

Francisco Sandoval

List of Publications by Year in descending order

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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	Monte Carlo uncertainty analysis of an ANN-based spectral analysis method. <i>Neural Computing and Applications</i> , 2020, 32, 351-368.	3.2	2
2	Smart care home system: a platform for eAssistance. <i>Journal of Ambient Intelligence and Humanized Computing</i> , 2019, 10, 3997-4021.	3.3	14
3	New trends in computational intelligence. <i>Neurocomputing</i> , 2017, 250, 1-4.	3.5	1
4	CBR based reactive behavior learning for the memory-prediction framework. <i>Neurocomputing</i> , 2017, 250, 18-27.	3.5	8
5	A Social Potential Fields Approach for Self-Deployment and Self-Healing in Hierarchical Mobile Wireless Sensor Networks. <i>Sensors</i> , 2017, 17, 120.	2.1	4
6	Uncertainty Analysis of ANN Based Spectral Analysis Using Monte Carlo Method. <i>Lecture Notes in Computer Science</i> , 2017, , 269-280.	1.0	1
7	Biomimetic Navigation Using CBR. <i>Lecture Notes in Computer Science</i> , 2017, , 632-643.	1.0	0
8	Rule-Based vs. Behavior-Based Self-Deployment for Mobile Wireless Sensor Networks. <i>Sensors</i> , 2016, 16, 1047.	2.1	5
9	Harmonics and interharmonics spectral analysis by ANN. , 2016, , .		6
10	A discrete gradient method to enhance the numerical behaviour of Hopfield networks. <i>Neurocomputing</i> , 2015, 164, 45-55.	3.5	10
11	Towards a Shared Control Navigation Function: Efficiency Based Command Modulation. <i>Lecture Notes in Computer Science</i> , 2015, , 185-198.	1.0	0
12	A Bottom-up Robot Architecture Based on Learnt Behaviors Driven Design. <i>Lecture Notes in Computer Science</i> , 2015, , 159-170.	1.0	0
13	Spectrum analysis of asynchronously sampled signals by means of an ANN method. , 2014, , .		4
14	Reactive adapted assistance for wheelchair navigation based on a standard skill profile. , 2014, , .		2
15	Identification of noisy dynamical systems with parameter estimation based on Hopfield neural networks. <i>Neurocomputing</i> , 2013, 121, 14-24.	3.5	17
16	On the Construction of a Skill-Based Wheelchair Navigation Profile. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2013, 21, 917-927.	2.7	18
17	Learning-Based Adaptation for Personalized Mobility Assistance. <i>Lecture Notes in Computer Science</i> , 2013, , 329-342.	1.0	2
18	Implicit robot coordination using Case-Based Reasoning behaviors. , 2013, , .		2

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19	Case-based reasoning emulation of persons for wheelchair navigation. Artificial Intelligence in Medicine, 2012, 56, 109-121.	3.8	3
20	Optimization of distributed generation penetration in distributed power electric systems. , 2011, , .		2
21	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
22	Bio-inspired systems: Computational and ambient intelligence. Neurocomputing, 2011, 74, 2591-2593.	3.5	11
23	Wheelchair collaborative control for disabled users navigating indoors. Artificial Intelligence in Medicine, 2011, 52, 177-191.	3.8	15
24	A new multi-criteria optimization strategy for shared control in wheelchair assisted navigation. Autonomous Robots, 2011, 30, 179-197.	3.2	46
25	Navigation skills based profiling for collaborative wheelchair control. , 2011, , .		9
26	Contingency evaluation and monitorization using artificial neural networks. Neural Computing and Applications, 2010, 19, 139-150.	3.2	18
27	Biometrically Modulated Collaborative Control for an Assistive Wheelchair. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2010, 18, 398-408.	2.7	17
28	A new pyramid-based color image representation for visual localization. Image and Vision Computing, 2010, 28, 78-91.	2.7	10
29	Explicit coordinated localization using common visual objects. , 2010, , .		1
30	View planning for efficient contour-based 3D object recognition. , 2010, , .		2
31	Efficiency based modulation for wheelchair driving collaborative control. , 2010, , .		13
32	Vehicle risks assessment using a nokia N95. , 2009, , .		2
33	Combined constraint matching algorithm for stereo visual odometry based on local interest points. , 2009, , .		0
34	Spectral clustering for feature-based metric maps partitioning in a hybrid mapping framework. , 2009, , .		5
35	Fast laser scan matching approach based on adaptive curvature estimation for mobile robots. Robotica, 2009, 27, 469-479.	1.3	23
36	Curvature-Based Environment Description for Robot Navigation Using Laser Range Sensors. Sensors, 2009, 9, 5894-5918.	2.1	36

