

Proceedings

**2022 International Conference
on Networking and Network Applications**

NaNA 2022

December 3 - 5, 2022

Xinjiang University, Urumqi, China

Technical Sponsors

Xinjiang University, China

Xidian University, China

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Conference Schedule

Date	Time	Conference Program		
2022-12-3	10:00-10:15	Welcome Speech (Norio Shiratori)		
	10:15-10:30	Opening Remarks (Xinlong Feng)		
	10:30-11:15	Keynote Speech 1 (Prof. Pin-Han Ho)		
	11:15-11:35	Coffee break		
	11:35-12:20	Keynote Speech 2 (Prof. Qian Wang)		
	13:00-14:30	Lunch		
	14:30-15:15	Keynote Speech 3 (Prof. Zhou Su)		
	15:15-15:30	Coffee break		
	15:30-16:50	Session A1(Room 1)	Session B1(Room 2)	Session C1(Room3)
	16:50-17:00	Coffee break		
	17:00-18:45	Session A2(Room 1)	Session B2(Room 2)	Session C2(Room3)
2022-12-4	09:00-10:10	Session A3(Room 1)	Session B3(Room 2)	Session C3(Room3)
	10:10-10:20	Coffee break		
	10:20-12:05	Session A4(Room 1)	Session B4(Room 2)	Session C4(Room3)
	13:00-15:00	Lunch		
	15:00-16:15	Session A5(Room 1)	Session B5(Room 2)	Session C5(Room3)
	16:15-16:25	Coffee break		
	16:25-17:40	Session A6(Room 1)	Session B6(Room 2)	Session C6(Room3)
2022-12-5	10:00-12:00	TPC Meeting		

Greeting Message from General Conference Chairs

It is our pleasure to welcome you all to the 2022 International Conference on Networking and Network Applications (NaNA2022) in Urumqi, China! We also like to welcome all the eminent speakers and guests from within and outside China and from different walks of life who have come here to share with us their vast knowledge and expertise. We believe that the carefully planned programs of the conference and the amazing city of Urumqi will offer you all irresistible attractions.

The NaNA2022 is technically sponsored by Xinjiang University, China, Xidian University, China, Future University Hakodate, Japan, Chuzhou University, China and Wakkanai Hokusei Gakuen University, Japan. At this very moment, we would like to thank the program committees and the organizing staffs for their hard work. We would also like to deliver our appreciation to the keynote speakers for their great contributions to this conference.

This conference aims to gather researchers from different areas and disciplines to present results and participate in discussions under the common themes of Wireless Networks, Wired Networks and Data Center (DC) Networks, Network Management, Monitoring and Automation, and Network Applications. It is expected that the interactions provided by the conference will facilitate a better understanding of the diversity of different approaches as well as of their similarities. In addition, it will open the way for the application of approaches that have been successful in one area to problem solving in other different areas.

Without taking too much of your time, we wish you all successful deliberations, stimulating discussions, and new friendships the conference can offer. We look forward to receiving your contributions to the conference in the future.

NaNA2022 General Co-Chairs

Xinlong Feng, Xinjiang University, China

Tarik Taleb, Oulu University, Finland

Haisheng Tan, University of Science and Technology of China, China

Deke Guo, National University of Defense Technology, China

December 3, 2022

Committees

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Bo Liu, Shaanxi Normal University, China

Track Co-Chairs:

Track 1: Wireless Networks

Gabriel-Miro Muntean, Dublin City University, Ireland

Changqiao Xu, Beijing University of Posts and Telecommunications, China

Chi Zhang, University of Science and Technology of China, China

Zhuo Ma, Xidian University, China

Track 2: Optical Networks and Data Center (DC) Networks

János Tapolcai, Budapest University of Technology and Economics, Hungary

Massimo Tornatore, Politecnico di Milano, Italy

Wei Su, Beijing Jiaotong University, China

Track 3: Network Management, Monitoring and Automation

Bishnu Prasad Gautam, Kanazawa Gakuin University, Japan

Guilin Chen, Chuzhou University, China

Masaru Fukushi, Yamaguchi University, Japan

Track 4: Network Applications

Vajirasak Vanijja, King Mongkut's University of Technology Thonburi, Thailand

Xiaojiang Chen, Northwest University, China

Limei Peng, Kyungpook National University, South Korea

Steering Chairs:

