



Start Time	Conference Program Day 1 (Friday, 09 June 2023)			
16:00	Registration			
19:00	Cocktail Reception			
21:00	End of Day 1			
Start Time	Conference Program Day 2 (Saturday, 10 June 2023)			
8:30	Registration			
9:15	Opening - Welcome speech			
09:30	Keynote Speech 1: From Romeo & Juliet to OceanOne^k Deep-Sea Robotic Exploration by Prof. Oussama Khatib Professor of computer science Stanford University, USA			
10:15	Tea Break			
		ID	Authors	Paper Title
10:45	Sensor fusion and Deep Learning	130	Yanpu Yun, Guohao Peng, Jun Zhang, Mingxing Wen, Danwei Wang	Robust Day and Night Object Detection Based on Heterogeneous Sensors and Information Fusion
		132	Haoyuan Zhang, Tingtao Liu, Zhenyu Wu, Danwei Wang	A Dataset for Object Detection in Night Rainy Scenes
		133	Zhenyu Wu, Wei Wang, Haoyuan Zhang, Jun Zhang, Qiyang Lyu, Danwei Wang	Magnetic Field-Aided Global Localization in Repetitive Environments
		135	Jun Zhang*, Renxiang Xiao*, Heshan Li, Yiyao Liu, Xudong Suo, Chaoyu Hong, Zhongxu Lin, Danwei Wang	4DRT-SLAM: Robust SLAM in Smoke Environments using 4D Radar and Thermal Camera based on Dense Deep Learnt Features
		113	Yucheng XU. Keizo MIYAHARA	Object Recognition System under Hazy Condition for Automated Driving Systems
		117	Liam Roberts, Teham Bhuiyan, Linh Kästner, Jens Lambrecht	Evaluating Optimization Approaches for Deep-Reinforcement-Learning-based Navigation Agents
12:30	Lunch			
13:30	Keynote Speech 2: Mesoscopic Materials Strategies for Development of Cocoon Silk Flexible Meso-Electronic/Photonics by Professor Xiangyang Liu College of Ocean and Earth Sciences Shenzhen Research Institute of Xiamen University, China			
		ID	Authors	Paper Title
14:15	Image Processing and Object Recognition	103	Je Sean Tan, Yan Han Lau, Chong Ghee Lua, Sutthiphong Srigrarom	Three Dimensional Multi-Camera Multi-Target Re-identifications by 3D Point Cloud and Successive Convex Hull
		134	Yiyao Liu, Qiyang Lyu, Jun Zhang, Xudong Suo, Chaoyu Hong, Lin Lin, Danwei Wang	APC: Automatic Passenger Counting and Seat Occupancy Detection for Sightseeing Tram based on 3D LiDAR and Camera
		106	Shen Yuong Wong, Han Wang, Chi Kiong Yip, Yuxuan Chen, Mustafa Mohamed Aadel, Meizhu Wu, Yuanyuan Tang	An Intelligent Shopping Cart with Automatic Following Function
		114	RunHua Jiang, SenQiao Yang, HaoYang Li, Han Wang, Ho-Kin Tang, Sim Kuan Goh	Enhancing Deep Neural Network Corruption Robustness using Evolutionary Algorithm
15:15	Tea Break			
		ID	Authors	Paper Title
15:45	e Control and Control Design	120	Jonathan Chuah, Xiaoling Liang, Shuzhi Sam Ge	Nonlinear Model Predictive Control of a Dual-Axis Tilting Quadcopter
		123	Yao Guo, Keck Voon Ling*, Rong Su, Ziyao Xiao, Zhijian Hu, Hong Yee Alvin Wong, Boon Siew Han	Model Predictive Control For Production Scheduling Integrating Material Handling In Flexible Manufacturing
		101	Xiaoling Liang, Shuzhi Sam Ge, Bernard Voon Ee How	Nonlinear Control Design based on Zone Barrier Lyapunov Function
		116	Chunting Ji, Zhengqiang Zhang, Shuzhi Sam Ge	Output Feedback Stabilization for Anti-Stable Wave Equations Governed by Nonlinear ODE Equations
		105	Chia Chao Kang, Chia Yang Kang, Jian Ding Tan, Mohammadmahdi Ariannejad, Dennis Cheah Yang Shen, Wang Han	Integration Controller For Pico Hydro Power Plant Using Fuzzy-PID Flow Control Technique

	Predictiv	119	Jun Yan Lee, Mohammad Shahrir Khan Hemel, M.B.I. Reaz, K.N. Minhad, K.J.A. Ooi, M.A.S. Bhuiyan	A Study on 28 GHz Power Amplifiers for Industrial Revolution 4.0 Compatible 5G NR FR2 IoT Transceivers
