2019 ACM International Symposium on Blockchain and Secure Critical Infrastructure (BSCI 2019) Technical Program

Auckland, New Zealand, 8 July 2019
(in conjunction with ACM AsiaCCS'19)
http://www.cloud-conf.net/bsci/2019/

09:00 – 09:15 Workshop Opening

09:15 – 10:15 Keynote Speech   Session Chair: Zijian Zhang
Prof. Joseph Liu (Monash University)
Talk Title: A Blockchain-Enabled Society

10:15 – 10:45 Break

10:45 – 12:15 Session 1: Blockchain Consensus, Framework, and Architecture
Session Chair: Keke Gai

- **Distributed Community Detection over Blockchain Networks Based on Structure Entropy**, Yang Chen (The University of Auckland, New Zealand); Jiamou Liu (The University of Auckland, New Zealand)
- **A New Complex Network Robustness Attack Algorithm**, Xinyi Li (Beijing Institute of Technology, China); Zijian Zhang (Beijing Institute of Technology, China; University of Auckland, New Zealand); Jiamou Liu (The University of Auckland, New Zealand); Keke Gai (Beijing Institute of Technology, China)
- **Proof-of-Play: A Novel Consensus Model for Blockchain-based Peer-to-Peer Gaming System**, Ho Yin Yuen (The Hong Kong Polytechnic University, China); Feijie Wu (The Hong Kong Polytechnic University, China); Wei Cai (The Chinese University of Hong Kong, Shenzhen, China); Henry C.B. Chan (The Hong Kong Polytechnic University, China); Qiao Yan (Shenzhen University, China); Victor C.M. Leung (Shenzhen University, China)
- **A Framework for Maintaining Citizenship Record on Blockchain**, Amrit Jha (Assam Engineering College, India); Rajat Kanti Bhattacharjee (Assam Engineering College, India); Meghali Nandi (Assam Engineering College, India); Ferdous A. Barbhuiya (Indian Institute of Information Technology Guwahati, Assam, India)

12:15 – 13:50 Lunch

14:00 – 15:30 Session 2: Blockchain-based Technical Integrations

Session Chair: Wei Cai

- **Access Control Management for Plant Phenotyping Using Integrated Blockchain**, Mayra Samaniego (University of Saskatchewan, Canada); Cristian Espana (University of Saskatchewan, Canada); Ralph Deters (University of Saskatchewan, Canada)
- **Blockchain-enabled Data Provenance in Cloud Datacenter Reengineering**, Haochen Li (Beijing Institute of Technology, China); Keke Gai (Beijing Institute of Technology, China); Zhengkang Fang (Beijing Institute of Technology, China); Liehuang Zhu (Beijing Institute of Technology, China); Lei Xu (Beijing Institute of Technology, China); Peng Jiang (Beijing Institute of Technology, China)
- **Decentralized Ensemble Learning Based on Sample Exchange among Multiple Agents**, Yong Yu (Southwest University, China); Jia Deng (The University of Auckland, New Zealand); Yanni Tang (Southwest University, China); Jiamou Liu (The University of Auckland, New Zealand); Wu Chen (Southwest University, China)
- **Eclipse-based Stake-Bleeding Attack in PoS Blockchain Systems**, Shijie Zhang (Sangmyung University, South Korea); Jong-Hyouk Lee (Sangmyung University, South Korea)

15:30 – 15:45 Break

15:45 – 17:15 Session 3: Blockchain-enabled Applications
                Session Chair: Zijian Zhang

- **Can we add value to EV certificates?** Pawel Szalachowski (SUTD, Singapore)
- **An Efficient Supply Chain Architecture Based on Blockchain for High-value Commodities**, Zhiyu Xu (Swinburne University, Australia); Tengyun Jiao (Swinburne University, Australia); Qin Wang (Swinburne University, Australia); Cuong Bui Van (Swinburne University, Australia); Sheng Wen (Swinburne University, Australia); Yang Xiang (Swinburne University, Australia)
- **Blockchain in Smart Power Grid Infrastructure**, Mohit Vashistha (Indian Institute of Information Technology Guwahati, Assam, India); Ferdous Ahmed (Indian Institute of Information Technology Guwahati, Assam, India)
- **A Novel Architecture for Tamper Proof Electronic Health Record Management System using Blockchain Wrapper**, Shijie Zhang (Sangmyung University, South Korea); Jong-Hyouk Lee (Sangmyung University, South Korea)

17:15 – 17:55 Session 4: Short Paper Session
                Session Chair: Jong-Hyouk Lee

- **Challenges of Cyber Security and the Emerging Trends**, Md Ali (Rider University, USA); Kutub Thakur (New Jersey City University, USA); Graig Klein (New Jersey City University, USA)

- **Blockchain as a value enabler: Bridging financial assets and intangibles**, Maryam Taghiyeva - Zeynalova (CCEG, UK); Yonghao Wang (Birmingham City University, UK); Olinga Ta'Eed (Birmingham City University, UK)
- **New loan system based on smart contract**, Qi Yang (Wuhan University of Science and Technology, China); Xiao Zeng (Wuhan University of Science and Technology, China); Yu Zhang (Huazhong University of Science and Technology, China); Wei Hu (Wuhan University of Science and Technology, China)

17:55 -18:00   Closing Remark