Alois C Knoll

List of Publications by Year
in descending order

612 papers	10,690 citations	117625 34 h-index	95266 68 g-index
632 all docs	632 docs citations	632 times ranked	9464 citing authors

#	Article	IF	Citations
1	Robotic Manipulation in Dynamic Scenarios via Bounding-Box-Based Hindsight Goal Generation. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 5037-5050.	11.3	5
2	API-Based Hardware Fault Simulation for DNN Accelerators. IEEE Design and Test, 2023, 40, 75-81.	1.2	2
3	Reduced Model-Based Fault Detector and Controller Design for Discrete-Time Switching Fuzzy Systems. IEEE Transactions on Fuzzy Systems, 2023, 31, 669-681.	9.8	2
4	A Survey of the Four Pillars for Small Object Detection: Multiscale Representation, Contextual Information, Super-Resolution, and Region Proposal. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 936-953.	9.3	94
5	NeuroIV: Neuromorphic Vision Meets Intelligent Vehicle Towards Safe Driving With a New Database and Baseline Evaluations. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 1171-1183.	8.0	26
6	Design and Control of a Highly Redundant Rigid-flexible Coupling Robot to Assist the COVID-19 Oropharyngeal-Swab Sampling. IEEE Robotics and Automation Letters, 2022, 7, 1856-1863.	5.1	39
7	Complex Robotic Manipulation via Graph-Based Hindsight Goal Generation. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 7863-7876.	11.3	10
8	KAM-Net: Keypoint-Aware and Keypoint-Matching Network for Vehicle Detection From 2-D Point Cloud. IEEE Transactions on Artificial Intelligence, 2022, 3, 207-217.	4.7	6
9	Toward Cognitive Navigation: Design and Implementation of a Biologically Inspired Head Direction Cell Network. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 2147-2158.	11.3	9
10	MoNet: Motion-Based Point Cloud Prediction Network. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 13794-13804.	8.0	5
11	Context awareness in process monitoring of additive manufacturing using a digital twin. International Journal of Advanced Manufacturing Technology, 2022, 119, 3483-3500.	3.0	18
12	E/E Architecture Synthesis: Challenges and Technologies. Electronics (Switzerland), 2022, 11, 518.	3.1	19
13	Linking Brain Structure, Activity, and Cognitive Function through Computation. ENeuro, 2022, 9, ENEURO.0316-21.2022.	1.9	22
14	Globally Optimal Linear Model Fitting with Unit-Norm Constraint. International Journal of Computer Vision, 2022, 130, 933-946.	15.6	2
15	Globally-Optimal Inlier Maximization for Relative Pose Estimation Under Planar Motion. Frontiers in Neurorobotics, 2022, 16, 820703.	2.8	0
16	Automotive Radar Processing With Spiking Neural Networks: Concepts and Challenges. Frontiers in Neuroscience, 2022, 16, 851774.	2.8	8
17	The Neurorobotics Platform Robot Designer: Modeling Morphologies for Embodied Learning Experiments. Frontiers in Neurorobotics, 2022, 16, 856727.	2.8	4
18	Deep Reinforcement Learning Based Trajectory Planning Under Uncertain Constraints. Frontiers in Neurorobotics, 2022, 16, 883562.	2.8	20

#	Article	IF	Citations
19	NeuroGrasp: Multimodal Neural Network With Euler Region Regression for Neuromorphic Vision-Based Grasp Pose Estimation. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-11.	4.7	16
20	Meta-Reinforcement Learning in Non-Stationary and Dynamic Environments. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, , 1-17.	13.9	13
21	Providentia â€" A Large-Scale Sensor System for the Assistance of Autonomous Vehicles and Its Evaluation. , 2022, 2, 1156-1176.		11
22	Point Cloud Registration With Object-Centric Alignment. IEEE Access, 2022, 10, 76586-76595.	4.2	6
23	Learning Local Event-based Descriptor for Patch-based Stereo Matching. , 2022, , .		0
24	Pseudo-Image and Sparse Points: Vehicle Detection With 2D LiDAR Revisited by Deep Learning-Based Methods. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 7699-7711.	8.0	20
25	NeuroAED: Towards Efficient Abnormal Event Detection in Visual Surveillance With Neuromorphic Vision Sensor. IEEE Transactions on Information Forensics and Security, 2021, 16, 923-936.	6.9	15
26	Globally Optimal Camera Orientation Estimation from Line Correspondences by BnB algorithm. IEEE Robotics and Automation Letters, 2021, 6, 215-222.	5.1	8
27	Multiobjective Scheduling Strategy With Genetic Algorithm and Time-Enhanced A* Planning for Autonomous Parking Robotics in High-Density Unmanned Parking Lots. IEEE/ASME Transactions on Mechatronics, 2021, 26, 1547-1557.	5.8	19
28	A Generic Plug & Produce System Composed of Semantic OPC UA Skills. IEEE Open Journal of the Industrial Electronics Society, 2021, 2, 128-141.	6.8	29
29	Object Localization with Attribute Preference Based on Top-Down Attention. Lecture Notes in Computer Science, 2021, , 28-40.	1.3	0
30	Fusion-Based Feature Attention Gate Component for Vehicle Detection Based on Event Camera. IEEE Sensors Journal, 2021, 21, 24540-24548.	4.7	22
31	HSTA: A Hierarchical Spatio-Temporal Attention Model for Trajectory Prediction. IEEE Transactions on Vehicular Technology, 2021, 70, 11295-11307.	6.3	23
32	NeuroBiometric: An eye blink based biometric authentication system using an event-based neuromorphic vision sensor. IEEE/CAA Journal of Automatica Sinica, 2021, 8, 206-218.	13.1	14
33	Quality Control and Fault Classification of Laser Welded Hairpins in Electrical Motors. , 2021, , .		6
34	End-to-End Spiking Neural Network for Speech Recognition Using Resonating Input Neurons. Lecture Notes in Computer Science, 2021, , 245-256.	1.3	5
35	Design and evaluation of the target spray platform. International Journal of Advanced Robotic Systems, 2021, 18, 172988142199614.	2.1	6
36	AVDM: A hierarchical command-and-control system architecture for cooperative autonomous vehicles in highways scenario using microscopic simulations. Autonomous Agents and Multi-Agent Systems, 2021, 35, 1.	2.1	8

#	Article	IF	Citations
37	Transitioning Spiking Neural Network Simulators to Heterogeneous Hardware. ACM Transactions on Modeling and Computer Simulation, 2021, 31, 1-26.	0.8	1
38	A Novel Illumination-Robust Hand Gesture Recognition System With Event-Based Neuromorphic Vision Sensor. IEEE Transactions on Automation Science and Engineering, 2021, 18, 508-520.	5.2	19
39	Causality and Consistency of State Update Schemes in Synchronous Agent-based Simulations. , 2021, , .		1
40	Spiking Neural Network for Fourier Transform and Object Detection for Automotive Radar. Frontiers in Neurorobotics, 2021, 15, 688344.	2.8	10
41	Event-based Object Detection with Lightweight Spatial Attention Mechanism. , 2021, , .		4
42	Attention Based Graph Convolutional Networks for Trajectory Prediction. , 2021, , .		2
43	A Survey of Encoding Techniques for Signal Processing in Spiking Neural Networks. Neural Processing Letters, 2021, 53, 4693-4710.	3.2	55
44	A spiking central pattern generator for the control of a simulated lamprey robot running on SpiNNaker and Loihi neuromorphic boards. Neuromorphic Computing and Engineering, 2021, 1, 014005.	5.9	17
45	VCANet: Vanishing-Point-Guided Context-Aware Network for Small Road Object Detection. Automotive Innovation, 2021, 4, 400-412.	5.1	23
46	Spotlight-Based 3D Instrument Guidance for Autonomous Task in Robot-Assisted Retinal Surgery. IEEE Robotics and Automation Letters, 2021, 6, 7750-7757.	5.1	8
47	Peak temperature analysis and optimization for pipelined hard real-time systems. Information Sciences, 2021, 575, 666-697.	6.9	1
48	Comparison of TSEP Performances Operating at Homogeneous and Inhomogeneous Temperature Distribution in Multichip IGBT Power Modules. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 6282-6292.	5.4	14
49	Measurement of QCM Mass Sensitivity Using Electrodeposition Method. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-4.	1.7	0
50	Nonlinear Model Predictive Control for Mobile Medical Robot Using Neural Optimization. IEEE Transactions on Industrial Electronics, 2021, 68, 12636-12645.	7.9	33
51	A Hierarchical State-Machine-Based Framework for Platoon Manoeuvre Descriptions. IEEE Access, 2021, 9, 128393-128406.	4.2	3
52	Pole-Curb Fusion Based Robust and Efficient Autonomous Vehicle Localization System With Branch-and-Bound Global Optimization and Local Grid Map Method. IEEE Transactions on Vehicular Technology, 2021, 70, 11283-11294.	6.3	19
53	3D Object Detection With Multi-Frame RGB-Lidar Feature Alignment. IEEE Access, 2021, 9, 143138-143149.	4.2	4
54	Residual Squeeze-and-Excitation Network with Multi-scale Spatial Pyramid Module for Fast Robotic Grasping Detection. , 2021, , .		7

