ICECCS 2020 Program (SGT UTC+8)

Day 1: 4 March, 2021 (Thursday)	
09:30 - 09:50	Opening
09:50 - 10:50	**Keynote 1: Challenges in the Engineering of Complex Systems with Autonomous Capabilities, Prof. Jason Scholz**
10:50 - 11:00	Break
11:00 - 12:15	**Formal Methods 1 (Session Chair: Xiaoning Du)**
	Visual Counterexample Explanation for Model Checking with Oeritte Polina Ovsiannikova (Aalto University, ITMO University), Igor Buzhinsky (Aalto University, ITMO University), Antti Pakonen (VTT Technical Research Centre of Finland Ltd.), Valeriy Vyatkin (Aalto University, ITMO University, Lulea Tekniska Universitet)
	CTL Model Checking of Self Modifying Code Tayssir Touili (CNRS, France), Xin Ye (LIPN, France)
	Formal Verification of Access Control Model for My Health Record System Victor Rivera (Australian National University)
12:15 - 14:00	Break
14:00 - 15:15	**Deep Learning (Session Chair: Xiaofei Xie)**
	Deep Learning Application in Broadcast Tennis Video Annotation Kan Jiang (National University of Singapore, Singapore), Masoumeh Izadi (Television Content Analytics Pte Ltd, Singapore), Zhaoyu Liu (Television Content Analytics Pte Ltd, Singapore), Jin Song Dong (National University of Singapore, Singapore, and, Griffith University, Australia)
	SeqMobile: An Efficient Sequence-Based Malware Detection System Using RNN on Mobile Devices Ruitao Feng (Nanyang Technological University), Jing Qiang Lim (Nanyang Technological University), Sen Chen (Nanyang Technological University; Tianjin University), Shang-Wei Lin (Nanyang Technological University), Yang Liu (Nanyang Technological University)
	An Empirical Study on Correlation between Coverage and Robustness for Deep Neural Networks Yizhen Dong (Tianjin University, China), Peixin Zhang (Zhejiang University, China), Jingyi Wang (National University of Singapore, Singapore), Shuang Liu (Tianjin University, China), Jun Sun (Singapore Management University, Singapore), Jianye Hao (Tianjin University, China and Noah's Ark Lab, Huawei), Xinyu Wang (Zhejiang University, China), Li Wang (Tianjin University, China), Jin Song Dong (National University of Singapore, Singapore), Ting Dai (Huawei International Pte.Ltd., Singapore)
15:15 - 15:25	Break
15:25 - 16:40	**Software Development (Session Chair: Lingling Fan)**
	Gathering GitHub OSS Requirements from Q&A Community: an Empirical Study Hao Huang (National University of Defense Technology, China), Yao Lu (National University of Defense Technology, China), Xinjun Mao (National University of Defense Technology, China)
	iFix: Fixing Concurrency Bugs While They Are Introduced Zan Wang (College of Intelligence and Computing, Tianjin University), Haichi Wang (College of Intelligence and Computing, Tianjin University), Shuang Liu (College of Intelligence and Computing, Tianjin University), Jun Sun (School of Information Systems, Singapore Management University), Haoyu Wang (College of Intelligence and Computing, Tianjin University), Junjie Chen (College of Intelligence and Computing, Tianjin University)
	A Fault Localization Approach Derived from Testing-Based Formal Verification Rong Wang (Hosei University), Shaoying Liu (Hiroshima University), Yuji Sato (Hosei University)

