

CURRICULUM VITAE

Henry Hong-Ning Dai

Department of Computer Science
Hong Kong Baptist University, Kowloon Tong
Hong Kong

Phone: (+852) 3411 – 8015
E-mail: henrydai@comp.hkbu.edu.hk
WWW: <https://www.comp.hkbu.edu.hk/~henrydai/>

Nationality & Languages

- English: fluent (speaking, listening, reading, writing)
- Chinese: Mandarin (native), Cantonese (native)

Employment History

- *Associate Professor*, Department of Computer Science, Hong Kong Baptist University (HKBU), Kowloon Tong, Hong Kong
July 2022 - present
- *Associate Professor*, Department of Computing and Decision Sciences, Lingnan University (LU), Tuen Mun, N.T., Hong Kong
August 2021 - June 2022
- *Associate Professor*, Faculty of Information Technology, Macau University of Science and Technology (MUST), Macau
July 2015 - June 2021
- *Assistant Professor*, Faculty of Information Technology, Macau University of Science and Technology (MUST), Macau
Jan. 2010 - June 2015
- *Visiting Research Scholar*, Department of Computer Science and Engineering, Hong Kong University of Science and Technology (HKUST), Hong Kong
Sept. 2011 - Oct. 2011
- *Post-doc Research Fellow*, Department of Information Engineering, The Chinese University of Hong Kong (CUHK), Hong Kong
Sept. 2008 - Nov. 2009
- *Research Assistant/Teaching Assistant*, Department of Computer Science and Engineering, The Chinese University of Hong Kong (CUHK), Hong Kong
Aug. 2005 - Aug. 2008

Education

- **Doctor of Philosophy**
Computer Science and Engineering, The Chinese University of Hong Kong (CUHK), Hong Kong
Aug. 2005 - Aug. 2008
- **Doctor of Engineering**
Computer Application Technology, Shanghai Jiao Tong University, Shanghai, China
Sept. 2003 - June 2012
- **Master of Engineering**
Computer Science and Engineering, South China University of Technology (SCUT), Guangzhou, China
Sept. 2000 - July 2003
- **Bachelor of Engineering**
Computer Science and Engineering, South China University of Technology (SCUT), Guangzhou, China
Sept. 1996 - July 2000

Honors and Awards

- Inclusion of **Highly Ranked Scholars by ScholarGPS** *2024*
- Inclusion of **Best Computer Science Scientists** (by Research.com ranking) *2024*
- Top 2% scientists for citation impact in 2022 *2023*
- **AI 2000 Most Influential Scholar Award Honorable Mention in Internet of Things** *2023*

- European Alliance for Innovation (EAI) Senior Member (Class 2022) 2022
- Best Paper Award of Chinese Journal on Internet of Things 2022
- Top 2% scientists for citation impact in 2021 2022
- Top 2% scientists for citation impact in 2020 2021
- **ACM Senior Member** 2020
- **Best Paper Award** conferred by 10th EAI International Conference on Cloud Computing (EAI CloudComp) 2020
- Top 2% scientists for citation impact in 2019 2020
- Outstanding Performance Award in Online Teaching 2020
- **IEEE Outstanding Paper Award** conferred by IEEE International Conference on Cyber Physical and Social Computing 2019
- “An Overview of Blockchain Technology: Architecture, Consensus, and Future Trends” was awarded with Blockchain Global Top-50 Influential Papers by SV Insight 2019
- *Biography included in Marquis Who’s Who in the World* 2016
- **IEEE Senior Member** 2016
- **BOC Research Excellence Award** of Macau University of Science and Technology 2015
- *Biography included in Marquis Who’s Who in the World* 2010
- *Student Travel Grant* (conferred by IEEE Communications Society) of IEEE INFOCOM 2008
- *Postgraduate Studentship*, The Chinese University of Hong Kong (Consecutive Three Years) 2005 - 2008
- *Excellent Postgraduate Student Scholarship*, South China University of Technology 2002 - 2003
- *IBM S/390 Professional Certificate*, South China University of Technology and IBM China 2000
- *Excellent Student Scholarship*, South China University of Technology 1998 - 1999

Editorial Experience

- Editor-in-Chief, IET Emerging Technologies, since Sep. 2024 - present
- Associate Editor, IEEE Communications Surveys & Tutorials, since Mar. 2023 - present
- Associate Editor, IEEE Transactions on Industrial Cyber-Physical Systems, since Jan. 2023 - present
- Associate Editor, IEEE Transactions on Intelligent Transportation Systems, since Oct. 2022 - present
- Associate Editor, IEEE Transactions on Industrial Informatics, since Jan. 2021 - present
- Editor, Ad Hoc Networks (Elsevier), Dec. 2019 - present
- Associate Editor, Connection Science (Taylor & Francis), Jan. 2020 - present
- Associate Editor, International Journal of Cognitive Computing in Engineering (Elsevier), July 2019 - present
- Technical Committee, Computer Communications (Elsevier), Nov. 2019 - present
- Associate Editor, IEEE Systems Journal, Sept. 2020 - June 2022
- Associate Editor, IEEE Access, June 2019 - May 2022
- Topic Editor, MDPI Sensors, Nov. 2019 - Dec. 2021

- Guest Editor, special section on “Blockchain Technologies for Metaverse” in ACM Distributed Ledger Technologies: Research and Practice, since June 2023 - present
- Guest Editor, special section on “Mobile AI-Generated Content (AIGC) in 6G Era” in IEEE Wireless Communications, since July 2023 - present
- Guest Editor, special issue on “Cross-blockchain Interoperability for Metaverse: Technologies, Applications, and Challenges” in IET Blockchain, Mar. 2023 - Dec. 2024
- Guest Editor, special section on “Data Security and Privacy in Blockchain and the IoT” in Electronics, since March 2023 - present
- Guest Editor (leader), special section on “Advanced Networking Technologies for Web 3.0” in IEEE Transactions on Network Science and Engineering, Sep. 2022 - Dec. 2023
- Guest Editor, special issue on “Blockchain transaction data mining and its applications” in IET Blockchain, Dec. 2022 - Dec. 2024
- Guest Editor, Special Issue “Advances in Blockchain-enabled Internet of Things (IoT)” in Applied Sciences, Dec. 2021 - Sep. 2023
- Guest Editor (leader), special issue on “Next Generation Blockchain Technology with Industrial IoT in Industry 4.0” in IEEE Transactions on Industrial Informatics, June 2021 - Oct. 2022
- Guest Editor, Special Issue “Blockchain-enabled Smart Contract: Technologies and Applications” in Connection Science, Mar. 2021 - June 2022
- Guest Editor (leader), special issue on “Web-based Intelligent Financial Services: Emerging Challenges and Recent Advances” in World Wide Web Journal – Internet and Web Information Systems, Nov. 2021 - July 2022
- Guest Editor, special issue on “Energy Efficiency and Secure 5G-oriented Network Solutions for Personalised Healthcare Systems” in Wireless Communications and Mobile Computing, Aug. 2020 - Dec. 2021
- Guest Editor, special issue on “Blockchain for Trustworthy Internet of Things” in Sensors, July 2020 - Dec. 2021
- Guest Editor, special issue on “Blockchain Through the Lens of Network Science” in Frontiers in Blockchain, June 2020 - July 2021
- Guest editor (leader), Special Section on “Blockchain Intelligence: Technologies and Applications” in IEEE Open Journal of the Computer Society, April 2020 - April 2021
- Guest editor (leader), Special Section on “Blockchain Solutions for Industrial Internet of Things” in IEEE Transactions on Industrial Informatics, February 2020 - February 2021
- Guest editor (leader), Special Section on “Scalable Computing for Blockchain Systems” of IEEE Transactions on Emerging Topics in Computing, July 2019 - July 2021
- Guest editor, Special Section on “Blockchain for Internet of Things” of China Communications, Sep. 2019 - Sep. 2020
- Guest editor (leader), Special Section on “Blockchain-Enabled Trustworthy Systems” of IEEE Access, Nov. 2019 - Nov. 2020
- Guest editor, Special Section on “Emerging Privacy and Security Issues brought by Artificial Intelligence” of IEEE Transactions on Industrial Informatics, Feb. 2019 - Nov. 2019
- Guest editor (leader), Special Section on “Blockchain for Industrial Internet of Things” of IEEE Transactions on Industrial Informatics, April 2018 - Dec. 2018
- Guest editor, Special Section on “Advances in Machine Learning and Cognitive Computing for Industry Applications” of IEEE Access, June 2019 - Nov. 2019

