:30	MonC09-3	Prediction of Material Concentration and Reaction Temperature of CSTR Process Based on Sugeno-type Fuzzy Inference System 5509 Shuo Wen, <i>University of Science and Technology Liaoning</i> Jie-sheng Wang, <i>University of Science and Technology Liaoning</i> Qing-wen Zhu, <i>University of Science and Technology Liaoning</i> Xue-han Fang, <i>Sun Yat-Sen Univ.</i>
14:30-14:50	MonC09-4	Prediction of Urban PM2.5 Concentration Based on Wavelet Neural Network 5514 Shan Zhang, <i>Beijing University of Tech.</i> Xiaoli Li, <i>Beijing University of Tech.</i> Yang Li, <i>Communication University of China.</i> Jianxiang Mei, <i>Beijing University of Tech.</i>
14:50-15:10	MonC09-5	Human Behavior Recognition Method Based on Double-Branch Deep Convolution Neural Network 5520 Zhigang Zhou, <i>Guangdong University of Tech.</i> Guangxue Duan, <i>Guangdong Institute of Intelligent Manufacturing</i> Huan Lei, <i>Guangdong Institute of Intelligent Manufacturing</i> Guangbing Zhou, <i>Guangdong Institute of Intelligent Manufacturing</i> Nan Wang, <i>Guangdong Institute of Intelligent Manufacturing</i> Wenjie Yang, <i>Guangdong University of Tech.</i>
15:10-15:30	MonC09-6	Adaptive Control Algorithm of Permanent Magnet Spherical Motor Based on Neural Network 5525 Fengying Wu, <i>Tianjin University of Tech.</i> Jinqiang Xi, <i>Tianjin University of Tech.</i>

Session	MonC10:Management Information Systems and Enterprises Informatization	
Venue	Room10	
Date/Time	13:30-15:30	
Chair	Haiwang Cao, <i>Zhengzhou University of Aeronautics</i>	
Co-Chair	Liqiongyu Zhu, <i>Heilongjiang Univ.</i>	
13:30-13:50	MonC10-1	Analysis on Influencing Factors of Enterprise Information System Innovation Capacity based on Bayesian Network Model 5531 Haiwang Cao, <i>Zhengzhou University of Aeronautics</i> Chaogai Xue, <i>Zhengzhou Univ.</i> Menghua Li, <i>Zhengzhou Univ.</i>
13:50-14:10	MonC10-2	Internal Control, Cloud Accounting Platform and Administrative Management: a Case Study of China's Quzhou Investment Bureau 5536 Liqiongyu Zhu, <i>Heilongjiang Univ.</i> Degui Zhu, <i>Harbin University of Commerce</i>
14:10-14:30	MonC10-3	Research on the Influence Factors of Online Health Community Doctors' Service Prices 5541 Dengjing Pan, <i>Central South Univ.</i>

14:30-14:50	MonC10-4	Information Technology, Government Management and Innovation Mechanism: a Case Study of China's Administration 5547 Liqiongyu Zhu, <i>Heilongjiang Univ.</i> Guixiang Li, <i>Harbin University of Commerce</i>
14:50-15:10	MonC10-5	Design of electric business hall monitoring system based on infrared imaging 5553 Bo Hu, <i>State Grid Liaoning Electric Power Supply Co.</i> Hongxing Liu, <i>State Grid Liaoning Electric Power Supply Co.</i> Jun Liu, <i>State Grid Liaoning Electric Power Supply Co.</i> Mingyi Li, <i>State Grid Liaoning Electric Power Supply Co.</i> Yi Wang, <i>State Grid Liaoning Electric Power Supply Co.</i>
15:10-15:30	MonC10-6	Research on Information Disclosure of Corporate Social Responsibility Based on Environmental Friendliness 5558 Xinhua Zhao, <i>Qingdao University of Science & Tech.</i>

Session	MonC11:Signal Processing (IV)
Venue	Room11
Date/Time	13:30-15:30
Chair	Yuliang Ma , <i>Hangzhou Dianzi Univ.</i>
Co-Chair	Ting Liu , <i>Dalian Maritime Univ.</i>

13:30-13:50	MonC11-1	Non-Uniform Sampling Scheme Based on Low Rank Matrix Approximate for Sparse Photoacoustic Microscope System 5564 Ting Liu, <i>Dalian Maritime Univ.</i> Yongsheng Zhao, <i>Dalian Maritime Univ.</i>
13:50-14:10	MonC11-2	Heart sound and ECG signal analysis and detection system based on LabVIEW 5569 Ying Guo, <i>Shenyang Univ. of Tech.</i> Zhenzhen Wang, <i>Shenyang Univ. of Tech.</i> Li Ke, <i>Shenyang Univ. of Tech.</i> Qiang du, <i>Shenyang Univ. of Tech.</i> Jinghui Li, <i>Shenyang Univ. of Tech.</i>
14:10-14:30	MonC11-3	A New Method for Obtaining the Heart Sound Signals Source Components 5573 Xiefeng Cheng, <i>Nanjing Univ. of Posts and Telecommunications</i> Shicheng Dai, <i>Nanjing Univ. of Posts and Telecommunications</i> Yunyi Li, <i>Nanjing Univ. of Posts and Telecommunications</i> Xu Shan, <i>Nanjing Univ. of Posts and Telecommunications</i> Jia Liu, <i>Nanjing Univ. of Posts and Telecommunications</i>
14:30-14:50	MonC11-4	Robust Face Recognition Based on Non-negative Sparse Discriminative Low-rank Representation 5579 Xielian Hou, <i>Yangzhou Univ.</i> Caikou Chen, <i>Yangzhou Univ.</i> Shengwei Zhou, <i>Yangzhou Univ.</i> Jingshan Li, <i>Yangzhou Univ.</i>
14:50-15:10	MonC11-5	Multi-angle Face Detection Based on Gaussian Mixture Model and Improved Template Matching 5584 Chen Yan, <i>Yangzhou Univ.</i> Zhengqun Wang, <i>Yangzhou Univ.</i> Yang Yang, <i>Yangzhou Univ.</i> Chunlin Xu, <i>Northern Laser Technology Group Corporation</i>

15:10-15:30	MonC11-6	Motor imagery electroencephalogram de-noising method based on EEMD and improved wavelet threshold 5589 Songjie Zhang, <i>Hangzhou Dianzi Univ.</i> Yuliang Ma, <i>Hangzhou Dianzi Univ.</i> Qizhong Zhang, <i>Hangzhou Dianzi Univ.</i> Yunyuan Gao, <i>Hangzhou Dianzi Univ.</i>
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Session	MonC12:Man-machine Interactions	
Venue	Room12	
Date/Time	13:30-15:30	
Chair	Qing Wei , <i>Shenyang Inst. of Automation Univ. of Chinese Academy of Scie.</i>	
Co-Chair	Tong Jia , <i>Northeastern Univ.</i>	
13:30-13:50	MonC12-1	Business Card Recognition and E-mail Delivery Based on NAO Robot 5595 Xuewen Zhao, <i>Tianjin Univ. of Tech.</i> Qiang Gao, <i>Tianjin Univ. of Tech.</i> Shukai Shen, <i>Tianjin Univ. of Tech.</i> Zhe Wang, <i>Tianjin Univ. of Tech.</i>
13:50-14:10	MonC12-2	Classification of Motor Imagery EEG Using Wavelet Envelope Analysis and LSTM Networks 5600 Jie Zhou, <i>Hangzhou Dianzi Univ.</i> Ming Meng, <i>Hangzhou Dianzi Univ.</i> Yunyuan Gao, <i>Hangzhou Dianzi Univ.</i> Yuliang Ma, <i>Hangzhou Dianzi Univ.</i> Qizhong Zhang, <i>Hangzhou Dianzi Univ.</i>
14:10-14:30	MonC12-3	Collaboration Robotic Compliance Grasping Based on Implicit Human-Computer Interaction 5606 Fei Wang, <i>Northeastern Univ.</i> Huan Qi, <i>Northeastern Univ.</i> Xingqun Zhou, <i>Northeastern Univ.</i> Jianhui Wang, <i>Northeastern Univ.</i> Zhen Zeng, <i>Northeastern Univ.</i> Rongjie Li, <i>Northeastern Univ.</i>
14:30-14:50	MonC12-4	Efficient 3D Scan Registration for Hand Modeling and Reconstruction 5612 Peilin Shen, <i>Southeast Univ.</i> Haikun Wei, <i>Southeast Univ.</i> Yangang Wang, <i>Southeast Univ.</i>
14:50-15:10	MonC12-5	Commodity 3D Display based on Point Cloud Reconstruction 5617 Yujie Fu, <i>Northeastern Univ.</i> Tong Jia, <i>Northeastern Univ.</i> Zhaozhan Song, <i>Northeastern Univ.</i> Bo Peng, <i>Northeastern Univ.</i>
15:10-15:30	MonC12-6	Contact Force Rendering Method Based on Robot Dynamics 5623 Qing Wei, <i>Shenyang Inst. of Automation Univ. of Chinese Academy of Scie.</i> Nailong Liu, <i>Shenyang Inst. of Automation Univ. of Chinese Academy of Scie.</i> Zhaoming Liu, <i>Shenyang Inst. of Automation Univ. of Chinese Academy of Scie.</i> Long Cui, <i>Shenyang Inst. of Automation</i>

Session	MonC13:Instrumentation Systems		
Venue	Room13		
Date/Time	13:30-15:30		
Chair	Lingke Zhou , <i>Nanjing University of Scie. and Tech.</i>		
Co-Chair	Rangwen Zhang , <i>China University of Petroleum</i>		
13:30-13:50	MonC13-1	Millimeter Wave Radar Simulator Transmitting Power Test System Design 5629 Tao Xu, <i>Shenyang Aerospace Univ.</i> Manghe Geng, <i>AVIC Shenyang Aircraft Corporation.</i>	
13:50-14:10	MonC13-2	A Calibration Method of UAV Accelerometer Based on Levenberg-Marquardt Iteration Algorithm 5634 Zhong Yuan, <i>Beijing Inst. of Tech.</i> Xu Yong, <i>Beijing Inst. of Tech.</i>	
14:10-14:30	MonC13-3	Design and Implementation of Recognition Algorithm Based on Four-band Infrared Flame Detector 5639 Yuanyuan Liu, <i>Jiangnan Univ, Wuxi Vocational College of Science and Technology.</i>	
14:30-14:50	MonC13-4	Improved OTSU and Adaptive Genetic Algorithm for Infrared Image Segmentation 5644 Ya Wang, <i>Tianjin Univ. of Tech.</i>	
14:50-15:10	MonC13-5	Design of Multi - Frequency Constant Current Source Based on Intracellular and Extracellular Fluid Capacity 5649 Li Ke, <i>Shenyang Univ. of Tech.</i> Yalong Wang, <i>Shenyang Univ. of Tech.</i> Qiang Du, <i>Shenyang Univ. of Tech.</i> Jiawei Xu, <i>Shenyang Univ. of Tech.</i>	
15:10-15:30	MonC13-6	Extraction of Parasitic Parameters of IGBT Module Based on Three-Stage Method 5654 Sanqiang Li, <i>Tianjin Univ. of Tech.</i> Mingxing Du, <i>Tianjin Univ. of Tech.</i>	

