

IEEE

CCCI
2025

**2025 IEEE International Conference on
Communications, Computing, Cybersecurity
and Informatics, CCCI 2025**

**Hangzhou, China
October 15-17, 2025**

All Times are based on Beijing, China Local Time

Technical Sponsors:





CCCI 2025 General Chairs' Message

CCCI 2025 GENERAL CHAIRS' MESSAGE

Welcome to the 2025 IEEE International Conference on Communications, Computing, Cybersecurity, and Informatics (CCCI 2025), which is being held on an annual basis.

The conference is held in the beautiful city of Hangzhou, China.

IEEE CCCI 2025 offers a unique forum for researchers, practitioners, and innovators 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 2025 technical program lasts for three 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 47 %. 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 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.

Special thanks go to the Publication Chair, Assistant General Chair, Prof. Yu Guo for his outstanding work and dedication. Thanks also to the Registration Chair and Assistant Registration Chair for their great work. Thanks to our dedicated Webmaster, Prof. Antonio Bueno, who has done a great job. Special thanks go to the international publicity committee members and international liaisons for their excellent efforts.

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 for the support of the leadership, faculty, and staff of Beihang University and its Hangzhou International Innovation Institute, located in Hangzhou, for their great efforts, which helped us to have a very successful event.

Finally, on behalf of the 2025 IEEE International Conference on Communications, Computing, Cybersecurity and Informatics (CCCI 2025), we invite all of you to enjoy the program and your stay in gorgeous City of Hangzhou one of the famous centers for culture, economics, education, research, development, science and technology, innovation, entrepreneurship, business, tourism, art, and culture.



Prof. Mohammad S. Obaidat, General Chair, Life Fellow of IEEE, Fellow of AAIA, Fellow of FTRA, Fellow of AIIA, and Fellow of SCS and 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, Ranked recently by ScholarGPS as the top Lifetime scholar in the World in Telecommunications Systems Management and the top scholar in Telecommunication in the World in prior 5 Years, World's Top Career-long top 2% Scientists as per Stanford University/Elsevier recent list.

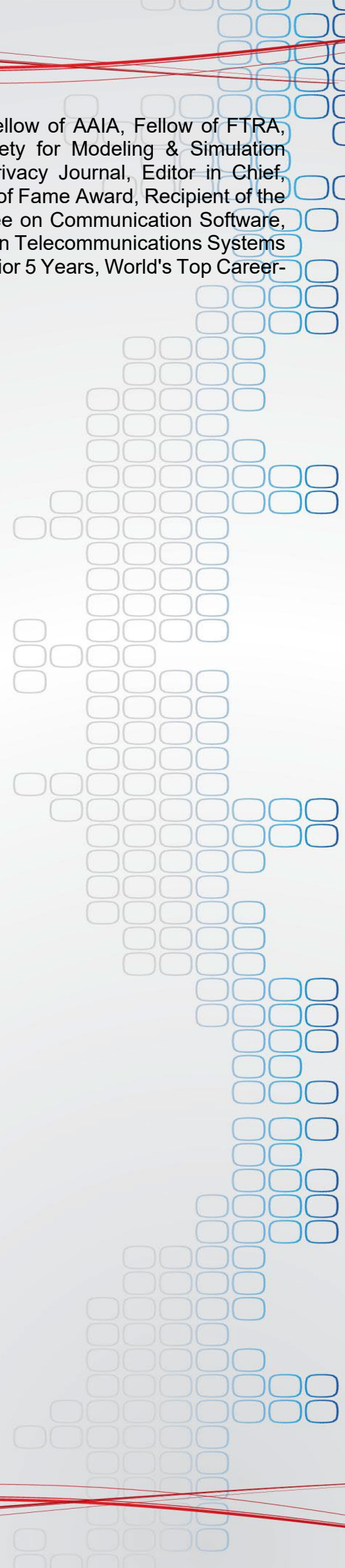
Lin Zhang, Senior Member of IEEE, Fellow of SCS
General Chair

Petros Nicopolitidis
Senior Program Chair
Senior Member of IEEE

Yu Guo
Publication Chair, Registration Chair and Assistant General Chair
Member of IEEE