Research Grants

Table 1: Awarded Research Grants

Role	Grant Source	Project Title	Reference No.	During	Amount (HKD)
PI	Seed Funding for Collaborative Research Grants	iSurveillance: Towards Cyber-Physical Secure Factory in Industry 4.0	RC-SFCRG/23-24/R2/SCI/06	2025 - 2028	983,784
Co-PI	FDS, UGC, Hong Kong	Space-Air-Ground Integrated Networks: System Modeling and Performance Optimization	FDS16/E15/24	2025 - 2027	776,810
Co-PI	BNBU-HKBU Cross-Campus “1+1+1” RCS	Optimizing and Accelerating Graph Neural Networks for Large-Scale Irregular IoT Sensor Data	N.A.	2025 - 2028	2,150,668 (RMB 2,000,000)
PI	Start-up Grant for New Academics	Towards Scalable, Privacy-Preserving, and Secure Social Metaverse	SCI-162832	2023 - 2024	200,000
Co-PI	FDS, UGC, Hong Kong	A Study of Distributed Service-aware Wireless Cellular Networks (DS-WCNs): From User Demand Modeling to Performance Optimization	FDS16/E02/22	2022 - 2025	1,047,750
PI	COMP Department Start-up Fund	Complex Network-based Data Analytics of Heterogeneous Blockchain Data	COMP-179432	2022 - 2023	300,000
Co-PI	NSFC, China	Studies of Key Technologies on Collaborative Cloud-Device-Edge in Sensor Cloud Systems	62172046	2020 - 2023	748,684 (RMB 590,000)
Sub-project leader	Macao Key R & D Projects of FDCT, Macau	STEP Perpetual Learning based Collective Intelligence: Theories and Methodologies	0025/2019/AKP	2020 - 2023	6,000,000.00
PI	FDCT, Macau	Key Technologies to Enable Ultra Dense Wireless Networks	0026/2018/A1	2018 - 2021	1,000,000.00
PI	FDCT, Macau	Large Scale Wireless Ad Hoc Networks: Performance Analysis and Performance Improvement	096/2013/A3	2014 - 2017	1,356,100.00
Co-PI	NSFC, China	Studies on Network Resilience in Self-Organized Intelligent Manufacturing Internet of Things	61672170	2017 - 2020	799,442 (RMB 630,000)
PI	FDCT, Macau	Studies on Multi-channel Networks using Directional Antennas	036/2011/A	2012 - 2014	495,900.00
Co-PI	FDCT, Macau	Idle Sense Scheme in Non-saturated Wireless LANs	081/2012/A3	2013 - 2016	1,102,200.00
Total awarded research grants as PI/Co-PI (2012 - present)			Total		16,961,338

Note:

- FDCT - Macao Science and Technology Development Fund (Fundo para o Desenvolvimento das Ciências e da Tecnologia in Portuguese)
- NSFC - National Natural Science Foundation of China

Current Research Interests

- Internet of Things
- Big data analytics
- Blockchain

Publications (in reverse chronological order)

Henry Hong-Ning Dai has published 178 refereed journal papers and 95 refereed conference papers. Moreover, he has edited/authored 4 books/monographs, 8 book chapters, 11 editorials of journal special issues, and 2 international patents. His publications have received more than 24,000 citations in total, with an H-index of 53, according to his recent [Google Scholar Profile](#) in May 2025.

Journal Publications

(† indicates students or research assistants under my supervision, * denotes the corresponding author)