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Venue	Room14		
Date/Time	13:30-15:30		
Chair	Jinrun Zhang , <i>South China Univ.</i>		
Co-Chair	Tao Shen , <i>Jinan Univ.</i>		
13:30-13:50	MonC14-1	Recognition of the Unstructured Road Based on Machine Vision 5660 Jianyu Zhao, <i>Univ. of Jinan</i> Xiangxiang Xia, <i>Qilu Inst. of Tech.</i> Ping Jiang, <i>Univ. of Jinan</i>	
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14:10-14:30	MonC14-3	Apple Color Automatic Grading Method Based on Machine Vision 5671 Yuhui Ji, <i>Univ. of Jinan</i> Qinjun Zhao, <i>Univ. of Jinan</i> Shuhui Bi, <i>Univ. of Jinan</i> Tao Shen, <i>Univ. of Jinan</i>	
14:30-14:50	MonC14-4	Parallel Tracker for Visual Object Tracking 5676 Xiangluan Liang, <i>Beijing Inst. of Tech.</i> Ru Lai, <i>Beijing Inst. of Tech.</i> Luzheng Bi, <i>Beijing Inst. of Tech.</i>	
14:50-15:10	MonC14-5	An Improved Bag of Words Method for Appearance Based Visual Loop Closure Detection 5682 Zhu Huishen, <i>Beijing Inst. of Tech.</i> Yu Huan, <i>Beijing Inst. of Tech.</i> Xie Ling, <i>Beijing Inst. of Tech.</i> Wang Liujun, <i>Beijing Inst. of Tech.</i>	
15:10-15:30	MonC14-6	Research on a facial feature points detection method based on skin color model 5688 Danyang Cao, <i>North China Univ. of Tech.</i> Menggui Zhu, <i>North China Univ. of Tech.</i> Yanchao Zuo, <i>North China Univ. of Tech.</i>	

Session	MonC15:Smart Grids (IV)	
Venue	Room15	
Date/Time	13:30-15:30	
Chair	Kaifeng Zhang , <i>Southeast Univ.</i>	
Co-Chair	Ancheng Xue , <i>North China Electric Power Univ.</i>	
13:30-13:50	MonC15-1	Modelling and Simulation of Phase-locked Loop for Grid Voltage Based on the Improved Synchronous Reference Frame 5694 Jian Guo, <i>Harbin Engineering Univ.</i> Pengfei Yue, <i>Harbin Engineering Univ.</i> Jiawen Si, <i>Harbin Engineering Univ.</i> Yongliang Sun, <i>Harbin Engineering Univ.</i> Qining Chen, <i>Harbin Engineering Univ.</i>
13:50-14:10	MonC15-2	Research on Advanced Metering Infrastructure Time Synchronization based on NTP 5701 Jizhe Lu, <i>China Electric Power Research Inst.</i> Xuan Liu, <i>China Electric Power Research Inst.</i> Aliaosha Ye, <i>China Electric Power Research Inst.</i> Jian Dou, <i>China Electric Power Research Inst.</i> Guoquan Zheng, <i>China Electric Power Research Inst.</i>
14:10-14:30	MonC15-3	Simulation Study on Leakage Current of Metal Zinc Oxide Arrester 5705 Fucheng Lang, <i>Electric Power Research Inst. of State Grid Liaoning Electric Power</i> Jinsong Liu, <i>Electric Power Research Inst. of State Grid Liaoning Electric Power</i> Xiaoxue Tai, <i>Electric Power Research Inst. of State Grid Liaoning Electric Power</i>
14:30-14:50	MonC15-4	Research on Technology of Motor Mechanism in Mining Isolating Switch Breaking Test 5710 Hongkui Zhang, <i>CCTEG Shenyang Research Inst.</i>
14:50-15:10	MonC15-5	Bidding Strategy Based on the Degree of Completion for Bilateral Negotiation of Power Market 5715 Ling Zhang, <i>Southeast Univ.</i> Kaifeng Zhang, <i>Southeast Univ.</i> Jian Geng, <i>China Electric Power Research Inst.</i> Suyan Zhou, <i>Southeast Univ.</i> Kuang Wen, <i>Southeast Univ.</i> Lidan Tian, <i>Southeast Univ.</i>
15:10-15:30	MonC15-6	Analysis and Control to the Ultra-Low Frequency Oscillation in Southwest Power Grid of China: A Case Study 5721 Chao Zheng, <i>China Electric Power Research Inst.</i> Guoqiang Ding, <i>North China Electric Power Univ.</i> Baisi Liu, <i>State Grid Southwest Power Control Center</i> Xin Zhang, <i>China Electric Power Research Inst.</i> Jiawei Wang, <i>North China Electric Power Univ.</i> Ancheng Xue, <i>North China Electric Power Univ.</i> Tianshu Bi, <i>North China Electric Power Univ.</i>

Session	MonC16:Traffic Control (I)		
Venue	Room16		
Date/Time	13:30-15:30		
Chair	Yubin Wang, Yubin Wang		
Co-Chair	Yujie Sun, State Nuclear Elect. Power Planning Design & Research Inst.		
13:30-13:50	MonC16-1	Multilevel Control of Traffic Flow in a Motorway Network 5725 Yubin Wang, <i>Guilin Univ. of Elect. Tech.</i> Wenyong Li, <i>Guilin Univ. of Elect. Tech.</i> Jan H. van Schuppen, <i>Delft Univ. of Tech.</i> Jos Vrancken, <i>Delft Univ. of Tech.</i>	
13:50-14:10	MonC16-2	Study on Trip Distribution of Beijing Residents Based on Information Entropy Model 5733 Xin Wang, <i>Beijing Inf. Scie. and Tech. Univ.</i>	
14:10-14:30	MonC16-3	Vehicle Target Detection Based On R-FCN 5739 Zhigang Zhou, <i>Guangdong Univ. of Tech.</i> Huan Lei, <i>Guangdong Univ. of Tech.</i> Pengcheng Ding, <i>Guangdong Univ. of Tech.</i> Guangbing Zhou, <i>Guangdong Inst. of Intelligent Manufacturing</i> Nan Wang, <i>Guangdong Inst. of Intelligent Manufacturing</i> Wei-kun Zhou, <i>Guangdong Univ. of Tech.</i>	
14:30-14:50	MonC16-4	Research on the Arterial Coordination Control of Road Intersections in Port Areas Based on Vissim Simulation 5744 Xiaojing Du, <i>Dalian Neusoft Univ. of Info.</i> Dongshi Sun, <i>Dalian Neusoft Univ. of Info.</i>	
14:50-15:10	MonC16-5	Designing an Automated Tractor and Semi-trailer Exchange System for Drop and Pull Transport 5748 Luhua Zhao, <i>Shandong Univ. of Sci. & Tech.</i> Entong Wang, <i>Shandong Univ. of Sci. & Tech.</i> Yang Li, <i>Shandong Univ. of Sci. & Tech.</i> Xinyu Dou, <i>Shandong Univ. of Sci. & Tech.</i>	
15:10-15:30	MonC16-6	A LOS-based Signal Compensation Method for Non-bus Priority Approach 5753 Yujie Sun, <i>State Nuclear Elect. Power Planning Design & Research Inst.</i> Fengwei Song, <i>China Zhongyuan Engi. Corp</i>	

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Venue	Room17		
Date/Time	13:30-15:30		
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	MonCIS-02	Method of Blob Detection Based on Radon Transform 5762 Cheng Chen, <i>Global Energy Interconnection Research Inst.</i> Qipeng Chen, <i>Global Energy Interconnection Research Inst.</i> Chang Gao, <i>Global Energy Interconnection Research Inst.</i> Nan Zhang, <i>North China Electric Power Univ.</i> Xuguang Wang, <i>North China Electric Power Univ.</i> Yongjie Zhai, <i>North China Electric Power Univ.</i>	

- MonCIS-03 Differential Kinematics for A Tendon-driven Snake-like Robot 5768**
Xingyao Yu, *Tsinghua Univ.*
Xueqian Wang, *Tsinghua Univ.*
Deshan Meng, *Tsinghua Univ.*
Bin Liang, *Tsinghua Univ.*
- MonCIS-04 Adaptive tracking control of quadrotor UAV system with input constraints 5774**
Fan Zhou, *Nanjing Univ. of Posts and Telecommunications*
Yingjiang Zhou, *Nanjing Univ. of Posts and Telecommunications*
Guoping Jiang, *Nanjing Univ. of Posts and Telecommunications*
Ning Cao, *Nanjing Univ. of Posts and Telecommunications*
- MonCIS-05 Disturbance Observer-Based Singularity-Free Trajectory Tracking Control of Uncertain Quadrotors with Input Saturation 5780**
Xihui Wang, *National Space Science Center, China Academy of Science*
Xiaofeng Su, *Beijing Inst. of Astronautical Systems Engineering, China Academy of Launch Vehicle Tech.*
Liang Sun, *Univ. of Scie. and Tech.*
- MonCIS-06 Horizontal Trajectory Tracking Control for an Underactuated AUV Adopted Global Integral Sliding Mode Control 5786**
Yunbiao Jiang, *Dalian Maritime Univ.*
Chen Guo, *Dalian Maritime Univ.*
Haomiao Yu, *Dalian Maritime Univ.*
- MonCIS-07 Underwater Image Dehazing Using Modified Dark Channel Prior 5792**
Bowen Yao, *Zhejiang Univ.*
Ji Xiang, *Zhejiang Univ.*
- MonCIS-08 Robust Adaptive Formation Control of Underactuated Autonomous Underwater Vehicles Under Input Saturation 5798**
Jian Li, *Dalian Maritime Univ.*
Jialu Du, *Dalian Maritime Univ.*
- MonCIS-09 Underwater Vehicle Trajectory Planning in Dynamic Environments Based on Radau Pseudospectral Method 5804**
Zhenzhong Chu, *Shanghai Maritime Univ.*
Daqi Zhu, *Shanghai Maritime Univ.*
- MonCIS-10 A Self-Tuning Line Feature Extraction Method for Robot SLAM in Structured Environment 5809**
Guixia Fu, *Shandong Univ. of Tech.*
Guofeng Zuo, *Shandong Univ. of Tech.*
Mingliang Gao, *Shandong Univ. of Tech.*
Jin Shen, *Shandong Univ. of Tech.*
Lina Liu, *Shandong Univ. of Tech.*
- MonCIS-11 Fused Attitude Estimation Algorithm Based on Explicit Complementary Filter and Kalman Filter for an Indoor Quadrotor UAV 5813**
Zhao Tan, *Hangzhou Dianzi Univ.*
Yiyong Wu, *Hangzhou Dianzi Univ.*
Junbo Zhang, *Liaoning Shihua Univ.*
- MonCIS-12 Hierarchical Image Matching Algorithm Based on SIFT 5819**
Jianfang Dou, *Shanghai Polytechnic Univ.*
Qin Qin, *Shanghai Polytechnic Univ.*
Zimei Tu, *Shanghai Polytechnic Univ.*
- MonCIS-13 Analysis of Cell Circuit Model and Simulation of Transmembrane Potential 5823**
Donghao Lv, *Inner Mongolia Univ. of Scie. and Tech.*
Shuo Li, *Inner Mongolia Univ. of Scie. and Tech.*
Ailian Li, *Inner Mongolia Univ. of Scie. and Tech.*
Yongxing Du, *Inner Mongolia Univ. of Scie. and Tech.*