		111	Tan Jian Ding, Wang Han, Lee Yan Kang, Kang Chia Chao, Mohammadmahdi Ariannejad, Clifford Choe Wei Chang	Advancements and Challenges of Information Integration in Swarm Robotics
19:30	Conference Banquet			
23:00	End of Day 2			
Start Time	Conference Program Day 3 (Sunday, 11 June 2023)			
09:00	Keynote Speech 3: Reservoir Computing in Rehabilitation Video Analyses by Professor Feng Lin Executive Dean, Artificial Intelligence Research Institute Hangzhou, China			
		ID	Authors	Paper Title
09:45	Manipulation and Human-Machine Systems	109	Minami Ohsato, Yasumichi Aiyama	Robot Tele-Operation / Teaching System using VR Device
		107	Haoran Zhu, Xiaofeng Liu, Jie Li, Xu Zhou, Congyu Huang	Human-to-Robot Handovers via Real-time Video Segmentation
		108	Thushara Sandakalum, Marcelo H. Ang Jr.	ReachNet : Reachability maps in the presence of obstacles
		112	Tan Jian Ding, Wang Han, Lee Yan Kang, Kang Chia Chao, Mohammadmahdi Ariannejad, Clifford Choe Wei Chang	Development Trend of Robotic Exoskeletons
10:45	Tea Break			
		ID	Authors	Paper Title
11:15	Motion and Path Planning	102	Jay Aljelo Saez Ting, Sutthiphong Srigrarom	Drone-to-drone interception path planning in urban area by DQN
		115	Jiawei Sun, Tingcheng Liu, Chengran Yuan, Shuo Sun, Anthony Wong, Keng Peng Tee, Marcelo H. Ang Jr.	An Adaptive Local Context Extraction Method for Motion Prediction and Planning
		121	Jiangpeng Li, Yao Guo, Jiarong Yao*, Zhijian Hu, Rong Su, Boon Siew Han, Hong Yee Alvin Wong	Hybrid metaheuristics for integrated dispatching and conflict-free vehicle routing of automated guided vehicles in flexible manufacturing systems
		127	Lingying Huang, Bohui Wang, Yun Lu, Rong Su	Mixed Traffic Optimization With Platooning Technology Based on Stackelberg Game Theory
		129	Huan Yang, Han Zhao, Guoqiang Liu, Yu Wang, Danwei Wang	Traffic Incident Generation And Supervised Learning Based Detection Via A Microscopic Simulation Platform
		128	Guoqiang Liu*, Han Zhao, Huan Yang, David Wang Zhiwei, Danwei Wang	A Fleet Management System of Autonomous Electric Street Sweepers
		131	Yichen Zhou*, Mingxing Wen*, Jun Zhang, Danwei Wang	ViNavUT: Vison Based Navigation System for Unmanned Tractor in Airport
13:00	Lunch cum Best Paper Awards			
		ID	Authors	Paper Title
14:00	Image Processing and Defect Detection	124	Zhijian Hu, Haigang Zhang, Yao Guo, Jiarong Yao, Jiangpeng Li, Rong Su*, Boon Siew Han, Hong Yee Alvin Wong	Abnormal Autonomous Ground Vehicles Detection for Fleet Management Systems: A Reputation-based Distributed Velocity Estimation Approach
		141	Tianyi Zhao, Jize Liu, Jun Zhou	High Precision Pallet Detection and Location Algorithm for AGV
		142	Zhengqing Zhou, Qing Han, Wei Zhao, Zeng Zeng	Improved Semantic Segmentation Adversarial Networks Applied to Industrial Production Datasets
		136	Qing Han, Yu Xia, Xiupeng Shi, Zeng Zeng*	AutoML with Focal Loss for Defect Diagnosis and Prognosis in Smart Manufacturing
		137	Tong Sang, Dai Sun, Wei Zhao, Zeng Zeng*	Wafer Map Defect Recognition and Accurate Localization Based on Defect Completion Algorithm
		138	Qiyu Wei, Wei Zhao, Zeng Zeng	Wafer Map Defect Patterns Semi-Supervised Classification Using Latent Vector Representation
		139	Weihong Zhai, Xiupeng Shi, Zeng Zeng	Adaptive Modelling for Anomaly Detection and Defect Diagnosis in Semiconductor Smart Manufacturing: A Domain-specific AutoML
140	Xiaoyan Zheng, Tong Sang, Zeng Zeng	Enhancing Semiconductor Chip Image Defect Classification Using Deep Learning and Segmented Defect Region Information		
16:00	End of Conference Sessions			
TBD	Networking Tour			