Homayoun Najjaran

List of Publications by Citations

86 papers	1,635 citations	20 h-index	38 g-index
98 ext. papers	2,165 ext. citations	5 avg, IF	5.17 L-index

#	Paper	IF	Citations
86	Microfluidics Integrated Biosensors: A Leading Technology towards Lab-on-a-Chip and Sensing Applications. *Sensors*, **2015**, 15, 30011-31	3.8	273
85	Autonomous vehicle perception: The technology of today and tomorrow. *Transportation Research Part C: Emerging Technologies*, **2018**, 89, 384-406	8.4	236
84	Online Drinking Water Quality Monitoring: Review on Available and Emerging Technologies. *Critical Reviews in Environmental Science and Technology*, **2014**, 44, 1370-1421	11.1	72
83	Deep Learning Sensor Fusion for Autonomous Vehicle Perception and Localization: A Review. *Sensors*, **2020**, 20,	3.8	67
82	Graphene-Coated Spandex Sensors Embedded into Silicone Sheath for Composites Health Monitoring and Wearable Applications. *Small*, **2019**, 15, e1804991	11	54
81	Low-cost ultra-stretchable strain sensors for monitoring human motion and bio-signals. *Sensors and Actuators A: Physical*, **2018**, 271, 182-191	3.9	53
80	Miniaturized water quality monitoring pH and conductivity sensors. *Sensors and Actuators B: Chemical*, **2014**, 193, 434-441	8.5	52
79	A review of quadrotor: An underactuated mechanical system. *Annual Reviews in Control*, **2018**, 46, 165-180	10.3	48
78	Capacitance-based droplet position estimator for digital microfluidic devices. *Lab on A Chip*, **2012**, 12, 2053-9	7.2	45
77	Leakage detection and location in water distribution systems using a fuzzy-based methodology. *Urban Water Journal*, **2011**, 8, 351-365	2.3	41
76	Reliability Assessment for Water Supply Systems under Uncertainties. *Journal of Water Resources Planning and Management - ASCE*, **2014**, 140, 468-479	2.8	38
75	Integration of biosensors into digital microfluidics: Impact of hydrophilic surface of biosensors on droplet manipulation. *Biosensors and Bioelectronics*, **2016**, 81, 480-486	11.8	31
74	Communicating human health risks associated with disinfection by-products in drinking water supplies: a fuzzy-based approach. *Stochastic Environmental Research and Risk Assessment*, **2007**, 21, 341-353	3.5	30
73	Evaluating Water Quality Failure Potential in Water Distribution Systems: A Fuzzy-TOPSIS-OWA-based Methodology. *Water Resources Management*, **2013**, 27, 2195-2216	3.7	28
72	Label-Free Capacitive Biosensor for Detection of. *Sensors*, **2019**, 19,	3.8	27
71	Investigating evidential reasoning for the interpretation of microbial water quality in a distribution network. *Stochastic Environmental Research and Risk Assessment*, **2006**, 21, 63-73	3.5	26
70	Precision landing using an adaptive fuzzy multi-sensor data fusion architecture. *Applied Soft Computing Journal*, **2018**, 69, 149-164	7.5	24

