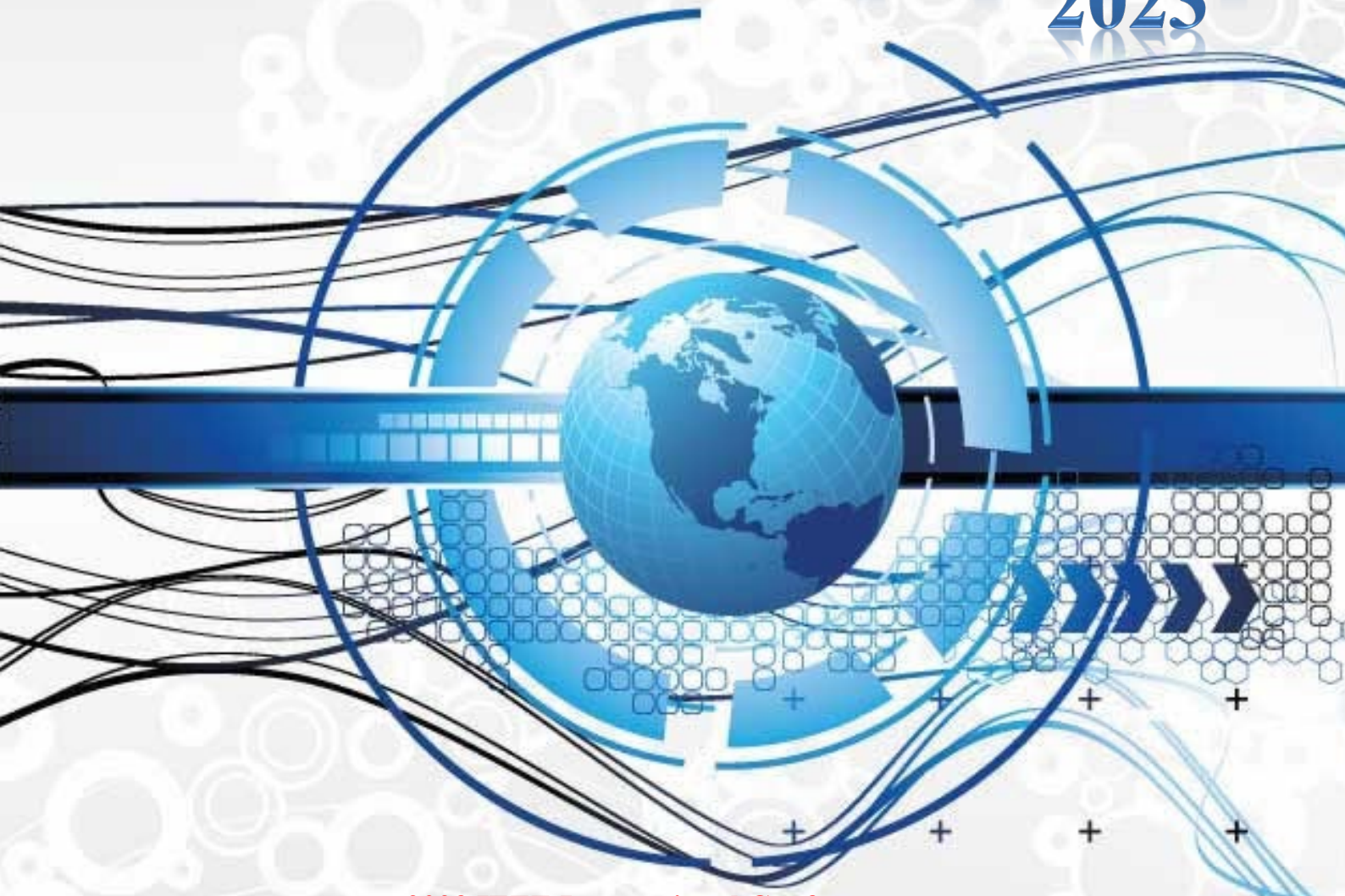
IEEE

CCCI 2023



2023 IEEE International Conference on Communications, Computing, Cybersecurity and Informatics, CCCI 2023

Chongqing, China
October 18-20, 2023
All Times are based on Beijing, China Local Time

Technical Sponsors:

IEEE

IEEE ComSoc
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CCCI 2023 General Chairs' Message

CCCI 2023 General Chairs Message

Welcome to the 2023 IEEE International Conference on Communications, Computing, Cybersecurity, and Informatics (CCCI 2023), which is being held on an annual basis.

