

Daniele Fontanelli

List of Publications by Year in descending order

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Version: 2024-02-01

141
papers

2,223
citations

331670

21
h-index

315739

38
g-index

146
all docs

146
docs citations

146
times ranked

1628
citing authors

#	ARTICLE	IF	CITATIONS
1	A Frequency-Domain Algorithm for Dynamic Synchrophasor and Frequency Estimation. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 2330-2340.	4.7	105
2	Indoor Localization of Mobile Robots Through QR Code Detection and Dead Reckoning Data Fusion. IEEE/ASME Transactions on Mechatronics, 2017, 22, 2588-2599.	5.8	103
3	Walking Ahead: The Headed Social Force Model. PLoS ONE, 2017, 12, e0169734.	2.5	91
4	Flexible Indoor Localization and Tracking Based on a Wearable Platform and Sensor Data Fusion. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 864-876.	4.7	88
5	Dynamic Phasor and Frequency Measurements by an Improved Taylor Weighted Least Squares Algorithm. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 2165-2178.	4.7	85
6	Shortest Paths for a Robot With Nonholonomic and Field-of-View Constraints. IEEE Transactions on Robotics, 2010, 26, 269-281.	10.3	71
7	A Data Fusion Technique for Wireless Ranging Performance Improvement. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 27-37.	4.7	66
8	Robot-Based Indoor Positioning of UHF-RFID Tags: The SAR Method With Multiple Trajectories. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-15.	4.7	59
9	Navigation assistance and guidance of older adults across complex public spaces: the DALi Approach. Intelligent Service Robotics, 2015, 8, 77-92.	2.6	58
10	Indoor Positioning of a Robotic Walking Assistant for Large Public Environments. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 2965-2976.	4.7	56
11	SAR-Based Indoor Localization of UHF-RFID Tags via Mobile Robot. , 2018, , .		49
12	Ranging-Free UHF-RFID Robot Positioning Through Phase Measurements of Passive Tags. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 2408-2418.	4.7	48
13	Low-Complexity Least-Squares Dynamic Synchrophasor Estimation Based on the Discrete Fourier Transform. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 3284-3296.	4.7	47
14	A Fast RANSAC-Based Registration Algorithm for Accurate Localization in Unknown Environments using LIDAR Measurements. , 2007, , .		35
15	Semi-analytical minimum time solutions with velocity constraints for trajectory following of vehicles. Automatica, 2017, 86, 18-28.	5.0	35
16	Reactive Planning for Assistive Robots. IEEE Robotics and Automation Letters, 2018, 3, 1276-1283.	5.1	35
17	Impact of Acquisition Wideband Noise on Synchrophasor Measurements: A Design Perspective. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 2244-2253.	4.7	34
18	On the Accuracy of Phasor Angle Measurements in Power Networks. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 1129-1139.	4.7	33

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19	Design and Stability Analysis for Anytime Control via Stochastic Scheduling. IEEE Transactions on Automatic Control, 2011, 56, 571-585.	5.7	31
20	Human-Robot Interaction Analysis for a Smart Walker for Elderly: The ACANTO Interactive Guidance System. International Journal of Social Robotics, 2020, 12, 479-492.	4.6	29
21	Robot Localization via Odometry-assisted Ultra-wideband Ranging with Stochastic Guarantees. , 2019, , .		28
22	Path planning maximising human comfort for assistive robots. , 2016, , .		27
23	Bluetooth-Based Indoor Positioning Through ToF and RSSI Data Fusion. , 2018, , .		27
24	Accurate time synchronization in PTP-based industrial networks with long linear paths. , 2010, , .		24
25	Efficient customisable dynamic motion planning for assistive robots in complex human environments. Journal of Ambient Intelligence and Smart Environments, 2015, 7, 617-634.	1.4	24
26	Effective Landmark Placement for Robot Indoor Localization With Position Uncertainty Constraints. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 4443-4455.	4.7	24
27	An Analytical Bound for Probabilistic Deadlines. , 2012, , .		22
28	Design of Embedded Controllers Based on Anytime Computing. IEEE Transactions on Industrial Informatics, 2010, 6, 492-502.	11.3	21
29	Visual Servoing in the Large. International Journal of Robotics Research, 2009, 28, 802-814.	8.5	19
30	Soft real-time scheduling for embedded control systems. Automatica, 2013, 49, 2330-2338.	5.0	19
31	Motion planning in crowds using statistical model checking to enhance the social force model. , 2013, , .		19
32	Anytime Control Algorithms for Embedded Real-Time Systems. Lecture Notes in Computer Science, 2008, , 158-171.	1.3	18
33	A Servo-Clock Model for Chains of Transparent Clocks Affected by Synchronization Period Jitter. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 1085-1095.	4.7	16
34	A passive guidance system for a robotic walking assistant using brakes. , 2015, , .		16
35	Dynamic synchrophasor estimation using Smoothed Kalman filtering. , 2016, , .		16
36	A clock state estimator for PTP time synchronization in harsh environmental conditions. , 2011, , .		15

