

Conference Program

Beijing, China | August 15-17, 2025

CCET 2025

*2025 IEEE the 8th International Conference on
Computer and Communication Engineering Technology*

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WELCOME MESSAGE

Welcome to attend the 2025 IEEE the 8th International Conference on Computer and Communication Engineering Technology (CCET 2025) which will be held in Beijing during August 15th to 17th, 2025.

It is a pleasure to be with you all today, and we are incredibly appreciative of the chance to gather together and share knowledge. We're all gathered here with the same goal in mind: to impart our expertise, experiences, and enthusiasm about Computer and Communication Engineering Technology.

This year, there will be 3 keynote speeches, 2 invited speeches and 7 author parallel sessions. Special thanks go to the speakers, who accepted to contribute to the Conference by sharing their expertise: Keynote Speakers are: Prof. Jiangchuan Liu, Simon Fraser University, Canada; Prof. Haijun Zhang, University of Science and Technology Beijing, China; Prof. Xiaowen Chu, The Hong Kong University of Science and Technology

(Guangzhou).

Invited Speakers are: Asst. Prof. Shaofei Sun, Beijing University of Posts and Telecommunications, China; Assoc. Prof. Azhar Imran, Beijing University of Technology, China.

Many scholars also play an important role in the successful holding of the conference, so we would like to take this opportunity to express our sincere gratitude and highest respects to them. They have worked very hard in reviewing papers and making valuable suggestions for the authors to improve their work. At the same time, we also express our sincere thanks for the understanding and support of every author.

Wishing all of you an unforgettable and perfect experience at the conference. We hope that you all find your participation fruitful and rewarding and that you may get from its new inputs for your researches and the possibility of establishing future collaborations.



CONFERENCE COMMITTEE

CCET 2025 Conference Committee

Conference Advisory Chairs

Prof. Haijun Zhang, University of Science and Technology Beijing, China

Prof. Jiangchuan Liu, Simon Fraser University, Canada

Prof. Xiaowen Chu, The Hong Kong University of Science and Technology (Guangzhou), China

Conference Chair

Prof. Li Ma, North China University of Technology, China

Conference Program Chairs

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Prof. Chun Jiang, Shanghai Jiao Tong University, China

Prof. Yuanyao Lu, North China University of Technology, China

Prof. Alexei Shishkin, Moscow State University, Russia

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Yikai Yang, Beihang University, China

Finance Chair:

Libiao Xin, Beijing Jiaotong University, China

Local Organising Chair

Prof. Yong-mei Zhang, North China University of Technology, China

Local Organising Committee

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Dr. Qingxia Li, Minzu University of China, China

Dr. Ying Guo, North China University of Technology, China

Conference Technical Committees

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ABHISHEK SHUKLA, R.D. Engineering College Technical Campus Ghaziabad, India

Akharin Khunkitti, King Mongkut's Institute of Technology Ladkrabang, Thailand

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Anand Nayyar, Duy Tan University, VietNam

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Ankan Bhattacharya, Mallabhum Institute of Technology, India

Antonio Muñoz, University of Malaga, Spain

Benchaphon Limthanmaphon, King Mongkut's University of Technology North Bangkok, Thailand

Burra Venkata Durga Kumar, Xiamen University, Malaysia

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Daniele Codetta-Raiteri, Università del Piemonte Orientale, Italy

Dariusz Jakobczak, Technical University of Koszalin, Poland

Dulani Meedeniya, University of Moratuwa, Sri Lanka

Fahimeh Farahnakian, University of Turku, Finland

Feng Li, Qinghai Normal University, China

Gabriel Gomes de Oliveira, University of Campinas (Unicamp), Brazil

Gaojin Wen, Beijing Institute of Space Mechanics and Electricity, China

Grigorios N. Beligiannis, University of Patras, Greece

Hosam El-Ocla, Lakehead University, Canada

Hui-Kai Su, National Formosa University, Taiwan, China

Jain-Shing Liu, Providence University, Taiwan, China

Janusz R. Getta, University of Wollongong, Australia

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Jorge Sequeira, Instituto Superior de Contabilidade e Administração de Lisboa (ISCAL), Portugal

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Long Cheng, North China Electric Power University, China

Luís Corujo, University of Lisbon, Portugal

Marlon A. Diloy, National University, Philippines

Miaomiao Liu, Northeast Petroleum University, China

Nuri Yilmazer, Texas A&M University-Kingsville, United States



Panagiotis Varzakas, University of Thessaly, Greece

Pascal Lorenz, University of Haute Alsace, France

Patel Meet Manojkumar, Parul Institute of Technology-Limda, Parul University, India

Paulo Batista, University of Évora, Portugal

Pavlo Maruschak, Scientific Research of Ternopil Ivan Puluj National Technical University,
UKRAINE

Radek Matušů, Tomas Bata University in Zlin, Czech Republic

Ruksar Fatima, Khaja Bandanawaz University, India

Sandipkumar R. Panchal, Knowledge Institute of Technology & Engineering, India

Seppo Sirkemaa, University of Turku, Pori Unit, Finland

Syed Farooq Ali, MS Ohio State Uni, USA

Tianbing Xia, University of Wollongong, Australia

Vu Khanh Quy, Hung Yen University of Technology and Education, Vietnam

Wudhichai Assawinchaichote, King Mongkut's University of Technology Thonburi, Thailand