Xinyu Zhang
Publication Co-Chair

Antonio Bueno
Web Master
Member of IEEE





**Prof. Mohammad. S.
Obaidat**



Prof. Lin Zhang



**Prof. Petros
Nicopolitidis**



Prof. Yu Guo



Prof. Xinyu Zhang



Prof. Lei Wang



Prof. Yuanjun Laili



Prof. Imad Mahgoub



Prof. Ruhul Amin



Prof. Antonio Bueno

Committees

Organizing Committee

General Chairs

Mohammad S. Obaidat, Life Fellow of IEEE, Fellow of AAIA, Fellow of FTRA, Fellow of AIIA, and Fellow of SCS, and Past President of the Society for Modeling & Simulation International (SCS)

Lin Zhang, Fellow of SCS, Fellow of ASIASIM, Fellow of CSF, President of Asia Simulation Federation (ASIASIM), Past President of SCS, Beihang University, China

Assistant General Chair, Publication Chair

Yu Guo, University of Science and Technology Beijing, China

Senior Program Chair

Petros Nicopolitidis, Aristotle University, Greece

Program Chairs

Lei Wang, Beijing Information Science and Technology
Yuanjun Laili, Beihang Univ., China
Imad Mahgoub, Florida Atlantic Univ., USA
Ruhul Amin, DSPM IIIT Naya Raipur, India

Publication Co-Chair

Xinyu (Amy) Zhang, Northwestern Polytechnic Univ., China

Assistant Publication Chair

Jing Zhang, Beijing University of Posts and Telecommunications, China

Publicity Committee

Chun Zhao, Beijing Information Science and Technology Univ., China
Fei Ye, Beijing Univ. of Chemical Technology, China
Yong Cui, Beihang Univ., China
Zhen Chen, Beihang Univ., China
Chao Chen, Chongqing Univ., China
Liangtian Wan, Dalian Univ. of Technology, China
Xiangjie Kong, Zhejiang Univ. of Technology, China
Lu Sun, Dalian Maritime Univ., China
Nitin Gupta, National Institute of Technology, Hamirpur, India
Eirini Eleni Tsiropoulou, Arizona State Univ., USA
Seungmin (Charlie) Rho, Sungkyul Univ., Korea
Pankaj Pal, Univ. of Missouri Columbia, USA

Local Arrangement Committee

Kunyu Wang, Beihang Univ., China
Jianwei Sun, Beihang Univ., China
Han Lu, Beihang Univ., China
Pengfei Gu, Beihang Univ., China
Ruiping Wang, Beihang Univ., China

International Liaisons

Balqies Sadoun, Al-Balqa' Applied Univ., Jordan
Peiran Dong, Hong Kong Polytechnic Univ., China
Yuxuan Yang, Sydney Univ., Australia
Handi Chen, Hong Kong Univ., China
Ning Wang, Rowan Univ., USA
Haozhe Wang, Univ. of Exeter, UK
Zheng Pan, Univ. of Canterbury, NZ
Chenxi Qiu, Univ. of North Texas, USA

Webmaster

Antonio Bueno, University of Girona, Spain

Steering Committee

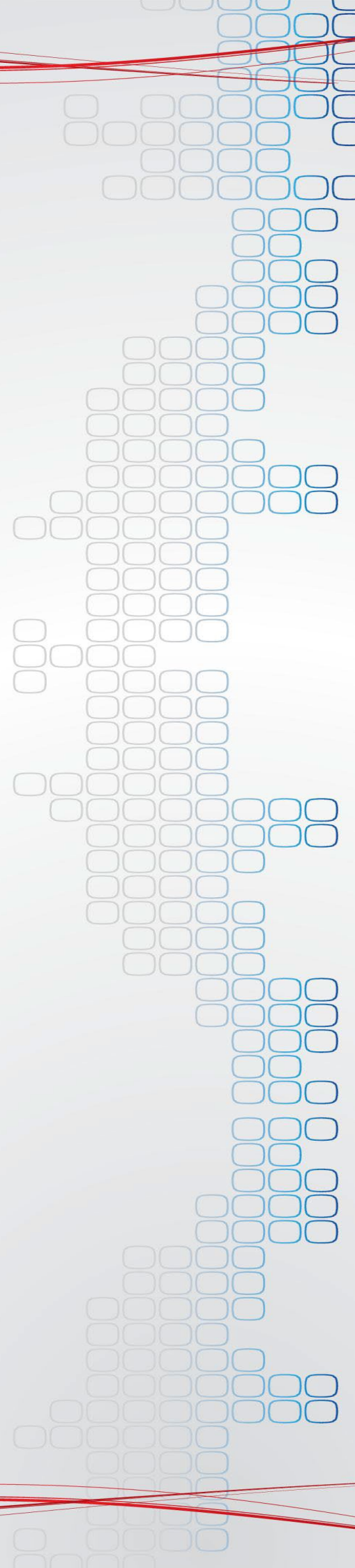
Pascal Lorenz, Univ. of Haute Alsace, France
Imad Mahgoub, Florida Atlantic University USA
Mario Marchese, Univ. of Genoa, Italy
Mohammad S. Obaidat, University of Jordan, Jordan
Joel Rodrigues, Federal Univ. of Piaui, Brazil
George A. Tsihrintzis, Univ. of Piraeus, Greece
Laurence T. Yang, St. Francis Xavier Univ., Canada
Zhaolong Ning, Chongqing Univ. of Posts and Telecommunications, China
Albert Zomaya, Univ. of Sydney, Australia

