

# Jesus Garcia

## List of Publications by Year in descending order

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153  
papers

1,603  
citations

489802

18  
h-index

466096

32  
g-index

158  
all docs

158  
docs citations

158  
times ranked

1505  
citing authors

#	ARTICLE	IF	CITATIONS
1	Simulation in real conditions of navigation and obstacle avoidance with PX4/Gazebo platform. Personal and Ubiquitous Computing, 2022, 26, 1171-1191.	1.9	17
2	LSTM vs CNN in Real Ship Trajectory Classification. Advances in Intelligent Systems and Computing, 2022, , 58-67.	0.5	1
3	Segmentation optimization in trajectory-based ship classification. Journal of Computational Science, 2022, 59, 101568.	1.5	1
4	State Estimation Fusion for Linear Microgrids over an Unreliable Network. Energies, 2022, 15, 2288.	1.6	3
5	Error Reduction in Vision-Based Multirotor Landing System. Sensors, 2022, 22, 3625.	2.1	0
6	Application of Smooth Fuzzy Model in Image Denoising and Edge Detection. Mathematics, 2022, 10, 2421.	1.1	2
7	Forecasting Nonlinear Systems with LSTM: Analysis and Comparison with EKF. Sensors, 2021, 21, 1805.	2.1	5
8	Improving time series forecasting using information fusion in local agricultural markets. Neurocomputing, 2021, 452, 355-373.	3.5	4
9	Review and classification of trajectory summarisation algorithms: From compression to segmentation. International Journal of Distributed Sensor Networks, 2021, 17, 155014772110507.	1.3	10
10	Clustering of maritime trajectories with AIS features for context learning. , 2021, , .		5
11	Architecture for Trajectory-Based Fishing Ship Classification with AIS Data. Sensors, 2020, 20, 3782.	2.1	31
12	Challenges in automated HUMINT processing for situational assessment: Experiences from NATO CIMIC Joint Cooperation. , 2020, , .		1
13	On the Recursive Joint Position and Attitude Determination in Multi-Antenna GNSS Platforms. Remote Sensing, 2020, 12, 1955.	1.8	16
14	Real evaluation for designing sensor fusion in UAV platforms. Information Fusion, 2020, 63, 136-152.	11.7	19
15	Simulation in Real Conditions of Navigation and Obstacle Avoidance with PX4/Gazebo Platform. , 2019, , .		4
16	Second-order statistics analysis and comparison between arithmetic and geometric average fusion: Application to multi-sensor target tracking. Information Fusion, 2019, 51, 233-243.	11.7	80
17	Knowledge Extraction and Improved Data Fusion for Sales Prediction in Local Agricultural Markets. Sensors, 2019, 19, 286.	2.1	10
18	Data Association Methodology to Improve Spatial Predictions in Alternative Marketing Circuits in Ecuador. Computational Intelligence and Neuroscience, 2018, 2018, 1-15.	1.1	0

#	ARTICLE	IF	CITATIONS
19	From situation awareness to intelligence: Increasing complexity in fusion models for sense-making. , 2018, , .		4
20	On the Kalman filtering formulation for RTK joint positioning and attitude quaternion determination. , 2018, , .		6
21	Improving Forecasting Using Information Fusion in Local Agricultural Markets. Lecture Notes in Computer Science, 2018, , 479-489.	1.0	0
22	Player: An open source tool to simulate complex maritime environments to evaluate data fusion performance. Simulation Modelling Practice and Theory, 2017, 76, 3-21.	2.2	3
23	Analysis of sensor data and estimation output with configurable UAV platforms. , 2017, , .		6
24	Contextual Tracking Approaches in Information Fusion. Advances in Computer Vision and Pattern Recognition, 2016, , 73-97.	0.9	4
25	A stopping criterion for multi-objective optimization evolutionary algorithms. Information Sciences, 2016, 367-368, 700-718.	4.0	37
26	Embedding Semantics of the Single-Producer/Single-Consumer Lock-Free Queue into a Race Detection Tool. , 2016, , .		2
27	MONEDA: scalable multi-objective optimization with a neural network-based estimation of distribution algorithm. Journal of Global Optimization, 2016, 66, 729-768.	1.1	4
28	Context-Based Situation Recognition in Computer Vision Systems. Advances in Computer Vision and Pattern Recognition, 2016, , 627-651.	0.9	1
29	CIALCO: Alternative Marketing Channels. Communications in Computer and Information Science, 2016, , 313-321.	0.4	3
30	Ground Target Tracking Applications. Design Examples for Military and Civil Domains. Advances in Computer Vision and Pattern Recognition, 2016, , 597-625.	0.9	0
31	Architectural Aspects for Context Exploitation in Information Fusion. Advances in Computer Vision and Pattern Recognition, 2016, , 185-203.	0.9	2
32	Context-based Information Fusion: A survey and discussion. Information Fusion, 2015, 25, 16-31.	11.7	121
33	Human Computer Interactions in Next-Generation of Aircraft Smart Navigation Management Systems: Task Analysis and Architecture under an Agent-Oriented Methodological Approach. Sensors, 2015, 15, 5228-5250.	2.1	9
34	Context-based multi-level information fusion for harbor surveillance. Information Fusion, 2015, 21, 173-186.	11.7	39
35	Model-based trajectory reconstruction with IMM smoothing and segmentation. Information Fusion, 2015, 22, 127-140.	11.7	11
36	Context aided pedestrian detection for danger estimation based on laser scanner and computer vision. Expert Systems With Applications, 2014, 41, 6646-6661.	4.4	36

