Francisco Sandoval

List of Publications by Year
in descending order

148 papers	1,888 citations	331259 21 h-index	344852 36 g-index
158 all docs	158 docs citations	158 times ranked	1390 citing authors

#	Article	IF	Citations
1	Hopfield neural networks for optimization: study of the different dynamics. Neurocomputing, 2002, 43, 219-237.	3.5	232
2	Genetic algorithms for optimal placement of phasor measurement units in electrical networks. Electronics Letters, 2003, 39, 1403.	0.5	119
3	Pyramid segmentation algorithms revisited. Pattern Recognition, 2006, 39, 1430-1451.	5.1	69
4	Corner detection by local histograms of contour chain code. Electronics Letters, 1997, 33, 1769.	0.5	46
5	A new multi-criteria optimization strategy for shared control in wheelchair assisted navigation. Autonomous Robots, 2011, 30, 179-197.	3.2	46
6	Global model for short-term load forecasting using artificial neural networks. IET Generation, Transmission and Distribution, 2002, 149, 121.	1.1	44
7	Natural landmark extraction for mobile robot navigation based on an adaptive curvature estimation. Robotics and Autonomous Systems, 2008, 56, 247-264.	3.0	43
8	Mean shift based clustering of Hough domain for fast line segment detection. Pattern Recognition Letters, 2006, 27, 578-586.	2.6	41
9	A New Efficiency-Weighted Strategy for Continuous Human/Robot Cooperation in Navigation. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2009, 39, 486-500.	3.4	41
10	Non-parametric planar shape representation based on adaptive curvature functions. Pattern Recognition, 2002, 35, 43-53.	5.1	37
11	Curvature-Based Environment Description for Robot Navigation Using Laser Range Sensors. Sensors, 2009, 9, 5894-5918.	2.1	36
12	2D object recognition based on curvature functions obtained from local histograms of the contour chain code. Pattern Recognition Letters, 1999, 20, 49-55.	2.6	35
13	Dynamical Analysis of Continuous Higher-Order Hopfield Networks for Combinatorial Optimization. Neural Computation, 2005, 17, 1802-1819.	1.3	34
14	Corner detection by means of adaptively estimated curvature function. Electronics Letters, 2000, 36, 124.	0.5	33
15	Corner detection and curve segmentation by multiresolution chain-code linking. Pattern Recognition, 2005, 38, 1596-1614.	5.1	32
16	Feature extraction from laser scan data based on curvature estimation for mobile robotics. , 0, , .		32
17	Corner detection by means of contour local vectors. Electronics Letters, 2002, 38, 699.	0.5	28
18	Hopfield Neural Networks for Parametric Identification of Dynamical Systems. Neural Processing Letters, 2005, 21, 143-152.	2.0	27

