

2022 IEEE 25th International Conference on Computer Supported Cooperative Work in Design (IEEE CSCWD 2022)

May 4-6, 2022, Hangzhou, China

<http://2022.cscwd.org/>

Program at a Glance

Conference Venue: Blossom Tao Hotel (Hangzhou International Expo Center), 800 Minhe Road, Hangzhou, Zhejiang, China (宝盛道谷酒店(杭州奥体中心点))

Zoom Conference ID: to be provided to registered attendees

Tuesday May 3, 2022

17:00 - 20:00	Onsite Registration
17:00 - 20:00	Welcome reception

Wednesday May 4, 2022

08:30 - 18:00	Onsite Registration			
9:00 - 10:40	Session A1: (Room A) 24,72,102,116,191 Ding Ding	Session B1: (Room B) 153,262,288,156,158,192 Runqun Xiong	Session C1: (Room C) 54,289,180,231,239,242 Ana Cristina B Garcia	Session D1: (Room D) 281,291,84,112,277,287 Daniel Schneider
10:40 - 11:00	Coffee/Tea Break			
11:00 - 12:40	Session A2: (Room A) 71,83,160,186 Ding Ding	Session B2: (Room B) 31,49,39,144,157,159 Dian Shen	Session C2: (Room C) 190,42,69,286 Bin Li	Session D2: (Room D) 44,73,123,251,252,263 Usharani Hareesh Govindarajan
12:40 - 14:00	Lunch			
14:00 - 15:40	Session A3: (Room A) 55,66,152,70,227,85 Wenjia Wu	Session B3: (Room B) 35,68,184,237,265,3 Dongjing Wang	Session C3: (Room C) 65,118,233,273 Hongming Cai	Session D3: (Room D) 13,246,261,272 Tun Lu
15:40 - 16:00	Coffee/Tea Break			
16:00 - 17:40	Session A4: (Room A) 9,197,99,21,90 Wei Zheng	Session B4: (Room B) 201,221,139,279,259,275 Dongjing Wang	Session C4: (Room C) 52,91,218,225,226,255 Maria-Helene Abel	Session D4: (Room D) 34,147,280,285 Tun Lu
18:00 - 20:00	Onsite Dinner			
20:00 - 22:00	Opening Ceremony + Two Keynote Talks Keynote 1: Prof. Huayong Yang, Development of Intelligent Tunnel Boring Machine Keynote 2: Prof. Ruqiang Yan, Physics Model Meets Data Science: A Collaborative Perspective for Intelligent Operation and Maintenance of High-end Equipment			

Thursday May 5, 2022

9:00 - 10:40	Session A5: (Room A) 57,111,128,87,124,189 Haibin Zhu	Session B5: (Room B) 93,129,92,177,210 Yulian Cao	Session C5: (Room C) 8,14,20,28,51 Xiaolong Xu	Session D5: (Room D) 33,47,67,98,109,127 Jiehan Zhou
10:40 - 11:00	Coffee/Tea Break			
11:00 - 12:40	Session A6: (Room A) 117,166,89,27,115,199 Jun Shen	Session B6: (Room B) 133,143,119,120,121,130,209 Yanjun Shi	Session C6: (Room C) 110,162,182,193,200,208 Xiaoping Li	Session D6: (Room D) 145,146,151,169,172,174 Jiehan Zhou/Jinghui Zhang
12:40 - 14:00	Lunch			
14:00 - 15:40	Session A7: (Room A) 75,12,36,131,135,148 Xiaoliang Fan	Session B7: (Room B) 134,216,264,88,137 Gongzhuang Peng	Session C7: (Room C) 206,212,213,243,245 Jie Zhu	Session D7: (Room D) 188,194,235,254,278 Tie Qiu
15:40 - 16:00	Coffee/Tea Break			
16:00 - 17:40	Session A8: (Room A) 43,168,176,37 Usharani Hareesh	Session B8: (Room B) 1,80,164,195,219,290 Kunkun Peng	Session C8: (Room C)	Session D8: (Room D)
18:00 - 20:00	Onsite Conference Banquet			

Friday May 6, 2022

9:00 - 10:40	Session A9: (Room A) 25,45,103,106,125,140 Xu Cheng	Session B9: (Room B) 41,165,17,22,23,26 Hongwei Wang	Session C9: (Room C) 5,6,19,46,82,196 Dongning Liu	Session D9: (Room D) 11,15,32,48,50,63 Gaofeng He
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10:40 – 11:00	Coffee/Tea Break			
11:00 – 12:40	Session A10: (Room A) 167,170,207,214,220,232 Xu Cheng	Session B10: (Room B) 74,97,101,126,187 Hongwei Wang	Session C10: (Room C) 222,228,247,256,274 Libo Zhang	Session D10: (Room D) 94,95,104,108,141,163 Yang Shi
12:40 – 14:00	Lunch			
14:00 – 15:40	Session A11: (Room A) 78,114,122,138,142,211 Hongwei Wang	Session B11: (Room B) 113,238,59,260,292 Xiaolin Fang	Session C11: (Room C) 38,40,58,150,198,293 Peng Qi	Session D11: (Room D) 173,178,223,234,236,241 Kai Dong
15:40 – 16:00	Coffee/Tea Break			
16:00 – 17:40	Session A12: (Room A) 161,202,230,267,271,282 Hongwei Wang	Session B12: (Room B) 204,205,224,250,249,136,257 Tie Qiu	Session C12: (Room C) 149,154,155,179,181,183 Peng Qi	Session D12: (Room D) 244,248,258,266,268 Xuren Wang
18:00 – 20:00	Onsite Dinner			
20:00 – 22:00	Two Keynote Talks + Closing /Award Ceremony Keynote 3: Prof. Andrew Kusiak, From Intelligent to Universal Manufacturing Keynote 4: Prof. Lihui Wang, Current Status and Future Trends on Human-Robot Collaboration			

Notes:

- 1) The conference program has been scheduled to accommodate online participation around the world. Some authors will need to give online presentations in the evenings.
- 2) Online conference IDs and passwords will be sent to the registered attendees by emails around May 1, 2022.
- 3) * indicates online presentations from China (to be completed).
- 4) ** indicates online presentation from outside of China.

Keynote Talks:

Wednesday May 4, 2022, 20:00-22:00, Zoom Conference ID: to be provided to registered attendees

Keynote #1: Prof. Huayong Yang, Development of Intelligent Tunnel Boring Machine

Keynote #2: Prof. Ruqiang Yan, Physics Model Meets Data Science: A Collaborative Perspective for Intelligent Operation and Maintenance of High-end Equipment

Friday May 6, 2022, 20:00-22:00, Zoom Conference ID: to be provided to registered attendees

Keynote #3: Prof. Andrew Kusiak, From Intelligent to Universal Manufacturing

Keynote #4: Prof. Lihui Wang, Current Status and Future Trends on Human-Robot Collaboration

Parallel Sessions

Wednesday May 4, 2022

A1: Collaboration Methods, Mechanisms, Processes, and Protocols (1) (9:00-10:40), Chair: Ding Ding