- MonCIS-14 The effectiveness of ensemble learning based on four different classifiers for predicting membrane protein types 5829**
Mingyuan Li, *Yunnan Univ.*
Shunfang Wang, *Yunnan Univ.*
Lei Guo, *Yunnan Univ.*
- MonCIS-15 Topological Structure Optimization of ERT Finite Element Model for Human Lung Based on Improved GA 5835**
Liqing Xiao, *Huainan Normal Univ.*
Qiufang Ma, *Qingdao Huanghai Univ.*
Huaxiang Wang, *Tianjin Univ.*
- MonCIS-16 Improved PSO ERT Image Reconstruction Algorithm for Human Lung Based on Prior Knowledge and Clustering 5840**
Liqing Xiao, *Huainan Normal Univ.*
Qiufang Ma, *Qingdao Huanghai Univ.*
Huaxiang Wang, *Tianjin Univ.*
- MonCIS-17 Assisted System for Precise Surgery Based on Medical Image Computing and VR 5845**
Mingshi Zhang, *Northeastern Univ.*
Hengyu Sha, *Northeastern Univ.*
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Wenjun Tan, *Northeastern Univ.*
- MonCIS-18 Prediction Models for Hyperglycemia Effect Duration of Cardiac Conduction Systems Using Sinoatrial Node Field Potential 5851**
Feng Yu, *Chang'an Univ.*
- MonCIS-19 Fast Tunnel Monitoring Video Stabilization Method Based on Improved ORB Feature 5856**
Min Zhao, *Chongqing Univ.*
Jian Sun, *Chongqing Univ.*
Dihua Sun, *Chongqing Univ.*
Yi Tang, *Chongqing Top Tech. Information*
- MonCIS-20 Vehicle Detection Method Based On Deep Learning and Multi-Layer Feature Fusion 5862**
Min Zhao, *Chongqing Univ.*
Jian Jia, *Chongqing Univ.*
Dihua Sun, *Chongqing Univ.*
Yi Tang, *Chongqing Top Tech. Information*
- MonCIS-21 A Joint Dynamic Estimation Algorithm of Vehicle Mass and Road Slope Considering Braking and Turning 5868**
Min Zhao, *Chongqing Univ.*
Fan Yang, *Chongqing Univ.*
Dihua Sun, *Chongqing Univ.*
Weijian Han, *Ford Motor Company*
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Tao Chen, *China Automotive Engineering Research Inst.*
- MonCIS-22 A BDS static positioning drift correction algorithm for dangerous goods transportation 5874**
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- MonCIS-23 Improved Surendra Background Updating Algorithm for Moving Vehicle Detection 5878**
 Luyao Zhao, *Xiamen Univ.*
 Weiyao Lan, *Xiamen Univ.*
- MonCIS-24 Traffic Sign Detection and Recognition via Transfer Learning 5884**
 Wei Liu, *Chang 'an Univ.*
 Runge Lu, *Harbin Inst. of Tech. Shenzhen Graduate School*
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- MonCIS-25 Modelling of European Train Control System using Process Algebra 5888**
 Zhuo Guo, *Northeastern Univ.*
 Jianzhong Qiao, *Northeastern Univ.*
 Shukuan Lin, *Northeastern Univ.*
- MonCIS-26 The Design and Implementation of Supercapacitor Charging Device and Monitor System for Electrical Trams 5893**
 Yudong Du, *Xi'an Jiaotong University, Xi'an, China*
 Aimin Zhang, *Xi'an Jiaotong University, Xi'an, China*
 YupeiZhang, *Xi'an Jiaotong University, Xi'an, China*
- MonCIS-27 Prescribed performance control of the fractional-order chaotic economical system with external disturbances 5898**
 Ling Li, *Huainan Normal Univ.*
 Yeguo Sun, *Huainan Normal Univ.*
- MonCIS-28 An improved criterion for ellipsoidal invariant set of fractional order ncertain systems subject to input saturation 5903**
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 Rongnian Tang, *Hainan Univ.*
 Xupeng Chen, *Hainan Univ.*
 Chuang Li, *Hainan Univ.*
- MonCIS-29 Design and Implementation of Winning Decision Algorithm in Hex Game System 5909**
 Shuqin Li, *Beijing Info. & Scie. and Tech. Univ.*
 Hao Ma, *Beijing Info. & Scie. and Tech. Univ.*
 Meng Ding, *Beijing Info. & Scie. and Tech. Univ.*
- MonCIS-30 Coal properties on-line analysis with synergy adaptive moving window support vector regression based on immune clone algorithm 5913**
 Shenghao Wang, *Shenyang Institute of Engineering, Northeastern University*
 Li Sun, *Shenyang Institute of Engineering*
 Gang Zhang, *Shenyang Institute of Engineering*
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 Xuewei Gao, *Shenyang Institute of Engineering*
 Yong Zhao, *Northeastern University*
- MonCIS-31 Reducing Variance in MCTS using Bootstrap Method 5919**
 Yu-zhang Li, *Beijing Info. Scie. & Techn. Univ.*
 Meng Ding, *Beijing Info. Scie. & Techn. Univ.*
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- MonCIS-32 Design of Fractional-Order Iterative Learning Controller for ross-Coupled Contour Motion Systems 5923**
 Dongyi Chen, *Shenyang Univ. of Tech.*
 Limei Wang, *Shenyang Univ. of Tech.*

- MonCIS-33 Amazon game system design and realization based on staged UCT algorithm 5929**
 Yao Fu, *Beijing Info. Scie. & Tech. Univ.*
 Shuqin Li, *Beijing Info. Scie. & Tech. Univ.*
 Yanan Qi, *Beijing Info. Scie. & Tech. Univ.*
- MonCIS-34 Multi-Channel High Precision Time Digital Converter System Based on
 quivalent Pulse Counting 5933**
 Yandong Jia, *Changchun Univ. of Scie. and Tech.*
 Chunyang Wang, *Changchun Univ. of Scie. and Tech.*
 Hongwei Shi, *Changchun Univ. of Scie. and Tech.*
 Xuelian Liu, *Changchun Univ. of Scie. and Tech.*
- MonCIS-35 Design of Fractional Order Proportional Differentiation Controller for Second
 order Position Servo System 5939**
 Jing Sun, *Changchun Univ. of Scie. and Tech.*
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 Ruihao Xin, *Changchun Univ. of Scie. and Tech.*
- MonCIS-36 An image haze removal algorithm based on blockwise processing using LAB
 color space and bilateral filtering 5945**
 Fei Dai, *Nanjing Univ. of Posts and Telecommunications*
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 Yan Peng, *Shanghai Univ.*
- MonCIS-37 Adaptive Scale Correlation Filter Tracker With Feature Fusion 5949**
 Lei Sun, *Nanjing Univ. of Posts and Telecommunications*
 Baojie Fan, *Nanjing Univ. of Posts and Telecommunications*
 Yan Peng, *Shanghai Univ.*
- MonCIS-38 Design of the fractional-order adaptive nonsingular terminal sliding mode
 controller for 6-DOF robotic manipulator 5954**
 Chun Yin, *Univ. of Elec. Scie. and Tech. of China*
 Jing Zhou, *Univ. of Elec. Scie. and Tech. of China*
 Jianhong Xue, *Univ. of Elec. Scie. and Tech. of China*
 Bo Zhang, *Univ. of Elec. Scie. and Tech. of China*
 Xuegang Huang, *China Aerodynamics Research & Development Center*
 Yuhua Cheng, *Univ. of Elec. Scie. and Tech. of China*
- MonCIS-39 Design of Trajectory Tracking Controller with Fractional-order backstepping
 Sliding Mode Method for Quadrotor UAV 5960**
 Xiaoyu Shi, *Univ. of Elec. Scie. and Tech. of China*
 Binyang Hu, *Univ. of Elec. Scie. and Tech. of China*
 Chun Yin, *Univ. of Elec. Scie. and Tech. of China*
 Yuhua Cheng, *Univ. of Elec. Scie. and Tech. of China*
 Xuegang Huang, *China Aerodynamics Research & Development Center*
- MonCI-40 A New Hand Segmentation Method Based on Fully Convolutional network 5966**
 Shiyu Zhao, *Southeast Univ.*
 Wankou Yang, *Southeast Univ.*
 Yangang Wang, *Southeast Univ.*
- MonCIS-41 Fatigue Driving Detection with Modified Ada-Boost and Fuzzy Algorithm 5971**
 YongZhang, *Shandong Univ. of Scie. and Tech.*
 Jianyang Li, *Shandong Univ. of Scie. and Tech.*
 Hui Liu, *Shandong Univ. of Scie. and Tech.*
 Xuehui Gao, *Shandong Univ. of Scie. and Tech.*
- MonCIS-42 Cascaded Superpixel Pedestrian Object Segmentation Algorithm 5975**
 Dawei Yang, *Dalian Minzu Univ.*
 Junda Huang, *Dalian Minzu Univ.*
 Jing Zhang, *Dalian Minzu Univ.*
 Rubo Zhang, *Dalian Minzu Univ.*

MonCIS-44 Tracking Control for Helicopters with Input Stochastic Perturbation 5979
Yankai Li, *Nanjing Univ. of Aeronautics and Astronautics*
Mou Chen, *Nanjing Univ. of Aeronautics and Astronautics*
Jianye Liu, *Nanjing Univ. of Aeronautics and Astronautics*

Session	MonD01:Process Control (II)		
Venue	Room01		
Date/Time	15:50-17:50		
Chair	Yajun Wang , <i>Liaoning Univ. of Tech.</i>		
Co-Chair	Yiyong Yao , <i>Northeastern Univ.</i>		
15:50-16:10	MonD01-1	PID- Explicit Predictive Dual Mode Control for Double-Water Tank 5985 Guannan Xiao, <i>Jiangnan Univ.</i> Fei Liu, <i>Jiangnan Univ.</i>	
16:10-16:30	MonD01-2	Application of Advanced Control Tech. on Combustion Optimization Control System in Hot Blast Stove 5990 Xiaowei Wang, <i>Beijing HeroopSys Co., Ltd.</i> Xianjun Yu, <i>Beijing HeroopSys Co., Ltd.</i> Yuzhu Sun, <i>Beijing HeroopSys Co., Ltd.</i>	
16:30-16:50	MonD01-3	Optimization of SLHMS Based on Dynamic Balance of Mechanical and Electronic Spindle 5993 Jinxiang Pian, <i>Shenyang Jianzhu Univ.</i> Jiefeng Zhi, <i>Shenyang Jianzhu Univ.</i> Nan Hu, <i>Shenyang Jianzhu Univ.</i> Guohui Wang, <i>Shenyang Jianzhu Univ.</i> Simiao Yu, <i>Shenyang Jianzhu Univ.</i>	
16:50-17:10	MonD01-4	Research on Evaluation Method of Product Processing State Based on Multidimensional Entropy Space 5999 Liping Zhao, <i>Xi'an Jiaotong Univ.</i> Bohao Li, <i>Xi'an Jiaotong Univ.</i> Yiyong Yao, <i>Xi'an Jiaotong Univ.</i>	
17:10-17:30	MonD01-5	Design of Bidirectional DC-DC Converter Based on Single Chip Microcomputer 6004 Yuanzheng Wu, <i>Liaoning Univ. of Tech.</i> Yajun Wang, <i>Liaoning Univ. of Tech.</i> Wu Ning, <i>Liaoning Univ. of Tech.</i>	
17:30-17:50	MonD01-6	Research on Position Synchronization System Control of Internal High Pressure Forming Machine Based on WinCC 6010 Zhaoyuan Jiang, <i>Yanshan Univ.</i> Lixin Wang, <i>Yanshan Univ.</i> Jiaqiu Song, <i>Yanshan Univ.</i> Fucui Liu, <i>Yanshan Univ.</i>	

