

Full Program

EAI SIMUtools 2024

16th EAI International Conference on Simulation Tools and Techniques

9-10 December, 2024

Time for each presentation slot: 20 min:

15 min presentation + 5 min Questions and Answers

DATE	TIME	ACTIVITY
Monday, December 9, 2024. Crowne Plaza, Warsaw Room (1st Floor)		
	8:30 - 9:00	Registration (Crowne Plaza Hall – 1st Floor)
	9:00 - 9:15	Opening Ceremony
	9:15 - 10:15	Keynote Speaker - William Knottenbelt Title: The Difficulty of Adjusting Difficulty in Proof-of-Work Blockchains

	10:15 - 11:15	Keynote Speaker - Stephan Onggo Title: Simulation Modeling in the Digital Twin Era
	11:15 - 11:40	Coffee & Tea Break (1st Floor)
	11:40 - 13:00	Technical Session 1: Simulation Tools and Methods Session Chair: <i>Ángel A. Juan (Universitat Politècnica de València, Spain)</i>
	11:40 - 12:00	Sim-Learnheuristics: A Tool for Decision Making under Stochastic and Dynamic Conditions
	12:00 - 12:20	The Role of Interfaces in Modelling
	12:20 - 12:40	Interfaces in Ecosystems: Concepts, Form, and Implementation
	12:40 - 13:00	Minimalistic System Modelling: Behaviours, Interfaces, and Local Reasoning
	13:00 - 14:30	Lunch – Restaurant Fresh (Ground Floor)
	14:30 - 16:10	Technical Session 2: Traffic Simulations Session Chair: <i>José Luis Guisado Lizar (Universidad de Sevilla, Spain)</i>

	14:30 - 14:50	Integrating Simulation and AI for Optimal Electric Vehicle Charging Infrastructure: Achievements and Future Directions
	14:50 - 15:10	Integrating Fast Electric Vehicle Charging and Charge-Site Power-Limiting in SUMO
	15:10 - 15:30	A Simheuristic for the Stochastic Multi-Depot Traveling Facility Location Problem with Electric Vehicles
	15:30 - 15:50	Effect of maintenance and failure on electrical vehicles charging scheduling at an Airport
	15:50 - 16:10	Validation and Verification Techniques in Simulation Modelling for Freight Transportation
	16:10 - 16:40	Coffee & Tea Break (1st Floor)
	16:40 - 18:20	Technical Session 3: Logistics and Manufacturing <i>Session Chair: Gerald Franzl (University for Continuing Education Krems - DISS)</i>
	16:40 - 17:00	A Simulation-Optimisation Tool for Routing Drones in Realistic Conditions
	17:00 - 17:20	AKRIMA - An Automated Adaptive System for Crisis Monitoring and Management

	17:20 - 17:40	ARMS: Activity-Resource Modelling Simulator
	17:40 - 18:00	Improvements to the Region-based Petri Nets Synthesis Algorithm for Process Mining
	18:00 - 18:20	Cross-Dataset Generalization: Bridging the Gap Between Real and Synthetic LiDAR Data
	19:30 - 21:30	<u>Gala Dinner (Bratislavský Meštiansky Pivovar Dunajská)</u>

Tuesday, December 10, 2024. Crowne Plaza, Warsaw Room (1st Floor)		
	9:00 - 10:00	Keynote Speaker - Patrick Hirsch Title: Facilitating Resilience during an African Swine Fever Outbreak in the Austrian Pork Supply Chain through Hybrid Simulation Modelling
	10:00 - 11:20	Technical Session 4: Robotics Simulations Session Chair: <i>Alejandro Linares Barranco (Professor at Architecture and Technology of Computers Department, Universidad de Sevilla)</i>
	10:00 - 10:20	On the simulation of a neuromorphic robotic arm with dynamic control for rapid trajectories evaluation
	10:20 - 10:40	On implementing the Sparse Events Closed-Loop Control theory for the CartPoleSimulation
	10:40 - 11:00	Simulation and operation of a 6DoF robotic arm: a microservices approach.
	11:00 - 11:20	Flexible Visualization for Modular Autonomy Cores of Autonomous Robot Swarms
	11:20 - 11:50	Coffee & Tea Break (1st Floor)
	11:50 - 12:50	Technical Session 5: Applications of Simulations Session Chair: <i>David Pym (Professor of Information, Logic, and Security at UCL, University of London)</i>

	11:50 - 12:10	A653MSim: An ARINC 653 Multicore Simulator
	12:10 - 12:30	Docker-based web service to aid prostate cancer diagnosis using deep-learning techniques
	12:30 - 12:50	Seamless Data Persistence in Simulation Models: A Metaprogramming Approach in Julia
	13:00 - 14:30	Lunch – Restaurant Fresh (Ground Floor)
	14:30 - 16:30	Technical Session 6: Network Simulations <i>Session Chair: Toshiyuki Miyachi (National Institute of Information and Communications Technology)</i>
	14:30 - 14:50	Positioning of a Next Generation Mobile Cell to Maximise Aggregate Network Capacity
	14:50 - 15:10	Dynamic Data Radio Bearer Management for O-RAN Slicing in 5G Standalone Networks
	15:10 - 15:30	CyReal: A Unified Framework for Continuous Evaluation of Simulations, Emulations, and Real Systems
	15:30 - 15:50	JASPER: An Agent-Based Simulation Tool for Test and Evaluation of Jammer-Angle Allocation Algorithms (Remote Presentation)

	15:50 - 16:10	Barriers and Challenges of Network Simulation Tools: A Case Study on CORE/EMANE (Remote Presentation)
	16:10 - 16:45	Coffee & Tea Break (1st Floor)
	16:45 - 17:00	Closing Ceremony + Best Paper Award
	17:00	Social program (Christmas Markets)