#	Article	IF	Citations
55	Parameterizable and Jerk-Limited Trajectories with Blending for Robot Motion Planning and Spherical Cartesian Waypoints. , 2021, , .		1
56	Deep Hierarchical Rotation Invariance Learning with Exact Geometry Feature Representation for Point Cloud Classification. , 2021, , .		1
57	Globally Optimal Consensus Maximization for Relative Pose Estimation With Known Gravity Direction. IEEE Robotics and Automation Letters, 2021, 6, 5905-5912.	5.1	2
58	Porting Deep Spiking Q-Networks to neuromorphic chip Loihi. , 2021, , .		4
59	Grasp Planning for Flexible Production with Small Lot Sizes based on CAD models using GPIS and Bayesian Optimization. , 2021, , .		1
60	Improved Occlusion Scenario Coverage with a POMDP-based Behavior Planner for Autonomous Urban Driving. , 2021, , .		10
61	A Model-Based Approach to Facilitate Design of Homogeneous Redundant E/E Architectures. , 2021, , .		2
62	Risk-Constrained Interactive Safety under Behavior Uncertainty for Autonomous Driving. , 2021, , .		5
63	Temp-Frustum Net: 3D Object Detection with Temporal Fusion. , 2021, , .		2
64	A Platform to Configure and Monitor Safety-Critical Applications for Automotive Central Computers. , 2021, , .		2
65	FloMo: Tractable Motion Prediction with Normalizing Flows. , 2021, , .		5
66	PCTMA-Net: Point Cloud Transformer with Morphing Atlas-based Point Generation Network for Dense Point Cloud Completion. , 2021, , .		11
67	Indirect and direct training of spiking neural networks for end-to-end control of a lane-keeping vehicle. Neural Networks, 2020, 121, 21-36.	5.9	32
68	Towards Robotic-Assisted Subretinal Injection: A Hybrid Parallel–Serial Robot System Design and Preliminary Evaluation. IEEE Transactions on Industrial Electronics, 2020, 67, 6617-6628.	7.9	56
69	Efficient Performance Estimation and Work-Group Size Pruning for OpenCL Kernels on GPUs. IEEE Transactions on Parallel and Distributed Systems, 2020, 31, 1089-1106.	5.6	2
70	Graph Convolutional Neural Network for a Pharmacy Cross-Selling Recommender System. Information (Switzerland), 2020, 11, 525.	2.9	12
71	Considering Safety Requirements in Design Phase of Future E/E Architectures. , 2020, , .		5
72	Parking Slot Detection on Around-View Images Using DCNN. Frontiers in Neurorobotics, 2020, 14, 46.	2.8	17

#	Article	IF	Citations
73	A passenger model for simulating boarding and alighting in spatially confined transportation scenarios. Journal of Computational Science, 2020, 45, 101173.	2.9	8
74	Improved recurrent neural network-based manipulator control with remote center of motion constraints: Experimental results. Neural Networks, 2020, 131, 291-299.	5.9	166
75	Closing the loop: Real-time Error Detection and Correction in automotive production using Edge-/Cloud-Architecture and a CNN. , 2020, , .		5
76	Perception-Action Coupling Target Tracking Control for a Snake Robot via Reinforcement Learning. Frontiers in Neurorobotics, 2020, 14, 591128.	2.8	11
77	Trajectory Prediction Based on Planning Method Considering Collision Risk. , 2020, , .		7
78	Center-of-Mass-based Robust Grasp Planning for Unknown Objects Using Tactile-Visual Sensors. , 2020, , .		11
79	A Modular Edge-/Cloud-Solution for Automated Error Detection of Industrial Hairpin Weldings using Convolutional Neural Networks. , 2020, , .		6
80	Comparison of the absolute mass sensitivity of ring electrode QCM and standard QCM using electrodeposition. Electrochemistry Communications, 2020, 119, 106826.	4.7	8
81	A Novel Visible Light Positioning System With Event-Based Neuromorphic Vision Sensor. IEEE Sensors Journal, 2020, 20, 10211-10219.	4.7	18
82	OpenABLext: An automatic code generation framework for agent†based simulations on CPU†GPU†FPGA heterogeneous platforms. Concurrency Computation Practice and Experience, 2020, 32, e5807.	2.2	4
83	Measurement of the mass sensitivity of QCM with ring electrodes using electrodeposition. Electrochemistry Communications, 2020, 116, 106744.	4.7	13
84	Energy-efficient and damage-recovery slithering gait design for a snake-like robot based on reinforcement learning and inverse reinforcement learning. Neural Networks, 2020, 129, 323-333.	5.9	30
85	Event-Based Neuromorphic Vision for Autonomous Driving: A Paradigm Shift for Bio-Inspired Visual Sensing and Perception. IEEE Signal Processing Magazine, 2020, 37, 34-49.	5.6	147
86	C-V2X Resource Deployment Architecture Based on Moving Network Convoys. , 2020, , .		3
87	Ground Moving Vehicle Detection and Movement Tracking Based on the Neuromorphic Vision Sensor. IEEE Internet of Things Journal, 2020, 7, 9026-9039.	8.7	14
88	EDDD: Event-Based Drowsiness Driving Detection Through Facial Motion Analysis With Neuromorphic Vision Sensor. IEEE Sensors Journal, 2020, 20, 6170-6181.	4.7	33
89	Extrinsic Calibration of an Eye-In-Hand 2D LiDAR Sensor in Unstructured Environments Using ICP. IEEE Robotics and Automation Letters, 2020, 5, 929-936.	5.1	11
90	What the Constant Velocity Model Can Teach Us About Pedestrian Motion Prediction. IEEE Robotics and Automation Letters, 2020, 5, 1696-1703.	5.1	130

#	Article	IF	Citations
91	Task-Independent Spiking Central Pattern Generator: A Learning-Based Approach. Neural Processing Letters, 2020, 51, 2751-2764.	3.2	4
92	Matrix Inequalities Based Robust Model Predictive Control for Vehicle Considering Model Uncertainties, External Disturbances, and Time-Varying Delay. Frontiers in Neurorobotics, 2020, 14, 617293.	2.8	8
93	Distance-Based Multivariate Anomaly Detection in Wire Arc Additive Manufacturing. , 2020, , .		13
94	Globally Optimal Vertical Direction Estimation in Atlanta World. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, PP, 1-1.	13.9	13
95	Fidelity and Performance of State Fast-forwarding in Microscopic Traffic Simulations. ACM Transactions on Modeling and Computer Simulation, 2020, 30, 1-26.	0.8	6
96	Pedal to the Bare Metal. , 2020, , .		1
97	Advancing Automatic Code Generation for Agent-Based Simulations on Heterogeneous Hardware. Lecture Notes in Computer Science, 2020, , 308-319.	1.3	0
98	Fast-Forwarding of Vehicle Clusters in Microscopic Traffic Simulations. , 2020, , .		0
99	Electrification and Automation of Road Transport: Impact Analysis of Heat and Carbon Emissions for Singapore. , 2020, , .		1
100	Linear Differential Games for Cooperative Behavior Planning of Autonomous Vehicles Using Mixed-Integer Programming. , 2020, , .		3
101	Development of a Cloud- and Edge-Architecture for adaptive model weight optimization of a CNN exemplified by optical detection of hairpin welding. , 2020, , .		4
102	Autonomous Vehicles as Local Traffic Optimizers. Lecture Notes in Computer Science, 2020, , 499-512.	1.3	0
103	Biological data questions the support of the self inhibition required for pattern generation in the half center model. PLoS ONE, 2020, 15, e0238586.	2.5	6
104	Spotlight-based 3D Instrument Guidance for Retinal Surgery. , 2020, 2020, .		1
105	Online Road Model Generation From Evidential Semantic Grids. , 2020, , .		1
106	Advanced Active Learning Strategies for Object Detection. , 2020, , .		8
107	Clustering of the Scenario Space for the Assessment of Automated Driving. , 2020, , .		13
108	Optimal Behavior Planning for Autonomous Driving: A Generic Mixed-Integer Formulation. , 2020, , .		4

#	Article	IF	Citations
109	Improving Motion Planning for Surgical Robot with Active Constraints. , 2020, , .		4
110	Graph Neural Networks and Reinforcement Learning for Behavior Generation in Semantic Environments. , 2020, , .		21
111	Measurement of QCM Mass Sensitivity Based on Electrodeposition. , 2020, , .		0
112	6D Pose Estimation for Flexible Production with Small Lot Sizes based on CAD Models using Gaussian Process Implicit Surfaces. , 2020, , .		3
113	Hierarchical optimization Control of Redundant Manipulator for Robot-assisted Minimally Invasive Surgery. , 2020, , .		5
114	Target Tracking Control of a Wheel-less Snake Robot Based on a Supervised Multi-layered SNN. , 2020, , .		4
115	Formalizing Traffic Rules for Machine Interpretability. , 2020, , .		19
116	A Fast and Robust 2D LiDAR Alignment Method by Motion Decoupling. , 2020, , .		0
117	Spotlight-based 3D Instrument Guidance for Retinal Surgery. , 2020, 2020, .		5
118	McFTP: A framework for fast thermal managements prototyping on real multi-core processors. Sustainable Computing: Informatics and Systems, 2019, 22, 191-205.	2.2	1
119	Continuous Software Engineering of Innovative Automotive Functions: An Industrial Perspective. , 2019, , .		5
120	Mixed Frame-/Event-Driven Fast Pedestrian Detection. , 2019, , .		37
121	OPC UA versus ROS, DDS, and MQTT: Performance Evaluation of Industry 4.0 Protocols. , 2019, , .		119
122	Adaptive Periodic Thermal Management for Pipelined Hard Real-Time Systems. IEEE Access, 2019, 7, 114731-114746.	4.2	1
123	Neuromorphic Vision Datasets for Pedestrian Detection, Action Recognition, and Fall Detection. Frontiers in Neurorobotics, 2019, 13, 38.	2.8	33
124	The Human Brain Projectâ€"Synergy between neuroscience, computing, informatics, and brain-inspired technologies. PLoS Biology, 2019, 17, e3000344.	5.6	64
125	6DOF Needle Pose Estimation for Robot-Assisted Vitreoretinal Surgery. IEEE Access, 2019, 7, 63113-63122.	4.2	13
126	Smart Manufacturing with Prescriptive Analytics. , 2019, , .		17