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19	Parametric identification of robotic systems with stable time-varying Hopfield networks. Neural Computing and Applications, 2004, 13, 270-280.	3.2	26
20	Modeling of HTTP traffic. IEEE Communications Letters, 2001, 5, 272-274.	2.5	23
21	Fast laser scan matching approach based on adaptive curvature estimation for mobile robots. Robotica, 2009, 27, 469-479.	1.3	23
22	Efficient integration of metric and topological maps for directed exploration of unknown environments. Robotics and Autonomous Systems, 2002, 41, 21-39.	3.0	22
23	Bounded irregular pyramid: a new structure for color image segmentation. Pattern Recognition, 2004, 37, 623-626.	5.1	22
24	Fast gesture recognition based on a two-level representation. Pattern Recognition Letters, 2009, 30, 1181-1189.	2.6	22
25	Corner detection based on adaptively filtered curvature function. Electronics Letters, 2003, 39, 426.	0.5	21
26	FPGA implementation of a systems identification module based upon Hopfield networks. Neurocomputing, 2007, 70, 2828-2835.	3.5	21
27	A purely reactive navigation scheme for dynamic environments using Case-Based Reasoning. Autonomous Robots, 2006, 21, 65-78.	3.2	19
28	Efficiency based reactive shared control for collaborative human/robot navigation. , 2007, , .		19
29	An Algorithm for Fitting 2-D Data on the Circle: Applications to Mobile Robotics. IEEE Signal Processing Letters, 2008, 15, 127-130.	2.1	18
30	Contingency evaluation and monitorization using artificial neural networks. Neural Computing and Applications, 2010, 19, 139-150.	3.2	18
31	On the Construction of a Skill-Based Wheelchair Navigation Profile. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2013, 21, 917-927.	2.7	18
32	Dynamic calibration and zero configuration positioning system for WSN. , 2008, , .		17
33	A novel approach for salient image regions detection and description. Pattern Recognition Letters, 2009, 30, 1464-1476.	2.6	17
34	Biometrically Modulated Collaborative Control for an Assistive Wheelchair. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2010, 18, 398-408.	2.7	17
35	Identification of noisy dynamical systems with parameter estimation based on Hopfield neural networks. Neurocomputing, 2013, 121, 14-24.	3.5	17
36	Shifted fovea multiresolution geometries. , 0, , .		16

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37	Corner detection and curve representation by circular histograms of contour chain code. Electronics Letters, 1999, 35, 1065.	0.5	15
38	Real-time object tracking using bounded irregular pyramids. Pattern Recognition Letters, 2007, 28, 985-1001.	2.6	15
39	Wheelchair collaborative control for disabled users navigating indoors. Artificial Intelligence in Medicine, 2011, 52, 177-191.	3.8	15
40	Pure reactive behavior learning using Case Based Reasoning for a vision based 4-legged robot. Robotics and Autonomous Systems, 2009, 57, 688-699.	3.0	14
41	Smart care home system: a platform for eAssistance. Journal of Ambient Intelligence and Humanized Computing, 2019, 10, 3997-4021.	3.3	14
42	Short-term peak load forecasting: Statistical methods versus Artificial Neural Networks. Lecture Notes in Computer Science, 1997, , 1334-1343.	1.0	13
43	Real-time human motion analysis for human-robot interaction. , 2005, , .		13
44	Efficiency based modulation for wheelchair driving collaborative control. , 2010, , .		13
45	Hierarchical Planning in a Mobile Robot for Map Learning and Navigation. Studies in Fuzziness and Soft Computing, 2003, , 165-188.	0.6	13
46	Bio-inspired systems: Computational and ambient intelligence. Neurocomputing, 2011, 74, 2591-2593.	3.5	11
47	Sampling Strategies Comparison for High Accuracy Power Measurements. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	10
48	A new pyramid-based color image representation for visual localization. Image and Vision Computing, 2010, 28, 78-91.	2.7	10
49	A discrete gradient method to enhance the numerical behaviour of Hopfield networks. Neurocomputing, 2015, 164, 45-55.	3.5	10
50	Adaptive fovea structures for space-variant sensors. Lecture Notes in Computer Science, 1997, , 422-429.	1.0	10
51	New training pattern selection method for ATM call admission neural control. Electronics Letters, 1994, 30, 577-579.	0.5	9
52	On Practical Issues about Interference in Telecare Applications Based on Different Wireless Technologies. Telemedicine Journal and E-Health, 2007, 13, 519-534.	1.6	9
53	The Construction of Bounded Irregular Pyramids with a Union-Find Decimation Process. Lecture Notes in Computer Science, 2007, , 307-318.	1.0	9
54	Navigation skills based profiling for collaborative wheelchair control. , 2011, , .		9

