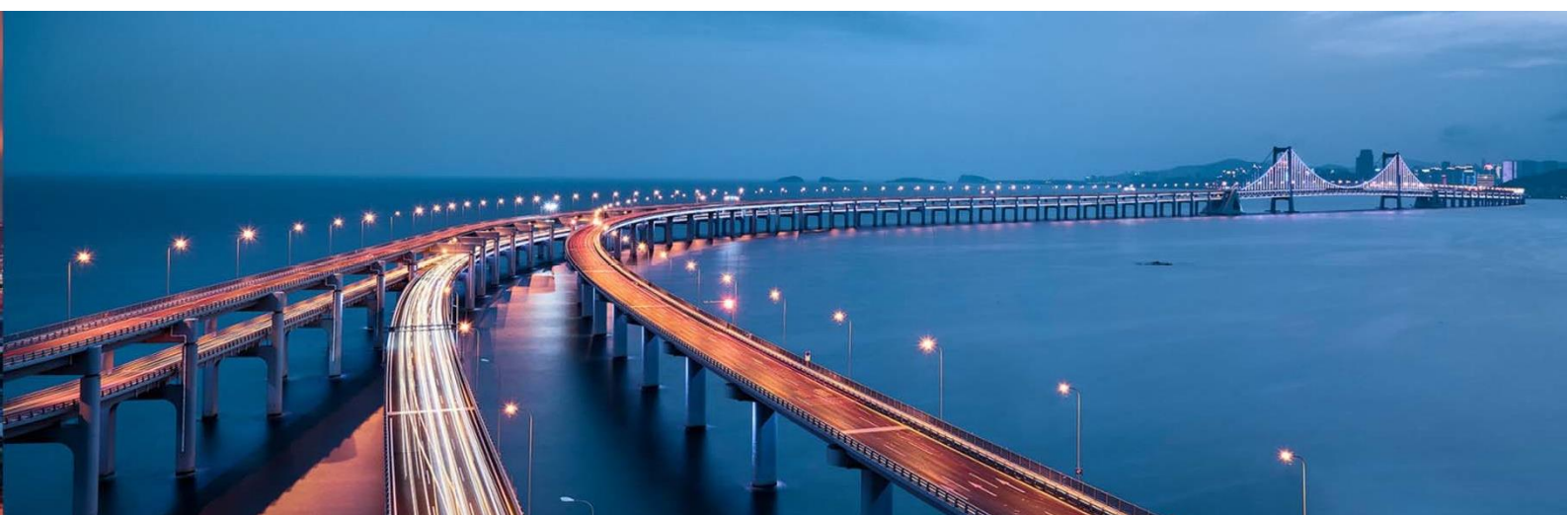


# 2020 IEEE International Conference on Artificial Intelligence and Information Systems

## ICAIIS CONFERENCE PROGRAM



March 20-22, 2020, Dalian, China  
<http://icaiis.org/>

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## Program at a glance

<b>Friday, March 20, 2020</b>	
09:00-17:00	Registration
<b>Saturday, March 21, 2020</b>	
09:00-09:30	Opening ceremony
09:30-10:10	Keynote speech I
10:10-10:30	<i>Break Time</i>
10:30-11:10	Keynote speech II
11:10-11:50	Keynote speech III
12:00-14:00	<i>Break time</i>
14:00-15:40	Sessions-1A, 2A, 3A
15:40-16:30	<i>Break time and poster session</i>
16:30-18:00	Sessions-1B, 2B, 3B
18:10-19:00	<i>End of the day</i>
<b>Sunday, March 22, 2020</b>	
08:30-10:00	Sessions-1C, 2C, 3C
10:00-10:40	<i>Break time and poster session</i>
10:40-12:10	Sessions-1D, 2D, 3D
12:20-13:30	<i>Break time</i>
14:00-15:40	Sessions-1E, 2E,3E
15:40-16:30	<i>Break time and poster session</i>
16:30-18:00	Sessions-1F-2F-3F
18:10-19:00	<i>Conference end</i>