#	Article	IF	Citations
127	Planning and Engineering Component-Based Automation Systems in AutomationML. , 2019, , .		1
128	An Approach for an Automated Adaption of KPI Ontologies by Reusing Systems Engineering Data. , 2019, , .		3
129	Towards Cross-Verification and Use of Simulation in the Assessment of Automated Driving. , 2019, , .		14
130	OPC UA NodeSet Ontologies as a Pillar of Representing Semantic Digital Twins of Manufacturing Resources. , 2019, , .		22
131	Nonlinear Model Predictive Control for Mobile Robot Using Varying-Parameter Convergent Differential Neural Network. Robotics, 2019, 8, 64.	3.5	22
132	Transitioning Spiking Neural Network Simulators to Heterogeneous Hardware. , 2019, , .		1
133	Addressing Inherent Uncertainty: Risk-Sensitive Behavior Generation for Automated Driving using Distributional Reinforcement Learning. , 2019, , .		15
134	End to End Learning of a Multi-Layered Snn Based on R-Stdp for a Target Tracking Snake-Like Robot. , 2019, , .		14
135	Needle Localization for Robot-assisted Subretinal Injection based on Deep Learning. , 2019, , .		12
136	Semantic Grid-Based Road Model Estimation for Autonomous Driving. , 2019, , .		6
137	Performance Optimisation of Parallelized ADAS Applications in FPGA-GPU Heterogeneous Systems: A Case Study With Lane Detection. IEEE Transactions on Intelligent Vehicles, 2019, 4, 519-531.	12.7	9
138	Bridging the Gap between Open Source Software and Vehicle Hardware for Autonomous Driving. , 2019, , .		10
139	Towards Model-Free Tool Dynamic Identification and Calibration Using Multi-Layer Neural Network. Sensors, 2019, 19, 3636.	3.8	32
140	Evaluation of Feature Selection for Anomaly Detection in Automotive E/E Architectures. , 2019, , .		4
141	Anomaly Detection for Advanced Driver Assistance Systems Using Online Feature Selection. , 2019, , .		3
142	From Effects to Causes. , 2019, , .		3
143	Deep anticipation: lightweight intelligent mobile sensing for unmanned vehicles in IoT by recurrent architecture. IET Intelligent Transport Systems, 2019, 13, 1468-1474.	3.0	2
144	A Survey on Agent-based Simulation Using Hardware Accelerators. ACM Computing Surveys, 2019, 51, 1-35.	23.0	32

#	Article	IF	Citations
145	An Agent-Based Model for Evaluating the Boarding and Alighting Efficiency of Autonomous Public Transport Vehicles. Lecture Notes in Computer Science, 2019, , 534-547.	1.3	4
146	A Macroscopic Study on Dedicated Highway Lanes for Autonomous Vehicles. Lecture Notes in Computer Science, 2019, , 520-533.	1.3	7
147	Supervised Learning in SNN via Reward-Modulated Spike-Timing-Dependent Plasticity for a Target Reaching Vehicle. Frontiers in Neurorobotics, 2019, 13, 18.	2.8	24
148	Model-based Schedule Synthesis in Time-Sensitive Networks. Lecture Notes in Mobility, 2019, , 197-203.	0.2	0
149	Retina-Based Pipe-Like Object Tracking Implemented Through Spiking Neural Network on a Snake Robot. Frontiers in Neurorobotics, 2019, 13, 29.	2.8	13
150	Multi-Cue Event Information Fusion for Pedestrian Detection With Neuromorphic Vision Sensors. Frontiers in Neurorobotics, 2019, 13, 10.	2.8	22
151	Neural Network Based Uncertainty Prediction for Autonomous Vehicle Application. Frontiers in Neurorobotics, 2019, 13, 12.	2.8	10
152	FLGR: Fixed Length Gists Representation Learning for RNN-HMM Hybrid-Based Neuromorphic Continuous Gesture Recognition. Frontiers in Neuroscience, 2019, 13, 73.	2.8	11
153	A Hybrid Framework for Fast and Accurate GPU Performance Estimation through Source-Level Analysis and Trace-Based Simulation. , 2019, , .		13
154	Leveraging Semantic Embeddings for Safety-Critical Applications. , 2019, , .		3
155	Co-Development of an Infant Prototype in Hardware and Simulation based on CT Imaging Data. , 2019, , .		0
156	Fault Classification and Correction based on Convolutional Neural Networks exemplified by laser welding of hairpin windings. , 2019, , .		8
157	Automated Trainability Evaluation for Smart Software Functions. , 2019, , .		1
158	Online Path Generation from Sensor Data for Highly Automated Driving Functions. , 2019, , .		5
159	System-Level Optimization of Longitudinal Acceleration of Autonomous Vehicles in Mixed Traffic. , 2019, , .		4
160	Semantic Mates: Intuitive Geometric Constraints for Efficient Assembly Specifications. , 2019, , .		6
161	Development of the Neurorobotic Mouse. , 2019, , .		9
162	Motion Prediction of Virtual Patterns, Human Hand Motions, and a simplified Hand Manipulation Task with Hierarchical Temporal Memory. , 2019, , .		4

#	Article	IF	Citations
163	Cooperative Multi-Vehicle Behavior Coordination for Autonomous Driving. , 2019, , .		17
164	Targetless Rotational Auto-Calibration of Radar and Camera for Intelligent Transportation Systems. , 2019, , .		28
165	Mobile Robot Learning from Human Demonstrations with Nonlinear Model Predictive Control. , 2019, , .		10
166	Guessing Smart: Biased Sampling for Efficient Black-Box Adversarial Attacks. , 2019, , .		50
167	A Reference Architecture Based on Edge and Cloud Computing for Smart Manufacturing. , 2019, , .		15
168	Graph Neural Networks for Modelling Traffic Participant Interaction. , 2019, , .		63
169	A Hardware-Agnostic OPC UA Skill Model for Robot Manipulators and Tools. , 2019, , .		26
170	Recognition & Evaluation of Additional Traffic Signs on the example of â€™80 km/h when wetâ€™. , 2019, , .		1
171	Lane-Merging Using Policy-based Reinforcement Learning and Post-Optimization. , 2019, , .		12
172	Multi-Objective Calibration of Microscopic Traffic Simulation for Highway Traffic Safety. , 2019, , .		6
173	A Novel Method for the Absolute Pose Problem with Pairwise Constraints. Remote Sensing, 2019, 11, 3007.	4.0	3
174	From Specifications to Behavior: Maneuver Verification in a Semantic State Space. , 2019, , .		16
175	Context Discovery for Personalised Automotive Functions. , 2019, , .		2
176	Surgineering: a new type of collaboration among surgeons and engineers. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 187-190.	2.8	11
177	Applications in HHI: Physical Cooperation. , 2019, , 2221-2259.		0
178	FFOB: efficient online mode-switch procrastination in mixed-criticality systems. Real-Time Systems, 2019, 55, 471-513.	1.3	17
179	Peak Temperature Minimization for Hard Real-Time Systems Using DVS and DPM. Journal of Circuits, Systems and Computers, 2019, 28, 1950102.	1.5	1
180	Toward Brain-Inspired Learning With the Neuromorphic Snake-Like Robot and the Neurorobotic Platform. IEEE Transactions on Cognitive and Developmental Systems, 2019, 11, 1-12.	3.8	19

#	Article	IF	Citations
181	Integration of Driver Behavior into Emotion Recognition Systems: A Preliminary Study on Steering Wheel and Vehicle Acceleration. Lecture Notes in Computer Science, 2019, , 386-401.	1.3	4
182	Multi-resolution Traffic Simulation for Large-Scale High-Fidelity Evaluation of VANET Applications. Lecture Notes in Mobility, 2019, , 17-36.	0.2	9
183	Energy-Efficient Slithering Gait Exploration for a Snake-Like Robot Based on Reinforcement Learning. , 2019, , .		15
184	Tree Memory Networks for Sequence Processing. Lecture Notes in Computer Science, 2019, , 431-443.	1.3	0
185	Applying Periodic Thermal Management on Hard Real-Time Systems to Minimize Peak Temperature. Journal of Circuits, Systems and Computers, 2018, 27, 1850208.	1.5	3
186	Adas on Cots with OpenCL: A Case Study with Lane Detection. IEEE Transactions on Computers, 2018, 67, 559-565.	3.4	7
187	Image Processing Units on Ultra-low-cost Embedded Hardware: Algorithmic Optimizations for Real-time Performance. Journal of Signal Processing Systems, 2018, 90, 913-929.	2.1	4
188	INCREMENTAL CALIBRATION OF SEAT SELECTION PREFERENCES IN AGENT-BASED SIMULATIONS OF PUBLIC TRANSPORT SCENARIOS. , 2018, , .		3
189	Uncertainty Estimation for Deep Neural Object Detectors in Safety-Critical Applications. , 2018, , .		44
190	MODEL PREEMPTION BASED ON DYNAMIC ANALYSIS OF SIMULATION DATA TO ACCELERATE TRAFFIC LIGHT TIMING OPTIMISATION. , 2018, , .		2
191	Neuromorphic Vision Based Multivehicle Detection and Tracking for Intelligent Transportation System. Journal of Advanced Transportation, 2018, 2018, 1-13.	1.7	22
192	Robust vehicle-infrastructure localization using factor graph and probability data association. Journal of Communications and Networks, 2018, 20, 406-413.	2.6	4
193	Exploring Execution Schemes for Agent-Based Traffic Simulation on Heterogeneous Hardware. , 2018, , .		12
194	Robust Vehicle Infrastructure Cooperative Localization in Presence of Clutter. , 2018, , .		4
195	CARDSFlow: An End-to-End Open-Source Physics Environment for the Design, Simulation and Control of Musculoskeletal Robots. , 2018, , .		2
196	Modular Fault Ascription and Corrective Maintenance Using a Digital Twin. IFAC-PapersOnLine, 2018, 51, 1041-1046.	0.9	48
197	Hebbian learning for online prediction, neural recall and classical conditioning of anthropomimetic robot arm motions. Bioinspiration and Biomimetics, 2018, 13, 066009.	2.9	1
198	An Efficient and Time-Optimal Trajectory Generation Approach for Waypoints Under Kinematic Constraints and Error Bounds. , 2018, , .		18