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37	A Proposal for Processing and Fusoning Multiple Information Sources in Multimodal Dialog Systems. Communications in Computer and Information Science, 2014, , 167-178.	0.4	0
38	ATC trajectory reconstruction for automated evaluation of sensor and tracker performance. IEEE Aerospace and Electronic Systems Magazine, 2013, 28, 4-17.	2.3	14
39	Multi-objective optimization with an adaptive resonance theory-based estimation of distribution algorithm. Annals of Mathematics and Artificial Intelligence, 2013, 68, 247-273.	0.9	8
40	A Feature Selection Approach to the Group Behavior Recognition Issue Using Static Context Information. International Journal of Distributed Sensor Networks, 2013, 9, 383906.	1.3	1
41	Overview of contextual tracking approaches in information fusion. , 2013, , .		17
42	Intelligent Systems in Context-Based Distributed Information Fusion. International Journal of Distributed Sensor Networks, 2013, 9, 836463.	1.3	0
43	Ontological Representation of Light Wave Camera Data to Support Vision-Based Aml. Sensors, 2012, 12, 12126-12152.	2.1	2
44	Context-Aided Sensor Fusion for Enhanced Urban Navigation. Sensors, 2012, 12, 16802-16837.	2.1	35
45	Ontological representation of time-of-flight camera data to support vision-based Aml. , 2012, , .		2
46	Context-based scene recognition from visual data in smart homes: an Information Fusion approach. Personal and Ubiquitous Computing, 2012, 16, 835-857.	1.9	41
47	A Black Box Model for Storage Devices Based on Probability Distributions. , 2012, , .		0
48	INEF12Basketball Dataset and the Group Behavior Recognition Issue. Advances in Intelligent and Soft Computing, 2012, , 151-160.	0.2	1
49	Distributed Data and Information Fusion in Visual Sensor Networks. , 2012, , 435-466.		2
50	Topological properties in ontology-based applications. , 2011, , .		2
51	Indicator-based MONEDA: A comparative study of scalability with respect to decision space dimensions. , 2011, , .		0
52	Opportunistic Multi-sensor Fusion for Robust Navigation in Smart Environments. Advances in Intelligent and Soft Computing, 2011, , 59-68.	0.2	0
53	Communication in distributed tracking systems: an ontology-based approach to improve cooperation. Expert Systems, 2011, 28, 288-305.	2.9	10
54	Boosting video tracking performance by means of Tabu Search in intelligent visual surveillance systems. Journal of Heuristics, 2011, 17, 415-440.	1.1	8