Xiaomei Zhang, University of South Carolina Beaufort, U.S.A

Yang Chen, Sunlune Technology (Beijing) Co., Ltd., China

Yanjun Li, Henan University of Technology, China

Yanrong Lu, Civil Aviation University of China, China

Yoshifumi Manabe, Kogakuin University, Japan

Yufeng Chen, Hubei University of Automotive Technology, China

Yuichi Sei, The University of Electro-Communications, Japan

Yurong Pu, Xi'an University of Technology, China

Zongling Li, China Academy of Space Technology, China

CONFERENCE VENUE



北方工业大学

North China University of Technology

地址：北京市石景山区晋元庄路 5 号

Address: No. 5 Jinyuanzhuang Road, Shijingshan District Beijing, P.R. China 100144

Transportation:

1. Take Metro Line 6 to Xihuangcun Station, Exit C, and walk south for 200 meters (enter the university through the north gate, pedestrians only).
2. Take Metro Line 1 to Gucheng Station, Exit C, then transfer to Bus No. 318 and get off at North China University of Technology Station (enter the university through the south gate).
3. Take Metro Line 1 to Bajiao Amusement Park, Exit A, then transfer to Bus No. 663 and get off at North China University of Technology Station (enter the university through the south gate).
4. Take Metro Line 1 to Babaoshan Station, Exit B, then transfer to Bus No. 961 and get off at North China University of Technology Station (enter the university through the south gate).



文化会堂（励学楼一楼）

Cultural Hall (1st floor LiXue Building)

Directions to NCUT

- Beijing west railway station to NCUT

Take bus 663 from Beijing west railway station directly to North China University of Technology (get off at NCUT station)

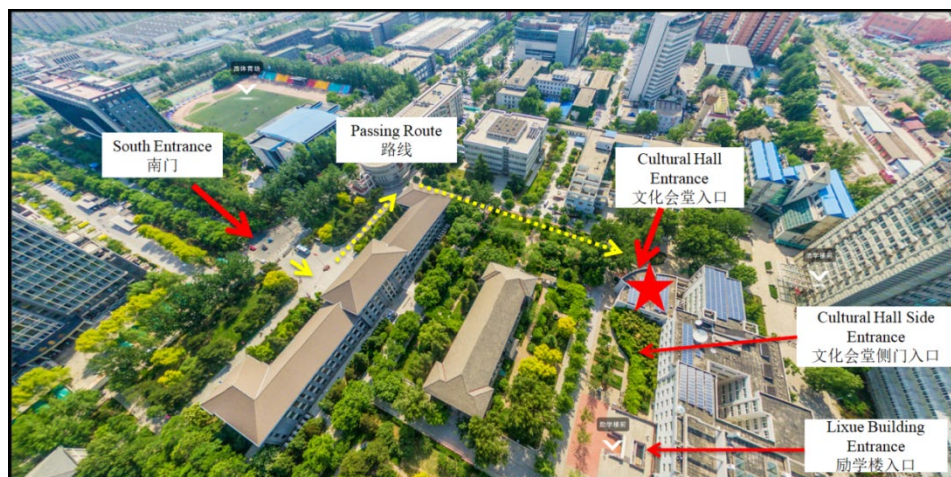
从北京西站乘坐 663 公交车可以直达北方工业大学（北方工业大学站下车）

- Daxing International Airport station to NCUT

Airport Line (Caoqiao direction, get off at Caoqiao Station) → Subway Line 10 (get off at Cishousi Station) → Subway Line 6 (Xihuangcun Station, Exit C) → Walk 600 meters to the North Gate

北京大兴国际机场线（草桥方向 草桥站下）→ 地铁 10 号线（慈寿寺站下）→ 地铁 6 号线（西黄村站 C 东南口出）→ 步行 600 米至北方工业大学北门

<https://mp.weixin.qq.com/s/uMkStZBSi1H3TUMPWc3P9w>



励学楼路线图

LOCATION MAPS

Registration & Conference Kits Collection



瀚学楼大厅 | Lobby, Hanxue Building

It is recommended to enter the school through the north gate

建议从北门入校

CONFERENCE GUIDELINE

For Onsite Presentation

Sign in

Room: Lobby, Hanxue Building
瀚学楼大厅

Time: 2025.08.15| 10:00-17:00 (GMT+8)

- STEP 1 Tell the staff your **Paper ID**.
- STEP 2 Sign your name in the attendance list and check meal information.
- STEP 3 Check your conference material, which includes conference bag, name tag, conference program.

Presentation

- The duration of a presentation slot is 15 minutes. Please target your lecture for a duration of about 12 minutes for the presentation plus about 3 minutes for questions from the audience.
- Your punctual arrival and active involvement in each session will be highly appreciated.
- Get your presentation PPT or PDF files prepared and backed up. You can use USB flash drive (memory stick), make sure you scanned viruses in your own computer. Each speaker is required to meet her / his session chair in the corresponding session rooms 10 minutes before the session starts and copy the slide file (PPT or PDF) to the computer.
- It is suggested that you email a copy of your presentation to your personal inbox as a backup. If for some reason the files can't be accessed from your flash drive, you will be able to download them to the computer from your email.
- Laptops, projector & screen, laser sticks will be provided by the conference organizer depending on the situation or conditions.

