Markus Maurer

List of Publications by Year
in descending order

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38 papers	1,452 citations	1684188 5 h-index	1872680 6 g-index
38 all docs	38 docs citations	38 times ranked	707 citing authors

#	Article	IF	Citations
1	Taxonomy to Unify Fault Tolerance Regimes for Automotive Systems: Defining Fail-Operational, Fail-Degraded, and Fail-Safe. IEEE Transactions on Intelligent Vehicles, 2022, 7, 251-262.	12.7	15
2	Toward Generating Sufficiently Valid Test Case Results: A Method for Systematically Assigning Test Cases to Test Bench Configurations in a Scenario-Based Test Approach for Automated Vehicles. IEEE Access, 2022, 10, 6260-6285.	4.2	4
3	Compensating for the Absence of a Required Accompanying Person: A Draft of a Functional System Architecture for an Automated Vehicle. , 2021, , .		0
4	Toward a Consistent Taxonomy for Scenario-Based Development and Test Approaches for Automated Vehicles: A Proposal for a Structuring Framework, a Basic Vocabulary, and Its Application. IEEE Access, 2021, 9, 147828-147854.	4.2	16
5	Sensitivity Analysis for Vehicle Dynamics Models â€“ An Approach to Model Quality Assessment for Automated Vehicles. , 2020, , .		2
6	Towards Efficient Hazard Identification in the Concept Phase of Driverless Vehicle Development. , 2020, , .		2
7	From Functional to Logical Scenarios: Detailing a Keyword-Based Scenario Description for Execution in a Simulation Environment. , 2019, , .		57
8	An Approach for a Requirement Analysis for an Autonomous Family Vehicle. , 2019, , .		4
9	The Carolo-Cup Student Competition: Involving Students with Automated Driving. , 2018, , .		5
10	Representing the Unknown â€“ Impact of Uncertainty on the Interaction between Decision Making and Trajectory Generation. , 2018, , .		6
11	Investigating Functional Redundancies in the Context of Vehicle Automation â€“ A Trajectory Tracking Perspective. , 2018, , .		3
12	Ontology based Scene Creation for the Development of Automated Vehicles. , 2018, , .		178
13	Corridor Selection Under Semantic Uncertainty for Autonomous Road Vehicles. , 2018, , .		2
14	A Deep-Learning Approach for the Detection of Overexposure in Automotive Camera Images. , 2018, , .		9
15	Assessment of Deep Convolutional Neural Networks for Road Surface Classification. , 2018, , .		60
16	The TUBS Road User Dataset: A New LiDAR Dataset and its Application to CNN-based Road User Classification for Automated Vehicles. , 2018, , .		6
17	Scenarios for Development, Test and Validation of Automated Vehicles. , 2018, , .		250
18	Self-awareness in autonomous automotive systems. , 2017, , .		24

#	Article	IF	Citations
19	Model predictive control based trajectory generation for autonomous vehicles â€" An architectural approach. , 2017, , .		35
20	Sensor scan timing compensation in environment models for automated road vehicles. , 2016, , .		6
21	Behaviour recognition of traffic participants by using manoeuvre primitives for automated vehicles in urban traffic. , 2016, , .		3
22	Local Volumetric Hybrid-Map-Based Simultaneous Localization and Mapping With Moving Object Tracking. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 2440-2455.	8.0	22
23	Identification of potential hazardous events for an Unmanned Protective Vehicle. , 2016, , .		32
24	Towards Tactical Lane Change Behavior Planning for Automated Vehicles. , 2015, , .		70
25	Towards Automated Driving: Unmanned Protective Vehicle for Highway Hard Shoulder Road Works. , 2015, , .		13
26	Defining and Substantiating the Terms Scene, Situation, and Scenario for Automated Driving. , 2015, , .		280
27	Structuring Cooperative Behavior Planning Implementations for Automated Driving. , 2015, , .		15
28	Situation Assessment in Tactical Lane Change Behavior Planning for Automated Vehicles. , 2015, , .		26
29	Simultaneous localization and mapping based on the local volumetric hybrid map. , 2015, , .		1
30	Conditions for a safe state of automated road vehicles. IT - Information Technology, 2015, 57, 215-222.	0.9	12
31	Autonomous driving â€“ a top-down-approach. Automatisierungstechnik, 2015, 63, 155-167.	0.8	51
32	Toward Perception-Driven Urban Environment Modeling for Automated Road Vehicles. , 2015, , .		12
33	Specifying a middleware for distributed embedded vehicle control systems. , 2014, , .		5
34	Probabilistic online POMDP decision making for lane changes in fully automated driving. , 2013, , .		110
35	Multi-Target Tracking using a 3D-Lidar sensor for autonomous vehicles. , 2013, , .		71
36	Comprehensively Treated Driving Maneuvers in a Trajectory Planner. ATZelektronik Worldwide, 2011, 6, 10-13.	0.1	0

#	Article	IF	Citations
37	A contour classifying Kalman filter based on evidence theory. , 2011, , .		4
38	Stadtpilot: First fully autonomous test drives in urban traffic. , 2011, , .		41