24	Li-Hu Pan, Ya Su and Hui-min Yan. Prediction of the impact of intervention methods on the epidemic of novel coronavirus based on a multi-agent model
72**	Leonardo Vasconcelos, Daniela Trevisan and José Viterbo. Engagement by Design: A Card-based approach to design crowdsourcing initiatives
102**	Márcio José Mantau and Fabiane Barreto Vavassori Benitti. Towards an awareness taxonomy
116**	Márcio José Mantau and Fabiane Barreto Vavassori Benitti. Awareness Support in Collaborative System: Reviewing last 10 years of CSCW Research
191**	Alan de Oliveira Lyra, Carlos Eduardo Barbosa, Yuri Oliveira de Lima, Herbert Salazar dos Santos, Jano de Souza. NERMAP: Collaborative Building of Technological Roadmaps Using Named Entity Recognition

A2: Collaboration Methods, Mechanisms, Processes, and Protocols (2) (11:00-12:40), Chair: Ding Ding

71	Qingsen Bao, Zeyong Mao and Lei Chen. Learning Disentangled Latent Factors for Individual Treatment Effect Estimation Using Variational Generative Adversarial Nets
83	Wei Wang, Ying Liu, Wen Jiang and Yihui Ren. Making Punctuation Restoration Robust with Disfluency Detection
160	Ximing Liu, Yayong Li, Cuiqing Jiang, Zhao Wang, Fuqing Zhao and Jianfei Wang. Attentive Feature Fusion for Credit Default Prediction
186	Qiang Li, Haiyang Tian, Wenxia Qiao, Qiang Han and Mingjuan Ma. Co-located Collaboration Analysis Based on Group Traces

A3: Security and Privacy in Collaborative Systems (1) (14:00-15:40), Chair: Wenjia Wu

55	Langyue He, Cunqing Ma, Chenyang Tu and Yifei Zhang. Gait2Vec: Continuous Authentication of Smartphone Users Based on Gait Behavior
66	Chaoqun Li, Liang Dai, Delin Kong, Zhen Xu and Yanni Han. A Byte-level Autoencoder-based Method to Detect Malicious Open Resolver

152	Yueyao Zhao, Baihe Ma, Ziwen Wang, Zhihong Liu, Yong Zeng and Jianfeng Ma. Trajectory Obfuscation and Detection in Internet-of-vehicles
70**	Yuhua Yin, Julian Jang-Jaccard, Nilufar Baghaei. PassImg: A Secure Password Generation and Management Scheme without Storing
227**	Xiaojie Lin, Baihe Ma, Xu Wang, Ying He, Ren Ping Liu and Wei Ni. Multi-layer Reverse Engineering System for Vehicular Controller Area Network Messages
85*	Xuren Wang, Runshi Liu, Jie Yang, Rong Chen, Zhiting Ling, Peian Yang and Kai Zhang. Cyber Threat Intelligence Entity Extraction Based on Deep Learning and Field Knowledge Engineering

A4: Collaborative Workflows (16:00-17:40), Chair: Wei Zheng

9	Xuebiao Yuchi, Sirui Zhang, Zhiwei Yan, Kejun Dong, Hongtao Li and Zhiyong Zhang. A Trusted Notifier Reporting Framework for Incentive DNS Abuse Mitigation Based on Blockchain
197	Wei Zheng, Caie Wang, Zhaobin Chen and Dongzhan Zhang. A Priority-Based Level Heuristic Approach for Scheduling DAG Applications with Uncertainties
99**	Dennis Paulino, Antonio Correia, Diogo Guimarães, Joao Barroso and Hugo Paredes. Uncovering the Potential of Cognitive Personalization for UI Adaptation in Crowd Work
21*	Wenan Tan, Jin Liu, Zhejun Liang and Kai Ding. Based on Bid and Data Quality Incentive Mechanisms for Mobile Crowd Sensing Systems
90*	Xiao Hua, Jingling Yuan and Nana Wang. A Budget-Constrained Energy-Efficient Scheduling Algorithm on Cloud-Edge Collaborative Workflows

Thursday May 5, 2022

A5: Special Session: Adaptive Collaboration Systems (1) (9:00-10:40), Chair: Haibin Zhu

57	Zhuoxuan Huang, Hua Ma, Wensheng Tang and Jingze Li. Collaborative Prediction of Examinee Performance based on Fuzzy Cognitive Diagnosis via cloud model
111	Lingyuan Kong, Hua Ma, Yan Peng and Wensheng Tang. Hybrid Recommendation of Personalized MOOC Resources: A User Context-aware Approach
128	Shuren Li, Yifei Lu and Jingqi Li. CAD-IDS: A Cooperative Adaptive Distributed Intrusion Detection System with Fog Computing
87*	Fuyan Wen, Haibin Zhu and Dongning Liu. Defrost Period Allocation with Flexible Intervals via Group Role Assignment
124*	Hanlin Liu, Zhuoming Xu, Qianqian Zhang and Yan Tang. Integrating Users' Long- and Short-Term Preferences for Session-based Recommendation
189**	Xinhui Hu and Masooda Bashir. Toward Designing Trustworthy Autonomous Systems: Probing the Role of Humans' Ethical Perspectives

A6: Special Session: Cooperative and Integrated Mobility Solutions in Transportation and Logistics (11:00-12:40), Chair: Jun Shen

117	Zhichang Wang, Binjie Zhang, Nu Xia and Jiahui Jin. Generating Dynamic Urban Traffic Based on Stochastic Origin-Destination Matrix
166	Haojia Zhu and Jiahui Jin. MetaSync: Relaxing Synchronization Frequency in Distributed Urban Traffic Simulation
89**	Kevin Malysiak, Fenghui Ren, Hao Hu and Bo Du. A Mixed Integer Linear Programming Model for Train Service Improvement
27*	Zihao Tan, Linfeng Liu, Jiagao Wu and Yaoze Zhou. A Charging Station Recommendation Method based on Link Prediction for Cruising Electric Taxis

115*	Xiaojun Zheng, Qixian Wu and Jiang Zhong. Research on vehicle loading path optimization based on hard time window constraint
199*	Fuqing Zhao, Qiaoyun Wang and Hui Zhang. A Comprehensive Learning Moth-Flame Optimization with Low Discrepancy Sequence

A7: Collaborative Processing of Big Data (1) (14:00-15:40), Chair: Xiaoliang Fan

75	Yu Zheng, Jun Shen, Ru Jia and Ru Li. Research on Automatic Generation of Comment Labels Oriented to Users' Individualized Needs
12*	Ji Huang and Xiaolong Xu. AtM-DNN: A Multimodal Attention Fusion Network with Auxiliary Function for Sentiment Classification
36*	Erzhou Zhu, Zihan Wang, Feng Liu and Zhujuan Ma. DH-Kmeans: An Improved K-means Clustering Algorithm based on Dynamic Initial Cluster Center Determination and Hierarchical Clustering
131*	Liang Chen, Xiaoliang Fan, Haibing Jin, Xiaotian Sun, Ming Cheng and Cheng Wang. FedRME: Federated Road Markings Extraction from Mobile LiDAR Point Clouds
135*	Yimu Ji, Hu Fa, Haichang Yao, Sisi Shao, Mengxue Wu, Houzhi Fang, Qiang Liu and Shangdong Liu. FQCSpark: Efficient Spark-based Parallel Compression Algorithm for FASTQ Genome Sequences
148*	Peng Qi, Zhen Huang, Yan Sun and Hong Luo. A knowledge graph-based abstractive model integrating semantic and structural information for summarizing Chinese meetings

A8: Special Session: Business Intelligence: The CSCW Perspectives (16:00-17:40), Chair: Usharani Hareesh