Session	MonD02:Optimal Control and Optimization (IX)	
Venue	Room02	
Date/Time	15:50-17:50	
Chair	Ying Nan , <i>Nanjing Univ. of Aeronautics and Astronautics</i>	
Co-Chair	Xin Shen , <i>Jiangsu Normal Univ.</i>	
15:50-16:10	MonD02-1	Time Optimal Missile Launching Plan for MLV based on Improved GA and AHP 6016 Da Wang, <i>Shenyang University of Technology, Guangdong Institute of Intelligent Manufacturing Guangzhou</i> Xuefeng Zhou, <i>Guangdong Institute of Intelligent Manufacturing Guangzhou</i> Zhihao Xu, <i>Guangdong Institute of Intelligent Manufacturing Guangzhou</i> Taobo Cheng, <i>Guangdong Institute of Intelligent Manufacturing Guangzhou</i>
16:10-16:30	MonD02-2	The Application of Micro Variation Chaos Genetic Algorithm in Optimum Firepower Distribution for Caboodle of Air Defense Force 6022 Wenzhong Shang, <i>Army Artillery and Air Defense Forces Academy</i> Pan Wei, <i>Army Artillery and Air Defense Forces Academy</i> Wenliang Zhu, <i>Army Artillery and Air Defense Forces Academy</i>
16:30-16:50	MonD02-3	Trajectory Optimization in Stochastic Environment Based on Original Natural Computation 6027 Yi Yang, <i>Nanjing Univ. of Aeronautics and Astronautics</i> Ying Nan, <i>Nanjing Univ. of Aeronautics and Astronautics</i> Haoxiang Chen, <i>Nanjing Univ. of Aeronautics and Astronautics</i>
16:50-17:10	MonD02-4	Competition Harmony Search Algorithm with Dimension Selection for Continuous Optimization Problems 6032 Haibin Ouyang, <i>Guangzhou Univ.</i> Xiangyong Kong, <i>Jiangsu Normal Univ.</i> Bo Hu, <i>Guangzhou Univ.</i> Zhifu Li, <i>Guangzhou Univ.</i> Guiyun Liu, <i>Guangzhou Univ.</i>
17:10-17:30	MonD02-5	Solving the Economic Load Dispatch Problems by a Modified Differential Evolution Algorithm based on Two Mutation Strategies and One Disturbance 6038 Xin Shen, <i>Jiangsu Normal Univ.</i> Dexuan Zou, <i>Jiangsu Normal Univ.</i> Xiangyong Kong, <i>Jiangsu Normal Univ.</i> Xin Zhang, <i>Jiangsu Normal Univ.</i> Zhen Hu, <i>Jiangsu Normal Univ.</i>
17:30-17:50	MonD02-6	Determining the optimal parameters under quadratic asymmetric loss function with general distribution 6046 Huili Ma, <i>Hohai Univ.</i> Ping Wen, <i>Changzhou Inst. of Tech.</i>

Session	MonD03:Complex Networks and Systems (V)	
Venue	Room03	
Date/Time	15:50-17:50	
Chair	Yi Zhao, Shenzhen Univ.	
Co-Chair	Jianwen Feng, Shenzhen Univ.	
15:50-16:10	MonD03-1	Synchronization for Switching Networks with Multiple Time-delays via Aperiodically Intermittent Pinning Control 6050 Dongmei Wu, <i>Shenzhen Univ.</i> Jianwen Feng, <i>Shenzhen Univ.</i> Yi Zhao, <i>Shenzhen Univ.</i>
16:10-16:30	MonD03-2	Synchronization for Fuzzy Models of Memristive Stochastic Neural Networks via Aperiodically Intermittent Control 6056 Siya Chen, <i>Shenzhen Univ.</i> Jianwen Feng, <i>Shenzhen Univ.</i> Yi Zhao, <i>Shenzhen Univ.</i>
16:30-16:50	MonD03-3	Synchronization of Markovian Switching Stochastic Complex Networks with Hybrid Coupling via Aperiodically Intermittent Pinning Control 6062 Xinxin Liu, <i>Shenzhen Univ.</i> Yi Zhao, <i>Shenzhen Univ.</i> Jianwen Feng, <i>Shenzhen Univ.</i> Haiyu Zhang, <i>The Univ. of Hong Kong</i>
16:50-17:10	MonD03-4	Consensus for Heterogenous Multi-agent Systems with Second-order Linear and Nonlinear Dynamics 6068 Yi Shi, <i>Jiangnan Univ.</i> Yanyan Yin, <i>Jiangnan Univ., Curtin Univ.</i> Chenchen Liu, <i>Jiangnan Univ.</i> Chenglin Liu, <i>Jiangnan Univ.</i> Fei Liu, <i>Jiangnan Univ.</i>
17:10-17:30	MonD03-5	Fault Diagnosis and Isolation in Complex Dynamical Networks with Uncertainties 6072 Chunxia Fan, <i>Nanjing Univ. of Posts and Telecommunications</i> Ke Liu, <i>Nanjing Univ. of Posts and Telecommunications</i> Qiliang Gao, <i>Nanjing Univ. of Posts and Telecommunications</i>
17:30-17:50	MonD03-6	Study on Multi-attribute Dynamic Trust Evaluation Model Based on Network Transaction 6078 Zhijuan Jia, <i>Zhengzhou Normal Univ.</i> Xinxin Liu, <i>Zhengzhou Normal Univ.</i> Erfeng Xu, <i>Zhengzhou Normal Univ.</i> Yanyan Yang, <i>Zhengzhou Normal Univ.</i>

Session	MonD04:Co-operative Control (III)	
Venue	Room04	
Date/Time	15:50-17:50	
Chair	Linlin Ou , <i>Zhejiang Univ. of Tech.</i>	
Co-Chair	Jianguo Yan , <i>Northwest Polytechnical Univ.</i>	
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16:10-16:30	MonD04-2	Consensus of First-order Multi-agent Systems Based on Cooperation and Competition 6089 Yanping Gao, <i>Beijing Tech. and Business Univ.</i> Yaochen Zhang, <i>Beijing Tech. and Business Univ.</i>
16:30-16:50	MonD04-3	Admissible Consensus for Descriptor Multi-agent Systems with Exogenous Disturbances 6094 Xuxi Zhang, <i>Harbin Engineering Univ.</i> Siqi Wang, <i>Harbin Engineering Univ.</i>
16:50-17:10	MonD04-4	Containment Control for a Group of Underactuated Marine Surface Vehicles 6099 Junda Ma, <i>Harbin Engineering Univ.</i> Qidan Zhu, <i>Harbin Engineering Univ.</i> Zhilin Liu, <i>Harbin Engineering Univ.</i> Ke Liu, <i>Harbin Engineering Univ.</i>
17:10-17:30	MonD04-5	Consensus-Based Control for Unmanned Aerial Vehicle Formation with Speed Adaptability 6106 Hongmei Zhang, <i>Shenyang Aerospace Univ.</i> Ying Li, <i>Shenyang Aerospace Univ.</i> Guangyan Xu, <i>Shenyang Aerospace Univ.</i>
17:30-17:50	MonD04-6	Three-dimensional Hierarchical Formation Control Method for Multi-agent Systems with Time Delay 6112 Xinyi Yu, <i>Zhejiang Univ. of Tech.</i> Jihui Zhang, <i>Zhejiang Univ. of Tech.</i> Chao Zou, <i>Zhejiang Univ. of Tech.</i> Linlin Ou, <i>Zhejiang Univ. of Tech.</i>

Session	MonD05:Nonlinear Systems (VII)	
Venue	Room05	
Date/Time	15:50-17:50	
Chair	Tao Zhang , <i>Tsinghua Univ.</i>	
Co-Chair	Changchun Sun , <i>Shenyang Jianzhu Univ.</i>	
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16:10-16:30	MonD05-2	Stabilization for Three Classes of Simple 3D Chaotic Systems with No Constant Term via Nonlinear and Linear Control Approaches 6125 Changchun Sun, <i>Shenyang Jianzhu Univ.</i> Li Zheng, <i>Shenyang Jianzhu Univ.</i>
16:30-16:50	MonD05-3	Adaptive Output Feedback Control for Nonlinear Systems with Input Delay and Disturbances 6130 Jiali Ma, <i>Nanjing Univ. of Scie. and Tech.</i> Weifeng Xia, <i>Nanjing Univ. of Scie. and Tech.</i> Qian Ma, <i>Nanjing Univ. of Scie. and Tech.</i>
16:50-17:10	MonD05-4	Nonlinearity Analysis of Heart Rate Data Based on Chaos Theory 6136 Mengyao Hu, <i>Beijing Forestry Univ.</i> Yan Deng, <i>Beijing Forestry Univ.</i> Yujing Li, <i>Peking Univ.</i> Ting Lei, <i>Beijing Forestry Univ.</i>
17:10-17:30	MonD05-5	Input-to-state Stabilization of Networked Switched Nonlinear Systems Based on Event-triggered Scheme 6143 Feiyue Wu, <i>Dalian Univ. of Tech.</i> Jie Lian, <i>Dalian Univ. of Tech.</i> Dan Liu, <i>Dalian Univ. of Tech.</i> Hongwei Wang, <i>Dalian Univ. of Tech. Xinjiang Univ.</i>
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Session	MonD06:Stochastic Systems (II)	
Venue	Room06	
Date/Time	15:50-17:50	
Chair	Shuqian Zhu, <i>Shandong Univ.</i>	
Co-Chair	Liang Liu, <i>Bohai Univ.</i>	
15:50-16:10	MonD06-1	Optimization of Multi-Dimensional Container Slot Allocation Based on Joint Dispatch and Mutual Renting 6155 Di Guo, <i>Dalian Neusoft Univ. of Information</i> Xiaojing Du, <i>Dalian Neusoft Univ. of Information</i> Geng Wu, <i>Dalian Neusoft Univ. of Information</i>
16:10-16:30	MonD06-2	Guaranteed Cost Control of Uncertain Continuous-Time Singular Semi-Markov Jump Systems with Indefinite Quadratic Cost 6161 Jingyi Zhang, <i>Shandong Univ.</i> Shuping Ma, <i>Shandong Univ.</i> Zhumahan Kulan, <i>Changji Coll.</i>
16:30-16:50	MonD06-3	Variance-Constrained Control for Stochastic Systems with Multiplicative Noises 6167 Ling Zhang, <i>Ocean Univ.</i> Zhao Yu Quan, <i>Ocean Univ.</i> Hongdu Wang, <i>Ocean Univ.</i>