## Join the conference

Session	Conference ID	Time
Opening Session	194 258 932	2020/3/21 09:00-12:00
Website	<a href="https://meeting.tencent.com/s/5kLGnry793d6d">https://meeting.tencent.com/s/5kLGnry793d6d</a>	
Session 1A/1B	207 631 445	2020/3/21 14:00-18:00
Website	<a href="https://meeting.tencent.com/s/5E6Mtuu65afc4">https://meeting.tencent.com/s/5E6Mtuu65afc4</a>	
Session 2A/2B	930 352 611	2020/3/21 14:00-18:00
Website	<a href="https://meeting.tencent.com/s/5HP3PCL7a69b3">https://meeting.tencent.com/s/5HP3PCL7a69b3</a>	
Session 3A/3B	489 018 196	2020/3/21 14:00-18:00
Website	<a href="https://meeting.tencent.com/s/5iUh2Bo87479d">https://meeting.tencent.com/s/5iUh2Bo87479d</a>	
Session 1C/1D	377 222 283	2020/3/22 08:30-12:10
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Website	<a href="https://meeting.tencent.com/s/5E56I386f143e">https://meeting.tencent.com/s/5E56I386f143e</a>	
Session 3C/3D	648 169 579	2020/3/22 08:30-12:10
Website	<a href="https://meeting.tencent.com/s/5OaYjSn0774a3">https://meeting.tencent.com/s/5OaYjSn0774a3</a>	
Session 1E/1F	561 761 381	2020/3/22 14:00-18:00
Website	<a href="https://meeting.tencent.com/s/5vcQ89nd71b7c">https://meeting.tencent.com/s/5vcQ89nd71b7c</a>	
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Session 3E/3F	450 436 726	2020/3/22 14:00-18:00
Website	<a href="https://meeting.tencent.com/s/5cOmdICffa1a7">https://meeting.tencent.com/s/5cOmdICffa1a7</a>	

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**Session 1A (Saturday, March 21, 14:00-15:40)**