43	Ru Jia and Ru Li. User Preference Modeling on Heterogeneous Implicit Feedback with Transfer Learning
168	Xingyu Zhai, Wenguang Zheng, Yingyuan Xiao and Kang Liu. Point-of-Interest Recommendation System based on DeepWalk and Tensor Decomposition
176	Kang Liu, Wenguang Zheng, Yingyuan Xiao and Xingyu Zhai. POI Recommendation Algorithm based on Region Transfer Collaborative Filtering
37*	Haijie Ding and Xiaolong Xu. Relation Classification based on Selective Entity-Aware Attention

Friday May 6, 2022

A9: Special Session: Machine Intelligence, Cloud Computing, and Industry 4.0 (1) (9:00-10:40), Chair: Xu Cheng

25**	Chunsheng Yang, Yifeng Li, Yubin Yang, Zheng Liu and Min Liao. Transfer Learning-enabled Modelling Framework for Digital Twin
45	Ziwen Pan, Chao Shu, Zhuoran Xin, Cheng Xie, Qi Shen and Yun Yang. Material Calculation Collaborates with Grain Morphology Knowledge Graph for Material Properties Prediction
103	Tinglong Tang, Chenxi Zhao and Yirong Wu. An Attention Mechanism-based Relation Network for Few-Shot Image Classification
106	Yirong Wu, Jialin Chen and Tinglong Tang. Feature Enhanced Graph Neural Network for Few-Shot Image Classification
125	Yan Chu, Jianpeng Guo, Wen Shan and Zhengkui Wang. EfficientFCOS: An Efficient One-stage Object Detection Model based on FCOS
140	Zheng Hu, Hua Dai, Yuanlong Liu, Geng Yang, Qian Zhou and Yanli Chen. CSMRS: An Efficient and Effective Semantic-aware Ranked Search Scheme over Encrypted Cloud Data

A10: Special Session: Machine Intelligence, Cloud Computing, and Industry 4.0 (2) (11:00-12:40), Chair: Xu Cheng

167	Yong Wang, Hao Zhang and Qi Zhang. A Novel Smoke Concentration Detection Model Derived by Combining HSL Space and Improved Dark Channel
170	Junwei Cheng, Weisheng Li, Kunlin Han, Yong Tang, Chaobo He and Nini Zhang. SARNMF: a community detection method for attributed networks
207	Yong Wang, Yuanfang Zhao, Hong Pan and Wangyi Zhou. An Improved Reinforcement Learning Method for Underwater Image Enhancement
214*	Zhicheng Bao, Xingjie Zeng, Zhitao Li, Dakuang Han and Weishan Zhang. DTCN :Dynamic Temporal Convolution Network for Evaluating Dividing Coefficients of Water Well
220*	Yuwei Li, Dakui Wang, Jinqin Li, Yangyang Ding and Xiaojun Chen. Noise Suppression with Label Graph in Distantly Supervised Relation Extraction
232*	Yongqiang Gao and Zemin Li. Load Balancing Aware Task Offloading In Mobile Edge Computing

A11: Special Session: Collaborative Knowledge Creation and Sharing (1) (14:00-15:40), Chair: Hongwei Wang

78*	Ting Jiang, Peng Zhang, Tun Lu and Ning Gu. Predicting Rollback Edits on Stack Overflow Based on Deep Fusion of Metadata and Text
114	Wenting Liang, Xuedong Gao and Hao Liu. Air Quality Prediction Model Based on Grey Interval
122	Mengxuan Li and Hongwei Wang. Enabling Improved Learning Capability of Industrial Robots with Knowledge Graph Towards Intelligent Digital Twins
138	Peng Peng, Xinyue Wang, Jiayun Lu, Qi Li, Shuting Tao, Zixuan Wang, Hongwei Wang and Heming Zhang. Imbalanced Fault Diagnosis by Supervised Contrastive Learning
142	Zixuan Wang, Junhua Zhou and Hongwei Wang. Cyber-Physical System Enabled Path Planning Simulation for Collaborative Industrial Robots
211	Yu Chen, Hua Dai, Geng Yang and Yanli Chen. Multi-source Infection Pattern Mining Algorithms over Moving Objects

A12: Special Session: Collaborative Knowledge Creation and Sharing (2) (16:00-17:40), Chair: Hongwei Wang

161	Ke Ma, Bo Qin and Hongwei Wang. A Profiling and Query Platform for Research Management Based on Knowledge Graph
202	Jialin Shang, Jingyuan Huang, Shihua Zeng, Jian Zhang and Hongwei Wang. Representation and Extraction of Physics Knowledge Based on Knowledge Graph and Embedding-Combined Text Classification for Cooperative Learning
230*	Wenying Feng, Daren Zha, Lei Wang and Xiaobo Guo. Convolutional 3D Embedding for Knowledge Graph Completion
267*	Hai-xia Lang, Yu-ying Li, Yan Wang, Haibo Wang and Jianmin Dong. An automatic topic-oriented structured text extraction method based on CRF and deep learning
271**	Qing Tang, Marie-Hélène Abel and Elsa Negre. Personalized Services in Collaborative Learning Environment Based on Learner's Activity Records
282**	Rahanatu Suleiman and Rachid Anane. Institutional Data Analysis and Machine Learning Prediction of Student Performance

Wednesday May 4, 2022

B1: Collaborative Wireless Sensor Networks (9:00-10:40), Chair: Runqun Xiong

153	Wen Jiang, Ying Liu, Qiancheng Wei, Wei Wang, Yihui Ren and Cheng Wang. A High-resolution Radar Automatic Target Recognition Method for Small UAVs Based on Multi-feature Fusion
262	Zhoujie Wang, Runqun Xiong, Jiahui Jin and Chuan Liang. AirBC: A Lightweight Reputation-based Blockchain Scheme for Resource-constrained UANET
288**	Chuan Liu, Yunkang Cao, Chen Sun, Weiming Shen, Xinyu Li and Liang Gao. An Outlier-Aware Method for UWB Indoor Positioning in NLoS Situations
156*	Peiyuan Qin, Luoyu Mei, Qi Jing, Shuai Wang, Zhimeng Yin and Xiaolei Zhou. Edge-Cloud Collaborative Interference Mitigation with Fuzzy Detection Recovery for LPWANs
158*	Yihui Ren, Wen Jiang and Ying Liu. Complex-valued Parallel Convolutional Recurrent Neural Networks for Automatic Modulation Classification
192*	Zhiyuan Liu, Peng Li, Weiyi Huang, Jiahu Wang and Lei Nie. Duration-Aware Task Assignment for Heterogeneous Mobility Users in Crowdsensing

B2: Collaboration Technology Applications in Social Networks and Entertainment (2) (11:00-12:40), Chair: Dian Shen

31	Weijie Kou, Xiaodong Zhang and Shaojuan Lei. Research on Evolution Analysis and Link Prediction of Green Innovation Cooperation Network
49	Jinxin Liu, Yingyuan Xiao, Ke Zhu, Wenguang Zheng and Ching-Hsien Hsu. Hybrid Variational Autoencoder for Collaborative Filtering
39*	Wenjin Xie, Xiaomeng Wang and Tao Jia. Independent Asymmetric Embedding for Information Diffusion Prediction on Social Networks
144*	Kai Zhang, Hui Zhang, Xin He, Li Zhou, Xiaohang Zhang, Chenghai He and Longtao He. ReGFFM : A new graph model designed with spatial information for potential social connection mining
157*	Deming Lin, Laifu Wang, Guoshui Shi, Hao Xu, Hui Li, Bingzhen Wu and Jingguo Ge. Social Relationship Recognition Based on Relational Self-Attention Mechanism
159*	Yansong Wang, Xiaomeng Wang and Tao Jia. CCasGNN: Collaborative Cascade Prediction Based on Graph Neural Networks