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55	A new sequential four-rate-window DLTS system. IEEE Transactions on Instrumentation and Measurement, 1987, IM-36, 115-119.	2.4	8
56	Modular power system topology assessment using Gaussian potential functions. IET Generation, Transmission and Distribution, 2003, 150, 635.	1.1	8
57	Adaptive collaborative assistance for wheelchair driving via CBR learning. , 2009, , .		8
58	CBR based reactive behavior learning for the memory-prediction framework. Neurocomputing, 2017, 250, 18-27.	3.5	8
59	QoS routing with adaptive updating of link states. Electronics Letters, 2001, 37, 604.	0.5	8
60	Forward-bias impedance of GaAs1-xPx LED's. Solid-State Electronics, 1982, 25, 355-357.	0.8	7
61	Generalization of shifted fovea multiresolution geometries applied to object detection. Lecture Notes in Computer Science, 1997, , 477-484.	1.0	7
62	Associating arbitrary-order energy functions to an artificial neural network. Neurocomputing, 1997, 14, 139-156.	3.5	7
63	A Hidden Markov Model object recognition technique for incomplete and distorted corner sequences. Image and Vision Computing, 2003, 21, 879-889.	2.7	7
64	Hopfield networks for identification of delay differential equations with an application to dengue fever epidemics in Cuba. Neurocomputing, 2011, 74, 2691-2697.	3.5	7
65	Modelling the HIV-AIDS Cuban Epidemics with Hopfield Neural Networks. Lecture Notes in Computer Science, 2003, , 449-456.	1.0	7
66	Real time position estimation for mobile robots by means of sonar sensors. , 0, , .		6
67	Strategies for updating link states in QoS routers. Electronics Letters, 2000, 36, 1749.	0.5	6
68	Planar shape indexing and retrieval based on Hidden Markov Models. Pattern Recognition Letters, 2002, 23, 1143-1151.	2.6	6
69	3D object recognition based on curvature information of planar views. Pattern Recognition, 2003, 36, 2571-2584.	5.1	6
70	Color-based video segmentation using interlinked irregular pyramids. Pattern Recognition, 2004, 37, 377-380.	5.1	6
71	New Spanish Electrical Power Standard. , 0, , .		6
72	Place characterization for navigation via behaviour merging for an autonomous mobile robot. , 2008, , .		6

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73	Sine-fitting multiharmonic algorithms implemented by artificial neural networks. Neurocomputing, 2009, 72, 3640-3648.	3.5	6
74	A study on a shared control navigation system: human/robot collaboration for assisting people in mobility. Cognitive Processing, 2009, 10, 215-218.	0.7	6
75	Efficiency based collaborative control modulated by biometrics for wheelchair assisted navigation. , 2009, , .		6
76	Harmonics and interharmonics spectral analysis by ANN. , 2016, , .		6
77	Application of high-order hopfield neural networks to the solution of diophantine equations. , 1991, , 395-400.		5
78	Multifoveal imager for stereo applications. International Journal of Imaging Systems and Technology, 2002, 12, 149-165.	2.7	5
79	Robot learning of upper-body human motion by active imitation. , 2006, , .		5
80	Estimation of the Rate of Detection of Infected Individuals in an Epidemiological Model. Lecture Notes in Computer Science, 2007, , 948-955.	1.0	5
81	Spectral clustering for feature-based metric maps partitioning in a hybrid mapping framework. , 2009, , .		5
82	Rule-Based vs. Behavior-Based Self-Deployment for Mobile Wireless Sensor Networks. Sensors, 2016, 16, 1047.	2.1	5
83	Hopfield neural network applied to optimization problems: Some theoretical and simulation results. Lecture Notes in Computer Science, 1997, , 556-565.	1.0	4
84	On-line unsupervised planar shape recognition based on curvature functions. , 0, , .		4
85	A Formal Model for Definition and Simulation of Generic Neural Networks. Neural Processing Letters, 2000, 11, 87-105.	2.0	4
86	Nonuniform video coding by means of multifoveal geometries. International Journal of Imaging Systems and Technology, 2002, 12, 27-34.	2.7	4
87	A multiresolution spatiotemporal motion segmentation technique for video sequences based on pyramidal structures. Pattern Recognition Letters, 2002, 23, 1761-1769.	2.6	4
88	Spectrum analysis of asynchronously sampled signals by means of an ANN method. , 2014, , .		4
89	A Social Potential Fields Approach for Self-Deployment and Self-Healing in Hierarchical Mobile Wireless Sensor Networks. Sensors, 2017, 17, 120.	2.1	4
90	Conventional Joystick vs. Wiimote for Holonomic Wheelchair Control. Lecture Notes in Computer Science, 2009, , 1153-1160.	1.0	4