No.	Paper Information	PID
S-1	A Dynamically Adding Information Recommendation System based on Deep Neural Networks Yang Zhou	A001
S-2	MaskS R-CNN Text Detector Pengfei Duan, Jiahao Pan, Wenbi Rao	A002
S-3	Neural structural correspondence learning method based on features extending Yin Runda, Liang Junge, Xiang Yan, Xu Ying, Zhang Li	A004
S-4	An Improved Morphological Algorithm for Defect Detection on Point Cloud Data Hongyu Zhou, Ruixun Zhang, Huichao Li, Xiuli Shao	A006
S-5	Dynamic Attention Graph Convolution Neural Network of Point Cloud Segmentation for Defect Detection Yumeng Li, Ruixun Zhang, Huichao Li, Xiuli Shao	A007
S-6	Research on Dimension Reduction Method of Public Opinion Short Text Representation Model Based on Combined Neural Network Zhao Yumeng, Yang Haolin, Liu Limin	A009
S-7	Detection of spinal fracture lesions based on Improved Faster-RCNN Gang Sha, Junsheng Wu, Bin Yu	A010
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S-2	A Novel Spherical Search Based Grey Wolf Optimizer for Optimization Problems Zhe Wang, Haichuan Yang, Ziqian Wang, Yuki Todo, Zheng Tang, Shangce Gao	A012
S-3	Multi-attribute group decision making method based on 2-dimension 2-tuple linguistic information Yanhao Sun, Qi Zhang, Zhi Li, Yumou Ren, Yunpeng Zhang, Zhiming Yuan	A018
S-4	Comparative Study of Open Source Software Reliability Assessment Tools Shuyi Lu, Honghui Li, Zhouxian Jiang	A019
S-5	Integrity Measurement Method for Key Business Code Segments in Power Dispatching Cloud Control System Yujie Geng, Yi Guan, Yong Liu, Qiang Ma, Lin Lin, Mengjuan Cai	A020
S-6	Face Quality Assessment based on Local Gradient Yaxuan Lu, Weijun Li, Xin Ning, Xiaoli Dong, Yankun Zhang, Linjun Sun	A021
S-7	Cordic-based Softmax Acceleration Method of Convolution Neural Network on FPGA Yongxiang Cao, Wan'ang Xiao, Jingdun Jia, Dehua Wu, Weixin Zhou	A022
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<i>S-2</i>	An adaptive iterative weighted fusion algorithm based on pig farm environment detection Haojie Wang, Bo Liu	A025
<i>S-3</i>	Bearing fault diagnosis of two-dimensional improved Att-CNN2D neural network based on Attention mechanism Sile Yang, Xuebin Sun, Dianjun Chen	A027
<i>S-4</i>	A Novel Infrared Navigational Algorithm for Autonomous Robots Mamadou Doumbia, Xu Cheng, Lipei Chen	A028
<i>S-5</i>	Efficient Instance Segmentation Network Chenquan Huang, Weiping Wu, Zhihua Lei	A029
<i>S-6</i>	Improved SegMitosis framework for mitosis detection in breast cancer histopathology images Meriem Sebai	A030
<i>S-7</i>	Energy Detection Based Spectrum Sensing Strategy for CRN Kaleem Arshid, Zhang Jianbiao, Irfan Hanif, Rizwan Munir, Muhammad Yaqub, Umair Tariq	A032
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<i>P-2</i>	Study of Accurate and Fast Estimation Method of Vehicle Length Based on YOLOs Yichang Liu, Mark Reynolds, Du Huynh, Ghulam Hassan	A035
<i>P-3</i>	Tobacco pests monitoring system based on time sequence pattern mining Dong Zhigang, Li Lin, Wang Xuejun, Wang Guangchao, Gao Yang, Wang Guofeng	A037
<i>P-4</i>	Detection and classification of malware based on FastText Luming Feng, Yanpeng Cui, Jianwei Hu	A038
<i>P-5</i>	A New Range Noise Perturbation Method based on Privacy Preserving Data Mining Jinzhaoh Shan, Ying Lin, Xiaoke Zhu	A040
<i>P-6</i>	Decentralized Computation Offloading over Wireless-Powered Mobile-Edge Computing Networks Yazhou Zhang, Xinsong Dong, Yinna Zhao	A041
<i>P-7</i>	Heterogeneous Data Feature Extraction Technology based on Long-Short Term Memory Jiye Wang, Yundan Liang, Lingchao Gao, Zhixian Pi, Xiao Yang, Huaixun Zhang, Jiasong Sun	A042
<i>P-8</i>	Comparison of Nonlinear Autoregressive Neural Networks Without and With External Inputs for PV Output Power Prediction Rensheng Liu, Godwin Norensense Osarumwense Asemota, Sarah Benimana, Aphrodis Nduwamungu, Samuel Bimenyimana, Jean De Dieu Niyonteze	A043
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<i>P-10</i>	Text Classification Model Based on fastText Tengjun Yao, Zhengang Zhai, Bingtao Gao	A049