Notes and Tips

- Your paper ID will be required for the registration.
- One best oral presentation will be selected from each oral session. The Certificate for the best one will be awarded at the end of each session.
- After the session, there will be a group photo for all presenters in this session.
- Please kindly make your own arrangements for accommodations.

Security

- Please ensure that you take your belongings with you at all times when leaving a room. Do not leave bags or laptops unattended. Please note that the CCET 2025 and the onsite staff will not accept liability for any kind of damage, losses or injuries occurring to persons or personal belongings during the conference.



For Online Presentation

Presentation

- The duration of a presentation slot is 15 minutes. Please target your lecture for a duration of about 12 minutes for the presentation plus about 3 minutes for questions from the audience.

Platform

- ZOOM Meeting | 线上会议平台: ZOOM
- For Users from mainland China please download: <https://zoom.com.cn/download>
- For Other Users please download: <https://zoom.us/download>

Sign-in & Join

- STEP 1 Install the ZOOM
- STEP 2 Join the meeting using Meeting ID or through the link provided
- STEP 3 After entering the meeting, connect to PC Audio and make sure you can hear and be heard
- STEP 4 Get familiar with the following: mute/unmute, rename, chat, raise hands, and screen share, etc.

Time Zone

- Beijing Standard Time, UTC/GMT+8.
- Please make sure that the clock and the time zone on your computer are set to the correct Germany Standard Time.

Environment

- Quiet Environment & Proper lighting
- Stable Internet Connection

Voice Control

- Please keep muted when you are listening to the talks.
- Speakers can unmute microphone when it is his or her turn for presentation.

Device

- A computer with an internet connection (wired connection recommended)
- USB plug-in headset with a microphone (recommended for optimal audio quality)
- Webcam (optional): built-in or USB plug-in

Conference Recording

- The whole conference will be recorded. We appreciate your proper behavior and appearance.
- The recording will be used for the conference reports among the committee, which won't be distributed to or shared with anyone else, and it shall not be used for commercial or illegal purpose. It will only be recorded by the staff; the presenters are not allowed to record.

Naming Manner

Role	Format	Example
Keynote Speaker	Keynote-Name	Keynote-Prof. Abby
Session Chair	Session Number-SC-Name	S1-SC-Prof. Adam
Author	Session Number-Paper ID-Name	S1-ET001-Alex
Listener	Listener-Name	Listener-Aron

Online Room

Room	Zoom ID	Zoom Link
/	832 4178 0780	https://us02web.zoom.us/j/83241780780

Online Test

August 15, 2025	Zoom ID:832 4178 0780 Link: https://us02web.zoom.us/j/83241780780
14:00-17:00 (GMT+8)	Authors in Online Session

AGENDA OVERVIEW

Note:

All following time is in UTC/GMT +8 (Beijing Standard Time)

Day 1 | August 15 | Friday

Online		
Time	Activity	Room
14:00-17:00	Online Test (Online I, Online II)	Zoom ID:832 4178 0780 Zoom Link: https://us02web.zoom.us/j/83241780780

Onsite		
Time	Activity	Venue
10:00-17:00	Conference Sign-In	Lobby, Hanxue Building 瀚学楼大厅

Day 2 | August 16 | Saturday

Time	Activity	
Venue	Cultural Hall, 1 st floor, Lixue Building/文化会堂(励学楼一楼) Zoom ID:832 4178 0780	
Host: Prof. Yuanyao Lu, North China University of Technology, China		
09:00-09:10	Opening Remarks	Conference Chiar: Prof. Li Ma, North China University of Technology, China
09:10-09:50	Keynote Speech I	Prof. Jiangchuan Liu, Simon Fraser University, Canada

	Speech: Online Multimedia Data Analytics in Challenging Environments: Experiences and Solutions		
09:50-10:30	Keynote Speech II	Prof. Haijun Zhang, University of Science and Technology Beijing, China	
	Speech: Energy Efficient 6G Resource Optimization and Management		
10:30-11:00	Coffee Break & Group Photo		
Host: Prof. Jianyong Duan, North China University of Technology, China			
11:00-11:40	Keynote Speech III	Prof. Xiaowen Chu, The Hong Kong University of Science and Technology (Guangzhou)	
	Speech: Accelerating Large Mixture-of-Experts Models via Pipelining and Scheduling		
11:40-12:10	Invited Speech I	Asst. Prof. Shaofei Sun, Beijing University of Posts and Telecommunications, China	
	Speech: Unsupervised Hierarchical Side-Channel Analysis on ML-KEM Cryptographic Algorithms		
12:10-13:30	Lunch Time (Shangde Restaurant, 1 st floor, National Education Center) 国教中心, 1 楼尚德餐厅		
13:30-15:15	Onsite Session I	Digital image and signal analysis methods	Classroom 102, Hanxue Building 瀚学楼 102 教室
	Onsite Session II	Intelligent communication network collaborative certification and optimization	Classroom 103, Hanxue Building 瀚学楼 103 教室
15:15-15:30	Coffee Break		
15:30-17:30	Onsite Session III	Data-driven information system certification and innovation management	Classroom 102, Hanxue Building 瀚学楼 102 教室
	Onsite Session IV	AI-based information extraction and data computational analysis	Classroom 103, Hanxue Building 瀚学楼 103 教室