69	In situ characterization of microdroplet interfacial properties in digital microfluidic systems. *Lab on A Chip*, **2010**, 10, 1429-35	7.2	24
68	Exploring the Relationship between Soil Properties and Deterioration of Metallic Pipes Using Predictive Data Mining Methods. *Journal of Computing in Civil Engineering*, **2010**, 24, 289-301	5	22
67	Ultra-Portable Smartphone Controlled Integrated Digital Microfluidic System in a 3D-Printed Modular Assembly. *Micromachines*, **2015**, 6, 1289-1305	3.3	20
66	High precision control of gap height for enhancing principal digital microfluidics operations. *Sensors and Actuators B: Chemical*, **2013**, 186, 343-352	8.5	19
65	Droplet sensing by measuring the capacitance between coplanar electrodes in a digital microfluidic system. *Lab on A Chip*, **2012**, 12, 4416-23	7.2	19
64	Real-time motion planning of an autonomous mobile manipulator using a fuzzy adaptive Kalman filter. *Robotics and Autonomous Systems*, **2007**, 55, 96-106	3.5	18
63	Development of Visual Simultaneous Localization and Mapping (VSLAM) for a Pipe Inspection Robot **2007**,		18
62	Comparative study of fuzzy evidential reasoning and fuzzy rule-based approaches: an illustration for water quality assessment in distribution networks. *Stochastic Environmental Research and Risk Assessment*, **2014**, 28, 655-679	3.5	17
61	3D Printing-Based Integrated Water Quality Sensing System. *Sensors*, **2017**, 17,	3.8	17
60	Evidential reasoning using extended fuzzy Dempster–Shafer theory for handling various facets of information deficiency. *International Journal of Intelligent Systems*, **2011**, 26, 731-758	8.4	17
59	Condition Assessment of Buried Pipes Using Hierarchical Evidential Reasoning Model. *Journal of Computing in Civil Engineering*, **2008**, 22, 114-122	5	17
58	A Survey of Robot Learning Strategies for Human-Robot Collaboration in Industrial Settings. *Robotics and Computer-Integrated Manufacturing*, **2022**, 73, 102231	9.2	17
57	Robust adaptive fault-tolerant control of a tandem coaxial ducted fan aircraft with actuator saturation. *Chinese Journal of Aeronautics*, **2018**, 31, 1298-1310	3.7	16
56	An integrated robust probing motion planning and control scheme: A tube-based MPC approach. *Robotics and Autonomous Systems*, **2013**, 61, 1379-1391	3.5	16
55	Electrohydrodynamic modeling of microdroplet transient dynamics in electrocapillary-based digital microfluidic devices. *Microfluidics and Nanofluidics*, **2011**, 10, 1019-1032	2.8	13
54	Droplet position control in digital microfluidic systems. *Biomedical Microdevices*, **2010**, 12, 115-24	3.7	13
53	SliceNet: A proficient model for real-time 3D shape-based recognition. *Neurocomputing*, **2018**, 316, 144-155	5.7	12
52	High Throughput Screening of Cell Mechanical Response Using a Stretchable 3D Cellular Microarray Platform. *Small*, **2020**, 16, e2000941	11	11

51	Parametric study on the geometrical parameters of a lab-on-a-chip platform with tilted planar electrodes for continuous dielectrophoretic manipulation of microparticles. *Scientific Reports*, **2020**, 10, 11718	4.9	11
50	Mixed adaptive control architecture for a novel coaxial-ducted-fan aircraft under time-varying uncertainties. *Aerospace Science and Technology*, **2018**, 76, 141-154	4.9	10
49	Classification and Regression of Binary Hydrocarbon Mixtures using Single Metal Oxide Semiconductor Sensor With Application to Natural Gas Detection. *Sensors and Actuators B: Chemical*, **2021**, 326, 129012	8.5	10
48	Online monitoring of drinking water quality in a distribution network: a selection procedure for suitable water quality parameters and sensor devices. *International Journal of Systems Assurance Engineering and Management*, **2012**, 3, 323-337	1.3	9
47	Integrated Decision Support System for Prognostic and Diagnostic Analyses of Water Distribution System Failures. *Water Resources Management*, **2016**, 30, 2831-2850	3.7	8
46	A Nanostructured Microfluidic Artificial Olfaction for Organic Vapors Recognition. *Scientific Reports*, **2019**, 9, 19051	4.9	8
45	Water distribution system failure: a framework for forensic analysis. *Environment Systems and Decisions*, **2014**, 34, 168-179	4.1	7
44	Direct current pulse train actuation to enhance droplet control in digital microfluidics. *Applied Physics Letters*, **2012**, 101, 144102	3.4	7
43	Multi-level information fusion for spatiotemporal monitoring in water distribution networks. *Expert Systems With Applications*, **2015**, 42, 3813-3831	7.8	6
42	Simulation of Droplet Position Control in Digital Microfluidic Systems. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2010**, 132,	1.6	6
41	Fabrication of SnO Composite Nanofiber-Based Gas Sensor using the Electrospinning Method for Tetrahydrocannabinol (THC) Detection. *Micromachines*, **2020**, 11,	3.3	5
40	Real-time visual tracking via robust Kernelized Correlation Filter **2017**,		5
39	Interval belief structure rule-based system using extended fuzzy Dempster-Shafer inference **2011**,		5
38	A higher order Rao-Blackwellized particle filter for monocular vSLAM **2010**,		5
37	Intelligent manufacturing execution systems: A systematic review. *Journal of Manufacturing Systems*, **2022**, 62, 503-522	9.1	5
36	End-to-end 3D object model retrieval by projecting the point cloud onto a unique discriminating 2D view. *Neurocomputing*, **2020**, 402, 336-345	5.4	4
35	Droplet Necking and Morphology Variations Induced by Changing the Gap Height During Transport in Digital Microfluidic Systems. *Journal of Microelectromechanical Systems*, **2015**, 24, 1647-1658	2.5	4
34	The EMPATHY MACHINE **2012**,		4