<i>P-11</i>	Nonlinear compensation of OFDM System based on DNN Buhua Liu, Dan Ding, Zhongqian Liu	A052
<i>P-12</i>	High-speed Railway Timetabling Model based on Transfer Optimization Zhi Li, Qi Zhang, Yumou Ren, Yanhao Sun, Changjun Miao, Jiaying Duan	A054
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<i>S-2</i>	Cognitive Behavior Optimization Algorithm Application for Large-scale Knapsack Problem Yuanfei Wei, Qifang Luo	A059
<i>S-3</i>	Design and Implementation of Intelligent Scoring System for Handwritten Short Answer Based on Deep Learning Yubei Lin, Liubin Zheng, Feng Chen, Shumao Sun, Zilong Lin, Pingping Chen	A061
<i>S-4</i>	Detection and recognition of hand abnormal state based on deep learning algorithm Xiaoping Yu, Lin Zhu, Lanxu Jia	A062
<i>S-5</i>	Design of module - based test system configuration management system Xiaopeng Qi, Kai Duan, Kuan Wang	A063
<i>S-6</i>	Design of Universal Serial Avionics Bus Integrated Test System Haibo Gong, Qian Xu, Hongxiang Zhu	A065
<i>S-7</i>	Research on Real-time Telemetry Technology of High-speed Avionics Bus Data Qian Xu, Haibo Gong, Zhao Hao	A066

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<i>S-5</i>	Secret Key Attaches in MIMO IoT Communications by Using Self-injection Artificial Noise Jie Tang, Aidong Xu, Yixin Jiang, Yunan Zhang, Hong Wen, Tengyue Zhang	A071
<i>S-6</i>	Identification algorithm of fishing vessel operation type based on Feature Fusion Bingtao Gao, Lei Wang, Zhengang Zhai, Yinjie Wang, Yunya Zhu, Tengjun Yao, Dan Liu, Li Zhang	A072
<i>S-7</i>	Design of High Precision Synchronous Data Acquisition System with Temperature Compensation Wang Kuan, Qi Xiaopeng, Li Panwen	A073

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S-2	The Evaluation of RFF Authentication for Edge Computing Wei Deng, Zhen Wang, Wei Liu, Hongliang Chang, Feiyi Xie, Zhe Wang, Hong Wen	A080
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S-2	Non-ideality Analysis of Current steering DAC Wei Zhang, Ruoyuan Qu, Ming Zhu	A093
S-3	Shortest Distance Maze Solving Robot Kuo-Chi Chang, Yuwen Zhou, Akram Muhammad Shoaib, Kai-Chun Chu, Muhammad Izhar, Shafi Ullah, Yuh-Chung Lin	A095
S-4	Deep Learning Approached Features for ASD Classification using SVM Md Rishad Ahmed, Md Shale Ahammed, Sijie Niu, Yuan Zhang	A096
S-5	Advanced 5G system chip MOCVD process parameter control and simulation based on BP neural network and Smith predictor Yuwen Zhou, Kuo-Chi Chang, Kai-Chun Chu, David Kwabena Amesimenu, Ntawiheba Jean Damour, Shoaib ahmad, Shamim Md Obaydul Haque, Joram Gakiza, Abdalaziz Altayeb Ibrahim OMER	A099
S-6	Study of Smart Monitoring and Protection of Remote Transformers and Transmission Lines using GSM Technology David Kwabena Amesimenu, Kuo-Chi Chang, Tien-Wen Sung, Yuwen Zhou, Joram Gakiza, Abdalaziz Altayeb Ibrahim OMER, Shoaib ahmad, Kaichun Chu, Shamin Md Obaydul Haque	A100
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<i>S-4</i>	Research on multi-source collaborative simulation and operation optimization of regional centralized supply system Chengsha Liang, Hongxun Chen, Zheng Ma, Qiuyu Zhu	A109
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S-4	Parameters Match for the Drive system of Aircraft Towbarless Tractor Driven by In-wheel Motors Yonggang Cui, Jiyan Qi, and Lan Yang	A191

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S-7	Thermal Runaway Warning Based on Safety Management System of Lithium Iron Phosphate Battery for Energy Storage Darui He, Jianlong Sun, Yan Li, Fangyuan Tian, Yiran Chen, Guodao Tong, Xisong Chen, Qipeng Shen, Zhibo Lian	A211