Pin-Han Ho, University of Waterloo, Canada

Xiaohong Jiang, Future University Hakodate, Japan

Yulong Shen, Xidian University, China

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Keynote Speech 1:

On a Novel Indoor System based on Radio over Cable (RoC)

Prof. Pin-Han Ho

University of Waterloo, Canada



Abstract: Indoor services contribute over 70% of the traffic in the current mobile system, and are expected to more dominate in the 5G era. Thus, an indoor system that can ensure line-of-sight (LOS) transmission with the end users in each indoor chamber will play a key role in achieving efficient operation of the 5G mobile systems. The talk firstly gives an overview on the indoor systems that have been reported and commercially deployed. Then a new antenna access architecture for the indoor service provisioning will be introduced. Specifically, the architecture leverage an all-analog link to communicate between the antenna unit and the Base station via a LAN cable (i.e., Cat5,6,7). We will highlight the issues of the architecture and its implementation in the real world.

CV: Prof. Pin-Han Ho is currently a full professor in the Department of Electrical and Computer Engineering, University of Waterloo. He is the author/co-author of over 400 refereed technical papers, several book chapters, and the coauthor of two books on Internet and optical network survivability. His current research interests cover a wide range of topics in broadband wired and wireless communication networks, including wireless transmission techniques, mobile system design and optimization, and network dimensioning and resource allocation. He is in the rank of IEEE Fellow and a Professional Engineer Ontario (PEO).

Keynote Speech 2: Toward Data Security on AI Systems

Prof. Qian Wang
Wuhan University, China



Abstract: AI has unlocked incredible potential to analyze, interpret, and act on the increasingly vast amounts of data. With the swift rise of AI adoption in corporate and government settings, data security and privacy are top concerns. This talk will give an introduction to data security on AI systems, especially from the perspective of the threats and attack surfaces in the data-driven lifecycle for machine learning systems. The threats are widespread at all stages of AI systems, boosting the research on various types of attacks and security/privacy-enhancing technologies with different focuses on the training, Inference and deployment phases. I will also discuss our recent advances and future opportunities in these researches.

CV: Prof. Qian Wang is a Professor with the School of Cyber Science and Engineering, Wuhan University, China. His research interests include AI security, data storage, search and computation outsourcing security and privacy, wireless systems security, and applied cryptography etc. Qian received National Science Fund for Excellent Young Scholars of China in 2018. He is also an expert under National "1000 Young Talents Program" of China. He is a recipient of the 2018 IEEE TCSC Award for Excellence in Scalable Computing (Early Career Researcher), and the 2016 IEEE Asia-Pacific Outstanding Young Researcher Award. He is also a co-recipient of several Best Paper and Best Student Paper Awards from IEEE ICICS' 21, IEEE DSC' 19, IEEE ICDCS'17, IEEE TrustCom'16, WAIM'14, and IEEE ICNP'11 etc. He serves as Associate Editors for many journals including IEEE Transactions on Dependable and Secure Computing (TDSC), IEEE Transactions on Information Forensics and Security (TIFS) and IEEE Internet of Things Journal (IoT-J). He is a Senior Member of the IEEE and a Member of the ACM.

Keynote Speech 3:

Key issues towards the next generation crowdsensing networks

Prof. Zhou Su

Xi'an Jiaotong University, China



Abstract: With the development of Internet of Things, by integrating cyber-physical systems and mobile social networks, mobile crowdsensing networks are regarded as the promising perception paradigm to implement connections and interactions between mobile users and physical world. However, due to the complexity of scenarios and diversification of demands in mobile crowdsensing networks, how to establish a safe and reliable mobile crowdsensing network faces a series of challenges. The network security has become the main issue for the development of mobile crowdsensing networks. This talk introduces novel security issues in mobile crowdsensing networks, and discusses the sensing security strategies including data sharing, reputation management, and secure communication, etc.