16:50-17:10	MonD06-4	Output-feedback Stabilization of Stochastic Upper-triangular Time-delay Systems 6172 Liang Liu, <i>Bohai Univ.</i> Jing Wang, <i>Bohai Univ.</i>
17:10-17:30	MonD06-5	Positivity-Preserving L1-gain Output Feedback Controller Design for Positive Markov Jump Linear Systems with Time-Delay 6178 Jiyang Xie, <i>Shandong Univ.</i> Shuqian Zhu, <i>Shandong Univ.</i>
17:30-17:50	MonD06-6	A Mean-Field Linear-Quadratic Leader-Follower Stochastic Differential Game 6183 Susu Zhang, <i>Shandong Univ.</i>

Session	MonD07:Fuzzy Systems (II)	
Venue	Room07	
Date/Time	15:50-17:50	
Chair	Jianbo Liu, <i>Northeastern Univ. at Qinhuangdao Qinhuangdao</i>	
Co-Chair	Shixi Hou, <i>Jiangsu Key Laboratory of Power Transmission & Distribution Equipment Tech.</i>	
15:50-16:10	MonD07-1	The Fuzzy Control of Tendon-Driven Fingers Based on Position and Tendon Tension 6188 Xinbo Wang, <i>Nanjing Univ. of Posts and Telecommunications</i> Minrui Meng, <i>Nanjing Univ. of Posts and Telecommunications</i>
16:10-16:30	MonD07-2	Event-Triggered Real-Time Scheduling Stabilization of Fuzzy Systems via A New Weighted Matrix Approach 6194 Yanan Liu, <i>Nanjing Univ. of Posts and Telecommunications</i> Xiangpeng Xie, <i>Nanjing Univ. of Posts and Telecommunications</i> Xiangyong Chen, <i>Linyi Univ.</i>
16:30-16:50	MonD07-3	Brushless DC Motor Control via Fuzzy Systems with Variable Contraction-expansion factors 6199 Hong Zhao, <i>Dalian Maritime Univ.</i> Peng Luo, <i>Dalian Maritime Univ.</i> Ning Wang, <i>Dalian Maritime Univ.</i> Zhongjiu Zheng, <i>Dalian Maritime Univ.</i> Derun Zhao, <i>Dalian Maritime Univ.</i>
16:50-17:10	MonD07-4	Multi-granularity Fuzzy Soft Probability Rough Sets 6204 Jianbo Liu, <i>Northeastern Univ. at Qinhuangdao Qinhuangdao</i> Pengyun Zhao, <i>Northeastern Univ.</i> Jing Liu, <i>Northeastern Univ.</i> Xiaomin Wang, <i>Northeastern Univ. at Qinhuangdao Qinhuangdao</i> Yanyan Zhang, <i>Northeastern Univ. at Qinhuangdao Qinhuangdao</i>
17:10-17:30	MonD07-5	A Modified Adaptive Fuzzy Control of Three-Phase Active Power Filter for Harmonic Compensation 6210 Shixi Hou, <i>Jiangsu Key Laboratory of Power Transmission & Distribution Equipment Tech.</i> Juntao Fei, <i>Jiangsu Key Laboratory of Power Transmission & Distribution Equipment Tech.</i> Yundi Chu, <i>Jiangsu Key Laboratory of Power Transmission & Distribution Equipment Tech.</i>

17:30-17:50 MonD07-6 T-S Fuzzy Control with Parameter Estimation for Three-Phase Active Power Filter 6216
 Shixi Hou, *Hohai Univ.*
 Juntao Fei, *Hohai Univ.*
 Yundi Chu, *Hohai Univ.*

Session	MonD08:Fault Diagnosis and Fault-tolerant Control (VII)	
Venue	Room08	
Date/Time	15:50-17:50	
Chair	Zhao Feng , <i>Kunming University of Scie. and Tech.</i>	
Co-Chair	Ningyun Lu , <i>Nanjing Univ. of Aeronautics and Astronautics</i>	
15:50-16:10	MonD08-1	Partial Blockage Detection in Underground Pipe Based on Guided Wave & Semi-Supervised Learning 6222 Yang Li, <i>Kunming University of Scie. and Tech.</i> Zhao Feng, <i>Kunming University of Scie. and Tech.</i> Guoyong Huang, <i>Kunming University of Scie. and Tech.</i> Xuefeng Zhu, <i>Kunming University of Scie. and Tech.</i>
16:10-16:30	MonD08-2	Bond Graph Modeling and Fault Injection of CRH5 Traction System 6227 Chuanyu Zhang, <i>Nanjing Univ. of Aeronautics and Astronautics</i> Xiuli Wang, <i>Nanjing Univ. of Aeronautics and Astronautics</i> Ningyun Lu, <i>Nanjing Univ. of Aeronautics and Astronautics</i> Bin Jiang, <i>Nanjing Univ. of Aeronautics and Astronautics</i>
16:30-16:50	MonD08-3	Deep Forest based Multivariate Classification for Diagnostic Health Monitoring 6233 Cunsong Wang, <i>Nanjing Univ. of Aeronautics and Astronautics</i> Ningyun Lu, <i>Nanjing Univ. of Aeronautics and Astronautics</i> Yuehua Cheng, <i>Nanjing Univ. of Aeronautics and Astronautics</i> Bin Jiang, <i>Nanjing Univ. of Aeronautics and Astronautics</i>
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17:30-17:50	MonD08-6	Assessment on Bearing Performance Degradation Using Improved Discriminant LPP 6252 Gang Zhao, <i>Xi'an Satellite Control Center</i> Ruotong Qu, <i>Nanjing Univ. of Aeronautics and Astronautics</i> Lisha Zhu, <i>Operational headquarters of Guangzhou metro group co. LTD</i> Yue-hua Cheng, <i>Nanjing Univ. of Aeronautics and Astronautics</i> Bin Jiang, <i>Nanjing Univ. of Aeronautics and Astronautics</i>

Session	MonD09:Neural Networks (VI)	
Venue	Room09	
Date/Time	15:50-17:50	
Chair	Xiaoli Li, <i>Beijing University of Tech.</i>	
Co-Chair	Huiling Lai, <i>Northeastern Univ.</i>	
15:50-16:10	MonD09-1	Damage Identification Method of Carbon Fiber Reinforced Polymer Structure Based on ReliefF and LSSVM 6257 Shizeng Lu, <i>University of jinan</i> Hongliang Yu, <i>University of jinan</i> Rongfeng Zhang, <i>University of jinan</i> Xiaohong Wang, <i>University of jinan</i>
16:10-16:30	MonD09-2	Euler-Precision General-Form of Zhang et al Discretization (ZeaD) Formulas, Derivation, and Numerical Experiments 6262 Yunong Zhang, <i>Sun Yat-sen Univ.</i> Mingjie Zhu, <i>Sun Yat-sen Univ.</i> Chaowei Hu, <i>Sun Yat-sen Univ.</i> Jian Li, <i>Sun Yat-sen Univ.</i> Min Yang, <i>Sun Yat-sen Univ.</i>
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16:50-17:10	MonD09-4	Application of Accurate Online Support Vector Regression in Atmospheric SO2 Concentration Prediction 6274 Aorong Luo, <i>Beijing University of Tech.</i> Xiaoli Li, <i>Beijing University of Tech.</i> Yang Li, <i>Communication University of China</i> Jiangeng Li, <i>Beijing University of Tech.</i>
17:10-17:30	MonD09-5	Accelerometer-Based Gait Recognition via Deterministic Learning 6280 Wei Zeng, <i>Longyan Univ.</i> Jianfei Chen, <i>Longyan Univ.</i> Chengzhi Yuan, <i>University of Rhode Island</i> Fenglin Liu, <i>Longyan Univ.</i> Qinghui Wang, <i>Longyan Univ.</i> Ying Wang, <i>Longyan Univ.</i>
17:30-17:50	MonD09-6	A New Double-sampling Method for Mediastinal Lymph Nodes Detection by Deep Conventional Neural Network 6286 Huiling Lai, <i>North Eastern Univ.</i> Wangshu Chen, <i>North Eastern Univ.</i> Haoyue Fu, <i>North Eastern Univ.</i>

Session	MonD10:Control Applications (V)	
Venue	Room10	
Date/Time	15:50-17:50	
Chair	Baolin Wu , <i>Harbin Inst. of Tech.</i>	
Co-Chair	Dawei Pi , <i>Nanjing Univ. of Scie. and Tech.</i>	
15:50-16:10	MonD10-1	Singularity-Conquering Zhang-Gradient Controller Groups for Tracking Control of Brockett Integrator 6291 Chaowei Hu, <i>Sun Yat-sen Univ., Huaqiao Univ.</i> Xiangui Kang, <i>Sun Yat-sen Univ.</i> Yunong Zhang, <i>Sun Yat-sen Univ.</i>
16:10-16:30	MonD10-2	Research on the algorithm of noisy laser stripe center extraction 6297 Jianhui Xi, <i>Shenyang Aerospace Univ.</i> Hui Bao, <i>Shenyang Aerospace Univ.</i> Tang Li, <i>Shenyang Aerospace Univ.</i>
16:30-16:50	MonD10-3	The Design of Anti-roll Moment Distribution for Dual-channel Active Stabilizer Bar System 6301 Mingshuai Yan, <i>Nanjing Univ. of Scie. and Tech.</i> Dawei Pi, <i>Nanjing Univ. of Scie. and Tech.</i> Yulong Li, <i>Nanjing Univ. of Scie. and Tech.</i> Hongliang Wang, <i>Nanjing Univ. of Scie. and Tech.</i> Erjie Wang, <i>Nanjing Univ. of Scie. and Tech.</i>
16:50-17:10	MonD10-4	A Gain Scheduling Controller for Small-Scaled Unmanned Helicopters 6309 Mo He, <i>Harbin Inst. of Tech.</i> Naigang Cui, <i>Harbin Inst. of Tech.</i>
17:10-17:30	MonD10-5	Research on Simulation Data Exchange Model in Joint Simulation of Weapons and Equipment Systems 6314 Xiang Zhang, <i>National Univ. of Defense Tech.</i> Ge Li, <i>National Univ. of Defense Tech.</i> Peng Wang, <i>National Univ. of Defense Tech.</i> Zhonghua Yang, <i>National Univ. of Defense Tech.</i>
17:30-17:50	MonD10-6	Smooth Rapid Three-Axis Reorientation of Spacecraft 6319 Chuang Xu, <i>Harbin Inst. of Tech.</i> Baolin Wu, <i>Harbin Inst. of Tech.</i> Dawei Wang, <i>Nanyang Tech. Univ.</i>