B3: Collaborative Computing (Clouds, Grids, Web Services, Blockchains) (1) (14:00-15:40), Chair: Dongjing Wang

35	Ke Zhu, Zhixin Wang, Tao Jiang, Yingyuan Xiao, Wenguang Zheng and Ching-Hsien Hsu. DFIL: an Efficient Web Service Prediction Method based on Deep Feature Interactive Learning
68	Qi Wang, Haojun Xia, Kun Zhang and Bibo Tu. Evaluation and Optimization on Virtualization Performance Cost under Semantic Gap
184	Hongyu Zhu, Libo Feng, Jianzhao Luo, Yani Sun, Bei Yu and Shaowen Yao. BCvoteMDE: A Blockchain-based E-Voting Scheme for Multi-District Elections
237	Fa Xin, Jinghui Zhang, Junzhou Luo and Fang Dong. Federated Learning Client Selection Mechanism Under System and Data Heterogeneity
265	Linming Lian, Ningjiang Chen, Pingjie Ou and Xuemei Yuan. Mobile Edge Cooperative Caching Strategy Based on Spatio-Temporal Graph Convolutional Model
3*	Hong Zhao, Zhiwen Chen and Rongjing Yan. Malicious Domain Names Detection Algorithm Based on Statistical Features of URLs

B4: Interoperability, Ontology and Semantics (16:00-17:40), Chair: Dongjing Wang

201	Yanzhen Jing, Guanghui Zhou, Fengtian Chang, Chao Zhang, Hairui Yan and Zhongdong Xiao. A Rule-enhanced Collaborative Design Method for Automobiles Considering Manufacturing Constraints
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221	Xiaomei Hua and Hongbo Sun. An automata machine based warehouse management system
139**	Pierre-Yves Gicquel and Domitile Lourdeaux. Generative Scenario Control through Ontological Frame Model in Virtual Environment
279**	Nader N. Nashed, Christine Lahoud and Marie-Hélène Abel. Contextual and sentimental teachers' peer recommendations
259*	Xiaobo Guo, Neng Gao, Nan Mu, Yao Dong, Lei Wang and Yuanye He. GSDM: A Gated Semantic Discriminating Model for Knowledge Graph Completion
275*	Lu Du, Weidong Liu, Kaiyang Xiao, Shixuan Gao and Yong Han. Technical Function-effect Based Patent Multi-to-One Negation Game Model

Thursday May 5, 2022

B5: Collaboration Technology Applications in Logistics and Transportation (9:00-10:40), Chair: Yulian Cao

93	Puyao Guo, Ying Zeng, Yan Wang and Yuying Li. A driving safety assessment method based on vehicle trajectory geometry
129	Zhiyun Deng, Jiabin Fan, Yanjun Shi and Weiming Shen. Longitudinal Trajectory Optimization for Connected and Automated Vehicles by Evolving Cubic Splines with Coevolution
92*	Haowei Zhang, Xiaowei Xu, Zhaoyan Yan, Tingting Yu, Yan Li and Feng Wang. Logistics Vehicle Scheduling Algorithm Based on Reinforcement Learning and Simulate in Real Scenario
177*	Yuan Li, Laifu Wang, Wei Mi, Hao Xu, Jingyuan Hu and Hui Li. Distracted Driving Detection by Combining ViT and CNN
210*	Bin Li and Xiong Jiang. A Joint Operational Scheme of Berths and Yards at Container Terminals with Computational Logistics and Computational Intelligence

B6: Special Session: Cooperative Automated Vehicles with 5G-V2X Communications and Networking (11:00-12:40), Chair: Yanjun Shi

133	Yanjun Shi, Lingling Lv, Yuhan Qi and Rong Xie. A cooperative control algorithm for real-time on-ramp merging of connected and automated vehicles
143	Xinran Qu, Wang Chen and Yanjun Shi. A human comfort analysis with fuzzy weight calculation for designing cab of the vehicle
119	Hongna Lou, Fangyi Hu, Jiajian Li, Xiaojun Zheng and Yanjun Shi. An Extended Adaptive Large Neighbourhood Search for Vehicles' Task Offloading in Platooning
120	Donglin Liang, Tao Li, Jiajian Li, Xiaojun Zheng and Yanjun Shi. A Leader-Follower Model with Communication Delay for Platooning Control in Highway Scenario
121*	Xiaobo Che, Zihui Zhang, Yanjie Sun, Yanqiang Li and Chao Li. A Wall-Following Navigation Method for Autonomous Driving Based on Lidar in Tunnel Scenes
130*	Chao Zhang, Zihui Zhang and Yanqiang Li. Research on Longitudinal and Lateral Feedback Control on Autonomous Vehicle for Lane Changing Scene
209*	Yaqiong Xue, Xiumei Fan, Yusheng Huang, Xinghui Zhang and Ruizhe Wang. Traffic Forecasting Model Based on Two-stage Stacked Graph Convolution Network

B7: Industrial Internet, Internet of Things, Cyber-physical systems, Digital Twins, Industry 4.0 (2) (14:00-15:40), Chair: Gongzhuang Peng

134	Yanan Song, Xianfei Liu, Weiming Shen, Yiping Gao, Xianke Zhou and Peng Lu. An Effective Point Cloud Classification Method Based on Improved Non-local Neural Networks
216	Gongzhuang Peng, Yinliang Cheng, Xuejun Zhang, Dong Xu and Shenglong Jiang. Digital Twin-Enabled Production Optimization for Steel Industry

264	Xuyi Yao, Ningjiang Chen, Xuemei Yuan and Pingjie Ou. Performance Optimization in Serverless Edge Computing Environment using DRL-Based Function Offloading
88*	Yang Sheng, Weizhen Han, Zhipeng Fang and Bingyi Liu. A Vehicle Distribution Prediction Based Routing Protocol in Large-Scale Urban VANET
137*	Wenan Tan, Kai Ding, Xiao Zhang, Zhejun Liang and Jin Liu. Minimizing Terminal Energy Consumption of Task Offloading via Resource Allocation in Mobile Edge Computing

**B8: Collaboration Technology Applications in Aerospace, Automotive, and Manufacturing
(16:00-17:40), Chair: Kunkun Peng**

1	Yinsheng Li and Shuaiyu Wang. A Remote Equipment Experiencing System Based On Microservice and Blockchain
80	Ji Chao and Xuedong Gao. Particle Swarm Optimization Algorithm of Pellet Burden Cost Optimization Based on Penalty Function
164	Linlin Zhao, Weiming Shen, Chunjiang Zhang and Kunkun Peng. An End-to-End Deep Reinforcement Learning Approach for Job Shop Scheduling
195	Yunkang Cao, Yanan Song, Xiaohao Xu, Shuya Li, Yuhao Yu, Yifeng Zhang and Weiming Shen. Semi-supervised Knowledge Distillation for Tiny Defect Detection
219**	Shouhua Zhang, Jiehan Zhou, Erhua Wang and Susanna Pirttikangas. CNN4GCDD: a One-Dimensional Convolutional Neural Network-based Model for Gear Crack Depth Diagnosis
290	Chen Yang, Yingchao Wang, Runze Tang, Shulin Lan, Lihui Wang, Weiming Shen and George Q. Huang. Cloud-edge-device Collaboration Mechanisms of Cloud Manufacturing for Customized and Personalized Products

