

Francisco Bellas

List of Publications by Year in descending order

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Version: 2024-02-01

121
papers

608
citations

858243

12
h-index

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g-index

125
all docs

125
docs citations

125
times ranked

497
citing authors

#	ARTICLE	IF	CITATIONS
1	Autonomous Knowledge Representation for Efficient Skill Learning in Cognitive Robots. Lecture Notes in Computer Science, 2022, , 253-263.	1.0	1
2	Motivational engine and long-term memory coupling within a cognitive architecture for lifelong open-ended learning. Neurocomputing, 2021, 452, 341-354.	3.5	8
3	The School Path Guide: A Practical Introduction to Representation and Reasoning in AI for High School Students. Lecture Notes in Computer Science, 2021, , 88-92.	1.0	2
4	Exploring the Effect of Dynamic Drive Balancing in Open-ended Learning Robots. , 2021, , .		0
5	Developing a Simulation Model for Autonomous Driving Education in the Robobo SmartCity Framework. Engineering Proceedings, 2021, 7, .	0.4	3
6	Developmental Learning of Value Functions in a Motivational System for Cognitive Robotics. , 2020, , .		2
7	SARDAM: Service Assistant Robot for Daily Activity Monitoring. Proceedings (mdpi), 2020, 54, 3.	0.2	3
8	Motivation as a tool for designing lifelong learning robots. Integrated Computer-Aided Engineering, 2020, 27, 353-372.	2.5	11
9	Artificial Intelligence in Pre-University Education: What and How to Teach. Proceedings (mdpi), 2020, 54, .	0.2	3
10	STEAM Approach to Autonomous Robotics Curriculum for High School Using the Robobo Robot. Advances in Intelligent Systems and Computing, 2020, , 77-89.	0.5	5
11	Artificial Intelligence Teaching Through Embedded Systems: A Smartphone-Based Robot Approach. Advances in Intelligent Systems and Computing, 2020, , 515-527.	0.5	4
12	Producing Parameterized Value Functions Through Modulation for Cognitive Developmental Robots. Advances in Intelligent Systems and Computing, 2020, , 250-262.	0.5	0
13	First Steps Towards State Representation Learning for Cognitive Robotics. Lecture Notes in Computer Science, 2020, , 499-510.	1.0	2
14	Adapting Computer Vision Algorithms to Smartphone-based Robot for Education. , 2020, , .		3
15	Studying How Innate Motivations Can Drive Skill Acquisition in Cognitive Robots. Proceedings (mdpi), 2019, 21, 2.	0.2	0
16	Bootstrapping Autonomous Skill Learning in the MDB Cognitive Architecture. Lecture Notes in Computer Science, 2019, , 120-129.	1.0	3
17	Simplifying the creation and management of utility models in continuous domains for cognitive robotics. Neurocomputing, 2019, 353, 106-118.	3.5	9
18	Modulation Based Transfer Learning of Motivational Cues in Developmental Robotics. , 2019, , .		1

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19	Perceptual Generalization and Context in a Network Memory Inspired Long-Term Memory for Artificial Cognition. <i>International Journal of Neural Systems</i> , 2019, 29, 1850053.	3.2	17
20	Robobo: The Next Generation of Educational Robot. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 359-369.	0.5	2
21	Utility Model Re-description within a Motivational System for Cognitive Robotics. , 2018, , .		2
22	A Dreaming Approach to Perceptual Class Delimitation Within the DREAM Architecture. , 2018, , .		1
23	Introducing separable utility regions in a motivational engine for cognitive developmental robotics. <i>Integrated Computer-Aided Engineering</i> , 2018, 26, 3-20.	2.5	18
24	The Robobo Project: Bringing Educational Robotics Closer to Real-World Applications. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 226-237.	0.5	20
25	A Re-description Based Developmental Approach to the Generation of Value Functions for Cognitive Robots. <i>Lecture Notes in Computer Science</i> , 2018, , 671-683.	1.0	1
26	Automatic 3D design tool for fitted spools in shipbuilding industry. , 2018, , .		0
27	Embodied evolution versus cooperative coevolution in multi-robot optimization. , 2017, , .		1
28	A versatile robotic platform for educational interaction. , 2017, , .		7
29	Motivational Engine for Cognitive Robotics in Non-static Tasks. <i>Lecture Notes in Computer Science</i> , 2017, , 32-42.	1.0	1
30	Neuroevolutionary Motivational Engine for Autonomous Robots. , 2016, , .		2
31	Improving extrinsically motivated developmental robots through intrinsic motivations. , 2016, , .		2
32	Motivational engine with autonomous sub-goal identification for the Multilevel Darwinist Brain. <i>Biologically Inspired Cognitive Architectures</i> , 2016, 17, 1-11.	0.9	9
33	MotivEn: Motivational engine with sub-goal identification for autonomous robots. , 2016, , .		3
34	Real-time optimization of dynamic problems through distributed Embodied Evolution. <i>Integrated Computer-Aided Engineering</i> , 2016, 23, 237-253.	2.5	10
35	Introducing Synaptic Delays in the NEAT Algorithm to Improve Modelling in Cognitive Robotics. <i>Neural Processing Letters</i> , 2016, 43, 479-504.	2.0	5
36	Motivational Engine with Sub-goal Identification in Neuroevolution Based Cognitive Robotics. <i>Lecture Notes in Computer Science</i> , 2016, , 659-670.	1.0	2