The conference is held in the beautiful city of Chongqing, China,

IEEE CCCI 2023 offers a unique forum for researchers and practitioners from academia, industry, business, and government to share their expertise results and research findings in all areas of Communications, Computing, Cybersecurity and Informatics.

This year's conference includes an outstanding technical program, and distinguished keynote speeches, which will be given by world renowned top scholars/researchers.

CCCI 2023 technical program lasts for 3 days with many sessions. The topics covered in the program are basically in the major theses of Communications, Computing, Cybersecurity and Informatics.

This year, we received a large number of quality papers. Only very high-quality papers have been accepted. The acceptance ratio in the conference is about 44.40 %. This is indicative of the diligent work of the technical program committee chairs, technical program committee members and reviewers. The accepted papers come from all over the World with representation from academia, industry, business, and government. Moreover, accepted papers will appear in IEEE Xplore, which usually appear in SCOPUS.

Many individuals have contributed to the success of this high caliber international conference. Our sincere appreciation goes to all authors including those whose papers were not included in the program. Many thanks are also due to our distinguished keynote speakers for their valuable contribution to the conference.

Special thanks are also due to the senior program chair, Prof. Petros Nicopolitidis, for his outstanding role in leading the technical program efforts. Thanks also are due to the other program chairs. Many thanks also go to the technical program committee members and reviewers for their timely work and efforts.

Many thanks to the Registration Chair, Prof. Kuei-Fang Hsiao, for her great work and advice.

Special thanks go to the publication chair, Guo Yu for his outstanding work and dedication. Thanks to our dedicated Webmaster Antonio Bueno. Special thanks go to the international publicity committee members and international liaisons for their excellent work.

Special thanks are due to the international steering committee of the CCCI. We also like to thank the IEEE Communication Society for technical co-sponsorship of the conference.

Finally, we are grateful to the support of the leadership, faculty and staff of the Dalian University of Science and Technology, for the great efforts, which helped us to have a very successful event.

Finally, on behalf of the 2023 IEEE International Conference on Communications, Computing, Cybersecurity, and Informatics (CCCI 2023), we invite all of you to enjoy the program and your stay in Chongqing.

Mohammad S. Obaidat, General Chair,
Life Fellow of IEEE, Fellow of SCS, Past President of the Society for Modeling & Simulation International (SCS), Founding Editor in Chief, Wiley Security and Privacy Journal, Editor in Chief, International Journal of Communication Systems, Recipient of SCS Hall of Fame Award, Recipient of the Technical Achievement Award from IEEE ComSoc-Technical Committee on Communication Software

Zhaolong Ning, General Chair
ESI Highly Cited Researcher (Web of Science) since 2020. Senior Member of IEEE.

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Program at a Glance
All Times Listed here are Based on China Local Time

Wednesday, October 18, 2023		Thursday, October 19, 2023		Friday, October 20, 2023	
13.00-13.30	Opening Session	13.00-14.00	Keynote Speech 5	13.00-15.15	Cybersecurity
13.30-14.30	Keynote Speech 1	14.00-15.00	Keynote Speech 6	15.45-16.00	Closing Session
14.30-15.30	Keynote Speech 2	15.00-16.50	Informatics 2		
15.30-16.00	Break	16.50-17.20	Break		
16.00-17.00	Keynote Speech 3	17.20-18.50	Networking		
17.00-18.00	Keynote Speech 4	18.50-20.20	Computing		
18.00-19.45	Informatics 1	20.20-22.20	Conference Banquet		

Schedule

WEDNESDAY, OCTOBER 18

Daily Program Chairs: 13.00-15.30: Xiaojie Wang, 16-18: Zhaolong Ning, 18.00-19.20: Ling Yi