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55	A Multi-agent Architecture Based on the BDI Model for Data Fusion in Visual Sensor Networks. Journal of Intelligent and Robotic Systems: Theory and Applications, 2011, 62, 299-328.	2.0	11
56	Fuzzy region assignment for visual tracking. Soft Computing, 2011, 15, 1845-1864.	2.1	5
57	Ontology-based context representation and reasoning for object tracking and scene interpretation in video. Expert Systems With Applications, 2011, 38, 7494-7510.	4.4	63
58	MB-GNG: Addressing drawbacks in multi-objective optimization estimation of distribution algorithms. Operations Research Letters, 2011, 39, 150-154.	0.5	23
59	A Power-Aware Based Storage Architecture for High Performance Computing. , 2011, , .		0
60	PIECEWISE LINEAR REPRESENTATION SEGMENTATION IN NOISY DOMAINS WITH A LARGE NUMBER OF MEASUREMENTS: THE AIR TRAFFIC CONTROL DOMAIN. International Journal on Artificial Intelligence Tools, 2011, 20, 367-399.	0.7	6
61	Research Opportunities in Contextualized Fusion Systems. The Harbor Surveillance Case. Lecture Notes in Computer Science, 2011, , 621-628.	1.0	4
62	Context-Awareness at the Service of Sensor Fusion Systems: Inverting the Usual Scheme. Lecture Notes in Computer Science, 2011, , 653-660.	1.0	1
63	A General Purpose Context Reasoning Environment to Deal with Tracking Problems: An Ontology-Based Prototype. Lecture Notes in Computer Science, 2011, , 144-154.	1.0	0
64	Multi-Objective Optimization with an Adaptive Resonance Theory-Based Estimation of Distribution Algorithm: A Comparative Study. Lecture Notes in Computer Science, 2011, , 458-472.	1.0	1
65	Automatically Updating a Dynamic Region Connection Calculus for Topological Reasoning. Advances in Intelligent and Soft Computing, 2011, , 69-77.	0.2	0
66	Analysis of a sensor fusion hybrid solution for indoor/outdoor robot navigation. , 2010, , .		0
67	Data fusion to improve trajectory tracking in a Cooperative Surveillance Multi-Agent Architecture. Information Fusion, 2010, 11, 243-255.	11.7	36
68	Air Traffic Trajectories Segmentation Based on Time-Series Sensor Data. , 2010, , .		0
69	A progress indicator for detecting success and failure in evolutionary multi-objective optimization. , 2010, , .		3
70	Introducing a robust and efficient stopping criterion for MOEAs. , 2010, , .		10
71	Robust sensor fusion in real maritime surveillance scenarios. , 2010, , .		10
72	Moving away from error-based learning in multi-objective estimation of distribution algorithms. , 2010, , .		1

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73	Air Traffic Control: A Local Approach to the Trajectory Segmentation Issue. Lecture Notes in Computer Science, 2010, , 498-507.	1.0	3
74	Piecewise Linear Representation Segmentation as a Multiobjective Optimization Problem. Advances in Intelligent and Soft Computing, 2010, , 267-274.	0.2	8
75	Advancing Modelâ€œBuilding for Manyâ€œObjective Optimization Estimation of Distribution Algorithms. Lecture Notes in Computer Science, 2010, , 512-521.	1.0	0
76	A Simulation Framework for UAV Sensor Fusion. Lecture Notes in Computer Science, 2010, , 460-467.	1.0	1
77	Recognizing Human Activities from Sensors Using Hidden Markov Models Constructed by Feature Selection Techniques. Algorithms, 2009, 2, 282-300.	1.2	19
78	An approach to stopping criteria for multi-objective optimization evolutionary algorithms: The MGBM criterion. , 2009, , .		32
79	An agent oriented analysis and modeling of airborne capabilities for trajectory based operations. , 2009, , .		0
80	Towards Interoperability in Tracking Systems: An Ontology-Based Approach. Lecture Notes in Computer Science, 2009, , 496-505.	1.0	1
81	Solving complex high-dimensional problems with the multi-objective neural estimation of distribution algorithm. , 2009, , .		12
82	A stopping criterion based on Kalman estimation techniques with several progress indicators. , 2009, , .		12
83	DISCRETE OPTIMIZATION ALGORITHMS IN REAL-TIME VISUAL TRACKING. Applied Artificial Intelligence, 2009, 23, 805-827.	2.0	2
84	Opportunity trajectory reconstruction techniques for evaluation of ATC systems. International Journal of Microwave and Wireless Technologies, 2009, 1, 231-238.	1.5	9
85	Effective Evolutionary Algorithms for Many-Specifications Attainment: Application to Air Traffic Control Tracking Filters. IEEE Transactions on Evolutionary Computation, 2009, 13, 151-168.	7.5	126
86	Satellite image segmentation using hybrid variable genetic algorithm. International Journal of Imaging Systems and Technology, 2009, 19, 199-207.	2.7	7
87	Visual data association for realâ€œtime video tracking using genetic and estimation of distribution algorithms. International Journal of Imaging Systems and Technology, 2009, 19, 208-220.	2.7	2
88	A Context Model and Reasoning System to improve object tracking in complex scenarios. Expert Systems With Applications, 2009, 36, 10995-11005.	4.4	20
89	A meta-level evolutionary strategy for many-criteria design: Application to improving tracking filters. Advanced Engineering Informatics, 2009, 23, 243-252.	4.0	2
90	Context-Based Reasoning Using Ontologies to Adapt Visual Tracking in Surveillance. , 2009, , .		16