#	Article	IF	Citations
199	Spatiotemporal Motion Planning with Combinatorial Reasoning for Autonomous Driving. , 2018, , .		8
200	Experience-Based Heuristic Search: Robust Motion Planning with Deep Q-Learning. , 2018, , .		10
201	Context Prediction Architectures in Next Generation of Intelligent Cars. , 2018, , .		1
202	Deep Reinforcement Learning for Predictive Longitudinal Control of Automated Vehicles. , 2018, , .		25
203	Roadgraph Generation and Free-Space Estimation in Unknown Structured Environments for Autonomous Vehicle Motion Planning. , 2018, , .		2
204	Using Time-to-React based on Naturalistic Traffic Object Behavior for Scenario-Based Risk Assessment of Automated Driving. , 2018, , .		20
205	Synchronization between Run-Time and Design-Time View of Context-Aware Automotive System Architectures. , 2018, , .		4
206	Kinodynamic Motion Planning Using Multi-Objective Optimization. , 2018, , .		2
207	Precision Needle Tip Localization Using Optical Coherence Tomography Images for Subretinal Injection. , 2018, , .		17
208	End to End Learning of Spiking Neural Network Based on R-STDP for a Lane Keeping Vehicle. , 2018, , .		45
209	Evaluation of Conflict Resolution Methods for Agent-Based Simulations on the GPU. , 2018, , .		13
210	hÂ²ECU: A High-Performance and Heterogeneous Electronic Control Unit for Automated Driving. IEEE Micro, 2018, 38, 53-62.	1.8	3
211	Uncertainty in Machine Learning: A Safety Perspective on Autonomous Driving. Lecture Notes in Computer Science, 2018, , 458-464.	1.3	32
212	Implementing and Parallelizing Real-time Lane Detection on Heterogeneous Platforms. , 2018, , .		7
213	Hard and Soft Closing of Roads Towards Socially Optimal Routing. , 2018, , .		1
214	Fast-Forwarding Agent States to Accelerate Microscopic Traffic Simulations. , 2018, , .		6
215	A comparison of rotating disc electrode, floating electrode technique and membrane electrode assembly measurements for catalyst testing. Journal of Power Sources, 2018, 392, 274-284.	7.8	94
216	A Survey of Robotics Control Based on Learning-Inspired Spiking Neural Networks. Frontiers in Neurorobotics, 2018, 12, 35.	2.8	111

#	Article	IF	Citations
217	Towards Robotic Eye Surgery: Marker-Free, Online Hand-Eye Calibration Using Optical Coherence Tomography Images. IEEE Robotics and Automation Letters, 2018, 3, 3944-3951.	5.1	30
218	AI and Robotics for the Human Brain Project II. KI - Kunstliche Intelligenz, 2018, 32, 273-278.	3.2	0
219	An Exact Solver for Geometric Constraints With Inequalities. IEEE Robotics and Automation Letters, 2017, 2, 1148-1155.	5.1	6
220	Smart City-to-Vehicle â€" Measuring, Prediction, Influencing. ATZelektronik Worldwide, 2017, 12, 60-63.	0.1	2
221	Influence of charging behaviour given charging infrastructure specification: A case study of Singapore. Journal of Computational Science, 2017, 20, 118-128.	2.9	11
222	Online workload monitoring with the feedback of actual execution time for real-time systems. , 2017, , .		0
223	Towards autonomous locomotion: CPG-based control of smooth 3D slithering gait transition of a snake-like robot. Bioinspiration and Biomimetics, 2017, 12, 035001.	2.9	41
224	Schedulability Analysis Towards Arbitrarily Activated Tasks in Mixed-Criticality Systems. Journal of Circuits, Systems and Computers, 2017, 26, 1750159.	1.5	4
225	Precise Measurement of Cargo Boxes for Gantry Robot Palletization in Large Scale Workspaces Using Low-Cost RGB-D Sensors. Lecture Notes in Computer Science, 2017, , 472-486.	1.3	4
226	Multi vehicle trajectory coordination for automated parking. , 2017, , .		9
227	Motion planning under perception and control uncertainties with Space Exploration Guided Heuristic Search. , 2017, , .		6
228	Graph based vehicle infrastructure cooperative localization. , 2017, , .		2
229	CPG-based control of smooth transition for body shape and locomotion speed of a snake-like robot. , 2017, , .		12
230	Deep neural networks for Markovian interactive scene prediction in highway scenarios. , 2017, , .		57
231	Hyper-periodic thermal management for hard real-time systems. , 2017, , .		0
232	Exploring FPGA-GPU Heterogeneous Architecture for ADAS: Towards Performance and Energy. Lecture Notes in Computer Science, 2017, , 33-48.	1.3	2
233	Ontology-based traffic scene modeling, traffic regulations dependent situational awareness and decision-making for automated vehicles. , 2017, , .		25
234	A Framework for Coupled Simulations of Robots and Spiking Neuronal Networks. Journal of Intelligent and Robotic Systems: Theory and Applications, 2017, 85, 71-91.	3.4	16

#	Article	IF	Citations
235	A Modular Power System Planning and Power Flow Simulation Framework for Generating and Evaluating Power Network Models. IEEE Transactions on Power Systems, 2017, 32, 2214-2224.	6.5	12
236	An integrated framework for multimodal human-robot interaction. , 2017, , .		5
237	McFTP: A Framework to Explore and Prototype Multi-core Thermal Managements on Real Processors. , 2017, , .		2
238	OPC UA for plug & produce: Automatic device discovery using LDS-ME. , 2017, , .		25
239	Towards autonomous locomotion: Slithering gait design of a snake-like robot for target observation and tracking. , 2017, , .		8
240	Environment effects at phantom-based X-ray pose measurements. , 2017, 2017, 1836-1839.		1
241	A graphical modeling tool supporting automated schedule synthesis for time-sensitive networking. , 2017, , .		22
242	Graph based cooperative localization using symmetric measurement equations and dedicated short range communication. , 2017, , .		2
243	Spatiotemporal representation of driving scenarios and classification using neural networks. , 2017, , .		12
244	A flexible head fixation for ophthalmic microsurgery. , 2017, , .		2
245	Beveled needle position and pose estimation based on optical coherence tomography in ophthalmic microsurgery. , 2017, , .		2
246	Improving the performance of ADAS application in heterogeneous context: A case of lane detection. , 2017, , .		1
247	Fast identification of critical roads by neural networks using system optimum assignment information. , 2017, , .		3
248	A simulation-based heuristic for city-scale electric vehicle charging station placement. , 2017, , .		16
249	TAF agile framework reducing uncertainty within minimum time and resources. , 2017, , .		6
250	Towards a framework for agile development of physical products influence of artifacts and methods. , 2017, , .		5
251	Systematically comparing control approaches in the presence of actuator errors. , 2017, , .		0
252	The use of prototypes within agile product development explorative case study of a Makeathon. , 2017, , .		8

#	Article	IF	Citations
253	Robust cooperative localization in a dynamic environment using factor graphs and probability data association filter. , 2017, , .		5
254	Towards capability-based worker modelling in a smart factory. , 2017, , .		4
255	Mixed-Criticality Control System with Performance and Robustness Guarantees. , 2017, , .		1
256	Slope angle estimation based on multi-sensor fusion for a snake-like robot. , 2017, , .		2
257	Time-sensitive networking (TSN): An experimental setup. , 2017, , .		25
258	5G for Robotics: Ultra-Low Latency Control of Distributed Robotic Systems. , 2017, , .		48
259	Random Finite Set Based Bayesian Filtering with OpenCL in a Heterogeneous Platform. Sensors, 2017, 17, 843.	3.8	1
260	Graph-Based Cooperative Localization Using Symmetric Measurement Equations. Sensors, 2017, 17, 1422.	3.8	8
261	Needle Segmentation in Volumetric Optical Coherence Tomography Images for Ophthalmic Microsurgery. Applied Sciences (Switzerland), 2017, 7, 748.	2.5	22
262	Connecting Artificial Brains to Robots in a Comprehensive Simulation Framework: The Neurorobotics Platform. Frontiers in Neurorobotics, 2017, 11, 2.	2.8	102
263	Towards a neuromorphic implementation of hierarchical temporal memory on SpiNNaker. , 2017, , .		3
264	Online Multi-object Tracking-by-Clustering for Intelligent Transportation System with Neuromorphic Vision Sensor. Lecture Notes in Computer Science, 2017, , 142-154.	1.3	13
265	Event-Based Target Tracking Control for a Snake Robot Using a Dynamic Vision Sensor. Lecture Notes in Computer Science, 2017, , 111-121.	1.3	3
266	Adaptive Workload Management in Mixed-Criticality Systems. Transactions on Embedded Computing Systems, 2017, 16, 1-27.	2.9	14
267	A Graph Partitioning Algorithm for Parallel Agent-Based Road Traffic Simulation. , 2017, , .		11
268	Applications in HHI: Physical Cooperation. , 2017, , 1-39.		0
269	Vehicle Detection Based on Probability Hypothesis Density Filter. Sensors, 2016, 16, 510.	3.8	10
270	Systematic Error Modeling and Bias Estimation. Sensors, 2016, 16, 729.	3.8	6

#	Article	IF	Citations
271	Evaluation and Improvements of Runtime Monitoring Methods for Real-Time Event Streams. Transactions on Embedded Computing Systems, 2016, 15, 1-26.	2.9	4
272	Special Issue on Brain-inspired Integration Model for Cognition and Motion. IEEE Transactions on Cognitive and Developmental Systems, 2016, 8, 309-309.	3.8	0
273	Joint bias estimation and localization in factor graph. , 2016, , .		0
274	Formally verifiable modeling of in-vehicle time-sensitive networks (TSN) based on logic programming. , 2016, , .		17
275	A realistic X-ray simulation for C-arm geometry calibration. , 2016, , .		1
276	Experimental evaluation of the accuracy at the C-arm pose estimation with x-ray images. , 2016, 2016, 3859-3862.		2
277	Energy arbitrage through smart scheduling of battery energy storage considering battery degradation and electricity price forecasts. , 2016, , .		9
278	Task level robot programming using prioritized non-linear inequality constraints. , 2016, , .		18
279	Compliant control for soft robots: Emergent behavior of a tendon driven anthropomorphic arm. , 2016, , .		11
280	Intuitive instruction of industrial robots: Semantic process descriptions for small lot production. , 2016, , .		48
281	BISOS: Backwards Incremental System Optimum Search algorithm for fast socially optimal traffic assignment. , 2016, , .		7
282	Data driven Adaptive Traffic simulation of an expressway. , 2016, , .		0
283	Dynamic Partitioned Cache Memory for Real-Time MPSoCs with Mixed Criticality. Journal of Circuits, Systems and Computers, 2016, 25, 1650062.	1.5	1
284	Orthogonal Image Features for Visual Servoing of a 6-DOF Manipulator With Uncalibrated Stereo Cameras. IEEE Transactions on Robotics, 2016, 32, 452-461.	10.3	41
285	Cooperative vehicle-infrastructure localization based on the symmetric measurement equation filter. GeoInformatica, 2016, 20, 159-178.	2.7	10
286	Reconfigurable cache for real-time MPSoCs: Scheduling and implementation. Microprocessors and Microsystems, 2016, 42, 200-214.	2.8	4
287	Debugging Autonomous Driving Systems Using Serialized Software Components. IFAC-PapersOnLine, 2016, 49, 44-49.	0.9	3
288	A Parameter Estimator for a Model Based Adaptive Control Scheme for Longitudinal Control of Automated Vehicles. IFAC-PapersOnLine, 2016, 49, 181-186.	0.9	7