Friday May 6, 2022

**B9: Special Session: Modeling and Exploration of a Collaborative Data Space Shared by Enterprises (1)
(9:00-10:40), Chair: Hongwei Wang**

41	Yuwen Huo, Xuedong Gao and Tingting Zhou. Enterprise Information System Structure Partition Algorithm Based on Link Feature
165	Bo Qin, Jian Zhang, Ke Ma, Peng Peng and Hongwei Wang. Knowledge mining based collaborative framework for manufacturing value chains
17*	Zhuxiao Tian, Xiwen Cui, Dongyu Wang, Dongxiao Niu and Huanfen Zhang. Development of High-dimensional Data Sparse Modeling in Data Space and Its Application in Manufacturing Multi-value Chain Collaboration
22*	Huan Jiang, Honghao Liu, Rongrong Li, Yuwei Peng, Bin Xu and Zhiyong Peng. An Object-Deputy Approach For Chinese Genealogy Collaborative Management
23*	Dongyu Wang, Sha Peng, Zhuxiao Tian and Dongxiao Niu. Analysis of Influencing Factors of Multi-value Chain Collaborative Operation Efficiency in Power Manufacturing Industry Based on FISM-ANP
26*	Yujing Liu, Tian Gao, Dongxiao Niu and Huanfen Zhang. Research on Collaborative Governance of Data Security in the Whole Life Cycle of Electric Power Manufacturing Data Space

**B10: Special Session: Modeling & Exploration of a Collaborative Data Space Shared by Enterprises (2)
(11:00-12:40), Chair: Hongwei Wang**

74*	Da Liu, Huiping Zhang, Xudong Zhao, Renjie He and Shengyan Wang. Alliance Benefit Distribution for considering the Core Enterprises of Supply Chain
97*	Xiwen Cui and Dongxiao Niu. A study on multimodal data fusion based on data space for power equipment identification
101*	Jingdong Wang, Zhonghe Liu, Xiaolong Yang and Jieping Han. Architecture Design of Intelligent Management System for Multi-value Chain Collaborative Data Space
126*	Hui Wang, Jianyu Guo, Da Liu, Shengyan Wang and Huichao Su. Stackelberg model based cost sharing incentive study of core manufacturer-supplier

187*	Hui Wang, Wei Gan, Xiang Wang, Shengyan Wang and Da Liu. Optimized Strategies of Bundling in Procurement for Manufacturing Enterprise from the Perspective of Multi-Value Chain
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B11: Collaboration Technology Applications in Business and Administration (14:00-15:40), Chair: Xiaolin Fang

113	Hao Liu, Xuedong Gao and Wenting Liang. Research on the Evaluation System of Endurance Sports Ability of Cross-country Runners
238**	Chengyang Ye and Qiang Ma. TS2V: A Transformer-Based Siamese Network for Representation Learning of Univariate Time-Series Data
59*	Songdeng Niu and Sheng Cao. Get a sense of accomplishment in doing exercises: A reinforcement Learning Perspective
260*	Can Yang, Yi Xuan Zhao, Alex Pak Ki Kwok and Mian Yan. The Influence of Persistent Receipt of Job-Related Instant Messages After Work on Employees' Intention to Quit: An Empirical Study in China
292*	Di Yang, Shihe Zhao, Da Liu, Runkun Cheng and Yinchuan Zhao. Construction of Engineering Material Demand Data Space Integrating Macroeconomic Data

B12: Special Session: Smart Sensor Networks and Internet of Things (16:00-17:40), Chair: Tie Qiu

204	Lidi Zhang, Songwei Zhang, Ning Chen, Wenyuan Liu, Xiaobo Zhou and Tie Qiu. A Neuroevolution-Inspired Scheme for Generating Robust Internet of Things
205	Haodong Wang, Songwei Zhang, Tie Qiu, Hongrui Liu, Ling He and Zimu Wang. Battery Management System Design for Industrial Manufacture
224	Yao Liu, Chunfeng Liu, Zhao Zhao and Wenyu Qu. Anti-interference Transmission Strategy for Underwater Acoustic Communication Based on Deep Reinforcement Learning
250	Ziheng Wang, Chunfeng Liu, Zhao Zhao, Tao Yu and Wenyu Qu. FS-PPS: A Fermat's Spiral based Path Planning Scheme for Data Collection in UWSNs
249	Zhaohua Zheng, Zhaobin Qin, Deshun Li and Keqiu Li. A Holistic Client Selection Scheme in Federated Mobile CrowdSensing Based on Reverse Auction
136*	Liqiong Xie, Jie Zhu and Xiaoping Li. Periodically activating and sleeping devices in Internet of Things
257*	Zhanguo Liu, Gang Xu, Yuan Cheng, Baoqi Huang and Xiangyu Bai. 2-Hop Routing Strategy for Overlapping Communities based on Social Intimacy

Wednesday May 4, 2022

C1: Collaboration Technology Applications in Social Networks and Entertainment (1) (9:00-10:40), Chair: Ana Cristina B Garcia

54**	Fernando Cardoso Durier da Silva, Ana Cristina Bicharra Garcia and Sean Wolfgang Matsui Siqueira. A Systematic Literature Mapping on Profile Trustworthiness in Fake News Spread
289**	Marcos Antonio de Almeida, António Correia, Jano Moreira de Souza and Daniel Schneider. Digital nomads during the COVID-19 pandemic: Evidence from narratives on Reddit discussions
180*	Mingxia Zhao and Adele Lu Jia. A Dual-Attention Heterogeneous Graph Neural Network for Expert Recommendation in Online Agricultural Question and Answering Communities
231*	Ye Yu, Yao Wu, Xi Liang, Cheng Ma and Qiang Lu. NcoVis: A visual analysis framework for exploring academic collaboration networks under new collaborative relationships
239*	Nianyun Song, Dianjie Lu, Yepeng Shi, Guijuan Zhang and Hong Liu. Collaborative Teams Recruitment Based on Dual Constraints of Willingness and Trust for Crowd Sensing
242*	Zhenni Feng, Xianghua Ding, Yanqi Jiang, Yiying Wu and Peng Zhang. Understanding News Background Information Seeking from Readers' Perspective

C2: Industrial Internet, Internet of Things, Cyber-physical systems, Digital Twins, Industry 4.0 (1) (10:00-12:40), Chair: Bin Li

190**	Pasindu Kurupparachchi, Susan Rea and Alan McGibney. An Architecture for Composite Digital Twin Enabling Collaborative Digital Ecosystems
42*	Tong Shen, Wenjun Xu, Bitao Yao, Jiayi Liu and Yang Hu. Digital Twin-Based Task Rescheduling for Robotic Assembly Line
69*	Jun Peng, Qin Zhao, Dianzhu Gao, Yingze Yang, Feng Zhou, Jieqi Rong, Yunsheng Fan, Bowen Liu, Fu Jiang and Xiaoyong Zhang. A Digital Twin-Driven Hybrid Estimate Method for Health Status of Train Braking System
286**	Ana Clara Correa da Silva, Gabriel S. Luna, Alberto Cecilio Xavier, Viviane Cunha Farias da Costa, Luiz Oliveira and Jano de Souza. An approach for intelligence evaluation in smart sensors