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No.	Paper Information	PID
S-1	Estimate the Parasitic Parameters of the Secondary Winding of the Power Transformer Tamara Egamnazarova, Minxiao Han, Xiahui Zhang, Mishkat Ullah Jan, Usama Abrar, Haseeb Ur Rehman, Chunlai Qiao	A225
S-2	A Simulator for Analyzing the Balance of Mafia Game Qiong Chang	A229
S-3	Long-haul Stealth Communication Based on Different State Bases Unidirectional Loopback in Optical Fiber Link Chao Lei, Yajie Li, Jie Zhang, Yongli Zhao, Huibin Zhang, Bo Wang, Hang Gao, Junjia Li, Mingrui Zhang	A230
S-4	Research on Offshore Wind Farms Transmitted via VSC HVDC of an Integrated supervision and control system Liu Yi, Rao Guohui, Shao Ruibo	A231
S-5	Research on Stator-Core Temperature Characteristics under Static Air-Gap Eccentricity in Turbo-generator Wenqiang Tao, Yuling He, Huan Lei, Wen Zhang, Yuexin Sun, Tao Wang	A233
S-6	A New Pressure-adsorption Climbing Robot Realized through Ducted Fan Wei jin Huang, Hongzhe Jin, Mingda Ge, Jie Zhao	A236
S-7	The On-duty Response Management System for Power Emergency Events based on Big Data Technology Junfang Li, Yunlong Hou, Xun Cheng, Xiaoyu Yan, Gang Chen	A239
<b>Break Time and Poster Session III (15:40-16:30)</b>		

<b>Poster Session III (Sunday, March 22, 15:40-16:30)</b>		
No.	Paper Information	PID
P-1	Network Security Analysis of Industrial Control System Based on Attack-Defense Tree Sui He, Ding Lei, Wang Shuang, Chunbo Liu, Zhaojun Gu	A241
P-2	Research on ADRC Based Control Algorithm of Rail Pressure for Common Rail Diesel Engines Jian Ling, Jingyuan Li, Xiaowei Wang, Yong Li, Xiaopan An, Zhenkai Xie	A247
P-3	A novel vision based pointer instrument reading algorithm Huanjun Liu	A248
P-4	A Power Control based Handshake-Competition MAC Protocol for Underwater Acoustic Networks Shidu Wang, Danfeng Zhao	A253
P-5	Design of Hardware and Software Systems for English Listening Test Platform Jing Fan	A255
P-6	Design of Teaching Expert Evaluation System Based on Artificial Intelligence Xiaomin Zhao	A261
P-7	Face Liveness Detection Using Eulerian Video Magnification and SIFT Algorithm Wei Zhao, Yan Ma, Xiaofu He, Hui Huang, Xiao Lin, Yuping Zhang	A272
P-8	Performance of Polar-LDPC Concatenated Coding on AWNG Channel Yuling Zhang, Qiuming Ma, Jiqin Qian	A275

<i>P-9</i>	Web-based Community Objects Sharing Trading System Jia Yang	A277
<i>P-10</i>	Dynamic Collision Avoidance Zone Modeling Method Based on UAV Emergency Collision Avoidance Trajectory Xusheng Gan, Yarong Wu, Pingni Liu, Qian Wang	A280
<i>P-11</i>	Research on Military Aviation Air Traffic Control Safety Assessment Based on AFSA-SVM Yanming Wei, Hong Qu, Baohua Han, Xianwei Meng	A288
<i>P-12</i>	Research on Safety Evaluation for Military Aviation Management Based on RBF Neural Network model Xusheng Gan, Baohua Han, Baoan Han, Zhihua Zhou	A291
<i>P-13</i>	Research on the solution of service conflict based on service characteristics in power exchange network convergence Ni Li, Guozhu Ma, Hongxia Sun, Ting Zhao	A293