Technical Program Committee

Ruhul Amin, IIIT Naya Raipur
Hamid R Arabnia, University of Georgia
Luca Caviglione, National Research Council (CNR)
Franco R. Davoli, University of Genoa
Stefano Giordano, University of Pisa
Fabrizio Granelli, University of Trento
Yu Guo, University of Science and Technology Beijing
Helen Karatza, Aristotle University of Thessaloniki
Georgios Keramidas, Aristotle University of Thessaloniki
Abdelmajid Khelil, Landshut University of Applied Sciences
Hyunbum Kim, Incheon National University
Stelios Krinidis, Democritus University of Thrace
Pankaj Kumar, Central University of Himachal Pradesh
Aparna Kumari, Nirma University
Pascal Lorenz, University of Haute Alsace
Imad Mahgoub, Florida Atlantic University
Farid Nait-Abdesselam, Université Paris Cité
Zhaolong Ning, Chongqing University of Posts and Telecommunications
Jun Peng, UTRGV - Edinburg, TX
Kunyu Wang, Beihang University
Angel-Antonio San-Blas, University of Elche
Georgios L. Stavrinos, KIOS Research and Innovation Center of Excellence, University of Cyprus
Tala Talaei Khoei, Northeastern University
Eleftherios Tiakas, International Hellenic University



George Tsihrintzis, University of Piraeus
Eirini Eleni Tsiropoulou, Arizona State University
Anastasios Valkanis, Aristotle University of Thessaloniki
Gang Wang, MaxLinear Inc.
Cong Wu, The University of Hong Kong
Cong Wu, Nanyang Technological University
Sherali Zeadally, University of Kentucky
Xinyu Zhang, Northwestern Polytechnical University



Program at a Glance

All Times Listed here are Based on China Local Time

Wednesday, October 15, 2025		Thursday, October 16, 2025		Friday, October 17, 2025	
9.30-9.45	Opening session	9.30-10.30	Keynote Speech 6	9.00-10.30	Cybersecurity 2
9.45-10.45	Keynote Speech 1	10.30-11.30	Keynote Speech 7	10.30-11.00	Closing Session
10.45-11.00	Coffee Break	11.30-11.45	Coffee Break		
11.00-12.00	Keynote Speech 2	11.45-13.15	Machine Learning 1		
12.00-13.00	Keynote Speech 3	13.15-14.15	Lunch		
13.00-14.00	Lunch	14.15-15.45	Machine Learning 2		
14.00-15.00	Keynote Speech 4	15.45-17.15	Networking		
15.00-15.15	Coffee Break	17.15-17.30	Coffee Break		
15.15-16.15	Keynote Speech 5	17.30-19.00	Cybersecurity 1		
		20:00	Conference Banquet		

Schedule

WEDNESDAY, OCTOBER 15

Daily Program Chair: Yiran Tao

9:30 - 9:45

Opening Session

9:45 - 10:45

Keynote Speech 1

Title: Pattern-based process modelling and optimization

Session Chair: Han Lu

Distinguished Keynote speaker: Xiaoli Luan



Abstract: Process variables can only reflect operational behavior in a distributed and partial manner, while the overall status of the process runs according to a latent pattern, which can statistically extract the holistic information contained a set of process variables. To this end, a new framework for pattern-based process modelling and optimization is proposed. Under the geometric projection method, a dynamic-controlled principal component analysis is designed for pattern modelling, of which the state of the art lies in explicitly quantifying the dynamic causality from control inputs and pattern for the first time. To further reveal the process uncertainties, a probabilistic dynamic-controlled pattern modelling method is proposed under the probabilistic generation, where the pattern dynamic is characterized by an autoregressive with extra inputs structure for Bayesian inference. Specially, the

algorithms for expectation maximization, forward filtering and backward smoothing are designed for model learning. After pattern modelling, a dynamic reference programming (DRP)-based model predictive control (MPC) is proposed for optimal pattern tracking. The DRP can overcome the disadvantage of traditional tracking MPC in that parameter settings are closely dependent on setpoints, and effectively enlarge the feasible set of optimization problem.