- J178. Long Chen, Shaojie Zheng, Jigang Wu, **Hong-Ning Dai**, Dusit Niyato, Jiafu Wan, and Jiale Huang, “HARBOR: Harnessing Bandwidth, Computation, and Batch for Fair QoE Having Collaborative Edge-AI Services in Industrial CPS”, accepted to appear in *IEEE Journal on Selected Areas in Communications (JSAC)*, 2025
- J177. Hanyang Guo[†], **Hong-Ning Dai**, Xiapu Luo, Zibin Zheng, Genyang Xu[†], and Fengliang He[†], “An Empirical Study on Meta Virtual Reality Applications: Security and Privacy Perspectives”, accepted to appear in *IEEE Transactions on Software Engineering (TSE)* (<https://doi.org/10.1109/TSE.2025.3553283>), 2025
- J176. Junlin Yang, Jiadi Yu, Linghe Kong, Yanmin Zhu, and **Hong-Ning Dai**, “Toward Open-World-Aware User Authentication Based on Human Bodies Using mmWave Signals”, accepted to appear in *IEEE Transactions on Mobile Computing (TMC)* (<https://doi.org/10.1109/TMC.2025.3562151>), 2025
- J175. Lele Fu, Sheng Huang, Yanyi Lai, Chuanfu Zhang, **Hong-Ning Dai**, Zibin Zheng, and Chuan Chen, “Federated Domain-Independent Prototype Learning With Alignments of Representation and Parameter Spaces for Feature Shift”, accepted to appear in *IEEE Transactions on Mobile Computing (TMC)* (<https://doi.org/10.1109/TMC.2025.3560083>), 2025
- J174. Xucheng Luo, Qiong Wu, Ye Wang, Kuan Zhang, **Hong-Ning Dai**, and Dajiang Chen, “TMAE: Entropy-Aware Masked Autoencoder for Low-Cost Traffic Flow Map Inference”, accepted to appear in *IEEE Internet of Things Journal* (<https://doi.org/10.1109/JIOT.2025.3563583>), 2025
- J173. Xiaofen Wang, Tao Chen, **Hong-Ning Dai**, Peng Long, Haomiao Yang, Zehui Xiong, and Willy Susilo, “A Privacy-Enhanced Method for Privacy-Preserving and Verifiable Federated Learning”, accepted to appear in *IEEE Internet of Things Journal* (<https://doi.org/10.1109/JIOT.2025.3561262>), 2025
- J172. Hao Huang, Xiaofen Wang, **Hong-Ning Dai**, Sheng Cao, Ke Zhang, Man Ho Au, and Rang Zhou, “Secure Data Delivery With Certificateless Homomorphic Network Coding Signature Scheme for Autonomous Aerial Vehicle Networks”, accepted to appear in *IEEE Internet of Things Journal* (<https://doi.org/10.1109/JIOT.2025.3543199>), 2025
- J171. Hao Pan, Haiyong Bao, Menghong Guan, Zhiqiang Li, Cheng Huang, and **Hong-Ning Dai**, “DualGuard: Obfuscated Federated Learning with Two-Party Secure Robust Aggregation”, accepted to appear in *IEEE Internet of Things Journal* (<https://doi.org/10.1109/JIOT.2025.3533087>), 2025
- J170. Zhiqiang Li, Haiyong Bao, Hao Pan, Menghong Guan, Cheng Huang, and **Hong-Ning Dai**, “UEFL: Universal and Efficient Privacy-Preserving Federated Learning”, accepted to appear in *IEEE Internet of Things Journal* (<https://doi.org/10.1109/JIOT.2025.3525731>), 2025
- J169. Zhaolin Yuan, Ming Li, Chang Liu, Fangyuan Han, Haolun Huang, and **Hong-Ning Dai**, “Chat with MES: LLM-driven user interface for manipulating garment manufacturing system through natural language”, accepted to appear in *Journal of Manufacturing Systems* (<https://doi.org/10.1016/j.jmsy.2025.02.008>), 2025
- J168. Jianhua Li, Bohao Feng, Aleteng Tian, Hui Zheng, Klaus Moessner, **Hong-Ning Dai**, and Jiong Jin, “CARS: connection as required scheme for horizontal communications in Industry 4.0”, accepted to appear in *Digital Communications and Networks* (<https://doi.org/10.1016/j.dcan.2025.03.003>), 2025
- J167. Sining Jiang[†], Xu Cheng, **Hong-Ning Dai**, Shuo Zhao, Yujun Lan, Haoran Xie, Xiaohui Tao, and Zhongwen Guo, “De-GONet: Decentralized Group-Oriented Interconnection Network for IoT-enabled Metaverse”, in *ACM Transactions on Internet Technology (TIST)*, (early access), (<https://doi.org/10.1145/3674972>), 2024
- J166. Yuanlong Cao, Jinquan Nie, Haopeng Zhang, Yirui Jiang, Jianmao Xiao, and **Hong-Ning Dai**, “Supporting QUIC Data Flows Over Consumer Electronic Devices: A Mobile Edge Computing-Oriented Queuing Delay Control Policy”, in *IEEE Transactions on Consumer Electronics*, (early access), (<https://doi.org/10.1109/TCE.2024.3414670>), 2024
- J165. Subrota Kumar Mondal, Kan Ni, H M Dipu Kabir, and **Hong-Ning Dai**, “An Empirical Study of Container-Escape: Penetration Test, Root Cause Analysis, Defense Mechanism, and Further Study”, in *China Communications* (early access) (<https://doi.org/10.23919/JCC.ja.2023-0560>), 2024
- J164. Menghong Guan, Haiyong Bao, Jing Wang, Lu Xing, and **Hong-Ning Dai**, “PEFed: Enhancing privacy and efficiency in federated learning via removable perturbation and decentralized encryption”, in *Information Fusion*, Vol. 122, No. 103187, October 2025
- J163. Haiyong Bao, Ronghai Xie, Zhehong Wang, Lu Xing, and **Hong-Ning Dai**, “PDMA: Efficient and privacy-preserving dynamic task assignment with multi-attribute search in crowdsourcing”, in *Computer Networks*, Vol. 265, No. 111279, June 2025
- J162. Sheng Huang, Lele Fu, Yuecheng Li, Chuan Chen, Zibin Zheng, and **Hong-Ning Dai**, “A Cross-Client Coordinator in Federated Learning Framework for Conquering Heterogeneity”, in *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, vol. 36, no. 5, pp. 8828-8842, May 2025