CV: Prof. Zhou Su is the dean of School of Cyber Science and Engineering, Xi'an Jiaotong University. His research interests include IoT, CPS, AI security, wireless network security and optimization. He received the best paper awards of IEEE ICC2020, IEEE BigdataSE2019, IEEE GCCTC 2018, etc. He is an Associate Editor of IEEE Internet of Things Journal, IEEE Open Journal of Computer Society, etc.

Opening Remarks and Keynotes

2022-12-3 10:00-15:15			
Time	Conference Program	Spokesman	Chairman
10:00-10:15	Welcome Speech	Norio Shiratori	Xiaohong Jiang
10:15-10:30	Opening Remarks	Xinlong Feng	Xiaohong Jiang
10:30-11:15	Keynote Speech 1	Pin-Han Ho	Xiaohong Jiang
11:15-11:35	Coffee Break		
11:35-12:20	Keynote Speech 2	Qian Wang	Bishnu Prasad Gautam
14:30-15:15	Keynote Speech 3	Zhou Su	Bishnu Prasad Gautam

The Tencent conference is used for online participation, the relevant information is shown in the following table.

Time	Conference Theme	Conference ID	Conference Password
2022.12.3-2022.12.3 10:00-15:15	Opening Remarks and Keynote Speech	64970646381	85310
2022.12.3-2022.12.4 10:00-19:00	SessionA1-A6(Room1)	64970646381	85310
2022.12.3-2022.12.4 09:00-19:00	SessionB1-B6(Room2)	81498235586	85310
2022.12.3-2022.12.4 09:00-19:00	SessionC1-C6(Room3)	84418878907	85310

Track 1:Wireless Networks

2022-12-3 15:30-16:50 Room 1				
Session A1 Chair: Xuewen Dong				
ID	Time	Author	Title	Type
10	15:30-15:50	Yongqiang Xia, Jialong Hou, Luping Tang, Hairui Wang and Yijun Wang	A Resource Allocation Scheme Based on Memetic Algorithm for D2D Communication	Long
5	15:50-16:05	Shengli Liao, Yumei Zhang, Honghong Yang and Xuening Liao	Spatiotemporal Emotion Recognition Method Based on EEG Signals During Music Listening Using 1D-CNN & Stacked-LSTM	Short
6	16:05-16:20	Yifan Li, Chunjie Cao, Hong Zhang, Xiuhua Wen, Yang Sun and Keqi Zhan	Feature extraction and identification of specific radiation sources based on axial integral bispectrum and deep residual shrinkage network	Short
12	16:20-16:35	Yi Tian and Lin Zhang	Joint Channel Assignment and Routing Using Partially Overlapped Channels in Multi-radio Multi-channel Wireless Mesh Networks	Short
23	16:35-16:50	Zhen Jia, Lisheng Ma, Shigen Shen and Xiaohong Jiang	Capacity Analysis of Diffusive Molecular Communication System with an Interfering Receiver	Short
Coffee Break				
2022-12-3 17:00-18:45 Room 1				
Session A2 Chair: Yang Xu				
ID	Time	Author	Title	Type
87	17:00-17:15	Dingyang Liang, Jianing Sun, Yizhi Zhang and Jun Yan	Lightweight Neural Network-based Web Fingerprinting Model	Short
99	17:15-17:30	Zewei Guo, Shuangrui Zhao, Jiandong Wang, Haipeng Li and Yulong Shen	Optimal Location Design for UAV Covert Communications with a Full-Duplex Receiver	Short