Bio: Xiaoli Luan received the B.Sc. degree in industrial automation and the M.Sc. and Ph.D. degrees in control theory and control engineering from Jiangnan University, Wuxi, China, in 2002, 2006, and 2010, respectively. She is currently a Professor with the Institute of Automation, Jiangnan University. She was a Visiting Professor with the University of Alberta, Edmonton, AB, Canada, in 2016. She hosted and participated several research programs funded by the National Natural Science Foundation. Her research interests include robust control and optimization of complex industrial process. She has authored or coauthored more than 100 articles in professional journals, conference proceedings, and technical reports in these related areas. Prof. Luan has served as a reviewer for a number of international journals.

10:45 - 11:00

Coffee Break

Keynote Speech 2

Title: Trustworthiness and Deception in Generative AI and Cybersecurity

Session Chair: Hongbo Cheng

Distinguished Keynote speaker: Esma Aïmeur



Abstract: Generative Artificial Intelligence (GAI) is evolving rapidly and becoming a permanent fixture in our society. The landscape of cybersecurity and data privacy has been significantly transformed. This talk examines the multifaceted challenges and opportunities presented by these technological phenomena. It explores how Generative AI offers innovative tools for enhancing cybersecurity measures but also leads to new malicious threats, including prompt injection, reverse psychology, or even deceptive chatbots. Moreover, the proliferation of fake news, deepfakes, and misleading content across social media platforms is a growing problem because generative models can perpetuate stereotypes, leak private information, and produce deceptive outputs.

The era of generative AI makes robust cybersecurity measures, privacy protection, and ethical considerations more critical than ever. Innovative solutions and technologies will continue to be needed to increase awareness and education, and achieve faster legislation on Artificial Intelligence.

Bio: Esma Aïmeur is a Professor in the Department of Computer Science at the University of Montreal and the Director of the *Artificial Intelligence and Cybersecurity* Laboratory. She obtained her Ph.D. in computer science (Artificial Intelligence) from the University of Paris 6 (France).

She works on privacy and usable cybersecurity, developing and applying artificial intelligence techniques to manage personal data in e-learning, finance, and medicine. Her most recent research focuses on cybersecurity awareness, user-oriented attack detection, generative AI, deceptive AI, fake news, disinformation, ethics of AI, social networks, recommender systems, and privacy preservation.

For 10 years, she directed a master's program in electronic commerce, a joint venture between HEC Montreal, the Faculty of Law, and the Department of Computer Science. She was also appointed a member of the University of Montreal's Data Protection Advisory Committee. Her responsibilities include improving policies and decision-making in cyber education by providing best practices for protecting personal data.

In 2018, she was among the experts consulted by the *Montreal Declaration of Responsible Artificial Intelligence* development committee. In 2019, she represented the Natural Sciences and Engineering Research Council of Canada (NSERC) on the "Canada-UK Artificial Intelligence Initiative: Building Competitive and Resilient Economies and Societies through Responsible AI" project.

She was the PC co-chair of FPS, the *14th International Symposium on Foundations & Practice of Security*, Paris, France, 2021, and Guest Editor of the special issue "Understanding and Mitigating Online Deception", *Frontiers in Artificial Intelligence, AI for Human Learning and Behaviour Change* 2021. She was also PC chair of the track "Toward Adaptive Systems that Care: Privacy, Fairness and Transparency" of the *27th International Conference on User Modelling, Adaptation, and Personalization (ACM UMAP 2021)*, Cyprus, 2021.

Since 2021, she has been chairing the annual "*IJCAI workshop on Adverse Impacts and Collateral Effects of Artificial Intelligence Technologies*" (AlofAI). In 2022, she participated in the University of Montreal's MOOC (Massive Open Online Course) on Artificial Intelligence with three capsules (*Learning bias, anonymity, and ethics of artificial intelligence*). Finally, she has been a member of the program committee of more than 400 international conferences.