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37	Sine-fitting multiharmonic algorithms implemented by artificial neural networks. <i>Neurocomputing</i> , 2009, 72, 3640-3648.	3.5	6
38	A study on a shared control navigation system: human/robot collaboration for assisting people in mobility. <i>Cognitive Processing</i> , 2009, 10, 215-218.	0.7	6
39	Fast gesture recognition based on a two-level representation. <i>Pattern Recognition Letters</i> , 2009, 30, 1181-1189.	2.6	22
40	A novel approach for salient image regions detection and description. <i>Pattern Recognition Letters</i> , 2009, 30, 1464-1476.	2.6	17
41	Pure reactive behavior learning using Case Based Reasoning for a vision based 4-legged robot. <i>Robotics and Autonomous Systems</i> , 2009, 57, 688-699.	3.0	14
42	Adaptive collaborative assistance for wheelchair driving via CBR learning. , 2009, , .		8
43	Efficiency based collaborative control modulated by biometrics for wheelchair assisted navigation. , 2009, , .		6
44	A New Efficiency-Weighted Strategy for Continuous Human/Robot Cooperation in Navigation. <i>IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans</i> , 2009, 39, 486-500.	3.4	41
45	Energy-Based Perceptual Segmentation Using an Irregular Pyramid. <i>Lecture Notes in Computer Science</i> , 2009, , 424-431.	1.0	1
46	Conventional Joystick vs. Wiimote for Holonomic Wheelchair Control. <i>Lecture Notes in Computer Science</i> , 2009, , 1153-1160.	1.0	4
47	System Identification of Dengue Fever Epidemics in Cuba. <i>Lecture Notes in Computer Science</i> , 2009, , 901-908.	1.0	1
48	A Metrics Review for Performance Evaluation on Assisted Wheelchair Navigation. <i>Lecture Notes in Computer Science</i> , 2009, , 1145-1152.	1.0	3
49	Natural landmark extraction for mobile robot navigation based on an adaptive curvature estimation. <i>Robotics and Autonomous Systems</i> , 2008, 56, 247-264.	3.0	43
50	An Algorithm for Fitting 2-D Data on the Circle: Applications to Mobile Robotics. <i>IEEE Signal Processing Letters</i> , 2008, 15, 127-130.	2.1	18
51	A novel hybrid approach to upper-body human motion capture. , 2008, , .		0
52	A Study on Human Performance in a Cooperative Local Navigation Robotic System. , 2008, , .		2
53	Dynamic calibration and zero configuration positioning system for WSN. , 2008, , .		17
54	Place characterization for navigation via behaviour merging for an autonomous mobile robot. , 2008, , .		6

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55	CF-IDC: A robust robot’s self-localization in dynamic environments using curvature information. , 2008, , .		1
56	Simultaneous mobile robot localization and mapping using an adaptive curvature-based environment description. , 2008, , .		2
57	A CBR approach to Behaviour-Based Navigation for an Autonomous Mobile Robot. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	3
58	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
59	The Construction of Bounded Irregular Pyramids with a Union-Find Decimation Process. Lecture Notes in Computer Science, 2007, , 307-318.	1.0	9
60	Estimation of the Rate of Detection of Infected Individuals in an Epidemiological Model. Lecture Notes in Computer Science, 2007, , 948-955.	1.0	5
61	Efficiency based reactive shared control for collaborative human/robot navigation. , 2007, , .		19
62	Sampling Strategies Comparison for High Accuracy Power Measurements. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	10
63	A Curvature based Method to Extract Natural Landmarks for Mobile Robot Navigation. , 2007, , .		2
64	Online absorption of mediolateral balance disturbances for a small humanoid robot using accelerometer and force-sensor feedback. , 2007, , .		3
65	Real-time object tracking using bounded irregular pyramids. Pattern Recognition Letters, 2007, 28, 985-1001.	2.6	15
66	FPGA implementation of a systems identification module based upon Hopfield networks. Neurocomputing, 2007, 70, 2828-2835.	3.5	21
67	Perception-Based Image Segmentation Using the Bounded Irregular Pyramid. , 2007, , 244-253.		2
68	Robot learning of upper-body human motion by active imitation. , 2006, , .		5
69	Mean shift based clustering of Hough domain for fast line segment detection. Pattern Recognition Letters, 2006, 27, 578-586.	2.6	41
70	Video object transmission by means of virtual reality based object extraction. Telecommunication Systems, 2006, 32, 165-180.	1.6	0
71	Fuzzy-neural Computation and Robotics. Soft Computing, 2006, 11, 211-211.	2.1	0
72	A New Sonar-based Landmark for Localization in Indoor Environments. Soft Computing, 2006, 11, 281-285.	2.1	1