117	17:30-17:45	Junning Zhu, Xunning Liao and Zhenqiang Wu	Channel Capacity Analysis for Diffusive Molecular Communication with a Partly Covered Comprehensive Reactive Receiver	Short
122	17:45-18:00	Wu Wang, Sibowang, Kaiguo Qian, Shaojun Yu and Bin Yang	Covert Monitoring for D2D-enabled Cellular Networks	Short
125	18:00-18:15	Yuanxin Yan, Yang Xu , Li Wang, Jianbo Shao, Honggang He and Shanshan Zhang	Paris Subway Pricing-based Link Selection in Air-Space-Ground Networks	Short
135	18:15-18:30	Sunyan Hong, Shikai Shen, Bin Yang, Jun He, Fei Deng, Yunfei Zhang, Qinbiao Yang	Cooperative Jamming for Eavesdropping Surveillance in Wireless Networks	Short
116	18:30-18:45	Kaixin Li, Ke Zhao, Muhammad Fawad Khan, Pin-Han Ho and Limei Peng	UAV-mounted Intelligent Reflecting Surface (IRS) MISO Communications	Short

2022-12-3 15:30-16:50 Room 2				
Session B1 Chair: Xuening Liao				
ID	Time	Author	Title	Type
100	15:30-15:50	Dapeng Huang, Haoran Chen, Kai Wang, Chen Chen and Weili Han	A Traceability Method for Bitcoin Transactions Based on Gateway Network Traffic Analysis	Long
4	15:50-16:10	Haifeng Peng, Chunjie Cao, Yang Sun, Haoran Li and Xiuhua Wen	Blind Identification of Channel Codes under AWGN and Fading Conditions via Deep Learning	Long
108	16:10-16:30	Yongjie Zhou, Jinbo Xiong, Renwan Bi and Youliang Tian	Secure YOLOv3-SPP: Edge-Cooperative Privacy-preserving Object Detection for Connected Autonomous Vehicles	Long
115	16:30-16:50	Yihuai Yang Shikai Shen, Yumei She, Wu Wang, Bin Yang and Yangshui Gao	On IRS-Aided Covert Communications of D2D-enabled Cellular Networks	Long
Coffee Break				
2022-12-3 17:00-18:45 Room 2				
Session B2 Chair: Yequ Xiao				
ID	Time	Author	Title	Type
9	17:00-17:15	Jiawei Du, Kai Yang, Huang Zhenhao, Jiang Lingjie, Huang Lei and Yu Haixia	Research on Intrusion Detection Algorithm Based on Optimized CNN-LSTM	Short
94	17:15-17:30	Yiming Pan, Zhen Shao, Yiming Li, Guojin Huang and Fangfang Zuo	The test and evaluation method for the effect of WLAN network quality on hosted services	Short
95	17:30-17:45	Han Yu, Jie Zhan, Libin Jiao and Jun-Mei Han	Load balancing strategy for wireless multi-hotspot networks based on improved NSGA-II algorithm	Short
109	17:45-18:00	Shenghui Zhao, Bao Gui, Guilin Chen and Bin Yang	On Rate Fairness Maximization of Vehicular Networks: A Deep Reinforcement Learning Approach	Short
111	18:00-18:15	Yequ Xiao, Yichuan Wang, Wenjiang Ji, Lei Zhu and Xinhong Hei	Effective Secrecy Throughput Analysis for Communication Systems with a DF Satellite Relay	Short
88	18:15-18:30	Fan Fan, Hongbin Zhang, Dongmei Zhao, Bin Liu, Yanxia Wang and Jian Liu	Trust Evaluation Model of Social Internet of Things Based on Multi-relationships	Short
105	18:30-18:45	Yiting Huang, Shujie Yang, Tengchao Ma, Zhaoyang Liu, Zhongyi Ding and Qingzhao An	A Low-cost Active Defense Mechanism against DDoS Attacks in Streaming Media Scenarios	Short