#	Article	IF	Citations
289	Temporal logic for finding undesired behaviors of autonomous vehicles in a state space explored by dynamic analysis. , 2016, , .		0
290	Testing Automated Vehicles Against Actuator Inaccuracies in a Large State Space. IFAC-PapersOnLine, 2016, 49, 38-43.	0.9	6
291	Influence of Charging Behaviour Given Charging Station Placement at Existing Petrol Stations and Residential Car Park Locations in Singapore. Procedia Computer Science, 2016, 80, 335-344.	2.0	13
292	Vehicle infrastructure cooperative localization using Factor Graphs. , 2016, , .		11
293	Musculoskeletal Robots: Scalability in Neural Control. IEEE Robotics and Automation Magazine, 2016, 23, 128-137.	2.0	51
294	Online Data Extraction for Large-Scale Agent-Based Simulations. , 2016, , .		2
295	An ontology-based Plug-and-Play approach for in-vehicle Time-Sensitive Networking (TSN). , 2016, , .		25
296	On-the-fly fast overrun budgeting for mixed-criticality systems. , 2016, , .		13
297	The Human Brain Project: Creating a European Research Infrastructure to Decode the Human Brain. Neuron, 2016, 92, 574-581.	8.1	235
298	An adaptive nonlinear model predictive controller for longitudinal motion of automated vehicles. , 2016, , .		8
299	Tactical cooperative planning for autonomous highway driving using Monte-Carlo Tree Search. , 2016, , .		56
300	Combining task and motion planning for intersection assistance systems. , 2016, , .		8
301	Traffic State Estimation Using Floating Car Data. Procedia Computer Science, 2016, 80, 2008-2018.	2.0	22
302	Information Dynamics in Transportation Systems with Traffic Lights Control. Procedia Computer Science, 2016, 80, 2019-2029.	2.0	7
303	The effect of information uncertainty in road transportation systems. Journal of Computational Science, 2016, 16, 170-176.	2.9	15
304	Computation by Time. Neural Processing Letters, 2016, 44, 103-124.	3.2	17
305	Simulation-assisted exploration of charging infrastructure requirements for electric vehicles in urban environments. Journal of Computational Science, 2016, 12, 1-10.	2.9	37
306	Information Maximizing Optimal Sensor Placement Robust Against Variations of Traffic Demand Based on Importance of Nodes. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 714-725.	8.0	12

#	Article	IF	Citations
307	Retina Color-Opponency Based Pursuit Implemented Through Spiking Neural Networks in the Neurorobotics Platform. Lecture Notes in Computer Science, 2016, , 16-27.	1.3	6
308	A Scalable Lane Detection Algorithm on COTSs with OpenCL. , 2016, , .		8
309	Minimizing Peak Temperature for Pipelined Hard Real-time Systems. , 2016, , .		3
310	Self-organized control of an tendon driven arm by differential extrinsic plasticity. , 2016, , .		0
311	Modeling production workflows in a mass customization era. , 2015, , .		18
312	Collecting Simulation Scenarios by Analyzing Physical Test Drives. , 2015, , .		10
313	Analysis and semantic modeling of modality preferences in industrial human-robot interaction. , 2015, , .		29
314	GPU accelerated ray launching for high-fidelity virtual test drives of VANET applications. , 2015, , .		14
315	Kinodynamic motion planning with Space-Time Exploration Guided Heuristic Search for car-like robots in dynamic environments. , 2015, , .		13
316	Object detection using boundary representations of primitive shapes. , 2015, , .		8
317	Information impact on transportation systems. Journal of Computational Science, 2015, 9, 88-93.	2.9	19
318	Prioritized motion-force control of multi-constraints for industrial manipulators. , 2015, , .		6
319	Tutorial on a modeling and simulation cloud service. , 2015, , .		5
320	Incubator-independent cell-culture perfusion platform for continuous long-term microelectrode array electrophysiology and time-lapse imaging. Royal Society Open Science, 2015, 2, 150031.	2.4	29
321	Architecture and representation for handling dialogues in human-robot interactions. , 2015, , .		0
322	Multimodal Human Activity Recognition for Industrial Manufacturing Processes in Robotic Workcells. , 2015, , .		53
323	A neural network z-vertex trigger for Belle II. Journal of Physics: Conference Series, 2015, 608, 012052.	0.4	12
324	A Partition-Based Match Making Algorithm for Dynamic Ridesharing. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 2587-2598.	8.0	90

#	Article	IF	Citations
325	MOPL: A multi-modal path planner for generic manipulation tasks. , 2015, , .		10
326	Spatial and Temporal Analysis of Mismatch between Planned Road Infrastructure and Traffic Demand in Large Cities. , 2015, , .		5
327	Stochastic model predictive controller with chance constraints for comfortable and safe driving behavior of autonomous vehicles. , 2015, , .		21
328	Preliminary comparison study of two electro-mechanical cardiopulmonary resuscitation devices. , 2015, , .		1
329	Variational PatchMatch MultiView Reconstruction and Refinement. , 2015, , .		16
330	On Identifying Dynamic Intersections in Large Cities. , 2015, , .		4
331	Adaptive runtime shaping for mixed-criticality systems. , 2015, , .		7
332	Haptic interface for robot-assisted ophthalmic surgery. , 2015, 2015, 4906-9.		21
333	An ontology for CAD data and geometric constraints as a link between product models and semantic robot task descriptions. , 2015, , .		43
334	Heuristic search in belief space for motion planning under uncertainties. , 2015, , .		5
335	Constraint-based task programming with CAD semantics: From intuitive specification to real-time control. , 2015, , .		16
336	Evaluation of vital parameter response to load changes using an ergometer system in a group of healthy subjects. , 2015, , .		1
337	ATM Service Cost Optimization Using Predictive Encashment Strategy. Communications in Computer and Information Science, 2015, , 385-396.	0.5	1
338	Qualitative evaluation of fault hypotheses with non-intrusive fault injection. , 2015, , .		3
339	Extending the Knowledge of Volumes approach to robot task planning with efficient geometric predicates. , 2015, , .		9
340	Generating grammars for natural language understanding from knowledge about actions and objects. , 2015, , .		2
341	A <formula formulatype="inline"><tex Notation="TeX">z</tex></formula>-Vertex Trigger for Belle II. IEEE Transactions on Nuclear Science, 2015, 62, 1732-1740.	2.0	7
342	A visual tracking model implemented on the iCub robot as a use case for a novel neurorobotic toolkit integrating brain and physics simulation. , 2015, , .		9

#	Article	IF	Citations
343	Task planning for highly automated driving. , 2015, , .		5
344	Multi-representation approach to text regression of financial risks. , 2015, , .		0
345	Simulation-based approach for investigating the impact of electric vehicles on power grids. , 2015, , .		8
346	Vehicle-Infrastructure Localization Based on the SME Filter. , 2015, , .		5
347	Multi-resolution-Modeling for Testing and Evaluation of VANET Applications. , 2015, , .		1
348	Combining unsupervised learning and discrimination for 3D action recognition. Signal Processing, 2015, 110, 67-81.	3.7	26
349	Applying Pay-Burst-Only-Once Principle for Periodic Power Management in Hard Real-Time Pipelined Multiprocessor Systems. ACM Transactions on Design Automation of Electronic Systems, 2015, 20, 1-27.	2.6	6
350	SEMSim Cloud Service: Large-scale urban systems simulation in the cloud. Simulation Modelling Practice and Theory, 2015, 58, 157-171.	3.8	36
351	Visual odometry based on a Bernoulli filter. International Journal of Control, Automation and Systems, 2015, 13, 530-538.	2.7	6
352	Evaluation of runtime monitoring methods for real-time event streams. , 2015, , .		3
353	Human Performance Profiling While Driving a Sidestick-Controlled Car. Studies in Classification, Data Analysis, and Knowledge Organization, 2015, , 455-463.	0.2	0
354	Adaptable Capability-Based Planning. IFAC-PapersOnLine, 2015, 48, 1204-1209.	0.9	1
355	Periodic thermal management for hard real-time systems. , 2015, , .		5
356	Traffic Simulation Performance Optimization through Multi-Resolution Modeling of Road Segments. , 2015, , .		7
357	Adaptive neural network Dynamic Surface Control: An evaluation on the musculoskeletal robot Anthrob. , 2015, , .		9
358	Path planning with orientation-aware space exploration guided heuristic search for autonomous parking and maneuvering. , 2015, , .		34
359	OPART: Towards an Open Platform for Abstraction of real-time communication in cross-domain applications. , 2015, , .		1
360	Neuromorphic implementations of neurobiological learning algorithms for spiking neural networks. Neural Networks, 2015, 72, 152-167.	5.9	55