09:00-18:00	Poster Session	Image Models and Computational Analysis
18:00-20:00	Dinner (Xinrongju Restaurant) 欣荣居餐厅	

Day 3 | August 17 | Sunday

Time	Activity	
Zoom ID:832 4178 0780 Zoom Link: https://us02web.zoom.us/j/83241780780		
09:30-12:00	Online Session I	Blockchain-based Digital Communication Systems and Information Security
12:00-14:00	Lunch	
14:00-16:45	Online Session II	Next-generation Artificial Intelligence Theory and Applications



KEYNOTE SPEECHES

Keynote Speaker I



Prof. Jiangchuan Liu

(CAE Fellow, IEEE Fellow, and an NSERC E.W.R. Steacie Memorial Fellow)

(加拿大工程院院士; IEEE 会士; E.W.R.Steacie 纪念奖获得者)

Simon Fraser University, Canada

加拿大西蒙弗雷泽大学

9:10-9:50(GMT+8) | August 16, 2025 |

Cultural Hall, 1st floor, Lixue Building/文化会堂(励学楼一楼)

Zoom ID:832 4178 0780

Zoom ID:832 4178 0780 | Zoom Link: <https://us02web.zoom.us/j/83241780780>

Biography: Jiangchuan Liu is a Full Professor in the School of Computing Science, Simon Fraser University, British Columbia, Canada. He is a Fellow of The Canadian Academy of Engineering, an IEEE Fellow, and an NSERC E.W.R. Steacie Memorial Fellow. In the past he worked as an Assistant Professor at The Chinese University of Hong Kong, a research fellow at Microsoft Research Asia, and an EMC-Endowed Visiting Chair Professor of Tsinghua University. He received the BEng degree (cum laude) from Tsinghua University, Beijing, China, in 1999, and the PhD degree from The Hong Kong University of Science and Technology in 2003, both in computer science. His research interests include multimedia systems and networks, cloud and edge computing, social networking, online gaming, and Internet of things/RFID/backscatter. He has served on the editorial boards of IEEE/ACM Transactions on Networking, IEEE Transactions on Network Sciences and Engineering, IEEE Transactions on Big Data, IEEE Transactions on Multimedia, IEEE Communications Surveys and Tutorials, and IEEE Internet of Things Journal. He is a Steering Committee member of IEEE

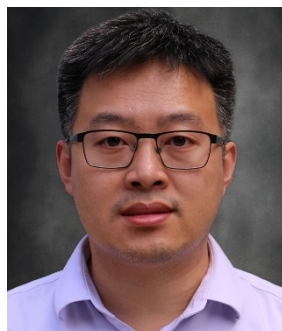
Transactions on Mobile Computing and Steering Committee Chair of IEEE/ACM IWQoS (2015-2017). He was TPC Co-Chair of IEEE INFOCOM'2021 and General Co-Chair of IEEE INFOCOM'2024.

Speech Title: Online Multimedia Data Analytics in Challenging Environments: Experiences and Solutions

Online multimedia data analytics over wide-area networks have found diverse applications, including environmental monitoring, industrial automation, and autonomous systems, to name a few. In this talk, drawing from our recent research and development experiences in challenging environments, we will discuss our work on algorithm and system design in this field, including video and sonar analytics at the edge, serverless-based pipeline optimization, and streaming analytics over space networks. We will also explore the challenges and solutions related to real-world deployment, with a focus on remote ecosystems for wild salmon conservation along the Pacific Northwest coastline.



Keynote Speaker II



Prof. Haijun Zhang

(IEEE Fellow, IET Fellow, Distinguished Lecturer of IEEE)

IEEE 会士, IET 会士, IEEE 通信学会杰出讲师

University of Science and Technology Beijing, China

北京科技大学

9:50-10:30(GMT+8) | August 16, 2025 |

Cultural Hall, 1st floor, Lixue Building/文化会堂(励学楼一楼)

Zoom ID:832 4178 0780

Zoom ID:832 4178 0780 | Zoom Link: <https://us02web.zoom.us/j/83241780780>

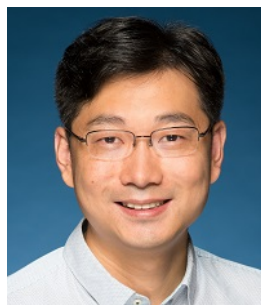
Biography: Haijun Zhang is currently a Full Professor and Associate Dean in School of Computer and Communications Engineering at University of Science and Technology Beijing, China. He was a Postdoctoral Research Fellow in Department of Electrical and Computer Engineering, the University of British Columbia (UBC), Canada. He serves/served as Track Co-Chair of VTC Fall 2022 and WCNC 2020/2021, Symposium Chair of Globecom'19, TPC Co-Chair of INFOCOM 2018 Workshop on Integrating Edge Computing, Caching, and Offloading in Next Generation Networks, and General Co-Chair of GameNets'16. He serves/served as an Editor of IEEE Transactions on Communications, and IEEE Transactions on Network Science and Engineering. He received the IEEE CSIM Technical Committee Best Journal Paper Award in 2018, IEEE ComSoc Young Author Best Paper Award in 2017, IEEE ComSoc Asia-Pacific Best Young Researcher Award in 2019. He is a Distinguished Lecturer of IEEE and a Fellow of IEEE.