Session	MonD11:Signal Processing (V)	
Venue	Room11	
Date/Time	15:50-17:50	
Chair	Dongdong Zhao , <i>Akita Prefectural Univ.</i>	
Co-Chair	Xiongjun Wu , <i>The Eighth Academy of China Aerospace Scie. and Tech. Corporation</i>	
15:50-16:10	MonD11-1	A Vehicle Emission Factors Concentration Inversion Method Based on Deep Neural Networks 6325 Qiang Zhang, <i>Univ. of Scie. and Tech. of China</i> Youliang Xu, <i>Baicheng Ordnance Test Center</i> Feng Li, <i>Univ. of Scie. and Tech. of China</i> Junbin Zhang, <i>Baicheng Ordnance Test Center</i> Qiang Ling, <i>Univ. of Scie. and Tech. of China</i>
16:10-16:30	MonD11-2	A Novel Data Fusion Algorithm for Multivariate Time Series 6331 Chen Diao, <i>Northwest Minzu Univ.</i> Bin Wang, <i>Northwest Minzu Univ.</i> Ning Cai, <i>Northwest Minzu Univ.</i>
16:30-16:50	MonD11-3	A Novel Method of BeiDou Satellite Signal Acquisition Using Signal Square Stripping NH Scrambling 6334 Shuxi Wang, <i>The Fifth Academy of China Aerospace Scie. and Tech. Corporation</i> The Eighth Academy of China Aerospace Scie. and Tech. Corporation Xiongjun Wu, <i>The Eighth Academy of China Aerospace Scie. and Tech. Corporation</i> Ke Pei, <i>The Fifth Academy of China Aerospace Scie. and Tech. Corporation</i> Jialing Zhou, <i>The Eighth Academy of China Aerospace Scie. and Tech. Corporation</i>
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17:30-17:50	MonD11-6	Exact Order Reduction for Fornasini-Marchesini State-Space Models Based on real eigenvalues 6350 Dongdong Zhao, <i>Akita Prefectural Univ.</i> Shi Yan, <i>Lanzhou Univ.</i> Shinya Matsushita, <i>Akita Prefectural Univ.</i> Li Xu, <i>Akita Prefectural Univ.</i>

Session	MonD12:Process Automation	
Venue	Room12	
Date/Time	15:50-17:50	
Chair	Qiang Zhang , <i>Univ. of Jinan</i>	
Co-Chair	Yongpeng Weng , <i>Dalian Maritime Univ.</i>	
15:50-16:10	MonD12-1	IMC-PID Controller Design for Power Control Loop Based on Closed-loop Identification in the Frequency Domain 6355 XiaoFeng Li, <i>Electric Power Research Inst. of Guangdong Power Group Co.</i> Ya Gao, <i>Electric Power Research Inst. of Guangdong Power Group Co.</i> Yi You, <i>Electric Power Research Inst. of Guangdong Power Group Co.</i> Bochaun Gu, <i>Electric Power Research Inst. of Guangdong Power Group Co.</i>
16:10-16:30	MonD12-2	The Comparison of Canny and Structured Forests Edge Detection Application in Precision Identification of Pointer Instrument 6361 Cui Wang, <i>Shanghai Univ.</i> Yuansheng Fang, <i>Shanghai Automation Instrument co. LTD</i> Li Jia, <i>Shanghai Univ.</i>
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16:50-17:10	MonD12-4	Online FOPID Control of Material Level in Steady Flow Bunker Based on Data-Driven Techniques 6371 Hongliang Yu, <i>Univ. of Jinan</i> Jinliang Liu, <i>Univ. of Jinan</i> Qiang Zhang, <i>Univ. of Jinan</i> Xiangyu Chen, <i>Univ. of Jinan</i>
17:10-17:30	MonD12-5	The optimal descaling frequency searching method for electromagnetic anti-scaling descaling device 6376 Qi Chen, <i>Huaiyin Inst. of Tech.</i> Yang Liu, <i>Huaiyin Inst. of Tech.</i> YongChao Chen, <i>Huaiyin Inst. of Tech.</i> ZhongJiang Sun, <i>Huaiyin Inst. of Tech.</i> Manli Cai, <i>Huaiyin Inst. of Tech.</i>
17:30-17:50	MonD12-6	Data-driven Decoupling Control for Gas Collector Pressure System of Coke Ovens 6380 Yongpeng Weng, <i>Dalian Maritime Univ.</i> Ning Wang, <i>Dalian Maritime Univ.</i> Xinming Liu, <i>Liaoning Technical Univ.</i>

Session	MonD13:Robot Control (V)	
Venue	Room13	
Date/Time	15:50-17:50	
Chair	Yutian Zhang , <i>Beijing Inst. of Tech.</i>	
Co-Chair	Han Wu , <i>National Univ. of Defense Tech.</i>	
15:50-16:10	MonD13-1	Research on Trajectory Planning and Simulation of Vehicle Exterior Wall Grinding Robot 6386 Chuangfeng Huai, <i>East China Jiaotong Univ.</i> Gangyi Shi, <i>East China Jiaotong Univ.</i>
16:10-16:30	MonD13-2	A Robust Yaw Moment Controller Design for Autonomous Ground Vehicle aiming to Changing Directions with High Mobility 6392 Yutian Zhang, <i>Beijing Inst. of Tech.</i> Jun Ni, <i>Beijing Inst. of Tech.</i> Jibin Hu, <i>Beijing Inst. of Tech.</i>
16:30-16:50	MonD13-3	Time-optimal trajectory planning of robot based on improved adaptive genetic algorithm 6397 Hai Yu, <i>Anhui Univ. of Tech.</i> Qingxi Meng, <i>Anhui Univ. of Tech.</i> Jiayan Zhang, <i>Anhui Univ. of Tech.</i> Xugang Feng, <i>Anhui Univ. of Tech.</i>
16:50-17:10	MonD13-4	A Curve Model with Rapid Moving Method for Multi-robot System 6403 Yunhao Qu, <i>Donghua Univ.</i> Yongsheng Ding, <i>Donghua Univ.</i> Kuangrong Hao, <i>Donghua Univ.</i> Tong Wang, <i>Donghua Univ.</i> Lei Chen, <i>Donghua Univ.</i> Lihong Ren, <i>Donghua Univ.</i>
17:10-17:30	MonD13-5	Kinematics Modeling and Simulation of a Kind of Slider Parallel Robot 6409 Wei Xu, <i>Qingdao University.</i> Songfeng Pan, <i>Qingdao Univ.</i>
17:30-17:50	MonD13-6	A Novel Force Control Method of Lower Limb Exoskeleton Based on Dual Foot Force Sensors 6414 Han Wu, <i>National Univ. of Defense Tech.</i> Hongxu Ma, <i>National Univ. of Defense Tech.</i> Qing Wei, <i>National Univ. of Defense Tech.</i> Jian Wang, <i>National Univ. of Defense Tech.</i> Honglei An, <i>National Univ. of Defense Tech.</i>

Session	MonD14:Space and Underwater Robots		
Venue	Room14		
Date/Time	15:50-17:50		
Chair	Meng Li , <i>Univ. of Jinan</i>		
Co-Chair	Sanming Song , <i>Shenyang Inst. of Automation</i>		
15:50-16:10	MonD14-1	UAV path planning based on Improved Rapidly-exploring Random Tree 6420 Sun-Qinpeng, <i>Univ. of Jinan</i> Li-Meng, <i>Univ. of Jinan</i> Wang-Tianhe, <i>Univ. of Jinan</i> Zhao-Chenpeng, <i>Shangdong Univ.</i>	
16:10-16:30	MonD14-2	Scan Registration for Mechanical Scanning Imaging Sonar Using kd2D-NDT 6425 Min Jiang, <i>Shenyang Inst. of Automation</i> Sanming Song, <i>Shenyang Inst. of Automation</i> Yiping Li, <i>Shenyang Inst. of Automation</i> Jian Liu, <i>Shenyang Inst. of Automation</i> Xisheng Feng, <i>Shenyang Inst. of Automation</i>	
16:30-16:50	MonD14-3	Monte Carlo Method for Searching Functional Workspace of An Underwater Manipulator 6431 Jianjun Yao, <i>Harbin Engineering Univ.</i> Xiaojie Sun, <i>Harbin Engineering Univ.</i> Shiqi Zhang, <i>Harbin Engineering Univ.</i> Ming Yang, <i>Harbin Engineering Univ.</i> Xiaodong Zhang, <i>Harbin Engineering Univ.</i>	
16:50-17:10	MonD14-4	A Real-time Underwater Robotic Visual Tracking Strategy Based on Image Restoration and Kernelized Correlation Filters 6436 Shihan Kong, <i>Univ. of Chinese Academy of Sciences</i> Xi Fang, <i>Beihang Univ.</i> Xingyu Chen, <i>Univ. of Chinese Academy of Sciences</i> Zhengxing Wu, <i>Inst. of Automation</i> Junzhi Yu, <i>Inst. of Automation</i>	
17:10-17:30	MonD14-5	Adaptive dynamic surface control for small-scale unmanned helicopters using a neural network learning algorithm with the least parameters 6442 Bin Zhou, <i>National Univ. of Defense Tech.</i> Peng Li, <i>National Univ. of Defense Tech.</i> Zhiqiang Zheng, <i>National Univ. of Defense Tech.</i> Shuai Tang, <i>Army Logistics Univ.</i>	
17:30-17:50	MonD14-6	Performance-Guaranteed Control of an Autonomous Underwater Vehicle Subject to Time-Varying Disturbances 6448 Shilu Dai, <i>South China Univ. of Tech.</i> Yungen Peng, <i>South China Univ. of Tech.</i> Shude He, <i>South China Univ. of Tech.</i>	