#	Article	IF	Citations
361	Hierarchical Grid-based Multi-People Tracking-by-Detection With Global Optimization. IEEE Transactions on Image Processing, 2015, 24, 4197-4212.	9.8	9
362	An Automated Electric Vehicle Prototype Showing New Trends in Automotive Architectures. , 2015, , .		34
363	Deriving fault-detection mechanisms from safety requirements. Computer Science - Research and Development, 2015, 30, 21-34.	2.7	1
364	Towards a Business Case for Vehicle-to-Gridâ€"Maximizing Profits in Ancillary Service Markets. Power Systems, 2015, , 203-231.	0.5	6
365	Towards Qualifiable Code Generation from a Clocked Synchronous Subset of Modelica. Modeling, Identification and Control, 2015, 36, 23-52.	1.1	1
366	Automatic cache partitioning and time-triggered scheduling for real-time MPSoCs. , 2014, , .		5
367	Policy search for learning robot control using sparse data. , 2014, , .		11
368	Adaptive neural network dynamic surface control for musculoskeletal robots. , 2014, , .		3
369	Multiple Vehicle Cooperative Localization with Spatial Registration Based on a Probability Hypothesis Density Filter. Sensors, 2014, 14, 995-1009.	3.8	17
370	Planning perception and action for cognitive mobile manipulators. Proceedings of SPIE, 2014, , .	0.8	0
371	Uncalibrated stereo visual servoing for manipulators using virtual impedance control. , 2014, , .		8
372	Analysis and modeling of hand-ball contact force during tossing motion. , 2014, , .		0
373	LiDAR based vehicle detection in urban environment. , 2014, , .		1
374	Map stream: Initializing what-if analyses for real-time symbiotic traffic simulations. , 2014, , .		4
375	6D image-based visual servoing for robot manipulators with uncalibrated stereo cameras. , 2014, , .		9
376	Run-Time Adaptive Error and State Management for Open Automotive Systems. , 2014, , .		2
377	A z-vertex trigger for Belle II. , 2014, , .		2
378	Adaptive dynamic power management for hard real-time pipelined Multiprocessor Systems. , 2014, , .		4

#	Article	IF	Citations
379	Mechanisms and capabilities for human robot collaboration. , 2014, , .		15
380	Vehicle detection based on LiDAR and camera fusion. , 2014, , .		42
381	Action recognition using ensemble weighted multi-instance learning. , 2014, , .		15
382	Stochastic bus traffic modelling and validation using smart card fare collection data. , 2014, , .		4
383	Intuitive robot tasks with augmented reality and virtual obstacles. , 2014, , .		27
384	Human activity recognition in the context of industrial human-robot interaction. , 2014, , .		51
385	Energy optimization for real-time multiprocessor system-on-chip with optimal DVFS and DPM combination. Transactions on Embedded Computing Systems, 2014, 13, 1-21.	2.9	97
386	Continuum worm-like robotic mechanism with decentral control architecture. , 2014, , .		4
387	Timing anomalies in multi-core architectures due to the interference on the shared resources. , 2014, , .		8
388	Transparency optimized interaction in telesurgery devices via time-delayed communications. , 2014, , .		1
389	Reducing communication-related complexity in heterogeneous networked medical systems considering non-functional requirements. , 2014, , .		4
390	Schedule Integration Framework for Time-Triggered Automotive Architectures. , 2014, , .		15
391	Virtual fixture control of a hybrid parallel-serial robot for assisting ophthalmic surgery: An experimental study. , 2014, , .		19
392	Interdisciplinary concept of design, actuation, control and vision computing of a laser-sintered single-port robot. , 2014, , .		3
393	Testing autonomous driving systems against sensor and actuator error combinations. , 2014, , .		5
394	A Traffic Knowledge Aided Vehicle Motion Planning Engine Based on Space Exploration Guided Heuristic Search. , 2014, , .		7
395	A price-responsive dispatching strategy for Vehicle-to-Grid: An economic evaluation applied to the case of Singapore. Journal of Power Sources, 2014, 256, 345-353.	7.8	37
396	A framework for reliability-aware embedded system design on multiprocessor platforms. Microprocessors and Microsystems, 2014, 38, 539-551.	2.8	13

#	Article	IF	Citations
397	Employing early model-based safety evaluation to iteratively derive E/E architecture design. Science of Computer Programming, 2014, 90, 161-179.	1.9	10
398	Automation of a portable extracorporeal circulatory support system with adaptive fuzzy controllers. Medical Engineering and Physics, 2014, 36, 981-990.	1.7	11
399	CHROMOSOME. ACM SIGBED Review, 2014, 11, 36-39.	1.8	10
400	Adaptive Error and Sensor Management for Autonomous Vehicles: Model-Based Approach and Run-Time System. Lecture Notes in Computer Science, 2014, , 166-180.	1.3	4
401	Object Recognition Using Constraints fromÂPrimitive Shape Matching. Lecture Notes in Computer Science, 2014, , 783-792.	1.3	9
402	Toward increased autonomy in the surgical OR: needs, requests, and expectations. Surgical Endoscopy and Other Interventional Techniques, 2013, 27, 1681-1688.	2.4	44
403	Using Embodied Multimodal Fusion to Perform Supportive and Instructive Robot Roles in Human-Robot Interaction. International Journal of Social Robotics, 2013, 5, 345-356.	4.6	13
404	Learning to Track Multi-target Online by Boosting and Scene Layout. , 2013, , .		3
405	Energy Optimization with Worst-Case Deadline Guarantee for Pipelined Multiprocessor Systems. , 2013, , .		4
406	JavaScript Distributed Agent Based Discrete Event Simulation. , 2013, , .		4
407	Cache partitioning and scheduling for energy optimization of real-time MPSoCs. , 2013, , .		8
408	Towards the deployment of a centralized ICT architecture in the automotive domain. , 2013, , .		5
409	Uncalibrated 3D stereo image-based dynamic visual servoing for robot manipulators. , 2013, , .		4
410	Fusion algorithm based on fuzzy neural networks. , 2013, , .		0
411	KVP: A knowledge of volumes approach to robot task planning. , 2013, , .		28
412	Evaluation of an adaptive algorithm for fuzzy type-2 control in blood pressure regulation. , 2013, , .		5
413	A lane marking extraction approach based on Random Finite Set Statistics. , 2013, , .		13
414	Towards autonomous driving in a parking garage: Vehicle localization and tracking using environment-embedded LIDAR sensors. , 2013, , .		50

#	Article	IF	Citations
415	Design of an inherently safe worm-like robot. , 2013, , .		1
416	The 3D Eyeball FEA Model with Needle Rotation. APCBEE Procedia, 2013, 7, 4-10.	0.5	2
417	A case study on implementing future human-machine interfaces. , 2013, , .		3
418	A Model-Driven Approach for Runtime Reliability Analysis. , 2013, , .		0
419	RACE: A Centralized Platform Computer Based Architecture for Automotive Applications. , 2013, , .		68
420	Anthrob - A printed anthropomimetic robot. , 2013, , .		55
421	Reconfigurable industrial process monitoring using the CHROMOSOME middleware. ACM SIGBED Review, 2013, 10, 61-64.	1.8	4
422	Toward Anthropomimetic Robotics: Development, Simulation, and Control of a Musculoskeletal Torso. Artificial Life, 2013, 19, 171-193.	1.3	71
423	Effective Online Power Management with Adaptive Interplay of DVS and DPM for Embedded Real-Time System. , 2013, , .		10
424	Reducing the impact of vibration-caused artifacts in a brain-computer interface using gyroscope data. , 2013, , .		3
425	Global optimal data association for multiple people tracking. , 2013, , .		1
426	Bounding SDRAM Interference: Detailed Analysis vs. Latency-Rate Analysis. , 2013, , .		11
427	Robust and integrated diagnostics for safety systems in the industrial domain. , 2013, , .		0
428	Kinematics and dynamics analysis of a hybrid parallel-serial micromanipulator designed for biomedical applications. , 2013, , .		32
429	The introduction of a new robot for assistance in ophthalmic surgery. , 2013, 2013, 5682-5.		70
430	Combining space exploration and heuristic search in online motion planning for nonholonomic vehicles. , 2013, , .		10
431	Increasing efficiency in robot-supported assemblies through predictive mechanisms: An experimental evaluation. , 2013, , .		4
432	Multiple vehicle cooperative localization under random finite set framework. , 2013, , .		7

#	Article	IF	Citations
433	Cumulative error estimation from noisy relative measurements. , 2013, , .		8
434	Efficient compositional approaches for real-time robust direct visual odometry from RGB-D data. , 2013, , .		36
435	A partition based match making algorithm for taxi sharing. , 2013, , .		2
436	PM-Huber: PatchMatch with Huber Regularization for Stereo Matching. , 2013, , .		126
437	Towards adaptable manufacturing systems. , 2013, , .		45
438	Gradient boosting machines, a tutorial. Frontiers in Neurorobotics, 2013, 7, 21.	2.8	1,521
439	Unsupervised Learning Spatio-temporal Features for Human Activity Recognition from RGB-D Video Data. Lecture Notes in Computer Science, 2013, , 341-350.	1.3	3
440	Boosting Simplified Fuzzy Neural Networks. Communications in Computer and Information Science, 2013, , 330-339.	0.5	2
441	A Multi-threaded Execution Model for the Agent-Based SEMSim Traffic Simulation. Communications in Computer and Information Science, 2013, , 1-12.	0.5	19
442	Spatiotemporal Movement Planning and Rapid Adaptation for Manual Interaction. PLoS ONE, 2013, 8, e64982.	2.5	13
443	SEMSim Power as an Application of USES. , 2013, , .		3
444	Scene Perception and Recognition for Human-Robot Co-operation. Lecture Notes in Computer Science, 2013, , 50-59.	1.3	2
445	Hierarchical Grid-Based People Tracking with Multi-camera Setup. Communications in Computer and Information Science, 2013, , 187-202.	0.5	1
446	Towards fault-tolerant embedded systems with imperfect fault detection. , 2012, , .		14
447	Conforming the runtime inputs for hard real-time embedded systems. , 2012, , .		21
448	Interspike Interval Based Filtering of Directional Selective Retinal Ganglion Cells Spike Trains. Computational Intelligence and Neuroscience, 2012, 2012, 1-17.	1.7	1
449	Workflow analysis and surgical phase recognition in minimally invasive surgery. , 2012, , .		18
450	Symbiotic simulation for future electro-mobility transportation systems. , 2012, , .		6