Speech Title: Energy Efficient 6G Resource Optimization and Management

This talk will identify and discuss technical challenges and recent results related to Energy Efficient 6G Resource Optimization and Management. The talk is mainly divided into four parts. The first part will introduce 6G mobile networks, discuss the 6G mobile networks architecture, and provide some main technical challenges in 6G mobile networks, with consideration of data perception and process. The second part will focus on the issue of energy-efficient resource management in 6G networks and provide different recent research findings that help to develop engineering insights. The third part will address the machine learning and deep learning method based future 6G networks and address some key research problems. The last part will summarize by providing a future outlook of 6G mobile network optimization strategies with high energy efficiency.



Keynote Speaker III



Prof. Xiaowen Chu

(IEEE Fellow, Head of the Data Science and Analytics Thrust)

(IEEE 会士, 数据科学与分析学域主任)

The Hong Kong University of Science and Technology (Guangzhou)

香港科技大学 (广州)

11:00-11:40(GMT+8) | August 16, 2025 |

Cultural Hall, 1st floor, Lixue Building/文化会堂(励学楼一楼)

Zoom ID:832 4178 0780

Zoom ID:832 4178 0780 | Zoom Link: <https://us02web.zoom.us/j/83241780780>

Biography: Professor Xiaowen Chu is a Full Professor and Head of the Data Science and Analytics Thrust at The Hong Kong University of Science and Technology (Guangzhou). He received his Bachelor's degree from Tsinghua University and his Ph.D. from The Hong Kong University of Science and Technology. His research focuses on high-performance computing, machine learning systems, and distributed systems. He has received seven Best Paper Awards at international conferences, including the CCF-A ranked conferences EuroSys 2025 and INFOCOM 2021. Professor Chu has been recognized multiple times in the Stanford University World's Top 2% Scientists List. He serves (or has served) as an Associate Editor or Guest Editor for SCI-indexed journals such as IEEE Transactions on Cloud Computing, IEEE Transactions on Network Science and Engineering, IEEE Internet of Things Journal, IEEE Transactions on Big Data, IEEE Network, and IEEE Transactions on Industrial Informatics. He was the TPC Co-Chair or General Co-Chair of IEEE MetaCom 2025, IEEE/ACM IWQoS 2024, BigCom 2023, IEEE GreenCom 2022, IEEE HPCC 2021, IEEE DSS 2020, EAI QShine 2019, etc. For his contributions to algorithms for communication-efficient distributed machine learning, he was elected as an IEEE Fellow Class of 2025.

Speech Title: Accelerating Large Mixture-of-Experts Models via Pipelining and Scheduling

In recent years, large-scale deep neural network models can be easily scaled to trillions of parameters with sparsely activated mixture-of-experts (MoE), which significantly improves the model quality while only requiring a sub-linear increase in computational costs. However, the dynamic activation of MoE experts introduces extensive communications, limiting the scaling efficiency of distributed systems. In this talk, we will present some of our recent work on improving the training efficiency of MoE-based LLM models, which leverages two simple ideas: pipelining and scheduling.



INVITED SPEECHES

Invited Speaker I



Asst. Prof. Shaofei Sun

Beijing University of Posts and Telecommunications, China

11:40-12:10(GMT+8) | August 16, 2025 |

Cultural Hall, 1st floor, Lixue Building/文化会堂(励学楼一楼)

Zoom ID:832 4178 0780

Zoom ID:832 4178 0780 | Zoom Link: <https://us02web.zoom.us/j/83241780780>

Biography: Sun Shaofei is currently an associate researcher at the School of Cyberspace Security, Beijing University of Posts and Telecommunications. His main research areas include chip security, side-channel analysis, hardware trojans, and artificial intelligence. He has published multiple academic papers in well-known domestic and international academic journals. He has hosted and participated in several projects, including National Natural Science Foundation of China projects, the National Key R&D Program, and open projects from national key laboratories. He has also contributed to drafting two industry standards for security chips and has accumulated extensive knowledge and experience in the field of side-channel analysis.

Speech Title: Unsupervised Hierarchical Side-Channel Analysis on ML-KEM Cryptographic Algorithms

Post-quantum cryptography (PQC) is a new generation of cryptographic schemes designed to resist attacks from quantum computers on existing cryptographic algorithms. Among current PQC proposals, lattice-based cryptography has emerged as the most promising solution due to its simple structure, fast computation speed, and high security. Consequently, it has garnered significant attention from side-channel analysis researchers in recent years. Our work focuses on ML-KEM,

and applies unsupervised learning techniques for its side-channel analysis. By collecting trace leakages during its inverse Number Theoretic Transform (NTT) operation, and using specific ciphertext traces for simple power analysis, we successfully recover the key using unsupervised learning algorithms. Compared to existing techniques, our proposed method can recover the key using a small number of traces.