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37	Path Following With Authority Sharing Between Humans and Passive Robotic Walkers Equipped With Low-Cost Actuators. IEEE Robotics and Automation Letters, 2017, 2, 2271-2278.	5.1	15
38	Simulating Passivity for Robotic Walkers via Authority-Sharing. IEEE Robotics and Automation Letters, 2018, 3, 1306-1313.	5.1	15
39	Robot Localisation Using UHF-RFID Tags: A Kalman Smoother Approach. Sensors, 2021, 21, 717.	3.8	15
40	Almost sure stability of anytime controllers via stochastic scheduling. , 2007, , .		14
41	A DFT-based synchrophasor, frequency and ROCOF estimation algorithm. , 2013, , .		14
42	Semi-analytical minimum time solutions for a vehicle following clothoid-based trajectory subject to velocity constraints. , 2016, , .		14
43	Trajectory planning for car-like vehicles: A modular approach. , 2016, , .		14
44	An Analytical Solution for Probabilistic Guarantees of Reservation Based Soft Real-Time Systems. IEEE Transactions on Parallel and Distributed Systems, 2016, 27, 640-653.	5.6	14
45	A nearly optimal landmark deployment for indoor localisation with limited sensing. , 2017, , .		14
46	Socially-Aware Reactive Obstacle Avoidance Strategy Based on Limit Cycle. IEEE Robotics and Automation Letters, 2020, 5, 3251-3258.	5.1	14
47	Safety provisions for human/robot interactions using stochastic discrete abstractions. , 2010, , .		13
48	A Complete Observability Analysis of the Planar Bearing Localization and Mapping for Visual Servoing with Known Camera Velocities. International Journal of Advanced Robotic Systems, 2013, 10, 197.	2.1	13
49	Optimal placement of passive sensors for robot localisation. , 2016, , .		13
50	Passive robotic walker path following with bang-bang hybrid control paradigm. , 2016, , .		12
51	When Helbing meets Laumond: The Headed Social Force Model. , 2016, , .		12
52	A Distribution System State Estimator Based on an Extended Kalman Filter Enhanced with a Prior Evaluation of Power Injections at Unmonitored Buses. Energies, 2020, 13, 6054.	3.1	12
53	An Uncertainty-Driven and Observability-Based State Estimator for Nonholonomic Robots. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-12.	4.7	12
54	Scale up to infinity: the UWB Indoor Global Positioning System. , 2021, , .		12

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55	Optimal Paths in a Constrained Image Plane for Purely Image-Based Parking. , 2008, , .		11
56	Deterministic and Stochastic QoS Provision for Real-Time Control Systems. , 2011, , .		11
57	Behavioural templates improve robot motion planning with social force model in human environments. , 2013, , .		11
58	Design and performance analysis of an indoor position tracking technique for smart rollators. , 2013, , .		11
59	Unicycle steering by brakes: A passive guidance support for an assistive cart. , 2013, , .		11
60	Optimal placement of landmarks for indoor localization using sensors with a limited range. , 2016, , .		11
61	Combining Haptic and Bang-Bang Braking Actions for Passive Robotic Walker Path Following. IEEE Transactions on Haptics, 2019, 12, 542-553.	2.7	11
62	Cooperative UAVs Gas Monitoring using Distributed Consensus. , 2019, , .		11
63	On-Line Optimal Ranging Sensor Deployment for Robotic Exploration. IEEE Sensors Journal, 2022, 22, 5417-5426.	4.7	11
64	An indoor position tracking technique based on data fusion for ambient assisted living. , 2013, , .		10
65	Global path planning for competitive robotic cars. , 2013, , .		10
66	Vision-Based Robust Path Reconstruction for Robot Control. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 826-837.	4.7	10
67	Global Observability Analysis of a Nonholonomic Robot using Range Sensors. , 2020, , .		10
68	Indoor Localization Uncertainty Control Based on Wireless Ranging for Robots Path Planning. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-11.	4.7	10
69	Performance of Phasor Measurement Units for power quality event detection in urban distribution grids. , 2016, , .		9
70	A Software-based Low-Jitter Servo Clock for Inexpensive Phasor Measurement Units. , 2018, , .		9
71	Efficient Re-planning for Robotic Cars. , 2018, , .		9
72	A Tuned Whitening-Based Taylor-Kalman Filter for P Class Phasor Measurement Units. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-13.	4.7	9