#	Article	IF	Citations
451	Micro camera augmented endoscopic instruments: Towards superhuman performance in remote surgical cutting. , 2012, , .		3
452	Calibration of a physics-based model of an anthropomimetic robot using Evolution Strategies. , 2012, , .		5
453	A data mining approach to reduce the false alarm rate of patient monitors. , 2012, 2012, 5935-8.		15
454	Human-computer interfaces for interaction with surgical tools in robotic surgery. , 2012, , .		16
455	Game solving for industrial automation and control. , 2012, , .		5
456	Computed muscle control for an anthropomimetic elbow joint. , 2012, , .		20
457	Bounding WCET of applications using SDRAM with Priority Based Budget Scheduling in MPSoCs. , 2012, , .		21
458	Static scheduling of a Time-Triggered Network-on-Chip based on SMT solving. , 2012, , .		22
459	Design, development and evaluation of a highly versatile robot platform for minimally invasive single-port surgery. , 2012, , .		16
460	A sensor fusion approach for localization with cumulative error elimination. , 2012, , .		27
461	Visual odometry based on Random Finite Set Statistics in urban environment. , 2012, , .		8
462	Fusing vision and odometry for accurate indoor robot localization. , 2012, , .		14
463	Kinematics, control and workspace analysis of a bowden wire actuated manipulator for minimally invasive single-port surgery. , 2012, , .		6
464	Social behavior recognition using body posture and head pose for human-robot interaction. , 2012, , .		37
465	Single camera visual odometry based on Random Finite Set Statistics. , 2012, , .		16
466	Shared memory protection for spatial separation in multicore architectures. , 2012, , .		6
467	Learning a fuzzy system from training data using the Münsteraner Optimisation System. , 2012, , .		0
468	Compliant worm-like robotic mechanism with decentrally controlled pneumatic artificial muscles. , 2012, , .		3

#	Article	IF	Citations
469	System design for simultaneous data acquisition from patient monitor and syringe pumps in intensive care unit. , 2012, , .		1
470	A framework for reliability-aware design exploration on MPSoC based systems. Design Automation for Embedded Systems, 2012, 16, 189-220.	1.0	8
471	User friendly Matlab-toolbox for symbolic robot dynamic modeling used for control design. , 2012, , .		23
472	The software car: Building ICT architectures for future electric vehicles. , 2012, , .		31
473	Application of adaptive fuzzy controllers for the automation of medical devices. , 2012, , .		1
474	Moving Just Like You: Motor Interference Depends on Similar Motility of Agent and Observer. PLoS ONE, 2012, 7, e39637.	2.5	35
475	Selective automation and skill transfer in medical robotics: a demonstration on surgical knotâ€tying. International Journal of Medical Robotics and Computer Assisted Surgery, 2012, 8, 384-397.	2.3	26
476	Wireless Robotics: A Highly Promising Case for Standardization. Wireless Personal Communications, 2012, 64, 611-617.	2.7	8
477	MGSyn: Automatic Synthesis for Industrial Automation. Lecture Notes in Computer Science, 2012, , 658-664.	1.3	3
478	A Generic Approach Simplifying Model-to-Model Transformation Chains. Lecture Notes in Computer Science, 2012, , 579-594.	1.3	1
479	Human Body Orientation Estimation in Multiview Scenarios. Lecture Notes in Computer Science, 2012, , 499-508.	1.3	3
480	Human workflow analysis using 3D occupancy grid hand tracking in a human-robot collaboration scenario. , 2011, , .		23
481	Implementation and evaluation of a gesture-based input method in robotic surgery. , 2011, , .		9
482	Artificial Cognition in Production Systems. IEEE Transactions on Automation Science and Engineering, 2011, 8, 148-174.	5.2	94
483	Physics-based modeling of an anthropomimetic robot. , 2011, , .		7
484	Energy-Aware Task Allocation for Network-on-Chip Based Heterogeneous Multiprocessor Systems. , 2011, , .		42
485	Analysis and optimization of fault-tolerant task scheduling on multiprocessor embedded systems. , 2011, , .		46
486	Modeling of Electric Power Transformer Using Complex-Valued Neural Networks. Energy Procedia, 2011, 12, 638-647.	1.8	1

#	Article	IF	Citations
487	Algorithms for Synthesizing Priorities in Component-Based Systems. Lecture Notes in Computer Science, 2011, , 150-167.	1.3	8
488	Automatic distribution of vision-tasks on computing clusters. , 2011, , .		1
489	Evolution of attention mechanisms for early visual processing. Proceedings of SPIE, 2011, , .	0.8	0
490	Introducing the Human Brain Project. Procedia Computer Science, 2011, 7, 39-42.	2.0	118
491	Sharpening of directional selectivity from neural output of rabbit retina. Journal of Computational Neuroscience, 2011, 30, 409-426.	1.0	2
492	Biological movement increases acceptance of humanoid robots as human partners in motor interaction. AI and Society, 2011, 26, 339-345.	4.6	48
493	Robust pedestrian detection and tracking from a moving vehicle. , 2011, , .		3
494	A workflow for runtime adaptive task allocation on heterogeneous MPSoCs. , 2011, , .		19
495	A scalable joint-space controller for musculoskeletal robots with spherical joints. , 2011, , .		26
496	A comparative study on extra-corporal circulation control. , 2011, 2011, 4287-90.		0
497	Priority division: A high-speed shared-memory bus arbitration with bounded latency. , 2011, , .		15
498	CALIPER: A universal robot simulation framework for tendon-driven robots. , 2011, , .		12
499	Automation of an extracorporeal support system with adaptive fuzzy controllers. , 2011, 2011, 1033-6.		2
500	Synthesis of Fault-Tolerant Embedded Systems Using Games: From Theory to Practice. Lecture Notes in Computer Science, 2011, , 118-133.	1.3	10
501	GAVS+: An Open Platform for the Research of Algorithmic Game Solving. Lecture Notes in Computer Science, 2011, , 258-261.	1.3	19
502	Model Construction and Priority Synthesis for Simple Interaction Systems. Lecture Notes in Computer Science, 2011, , 466-471.	1.3	4
503	On the Hardness of Priority Synthesis. Lecture Notes in Computer Science, 2011, , 110-117.	1.3	2
504	Automated Model-to-Metamodel Transformations Based on the Concepts of Deep Instantiation. Lecture Notes in Computer Science, 2011, , 17-31.	1.3	2

#	Article	IF	Citations
505	CALIPER: A universal robot simulation framework for tendon-driven robots. , 2011, , .		1
506	Human swarm modeling in exhibition space and space design. , 2011, , .		3
507	Perturbation theory to plan dynamic locomotion in very rough terrains. , 2011, , .		3
508	Remote Minimally Invasive Surgery â€" Haptic Feedback and Selective Automation in Medical Robotics. Applied Bionics and Biomechanics, 2011, 8, 221-236.	1.1	5
509	MULTI-CAMERA PEOPLE TRACKING WITH HIERARCHICAL LIKELIHOOD GRIDS. , 2011, , .		2
510	A system architecture for online data interpretation and reduction in fluorescence microscopy. Proceedings of SPIE, 2010, , .	0.8	0
511	Teaching and implementing autonomous robotic lab walkthroughs in a biotech laboratory through model-based visual tracking. , 2010, , .		0
512	Markerless, vision-assisted flight control of a quadrocopter. , 2010, , .		29
513	Design Principles for Safety in Human-Robot Interaction. International Journal of Social Robotics, 2010, 2, 253-274.	4.6	36
514	ECHORD-The new face of academia-industry collaboration in European robotics [Industrial Activities. IEEE Robotics and Automation Magazine, 2010, 17, 21-22.	2.0	4
515	A skill-based approach towards hybrid assembly. Advanced Engineering Informatics, 2010, 24, 329-339.	8.0	32
516	Speeding Up HOG and LBP Features for Pedestrian Detection by Multiresolution Techniques. Lecture Notes in Computer Science, 2010, , 243-252.	1.3	12
517	Visual servoing of presenters in augmented virtual reality TV studios. , 2010, , .		0
518	MultiNet: An intelligent sensor cable. , 2010, , .		0
519	Framework of automatic robot surgery system using Visual servoing. , 2010, , .		44
520	Automation of tissue piercing using circular needles and vision guidance for computer aided laparoscopic surgery. , 2010, , .		51
521	Design of a fuzzy controller for the automation of an extracorporeal support system with the use of a simulation environment. , 2010, 2010, 6698-701.		2
522	Distributed control for an anthropomimetic robot. , 2010, , .		13

#	Article	IF	Citations
523	A comprehensive approach towards extra-corporal circulation control using fuzzy logic. , 2010, , .		3
524	Adaptive platform for fluorescence microscopy-based high-content screening. , 2010, , .		0
525	Design Abstraction and Processes in Robotics: From Code-Driven to Model-Driven Engineering. Lecture Notes in Computer Science, 2010, , 324-335.	1.3	41
526	A generic approach to realtime robot control and parallel processing for industrial scenarios. , 2010, , .		1
527	Interacting in time and space: Investigating human-human and human-robot joint action. , 2010, , .		54
528	A 4-Layer Supervising Unit for Extra-Corporal Circulation. International Conference on Bioinformatics and Biomedical Engineering: [proceedings] International Conference on Bioinformatics and Biomedical Engineering, 2010, , .	0.0	0
529	Design of an experimental platform for an X-by-wire car with four-wheel steering. , 2010, , .		7
530	Autonomous High Precision Positioning of Surgical Instruments in Robot-Assisted Minimally Invasive Surgery under Visual Guidance. , 2010, , .		6
531	Robust tracking and monocular 3D reconstruction of line-based features in urban environments. , 2010, , .		0
532	FTOS: Model-driven development of fault-tolerant automation systems. , 2010, , .		10
533	Telepresence Technology for Production: From Manual to Automated Assembly. Lecture Notes in Computer Science, 2010, , 256-261.	1.3	2
534	Model-to-Metamodel Transformation for the Development of Component-Based Systems. Lecture Notes in Computer Science, 2010, , 391-405.	1.3	6
535	A Distributed Many-Camera System for Multi-person Tracking. Lecture Notes in Computer Science, 2010, , 217-226.	1.3	1
536	Evaluation of Pose Hypotheses by Image Feature Extraction for Vehicle Localization. Lecture Notes in Computer Science, 2010, , 547-554.	1.3	1
537	GAVS: Game Arena Visualization and Synthesis. Lecture Notes in Computer Science, 2010, , 347-352.	1.3	1
538	∈SOA - Service Oriented Architectures adapted for embedded networks. , 2009, , .		13
539	Constraint task-based control in industrial settings. , 2009, , .		14
540	Modeling and Verification for Timing Satisfaction of Fault-Tolerant Systems with Finiteness. , 2009, , .		0