13:00 - 13:30

Opening Session

13:30 - 14:30

Keynote Speech 1

Smart Evolutional Topology for Industrial Internet of Things
Session Chair: Xiaojie Wang

Distinguished Keynote speaker: Tie Qiu Tianjin University, China

Abstract: Industrial Internet of Things (IIoT) includes large scale networks, such as Industrial wire networks, wireless networks, ad hoc networks and other communication networks, the conventional self-organization strategies are difficult to adapt the dynamic Industrial scenarios. This talk combines the population state with the evolutionary process and proposes an adaptive robustness evolution algorithm for scale-free IIoT topologies. Finally, the future trends for smart IIoT will be discussed.

Bio

Dr. Tie Qiu is currently a Full Professor at School of Computer Science and Technology, Tianjin University, China. Prior to this position, he held assistant professor in 2008 and associate professor in 2013 at School of Software, Dalian University of Technology. He was a visiting professor at department of electrical and computer engineering of Iowa State University in U.S. (2014-2015).

He serves as an associate editor of IEEE/ACM Transactions on Networking (ToN), IEEE Transactions on Network Science and Engineering (TNSE) and IEEE Transactions on Systems, Man, and Cybernetics: Systems, area editor of Ad Hoc Networks (Elsevier), associate editor of Computers and Electrical Engineering (Elsevier), Human-centric Computing and Information Sciences (Springer), a guest editor of Future Generation Computer Systems. He serves as General Chair, Program Chair, Workshop Chair, Publicity Chair, Publication Chair or TPC Member of a number of international conferences.

He has authored/co-authored 10 books, over 200 scientific papers in international journals and conference proceedings, such as IEEE/ACM Transactions on Networking, IEEE Transactions on Mobile Computing, IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Industrial Informatics, IEEE Communications Surveys & Tutorials, IEEE Communications, INFOCOM, GLOBECOM etc. There are 18 papers listed as ESI highly cited papers. He has contributed to the development of 6 copyrighted software systems and invented 20 patents. He is a distinguished member of China Computer Federation (CCF) and a Senior Member of IEEE and ACM.

14:30 - 15:00

Break

15:00 - 16:00

Keynote Speech 2

Spatio-Temporal Graph Learning Empowed Intelligent Transportation Systems
Session Chair: Zhaolong Ning

Distinguished keynote speaker: Xiangjie Kong, Zhejiang University of Technology, China

Abstract: A modern city is a ternary space that contains the physical world, human society, and information space. Urban spatial-temporal data is the foundation of urban travel intelligence. Based on urban spatial-temporal data, the accurate description of travel information in cities is the premise of forecasting/warning and decision-making assistance. Spatio-temporal graph learning having been extensively used in intelligent transportation systems in recent years, proves effective for many tasks in real-world applications, such as regression, classification, clustering, matching, and ranking. Spatio-temporal graph learning brings new idea to solve the challenges for smart transportation, improve the efficiency of urban resource utilization, optimize urban management and services, and improve residents' lives quality towards smart cities. This report will explore the research frontiers of spatio-temporal graph learning-based traffic data mining and analysis and its application in intelligent transportation systems and introduce some related work.