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91	Designing a Visual Sensor Network Using a Multi-agent Architecture. Advances in Intelligent and Soft Computing, 2009, , 430-439.	0.2	5
92	On the Modelâ€“Building Issue of Multiâ€“Objective Estimation of Distribution Algorithms. Lecture Notes in Computer Science, 2009, , 293-300.	1.0	3
93	Segmentation and Classification of Time-Series: Real Case Studies. Lecture Notes in Computer Science, 2009, , 743-750.	1.0	6
94	On the Computational Properties of the Multi-Objective Neural Estimation of Distribution Algorithm. Studies in Computational Intelligence, 2009, , 239-251.	0.7	0
95	Multi-agent Data Fusion Architecture Proposal for Obtaining an Integrated Navigated Solution on UAVâ€™s. Lecture Notes in Computer Science, 2009, , 13-20.	1.0	1
96	Optimised Particle Filter Approaches to Object Tracking in Video Sequences. Lecture Notes in Computer Science, 2009, , 486-495.	1.0	1
97	Advanced algorithms for real-time video tracking with multiple targets. , 2008, , .		4
98	A multi-agent architecture to support active fusion in a visual sensor network. , 2008, , .		5
99	Design of an air-air negotiation protocol to reorder aircraft arrivals sequence. , 2008, , .		4
100	Trajectory reconstruction techniques for evaluation of ATC systems. , 2008, , .		7
101	Algorithms for opportunity trajectory reconstruction. , 2008, , .		1
102	A 4D trajectory negotiation protocol for Arrival and Approach sequencing. , 2008, , .		2
103	TRES: Multiradar-multisensor data processing assessment using opportunity targets. , 2008, , .		3
104	Introducing MONEDA. , 2008, , .		17
105	Model-building algorithms for multiobjective EDAs: Directions for improvement. , 2008, , .		5
106	Solving video-association problem with explicit evaluation of hypothesis using EDAs. , 2008, , .		3
107	Computational Intelligence in Visual Sensor Networks: Improving Video Processing Systems. Studies in Computational Intelligence, 2008, , 351-377.	0.7	11
108	Noise Detection in Agent Reputation Models Using IMM Filtering. Lecture Notes in Computer Science, 2008, , 25-42.	1.0	2

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109	Scalable Continuous Multiobjective Optimization with a Neural Network-Based Estimation of Distribution Algorithm. Lecture Notes in Computer Science, 2008, , 535-544.	1.0	4
110	Comparison of Classifiers for Human Activity Recognition. Lecture Notes in Computer Science, 2007, , 192-201.	1.0	6
111	A cumulative evidential stopping criterion for multiobjective optimization evolutionary algorithms. , 2007, , .		15
112	A cumulative evidential stopping criterion for multiobjective optimization evolutionary algorithms. , 2007, , .		13
113	Bottom-up/top-down coordination in a multiagent visual sensor network. , 2007, , .		2
114	Robust data fusion in a visual sensor multi-agent architecture. , 2007, , .		11
115	Model-based trajectory reconstruction using IMM smoothing and motion pattern identification. , 2007, , .		9
116	Video tracking improvement using context-based information. , 2007, , .		11
117	Video tracking system optimization using evolution strategies. International Journal of Imaging Systems and Technology, 2007, 17, 75-90.	2.7	4
118	Evolutionary algorithms in multiply-specified engineering. The MOEAs and WCES strategies. Advanced Engineering Informatics, 2007, 21, 3-21.	4.0	6
119	A model to 4D descent trajectory guidance. , 2007, , .		6
120	On-line multi-sensor registration for data fusion on airport surface. IEEE Transactions on Aerospace and Electronic Systems, 2007, 43, 356-370.	2.6	20
121	Trust and Reputation in E-ervices: Concepts, Models and Applications. Studies in Computational Intelligence, 2007, , 327-345.	0.7	2
122	Comparison Between Genetic Algorithms and the Baum-Welch Algorithm in Learning HMMs for Human Activity Classification. , 2007, , 399-406.		13
123	Robust tracking architecture for Mode-S Enhanced Surveillance. , 2006, , .		4
124	Neuro-fuzzy Learning Applied to Improve the Trajectory Reconstruction Problem. , 2006, , .		4
125	Trajectory classification based on machine-learning techniques over tracking data. , 2006, , .		16
126	Multi-Agent Framework in Visual Sensor Networks. Eurasip Journal on Advances in Signal Processing, 2006, 2007, 1.	1.0	35



