



The 27th International Conference on Engineering of Complex Computer Systems

Toulouse, 14 - 16 June 2023

ICECCS 2023 Program



Institut de Recherche
en Informatique de Toulouse
CNRS - INP - UT3 - UT1 - UT2J



Systems, Technologies and Applications
for Radiofrequency and Communications (STARaCom)



Wednesday, June 14

8:30 - 9:00	Registration
9:00 - 9:30	Opening Session
9:30 - 10:30	ICECCS Session I: Keynote Disproving XAI Myths with Formal Methods – Initial Results Joao Marques-Silva, CNRS, IRIT Toulouse
10:30 - 11:00	Coffee Break
11:00 - 12:30	ICECCS Session II: AI-Robustness and Explainability
11:00	Supervised Robustness-preserving Data-free Neural Network Pruning Mark Huasong Meng, Guangdong Bai, Sin G. Teo and Jin Song Dong
11:30	Quantitative Explainable AI For Face Verification Shu Peng, Naipeng Dong and Guangdong Bai
12:00	How to select samples for active learning? Document clustering with active learning methodology Norbert Ropiak, Mateusz Gniewkowski, Michał Swędrowski, Michał Pogoda, Karol Gawron, Bartłomiej Bojanowski and Tomasz Walkowiak
12:30 - 14:00	Lunch Break
14:00 - 16:00	ICECCS Session III: AI-Formalization and Certification
14:00	Certifying Semantic Robustness of Deep Neural Networks Hao Bu and Meng Sun
14:30	Reliability Analysis of Architectural Safeguards for AI-enabled Systems Max Scheerer and Ralf Reussner
15:00	AutoMTLSpec: Learning to Generate MTL Specifications from Natural Language Contracts Ning Ge, Jinwen Yang and Tianyu Yu
15:30	A Mathematical Model for Analyzing Honeynets and Their Cyber Deception Techniques Amir Javadpour, Forough Ja'Fari, Tarik Taleb and Chafika Benzaid
16:00 - 16:30	Coffee Break
16:30	City of Toulouse Tour

Thursday, June 15

9:30 - 10:30	ICECCS Session IV: Keynote Sports Analytics Using Probabilistic Model Checking and Deep Learning Jin Song Dong, National University of Singapore
10:30 - 11:00	Coffee Break
11:00 - 12:30	ICECCS Session V: System Verification
11:00	Expiring Opacity Problems in Parametric Timed Automata Étienne André, Engel Lefauchaux and Dylan Marinho
11:30	Model Checking of Intersection Traffic Control Protocols Yuya Noguchi and Tatsuhiro Tsuchiya
12:00	Utilizing Risk Number and Program Slicing to Improve Human-Machine Pair Inspection Yujun Dai, Shaoying Liu, Guangquan Xu and Ai Liu
12:30 - 14:00	Lunch Break
14:00 - 15:30	ICECCS Session VI: Software Systems Modeling and Engineering
14:00	Polyglot AST: Towards Enabling Polyglot Code Analysis Philémon Houdaille, Djamel Eddine Khelladi, Romain Briend, Robbert Jongeling and Benoit Combemale
14:30	Ont4Sys: Ontology-based tool of Semantic Representation and Verification for Traceability Models Qian Wang, Jing Liu, John Zhang, Hui Dou, Haiying Sun, Xiaohong Chen and Jifeng He
15:00	Reasoning for Physical Quantities, Units, and Measurements in Isabelle/HOL Simon Foster and Burkhart Wolff
15:30 - 16:00	Coffee Break
16:00 - 17:30	ICECCS Session VII: Formal System Development
16:00	Rapid Prototyping & Development Life Cycle for Smart Applications of Internet of Entities Pierfrancesco Bellini, Daniele Bologna, Marco Fanfani, Luciano Alessandro Ipsaro Palesi, Paolo Nesi and Gianni Pantaleo
16:30	Detecting Security Vulnerabilities in Human-Machine Pair Programming with Pointer Analysis Pingyan Wang and Shaoying Liu
17:00	Specification and Verification of Communication Paradigms for CBSE in Event B Loïc Thierry, Jason Jaskolka, Brahim Hamid and Jean-Paul Bodeveix
19:30	Gala Dinner

Friday, June 16

9:30 - 10:30	ICECCS Session VIII: Keynote Testing Automation using RoboStar Ana Cavalcanti, University of York
10:30 - 11:00	Coffee Break
11:00 - 12:30	ICECCS Session IX: Verification and Testing of Robotic Systems
11:00	Automated Compositional Verification for Robotic State Machines using Isabelle/HOL Fang Yan, Simon Foster and Ibrahim Habli
11:30	Stability-aware Exploration of Design Space of Autonomous Robots for Goods Delivery Mauricio Byrd Victorica, Paolo Arcaini, Fuyuki Ishikawa, Hirokazu Kawamoto, Kaoru Sawai and Eiichi Muramoto
12:00	RPA Testing using Concolic Execution Ciprian Paduraru, Marina Cernat and Adelina Staicu
12:30 - 14:00	Lunch Break
14:00 - 15:30	ICECCS Session X: Transportation Systems Engineering
14:00	An Experience Report on the Optimization of the Product Configuration System of Renault Hao Xu, Souheib Baarir, Tewfik Ziadi, Siham Essodaigui, Yves Bossu and Lom Messan Hillah
14:30	Validating Communication of a Dynamic Traffic Management System Jeroen Verbakel, Wan Fokkink, Joanna Van de Mortel and Jacobus Rooda
15:00	Formal Alignment of Requirements Models with High-level Architecture Models Racem Bougacha, Régine Laleau and Simon Collart-Dutilleul
15:30	Closing
	Coffee Break