- J161. Qubeijian Wang, Shiyue Tang, Wen Sun, Yin Zhang, Geng Sun, **Hong-Ning Dai**, and Mohsen Guizani, “Smart Shield: Prevent Aerial Eavesdropping via Cooperative Intelligent Jamming Based on Multi-Agent Reinforcement Learning”, in *IEEE Transactions on Mobile Computing (TMC)*, vol. 24, no. 4, pp. 2995-3011, April 2025
- J160. Ke Zhang, Hongjin Ren, Jinbiao Kang, Cai Guo, Weiming Chen, Ming Tao, **Hong-Ning Dai**, Shaohua Wan, and Haiyong Bao, “TST-Trans: A Transformer Network for Urban Traffic Flow Prediction”, in *IEEE Internet of Things Journal*, vol. 12, no. 7, pp. 8276-8287, April 2025
- J159. Qian Wang[†], **Hong-Ning Dai**, Jinghua Yang[†], Cai Guo[†], Peter Childs, Maaik Kleinsmann, Yike Guo, and Pan Wang, “Learning-based Artificial Intelligence Artwork: Methodology Taxonomy and Quality Evaluation”, *ACM Computing Surveys (CSUR)*, 57, 3, Article 71, 37 pages, March 2025
- J158. Xiaorui Li, Xiaojuan Ban, Haoran Qiao, Zhaolin Yuan, **Hong-Ning Dai**, Chao Yao, Yu Guo, Mohammad S Obaidat, and George Q Huang, “Multi-Scale Time Series Segmentation Network Based on Eddy Current Testing for Detecting Surface Metal Defects”, in *IEEE/CAA Journal of Automatica Sinica*, vol. 12, no. 3, pp. 528-538, March 2025
- J157. Shuxin Li, Xu Cheng, Fan Shi, Hanwei Zhang, **Hong-Ning Dai**, Houxiang Zhang, and Shengyong Chen, “A Novel Robustness-Enhancing Adversarial Defense Approach to AI-Powered Sea State Estimation for Autonomous Marine Vessels”, in *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 55, no. 1, pp. 28-42, Jan. 2025
- J156. Xieling Chen, Haoran Xie, Xiaohui Tao, Fu Lee Wang, Dian Zhang, and **Hong-Ning Dai**, “A computational analysis of aspect-based sentiment analysis research through bibliometric mapping and topic modeling”, in *Journal of Big Data*, Vol. 12, article number, 40, 2025
- J155. Mingxi Ye[†], Yuhong Nan, **Hong-Ning Dai**, Shuo Yang, Xiapu Luo, and Zibin Zheng, “FunFuzz: A Function-oriented Fuzzer for Smart Contract Vulnerability Detection with High Effectiveness and Efficiency”, in *ACM Transactions on Software Engineering and Methodology (TOSEM)*, 33, 7, Article 191, 20 pages (<https://doi.org/10.1145/3674725>), September 2024
- J154. Zigui Jiang, Weilin Zheng[†], Bo Liu[†], **Hong-Ning Dai**, Haoran Xie, Xiapu Luo, Zibin Zheng, and Qing Li, “Unravelling Token Ecosystem of EOSIO Blockchain”, in *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, vol. 36, no. 10, pp. 5423-5439, Oct. 2024
- J153. Dajiang Chen, Zeyu Liao, Zhidong Xie, Ruidong Chen, Zhen Qin, Mingsheng Cao, **Hong-Ning Dai**, and Kuan Zhang, “MFSSSE: Multi-Keyword Fuzzy Ranked Symmetric Searchable Encryption With Pattern Hidden in Mobile Cloud Computing”, in *IEEE Transactions on Cloud Computing (TCC)*, vol. 12, no. 4, pp. 1042-1057, Oct.-Dec. 2024
- J152. Mengna Liu, Xu Cheng, Fan Shi, Xiufeng Liu, **Hong-Ning Dai**, and Shengyong Chen, “A Prototype-Empowered Kernel-Varying Convolutional Model for Imbalanced Sea State Estimation in IoT-Enabled Autonomous Ship”, in *IEEE Transactions on Sustainable Computing*, vol. 9, no. 6, pp. 862-873, Nov.-Dec. 2024
- J151. Menghong Guan, Haiyong Bao, Zhiqiang Li, Hao Pan, Cheng Huang, and **Hong-Ning Dai**, “SAMFL: Secure Aggregation Mechanism for Federated Learning with Byzantine-Robustness by Functional Encryption”, *Journal of Systems Architecture*, Vol. 157, 103304, 2024.
- J150. Zu-Sheng Tan, Eric WK See-To, Kwan-Yeung Lee, **Hong-Ning Dai**, and Man-Leung Wong, “Privacy-preserving federated learning for proactive maintenance of IoT-empowered multi-location smart city facilities”, in *Journal of Network and Computer Applications*, Vol. 231, No. 103996, 2024
- J149. Subrota Kumar Mondal, Kan Ni, H M Dipu Kabir, Tian Tan, and **Hong-Ning Dai**, “Toward Security Quantification of Serverless Computing”, in *Journal of Cloud Computing*, Vol. 13, No. 140, pp. 1-27, 2024
- J148. Xieling Chen, Haoran Xie, Xiaohui Tao, Lingling Xu, Jingjing Wang, **Hong-Ning Dai**, and Fu Lee Wang, “A topic modeling-based bibliometric exploration of automatic summarization research”, in *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, e1540, (<https://doi.org/10.1002/widm.1540>), 2024
- J147. Yalin Liu[†], **Hong-Ning Dai**, Qubeijian Wang[†], Om Jee Pandey, Yaru Fu, Ning Zhang, Dusit Niyato, and Chi Chung Lee, “Space-Air-Ground Integrated Networks: Spherical Stochastic Geometry-Based Uplink Connectivity Analysis”, in *IEEE Journal on Selected Areas in Communications (JSAC)*, vol. 42, no. 5, pp. 1387-1402, May 2024
- J146. Kang Wang[†], Feiyang Zheng, Lan Cheng, **Hong-Ning Dai**, Qi Dou, and Jing Qin, “Breast Cancer Classification From Digital Pathology Images via Connectivity-Aware Graph Transformer”, in *IEEE Transactions on Medical Imaging (TMI)*, vol. 43, no. 8, pp. 2854-2865, Aug. 2024
- J145. Long Chen, **Hong-Ning Dai**, Xingyi Yuan, Jiale Huang, Yalan Wu, and Jigang Wu, “D-SPAC: Double-Sided Preference-Aware Carpooling of Private Cars for Maximizing Passenger Utility”, in *IEEE Transactions on Intelligent Transportation Systems (T-ITS)*, vol. 25, no. 8, pp. 9810-9827, Aug. 2024
- J144. Yaru Fu, Xinyu Xu, Hanlin Liu, Quan Yu, **Hong-Ning Dai**, and Tony Q. S. Quek. “Joint assortment and cache planning for practical user choice model in wireless content caching networks”, in *IEEE Transactions on Mobile Computing (TMC)*, vol. 23, no. 5, pp. 4709-4722, May 2024
- J143. Junqin Huang[†], Linghe Kong, Long Cheng, **Hong-Ning Dai**, Meikang Qiu, Guihai Chen, Xue Liu, and Gang Huang, “BlockSense: Towards Trustworthy Mobile Crowdsensing via Proof-of-Data Blockchain”, in *IEEE Transactions on Mobile Computing (TMC)*, vol. 23, no. 2, pp. 1016-1033, Feb. 2024