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127	Extending surveillance systems capabilities using BDI cooperative sensor agents. , 2006, , .		22
128	Fusion of Surveillance Information for Visual Sensor Networks. , 2006, , .		7
129	A Multitarget Tracking Video System Based on Fuzzy and Neuro-Fuzzy Techniques. Eurasip Journal on Advances in Signal Processing, 2005, 2005, 1.	1.0	18
130	Adjustment of Surveillance Video Systems by a Performance Evaluation Function. Lecture Notes in Computer Science, 2005, , 499-508.	1.0	1
131	Design of an A-SMGCS prototype at Barajas airport: data fusion algorithms. , 2005, , .		7
132	Application of Machine Learning Techniques for Simplifying the Association Problem in a Video Surveillance System. Lecture Notes in Computer Science, 2005, , 509-518.	1.0	1
133	Methods for Operations Planning in Airport Decision Support Systems. Applied Intelligence, 2005, 22, 183-206.	3.3	38
134	Design of an A-SMGCS prototype at Barajas airport: available information and architecture. , 2005, , .		8
135	FUZZY REASONING IN A MULTIAGENT SYSTEM OF SURVEILLANCE SENSORS TO MANAGE COOPERATIVELY THE SENSOR-TO-TASK ASSIGNMENT PROBLEM. Applied Artificial Intelligence, 2004, 18, 673-711.	2.0	7
136	New approach to online optimal estimation of multisensor biases. IET Radar, Sonar & Navigation, 2004, 151, 31.	2.1	11
137	Aircraft identification integrated into an airport surface surveillance video system. Machine Vision and Applications, 2004, 15, 164.	1.7	18
138	Subjective Trust Inferred by Kalman Filtering vs. a Fuzzy Reputation. Lecture Notes in Computer Science, 2004, , 496-505.	1.0	10
139	Use of map information for tracking targets on airport surface. IEEE Transactions on Aerospace and Electronic Systems, 2003, 39, 675-693.	2.6	33
140	Neuro-Fuzzy Techniques for Image Tracking. Lecture Notes in Computer Science, 2003, , 504-511.	1.0	1
141	Radar bias correction based on GPS measurements for ATC applications. IET Radar, Sonar & Navigation, 2002, 149, 137.	2.1	13
142	Surveillance multisensor management with fuzzy evaluation of sensor task priorities. Engineering Applications of Artificial Intelligence, 2002, 15, 511-527.	4.3	8
143	Generalisation of constant coefficient tracking filters to smooth velocity measurements. IET Radar, Sonar & Navigation, 2000, 147, 270.	2.1	2
144	Automatic video system for aircraft identification. , 0, , .		4

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145	Generic software architecture for development of data fusion systems. , 0, , .		3
146	Robust object tracking with fuzzy shape estimation. , 0, , .		3
147	OCR parameters tuning by means of evolution strategies for aircraft's tail number recognition. , 0, , .		2
148	Data fusion alternatives for the integration of millimetre radar in airport surveillance systems. , 0, , .		2
149	Attitude Determination via GNSS Carrier Phase and Inertial Aiding. , 0, , .		6
150	High-Level Information Fusion in Visual Sensor Networks. , 0, , 197-223.		2
151	Domain Transformation for Uniform Motion Identification in Air Traffic Trajectories. Advances in Soft Computing, 0, , 403-409.	0.4	2
152	Requirements for Supervised Fusion Adaption at Level 1 of JDL Data Fusion Model,. Advances in Soft Computing, 0, , 526-535.	0.4	0
153	Objectâ€™s Interaction Management by Means of a Fuzzy System within a Context-Based Tracking System. Advances in Soft Computing, 0, , 720-728.	0.4	0