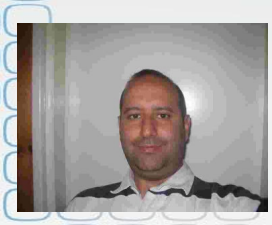
Bio

Dr. Xiangjie Kong is currently a Full Professor in the College of Computer Science & Technology, Zhejiang University of Technology (ZJUT), China. Previously, he was an Associate Professor in School of Software, Dalian University of Technology (DUT), China, where he was the Head of the Department of Cyber Engineering. He is the Founding Director of City Science of Social Computing Lab (The CSSC Lab) (http://www.cssclab.cn). He is/was on the Editorial Boards of 6 International journals. He has served as the General Co-Chair, Workshop Chair, Publicity Chair or Program Committee Member of over 30 conferences. Dr. Kong has authored/co-authored over 200 scientific papers in international journals and conferences including IEEE TKDE, ACM TKDD, IEEE TNSE, IEEE TII, IEEE TITS, IEEE NETW, IEEE COMMUN MAG, IEEE TVT, IEEE IOJ, IEEE TSMC, IEEE TETC, IEEE TASE, IEEE TCSS, WWWJ, etc.. 5 of his papers is selected as ESI- Hot Paper (Top 1‰), and 18 papers are ESI-Highly Cited Papers (Top 1%). His research has been reported by Nature Index and other medias. He has been invited as Reviewers for numerous prestigious journals including IEEE TKDE, IEEE TMC, IEEE TNNLS, IEEE TNSE, IEEE TII, IEEE IOTJ, IEEE COMMUN MAG, IEEE NETW, IEEE TITS, TCJ, JASIST, etc.. Dr. Kong has authored/co-authored three books (in Chinese). He has contributed to the development of 14 copyrighted software systems and 20 filed patents. He has an h-index of 47 and i10-index of 115, and a total of more than 7200 citations to his work according to Google Scholar. He is named in the 2019 - 2021 world's top 2% of Scientists List published by Stanford University. Dr. Kong received IEEE Vehicular Technology Society 2020 Best Land Transportation Paper Award, and The Natural Science Fund of Zhejiang Province for Distinguished Young Scholars. He has been invited as Keynote Speaker at over 20 international conferences and delivered a number of Invited Talks at international conferences and many universities worldwide. His research interests include urban computing, network science, and mobile computing. He is a Distinguished Member of CCF, a Senior Member of IEEE, a Full Member of Sigma Xi, and a Member of ACM.

16:00 - 17:00

Keynote Speech 3

Denial of Service Attacks in VANETs: A Challenge or a fatality?
Session Chair: Yu Guo



Distinguished Keynote speaker: Jalel Ben-Othman, the University of Paris 13, France.

Abstract: Vehicular ad hoc network (VANET) has been researched and achieved by several organizations to develop the intelligent transportation system (ITS). VANETs represent a distinct instance within the realm of mobile ad hoc networks (MANETs), where the nodes are vehicles themselves. The aim of establishing a VANET network is to ensure its safety and dependability. Hence, the development of VANET aims to improve transportation reliability, optimize driving and navigation, and enhance the vehicle user's safety. Vehicles can self - react in order to avoid accidents by preventing the proximity location and transporting them to the conductor. Communications in the VANET are very challenging and existing solutions, for instance, from which the Ad Hoc networking field are not adapted. Some solutions have been proposed and researched for security in the VANET. However, they have not resolved strictly VANET communication problems. This is due to some special features of the VANET, including the high speed of vehicles, mobility patterns of vehicles. New efforts at different levels of the communications systems are required to be present at the MAC, routing, and security levels. In this talk we tackle the problems of security in those networks. Existing problems/solutions are showed, issues and perspectives will be exposed as well.

Bio

Prof. Jalel Ben-Othman received his B.Sc. and M.Sc. degrees both in Computer Science from the University of Pierre et Marie Curie, (Paris 6) France in 1992, and 1994 respectively. He received his PhD degree from the University of Versailles, France, in 1998. He is currently full professor at the University of Paris 13 since 2011 and member of L2S lab at CentraleSupélec. Dr. Ben-Othman's research interests are in the area of wireless ad hoc and sensor networks, VANETs, IoT, performance evaluation and security in wireless networks in general. He was the recipient of the IEEE COMSOC Communication Software technical committee Recognition Award in 2016, the IEEE computer society Meritorious Service Award in 2016, and he is a Golden Core Member of IEEE Computer Society, AHSN Exceptional Service and Contribution Award in 2018 and the VEHCOM Fabio Neri award in 2018. He has served as steering committee member of IEEE Transaction on Mobile computing (IEEE TMC), he is currently Area Editor of IEEE communication letters (IEEE COMML) an editorial board member of several journals (IEEE Networks, IEEE IoT journal, JCN, IJCS, SPY, Sensors, …). He has also served as TPC Co-Chair for IEEE Globecom and ICC conferences and other conferences as (WCNC, IWCMC, VTC, ComComAp, ICNC, WCSP, Q2SWinet, P2MNET, WLN,....). He was the chair of the IEEE Ad Hoc and sensor networks technical committee January 2016-2018, he was previously the vice chair and secretary for this committee. He has been appointed as IEEE COMSOC distinguished lecturer from 2015 to 2018 and IEEE VTS distinguished lecturer from 2020 to 2023 where he did several tours all around the world.

