

**Title:**

Emerging technologies for cyber attack and defense confrontation

Abstract:

Attack and defense confrontation technology has always been an important topic in the field of cyber security. During the last few years, the evolution of scale and equipment capabilities (e.g. smart devices) of the cyberspace keeps changing the hot scenes of cyber attack and defense. The continuous developed technologies of mobile network, Internet of Things, social networks, and block chain keeps bringing new cyber attack and defense problems. The emergence technologies of big data and deep learning also provide promising data analysis and process capabilities. Therein, the evolution of the cyberspace and involved technologies are bringing brand-new opportunities and challenges to the original cyber attack and defense confrontation. And such opportunities keep promoting the cyber attack and defense confrontation technologies.

The objective of this workshop is to discuss and explore the recent hot topics related to cyber attack and defense confrontation. We cordially invite researchers in industry and academia to share and present their recent insights and emerging results of the cyber attack and defense problems. This workshop has special interest in the cyber attack and defense researches in the field of big data, Internet of Things, block chain, social networks, artificial intelligence, mobile networking, and cloud computing.

Scope and Topics:

Potential topics include but are not limited to:

- ✧ Traffic data analysis for cyber attack and defense
- ✧ Block chain Technologies
- ✧ Cloud security
- ✧ Cloud Data Protection
- ✧ Artificial intelligence for cyber attack and defense
- ✧ IOT security technologies
- ✧ Attack detection and defense architectures for adhoc and mobile networks
- ✧ Cyber attack and defense technologies for smart devices and vehicle networks
- ✧ Data processing and analysis for social network security
- ✧ Deep learning methods for intrusion detection
- ✧ Anonymous communication
- ✧ Network representation-related NLP applications

Program Committee Chairs:

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Zhihong Tian, PH. D., Professor, Ph.D. supervisor, dean of the Institute of Cyberspace Advanced Technology of Guangzhou University, general secretary of Competition-review-practise-exercise Committee of Cybersecurity Association of China, introduced as academic leader by the “Hundred Talents Program” of Guangzhou University, and served as the director of the Computer Network and Information Security Technology Research Center (Beijing branch) of Harbin Institute of Technology. His research interests mainly include cyber range, cyber attack and defense, and network forensics. He

has authored more than 90 papers on journals and conferences of IoTJ, T-SUSC, IEEE ACCESS, INS, JAIHC, COMPUT COMMUN, Computers & Security, IEICE T COMMUN, WIAS, ISCC, GLOBECOM, WWW etc., and more than 20 patents. Serving as the project leader, he presided a number of projects from National Natural Science Foundation of China, National Key Research and Development Program, National 863 Project, and Office of the Central Cyberspace Affairs Commission. His research results won the Heilongjiang Province Science and Technology Progress Award (second prize), and the Heilongjiang Provincial University Science and Technology Progress Award (second prize). He has also received a number of testimonials from Office of the Central Cyberspace Affairs Commission, National Computer Network and Information Security Management Center, and Cybersecurity Association of China.

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Chao Yang graduated from Texas A&M University. His research interest is applying big data and artificial intelligence technologies to enterprise security. He has more than 10 years' experience on academia and industry, and invented a number of patents. He has published 15 top conference and journal papers, which have been cited for more 600 times.

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Shen Su, Assistant Professor, Guangzhou University. He received his B.E, M.E., and PH.D. degree from Harbin Institute of Technology. His research interests include route modelling, route security, cyber range, vehicular networks, wireless sensor networks. He has published more than 20 journal and conference papers in such areas. He has served as the key staff in a number of projects from National



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