#	Article	IF	Citations
541	A distributed and scalable person tracking system for robotic visual servoing with 8 dof in virtual reality TV studio automation. , 2009, , .		2
542	Testing of Image Processing Algorithms on Synthetic Data. , 2009, , .		7
543	Toward the Design of Robotic Software with Verifiable Safety. , 2009, , .		0
544	Attention driven visual processing for an interactive dialog robot. , 2009, , .		7
545	Handing Over a Cube. Annals of the New York Academy of Sciences, 2009, 1164, 380-382.	3.8	15
546	On the role of multimodal communication in telesurgery systems. , 2009, , .		2
547	Robot-Assisted Vitreoretinal Surgery. Ophthalmology, 2009, 116, 1538-1543.e2.	5.2	99
548	Virtualization Techniques for Cross Platform Automated Software Builds, Tests and Deployment. , 2009, , .		1
549	Examining robotic systems with shape-adjustable manipulators under dynamic environments: From simulation to verification. , 2009, , .		0
550	Developing Service Oriented Sensor/Actuator Networks Using a Tailored Middleware. , 2009, , .		7
551	Efficient communication in control-oriented embedded networks. , 2009, , .		0
552	Evaluation of a novel biologically inspired trajectory generator in human-robot interaction. , 2009, , .		22
553	Services to the Field: An Approach for Resource Constrained Sensor/Actor Networks. , 2009, , .		30
554	Utilization of a mobile manipulator for automating the complete sample management in a biotech laboratory. A real world application for service Robotics. , 2009, , .		1
555	A Software Architecture for Model-Based Programming of Robot Systems. , 2009, , 135-146.		8
556	Multi-target and Multi-camera Object Detection with Monte-Carlo Sampling. Lecture Notes in Computer Science, 2009, , 12-21.	1.3	1
557	Real-Time Articulated Hand Detection and Pose Estimation. Lecture Notes in Computer Science, 2009, , 1131-1140.	1.3	8
558	Setup of a Scientific Research Platform for Robot-Assisted Minimally Invasive Heart Surgery Scenarios. IFMBE Proceedings, 2009, , 259-262.	0.3	0

#	Article	IF	Citations
559	Tactile Control: Fixation of Length for Artificial Chordae. IFMBE Proceedings, 2009, , 4-5.	0.3	0
560	Features in Telemanipulation for Heart Surgery: Haptic Tasks. IFMBE Proceedings, 2009, , 6-7.	0.3	1
561	Mutual Information-Based 3D Object Tracking. International Journal of Computer Vision, 2008, 78, 107-118.	15.6	32
562	A System for Robotic Heart Surgery that Learns to Tie Knots Using Recurrent Neural Networks. Advanced Robotics, 2008, 22, 1521-1537.	1.8	97
563	Joint-action for humans and industrial robots for assembly tasks. , 2008, , .		70
564	Human-robot interaction in handing-over tasks. , 2008, , .		143
565	The mechatronic support system â€œHVSPSâ€•and the way to NOTES. Minimally Invasive Therapy and Allied Technologies, 2008, 17, 341-345.	1.2	29
566	A Novel Approach to Hand-Gesture Recognition in a Human-Robot Dialog System. , 2008, , .		10
567	EasyLab: Model-Based Development of Software for Mechatronic Systems. , 2008, , .		17
568	Automation of Manual Tasks for Minimally Invasive Surgery. , 2008, , .		23
569	Human-machine skill transfer extended by a scaffolding framework. , 2008, , .		14
570	The roles of haptic-ostensive referring expressions in cooperative, task-based human-robot dialogue. , 2008, , .		24
571	WS-AMUSE - web service architecture for multimedia services. , 2008, , .		9
572	Balancing exploration and exploitation in motion planning. , 2008, , .		52
573	Adjustment of artificial chordae to the mitral valve with advanced tactile technique. , 2008, , .		0
574	A multi-camera person tracking system for robotic applications in virtual reality TV studio. , 2008, , .		9
575	A unifying software architecture for model-based visual tracking. Proceedings of SPIE, 2008, , .	0.8	14
576	Rapid prototyping of an adaptive light-source for mobile manipulators with EasyKit and EasyLab. , 2008, , .		0

#	Article	IF	Citations
577	A WAIT-FREE REALTIME SYSTEM FOR OPTIMAL DISTRIBUTION OF VISION TASKS ON MULTICORE ARCHITECTURES. , 2008, , .		2
578	Software Architecture of a System for Robotic Surgery. , 2008, , .		0
579	Guest Editor's Introduction: Toward High-Definition Telepresence. Presence: Teleoperators and Virtual Environments, 2007, 16, i-iii.	0.6	3
580	Haptic Feedback in a Telepresence System for Endoscopic Heart Surgery. Presence: Teleoperators and Virtual Environments, 2007, 16, 459-470.	0.6	41
581	Adaptive Control for Human-Robot Skilltransfer: Trajectory Planning Based on Fluid Dynamics. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	25
582	Generic Fault-Tolerance Mechanisms Using the Concept of Logical Execution Time. , 2007, , .		1
583	Models for automatic generation of safety-critical real-time systems. , 2007, , .		8
584	Model Based Development of Safety-Critical Systems Using Template Based Code Generation. , 2007, , .		0
585	A Roadmap for NeuroIT Challenges for the Next Decade. IEEE Engineering in Medicine and Biology Magazine, 2007, 26, 42-46.	0.8	2
586	Integrating Language, Vision and Action for Human Robot Dialog Systems. Lecture Notes in Computer Science, 2007, , 987-995.	1.3	26
587	Integrating Multimodal Cues Using Grammar Based Models. Lecture Notes in Computer Science, 2007, , 858-867.	1.3	3
588	Real-Time 3D Face Tracking with Mutual Information and Active Contours. Lecture Notes in Computer Science, 2007, , 1-12.	1.3	4
589	An Analytical Model of Divisive Normalization in Disparity-Tuned Complex Cells. Lecture Notes in Computer Science, 2007, , 776-787.	1.3	0
590	Template-Based Development of Fault-Tolerant Embedded Software. , 2006, , .		0
591	Goal-directed imitation for robots: A bio-inspired approach to action understanding and skill learning. Robotics and Autonomous Systems, 2006, 54, 353-360.	5.1	66
592	Human-Robot dialogue for joint construction tasks. , 2006, , .		20
593	A System for Robotic Heart Surgery that Learns to Tie Knots Using Recurrent Neural Networks. , 2006, , .		54
594	Model-Based Development of Fault-Tolerant Embedded Software. , 2006, , .		5

#	ARTICLE	IF	CITATIONS
595	Towards robotic heart surgery: introduction of autonomous procedures into an experimental surgical telemanipulator system. International Journal of Medical Robotics and Computer Assisted Surgery, 2005, 1, 74-79.	2.3	19
596	Action Understanding and Imitation Learning in a Robot-Human Task. Lecture Notes in Computer Science, 2005, , 261-268.	1.3	3
597	Flexible Automation of Cell Culture and Tissue Engineering Tasks. Biotechnology Progress, 2004, 20, 1825-1835.	2.6	21
598	Kinematics and Modelling of a System for Robotic Surgery. , 2004, , 181-190.		24
599	Towards Complete Automation of Mammalian Cell Culture Perfusion Processes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 387-391.	0.4	0
600	Robotic System to Evaluate Force Feedback in Minimally Invasive Computer Aided Surgery. , 2004, , 141.		6
601	Fuzzy-logic based automatic control of hemodynamics. , 2003, , .		5
602	Distributed contract networks of sensor agents with adaptive reconfiguration: modelling, simulation, implementation and experiments. Journal of the Franklin Institute, 2001, 338, 669-705.	3.4	14
603	First Steps in Robot Automation of Sampling and Sample Management during Cultivation of Mammalian Cells in Pilot Scale. Biotechnology Progress, 2000, 16, 822-828.	2.6	15
604	Interactive assembly by a two-arm robot agent. Robotics and Autonomous Systems, 1999, 29, 91-100.	5.1	20
605	<title>Framework for implementing self-organizing task-oriented multisensor networks</title>. , 1998, 3523, 18.		1
606	<title>Learning manipulation skills by combining PCA technique and adaptive interpolation</title>. , 1998, , .		0
607	<title>Weighting matrices and spatial and temporal prediction modes in a spatial-scalable motion picture experts group (MPEG)-2 coder</title>. , 1995, , .		0
608	<title>Model of nonhierarchical control in distributed sensor networks</title>. , 1992, 1828, 250.		0
609	Ultrasonic holography techniques for localizing and imaging solid objects. IEEE Transactions on Automation Science and Engineering, 1991, 7, 449-467.	2.3	21
610	Automatic coronary artery detection on in situ heart images. , 0, , .		3
611	KABouM: Knowledge-Level Action and Bounding Geometry Motion Planner. Journal of Artificial Intelligence Research, 0, 61, 323-362.	7.0	4
612	Evaluating Muscle Synergies With EMG Data and Physics Simulation in the Neurorobotics Platform. Frontiers in Neurorobotics, 0, 16, .	2.8	1