17:00 - 18:00

Keynote Speech 4

Title: Cyber-Physical-Social Intelligence
Session Chair: Mohammad Wazid

Distinguished Keynote speaker: Laurence T. Yang, Hainan University, China

Abstract: The booming growth and rapid development in embedded systems, wireless communications, sensing techniques and emerging support for cloud computing and social networks have enabled researchers and practitioners to create a wide variety of Cyber-Physical-Social Systems (CPSS) that reason intelligently, act autonomously, and respond to the users' needs in a context and situation-aware manner, namely Cyber-Physical-Social Intelligence. It is the integration of computation, communication and control with the physical world, human knowledge, and sociocultural elements. It is a novel emerging computing paradigm and has attracted wide concerns from both industry and academia in recent years.
This talk will present our latest research on Cyber-Physical-Social Intelligence. Corresponding case studies in some typical applications will be shown to demonstrate the feasibility and flexibility.

Bio

Laurence T. Yang got his BE in Computer Science and Technology and BSc in Applied Physics both from Tsinghua University, China and Ph.D in Computer Science from University of Victoria, Canada. He is the Academic Vice-President and Dean of School of Computer Science and Technology, Hainan University, China. His research includes Cyber-Physical-Social Intelligence. He has published 300+ papers in the above area on top IEEE/ACM Transactions with total citations of 36691 and H-index of 96 including 8 and 40 papers as top 0.1% and top 1% highly cited ESI papers, respectively.
His recent honors and awards include the member of Academia Europaea, the Academy of Europe (2021), the John B. Stirling Medal (2021) from Engineering Institute of Canada, IEEE Sensor Council Technical Achievement Award (2020), IEEE Canada C. C. Gotlieb Computer Medal (2020), Clarivate Analytics (Web of Science Group) Highly Cited Researcher (2019, 2020, 2022), Fellow of Institution of Engineering and Technology (2020), Fellow of Institute of Electrical and Electronics Engineers (2020), Fellow of Engineering Institute of Canada (2019), Fellow of Canadian Academy of Engineering (2017).

18:00 - 19:45

Informatics 1

Session Chair: Xiangjie Kong

A Novel Collaborative Representation Method for Hyperspectral Image Classification
Guifeng Zheng, Qi Guo, Juan Xi, Shouze Tang, Ziyi Liu and Xuanrui Xiong (Chongqing University of Posts and Telecommunications, China)

A Multimodal Fusion Depression Recognition Assisted Decision-Making System Based on EEG and Speech Signals
Xiaojie Wang, Xin Wan and Zhaolong Ning (Chongqing University of Posts and Telecommunications, China); Qie Zihan (Dalian University of Technology, China); Jiameng Li and Yulong Xiao (Chongqing University of Posts and Telecommunications, China)

A Dynamic Evolution Method for Digital Twins Based on RDD-RNN
Hongbo Cheng (University of Beihang, China)

Predicted Improvement Aggregation Adjustment Search for Parallel Multi-Objective Bayesian Optimization

Chenglong Lin, Tianli Xiao, Chen Du and Yizhong Ma (Nanjing University of Science and Technology, China)

The Influence of Gray Scale on Image Recognition Under Simulated Prosthetic Vision

Yan Zhang, Ying Zhao and Yang He (Inner Mongolia University of Science and Technology, China); Guangmiao Jiang (Inner Mongolia University of Science & Technology, China)

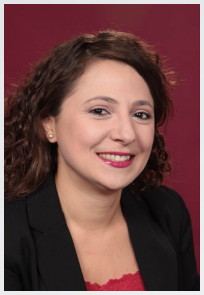
THURSDAY, OCTOBER 19

Daily Program Chairs: 13.00-16.50: Yu Wu, 17.20-20.20: Ling Yi

13:00 - 14:00

Keynote Speech 5

Harnessing Reconfigurable Intelligent Surfaces to Elevate Positioning, Navigation, and Timing Solutions: An Approach Grounded in Artificial Intelligence
Session Chair: Ruhul Amin



Distinguished keynote speaker: Eirini Eleni Tsiropoulou, University of New Mexico.