Track 2: Wired Networks and Data Center (DC) Networks

2022-12-3 15:30-16:55 Room3				
Session C1 Chair: Hafsa Kabir Ahmad				
ID	Time	Author	Title	Type
85	15:30-15:50	Wenning Lu and Bingbing Li	An Energy-Efficient and Obstruction-Free Design Scheme for FSO-based Data Center Network	Long
113	15:50-16:10	Shitong Fu and Zhiqiang Yao	Privacy risk estimation of online social networks	Long
48	16:10-16:25	Lei Yu, Shuai Gao, Ningchun Liu, Hongchao Wang and Wei Su	A Cache-enabled NDN Forwarding Plane based on Programmable Switches	Short
60	16:25-16:40	Wenyong Yuan, Ruifeng Li, Zhengge Yi, Pei Chen, Haibin Yang and Xiaoyuan Yang	Secure Cloud Data Storage with Selecting Auditors	Short
81	16:40-16:55	Yuan Cheng, Shuai Gao and Xindi Hou	A Secure Authentication Mechanism for Multi-Dimensional Identifier Network	Short
Coffee Break				
2022-12-3 17:05-18:45 Room3				
Session C2 Chair: Laifeng Lu				
ID	Time	Author	Title	Type
92	17:05-17:25	Zuobin Ying, Yangzong Zhang, Shengmin Xu, Guowen Xu and Wenjian Liu	Anteater: Malware Injection Detection With Program Network Traffic Behavior	Long
82	17:25-17:45	Yasheng Zhou, Yang Li, Zhixin Wang, Guohao Li and Xuemei Ning	DNS attack detection based on multi-dimensional fusion model	Long
47	17:45-18:00	Wanqi Zhao, Haoyue Sun and Dawei Zhang	Research on DDoS Attack Detection Method Based on Deep Neural Network Model in SDN	Short

58	18:00-18:15	Pin Chen, Najjie Gu, Daxing Liu and Qianqian Yu	A Game Theory Perspective on TCP Congestion Control Evaluation	Short
63	18:15-18:30	Qipei Qian, Hui Li, Yuefeng Ji, Qiang Wu, Yan Shao and Zhenda Ma	Planning Method of PON Based on Traffic Analysis	Short
77	18:30-18:45	Xinghong Jiang, Xuan Li, Chenyang Lv, Yong Ma, Yulong Shen, Meibin He and Guozheng Li	An Encrypted Abnormal Stream Detection Method Based on Improved Skyline Computation	Short

Track 3: Network Management, Monitoring, and Automation

2022-12-4 9:00-10:10 Room 1				
Session A3 Chair: Tao Zhang				
ID	Time	Author	Title	Type
1	9:00-09:20	Yuxiang Chen, Yao Hao, Zhongqiang Yi, Xiaoyu Guo and Chunxiang Xu	Ciphertext storage scheme supporting data hierarchical management and control	Long
114	9:20-09:40	Dongmei Zhao, Yaxing Wu and Qingru Li	Network Security Situation Prediction Implemented by Attention and BiLSTM	Long
18	9:40-9:55	Zhe Wang, Baihe Ma, Yong Zeng, Xiaojie Lin, Kaichao Shi and Ziwen Wang	Differential Preserving in XGBoost Model for Encrypted Traffic Classification	Short
19	9:55-10:10	Kaichao Shi, Baihe Ma, Yong Zeng, Xiaojie Lin, Zhe Wang and Ziwen Wang	Layered classification method for darknet traffic based on Weighted K-NN	Short
Coffee Break				
2022-12-4 10:20-12:05 Room 1				
Session A4 Chair: Yanping Chen				
ID	Time	Author	Title	Type
21	10:20-10:35	Hengwei Zhang, Xiaoning Zhang, Pengyu Sun, Xiaohu Liu, Junqiang Ma and Yuchen Zhang	Traceability Method of Network Attack Based on Evolutionary Game	Short
39	10:35-10:50	Zhan Liu, Xiaojie Zhu, Li Peng, Jinlan Ma, Xiaozhi Yuan, Yuxiang Jiang and Qingyang Wang	User-centric Service System for Network Beyond IMT-2020 (5G)	Short
90	10:50-11:05	Zhaoyang Li, Zhiwei Zhang, Zehan Chen, Hao Duan, Hongjun Li and Baoquan Ren	Lightweight and Efficient Distributed Cooperative Intrusion Detection System for Intelligent	Short
97	11:05-11:20	Zhidong Ma, Zhiwei Zhang, Chengliang Liu, Tianzhu Hu, Hongjun Li and Baoquan Ren	Visualizable Malware Detection based on Multi-dimension Dynamic Behaviors	Short
84	11:20-11:35	Xinghui Zhu, Yongzhen Chen, Xiaodong Zhang, Baoquan Ren and Zhiwei Zhang	Feature Matching for Indoor-Oriented Visual Odometry	Short
28	11:35-11:50	Mei Wang, Zhengyi An, Yu Yao and Xiyu Song	Feature-level Attention Pooling for Overlapping Sound Event Detection	Short
126	11:50-12:05	Shuai Lyu, Haoran Mei and Limei Peng	Multivariate-aided SIoT Energy Prediction Based on LSTM-Kalman Filter	Short