C3: Collaboration Methods, Mechanisms, Processes, and Protocols (3) (14:00-15:40), Chair: Hongming Cai

65*	Sheng-Tung Tsai, Hongming Cai, Han Yu, Bingqing Shen and Lihong Jiang. A Scenario-aware Event Prediction Approach Based on Event Logic Graph in IoT Systems
118*	Hui Xu, Yanping Lu and Zhiwei Ye. Applying Cooperative Search Strategies to Improve Butterfly Optimization Algorithm
233*	Qinglin Zhou, Lei Lyu and Hong Liu. Deep Reinforcement Learning with Long-Time Memory Capability for Robot Mapless Navigation
273*	Wenhua Xu, Yifan Ma, Hongguang Zhou, Mingjie Wang, Bowen Du and Hongfei Fan. A Multiple Locking Group Scheme for Flexible Semantic Conflict Prevention in Real-time Collaborative Programming

C4: Agents and Multi-Agent Systems (16:00-17:40), Chair: Maria-Helene Abel

52**	Tristan de Blauwe, Domitile Lourdeaux and Nicolas Sabouret. Design of modular generation of human behaviour in a collaborative context
91*	Cheng Luo, Haoran Su, Boyu Ren, Zhiqiang Gou, Ruoyi Huang and Ya Li. The effect of information spreading on vaccination game-Based on SEIR/VA model
218*	Jinwei Xue, Bing Li and Rongqing Zhang. Multi-Agent Reinforcement Learning-Based Autonomous Intersection Management Protocol with Attention Mechanism
225*	Chuanhua Jia, Dianjie Lu, Guijuan Zhang and Hong Liu. Data-Driven Crowd Motion Modeling With Group Properties Analysis
226*	Jiawen Yu, Guijuan Zhang, Dianjie Lu and Hong Liu. Blockchain-based Crowd-sensing Trust Management Mechanism for Crowd Evacuation
255*	Yongqiang Gao and Zhenkun Li. Energy and Delay-Aware Task Offloading and Resource Allocation in Mobile Edge Computing

Thursday May 5, 2022

C5: Collaborative Computing (Clouds, Grids, Web Services, Blockchains) (2) (9:00-10:40), Chair: Xiaolong Xu

8*	Sixuan Dang and Sheng Cao. A Behavior-Aware Scheme for Personalized Credit Computing
14*	Wei Sun and Xiaolong Xu. ALEDAR: An Attentions-based Encoder-Decoder and Autoregressive model for workload Forecasting of Cloud Data Center
20*	Donglin Ma, Fenglin Cao, Beibei Shen, Bochang He and Rongjing Yan. Problematic commodity traceability system based on Fabric's embedding national cryptographic algorithm
28*	Rui Yao and Xiaolong Xu. CETO-Sim: A Simulation Platform for Cloud-Edge Task Offloading

51*	Wenyan Liu, Xiaolin Song, Lanju Kong and Qingzhong Li. PBIM: A Participant Based Incentive Mechanism for Consortium Chain
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C6: Collaborative Computing (Clouds, Grids, Web Services, Blockchains) (3) (11:00-12:40), Chair: Xiaoping Li

110*	Haiyan Li, Bing Tang, Wei Xu, Feiyan Guo and Xiaoyuan Zhang. Application Deployment in Mobile Edge Computing Environment Based on Microservice Chain
162*	Mingxuan Li, Nanfang Li, Yazhe Wang, Zongrong Li and Dongdong Huo. FIK: Find Important Knobs for Permissioned Blockchain Hyperledger Fabric
182*	Ruijiao Tian, Lanju Kong, Xinping Min and Yunhao Qu. Blockchain for AI: A Disruptive Integration
193*	Jiahu Wang, Peng Li, Weiyi Huang, Zeqiang Chen and Lei Nie. Task Priority Aware Incentive Mechanism with Reward Privacy-Preservation in Mobile Crowdsensing
200*	Penghui Lv, Yu Wang, Yazhe Wang, Chao Liu, Qihui Zhou and Zhen Xu. A highly reliable cross-domain identity authentication protocol based on blockchain in edge computing environment
208*	Hui Xu, Xiaodi Chai and Hongwei Chen. A Collaborative Approach based on Competitive Game for Multi-Controller Placement in SDN

C7: Collaborative Computing (Clouds, Grids, Web Services, Blockchains) (4) (14:00-15:40), Chair: Jie Zhu

206*	Junfeng Wang, Dayu Feng, Jie Zhu and Haiping Huang. Vehicular Computation Offloading in UAV-enabled MEC systems
212*	Bo Li, Yuhao Shi and Ye Yuan. Suitability-based Edge Server Placement Strategy in 5G Ultra-dense Networks
213*	Bo Li, Kun Li, Ye Yuan and Hongwei Ding. Deadline constrained computation offloading strategy in Cloud-Edge collaborative environments
243*	Yongqiang Gao and Kaifeng Zhang. Deadline-aware Preemptive Job Scheduling in Hadoop YARN Clusters
245*	Yongqiang Gao and Weili Liu. Multiple Workflows Offloading Based on Improved Deep Q-Network in Mobile Edge Computing

Friday May 6, 2022

C9: Special Session: Adaptive Collaboration Systems (2) (9:00-10:40), Chair: Dongning Liu

5*	Shijue Wu, Haibin Zhu, Yanjiao Zeng and Dongning Liu. Balance Personal Wishes with Performance via Group Role Assignment
6*	Yongzhi Zhang, Dongning Liu, Haibin Zhu, Wei Zhang and Ziqing Ye. Solving the Task Allocation Problem under High-order Set via Group Role Assignment
19*	Yibo Li, Xuemei Sui, Senyue Zhang and Haibin Zhu. Multi-Agent Collaboration Planning in Mentorship Mode
46*	Senyue Zhang, Xuemei Sui, Xintong Liu, Jinquan Liu, Yichen Wang and Tieli Sun. Multi-Objective Optimization based on Role in Mentorship Mode
82*	Cong Guo, Shiyu Wu, Haibin Zhu, Yin Sheng and Libo Zhang. Adaptive Collaboration with A Training Plan
196*	Qinghua Zhu, Anbang Lu and Yan Hou. Energy- and Cost-Aware Scheduling for Task-Dependency Applications in Mobile Edge Computing

C10: Special Session: Adaptive Collaboration Systems (3) (11:00-12:40), Chair: Libo Zhang

222*	Xiao-Min Hu, Zi-Liang Chen, Zhuo Yang, Min Li and Ling Zhang. Adaptive Set-Based CLPSO for Path Planning of Multi-Target Surveillance with Moving Obstacles
228*	Xiao-Min Hu, Jia-Hua Pan and Min Li. Hybrid Population-Based Incremental Learning for Coalition Structure Generation of Smart Grids
247*	Wenan Tan, Xiaojuan Cai, Xiao Zhang and Xin Zhou. A collaborative filtering algorithm based on entropy and trust optimized neighbor selection
256*	Fuqing Zhao, Haizhu Bao, Tianpeng Xu and Ningning Zhu. A Discrete Whale Optimization Algorithm for Blocking Flow-Shop Scheduling Problem with Sequence-Dependent Setup Times
274*	Bin Xu. Identifying Excessive Academic Burden in Multiple Student Talent Development Programs based on Role Transition Analysis