Abstract: In the realm of critical infrastructure and advanced location-based services, the demand for precise Position, Navigation, and Timing (PNT) systems has ignited a quest for innovative alternatives. This keynote introduces a revolutionary response to the challenges faced by Global Navigation Satellite Systems (GNSS) when confronted with diverse conditions. The talk unveils an inventive PNT solution that hinges on Reconfigurable Intelligent Surfaces (RISs). The core of this innovation lies in a symbiotic game-theoretic framework, meticulously designed to elevate PNT accuracy and efficiency. We explore the orchestration and configuration of RISs. The synergy of Game Theory and Reinforcement Learning (RL) empowers us to tackle the complex challenge of enhancing PNT performance. Our novel Satisfaction Games empower targets to independently optimize the count of contributing RISs for PNT services, adapting to the environment. An advanced RL algorithm expertly selects the specific ensemble of RISs. We extend this approach to optimizing phase shifts within RISs, strategically enhancing signal strength through reflected signals. This optimization technique draws inspiration from mutualistic symbiotic relationships observed in biological systems. Collaborator nodes, supported by RISs and anchor nodes with known coordinates, form a strategic alliance with targets of unknown positions. This transforms the task of minimizing positioning and timing errors into a dynamic non-cooperative game, showcasing the presence of a Nash Equilibrium through potential game principles. Rigorous modeling and simulation underscore the effectiveness of the proposed methodology. In conclusion, this keynote emerges as a beacon of promise for fortified PNT solutions, adept at bridging the precision and dependability gaps prevalent in GNSS technology. This innovation stands poised to cater to sectors reliant on precise positioning, navigation, and timing, charting a course towards an era of unwavering reliability.

Bio

Dr. Eirini Eleni Tsiropoulou is an Associate Professor, and Computer Engineering Area Chair at the Department of Electrical and Computer Engineering, University of New Mexico. She obtained her Diploma, MBA, and Ph.D. in Electrical and Computer Engineering from National Technical University of Athens in 2008, 2010, and 2014, respectively. Her main research interests lie in the area of cyber-physical social systems and wireless heterogeneous networks, with emphasis on network modeling and optimization, resource orchestration in interdependent systems, reinforcement learning, game theory, network economics, and Internet of Things. Five of her papers received the Best Paper Award at IEEE WCNC in 2012, ADHOCNETS in 2015, IEEE/IFIP WMNC 2019, INFOCOM 2019 by the IEEE ComSoc Technical Committee on Communications Systems Integration and Modeling, and IEEE/ACM BRAINS 2020. She was selected by the IEEE Communication Society - N2Women - as one of the top ten Rising Stars of 2017 in the communications and networking field. She received the NSF CRII Award in 2019, the Early Career Award from the IEEE Communications Society Internet Technical Committee in 2019, and the Junior Faculty Teaching Excellence Award, School of Engineering, University of New Mexico in 2018. Her research is mainly supported by the Department of Energy, National Science Foundation, and industry. She is an Associate Editor for IEEE Transactions on Green Communications and Networking, IEEE Transactions on Machine Learning in Communications and Networking, IEEE Networking Letters,

IEEE Transactions on Network Science and Engineering, IEEE IT Professional, and IEEE Vehicular Technology Magazine.