2022-12-4 9:00-10:35 Room 2

Session B3 Chair: Cong Gao

ID	Time	Author	Title	Type
32	9:00-9:15	Xiangnan Shi, Yanbo Yang, Qiwei Xu, Teng Li and Jiawei Zhang	Research on grassland grazing environment planning based on GA-ACO hybrid algorithm	Short
45	9:15-9:30	Hong Xia, Qingyi Dong, Yanping Chen, Jiahao Zheng, Cong Gao and Zhongmin Wang	QoS prediction based on the low-rank autoregressive tensor completion	Short
70	9:30-9:45	Xinghui Zhu, Yalong Lv, Jia Liu, Xuewen Dong, Lin Li, Jiandong Wang	A Study of Service Registration and Discovery Techniques in Microservice Architecture	Short
71	9:45-10:00	Tong Zhang, Xiangjie Cui, Yichuan Wang, Yanning Du and Wen Gao	TCS Security Analysis in Intel SGX Enclave MultiThreading	Short
72	10:00-10:15	Yichuan Wang, Yanhua Feng, Yanning Du, Xinhong Hei, Yuying Tian and Xiangjie Cui	Block-Streaming Service Loading Optimization of Android Dalvik Executable File for Cloud-End Collaboration	Short
127	10:15-10:35	Khadija Sultana, Khandakar Ahmed, Bruce Gu and Hua Wang	Elastic Optimized Edge Federated Learning	Long

Coffee Break

2022-12-4 10:45-12:00 Room 2

Session B4 Chair: Wu Wang

ID	Time	Author	Title	Type
93	10:45-11:00	Jing Han, Yizhi Zhang and Kenan Qin	An Attributed Network Anomaly Detection Method Based on Dual Autoencoder Joint Embedding	Short
98	11:00-11:15	Yan He, Yupeng Zhao and Zhongmin Wang	EEG-based fatigue detection using PLI brain network and Relief algorithm	Short
118	11:15-11:30	Yue Cui, Alvin Lim, Yufei Yan, Abhishek Kulkarni and Tianhang Lan	Resilient and Reliable Communication for First Responders with Ad-Hoc Network and MPTCP	Short
130	11:30-11:45	Luheng Yang, Zihui Wang, Tingting Zhu and Jianrui Chen	Relation Transformation based on Graph Convolution Network for Entity Alignment	Short
33	11:45-12:00	Zhuoyuan Li, Zan Zhou, Tao Zhang and Xiaolin Xing	MARL-MOTAG: Multi-Agent Reinforcement Learning based Moving Target Defense to thwart DDoS attacks	Short

