ARW2025 Accepted Paper List

Session and Papers

Last update: 16.4.2025, WK

Paper ID	Paper Title	Regular/ Student Paper	Decision	Session-ID
2	Update of the SCARAB robot to sort valuable items in containers of residual waste	Regular	Accept	O1
4	Mechanical Design Optimization of a Pneumatically Actuated Parallel Kinematic Machine	Regular	Accept	O1
5	Analysis and tuning of PID controller gains with additional feedforward control for servo drives using Garpinger's trade-off plots	Regular	Accept	O1
6	Towards Automated Handling and Sorting of Garments	Regular	Accept	O1
14	Towards Inclusive and Accessible Industrial Workstations by Shaping Safe and Adaptive Human-Robot Collaboration	Regular	Accept	O1
18	An Adaptable Multi-Robot Support System for Disaster Response	Regular	Accept	O1
8	DOPS: Drone Optimized Performance Score for Evaluating Real-Time Tomato Ripeness Detection	Regular	Accept	O2
10	Sim2Real Transfer for Vision-Based Grasp Verification	Regular	Accept	O2
11	LLM-Empowered Embodied Agent for Memory-Augmented Task Planning in Household Robotics	Regular	Accept	O2
19	Low-Cost Open-Source Real-Time Communication in Industrial IoT: Using the Raspberry Pi 5 with OPC UA over TSN	Regular	Accept	O2
23	Multi-Modal 3D Mesh Reconstruction from Images and Text	Regular	Accept	O2
28	Sensorized Adaptive Grasping: ROS2 Based Integration of UR3e and Schunk SVH with Force Sensors	Regular	Accept	O2
12	Category-Level and Open-Set Object Pose Estimation for Robotics	Regular	Accept	O3
13	Simulation-Driven Optimization of Stanley Controller Gains for Enhanced Tracking in Autonomous Navigation Robots	Regular	Accept	O3
21	Investigating 2.5D path-planning methods for autonomous mobile robots in complex unstructured off-road scenarios	Regular	Accept	O3
22	LiDAR-Based Ground Segmentation with Structured Point Clouds for Multi-Sensor AMRs	Regular	Accept	O3
24	Multi-Waypoint Path Planning and Motion Control for Non-holonomic Mobile Robots in Agricultural Applications	Regular	Accept	O3
29	Comparison of neural networks road detection in off-road environments	Regular	Accept	O3
3	Multi Robot Route Planning for ROS2	Student	Accept	P
7	ROS with LEGO Spike	Student	Accept	P
9	Elastic Structure Preserving Control for a Structurally Elastic Robot	Student	Accept	P
17	A Modular and Configurable Architecture for ROS2 Hardware Integration with micro-ROS	Student	Accept	P
20	Automating 3D printing for mass production	Student	Accept	P
25	A Cost-Effective Testbed for Measuring the Performance of Reference Switches	Student	Accept	P
27	A Trajectory Consistency Metric for GNSS Anomaly Detection with LiDAR Odometry	Student	Accept	P

Session-ID: O1 ... Oral 1
O2 ... Oral 2
O3 ... Oral 3
P ... Poster Session