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91	Self-organizing maps for contingency analysis: visual classification and temporal evolution. , 0, , .		3
92	Data-and Model-driven Attention Mechanism for Autonomous Visual Landmark Acquisition. , 0, , .		3
93	A model-based humanoid perception system for real-time human motion imitation. , 0, , .		3
94	A CBR approach to Behaviour-Based Navigation for an Autonomous Mobile Robot. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	3
95	Online absorption of mediolateral balance disturbances for a small humanoid robot using accelerometer and force-sensor feedback. , 2007, , .		3
96	Case-based reasoning emulation of persons for wheelchair navigation. Artificial Intelligence in Medicine, 2012, 56, 109-121.	3.8	3
97	Neural Networks for Contingency Evaluation and Monitoring in Power Systems. Lecture Notes in Computer Science, 2001, , 711-718.	1.0	3
98	A Metrics Review for Performance Evaluation on Assisted Wheelchair Navigation. Lecture Notes in Computer Science, 2009, , 1145-1152.	1.0	3
99	<title>Video flow active control by means of adaptive shifted foveal geometries</title>. , 2000, , .		2
100	Hierarchical image segmentation based on nearest neighbour region chains. Electronics Letters, 2000, 36, 1111.	0.5	2
101	Scale-dependent hierarchical unsupervised segmentation of textured images. Pattern Recognition Letters, 2001, 22, 171-181.	2.6	2
102	Spatiotemporal video segmentation and motion estimation through irregular pyramids. Pattern Recognition, 2003, 36, 1445-1447.	5.1	2
103	A Hybrid Path Planning Technique for Partially Unknown Indoor Environments. Intelligent Automation and Soft Computing, 2005, 11, 155-166.	1.6	2
104	A Curvature based Method to Extract Natural Landmarks for Mobile Robot Navigation. , 2007, , .		2
105	A Study on Human Performance in a Cooperative Local Navigation Robotic System. , 2008, , .		2
106	Simultaneous mobile robot localization and mapping using an adaptive curvature-based environment description. , 2008, , .		2
107	Vehicle risks assessment using a nokia N95. , 2009, , .		2
108	View planning for efficient contour-based 3D object recognition. , 2010, , .		2

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109	Optimization of distributed generation penetration in distributed power electric systems. , 2011, , .		2
110	Learning-Based Adaptation for Personalized Mobility Assistance. Lecture Notes in Computer Science, 2013, , 329-342.	1.0	2
111	Implicit robot coordination using Case-Based Reasoning behaviors. , 2013, , .		2
112	Reactive adapted assistance for wheelchair navigation based on a standard skill profile. , 2014, , .		2
113	Monte Carlo uncertainty analysis of an ANN-based spectral analysis method. Neural Computing and Applications, 2020, 32, 351-368.	3.2	2
114	Perception-Based Image Segmentation Using the Bounded Irregular Pyramid. , 2007, , 244-253.		2
115	Very low Q-factor impedance measurements using a lock-in amplifier technique€. International Journal of Electronics, 1981, 50, 207-210.	0.9	1
116	A compact microcomputer-based deep level transient spectroscopy measurement system. IEEE Transactions on Instrumentation and Measurement, 1990, 39, 467-472.	2.4	1
117	Bandwidth renegotiation scheme for VBR video services. Electronics Letters, 1999, 35, 1509.	0.5	1
118	VLSI implementation of a foveal polygon segmentation algorithm. , 0, , .		1
119	QoS routing with outdated network knowledge. Electronics Letters, 2000, 36, 1332.	0.5	1
120	A study of the relationship between the influencing factors on the performance of http transactions. , 2003, , .		1
121	<title>Hardware platform for regions extraction in foveal images</title>. , 2003, 5150, 1730.		1
122	Hardware architecture for hierarchical segmentation in foveal images. International Journal of Imaging Systems and Technology, 2004, 14, 153-166.	2.7	1
123	A New Sonar-based Landmark for Localization in Indoor Environments. Soft Computing, 2006, 11, 281-285.	2.1	1
124	Image Matching based on Curvilinear Regions. , 0, , .		1
125	CF-IDC: A robust robot’s self-localization in dynamic environments using curvature information. , 2008, , .		1
126	Explicit coordinated localization using common visual objects. , 2010, , .		1