Track 4: Network Applications

2022-12-4 9:00-10:15 Room3				
Session C3 Chair: Zhen Jia				
ID	Time	Author	Title	Type
14	9:00-9:20	Ruixin Li, Zhihong Liu, Yong Zeng and Jianfeng Ma	Representing the Topology of Complex Networks Based on Graph Embedding	Long
20	9:20-9:40	Sandhya Sharma, Kazuhiko Sato and Bishnu Prasad Gautam	Bioacoustics Monitoring of Wildlife using Artificial Intelligence: A Methodological Literature Review	Long
119	9:40-10:00	Bishnu Prasad Gautam, Amit Batajoo and Norio Shiratori	A Proposal of ClouEdge (Cloud-Edge) Architecture by Using JYAGUCHI Computing Framework	Long
7	10:00-10:15	Tao Wang, Haiyan Zeng and ZhaoShenghui	Parallel Algorithm of Geomagnetic Localization in Fire Compartment based on MapReduce	Short
Coffee Break				
2022-12-4 10:25-11:55 Room3				
Session C4 Chair: Bello Ahmad Muhammad				
ID	Time	Author	Title	Type
25	10:25-10:40	Dalia Nashat and Loay Mamdouh	A Novel Least Significant Bit Steganographic Method Based on Hough Transform	Short
26	10:40-10:55	Hirofumi Miyajima, Noritaka Shigei, Hiromi Miyajima and Norio Shiratori	Secure Distributed Processing of NG with Updatable Decomposition Data and Parameters	Short
27	10:55-11:10	Patrick Koomson, Yang Weidong and Shen Erbo	Optimization Model for Predicting Stored Grain Temperature using Deep Learning LSTMs	Short
29	11:10-11:25	Haining Meng, Jiawei Zhang, Yi Zheng, Wenjiang Ji, Xinyu Tong and Xinhong Hei	Track irregularity prediction based on DWT-DLSTM model	Short
107	11:25-11:40	Xiao Liu, Zhao Huang, Quan Wang and Nan Luo	An Optimized Key-Value Raft Algorithm for Satisfying Linearizable Consistency	Short
110	11:40-11:55	Zeyu Li, Junjie Wang, Zhao Huang and Quan Wang	EA-based Mitigation of Hardware Trojan Attacks in NoC of Coarse-Grained Reconfigurable Arrays	Short

2022-12-4 15:00-16:15 Room 1

Session A5 Chair: Bin Yang

ID	Time	Author	Title	Type
8	15:00-15:20	Kui Liu, Bin Wang, Ziwei Shi, Jiadong Chen and Zhiwei Zhang	Hey! You Photographed My Screen without Approved: A Practical Screen Content Protection Scheme Based on Visual Cryptography	Long
52	15:20-15:40	Yingxin Shan, Peng Liao, Zhuo Wang and Lingling An	Partial Computation Offloading and Resource Allocation via Deep Deterministic Policy Gradient	Long
103	15:40-16:00	Chunyan Yu, Linfeng Gu, Guilin Chen and Aiguo Wang	Identifying Those Who Really Need Subsidies: A Data-Driven Approach	Long
2	16:00-16:15	Aiguo Wang, Yue Meng, Liang Zhao, Shenghui Zhao and Guilin Chen	Comparison of Feature Extraction Techniques for Ambient Sensor-based In-home Activity Recognition	Short

Coffee Break

2022-12-4 16:25-17:40 Room 1

Session A6 Chair: Jia Liu

ID	Time	Author	Title	Type
136	16:25-16:40	Tao Zhang, Zhe Zhang, Xiang Li, Yulin Wu, Bo Peng, Yurong Qian, Mengnan Ma and Hongyong Leng	Short Text Semantic Matching Model Based On Bert And Adversarial Network	Short
57	16:40-16:55	Liumei Zhang, Yu Han, Yichuan Wang and Ruiqin Quan	Petri Net Model of MITM Attack Based on NDP Protocol	Short
101	16:55-17:10	Leyu Lin, Bo Tian, Yue Zhao and Yiru Niu	A Privacy-Preserving Gait Recognition Scheme Under Homomorphic Encryption	Short
137	17:10-17:25	Muhammad Fawad Khan, Haoran Mei, Shahnaila Rahim, Limei Peng and Pin-Han Ho	Multi-RIS Deployment for High Data-Rate Communications	Short
134	17:25-17:40	Zening Li, Pin-Han Ho, Yan Jiao, Bingbing Li and Yuren You	Design of an OTN-based Failure/Alarm Propagation Simulator	Short