For the second time, she was an honorary committee member and keynote speaker for WAICF, the World AI Cannes Festival, held in February 2025.

She is a member of the scientific orientation committee of the IMC², the *Multidisciplinary Institute in Cybersecurity and Cyber Resilience* in Canada.

She is an associate editor for *AI-Open, Computing and Artificial Intelligence*, and for the journals *Computer and Information Security* and *Artificial Intelligence for Human Learning and Behaviour Change*. She is also a member of the *International Observatory on the Societal Impacts of Artificial Intelligence and Digital Society (OBVIA)*.

12:00 - 13:00

Keynote Speech 3

Title: Blockchain Technology and Its Usages in IoT-Enabled Internet of Drones and AI/ML Security

Session Chair: Kunyu Wang

Distinguished Keynote speaker: Ashok Kumar Das



Abstract: The Internet of Drones (IoD) is widely used in a wide range of applications from military to civilian applications from the past years. However, during communication either with the control room/ground station server(s) or moving access points in the sky, security and privacy is one the crucial issues which needs to be tackled efficiently. In this direction, blockchain technology can be one of the viable solutions due to the immutability and traceability of various transactions and decentralized nature. In the first part, I provide in-depth challenges and issues of applicability of blockchain in Internet of Things (IoT)-enabled IoD environment. A blockchain based secure framework will be discussed for data management among IoD communication entities.

Data poisoning attacks are very serious concerns because they may play a significant factor for businesses and organizations for both financial terms and damaging their reputations, when the big data analytics on the analyzed data is itself corrupted. To mitigate this issue, in the second part, a blockchain-based Artificial Intelligence(AI)/Machine Learning(ML)-enabled Big data analytics mechanism will be discussed for IoT environment. The comprehensive experimental results have been provided under two circumstances: (1) performance of the ML model under data poisoning attacks and (2) performance of the ML model without data poisoning attacks.

Bio: Ashok Kumar Das (Senior Member, IEEE) received a Ph.D. degree in computer science and engineering, an M.Tech. degree in computer science and data processing, and an M.Sc. degree in mathematics from IIT Kharagpur, India. He is currently a full Professor with the Center for Security, Theory and Algorithmic Research, IIIT, Hyderabad, India. He is an adjunct professor at Korea University, South Korea. He was also a visiting research professor with the Virginia Modeling, Analysis and Simulation Center, Old Dominion University, Suffolk, VA 23435, USA. His research interests include cryptography, system and network security, blockchain, security in the Internet of Things (IoT), Internet of Vehicles (IoV), Internet of Drones (IoD), smart grids, smart city, cloud/fog computing, intrusion detection, AI/ML security, and post-quantum cryptography. He has authored over 480 papers in international journals and conferences in the above areas, including over 410 reputed journal papers. He was a recipient of the Institute Silver Medal from IIT Kharagpur. He was listed in the Web of Science (Clarivate™) Highly Cited Researcher in recognition of his exceptional research performance. He is/was on the editorial board of IEEE Transactions on Information Forensics and Security, IEEE Systems Journal, Journal of Network and Computer Applications (Elsevier), Computer Communications (Elsevier), Journal of Cloud Computing (Springer), Cyber Security and Applications (Elsevier), Alexandria Engineering Journal (Elsevier), IET Communications, KSII Transactions on Internet and Information

Systems, and International Journal of Communication Systems (Wiley). He also served as one of the Technical Program Committee Chairs of the first International Congress on Blockchain and Applications (BLOCKCHAIN'19), Avila, Spain, June 2019, International Conference on Applied Soft Computing and Communication Networks (ACN'20), October 2020, Chennai, India, second International Congress on Blockchain and Applications (BLOCKCHAIN'20), L'Aquila, Italy, October 2020, and International Conference on Applied Soft Computing and Communication Networks (ACN'23), December 2023, Bangalore, India. His Google Scholar h-index is 93 and i10-index is 313 with over 26,300 citations

13:00 - 14:00

Lunch

14:00 - 15:00

Keynote Speech 4

Title: Inter-networking Intelligent Materials for Software-defined Physics

Session Chair: Pengfei Gu

Distinguished Keynote speaker: Christos Liaskos



Abstract: This talk will study the use of intelligent materials as enforcers of software-defined physics. Intelligent materials can tune their physical properties (electromagnetic, acoustic, mechanical and thermal) by receiving software commands. When incorporated merging computing, communication, software development and physics in the process. The talk begins by surveying existing artificial materials in the electromagnetic domain, outlining their operating principles, as well as the necessary hardware, software and networking abstractions for controlling their macroscopic physical properties in real time. Then, the discussion extends the same principles to artificial materials of any physical domain, enabling the Internet of Materials (IoM). Finally, we survey promising applications of the IoM across multiple sectors, highlighting their technical challenges and gain potential.