**C11: Collaboration Technology Applications in Aerospace, Automotive, and Manufacturing
(14:00-15:40), Chair: Peng Qi**

38*	Can Yang, Wenjun Xu, Jiayi Liu, Bitao Yao and Yang Hu. Robotic Disassembly Sequence Planning Considering Robotic Movement State Based on Deep Reinforcement Learning
40*	Haodong Bie, Wenjun Xu, Bitao Yao, Jia Cui and Yang Hu. Pose Estimation of Circular Workpieces With Occlusion Based on GAN-Support Ellipse Detection in Manufacturing
58*	Yuntian Liu, Dongxiao Niu, Shiping Geng, Jingqi Sun and Huanfen Zhang. Application of Data Integration in Dataspace in Multi-value Chain Collaboration of Electric Power Manufacturing Industry
150*	Te Li, Liqiong Chen and Ying Wang. Autonomous Driving Behavior Prediction Method Based on Improved Hidden Markov Model
198*	Yu Gao, Ziyue Wang, Liang Gao and Xinyu Li. A hyper-heuristic algorithm for the no-wait flowshop scheduling problem with makespan criterion
293*	Qi Guo, Hongbo Sun and Wen Ji. Design of Personalization Warehouse Management Platform Based on SaaS Model

C12: Collaborative Processing of Big Data (2) (16:00-17:40), Chair: Peng Qi

149*	Yunjian Huang, Peng Qi and Yan Sun. A Novel Fault Detection Algorithm Based on the Single Indicator Data
154*	Zhuhou Zhang, Xiaolin Chai and Hong Luo. S2FCM: A Two-Stage Fine Classification Model for Students' Attention Analysis
155*	Hang Zhang, Yonghao Gu, Xiaolin Chai and Peng Qi. Research and Implementation of Host Behavior Anomaly Detection Technology Based on Deep Learning
179*	Chun Si, Peng Qi, Hongjia Xue and Yan Sun. QianXun: A novel enterprise file search framework
181*	Ziqi Wang, Bin Guo, Helei Cui, Yasan Ding and Zhiwen Yu. Fashion Meets Bot: What Should the Bot Wear?
183*	Jin Li, Peng Qi and Hong Luo. Generating Consistent and Diverse QA pairs from Contexts with BN Conditional VAE

Wednesday May 4, 2022

D1: Collaboration Technology Applications in AEC&FM

Collaboration Technology Applications in Healthcare and Homecare (1) (9:00-10:40), Chair: Daniel Schneider

281**	Ramon Chaves, Claudia Motta, António Correia, Hugo Paredes, Bárbara Caetano, Jano Moreira de Souza and Daniel Schneider. Crowd and urban storytelling: evaluating a collective intelligence model to support discussions about the city
291*	Ce Li, Rong Yang and Hua Wang. Non-intrusive Load Monitoring in Industry Based on Gradient Boosting Algorithm

84*	Peng Zhi, Wei Meng, Jin-Qiang Wang, Xichen Wu, Rui Zhou and Qingguo Zhou. Key Technology and Analysis of Expressway Intelligent Service Area
112*	Xiaojun Zheng, Renhao Zheng and Shiduo Ning. Parking Space Allocation Model of Intelligent Parking Lot under Peak Demand
277*	Bin Wang, Jin Zhao and Yuling Sun. Caregiving in Digital Healthcare Setting: Impacts of Data-driven Technologies to Caregivers in Practice
287**	Erica J. S. Scheffel, Anselmo P. R. Costa, Marcos A. G. Xavier, Paulo V. R. Carvalho, Claudia L. R. Motta and Daniel Schneider. Crowd inspection of compliance with Covid-19 safety protocols in schools

**D2: Collaboration Technology Applications in Healthcare and Homecare (2) (11:00-12:40),
Chair: Usharani Hareesh Govindarajan**

44*	Yuning Qian, Danni Chang and Yinru Sun. BUDDY: A Companion Product Design for Alleviating Parent-Child Separation Anxiety
73*	Pan Feng, Bo Ni, Xiantao Cai and Yutao Xie. UTransNet: Transformer within U-Net for Stroke Lesion Segmentation
123*	Shuangjiang He, Huijuan Zhao, Li Yu, Juan Jing, Zhe Dong and Congju Du. Trusted Healthcare Smart Brain : Innovational Internet Architectures of Intelligent Collaboration of Multi-institution for the Healthcare Service
251*	Jiancong Guo, Bin Wang, Jin Zhao and Yuling Sun. CareMap: Human-Space-Service Based Healthcare Modeling and Quantifying for the Elderly Aging in Place
252*	Bin Wang, Xingjiao Wu, Miaomiao Gong, Jin Zhao and Yuling Sun. Lightweight Network Based Real-time Anomaly Detection Method for Caregiving at Home
263*	Dali Zhang, Usharani Hareesh Govindarajan, Yongmei Shi, Gagan Narang and Xiaojun Lu. A Unified Blockchain Schema for Chronic Diet Management

D3: Collaboration Platforms, Software Tools, and Services (1) (14:00-15:40), Chair: Tun Lu

13*	Peipei Chen and Xiaolong Xu. VECSim: A Simulation Platform for Multi-bitrate Video Caching Collaboratively in Edge Computing Network
246*	Jia Li, Gang Xu, Baoqi Huang and Xiangyu Bai. GA-SVR Traffic Flow Prediction Based on Phase Space Reconstruction with Improved KNN Method
261*	Yifan Liang, Zongzheng Zou, Peng Zhang, Dongsheng Li, Tun Lu and Ning Gu. Team Formation and Task Recommendation for Disabled People in Crowdsourcing Systems
272*	Hongguang Zhou, Yifan Ma, Wenhua Xu, Mingjie Wang, Bowen Du and Hongfei Fan. Context-based Operation Merging in Real-time Collaborative Programming Environments

D4: Collaboration Platforms, Software Tools, and Services (2) (16:00-17:40), Chair: Tun Lu

34*	Zhaoyi Wang, Ruimin Lyu, Xinya Liu, Yuefeng Ze, Zhenping Xie and Tao Yan. Constructing Calligraphy Evaluation Model Based on Writing Movement with LSTM Network
147*	Yan Wang, Xiang Li, Peixiang Bai, Haibo Wang and Jianmin Dong. An efficient big data storage service architecture
280*	Hua Ma, Zhuoxuan Huang, Wensheng Tang and Xuxiang Zhang. Exercise Recommendation Based on Cognitive Diagnosis and Neutrosophic Set
285*	Bertrand DAVID, René CHALON and Chuantao YIN. Design methodology for “Smartification” of Cities: Principles and case study

Thursday May 5, 2022

D5: Special Session: Machine Intelligence, Cloud Computing, and Industry 4.0 (3) (9:00-10:40), Chair: Jiehan Zhou

33*	Donglin Ma, Sizhou Ma, Qingqing Chen and Ce Yang. Temperature prediction algorithm based on spatio-temporal prediction
47*	Chen Jia, Fan Shi and Meng Zhao. Object Detection based on Light Field Imaging
67*	Zihao Xiong, Yifan Yao and Xiantao Cai. A Self-Adaptive Size-Free Method For 3D Point Cloud Completion
98*	Lu Yang, Fazhi He, Li Dai and Lin Zhang. An Automatical And Efficient Image Classification Based On Improved Genetic Programming
109*	Guodao Zhang, Hangli Wen, Ruyu Liu, Menghui Zhang and Zhiyong Zhang. Point Clouds Classification of Large Scenes based on Blueprint Separation Convolutional Neural Network
127*	Wei Shen, Lei Kou, Xiaodong Gong, Jie Zhao, Fangfang Zhang, Junhe Wan, Xiangchao Feng, Quande Yuan, Guojie Feng, Benfa Zhang and Jian Zhang. Research on Tide Forecast of Offshore Wind Farms based on Random Forests