- J142. Yaru Fu, Yue Zhang, Qi Zhu, **Hong-Ning Dai** and Tony Q. S. Quek, “A Study of Reliability-aware Wireless Edge Caching Networks (WECNs) with Bundle Recommendation”, in *IEEE Network*, vol. 38, no. 1, pp. 247-253, Jan. 2024
- J141. Jinghua Yang[†], Chuan Chen, **Hong-Ning Dai**, Meng Ding, Zhebin Wu, and Zibin Zheng, “Robust Corrupted Data Recovery and Clustering via Generalized Transformed Tensor Low-rank Representation”, in *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, vol. 35, no. 7, pp. 8839-8853, July 2024
- J140. Jinbiao Tan[†], Jianhua Shi[†], Jiafu Wan, **Hong-Ning Dai**, Jiong Jin, and Rui Zhang, “Blockchain-Based Data Security and Sharing for Resource-Constrained Devices in Manufacturing IoT”, in *IEEE Internet of Things Journal*, vol. 11, no. 15, pp. 25558-25567, 1 Aug. 2024
- J139. Xinqi Tu, Haiyong Bao, Rongxing Lu, Cheng Huang, and **Hong-Ning Dai**, “PMRK: Privacy-Preserving Multidimensional Range Query with Keyword Search over Spatial Data”, in *IEEE Internet of Things Journal*, vol. 11, no. 6, pp. 10464-10478, 15 March, 2024
- J138. Dajiang Chen, Li Zhang, Zeyu Liao, **Hong-Ning Dai**, Ning Zhang, Xuemin Shen, and Minghui Pang, “Flexible and Fine-grained Access Control for EHR in Blockchain-assisted E-healthcare Systems”, in *IEEE Internet of Things Journal*, vol. 11, no. 6, pp. 10992-11007, 15 March, 2024
- J137. Yanping Wang, Xiaosong Zhang, Ruidong Chen, **Hong-Ning Dai**, Xiaofen Wang, Leo Zhang, and Ming Li, “Multi-Receiver Conditional Anonymous Singryption for IoMT Crowdsourcing”, in *IEEE Internet of Things Journal*, vol. 11, no. 5, pp. 8401-8413, 1 March, 2024
- J136. Hanyang Guo[†], Xiangping Chen, Yuan Huang, Yanlin Wang, Xi Ding, Zibin Zheng, Xiaocong Zhou, and **Hong-Ning Dai**, “Snippet comment generation based on code context expansion”, in *ACM Transactions on Software Engineering and Methodology (TOSEM)*, Vol. 33, No. 1, Article 24 (January), 30 pages, 2024
- J135. Dipti Singh, Om Jee Pandey, and **Hong-Ning Dai**, “STCNN: Combining SMOTE-TOMEK with CNN for Imbalanced Classification of Alzheimer’s Disease”, in *IEEE Sensors Letters*, vol. 8, no. 3, pp. 1-4, March 2024
- J134. Subrota Kumar Mondal, Chengwei Wang, Yijun Chen, Yuning Cheng, Yanbo Huang, **Hong-Ning Dai**, and HM Dipu Kabir, “Enhancement of English-Bengali Machine Translation Leveraging Back-Translation”, in *Applied Sciences*, vol. 14, No. 15, pp. 6848, 2024
- J133. Qubeijian Wang, Hao Wang, Wen Sun, Nan Zhao, **Hong-Ning Dai**, and Wei Zhang, “Aerial Bridge: A Secure Tunnel Against Eavesdropping in Terrestrial-Satellite Networks”, in *IEEE Transactions on Wireless Communications (TWC)*, vol. 22, no. 11, pp. 8096-8113, Nov. 2023
- J132. Anjali, **Hong-Ning Dai**, Jitendra Kumar, and Om Jee Pandey, “AERed: An Autoencoder-decoder Dimensionality Reduction Method for Wearable-Based Human Activity Recognition”, in *IEEE Sensors Journal*, vol. 23, no. 23, pp. 29804-29814, 1 Dec.1, 2023
- J131. Lirong Zeng, Mengxing Huang, Yuchun Li, Qiong Chen, **Hong-Ning Dai**, “Progressive Feature Fusion Attention Dense Network for Speckle Noise Removal in OCT Images”, accepted to appear in *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, 2022 (<https://doi.org/10.1109/TCBB.2022.3205217>)
- J130. Wei Wang, Xiaoyang Suo[†], Xiangyu Wei[†], Bin Wang, Hao Wang, **Hong-Ning Dai**, and Xiangliang Zhang, “HGATE: Heterogeneous Graph Attention Auto-Encoders”, in *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, vol. 35, no. 4, pp. 3938-3951, 1 April 2023 (<https://doi.org/10.1109/TKDE.2021.3138788>)
- J129. Xiaoyu Qiu[†], Wuhui Chen, Bingxin Tang[†], Junyuan Liang[†], **Hong-Ning Dai**, and Zibin Zheng, “A Distributed and Privacy-Aware High-Throughput Transaction Scheduling Approach for Scaling Blockchain”, *IEEE Transactions on Dependable and Secure Computing (TDSC)*, vol. 20, no. 5, pp. 4372-4386, 1 Sept.-Oct. 2023 (<https://doi.ieeecomputersociety.org/10.1109/TDSC.2022.3216571>)
- J128. Qian Wang, Cai Guo, **Hong-Ning Dai** and Min Xia, “Variant-Depth Neural Networks for Deblurring Traffic Images in Intelligent Transportation Systems”, in *IEEE Transactions on Intelligent Transportation Systems (T-ITS)*, vol. 24, no. 6, pp. 5792-5802, June 2023
- J127. Bishenghui Tao[†], **Hong-Ning Dai**, Haoran Xie, and Fu Lee Wang, “Structural Identity Representation Learning for Blockchain-enabled Metaverse Based on Complex Network Analysis”, in *IEEE Transactions on Computational Social Systems*, vol. 10, no. 5, pp. 2214-2225, Oct. 2023 (<https://doi.org/10.1109/TCSS.2022.3233059>)
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- C25. **Hong-Ning Dai**, Raymond Chi-Wing Wong, Wei Zhang, and Liqun Fu, “On the Percolation Connectivity of Large Scale Wireless Networks with Directional Antennas,” *IEEE 25th International Symposium on Personal, Indoor and Mobile Radio Communications - (PIMRC)*, Hong Kong, 2015
- C24. Yuanyuan Wang[†], **Hong-Ning Dai**, Qiu Wang[†], Xuran Li[†], Qinglin Zhao, and Chak Fong Cheang, “Local Connectivity of Wireless Networks with Directional Antennas,” *IEEE 25th International Symposium on Personal, Indoor and Mobile Radio Communications - (PIMRC)*, Hong Kong, 2015
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- C22. Hao Wang, Ottar Osen, Guoyuan Li, Wei Li, **Hong-Ning Dai**, and Wei Zeng, “Big Data and Industrial Internet of Things for the Maritime Industry in Northwestern Norway,” *IEEE Region 10 Conference (TENCON)*, Macau, 2015
- C21. Jianing Dai, Zheng Zhou[†], Hao Wang, and **Hong-Ning Dai**, “PPeLE: a Photo-Processing e-Learning Environment based on HTML5,” *IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE)*, Zhuhai, China, 2015
- C20. Fangxin Xu, Qinglin Zhao, Yu Zeng, Jie Yang, **Hong-Ning Dai**, and Pei Dang, “A Novel OFDM-Based MAC Protocol for Wireless LANs,” *The 10th International Conference on Communications and Networking in China*, Shanghai, China, 2015
- C19. Xuran Li[†], **Hong-Ning Dai**, and Qinglin Zhao, “An Analytical Model on Eavesdropping Attacks in Wireless Networks,” *IEEE International Conference on Communication Systems (ICCS)*, Macau, 2014
- C18. **Hong-Ning Dai**, Raymond Chi-Wing Wong, and Qinglin Zhao, “Multi-channel Wireless Networks with Infrastructure Support: Capacity and Delay,” *IEEE International Conference on Communications (ICC)*, Sydney, Australia, 2014
- C17. Xuran Li[†], **Hong-Ning Dai**, Qinglin Zhao, and Qiu Wang[†], “Eavesdropping Attacks in Wireless Ad Hoc Networks under a Shadow Fading Environment,” *International Conference on Internet of Vehicles (IOV)*, Beijing, China, 2014
- C16. Qiu Wang[†], **Hong-Ning Dai**, and Qinglin Zhao, “Connectivity of Wireless Ad Hoc Networks: Impacts of Antenna Models,” *International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT)*, Taipei, Taiwan, 2013