Invited Speaker II



Assoc. Prof. Azhar Imran

Beijing University of Technology, China

北京工业大学

09:30-10:00 (GMT+8) | August 17, 2025 |

Zoom ID:832 4178 0780 | Zoom Link: <https://us02web.zoom.us/j/83241780780>

Biography: Dr. Azhar Imran is currently an Associate Professor at the School of Software Engineering, Beijing University of Technology, China. Prior to this, he served as an Assistant Professor at the Department of Creative Technologies, Faculty of Computing & Artificial Intelligence, Air University, Islamabad, Pakistan. He holds a Ph.D. in Software Engineering from Beijing University of Technology and a Master's in Computer Science from the University of Sargodha, Pakistan. Dr. Azhar has over 13 years of national and international academic experience, including a tenure as Senior Lecturer at the University of Sargodha.

A renowned expert in Image Processing, Healthcare Informatics, and Social Media Analysis, Dr. Azhar has authored 85 research articles published in prestigious international journals and conferences. He is a Senior Member of IEEE and serves as an editorial board member and reviewer for several high-impact journals, including IEEE Access, MDPI Cancers, Applied Sciences, Mathematics, and Springer Visual Computer, among others. Dr. Azhar has delivered guest lectures and conducted seminars at various national and international forums, contributing significantly to multiple international conferences in various roles, including keynote speaker and technical committee member. His research interests span Image Processing, Social Media Analysis, Medical Image Diagnosis, Machine Learning, and Data Mining, with a focus on interdisciplinary research bridging computer science and human-related fields.

Speech Title: Plan for suggestions and academic exchange activities of high-level foreign experts in the Beijing- Tianjin-Hebei region in 2025

In healthcare informatics, computational intelligence has become a transformative force that offers fresh solutions to age-old issues. This overview examines the hopes, hype, and concrete real-world impact of computational intelligence in healthcare. Computational intelligence in healthcare can revolutionise patient care, medical research, and administrative processes. Advanced machine learning and artificial intelligence techniques can potentially improve diagnostics, personalise treatment plans, and predict disease outbreaks. By utilising vast datasets, these technologies may be able to find hidden patterns and enhance medical decision-making. While artificial intelligence holds enormous promise, it has also been plagued by hype and unrealistic expectations. In some cases, the technology has been marketed as a panacea, with claims of self-diagnosis and treatment. The hype surrounding these solutions has occasionally outpaced their practical implementation, raising ethical concerns about data privacy, algorithmic bias, and the potential dehumanisation of healthcare. Machine learning models help clinicians make more accurate diagnoses and forecast patient outcomes. Natural language processing tools are assisting in extracting useful insights from electronic health records, and robotics is used in surgery and patient care. Furthermore, improved resource allocation and cost management benefit healthcare systems. To summarise, computational intelligence in healthcare informatics is a potent force with the potential to improve patient care and healthcare systems significantly. While the technology has challenges and limitations, its real-world impact is becoming more apparent as it addresses some of the field's most pressing issues. Healthcare providers, researchers, and policymakers must continue to navigate the waters.



ONSITE SESSION

Onsite Session I

Digital image and signal analysis methods

13:30-15:15(GMT+8) | August 16, 2025 | Classroom 102, Hanxue Building

Chairperson: Assoc. Prof. Yang Li, North China University of Technology, China

Time	Information
13:30-13:45	ET0018 Pramet Kaewmesri , Geo-Informatics and Space Technology Development Agency, Thailand <i>Comparison of Object-Based and Pixel-Based Classification Using Topographic and Meteorological Data for Airshed in Thailand</i>
13:45-14:00	ET0010 Qiming Zhang , Beihang University, China <i>A Novel Circular SAR Subaperture Image Registration Method Based on Accelerated-KAZE</i>
14:00-14:15	ET0067 Yihao Zhang , Shanghai University of Engineering Science, China <i>Multi-Class Motor Imagery EEG Classification in Stroke Rehabilitation based on FBCSANet</i>
14:15-14:30	ET0015 Yizhan Feng , Beihang University, China <i>A Generalized Ambiguity Function for Evaluating Radar Anti-Jamming Performance Against ISRJ</i>
14:30-14:45	ET0017 Phattranit Musikaprayoon , Chulalongkorn University, Thailand <i>3D Facial Thai Speech Animation Generation for Game</i>

	<i>Development</i>
14:45-15:00	ET0011 Qiming Zhang , Beihang University, China <i>Three-Dimensional Scattering Center Reconstruction Method for Single-Frequency MIMO Arc Array Radar</i>
15:00-15:15	ET0066 Haoxiang Lin , Shanghai University of Engineering Science, China <i>Cross-Layer Residual-Convolutional Fusion Network for Tri-Class Depression Diagnosis from EEG Signals</i>