2022-12-4 15:00-16:15 Room 2

Session B5 Chair: Kaijun Wu

ID	Time	Author	Title	Type
11	15:00-15:15	Sugang Ma, Ningbo Li, Guansheng Peng, Yanping Chen, Ying Wang and Zhiqiang Hou	Object detection algorithm based on cosine similarity IoU	Short
13	15:15-15:30	Bowen Deng, Lele Zheng, Ze Tong, Jing Gao, Tao Zhang and Qi Li	OKV: Optimized Key-Value Data Collection with Local Differential Privacy	Short
17	15:30-15:45	Kaijun Wu, Bo Tian, Xue Wang and Qi Zhao	A secure and anonymous communication scheme based on Internet public service environment	Short
22	15:45-16:00	Hengwei Zhang, Zheming Li, Hao Liu, Bo Yang, Chenwei Li and Jindong Wang	Rotation Model Enhancement for Adversarial Attack	Short
121	16:00-16:15	Ke Zhao, Mian Muaz Razaq, Kaixin Li, Limei Peng and Pin-Han Ho	3D Deployment of UAVs for Communications under Multiple Eavesdroppers	Short

Coffee Break

2022-12-4 16:25-17:40 Room 2

Session B6 Chair: Lisheng Ma

ID	Time	Author	Title	Type
129	16:25-16:40	Cheng Sheng and Haizheng Yu	An Optimized Prediction Algorithm based on XGBoost	Short
131	16:40-16:55	Wenbo Zhang, Ruoxia yao, Xiaoteng Yang and Kaiguang Wang	An Improved Gray Wolf Optimization Algorithm Based on Levy Flight and Adaptive Strategies	Short
133	16:55-17:10	Wanghao Mo, Yan Ke, Qingao Huo, Ruyi Cao, Guochang Song and Wendong Zhang	ADN: ATSS-based Deep Network for Pedestrian Detection on High-Resolution Images	Short
120	17:10-17:25	Yan Wang, Li Li, Zhaohua Wang and Xiaohua Zheng	An efficient method for restraining negative information cascades in online social networks	Short
83	17:25-17:40	Hongbin Gao, Shangxing Wang, Hongbin Zhang, Bin Liu, Dongmei Zhao and Zhen Liu	Network Security Situation Assessment Method Based on Absorbing Markov Chain	Short

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Session C5 Chair:Mubarak Umar

ID	Time	Author	Title	Type
38	15:00-15:15	Fang Ren, Haiyan Xiu, Anqi Gao and Xuan Shi	Blind Signature Scheme Based on QC-MDPC Codes	Short
43	15:15-15:30	Xindi Ma, Cunzhu Su, Jianfeng Ma, Qi Jiang, Ning Xi, Sheng Gao and Kang Xie	Self-Anomaly-Detection Model Training via Initialized Meta Model	Short
54	15:30-15:45	Jiaomei Zhang, Ayong Ye, Zhiqiang Yao, Minghui Sun	A Fair Federated Learning Framework based on Clustering	Short
65	15:45-16:00	Mengfan Xu	FedDBG: Privacy-Preserving Dynamic Benchmark Gradient in Federated Learning Against Poisoning Attacks	Short
73	16:00-16:15	Jiandong Wang, Xiang Xia, Zhiwei Zhang, Yuanyu Zhang, Baoquan Ren and Yulong Shen	Class Continuous LOD Algorithm for Lightweight WebGL Rendering Optimization	Short

Coffee Break

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Session C6 Chair: Feng Tian

ID	Time	Author	Title	Type
76	16:25-16:40	Xiaofeng Rong, Chang Wang and Zijian Cao	A LSTM Forecasting Model Based on ASSOMA	Short
86	16:40-16:55	Ke Wang, Yaling He and Yuhuang He	Research on Blockchain Usage for 5G Message Service	Short
104	16:55-17:10	Taiki Tomita, Keiichi Inohara, Yota Kurokawa and Masaru Fukushi	A Dynamic Reconfiguration Method of Communication Groups for Parallel Volunteer Computing	Short
123	17:10-17:25	Shiyang Ma, Yahui Li, Zhonghua Wang, Di Lu, Xuewen Dong, Wei Tong and Lingxiao Yang	Link-ability: a Prediction Method of Web Service Compatibility based on Markov Process	Short
128	17:25-17:40	Yunchuan Wu, Cheng Chen and Bo Wang	Pedestrian Detection Based on Improved SSD Object Detection Algorithm	Short

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