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73	A purely reactive navigation scheme for dynamic environments using Case-Based Reasoning. Autonomous Robots, 2006, 21, 65-78.	3.2	19
74	Pyramid segmentation algorithms revisited. Pattern Recognition, 2006, 39, 1430-1451.	5.1	69
75	Corner detection and curve segmentation by multiresolution chain-code linking. Pattern Recognition, 2005, 38, 1596-1614.	5.1	32
76	Hopfield Neural Networks for Parametric Identification of Dynamical Systems. Neural Processing Letters, 2005, 21, 143-152.	2.0	27
77	Real-time human motion analysis for human-robot interaction. , 2005, , .		13
78	A Hybrid Path Planning Technique for Partially Unknown Indoor Environments. Intelligent Automation and Soft Computing, 2005, 11, 155-166.	1.6	2
79	Dynamical Analysis of Continuous Higher-Order Hopfield Networks for Combinatorial Optimization. Neural Computation, 2005, 17, 1802-1819.	1.3	34
80	Curvature based image recognition using hidden Markov models. Electronics Letters, 2004, 40, 1258.	0.5	0
81	Parametric identification of robotic systems with stable time-varying Hopfield networks. Neural Computing and Applications, 2004, 13, 270-280.	3.2	26
82	Color-based video segmentation using interlinked irregular pyramids. Pattern Recognition, 2004, 37, 377-380.	5.1	6
83	Hardware architecture for hierarchical segmentation in foveal images. International Journal of Imaging Systems and Technology, 2004, 14, 153-166.	2.7	1
84	Bounded irregular pyramid: a new structure for color image segmentation. Pattern Recognition, 2004, 37, 623-626.	5.1	22
85	Modular power system topology assessment using Gaussian potential functions. IET Generation, Transmission and Distribution, 2003, 150, 635.	1.1	8
86	Automatic vergence control based on hierarchical segmentation of stereo pairs. International Journal of Imaging Systems and Technology, 2003, 13, 224-233.	2.7	0
87	3D object recognition based on curvature information of planar views. Pattern Recognition, 2003, 36, 2571-2584.	5.1	6
88	A Hidden Markov Model object recognition technique for incomplete and distorted corner sequences. Image and Vision Computing, 2003, 21, 879-889.	2.7	7
89	Spatiotemporal video segmentation and motion estimation through irregular pyramids. Pattern Recognition, 2003, 36, 1445-1447.	5.1	2
90	Genetic algorithms for optimal placement of phasor measurement units in electrical networks. Electronics Letters, 2003, 39, 1403.	0.5	119

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91	A study of the relationship between the influencing factors on the performance of http transactions. , 2003, , .		1
92	Hierarchical test pattern composition to testing a foveal imager ASIC. , 2003, , .		0
93	<title>Hardware platform for regions extraction in foveal images</title>. , 2003, 5150, 1730.		1
94	Corner detection based on adaptively filtered curvature function. Electronics Letters, 2003, 39, 426.	0.5	21
95	Modelling the HIV-AIDS Cuban Epidemics with Hopfield Neural Networks. Lecture Notes in Computer Science, 2003, , 449-456.	1.0	7
96	Hierarchical Planning in a Mobile Robot for Map Learning and Navigation. Studies in Fuzziness and Soft Computing, 2003, , 165-188.	0.6	13
97	Spurious minima and basins of attraction in higher-order Hopfield networks. Lecture Notes in Computer Science, 2003, , 350-357.	1.0	1
98	<title>GPS and odometer data fusion for outdoor robots continuous positioning</title>. , 2002, , .		0
99	Corner detection by means of contour local vectors. Electronics Letters, 2002, 38, 699.	0.5	28
100	Global model for short-term load forecasting using artificial neural networks. IET Generation, Transmission and Distribution, 2002, 149, 121.	1.1	44
101	Hopfield neural networks for optimization: study of the different dynamics. Neurocomputing, 2002, 43, 219-237.	3.5	232
102	Nonuniform video coding by means of multifoveal geometries. International Journal of Imaging Systems and Technology, 2002, 12, 27-34.	2.7	4
103	Multifoveal imager for stereo applications. International Journal of Imaging Systems and Technology, 2002, 12, 149-165.	2.7	5
104	Efficient integration of metric and topological maps for directed exploration of unknown environments. Robotics and Autonomous Systems, 2002, 41, 21-39.	3.0	22
105	Planar shape indexing and retrieval based on Hidden Markov Models. Pattern Recognition Letters, 2002, 23, 1143-1151.	2.6	6
106	A multiresolution spatiotemporal motion segmentation technique for video sequences based on pyramidal structures. Pattern Recognition Letters, 2002, 23, 1761-1769.	2.6	4
107	Non-parametric planar shape representation based on adaptive curvature functions. Pattern Recognition, 2002, 35, 43-53.	5.1	37
108	Continuous-State Hopfield Dynamics Based on Implicit Numerical Methods. Lecture Notes in Computer Science, 2002, , 1365-1370.	1.0	0