Onsite Session II

Intelligent communication network collaborative certification and optimization

13:30-15:15 (GMT+8) | August 16, 2025 | Classroom 103, Hanxue Building

Chairperson: Prof. Dr. Zoltán Gál, University of Debrecen, Hungary

Time	Information
13:30-13:45	ET0020 Lijing Yan , State Grid Henan Information & Telecommunication Company (Data Center), China <i>Dynamic device fingerprint update scheme based on time series</i>
13:45-14:00	ET0029 Jiaxin Shen , Xi'an University of Posts and Telecommunications, China <i>Design and implementation of beam control system for active phased array antenna</i>
14:00-14:15	ET0033 Dr. Zoltan Gal , University of Debrecen, Debrecen, Hungary <i>Autoencoder-based Prediction of the LEO and Terrestrial Network Round-Trip Time Features</i>
14:15-14:30	ET0040 Linrui Yin , Xiamen University, Malaysia <i>A Cloud-Edge-End Collaborative Framework Integrating Scheduling Optimization and Tasks Offload: Achieving Lower Latency for IoMT-based Wearable Health Monitoring Systems</i>
14:30-14:45	ET0048 Yan Zhang , North China University of Technology, China <i>A New Hybrid Mamba Model for Significant Wave Height Prediction Enhanced by CEEMDAN and Channel Clustering</i>

14:45-15:00	ET0053 Xi Chen , Beijing University of Posts and Telecommunications, China <i>PEM-Assisted UAV Deployment Based on Single-Bounce Paths for Urban Environment Localization</i>
15:00-15:15	ET0057 Yuhang Li , Peking University, Beijing, China <i>Secure Satellite-Terrestrial Downlink Transmission via Hybrid Reconfigurable Intelligent Surfaces</i>



Onsite Session III

Data-driven information system certification and innovation management

15:30-17:30(GMT+8) | August 16, 2025 | Classroom 102, Hanxue Building

Chairperson: Assoc. Prof. Yang Li, North China University of Technology, China

Time	Information
15:30-15:45	ET0003 Bee Theng Lau , Swinburne University of Technology, Malaysia <i>A Machine Learning-based Microalgae Growth Prediction Model</i>
15:45-16:00	ET0049 Zhizheng Yang , North China University of Technology, China <i>A Cross-Attention Optimized CTAB-GAN+ Algorithm for Student Data Generation</i>
16:00-16:15	ET0041 Lin Long , Xiamen University, Malaysia <i>AI-Driven Anomaly Detection in Distributed Systems: A Scalable and Sustainable Monitoring Framework</i>
16:15-16:30	ET0014 Yuchen You , North China University of Technology, China <i>Trans-CTGAN: A Transformer-Enhanced GAN Model for Correlation-Preserving Tabular Data Generation</i>
16:30-16:45	ET0043 Zhou Jingyi , Beijing Institute of Technology, China <i>H3P: High-performance personality prediction system based on large language model</i>
16:45-17:00	ET0047 Kaicun Lin , Dongguan University of Technology, China <i>Debate, Verify, and Debug: A Multi-Agent Planning Framework</i>

	<i>for Reliable Code Generation</i>
17:00-17:15	ET0060 Xinyu Zhang , North China University of Technology, China <i>ECFMem: A Cognitive-Inspired Dual-Memory Framework for Long-Term Health Dialogue Management in Elderly Care</i>
17:15-17:30	ET0056 Tianchuan Yang , Guangxi University, China <i>Multi-view Clustering: A New Perspective on Cluster Analysis Integrating Multivariate Data</i>



Onsite Session IV

AI-based information extraction and data computational analysis

15:30-16:45 (GMT+8) | August 16, 2025 | Classroom 103, Hanxue Building

Chairperson: Prof. Yuanyao Lu, North China University of Technology, China

Time	Information
15:30-15:45	ET0062 Yu Zhang , North China University of Technology, China <i>Abnormal event extraction based on large language model retrieval enhancement</i>
15:45-16:00	ET0005 Shirin Dabbaghi Varnosfaderani , Gesellschaft für wissenschaftliche Datenverarbeitung mbH Göttingen (GWDG), Germany <i>Bridging Assurance Gaps in Federated Identity Management: A Customizable IAM-Based Solution</i>
16:00-16:15	ET0031 Xin Hou , Beihang University, China <i>Research on Balancing Methods for Class Imbalance in Multi-Label Code Smell Detection</i>
16:15-16:30	ET0032 Yulong Liu , Xi'an University of Posts and Telecommunications, China <i>Chip design of multi carrier transmission frequency conversion module with armored cable</i>
16:30-16:45	ET0064 Yanan Sun , North China University of Technology, China <i>The Short-term Wave Height Prediction Method Based on the MAF-CNN-LSTM Model</i>