Bio: Christos Liaskos received the Diploma in Electrical Engineering from the Aristotle University of Thessaloniki (AUTH), Greece in 2004, the MSc degree in Medical Informatics in 2008 from the Medical School, AUTH and the PhD degree in Computer Networking from the Department of Informatics, AUTH in 2014. He is currently an Assistant Professor with the University of Ioannina, Ioannina, Greece, and an Affiliated Researcher with the Foundation for Research and Technology Hellas (FORTH), Heraklion, Greece. He was the recipient of Elsevier Young Researcher award 2020 in recognition of his work on software-controlled materials, including foundational studies on software-defined metasurfaces. He serves as an Editor for IEEE Transactions on Communications and the ITU Journal of Future and Emerging Technologies. His research interests include metamaterials, computer networks, traffic engineering, and novel schemes for resource allocation in the context of software-defined physics.

15:00 - 15:15

Coffee Break

Keynote Speech 5

Title: State Representation-Driven Reinforcement Learning for Dynamic Scheduling in Flexible Manufacturing Systems

Session Chair: Hongbo Cheng

Distinguished Keynote speaker: Fangyu Li



Abstract: Traditional rigid production models fall short in meeting the demands of modern large-scale manufacturing, which is increasingly defined by high product variety, small batch sizes, and rapid delivery expectations. Conventional flexible scheduling methods—typically based on heuristics or rule-based strategies—perform adequately only in limited-scale settings and lack the adaptability required for more complex environments. To address these limitations, we propose a novel state representation framework that effectively captures the dynamic, global state of flexible manufacturing systems. By reformulating the scheduling task as an optimization problem over evolving system information, we quantify uncertainties and interdependent resource constraints within the environment. This representation enables the development of a reinforcement learning algorithm that operates without reliance on fixed rules or oversimplified assumptions. The proposed method supports efficient, multi-objective, and constraint-aware scheduling in dynamic, large-scale settings, offering a scalable and intelligent solution for flexible manufacturing systems.

Bio: Dr. Fangyu Li is a professor with Beijing University of Technology. He has been listed among Stanford University's World's Top 2% Scientists and ScholarGPS' Top 0.5% Global Scholars. His research interests include distributed system analysis, dynamic control, and optimal scheduling. His research achievements include over 100 journal papers published in *IEEE Transactions* and renowned international journals, along with more than 100 international conference papers. His work has received over 4,400 citations with an h-index of 38. Prof. Li actively contributes to the academic community as an Editorial Board Member and Associate Editor for journals such as *IEEE Transactions on Industrial Cyber Physical Systems*. His accolades include the SEG J. Clarence Karcher Award, IEEE Mark Weiser Best Paper Award, Geneva International Invention Award, Scientific and Technological Progress Award from the Chinese Association of Automation, and so on.

THURSDAY, OCTOBER 16

Daily Program Chair: Jiangchuan Hu

9:30 - 10:30

Keynote Speech 6

Title: Privacy-Preserving Collaborative Intelligence in Vehicular Networks: Towards Trustworthy AI
Session Chair: Muhammad Umar Farooq Qaisar

Distinguished Keynote speaker: Jingxiao Ma



Abstract: As AI applications increasingly permeate critical infrastructures such as transportation, healthcare, and industrial systems, safeguarding data privacy while ensuring algorithmic reliability becomes a central concern. This keynote investigates the evolving landscape of privacy-preserving machine learning and federated intelligence, focusing on frameworks that support secure, decentralized computation across heterogeneous and resource-constrained networks.

We will discuss the system-level design of privacy-enhancing technologies (PETs), including secret sharing, secure aggregation, and explainable federated learning. Emphasis will be placed on practical deployment challenges such as model drift, communication bottlenecks, and privacy-policy compliance, alongside strategies to address them within real-world constraints.

To ground the discussion, several representative application scenarios will be examined — edge intelligence and distributed sensing in vehicular networks. These case studies will help clarify trade-offs in scalability, accuracy, and security, offering insights into how privacy-aware mechanisms can be pragmatically integrated into intelligent systems operating in open and partially adversarial environments.