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73	Designing real-time embedded controllers using the anytime computing paradigm. , 2009, , .		8
74	Indoor positioning of wheeled devices for Ambient Assisted Living: A case study. , 2014, , .		8
75	A Markovian model for the computation time of real-time applications. , 2017, , .		8
76	Harnessing steering singularities in passive path following for robotic walkers. , 2017, , .		8
77	Minimum Timeâ€™Minimum Jerk Optimal Traffic Management for AGVs. IEEE Robotics and Automation Letters, 2020, 5, 5307-5314.	5.1	8
78	Impact of wideband noise on synchrophasor, frequency and ROCOF estimation. , 2015, , .		7
79	Coverage control and distributed consensus-based estimation for mobile sensing networks in complex environments. , 2019, , .		7
80	Efficient Prediction of Human Motion for Real-Time Robotics Applications With Physics-Inspired Neural Networks. IEEE Access, 2022, 10, 144-157.	4.2	7
81	An algorithm for WSN clock synchronization: Uncertainty and convergence rate trade off. , 2009, , .		6
82	Hybrid feedback path following for robotic walkers via bang-bang control actions. , 2016, , .		6
83	Sensory stimulation for human guidance in robot walkers: A comparison between haptic and acoustic solutions. , 2016, , .		6
84	Collaborative localization of robotic wheeled walkers using interlaced Extended Kalman Filters. , 2016, , .		6
85	Enhancing Accuracy and Robustness of Frequency Transfer Using Synchronous Ethernet and Multiple Network Paths. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 1926-1936.	4.7	6
86	Probabilistic Real-Time Guarantees: There Is Life Beyond the i.i.d. Assumption (Outstanding Paper). , 2017, , .		6
87	A Distributed Strategy for Target Tracking and Rendezvous Using UAVs Relying on Visual Information Only. Electronics (Switzerland), 2018, 7, 211.	3.1	6
88	A Positioning Filter based on Uncertainty and Observability Analyses for Nonholonomic Robots. , 2020, , .		6
89	An Iterative Dynamic Programming Approach to the Multipoint Markov-Dubins Problem. IEEE Robotics and Automation Letters, 2020, 5, 2483-2490.	5.1	6
90	Cramerâ€™Rao Lower Bound Attainment in Range-Only Positioning Using Geometry: The G-WLS. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-14.	4.7	6

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91	UWB Indoor Global Localisation for Nonholonomic Robots with Unknown Offset Compensation. , 2021, , .		6
92	Multi-agent navigation in human-shared environments: A safe and socially-aware approach. Robotics and Autonomous Systems, 2022, 149, 103979.	5.1	6
93	A probabilistic methodology for predicting injuries to human operators in automated production lines. , 2009, , .		5
94	Master-less time synchronization for wireless sensor networks with generic topology. , 2012, , .		5
95	A robotic vehicle testbench for the application of MBD-MDE development technologies. , 2013, , .		5
96	A cooperative monitoring technique using visually servoed drones. , 2015, , .		5
97	Towards a Predictive Behavioural Model for Service Robots in Shared Environments. , 2018, , .		5
98	Ruling the Control Authority of a Service Robot Based on Information Precision. , 2018, , .		5
99	Robot Localisation using UHF-RFID Tags for Industrial IoT Applications. , 2020, , .		5
100	Graph Connectivity Control of a Mobile Robot Network With Mixed Dynamic Multi-Tasks. IEEE Robotics and Automation Letters, 2021, 6, 1934-1941.	5.1	5
101	Visual Appearance Mapping for Optimal Vision Based Servoing. Springer Tracts in Advanced Robotics, 2009, , 353-362.	0.4	5
102	Perception for Autonomous Systems: A Measurement Perspective on Localization and Positioning. IEEE Instrumentation and Measurement Magazine, 2022, 25, 4-9.	1.6	5
103	Optimal mean square control using the continuous stream model of computation. , 2015, , .		4
104	Path following for robotic rollators via simulated passivity. , 2017, , .		4
105	An Uncertainty-driven Analysis for Delayed Mapping SLAM. , 2021, , .		4
106	Probabilistic analysis of bufferless pipelines of real-time tasks. , 2016, , .		4
107	Information-Aware Lyapunov-Based MPC in a Feedback-Feedforward Control Strategy for Autonomous Robots. IEEE Robotics and Automation Letters, 2022, 7, 4765-4772.	5.1	4
108	Multiagent Persistent Monitoring via Time-Inverted Kuramoto Dynamics. , 2022, 6, 2798-2803.		4