14:00 - 15:00

Keynote Speech 6

Beyond Borders: The Role of Space-Air-Ground Integration in 6G Communication Networks

Session Chair: Zhaolong Ning

Distinguished keynote speaker: Chengchao Liang, Chongqing University of Posts and Telecommunications, China

Abstract: Abstract: The integration of space, air, and ground is a central characteristic of the 6G network. This report provides a succinct overview of the space-air-ground integrated information network, considering aspects of system structure, protocols, networks, services, and end-user devices.
We begin by examining the development trajectory and fundamental framework of the integrated network, outlining how the amalgamation of terrestrial and aerial networks can achieve comprehensive three-dimensional global coverage. This network meets the pervasive coverage demands for all terrains and airspaces and facilitates on-demand connectivity for users at all times and locations. The report then delves into the primary technologies enabling the deep integration of space-based, air-based networks and ground mobile communication networks. Topics include multi-access integration for the 6G space-air-ground network and methods for delivering faster speeds, superior Quality of Service (QoS), and enhanced reliability via satellites. This ensures users receive reliable, uninterrupted communication services.

Bio

Prof. Chengchao Liang received a PhD. in Electrical and Computer Engineering from Carleton University, Canada in 2017 awarded the Senate Medal. He is currently a Professor with the School of Communication and Information Engineering and the Vice Dean of the Advanced Science Research Institution, Chongqing University of Posts and Telecommunications, Chongqing, China. Prior to this, He was a cross-appointed Postdoctoral Fellow in the Department of Systems and Computer Engineering, Carleton University as well as Huawei Ottawa Research & Development Centre from 2017 to 2019. He is in the Editorial Boards of EURASIP Journal on Wireless Communications and Networking, Transactions on Emerging Telecommunications Technologies, and Computer Communications. He has served as the reviewer and the TPC member for many IEEE journals and conferences. His research interests include wireless communications, satellite networks, Internet protocols and optimization theory.

15:00 - 16:50

Informatics 2

Session Chair: Di Wang

Out-Of-Distribution Detection with Confidence Deep Reinforcement Learning
Di Wang (University of Illinois at Chicago, USA)

Blockchain and AI-Based Engine Fault Detection Scheme for Autonomous Vehicles
Yogi Patel and Shivang Patel (Nirma University, India); Rajesh Gupta (Institute of Technology, Nirma University, India); Mohammad S. Obaidat (University of Jordan, USA); Riya Kakkar and Nilesh Kumar Jadav (Institute of Technology, Nirma University, India); Sudeep Tanwar (Institute of Technology Nirma University Ahmedabad Gujarat, India)

A Graph-Based Network with Attention for Stock Price Prediction
Fu Haiwei (China)

Platform Construction to Protect Portraits of Others
Hui-Jun Cheng (Minth University of Science and Technology, Taiwan); Sheng-Fu Zeng (Chang Gung University, Taiwan); Chun-Yuan Lin (Asia University, Taiwan)

Blockchain-Based Energy Trading Scheme for EVs Coordination: A Smart Contract Approach
Sachi Chaudhary (Nirma University, India); Riya Kakkar (Institute of Technology, Nirma University, India); Mohammad S. Obaidat (University of Jordan, USA); Rajesh Gupta (Institute of Technology, Nirma University, India); Sudeep Tanwar (Institute of Technology Nirma University Ahmedabad Gujarat, India); Balqies Sadoun (Al-Balqa' Applied University, Jordan)

16:50 - 17:20

Break

17:20 - 18:50

Networking

Session Chair: Petros Nicopolitidis

Research on Routing Algorithm Based on Low Orbit Satellite Link Handover
Jiafeng Xu and Tao Zhang (Beihang University, China)

Efficient ISM Band Rectenna for RF Energy Harvesting in IoT Healthcare Devices
Yosra Bouchoucha (Ecole Nationale d'Ingénieurs de Tunis, Tunisia)

Developing Energy Autonomous and Cable-Less Multi-Gateway LoRa Networks
Anastasios Valkanis, Georgia Beletsioti, Konstantinos F Kantelis, Petros Nicopolitidis, Georgios Papadimitriou (Aristotle University, Greece); Malamati Louta (University of Western Macedonia, Greece)

Enhancing Secrecy in UAV RSMA Networks: Deep Unfolding Meets Deep Reinforcement Learning
Abuzar Babikir Mohammad Adam (Chongqing University of Posts and Telecommunications & School of Communications and Information Engineering, China); Mohammed A. M. Elhassan (Zhejiang Normal University, China)