Bio: Dr. Jingxiao Ma is an Assistant Professor at the School of Electronic and Information Engineering, Tongji University, China. His research interests include vehicular networks, federated learning, privacy-preserving computation, and intelligent transportation systems. He has published more than 20 academic papers, including top-tier journals and conferences in wireless communications and security. He also serves as a reviewer or editorial board member for several international journals. Dr. Ma has led or participated in multiple national and municipal research projects focused on secure data sharing and intelligent mobility.

10:30 - 11:30

Keynote Speech 2

Title: Knowledge-driven Forward and Backward Inference for Discrete Manufacturing

Session Chair: Ruiping Wang

Distinguished Keynote speaker: Yuanjun Laili



Abstract: Discrete Manufacturing for complex product involves multiple stages with multi-discipline. It produces a vast amount of heterogeneous data with long-tailed distributions and sparse value. Under this scenario, cross-domain forward and backward inference is of great importance for the intelligent and autonomous manufacturing process. However, current industrial knowledge inference methods rely heavily on manual intervention, requiring human experts to parse problems and retrieve answers from knowledge bases. To overcome this drawback, this presentation summarizes two knowledge graph construction methods, proposes a knowledge graph embedding algorithm, and establishes an industrial cross-domain inference model for forward and backward inference in supply chain relationship, product composition relationship, and product machining relationship.

Bio: Yuanjun Laili is a Professor with the School of Automation Science and Electrical Engineering, Beihang University, Beijing, China, and with Zhongguancun Laboratory, Beijing, China. She received the BS, MS, and Ph.D Degree in Automatic Control from the School of Automation Science and Electrical Engineering at Beihang University, in 2009, 2012, and 2015, respectively. She is a chief scientist of the National Key R&D Program of China, a council member of ASIASIM. Her research interests include configurable intelligent optimization and complex system modeling and simulation with applications to Industrial Internet-of-Things platform. She has won the "Young Talent Lift Project" supported by China Association for Science and Technology, the "Young Simulation Scientist Award" from SCS, and the "Beijing Nova Program" supported by Beijing Natural Science Foundation.

11:30 - 11:45

Coffee Break

11:45 - 13:15

Machine Learning 1

Session Chair: Han Lu

Public Mindset Towards Bangladeshi Celebrities: a Dual-Analysis of Ensemble and Non-Ensemble Models of NLP on Facebook Comments

Sharika Jahan Aunto and Nusrat Jahan Smriti (World University of Bangladesh, Bangladesh);
Mahbuba Yesmin Turaba (C3Bit, Bangladesh & Stamford University Bangladesh, Bangladesh);
Ahmed Saif Reza (Medico Bio Limited, Bangladesh)

Crack Segmentation Framework for Underwater Dams Based on Segment Anything Model

ZiYan Zhao, Jun Li, Wentao Li and Zejian Ding (Beihang University, China); Sisi Zhu (China Yangtze Power Co., Ltd., China); Xinyu Li (Harbin Engineering University, China); Yang Liu (Beihang University, China)

FedDP: Differential Privacy-Based Federated Learning for Smart Soil Health Prediction

Somnath Bera and Tanushree Dey (Maulana Abul Kalam Azad University of Technology, India); Anwesha Mukherjee (Mahishadal Raj College, India); Debashis De (West Bengal University of Technology, India)

DS-CAE: a Dual-Stream Cross-Attentive Autoencoder for Robust and Cluster-Aware Retrieval-Augmented Generation

Soeun Choi, Yejin Lee, Juhee Kim, Minji Lee and Jaehyeong Sim (Ewha Womans University, Korea (South))

13:15 - 14:15

Lunch

14:45 - 15:45

Machine Learning 2

Session Chair: Jingxio Ma

TR-SVR: Trends and Residuals Support Vector Regression in Thermal Power Units

Pengbo Li and Kaihui Zhu (Beihang University, China); Mei Yuan (Beijing University of Aeronautics and Astronautics, China); Lei Zhu (Beihang University, China)

An IRS-Assisted Data Secrecy Strategy for Distributed Coded Computation

Chen Yu (Tongji University, China); Mohammad S. Obaidat (University of Jordan, Jordan), Jingxiao Ma and Xiaoping Xue (Tongji University, China); Qiangqiang Cai (ZTE Corporation, China)

MAGNETO: A Genetic Algorithm-Based Power-Aware Mapping Optimization Framework for Mobile NPU