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109	Modeling of HTTP traffic. IEEE Communications Letters, 2001, 5, 272-274.	2.5	23
110	Planar shape recognition based on hidden Markov models. Electronics Letters, 2001, 37, 1448.	0.5	0
111	<title>Active video flow control technique based on spatio-temporal segmentation of video sequences</title>. , 2001, 4572, 379.		0
112	Scale-dependent hierarchical unsupervised segmentation of textured images. Pattern Recognition Letters, 2001, 22, 171-181.	2.6	2
113	Neural Networks for Contingency Evaluation and Monitoring in Power Systems. Lecture Notes in Computer Science, 2001, , 711-718.	1.0	3
114	QoS routing with adaptive updating of link states. Electronics Letters, 2001, 37, 604.	0.5	8
115	Corner detection by means of adaptively estimated curvature function. Electronics Letters, 2000, 36, 124.	0.5	33
116	QoS routing with outdated network knowledge. Electronics Letters, 2000, 36, 1332.	0.5	1
117	<title>Video flow active control by means of adaptive shifted foveal geometries</title>. , 2000, , .		2
118	A Formal Model for Definition and Simulation of Generic Neural Networks. Neural Processing Letters, 2000, 11, 87-105.	2.0	4
119	Strategies for updating link states in QoS routers. Electronics Letters, 2000, 36, 1749.	0.5	6
120	Hierarchical image segmentation based on nearest neighbour region chains. Electronics Letters, 2000, 36, 1111.	0.5	2
121	Bandwidth renegotiation scheme for VBR video services. Electronics Letters, 1999, 35, 1509.	0.5	1
122	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
123	Corner detection and curve representation by circular histograms of contour chain code. Electronics Letters, 1999, 35, 1065.	0.5	15
124	Short-term peak load forecasting: Statistical methods versus Artificial Neural Networks. Lecture Notes in Computer Science, 1997, , 1334-1343.	1.0	13
125	Generalization of shifted fovea multiresolution geometries applied to object detection. Lecture Notes in Computer Science, 1997, , 477-484.	1.0	7
126	Hopfield neural network applied to optimization problems: Some theoretical and simulation results. Lecture Notes in Computer Science, 1997, , 556-565.	1.0	4

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127	Corner detection by local histograms of contour chain code. Electronics Letters, 1997, 33, 1769.	0.5	46
128	Associating arbitrary-order energy functions to an artificial neural network. Neurocomputing, 1997, 14, 139-156.	3.5	7
129	Adaptive fovea structures for space-variant sensors. Lecture Notes in Computer Science, 1997, , 422-429.	1.0	10
130	New training pattern selection method for ATM call admission neural control. Electronics Letters, 1994, 30, 577-579.	0.5	9
131	Neural networks definition algorithm. Microprocessing and Microprogramming, 1992, 34, 251-254.	0.3	0
132	Application of high-order hopfield neural networks to the solution of diophantine equations. , 1991, , 395-400.		5
133	A compact microcomputer-based deep level transient spectroscopy measurement system. IEEE Transactions on Instrumentation and Measurement, 1990, 39, 467-472.	2.4	1
134	A new sequential four-rate-window DLTS system. IEEE Transactions on Instrumentation and Measurement, 1987, IM-36, 115-119.	2.4	8
135	Deep-Level Spectroscopy by Transient Capacitance Techniques under Electrical Resonance. IEEE Transactions on Instrumentation and Measurement, 1984, 33, 16-18.	2.4	0
136	Forward-bias impedance of GaAs1-xPx LED's. Solid-State Electronics, 1982, 25, 355-357.	0.8	7
137	Very low Q -factor impedance measurements using a lock-in amplifier technique. International Journal of Electronics, 1981, 50, 207-210.	0.9	1
138	Shifted fovea multiresolution geometries. , 0, , .		16
139	On-line unsupervised planar shape recognition based on curvature functions. , 0, , .		4
140	Real time position estimation for mobile robots by means of sonar sensors. , 0, , .		6
141	VLSI implementation of a foveal polygon segmentation algorithm. , 0, , .		1
142	Self-organizing maps for contingency analysis: visual classification and temporal evolution. , 0, , .		3
143	A time stamp control strategy for CBR based reactive navigation in dynamic environments with priorities. , 0, , .		0
144	Data-and Model-driven Attention Mechanism for Autonomous Visual Landmark Acquisition. , 0, , .		3

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145	A model-based humanoid perception system for real-time human motion imitation. , 0, , .		3
146	New Spanish Electrical Power Standard. , 0, , .		6
147	Feature extraction from laser scan data based on curvature estimation for mobile robotics. , 0, , .		32
148	Image Matching based on Curvilinear Regions. , 0, , .		1