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127	New trends in computational intelligence. Neurocomputing, 2017, 250, 1-4.	3.5	1
128	Uncertainty Analysis of ANN Based Spectral Analysis Using Monte Carlo Method. Lecture Notes in Computer Science, 2017, , 269-280.	1.0	1
129	Energy-Based Perceptual Segmentation Using an Irregular Pyramid. Lecture Notes in Computer Science, 2009, , 424-431.	1.0	1
130	Spurious minima and basins of attraction in higher-order Hopfield networks. Lecture Notes in Computer Science, 2003, , 350-357.	1.0	1
131	System Identification of Dengue Fever Epidemics in Cuba. Lecture Notes in Computer Science, 2009, , 901-908.	1.0	1
132	Deep-Level Spectroscopy by Transient Capacitance Techniques under Electrical Resonance. IEEE Transactions on Instrumentation and Measurement, 1984, 33, 16-18.	2.4	0
133	Neural networks definition algorithm. Microprocessing and Microprogramming, 1992, 34, 251-254.	0.3	0
134	Planar shape recognition based on hidden Markov models. Electronics Letters, 2001, 37, 1448.	0.5	0
135	<title>Active video flow control technique based on spatio-temporal segmentation of video sequences</title>. , 2001, 4572, 379.		0
136	<title>GPS and odometer data fusion for outdoor robots continuous positioning</title>. , 2002, , .		0
137	Automatic vergence control based on hierarchical segmentation of stereo pairs. International Journal of Imaging Systems and Technology, 2003, 13, 224-233.	2.7	0
138	Hierarchical test pattern composition to testing a foveal imager ASIC. , 2003, , .		0
139	Curvature based image recognition using hidden Markov models. Electronics Letters, 2004, 40, 1258.	0.5	0
140	A time stamp control strategy for CBR based reactive navigation in dynamic environments with priorities. , 0, , .		0
141	Video object transmission by means of virtual reality based object extraction. Telecommunication Systems, 2006, 32, 165-180.	1.6	0
142	Fuzzy-neural Computation and Robotics. Soft Computing, 2006, 11, 211-211.	2.1	0
143	A novel hybrid approach to upper-body human motion capture. , 2008, , .		0
144	Combined constraint matching algorithm for stereo visual odometry based on local interest points. , 2009, , .		0

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145	Continuous-State Hopfield Dynamics Based on Implicit Numerical Methods. Lecture Notes in Computer Science, 2002, , 1365-1370.	1.0	0
146	Towards a Shared Control Navigation Function: Efficiency Based Command Modulation. Lecture Notes in Computer Science, 2015, , 185-198.	1.0	0
147	A Bottom-up Robot Architecture Based on Learnt Behaviors Driven Design. Lecture Notes in Computer Science, 2015, , 159-170.	1.0	0
148	Biomimetic Navigation Using CBR. Lecture Notes in Computer Science, 2017, , 632-643.	1.0	0