Poster Session

Image Models and Computational Analysis

09:00-18:00 (GMT+8) | August 16, 2025

Paper ID	Information
ET0007	Fenglei Hao, Yuliang Yang, Zhengran Zhao, Ruiyuan Su, Yukun Qiao and Mengyu Zhu , University of Science and Technology Beijing, China <i>GISE-TTT: A Framework for Global Information Segmentation and Enhancement</i>
ET0012	Ziyuan Ma, Qiuyan Wang, Yang Yan, Hanning Chen , Tiangong University, China <i>Graph Attention Contrastive Learning for Few-shot Semi-supervised Node Classification</i>
ET0021	Tianxin Zhang , North China University of Technology, China <i>A Multi-scale Feature Extraction and Prediction Model based on Dual-layer Transformer and Pre-normalization Strategy</i>
ET0030	Xusheng Wu, Xiaofeng He, Yongheng Duan, Rui Chen, Fei Liu and Jing Xiao , Shenzhen Health Development Research and Data Management Center, China <i>ICL-MediSeg: Extending In-Context Learning for General 3D Medical Segmentation</i>
ET0061	Guangyuan Gu and Ya Shen , Nanjing Electronic Device Institute, China <i>Heterogeneous Integration Millimeter-Wave Amplifier Technology Based on Glass Fan-Out Process</i>
ET0059	Jiawang Qin, Xuelin Gu, Chang Gao, Jun Wang and Xiaou Li , University of Shanghai for Science and Technology, China <i>A Study on the Assessment of Depression Severity Based on ESANet</i>

ONLINE SESSION

Online Session I

Blockchain-based Digital Communication Systems and Information Security

09:30-12:00(GMT+8) | August 17, 2025

Zoom ID:832 4178 0780 | Zoom Link: <https://us02web.zoom.us/j/83241780780>

Chairperson: Assoc. Prof. Azhar Imran, Beijing University of Technology, China

Time	Information
09:30-10:00	Invited Speech II Assoc. Prof. Azhar Imran , Beijing University of Technology, China <i>Plan for suggestions and academic exchange activities of high-level foreign experts in the Beijing- Tianjin-Hebei region in 2025</i>
10:00-10:15	ET3000 Yuhang Dong , North China University of Technology, China <i>A Trajectory Prediction-Based Vehicular Edge Computing Offloading Algorithm</i>
10:15-10:30	ET0036 Li Xingchen , Xiamen University, Malaysia <i>Blockchain-based two-layer trusted framework for cold chain IoT: zero-knowledge authentication and Variational Autoencoder anomaly detection</i>
10:30-10:45	ET0002 Qiong Yang , Beijing University of Technology, China <i>A Blockchain-Based Inter-Domain Secure Routing Selection Policy</i>
10:45-11:00	ET0045 Lin Ranzheng , Xiamen University, Malaysia <i>Holistic Security for Distributed Systems: Blockchain-Based</i>

	<i>Passport Identity Verification and AI-Driven Dynamic Trust Management</i>
11:00-11:15	ET0046 Bifeng Wang , University of Electronic Science and Technology of China <i>The Pilot-Based Interference Cancellation Algorithm for Wireless Physical Layer</i>
11:15-11:30	ET0054 Shifeng Ou , Electric Power Research Institute, Guangxi Power Grid Co., Ltd, China <i>A Lightweight Dual-Factor Authentication Scheme for Distribution Terminal Units Using USIM Cards</i>
11:30-11:45	ET0065 Qin Yuyang , Xiamen University, Malaysia <i>Edge-Aware Intrusion Detection in Distributed Healthcare IoT via PCA and Feature Engineering</i>
11:45-12:00	ET0023-A Maolan Lin , Jimei University, China <i>Multi-Surface Feature Analysis of Citrus Using Improved RT-DETR for Precision Quality Classification</i>



Online Session II

Next-generation Artificial Intelligence Theory and Applications

14:00-16:15 (GMT+8) | August 17, 2025

Zoom ID:832 4178 0780 | Zoom Link: <https://us02web.zoom.us/j/83241780780>

Chairperson: Asst. Prof. Ghufran Ahmad Khan, KL university, India

Time	Information
14:00-14:15	ET3001-A Masatoshi Fujiyama , The University of Electro-Communications, Japan <i>Personality Emergence in LLM Agents Reflecting Needs through interaction with the environment</i>
14:30-14:45	ET0063 Yujun Qi , Xiamen University, Malaysia <i>ADEPT: A Framework for Adaptive Distributed Efficient Parallel Training of Large Language Models</i>
14:45-15:00	ET0022 Lei Zhang , North China University of Technology, China <i>Multimodal ocean forecast correction method based on Transformer</i>
15:00-15:15	ET0058 Chenggong Xing , Beijing University of Technology, China <i>Formal Modeling and Analysis of Digital Cash Protocol based on APTC</i>
15:15-15:30	ET0052 Qingya Yang , Xiamen University, Malaysia <i>Empowering Autonomous Driving: Adaptive AI-Orchestrated distributed system framework for Balancing Perception Accuracy and Latency</i>
15:30-15:45	ET0050 Mukhamad Angga Gumilang , Politeknik Negeri Jember, Indonesia

	<i>Multi-Agent Data Analyst System Based on Large Language Models for Querying and Visualization</i>
15:45-16:00	ET0027 Saleh Alghamdi , Taif University, Saudi Arabia <i>Few-Shots Learning Model for Depression Detection Using Actigraphy</i>
16:00-16:15	ET0019 Jean Rosemond Dora , IISAS, Slovakia <i>Locating and Removing Signatures from Malicious Files for Antivirus Evasion Attempt</i>



NOTE

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