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- C14. Qinglin Zhao, Zhijie Ma, and **Hong-Ning Dai**, “Performance Evaluation of the Delayed-DCF Scheme in Wireless LANs,” (invited) *International Conference on Network and Computer Science (ICNCS)*, Singapore, 2013
- C13. Qinglin Zhao, **Hong-Ning Dai**, “New Techniques to Improve the Throughput Efficiency in Wireless LANs,” (invited) *International Research Conference on Information Technology and Computer Sciences*, Kuala Lumpur, Malaysia, 2013
- C12. Huiwen Xu[†], **Hong-Ning Dai**, and Qinglin Zhao, “On the Connectivity of Wireless Networks with Multiple Directional Antennas,” *IEEE International Conference on Networks (ICON)*, Singapore, 2012
- C11. Qingling Zhao, **Hong-Ning Dai**, and Gang Tu, “MAC Enhancements for Wireless LANs,” *the 8th International Conference on Networked Computing (INC)*, Gyeongju, Korea, 2012
- C10. **Hong-Ning Dai**, Soung Chang Liew, and Liquan Fu, “Link Scheduling in Multi-Transmit-Receive Wireless Networks,” *the 36th IEEE Conference on Local Computer Networks (LCN)*, Bonn, Germany, 2011
- C9. **Hong-Ning Dai**, Dong Li, and Raymond Chi-Wing Wong, “Exploring Security Improvement of Wireless Networks with Directional Antennas,” *the 36th IEEE Conference on Local Computer Networks (LCN)*, Bonn, Germany, 2011
- C8. **Hong-Ning Dai**, Kam-Wing Ng, and Min-You Wu, “Upper Bounds on the Number of Channels to Ensure Collision-free Communications in Multi-Channel Wireless Networks Using Directional Antennas,” *IEEE Wireless Communications and Networking Conference (IEEE WCNC)* 2010, Sydney, Australia
- C7. **Hong-Ning Dai**, “Throughput and Delay in Wireless Sensor Networks using Directional Antennas,” *the Fifth International Conference on Intelligent Sensors, Sensor Networks and Information Processing (IEEE ISSNIP)* 2009, Melbourne, Australia
- C6. **Hong-Ning Dai**, Kam-Wing Ng, Raymond Chi-Wing Wong, and Min-You Wu, “On the Capacity of Multi-Channel Wireless Networks Using Directional Antennas,” *the 27th IEEE Conference on Computer Communications (IEEE INFOCOM)* 2008, Phoenix, USA
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- C4. **Hong-Ning Dai**, Kam-Wing Ng, and Min-You Wu, “A Busy-Tone based MAC Scheme for Wireless Ad Hoc Networks using Directional Antennas,” *the 50th Annual IEEE Global Telecommunications Conference (IEEE GLOBECOM)* 2007, Washington D.C., USA
- C3. **Hong-Ning Dai**, Kam-Wing Ng, and Min-You Wu, “An Overview of MAC Protocols with Directional Antennas in Wireless ad hoc Networks,” *International Conference on Wireless and Mobile Communications (ICWMC)* 2006, Bucharest, Romania, July 29-31, 2006
- C2. Guihua Wen, **Hong-Ning Dai**, and Yuehua Ding, “A Conceptual Hyper-graph Model for Creative Design,” *the 9th Conference of China Association of Artificial Intelligence*, Beijing, China, Sept. 9, 2001 (Chinese)
- C1. **Hong-Ning Dai**, Guihua Wen, and Yuehua Ding, “Creative Oriented Database Management System,” *Postgraduate Research Symposium on Computer Science*, South China University of Technology, Guangzhou, China, Nov. 8, 2001 (Chinese)

Patents

- P2. **Hong-Ning Dai**, Xuran Li, Qiu Wang and Athanasios V. Vasilakos, “An improved anti-eavesdropping shelter for protection of wireless communication”, US Patent 9,800,367 B1, Oct. 24, 2017
- P1. **Hong-Ning Dai**, Xuran Li, Qiu Wang and Athanasios V. Vasilakos, “An improved anti-eavesdropping shelter for protection of wireless communication”, Australian Innovation Patent 2,017,100,336, Mar. 27, 2017

Books

- M4. **Hong-Ning Dai**, Xuanzhe Liu, Daniel Xiapu Luo, Jiang Xiao, and Xiangping Chen, “Third International Conference, BlockSys 2021, Guangzhou, China, August 5–6, 2021, Revised Selected Papers”, Springer, 2021 (<https://link.springer.com/book/10.1007/978-981-16-7993-3>)
- M3. Zibin Zheng, **Hong-Ning Dai**, and Jiajing Wu (editors), “Blockchain Intelligence: Methods, Applications and Challenges”, Springer, ISBN 978-981-16-0126-2 (<https://www.springer.com/gp/book/9789811601262>), 2021
- M2. Zibin Zheng, **Hong-Ning Dai**, Xiaodong Fu, and Benhui Chen, “Blockchain and Trustworthy Systems – Second International Conference, BlockSys 2020, Dali, China, August 6–7, 2020, Proceedings: Second International Conference, BlockSys 2020, Dali, China, August 6–7, 2020, Proceedings”, Springer, 2020
- M1. Zibin Zheng, **Hong-Ning Dai**, Mingdong Tang, and Xiangping Chen, “Blockchain and Trustworthy Systems – First International Conference, BlockSys 2019, Guangzhou, China, December 7–8, 2019, Proceedings: First International Conference, BlockSys 2019, Guangzhou, China, December 7–8, 2019, Proceedings”, Springer, 2020

Book Chapters

- B8. Xiangwen Deng, Xiaofen Wang, Lin Li, **Hong-Ning Dai**, and Weixin Hu, “A Reliable and Privacy-Preserving Truth Discovery Scheme for Mobile Crowdsensing Based on Functional Encryption”, in *Communications in Computer and Information Science* (CCIS, volume 2315), pp. 365–382, 2024
- B7. Huawei Huang, Zhengyu Yue, Xiaowen Peng, Liuding He, Wuhui Chen, **Hong-Ning Dai**, Zibin Zheng, and Song Guo, “Elastic Resource Allocation in Sharding-Based Blockchains”, in *Blockchain Scalability*, 2023
- B6. Zhuorui Zhang, Bishenghui Tao, Xuran Li, and **Hong-Ning Dai**, “An amalgamation of blockchain and connected health for combating COVID-19”, in *Blockchain in Healthcare*, Integrated Science book series, Springer, 2022
- B5. Yatao Yang, Zibin Zheng, Chunzhen Huang, Kunmin Li and **Hong-Ning Dai**, “A novel hybrid data mining framework for credit evaluation”, *Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering book series* (LNICST), vol. 201, Springer, 2017
- B4. Junhao Zhou, Hong Xiao, Hao Wang, and **Hong-Ning Dai**, “Parallelizing Simulated Annealing Algorithm in Many Integrated Core Architecture,” *Lecture Notes in Computer Science* (LNCS), vol. 9787, Springer, 2016
- B3. Zhijie Ma, Qinglin Zhao, Yu Zeng, Huan Zhang, **Hong-Ning Dai**, “AT-MAC: A Novel Full Duplex MAC Design for Achieving Asymmetric Transmission,” *Lecture Notes in Electrical Engineering book series* (LNEE), vol. 391, Springer, 2016
- B2. Huan Zhang, Qinglin Zhao, Pei Dang, **Hong-Ning Dai** and Zhijie Ma, “A weighted T2F scheme for WLANs,” *Lecture Notes in Electrical Engineering book series* (LNEE), vol. 310, Springer, 2015
- B1. **Hong-Ning Dai**, Minglu Li, Linpeng Huang, Yi Wang, Feng Hong, “GRAMS: A Grid Resource Analysis and Monitoring System,” *Lecture Notes in Comput. Sci.* Springer-Verlag, Vol. 3516, pp. 875 - 878, 2005