33	Processing laser range image for the investigation on the long-term performance of ductile iron pipe. *Nondestructive Testing and Evaluation*, **2008**, 23, 65-75	2	4
32	Detecting 6D Poses of Target Objects From Cluttered Scenes by Learning to Align the Point Cloud Patches With the CAD Models. *IEEE Access*, **2020**, 8, 210640-210650	3.5	4
31	Multi-Criteria Decision Making for Autonomous Vehicles using Fuzzy Dempster-Shafer Reasoning **2018**,		4
30	Comprehensive review of conventional and state-of-the-art detection methods of Cryptosporidium. *Journal of Hazardous Materials*, **2022**, 421, 126714	12.8	4
29	3D object classification with point convolution network **2017**,		3
28	Adaptive neural network control of quadrotor system under the presence of actuator constraints **2017**,		3
27	A Motion Planning Scheme for Automated Wildfire Suppression **2014**,		3
26	Robust decentralized multi-model adaptive template tracking. *Pattern Recognition*, **2012**, 45, 4494-4509	7.7	3
25	Control of artificial human finger using wearable device and adaptive network-based fuzzy inference system **2016**,		3
24	Vision-based deformation and wrinkle detection for semi-finished fiber products on curved surfaces **2018**,		3
23	Micron-sized particle separation with standing surface acoustic wave-Experimental and numerical approaches. *Ultrasonics Sonochemistry*, **2021**, 76, 105651	8.9	3
22	INS/GPS localization for reliable cooperative driving **2016**,		2
21	A fuzzy rule-based approach for water quality assessment in the distribution network **2013**,		2
20	In situ digital microfluidic conductance sampling. *Sensors and Actuators A: Physical*, **2009**, 152, 13-20	3.9	2
19	Wrinkle and boundary detection of fiber products in robotic composites manufacturing. *Assembly Automation*, **2019**, 40, 283-291	2.1	2
18	On-chip-based electrochemical biosensor for the sensitive and label-free detection of Cryptosporidium.. *Scientific Reports*, **2022**, 12, 6957	4.9	2
17	Digital Microfluidic Systems: Fundamentals, Configurations, Techniques, and Applications **2018**, 175-209		1
16	Adaptive on-line similarity measure for direct visual tracking. *Image and Vision Computing*, **2014**, 32, 227-236	3.7	1

#			
15	Unscented model predictive control of chance constrained nonlinear systems. *Advanced Robotics*, **2014**, 28, 257-267	1.7	1
14	Efficient and robust multi-template tracking using multi-start interactive hybrid search. *Computer Vision and Image Understanding*, **2014**, 120, 70-80	4.3	1
13	Robust and adaptive control of a novel ducted fan vehicle in the presence of actuator uncertainties and saturation **2017**,		1
12	Adaptive motion planning for terrain following quadrotors **2017**,		1
11	Networked fuzzy belief rule-based system for spatiotemporal monitoring **2013**,		1
10	Monocular vSLAM using a novel Rao-Blackwellized particle filter **2010**,		1
9	Multicriteria information fusion using a fuzzy evidential rule-based framework **2012**,		1
8	Portable on-chip colorimetric biosensing platform integrated with a smartphone for label/PCR-free detection of Cryptosporidium RNA. *Scientific Reports*, **2021**, 11, 23192	4.9	1
7	Extending the Capabilities of Reinforcement Learning Through Curriculum: A Review of Methods and Applications. *SN Computer Science*, **2022**, 3, 1	2	1
6	Robot-Assisted Composite Manufacturing Based on Machine Learning Applied to Multi-view Computer Vision. *Lecture Notes in Computer Science*, **2020**, 199-211	0.9	1
5	Low-Cost Graphene-Based Digital Microfluidic System. *Micromachines*, **2020**, 11,	3.3	1
4	Global tracking control of quadrotor based on adaptive dynamic surface control. *International Journal of Dynamics and Control*, **2021**, 9, 240-256	1.7	1
3	Automated visual detection of geometrical defects in composite manufacturing processes using deep convolutional neural networks. *Journal of Intelligent Manufacturing*,1	6.7	0
2	A teaching tool for the state-of-the-art probabilistic methods used in localization of mobile robots. *Computer Applications in Engineering Education*, **2012**, 20, 721-727	1.6	
1	3DCADFusion: Tracking and 3D Reconstruction of Dynamic Objects without External Motion Information		