Day 2: 5 March, 2021 (Friday)	
09:30 - 10:30	**Keynote 2: Visual Perception of Machine for Smart Farming, Prof. Yongsheng Gao**
10:30 - 10:40	Break
10:40 - 11:55	**Formal Methods 2 (Session Chair: Sen Chen)**
	RL: a Language for Formal Engineering Hadrien Bride (Griffith University, Australia), Jin Song Dong (Nantional University of Singapore, Singapore), Zhé Hóu (Griffith University, Australia), Brendan Mahony (Defence Science and Technology, Australia), Jim McCarthy (Defence Science and Technology, Australia)
	Parametric Non-Interference in Timed Automata Étienne André (Université de Lorraine, CNRS, Inria, LORIA, Nancy, France), Aleksander Kryukov (Université de Lorraine, CNRS, Inria, LORIA, Nancy, France)
	Automatic Verification of Multi-Threaded Programs by Inference of Rely-Guarantee Specifications Xuan-Bach Le (School of Computer Science and Engineering, Nanyang Technological University, Singapore), David Sanán (School of Computer Science and Engineering, Nanyang Technological University, Singapore), Sun Jun (School of Information Systems, Singapore Management University, Singapore), Shang-Wei Lin (School of Computer Science and Engineering, Nanyang Technological University, Singapore)
11:55 - 14:00	Break
14:00 - 15:15	**Blockchain and Security (Session Chair: Yun Lin)**
	The Burn-to-Claim Cross-Blockchain Asset Transfer Protocol Babu Pillai (Griffith University), Kamanashis Biswas (Australian Catholic University), Zhé Hóu (Griffith University), Vallipuram Muthukkumarasamy (Griffith University)
	DEPOSafe: Demystifying the Fake Deposit Vulnerability in Ethereum Smart Contracts Ru Ji (Beijing University of Posts and Telecommunications, China), Ningyu He (Peking University, China), Lei Wu (Zhejiang University, China), Haoyu Wang (Beijing University of Posts and Telecommunications, China), Guangdong Bai (The University of Queensland, Australia), Yao Guo (Peking University, China)
	Foggy: A New Anonymous Communication Architecture Based on Microservices Hanlin Wei (School of Information Technology and Electrical Engineering, University of Queensland), Guangdong Bai (School of Information Technology and Electrical Engineering, University of Queensland), Zongwei Luo (BNU-UIC Institute of Artificial Intelligence and Future Networks, Beijing Normal University (BNU Zhuhai))
15:15 - 15:25	Break
15:25 - 16:40	**Infrastructures (Session Chair: Cuiyun Gao)**
	The Semantic Spreadsheet Behzad Farokhi (University of Auckland), Katharina Dost (University of Auckland), Gerald Weber (University of Auckland), Jing Sun (University of Auckland), Christof Lutteroth (University of Bath)
	ReoFS: A Read-Efficient and Write-Optimized File System for Persistent Memory Yan Yan (Shanghai Jiaotong University, China), Kaixin Huang (Shanghai Jiaotong University, China), Shengan Zheng (Tsinghua University, China), Dongliang Xue (Shanghai Jiaotong University, China), Linpeng Huang (Shanghai Jiaotong University, China)
	ROS-FM: Fast Monitoring for the Robotic Operating System(ROS) Sean Rivera (University of Luxembourg), Antonio Ken Iannillo (University of Luxembourg), Sofiane Lagraa (University of Luxembourg), Clément Joly (Télécom Nancy), Radu State (University of Luxembourg)

Day 3: 6 March, 2021 (Saturday)	
09:30 - 10:30	**Keynote 3: Data Provenance and Cybersecurity: Research Challenges and Opportunities, Prof. Ryan Ko**
10:30 - 10:40	Break
10:40 - 11:55	**Planning and Optimization (Session Chair: Ming Fan)**
	Optimizing Communication Strategies in Contested and Dynamic Environments Claudia Szabo (University of Adelaide), Vanja Radenovic (Defence Science Technology Group), Gregory Judd (Defence Science Technology Group), Dustin Craggs (University of Adelaide), Kin Leong Lee (University of Adelaide), Xiaoshan Chen (University of Adelaide), Kevin Chan (Army Research Lab)
	An Anytime Algorithm for Large-Scale Heterogeneous Task Allocation Qinyuan Li (Engineering and Technology Swinburne University of Technology), Minyi Li (School of Science RMIT University), Bao Quoc Vo (Engineering and Technology Swinburne University of Technology), Ryszard Kowalczyk (Engineering and Technology Swinburne University of Technology, Systems Research Institute Polish Academy of Sciences)
	Automated Planning for Software Architectural Migration Nacha Chondamrongkul (University of Auckland), Jing Sun (University of Auckland), Ian Warren (University of Auckland)
11:55 - 14:00	Break
14:00 - 15:40	**Robotics and Autonomous Systems (Session Chair: Ting Su)**
	Safety Controller Synthesis for Collaborative Robots Mario Gleirscher (University of York, United Kingdom), Radu Calinescu (University of York, United Kingdom)
	Achieving Weight Coverage for an Autonomous Driving System with Search-Based Test Generation Thomas Laurent (University College Dublin, Ireland), Paolo Arcaini (National Institute of Informatics, Japan), Fuyuki Ishikawa (National Institute of Informatics, Japan), Anthony Ventresque (University College Dublin, Ireland)
	Formal Synthesis of Trajectories for Unmanned Aerial Vehicles to Perform Resilient Surveillance of Critical Power Transmission Lines Mohammad Ashiqur Rahman (Florida International University, USA), Rahat Masum (Tennessee Tech University, USA), Matthew Anderson (Air Force Research Laboratory Information Directorate, USA), Steven L. Drager (Air Force Research Laboratory Information Directorate, USA)
	Towards Deductive Verification of Control Algorithms for Autonomous Marine Vehicles Simon Foster (University of York, UK), Mario Gleirscher (University of York, UK), Radu Calinescu (University of York, UK)