18:50 - 20:20

Computing

Session Chair: Helen Karatza

Optimizing Mobile GPU Usage in Game Workloads Through Advanced Filtering Techniques
Jieui Kang and Jaehyeong Sim (Ewha Womans University, Korea (South)); Hyokyung Bahn (Ewha University, Korea (South))

Adaptive Swapping for Variable Workloads in Real-Time Task Scheduling
Sunhwa A. Nam and Hyokyung Bahn (Ewha University, Korea (South))

Deep Reinforcement Learning Based Joint Optimization for Energy-Efficient ITE and Cooling Units in Data Centers
Lina Yang (Xian Jiaotong University, China); Peng Zhao (Xi'an Jiaotong University, China); Yong Zhang (Xian Jiaotong University, China)

Scheduling Different Types of Linear Workflows with Partial Computations in a Distributed System
Helen Karatza (Aristotle University of Thessaloniki, Greece)

FRIDAY, OCTOBER 20

Daily Program Chair: Weijing Qi

13:00 - 15:15

Cybersecurity

Session Chair: Zhaolong Ning

Outlier-Based Anomaly Detection in Firewall Logs

Xiu-Ru Liang (Acer Cyber Security Inc, Taiwan); Huei-Tang Li, Chiung-Ying Huang and Wei-An Chen (Acer Cyber Security Inc., Taiwan); Yi-Feng Chen, Zhi-Jia Gao, Meng-Wei Sun and Hao-Cheng Chia (Acer Cyber Security Inc, Taiwan)

A Robust Remote Client Password Authentication Technique for Smart Cities E-Governance Applications

Chandrashekhar Meshram (Chhindwara University, India); Deepak Kartikey (S. S. P. Govt. College, Waraseoni, Balaghat, M. P., India); Kuei-Fang Hsiao (University of Texas - Permian Basin, USA); Agbotiname Lucky Imoize (University of Lagos, Nigeria & Ruhr University, Bochum, Germany); Sharad Kumar Barve (Pandit S. N. Shukla University Shahdol, Shahdol, Madhya Pradesh, India)

SLA-SCA: Secure and Lightweight Authentication and Key Agreement Mechanism for Smart City Applications

Bhairvi Pant (Graphic Era Deemed to Be University, Dehradun, India); Shreya Singh (Graphic Era Deemed to Be University, Dehradun, India); Mohammad Wazid (Graphic Era Deemed to be University, India); Mudita Pant (Graphic Era Deemed to Be University, Dehradun, India); Ashok Kumar Das (International Institute of Information Technology, Hyderabad, India); Kuei-Fang Hsiao (University of Texas - Permian Basin, USA)

Design of a Secure Machine Learning-Based Malware Detection and Analysis Scheme

Pankaj Kumar (Graphic Era Deemed to Be University Dehradun 248 002 India, India); Piyush Pandey and Mohammad Wazid (Graphic Era Deemed to be University, India); Ashok Kumar Das (International Institute of Information Technology, Hyderabad, India); Devesh Singh (Graphic Era University, India)

Cryptanalysis and Improvement of a Blockchain Based Lightweight Authentication and Key Agreement Scheme for Internet of Vehicles

Mohammad Abdussami (IIIT Naya Raipur, India); Sanjeev Kumar Dwivedi (VIT-AP University, India); Mohammad S. Obaidat (University of Jordan, USA); Ruhul Amin (IIIT Naya Raipur, India); Satyanarayana Vollala (DR SPM IIIT Naya Raipur, India); Balqies Sadoun (Al-Balqa' Applied University, Jordan)

MalwareCLIP: Towards a Scalable and Explainable Image-Based Malware Classification

Yi Xiang Marcus Tan (Ensign InfoSecurity, Singapore); Ting Yew Koh (Ensign InfoSecurity (Singapore) Pte Ltd, Singapore); Joon Sern Lee (Ensign Infosecurity, Singapore)

15:15- 16:00

Closing Session