Eunjin Lee, Jiho Lee, Hayoung Lim and Jaehyeong Sim (Ewha Womans University, Korea (South))

15:45 - 17:15

Networking

Session Chair: Petros Nicopolitidis

Satisfaction Driven Beam Hopping Method Based on Greedy Algorithm for LEO SatCom

JunXiang Yang (Shanghai Aerospace Electronic Technology Institute, China); Yi Wei (Zhejiang University, China); Wei Wan, Disheng An and Yuan Zeng (Shanghai Aerospace Electronic Technology Institute, China); Xi Ye (Shanghai Academy of Spaceflight Technology, China)

Distributed Routing Based on Hierarchical Framework for Satellite Networks

Wei Wan, Disheng An, Xin Cheng, JunXiang Yang, Yuan Qiu and Yuan Zeng (Shanghai Aerospace Electronic Technology Institute, China)

TUNO: a Unified Taxonomy for Multi-Level Network Optimization

Ahmed Iman Twabi, Yepeng Ding and Tohru Kondo (Hiroshima University, Japan)

Performance Comparison of One-Step and Two-Step Random Access Schemes in NB-IoT Networks

Maria Iloridou, Petros Nicopolitidis and Konstantinos F. Kantelis (Aristotle University of Thessaloniki, Greece); Georgios Papadimitriou (Aristotle University, Greece)

17:15 - 17:30

Coffee Break

17:30 - 19:00

Cybersecurity 1

Session Chair: Jingxio Ma

TinyML-Based Secure Energy Efficient Framework for CAVs Communication in 5G-Based V2X Networks
Parishi Shah (Nirma University, India); Lakshin Pathak, Dhrishita Parve, Vidhi Ruparelia and Rajesh Gupta (Nirma University, India); Sudeep Tanwar (Nirma University & Institute of Technology, India); Jitendra Bhatia (Nirma University, India); Balqies Sadoun (Al-Balqa' Applied University, Jordan)

LLM-Assisted Secure DL Framework for Threat Mitigation in 6G-Enabled V2X Edge Networks
Chinmay Trivedi (Nirma University, India); Bhavya Vora, Ansh Vachhani, Dhrishita Parve, Dev Mehta, Maurya Thakore, Rajesh Gupta and Lakshin Pathak (Nirma University, India); Sudeep Tanwar (Nirma University & Institute of Technology, India)

Large Language Model-Driven Framework for Wireless Network Security Underlying uRLLC
Hardattsinh K Mangrola, Hensi B Patel, Megh H Shah and Aparna Kumari (Nirma University, India); Mohammad S. Obaidat (University of Jordan, Jordan); Rajesh Gupta (Nirma University, India); Sudeep Tanwar (Nirma University & Institute of Technology, India); Kuei-Fang Hsiao (The University of Jordan, USA)

A Security-Enhanced Anonymous Authentication Protocol for Blockchain-Assisted Smart Grids
Vipin Kumar (National Institute of Technology Hamirpur, H.P., India); Rifaqat Ali (National Institute of Technology Hamirpur, HP, India)

20:00

Conference Banquet

FRIDAY, OCTOBER 17

Daily Program Chair: Guangzhi Zheng

9:00 - 10:30

Cybersecurity 2

Session Chair:

Navigating the Cybersecurity Landscape in Cloud Computing: Challenges, Strategies, and Future Directions

Milad Akbari (University of Genoa, Italy); Roberto Bruschi (CNIT, Italy); Alessandro Carrega (UNIGE, Italy & CNIT, Italy)

Trust-Aware Reinforcement Selection for Robust Federated Learning Under Adaptive Adversaries

Khalid Mahmood (National Yunlin University of Science and Technology, Taiwan); Mohammad Hossein Anisi and Shafiq Ahmed (University of Essex, United Kingdom (Great Britain))

SecMTL-Rail: a Multi-Task Learning Framework for Railway Security

Thabet Kacem and Kensley Benjamin (University of the District of Columbia, USA)

A Secure and Efficient Subtree-Based Authentication Scheme for Telemedicine Information Systems

Chandrashekhar Meshram (Jayawanti Haksar Government Post Graduation College, Betul, India); Mohammad S. Obaidat (University of Jordan, Jordan); Balqies Sadoun (Al-Balqa' Applied University, Jordan); Agbotiname Lucky Imoize (University of Lagos, Nigeria & Ruhr University, Bochum, Germany)

10:30- 11:00

Closing Session