**D6: Special Session: Machine Intelligence, Cloud Computing, and Industry 4.0 (4) (11:00-12:40),
Chair: Jiehan Zhou/Jinghui Zhang**

145*	Qiyi Tong, Luzhen Ma, Kaiqi Chen, Jialing Liu, Jie Qian and Jianhua Zhang. TXSLAM:A Monocular Semantic SLAM Tightly Coupled with Planar Text Features
146*	Mengqi Du, Kaiqi Chen, Jianhua Zhang and Honghai Liu. A Swift Gaze Estimate Method Based On The Corneal Image System
151*	Xinhui Du, Dongxin Liu, Shuai Ding, Zhongji Liu, Xiaowei Yuan, Tong Li and Haojiang Deng. Design of an Autoencoder-based Anomaly Detection for the DoH traffic System
169*	Shuang Niu, Liang Jin and Yilin Fang. Path Planning of Multiple Mobile Robots Based on Collision Detection in a Disassembly Cell
172*	Li Li, Guangpeng Li, Liang Chang and Wanliang Wang. MOEA/D with Adaptive Constraint Handling for Constrained Multi-objective Optimization
174*	Yinghao Wu, Yaoguang Wei and Dong An. Research on Multi-sensor Information Fusion Method of Underwater Robot Based on Elman Neural Network

D7: Special Session: Machine Intelligence, Cloud Computing, and Industry 4.0 (5) (14:00-15:40), Chair: Tie Qiu

188*	Xu Zhang, Haina Tang, Yulei Wu and Xuewen Chen. STCIN: Spatial-Temporal Cross Interaction Networks for Urban Anomaly Prediction
194*	Jiali Wu, Dechao Sun, Jian Wang, Hong Qiu, Renfang Wang and Feng Liang. Surface River Extraction from Remote Sensing Images based on Improved U-Net
235*	Yifan Wang, Qing Yu and Zuohua Wang. Improved Global and Local Graph Neural Network for Session-based Recommendation
254*	Fuqing Zhao, Dongqu Shao, Tianpeng Xu and Ningning Zhu. A Self-Adapting Water Wave Optimization Algorithm for Distributed Blocking Flow-Shop Scheduling Problem
278**	Sandeep S Udmale, Aneesh G Nath and Sanjay Kumar Singh. Application of Industry 4.0 and Meta Learning for Bearing Fault Classification

Friday May 6, 2022

D9: Security and Privacy in Collaborative Systems (2) (9:00-10:40), Chair: Gaofeng He

11*	Kunda Lin, Xiaolong Xu and Yu Jiang. A New Semi-supervised Approach for Network Encrypted Traffic Clustering and Classification
15*	Ruixiang Xia, Jun Shen, Ying Huang and Jie Ren. Research and Implementation of SDEN Security Service Model
32*	Gaofeng He, Qianfeng Wei, Jingang Wang, Haiting Zhu and Bingfeng Xu. One-Shot Detection of Malicious TLS Traffic
48*	Shaolei Zhou, Liming Wang, Jing Yang and Pengwei Zhan. SITD: Insider Threat Detection Using Siamese Architecture on Imbalanced Data
50*	Chuhang Hu, Guikai Liu and Ming Li. A Network Security Situation Prediction Method based on Attention-CNN-BiGRU
63*	Haibin Zhai, Yong Wang, Xueqiang Zou, Yihan Wu, Songyue Chen, Hongwei Wu and Yanqin Zheng. Masquerade Detection Based on Temporal Convolutional Network

D10: Security and Privacy in Collaborative Systems (3) (11:00-12:40), Chair: Yang Shi

94*	Qi Chen, Bing Chen, Feng Hu and Jiale Zhang. Edge-based Protection Against Malicious Poisoning for Distributed Federated Learning
95*	Lijun Lyu, Yi Tu and Yingjie Zhang. Improving the Deep-Learning-Based Differential Distinguisher and Applications to Simeck
104*	Yang Li, Yong Li, Xi Chen, Ruixin Shi and Jizhong Han. PG-Pass: Targeted Online Password Guessing Model based on Pointer Generator Network
108*	Tongshuai Wu, Liwei Chen, Gewangzi Du, Chenguang Zhu, Ningning Cui and Gang Shi. Inductive Vulnerability Detection via Gated Graph Neural Network
141*	Tianyuan Luo and Yang Shi. Efficiently Obfuscating Proxy Signature for Protecting Signing Keys on Untrusted Cloud Servers
163*	Shijun Zhang, Jiangyi Yin, Zhao Li, Rong Yang, Meijie Du and Renjie Li. Node-Imbalance Learning on Heterogeneous Graph for Pirated Video Website Detection

D11: Security and Privacy in Collaborative Systems (4) (14:00-15:40), Chair: Kai Dong

173*	Weinan Sha, Tianyu Luo, Jiewu Leng and Zisheng Lin. Heterogeneous multi-blockchain model-based intellectual property protection in social manufacturing paradigm
178*	Xiaojie Tao, Liming Wang, Zhen Xu and Ru Xie. Detection of Hardware-Assisted Virtualization Based on Low-Level Feature
223*	Zihao Yuan, Dianjie Lu, Guijuan Zhang and Hong Liu. Federated Learning based Path Planning Method for Crowd Evacuation
234*	Yingyao Yang, Jin Wang and Fei Gu. Linear Coded Federated Learning Under Multiple Stragglers Over Heterogeneous Clients
236*	Xuren Wang, Songheng He, Zihan Xiong, Xinxin Wei, Zhengwei Jiang, Sihan Chen and Jun Jiang. APTNER: A Specific Dataset for NER Missions in Cyber Threat Intelligence Field
241*	Zhen Xu, Dongdong Zhao, Fan Li and Jing Zhou. Negative Survey with Aggregate Scores from Multiple Questions

D12: Security and Privacy in Collaborative Systems (5) (16:00-17:40), Chair: Xuren Wang

244*	Yuzhen Li, Renjie Li, Zhou Zhou, Jiang Guo, Wei Yang, Meijie Du and Qingyun Liu. GraphDDoS: Effective DDoS Attack Detection Using Graph Neural Networks
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248*	Qiqing Deng, Xinrui Tan, Jing Yang, Chao Zheng, Liming Wang and Zhen Xu. A Secure Container Placement Strategy Using Deep Reinforcement Learning in Cloud
258*	Binghua Song, Rong Chen, Baoxu Liu, Zhengwei Jiang and Xuren Wang. The Hyperbolic Temporal Attention Based Differentiable Neural Turing Machines for Diachronic Graph Embedding in Cyber Threat Intelligence
266*	Xiaofan Sun, Zhiwei Zhang and Wenkan Huang. Privacy-preserving SVM Classification Algorithm Based on Negative Database
268*	Tingjie Wen, Bing Li and Rongqing Zhang. FPol: Federated Learning-Enabled Collaborative Packing Leakage Detection System