Editorials of Journal Special Issues

- E11. Jiajing Wu, **Hong-Ning Dai**, Qi Xuan, Radosław Michalski, and Xi Chen, “Blockchain transaction data mining and its applications” (Guest Editorial), in *IET Blockchain*, Vol. 4, No. 3, pp. 223-225, 2024
- E10. Haibo Zhou, **Hong-Ning Dai**, Xiang Cheng, Diep N. Nguyen, and Hina Tabassum, “Guest Editorial: Mobile AI-Generated Content (AIGC) in 6G Era”, in *IEEE Wireless Communications*, vol. 31, no. 4, pp. 12-13, August 2024
- E9. **Hong-Ning Dai**, Xiapu Luo, Zibin Zheng, Yan Zhang, and Qin Hu, “Guest Editorial Introduction to the Special Section on Advanced Networking Technologies for Web 3.0”, in *IEEE Transactions on Network Science and Engineering*, vol. 11, no. 5, pp. 3915-3917, Sept.-Oct. 2024
- E8. **Hong-Ning Dai**, “Guest Editorial: Special issue on ”Web-based intelligent financial services: emerging challenges and recent advances”, in *World Wide Web*, vol. 26, no. 5, pp. 2833-2834, 2023
- E7. **Hong-Ning Dai**, Hoang Pham, Arun Kumar Sangaiah, Rodrigo Capobianco Guido, “Guest Editorial: Special Section on Next Generation Blockchain Technology With Industrial IoT in Industry 4.0”, *IEEE Transactions on Industrial Informatics*, Vol. 18, No. 12, pp. 9151-9152, 2022
- E6. **Hong-Ning Dai**, Zibin Zheng, Yan Zhang, Michael Rung-Tsong Lyu, and Alberto Nannarelli, “Special Section on Scalable Computing for Blockchain Systems”, *IEEE Transactions on Emerging Topics in Computing*, Vol. 9, No. 3, pp. 1372, 2021
- E5. **Hong-Ning Dai**, Sabita Maharjan, Zibin Zheng, Patrick C. K. Hung, Quanqing Xu, Wen Sun, “IEEE Access Special Section Editorial: Blockchain-Enabled Trustworthy Systems”, *IEEE Access*, Vol. 9, PP. 67680-67683, 2021
- E4. Yan Zhang, Zibin Zheng, and **Hong-Ning Dai**, “Guest Editorial: Blockchain Solutions for Industrial Internet of Things”, *IEEE Transactions on Industrial Informatics*, Vol. 17, No. 11, Nov. 2021
- E3. Meikang Qiu, **Hong-Ning Dai**, Arun Kumar Sangaiah, Kaitai Liang, and Xi Zheng, “Guest Editorial: Special Section on Emerging Privacy and Security Issues brought by Artificial Intelligence in Industrial Informatics”, *IEEE Transactions on Industrial Informatics*, Vol. 16, No. 3, March 2020
- E2. Shangguang Wang, **Hong-Ning Dai**, Wuhui Chen, “Guest editorial: Blockchain for Internet of Things”, *China Communications*, Vol. 17, No. 9, Sept. 2020
- E1. Yan Zhang, Zibin Zheng, **Hong-Ning Dai**, and D. Svetinovic, “Guest Editorial: Special Section on “Blockchain for Industrial Internet of Things”, *IEEE Transactions on Industrial Informatics*, vol. 15, no. 6, pp. 3514-3515, June 2019.

Ph.D. Thesis

- **Hong-Ning Dai**, “Collision Avoidance Mechanisms in Multi-channel Wireless Networks Using Directional Antennas,” The Chinese University of Hong Kong, 2008 (published by ProQuest LLC.)

Supervision of Postgraduate Students

- Current Ph.D. Students at HKBU
 - Jingwen Wu, “Large-language model-driven industrial software analysis”, Sep. 2024 - present
 - Fengliang He, “Human behaviour recognition by IMU and acoustic signals”, Sep. 2023 - present
- Current co-supervised Ph.D. Students at SYSU
 - Hanyang Guo, “Large-language model-driven virtual reality software analysis”, Dec. 2022 - present
 - Mingxi Ye, “Greybox fuzzing for smart contracts”, May 2021 - present
 - Jianzhong Su, “Reinforcement Learning-based fuzzing for smart contracts”, May 2021 - present
 - Zhijie Zhong, “Detecting Permission Re-delegation Vulnerability in Smart Contracts”, May 2022 - present
- Graduated Ph.D. students
 - Yalin Liu, “Unmanned Aerial Vehicle assisted Communications for Internet of Remote Things”, Ph.D. defense on 16/09/2022
 - Cai Guo, “Deep Learning-based Restoration for Motion Blurred Images”, Ph.D. defense on 14/09/2022
 - Qian Wang, “Learning to paint: style-stroke based Artificial Intelligence painting”, Ph.D. defense on 14/09/2022
 - Jinghua Yang, “Research on Model-driven and Data-driven Methods for High-dimensional Data Processing”, Ph.D. defense on 15/05/2023
 - Bishenghui Tao, “Complex Network Analysis of Blockchain Networks and its Applications”, Ph.D. defense on 28/08/2023
 - Aolin Che, “Research on Security Risks of Deep Learning based Image Recognition Models”, Ph.D. defense on 22/11/2023
 - Junhao Zhou, “Lightweight Approach and Attention Mechanism in Deep Learning: Methods and Applications”, Ph.D. defense on 27/08/2020
 - Qubeijian Wang, “UAV-enabled Internet of Things”, Ph.D. defense on 27/08/2020
 - Qiu Wang, “Performance Analysis of Wireless Terrestrial and Underwater Networks”, Ph.D. defense on 30/10/2018
 - Xuran Li, “On Friendly Jamming Schemes in Wireless Networks”, Ph.D. defense on 25/07/2018
- Graduated MPhil students
 - Chenmao Lu, “Application of Machine Learning Technology in Network Intrusion Detection – Exploring in Cloud Intrusion Detection”, M.Sc. defense on 01/04/2021
 - Zhuorui Zhang, “Forecasting Cryptocurrency Price Using Convolutional Neural Networks with Weighted and Attentive Memory Channels”, M.Sc. defense on 24/06/2021
 - Nan Jiang, “Attention Guided Multi-Branch Fusion GAN for Face Sketch Synthesis”, M.Sc. defense on 05/07/2021
 - Aolin Che, “Deep Learning-based Captcha Solver: Countermeasures”, M.Sc. defense on 15/07/2020
 - Linqi Tang, “Stylized Cartoon-alike Rendering via Image Abstraction”, M.Sc. defense on 15/07/2020
 - Yalin Liu, “Unmanned Aerial Vehicle-enabled Internet of Things”, M.Sc. defense on 26/07/2019
 - Qingyong Wang, “Semi-supervised learning method with ensemble self-training for Cancer Classification”, M.Sc. defense on 30/05/2018 (co-supervised with Prof. Yong Liang)
 - Qi Sun, “Research on Protective Jamming Scheme with Wireless Energy Transfer”, M.Sc. defense on 25/07/2018
 - Yuanyuan Wang, “The Performance Analysis of Large Scale Wireless Networks”, M.Sc. defense on 17/05/2016
 - Xuran Li, “Modeling Eavesdropping Attacks in Wireless Networks”, M.Sc. defense on 25/05/2015
 - Qiu Wang, “The Security and Connectivity of Wireless Networks: Impacts of Antenna Models”, M.Sc. defense on 08/05/2014