Session	MonD15:Smart Grids (V)	
Venue	Room15	
Date/Time	15:50-17:50	
Chair	Zhanshan Wang , <i>Northeastern Univ.</i>	
Co-Chair	Dongmin Xi , <i>Inner Mongolia Univ. of Tech.</i>	
15:50-16:10	MonD15-1	Phase Differentiation Technique of Low Voltage District Based on Voltage Curve Correlation 6454 Weifeng Wang, <i>State Grid Zhejiang Electric Power Company</i> Xiong Li, <i>State Grid Zhejiang Electric Power Company</i> Lequn Zhang, <i>Qingdao Topscomm Communication</i>
16:10-16:30	MonD15-2	Reactive Power Optimization Compensation of Line Losses Calculation in Rural Areas 6458 Feng Sun, <i>Power Science Research Institute Of Liaoning Electric Power Limited Company</i> Licheng Yan, <i>Northeastern Univ.</i> Zhitong Guo, <i>Power Science Research Institute Of Liaoning Electric Power Limited Company</i> Yanghong Chen, <i>Northeastern Univ.</i>
16:30-16:50	MonD15-3	Comprehensive Evaluation System of Rural Area Network Line Loss Management 6464 Jia Yu, <i>Electric Power Research Institute of Liaoning Power Grid Company Limited, Shenyang, China</i> Yanhong Chen, <i>School of Information Science & Engineering, Northeastern University, Shenyang, 110000 China</i> Junjiao Zhao, <i>Electric Power Research Institute of Liaoning Power Grid Company Limited, Shenyang, China</i> Licheng Yan, <i>School of Information Science & Engineering, Northeastern University, Shenyang, 110000 China</i>
16:50-17:10	MonD15-4	Micro Grid Scheduling Optimization Based on Quantum Particle Swarm Optimization (QPSO) Algorithm 6470 Meitong Chen, <i>Inner Mongolia Univ. of Tech.</i> Jianan Ruan, <i>Inner Mongolia Univ. of Tech.</i> Dongmin Xi, <i>Inner Mongolia Univ. of Tech.</i>
17:10-17:30	MonD15-5	Delay-Dependent Stability Analysis for Load Frequency Control Systems with Two Delay Components 6476 Pipi Liu, <i>Northeastern Univ.</i> Zhanjun Huang, <i>Northeastern Univ.</i> Yipeng Liu, <i>Northeastern Univ.</i> Zhanshan Wang, <i>Northeastern Univ.</i>
17:30-17:50	MonD15-6	A Control Method of PV Grid-connected Inverter under Grid Voltage Unbalanced Drops 6482 Liqun Shang, <i>Xi'an Univ. of Science and Tech.</i> Weiwei Zhu, <i>Xi'an Univ. of Science and Tech.</i> Zhuojun Li, <i>Xi'an Univ. of Science and Tech.</i>

Session	MonD16:Traffic Control (II)	
Venue	Room16	
Date/Time	15:50-17:50	
Chair	Cunwu Han , <i>North China Univ. of Tech.</i>	
Co-Chair	Qiuqu Chen , <i>Chongqing Univ.</i>	
15:50-16:10	MonD16-1	Research of Queuing Fence Distribution Based on Cellular Automata Model 6487 Siyuan Xu, <i>Nanjing Univ.of Scie.and Tech.</i> Liang Shan, <i>Nanjing Univ.of Scie.and Tech.</i> Shulong Shen, <i>Shanghai Electro-Mechanical Engi. Inst.</i> Zhidong Qi, <i>Nanjing Univ.of Scie.and Tech.</i> Jun Li, <i>Nanjing Univ.of Scie.and Tech.</i>
16:10-16:30	MonD16-2	Evaluation Research of Intersection Running State Based on Principal Component Analysis 6493 Yujie Sun, <i>State Nuclear Elec. Power Planning Design & Research Inst.</i> Fengwei Song, <i>CNNC, China Zhongyuan Engi. Corp</i>
16:30-16:50	MonD16-3	An Evolutionary Ant Colony Algorithm for a Vehicle Routing Problem with Simultaneous Pick-up and Delivery and Hard Time Windows 6499 Xingcheng Pu, <i>Chongqing Univ.of Posts and Telecommunications</i> Keli Wang, <i>Chongqing Univ.of Posts and Telecommunications</i>
16:50-17:10	MonD16-4	Bus Penetration Rate Estimation of Road Segment Using Bus GPS Data 6504 Dihua Sun, <i>Chongqing Univ.</i> Qiuqu Chen, <i>Chongqing Univ.</i> Min Zhao, <i>Chongqing Univ.</i> Linjiang Zheng, <i>Chongqing Univ.</i> Weining Liu, <i>Chongqing Univ.</i>
17:10-17:30	MonD16-5	Speed Guidance Model Considering Driver's Operating Behavior 6510 Dihua Sun, <i>Chongqing Univ.</i> Lianqiang Gu, <i>Chongqing Univ.</i> Min Zhao, <i>Chongqing Univ.</i> Senlin Cheng, <i>Chongqing Univ.</i> Fei Xie, <i>China Automotive Engi. Research Inst.</i> Liangyi Yang, <i>China Automotive Engi. Research Inst.</i>
17:30-17:50	MonD16-6	Robust Cruise Control of Heterogeneous Connected Vehicle Systems 6516 Cunwu Han, <i>North China Univ. of Tech.</i> Jing Yang, <i>North China Univ. of Tech.</i> Lipu Wu, <i>North China Univ. of Tech.</i> Mengqi Li, <i>North China Univ. of Tech.</i>

Session	MonDIS:Interactive Session
Venue	Room17
Date/Time	15:50-17:50

- MonDIS-1 Unbiased Estimation Localization for Wireless Sensor Networks 6521**
Zhaoyang Wang, *Beijing Inst. of Tech.*
Baihai Zhang, *Beijing Inst. of Tech.*
Senchun Chai, *Beijing Inst. of Tech.*
Lingguo Cui, *Beijing Inst. of Tech.*
Yuting Bai, *Beijing Inst. of Tech.*
- MonDIS-2 Design of Video Aerial Target Detection and Tracking System Based on AM5728 6525**
Lei Li, *Nanjing Univ. of Scie. and Tech.*
Gaopeng Zhao, *Nanjing Univ. of Scie. and Tech.*
Sixiong Xu, *Nanjing Univ. of Scie. and Tech.*
- MonDIS-3 Large-scale Nickel Band Width Detection System Based on Machine Vision 6532**
Jianqi Li, *Hunan Univ. of Arts & Scie.*
BinFang Cao, *Hunan Univ. of Arts & Scie.*
bin Zhang, *Hunan Univ. of Arts & Scie.*
Huan Li, *Hunan Univ. of Arts & Scie.*
- MonDIS-4 Research on Family Monitoring System of Elderly Solitaries Based on Embedded System 6537**
Yidi Du, *Dalian JiaoTong Univ.*
Bo Zhang, *Chongqin jinmei communication company*
- MonDIS-5 An Operation Control Strategy for Medium-speed Maglev Train in Station Based on On-board Battery Condition Monitoring 6541**
Wenjun Wei, *Beijing Jiaotong Univ.*
Wenjing Zhang, *Beijing Jiaotong Univ.*
Nan Nan, *Beijing Jiaotong Univ.*
Yifan Yang, *Beijing Jiaotong Univ.*
Yuefeng Liu, *R&D Center, CRRC Tangshan Co., Ltd.*
- MonDIS-6 Fractional dynamics analysis of human behavior disseminating 6547**
Li Bai, *Shandong Univ. of Scie. and Tech.*
Jiakun Wang, *Shandong Univ. of Scie. and Tech.*
Hao Yu, *Shandong Univ. of Scie. and Tech.*
Xinhua Wang, *Shandong Univ. of Scie. and Tech.*
- MonDIS-7 Platoon Control for Connected Vehicles based on the V2X Communications: Design and Implementation 6552**
Wenbo Chen, *Chongqing Univ. of Posts & Telecommunications*
Yongfu Li, *Chongqing Univ. of Posts & Telecommunications*
Kaibi Zhang, *Chongqing Univ. of Posts & Telecommunications*
Taixiong Zheng, *Chongqing Univ. of Posts & Telecommunications*
Huizong Feng, *Chongqing Univ. of Posts & Telecommunications*
- MonDIS-8 Welding Component Identification and Solder Joint Inspection of Automobile Door Panel Based on Machine Vision 6558**
Zezhong Pei, *Changchun Univ. of Scie. and Tech.*
Liding Chen, *Changchun Univ. of Scie. and Tech.*

- MonDIS-9 An Application of Optimized Bayesian Estimation Data Fusion Algorithm in Tire Pressure Monitoring System 6564**
Menglong Cao, *Qingdao Univ. of Scie. & Tech.*
Dongyuan You, *Qingdao Univ. of Scie. & Tech.*
- MonDIS-10 License Plate Detection and Localization in Complex Scenes Based on Deep Learning 6569**
Ying Tian, *Univ. of Scie. & Techn. Liaoning*
Xin Lu, *Univ. of Scie. & Techn. Liaoning*
Wanxiang Li, *Northeastern Univ.*
- MonDIS-11 Modified Function Projective Synchronization of two Fractional-order Chaotic Systems with Unknown Parameters 6575**
Hongyue Du, *Chongqing Jiaotong Univ.*
- MonDIS-12 Application of GA and SVM to Estimate Ammonia Nitrogen in Aquaculture 6580**
Wei Wang, *Dalian Ocean Univ.*
Kang Li, *Dalian Ocean Univ.*
Lianlong Zhang, *Key Laboratory of Marine Information Technology of Liaoning Province*
Changhui Deng, *Key Laboratory of Marine Information Technology of Liaoning Province*
Jun Gu, *Dalian Ocean Univ.*
- MonDIS-13 Laser Spots Projection Measurement Based on Monocular CCD Camera 6584**
Kai Li, *Harbin Inst. of Tech.*
Xiangcheng Chen, *Harbin Inst. of Tech.*
Feng Yuan, *Harbin Inst. of Tech.*
- MonDIS-14 Segmentation of Disease Image of Lettuce Leaves Based on Machine Vision 6590**
Ruiqi Meng, *Tianjin Univ. of Tech. and Educ.*
Shigang Cui, *Tianjin Univ. of Tech. and Educ.*
Yongli Zhang, *Tianjin Univ. of Tech. and Educ.*
Xingli Wu, *Tianjin Univ. of Tech. and Educ.*
Lin He, *Tianjin Univ. of Tech. and Educ.*
- MonDIS-15 Study on segmentation of lettuce image based on morphological reorganization and watershed algorithm 6595**
Shigang Cui, *Tianjin Univ. of Tech. and Educ.*
Heng Li, *Tianjin Univ. of Tech. and Educ.*
Xingli Wu, *Tianjin Univ. of Tech. and Educ.*
Yongli Zhang, *Tianjin Univ. of Tech. and Educ.*
Lin He, *Tianjin Univ. of Tech. and Educ.*
- MonDIS-16 Vehicle Tracking System for Intelligent and Connected Vehicle Based on Radar and V2V Fusion 6598**
Zhen Tian, *Chongqing Univ. of Posts and Telecommunications*
Yufeng Cai, *Chongqing Univ. of Posts and Telecommunications*
Shuai Huang, *Chongqing Univ. of Posts and Telecommunications*
Fangchao Hu, *Chongqing Univ. of Posts and Telecommunications*
Yingguo Li, *Chongqing Univ. of Posts and Telecommunications*
Ming Cen, *Chongqing Univ. of Posts and Telecommunications*
- MonDIS-17 Health Monitoring of Railway Vehicle Door System Based on Movement Resistance Analysis 6604**
Jing Long, *Guangzhou Metro Group Co., Ltd*
Shiyu Zhu, *Guangzhou Metro Group Co., Ltd*
Shizhong Zhang, *Guangzhou Metro Group Co., Ltd*
Zhixing Xu, *Nanjing Kangni Mechanical & Electrical Co., Ltd*
Guangwei Han, *Nanjing Univ. of Aeronautics & Astronautics*
Ningyun Lu, *Nanjing Univ. of Aeronautics & Astronautics*