**Session 1F (Sunday, March 22, 16:30-18:00)**

<b>No.</b>	<b>Paper Information</b>	<b>PID</b>
<i>S-1</i>	Research on the implementation of IMS boundary session control capability based on edge computing Ni Li, Menglin Li, Wei Shen, Pu Chen	A295
<i>S-2</i>	A Design of Dynamic Defective Pixel Correction for Image Sensor Liu Yongji, Yuan Xiaojun	A299
<i>S-3</i>	Design of a Low-Dropout Linear Regulator Enyu Xu, Xuehong He	A301
<i>S-4</i>	A 2-Stage Phase Interpolator Used in Clock Data Recovery Circuit Dongxu Quan, Xiameng Lian	A305
<i>S-5</i>	Two-dimensional Automatic Smooth Road Representation and Vehicle Trajectory based on key nodes for Complex Intersection Modeling Qun Wang, Pei Yang, Jiyue Huang	A309
<i>S-6</i>	The Research on Mongolian Pronunciation Input Method Chunrong Wang, Wenshou Bao, Meirong Bao	A313
<i>S-7</i>	A method for realizing high-precision monitoring of satellite clock based on BeiDou's co-satellite RDSS and RNSS signals Wenxue Liu, Hong Yuan	A316

**Session 2F (Sunday, March 22, 16:30-18:00)**

<b>No.</b>	<b>Paper Information</b>	<b>PID</b>
<i>S-1</i>	SocialCCF: Graph-text Collaborative Cleaning Framework Based on Social Networks Yun Zhang, Zongze Jin, Fan Liu, Weilin Zhu, Weimin Mu, Weiping Wang	A322
<i>S-2</i>	ImageDC: Image Data Cleaning Framework Based on Deep Learning Yun Zhang, Zongze Jin, Fan Liu, Weilin Zhu, Weimin Mu, Weiping Wang	A326
<i>S-3</i>	Research on dynamic trust evaluation mechanism of MAC layer in G3-PLC Qian Weiqiang, Cai Bingbing, Wang Xianpei	A328
<i>S-4</i>	Experimental Study on The Interference Effect of Wind Load on Two Adjacent Hemispherical Domes Weibo Sha, Deqian Zheng, Jinchao Yue	A335
<i>S-5</i>	Polyvalent Wireless Communication System (PWCS); A Potentially Useful Technology for Opportunistic Networks Cossi Blaise Avoussoukpo, Chunxiang Xu, Marius Tchenagnon	A355

<i>S-6</i>	Key Techniques of Pretreatment and Quantitative Identification of Broken Wire Detection Signal in Wire Rope Wang Hongyao, Tian Jie, Lv Xin, Meng Guoying, Hua Gang	A358
<i>S-7</i>	Real time Estimation Algorithm for 4 Wheel Independent Driven Vehicle's Velocity Lun Zhang, Nan Chen, Rongrong Wang	A364

**Session 3F (Sunday, March 22, 16:30-18:00)**

<b>No.</b>	<b>Paper Information</b>	<b>PID</b>
<i>S-1</i>	Research on Parallel Task Optimization of High Performance Computing Cluster Jiandong Shang, Dongpu Sheng, Runjie Liu, Shuangyan Wu, Panle Li	A372
<i>S-2</i>	Fountain Codes-based Two-way Multiply-and-Forward Relaying in Rayleigh Fading Channels Shengkai Xu, and Dazhuan Xu	A376
<i>S-3</i>	The Perception Effect of Color S3D Images for Multiple Display Modes Zhibin Su, Yuan Wang, Bing Liu, Yunfang Zhang, Dongrui Li	A381
<i>S-4</i>	Blind Signal Extraction Algorithm Based on WOA and PCA Chu Dingli, Chen Hong, Luo Luwei	A382
<i>S-5</i>	Study on Fuzzy Identity Authentication Approach Based on String Matching He Jingsha, Li Zhen	A386
<i>S-6</i>	Research on Algorithm of Target Triangles Fast Locating in Delaunay Triangulation Zhang Shinan, Yan Jiachuan, Pan Jun	A390
<i>S-7</i>	Improved Optimization Design of Degree Distributions in Fountain Codes Shengkai Xu, Dazhuan Xu	A398