External Ph.D./M.Sc. Thesis Committee Members

- External Member of Ph.D. Dissertation Committee, Department of Electrical Engineering, the City University of Hong Kong, Hong Kong, 2024
- External Member of Ph.D. Dissertation Committee, Department of Computing, The Hong Kong Polytechnic University, Hong Kong, 2023, 2024
- External Member of Ph.D. Dissertation Committee, School of Computer Science and Engineering, Macau University of Science and Technology, Macau, 2022

- External Member of Ph.D. Dissertation Committee, Faculty of Science, Engineering and Technology, Swinburne University of Technology, Australia, 2020
- External Member of M.Sc. Thesis Committee, Norges teknisk-naturvitenskaplige universitet (Norwegian University of Science and Technology NTNU), Norway, 2019
- External Member of Ph.D. Dissertation Committee, School of Electrical, Computer and Telecommunications Engineering, University of Wollongong, Australia, 2016
- External Member of Ph.D. Dissertation Committee, School of Electrical, Computer and Telecommunications Engineering, University of Wollongong, Australia, 2015

Professional Activities

- Funding Proposal Reviewer
 - Faculty Development Scheme of University Grants Committee (UGC), 2023, 2024
 - Research Development Fund for Xi'an Jiaotong-Liverpool University (XJTLU), Suzhou, China, 2022, 2023, 2024
 - Competitive Internal Research Award Evaluation for Khalifa University of Science & Technology, Abu Dhabi, United Arab Emirates, since May 2019
 - Science and Technology Development Fund of Macau, Macau SAR, 2017, 2018, 2019, 2020, 2021
 - National Science Foundation of China (NSFC) and the Science and Technology Development Fund of Macau SAR (NSFC-FDCT) Joint Project, Macau SAR, Feb. 2017
 - Postdoc Research Grants, Nansha Information Technology Park, Guangzhou, China, August 2016
 - Faculty Research Grants, Macau University of Science and Technology, 2016, 2017, 2018
- Book Proposal Reviewer
 - Wiley, 2022
 - Springer Nature (Computer Science), 2020, 2021
 - IOP Publishing, Bristol, UK, 2020
- Founding Member of IEEE Technology and Engineering Management Society (TEMS)'s Technical Committee (TC) on Blockchain and Distributed Ledger Technologies (DLT)
- Founding Member of the IEEE Special Interest Groups (SIG) on Intelligent Internet Edge (IIE) at IEEE
- **Organizer for International Conferences**
 1. Steering Committee, International Conference on Blockchain, Artificial Intelligence, and Trustworthy Systems, Zhuhai, China, 30/05 - 31/05, 2025
 2. Special Session Chairs of the 4th IEEE International Conference on Automation in Manufacturing, Transportation, and Logistics (iCaMal2024), Hong Kong, 7/8 - 9/8, 2024
 3. Steering Committee, International Conference on Blockchain, Artificial Intelligence, and Trustworthy Systems, Hangzhou, China, 12/07 - 14/07, 2025
 4. TPC Chairs of Unmanned Vehicle Communications, Vehicular Networks, and Telematics at the 2023 IEEE 98th Vehicular Technology Conference (VTC2023-Fall), Hong Kong, 10/10 - 13/10, 2023
 5. Posters and PhD Track Chairs at the 19th EAI International Conference on Security and Privacy in Communication Networks (SecureComm), Hong Kong, 19/10 - 21/10, 2023
 6. TPC Co-Chair for IEEE ICC 2022 Workshop on Scalable, Secure and Intelligent Blockchain for Future Networking and Communications, Seoul, South Korea, 2022
 7. General Chair for 2021 International Conference on Blockchain and Trustworthy Systems, China, 2021
 8. TPC Co-Chair for the inaugural IEEE Symposium on Blockchain at IEEE SERVICES 2021
 9. TPC Chairs of Airbone and Maritime Mobile Systems and Services at the 2021 IEEE 94th Vehicular Technology Conference (VTC2021-Fall)
 10. TPC Co-Chair for 2020 International Conference on Blockchain and Trustworthy Systems, Dali, China, 2020
 11. TPC Co-Chair for 2019 International Conference on Blockchain and Trustworthy Systems, Guangzhou, China, 2019
 12. TPC Co-Chair for Special Session on Blockchain for Industrial Internet-of-Things to be held in conjunction with IEEE International Conference on Industrial Cyber-Physical Systems, Taipei, Taiwan, 2019

13. TPC Chair (Session Organizer) for the special session on “Recent Advances in Security and Privacy in Wireless Networking Systems” of the 10th International Conference on Information, Communications and Signal Processing, Singapore, 2/12 - 4/12/2015
14. Finance Co-Chair of IEEE International Conference on Communication Systems (ICCS), Macau SAR, 19/11 - 21/11/2014
15. Organization Staff of the 9th ACM International Symposium on Mobile Ad Hoc Networking and Computing (ACM MobiHoc), Hong Kong SAR, 27/05 - 30/05/2008
16. Organization Staff of the 5th Annual Forum on City Informatization In the Asia-Pacific Region (CIAPR V), Shanghai, China, 30/05 - 01/06/2005
17. Organization Staff of the 4th Annual Forum on City Informatization In the Asia-Pacific Region (CIAPR IV), Shanghai, China, 20/04 - 22/04/2004
18. Student helper of IEEE International Conference on Services Computing (SCC), Shanghai, China, 15/09 - 18/09/2004
19. Student helper of International Conference on Grid and Cooperative Computing (GCC), Shanghai, China, 07/12 - 10/12/2003

Memberships

- European Alliance for Innovation (EAI) Senior Member since 2022
- Senior Member of the Association for Computing Machinery (ACM) since 2020
- Senior Member of the Institute of Electrical and Electronics Engineers (IEEE) since 2016
- Member of IEEE from 2005 to 2016
- Member of ACM from 2006 to 2020