- MonDIS-18 Research on Noise Locating of Diesel Engine Block Based on Microphone Array 6610**
 Ruili Zeng, *Army Military Transportation Univ.*
 Rong Zeng, *Army Military Transportation Univ.*
 Jianmin Mei, *Army Military Transportation Univ.*
 Lei Ding, *Army Military Transportation Univ.*
- MonDIS-19 Research on Observer Algorithm of Mover Displacement for Linear Oscillatory Actuator Based on Online Stator Resistance Identification 6614**
 Liqiang Wang, *Zhejiang Univ. of Water Resources and Elec. Power*
 Meizhen Lei, *Zhejiang Sci-Tech Univ.*
- MonDIS-20 Study on the algorithm based on the important region of board 6619**
 Guangyao Wang, *Shengyang Aerospace Univ.*
 Hedan Liu, *Shengyang Aerospace Univ.*
- MonDIS-21 Deep Reinforcement Learning Policy in Hex Game System 6623**
 Mengxuan Lu, *Anhui Univ.*
 Xuejun Li, *Anhui Univ.*
- MonDIS-22 Solve Game of the Amazons with Neural Networks and Distributed Computing 6627**
 Yuanxing Chang, *Shenyang Aerospace Univ.*
 Hongkun Qiu, *Shenyang Aerospace Univ.*
- MonDIS-23 Fractional-Order PID Controllers for Stabilization of Fractional-Order Time Delay Systems Based on Region Stability 6633**
 Tangqing Yuan, *Shanghai Univ.*
 Min Zheng, *Shanghai Univ.*
 Ke Zhang, *Shanghai Univ.*
 Tao Huang, *Shanghai Univ.*
- MonDIS-24 Hex Game System based on P-MCTS 6639**
 Shiqi Wang, *Beijing Info. Scie. and Tech. Univ.*
 Meng Ding, *Beijing Info. Scie. and Tech. Univ.*
 Shuqin Li, *Beijing Info. Scie. and Tech. Univ.*
- MonDIS-25 Optimization of VCDTS Algorithm in Connect6 Game 6643**
 Chen Zhang, *Beijing Inst. of Tech.*
 Hong Huang, *Beijing Inst. of Tech.*
 Zhouyu Zhang, *Beijing Inst. of Tech.*
 Shicong Liu, *Beijing Inst. of Tech.*
- MonDIS-26 Study of Valuation Function and Search Strategy in Random Game 6647**
 Xiaochuan Zhang, *Chongqing Univ. of Tech.*
 Qin Li, *Chongqing Univ. of Tech.*
 Wanwan Wang, *Chongqing Univ. of Tech.*
 Longchao Huang, *Chongqing Univ. of Tech.*
 Yongjie Sun, *Chongqing Univ. of Tech.*
 Lirong Peng, *Chongqing Indu. Polytechnic Coll.*
 Yi Li, *Chongqing Univ. of Tech.*
- MonDIS-27 A New Route Optimization Approach of Cold Chain Logistics Distribution Based on Fresh Agricultural Products 6652**
 Jiayang Li, *Shenyang Univ. Northeastern Univ.*
 Linan Fan, *Shenyang Univ.*
 Dongyan Dong, *Shenyang Univ.*

- MonDIS-28 Application of Image Quality Assessment in Marine Biological Density Prediction 6658**
 Jianwen Li, *Suzhou Nuclear Power Research Inst.*
 Wei Wang, *Dalian Ocean Univ.*
 Kang Li, *Dalian Ocean Univ.*
 Wei Meng, *Suzhou Nuclear Power Research Inst.*
 Xianjiu Guo, *Dalian Ocean Univ.*
- MonDIS-29 Study on Temperature Adjustment System of Intelligent Shore-based Electrical Cabinet and Its Control 6662**
 Lin Pan, *Wuhan Univ. of Tech.*
 Heming Li, *Wuhan Univ. of Tech.*
 Jiying Wang, *Wuhan Univ. of Tech.*
- MonDIS-30 Spectral Emissivity Calculation Based on Extreme Learning Machine 6668**
 Li Fu, *Shenyang Aerospace Univ.*
 Henan Wang, *Shenyang Aerospace Univ.*
 Yu Gong, *Shenyang Aerospace Univ.*
 Jinxin Fu, *Shenyang Aerospace Univ.*
- MonDIS-31 Optimal Control of Aircraft Landing Gear State Feedback Based on Magneto rheological Damper 6673**
 Li Fu, *Shenyang Aerospace Univ.*
 Shuai Chen, *Shenyang Aerospace Univ.*
 Xueshan Bai, *Shenyang Aerospace Univ.*
 Junhua Wang, *Shenyang Aerospace Univ.*
- MonDIS-32 Small Unmanned Aircraft Systems for Cooperative Source Seeking with Fractional Order Potential Fields 6677**
 Jinlu Han, *Tsinghua Univ.*
- MonDIS-33 Depth Map Recovery Based on Optimal Scheduling of Invalid Point Filling 6684**
 Xinli Xiong, *Northeastern Univ.*
 Dongyue Chen, *Northeastern Univ.*
 Wuwei Zhang, *Northeastern Univ.*
 Tong Jia, *Northeastern Univ.*
- MonDIS-34 Research of Capture Algorithms of Surakarta Chess in the Computer Games Online Platform System 6691**
 Jun Tao, *Jiangnan Univ.*
 Rowan Univ.
 Gui Wu, *Jiangnan Univ.*
- MonDIS-35 Design and Application of Communication Interface in Computer Games Platform of Dots and Boxes 6695**
 Jun Tao, *Jiangnan Univ., Rowan Univ.*
 Gui Wu, *Jiangnan Univ.*
- MonDIS-36 Design of the Intelligent Control System of Classroom Based on Raspberry Pi 6699**
 Xuling Guo, *Southwest Minzu Univ.*
 Shuqun Wang, *Southwest Minzu Univ.*
 Shengying Zhu, *Southwest Minzu Univ.*
- MonDIS-37 3D Concave Defect Measurement System of the Cryogenic Insulated Cylinder Based on Linear Structured Light 6706**
 Yongsheng Zhao, *Dalian Maritime Univ.*
 Jian Liu, *Dalian Maritime Univ.*
 Guofeng Wang, *Dalian Maritime Univ.*
 Yusheng Fan, *Dalian Maritime Univ.*
 Houde Wu, *Dalian Maritime Univ.*

- MonDIS-38 A New Model for Structural Damage Assessment Using Adaptive Mutation Particle Swarm Optimization and Support Vector Machine 6711**
 Can He, *Researching Inst. of Naval Defence Engi. Design*
 Juelong Li, *Technical Management Office of Naval Defence Engi.*
 Jianchun Xing, *Land Force Univ. of Engi.*
- MonDIS-39 Condition Monitoring and Fault Diagnosis of Ball Mill Gear 6715**
 Danli Wen, *Software Coll. of Shenyang Normal Univ.*
 Shuwei Huang, *Software Coll. of Shenyang Normal Univ.*
 Guangyu Yu, *Anshan Iron and Steel Group Mining Co., Ltd*
- MonDIS-40 Research on Location Intelligent Detection Based on RFID Technology 6719**
 JI Xiu, *School of elec. and info. Changchun inst. of Tech.*
 Shan Shuangshuang, *Jilin Profit Scie. and Technology Ltd*
 Wang Mingchen, *School of elec. and info. Changchun inst. of Tech.*
 Liu Xiangtian, *School of elec. and info. Changchun inst. of Tech.*
 Wang hui, *School of elec. and info. Changchun inst. of Tech.*
- MonDIS-41 An Improved Method of Depth Measurement Based on Line Laser 6724**
 Yu Xue, *Northeastern Univ.*
 Tong Jia, *Northeastern Univ.*
 Wenhao Li, *Northeastern Univ.*
 Xi Yuan, *Northeastern Univ.*
 Dongyue Chen, *Northeastern Univ.*
- MonDIS-42 Design and implementation of fractional PID controller for rotary inverted pendulum 6730**
 Chunyang Wang, *Changchun Univ. of Scie.and Tech.*
 Xu Liu, *Changchun Univ. of Scie.and Tech.*
 Hongwei Shi, *Changchun Univ. of Scie.and Tech.*
 Ruihao Xin, *Changchun Univ. of Scie.and Tech.*
 Xiang Xu, *Changchun Univ. of Scie.and Tech.*
- MonDIS-43 Control and Simulation of Fractional Order Inverted Pendulum Systems 6736**
 Xuefeng Zhang, *Northeastern Univ.*
 Linghui Long, *Northeastern Univ.*
 Yuanwei Lv, *Northeastern Univ.*
- MonDIS-44 Endgame Database for Dots-And-Boxes Game 6742**
 Yixin Cao, *Shenyang Aerospace Univ.*
 Junkai Lu, *Shenyang Aerospace Univ.*
 Hang Yin, *Shenyang Aerospace Univ.*
- MonDIS-45 Collision Risk Identification of Autonomous Ships Based On the Synergy Ship Domain 6746**
 Xiang-yu Zhou, *Dalian Maritime Univ.*
 Zheng-jiang Liu, *Dalian Maritime Univ.*
 Feng-wu Wang, *Dalian Maritime Univ.*
 Sheng-ke Ni, *Dalian Maritime Univ.*
- MonDIS-46 Two Indoor Location Algorithms Based on Sparse Fingerprint library 6753**
 Jiapeng Li, *Northeastern Univ. at Qinhuangdao*
 Yongtao Wei, *Northeastern Univ. at Qinhuangdao*
 Miaobo Wang, *Northeastern Univ. at Qinhuangdao*
 Jiaping Luo, *Northeastern Univ. at Qinhuangdao*
 Yuchen Hu, *Northeastern Univ. at Qinhuangdao*

- MonDIS-47 An Indoor Autonomous Guided Vehicle Based on Electromagnetic Tracking and Positioning Ibeacon 6759**
 Jiaping Luo, *Northeastern Univ. at Qinhuangdao*
 Mingyun Chen, *Northeastern Univ. at Qinhuangdao*
 Jiapeng Li, *Northeastern Univ. at Qinhuangdao*
 Yongtao Wei, *Northeastern Univ. at Qinhuangdao*
 Yuchen Hu, *Northeastern Univ. at Qinhuangdao*
- MonDIS-48 Research on Modular Evaluation System of Computer Game Code 6765**
 Xian Mei, *Harbin Univ. of Scie. and Tech.*
 Wei Sun, *Harbin Univ. of Scie. and Tech.*
 Huanyin Deng, *Harbin Univ. of Scie. and Tech.*
 Xu Gao, *Harbin Univ. of Scie. and Tech.*
 Jiayi Gong, *Harbin Univ. of Scie. and Tech.*
- MonDIS-49 An Improved DV-Hop Scheme Based on Similar Path Searching and Quasi-Newton Iterative Algorithm 6769**
 Qinqin Shi, *Shanghai Inst. of Tech.*
 Dongyu Wang, *Shanghai Inst. of Tech.*
 Qiang Xu, *Shanghai Inst. of Tech.*
 Jianping Zhang, *Sino Parking Tech Co.*
- MonDIS-50 Urban Traffic Lane Saturation Prediction with Least Square Support Vector Regression based on Genetic Algorithm 6775**
 Langwen Zhang, *South China Univ. of Tech.*
 Xiaofeng Yang, *South China Univ. of Tech.*
 Wei Xie, *South China Univ. of Tech.*