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109	On the global convergence of a class of distributed algorithms for maximizing the coverage of a WSN. , 2009, , .		3
110	Quality of Service and Quality of Control in real-time control systems. , 2012, , .		3
111	Decorrelation-based Harmonic Distortion Reduction for Synchrophasor Measurements. , 2017, , .		3
112	Optimal resource allocation for stochastic systems performance optimisation of control tasks undergoing stochastic execution times. International Journal of Control, 2020, , 1-12.	1.9	3
113	Visual Servoing on Image Maps. , 2008, , 277-286.		3
114	First Responders Robotic Network for Disaster Management. Lecture Notes in Computer Science, 2018, , 350-373.	1.3	3
115	Shortest paths for non-holonomic vehicles with limited field of view camera. , 2009, , .		2
116	A flexible linear control algorithm for wireless sensor network synchronization. , 2009, , .		2
117	High speed robotics with low cost hardware. , 2012, , .		2
118	The PROSIT tool: Toward the optimal design of probabilistic soft real-time systems. Software - Practice and Experience, 2018, 48, 1940-1967.	3.6	2
119	Uncertainty Analysis of Distribution System State Estimation based on Extended Kalman Filtering and Phasor Measurement Units. , 2019, , .		2
120	Socially-Aware Multi-agent Velocity Obstacle Based Navigation for Nonholonomic Vehicles. , 2020, , .		2
121	Activity Planning for Assistive Robots Using Chance-Constrained Stochastic Programming. IEEE Transactions on Industrial Informatics, 2021, 17, 3950-3961.	11.3	2
122	Convergence of Distributed WSN Algorithms: The Wake-Up Scattering Problem. Lecture Notes in Computer Science, 2009, , 180-193.	1.3	2
123	Kalman Filtering with Harmonics Whitening for P Class Phasor Measurement Units. , 2021, , .		2
124	On Local/Global Constructibility for Mobile Robots Using Bounded Range Measurements. , 2022, 6, 3038-3043.		2
125	Robust Almost Sure Stability for Uncertain Stochastically Scheduled Anytime Controllers. , 2008, , .		1
126	Frequency-domain phase measurement algorithms for distribution systems. , 2014, , .		1

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127	Quasi time-optimal hybrid trajectory tracking of an n-dimensional saturated double integrator. , 2016, , .		1
128	On Soft Real-Time Implementation of LQG Controllers. , 2018, , .		1
129	A Comparative Analysis of Foraging Strategies for Swarm Robotics using ARGoS Simulator. , 2020, , .		1
130	Ruling uncertainties in Range-only Robot Localisation. , 2021, , .		1
131	Vehicle Localisation using Asphalt Embedded Magnetometer Sensors. , 2021, , .		1
132	Robot Motion Planning: can GPUs be a Game Changer?. , 2021, , .		1
133	Unicycle-like Robots with Eye-in-Hand Monocular Cameras: From PBVS towards IBVS. Lecture Notes in Control and Information Sciences, 2010, , 335-360.	1.0	1
134	Modelling of a Group of Social Agents Monitored by UAVs. Lecture Notes in Computer Science, 2018, , 40-58.	1.3	1
135	Lloyd-based Approach for Robots Navigation in Human-shared environments. , 2020, , .		1
136	ADAPTIVE NONLINEAR CONTROL OF DYNAMIC MOBILE ROBOTS WITH PARAMETER UNCERTAINTIES. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 566-573.	0.4	0
137	Applying a Kalman smoother to synchrophasoi estimation. , 2015, , .		0
138	Assistive robotic walker parameter identification for estimation of human thrust without force sensors. , 2017, , .		0
139	Majority Effect in Cooperative localisation of Mobile Agents using Ranging Measurements. , 2020, , .		0
140	A fast and low-cost vision-based line tracking measurement system for robotic vehicles. Acta IMEKO (2012), 2015, 4, 90.	0.7	0
141	c-Walker: A Cyber-Physical System for Ambient Assisted Living. Lecture Notes in Electrical Engineering, 2016, , 75-82.	0.4	0