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37	How Complexity Pervades Specialization in Canonical Embodied Evolution. , 2016, , .		0
38	Towards the standardization of distributed Embodied Evolution. Information Sciences, 2015, 312, 55-77.	4.0	3
39	Embodied Evolution for Collective Indoor Surveillance and Location. , 2015, , .		0
40	ECAS-II: A hybrid algorithm for the construction of multidimensional image segmenters. , 2015, , .		1
41	Applying the canonical distributed Embodied Evolution algorithm in a collective indoor navigation task. , 2015, , .		1
42	An evolution friendly modular architecture to produce feasible robots. Robotics and Autonomous Systems, 2015, 63, 195-205.	3.0	17
43	Ī,-NEAT: Initial experiments in precise temporal processing through neuroevolution. Neurocomputing, 2015, 150, 43-49.	3.5	5
44	Studying the Coupled Learning of Procedural and Declarative Knowledge in Cognitive Robotics. Lecture Notes in Computer Science, 2015, , 304-315.	1.0	0
45	Embodied Evolution for Collective Indoor Surveillance and Location. Lecture Notes in Computer Science, 2015, , 138-147.	1.0	0
46	Autonomous Learning of Procedural Knowledge in an Evolutionary Cognitive Architecture for Robots. Lecture Notes in Computer Science, 2015, , 807-818.	1.0	1
47	Augmenting the NEAT algorithm to improve its temporal processing capabilities. , 2014, , .		4
48	Dynamic learning in cognitive robotics through a procedural long term memory. Evolving Systems, 2014, 5, 49-63.	2.4	10
49	A Role for Sleep in Artificial Cognition through Deferred Restructuring of Experience in Autonomous Machines. Lecture Notes in Computer Science, 2014, , 1-10.	1.0	2
50	Brain-Like Robotics. , 2014, , 1019-1056.		6
51	Visual Behavior Definition for 3D Crowd Animation through Neuro-evolution. Lecture Notes in Computer Science, 2014, , 354-364.	1.0	0
52	Specialization analysis of embodied evolution for robotic collective tasks. Robotics and Autonomous Systems, 2013, 61, 682-693.	3.0	17
53	Designing a modular robotic architecture for industrial applications. , 2013, , .		1
54	Evolutionary algorithm characterization in real parameter optimization problems. Applied Soft Computing Journal, 2013, 13, 1902-1921.	4.1	38

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55	EDHMoR: Evolutionary designer of heterogeneous modular robots. Engineering Applications of Artificial Intelligence, 2013, 26, 2408-2423.	4.3	39
56	Hyperspectral image segmentation through evolved cellular automata. Pattern Recognition Letters, 2013, 34, 1648-1658.	2.6	12
57	Addressing the training problem in cellular automata based hyperspectral image segmentation. , 2013, , .		0
58	Distributed embodied evolution for collective tasks. , 2013, , .		3
59	Scalable Task Assignment for Heterogeneous Multi-Robot Teams. International Journal of Advanced Robotic Systems, 2013, 10, 105.	1.3	18
60	Multiscale Dynamic Learning in Cognitive Robotics. Lecture Notes in Computer Science, 2013, , 56-65.	1.0	0
61	Experimental analysis of the relevance of fitness landscape topographical characterization. , 2012, , .		4
62	Evolving cellular automata for detecting edges in hyperspectral images. , 2012, , .		4
63	A procedural Long Term Memory for cognitive robotics. , 2012, , .		9
64	Automatic neural-based pattern classification of motion behaviors in autonomous robots. Neurocomputing, 2012, 75, 146-155.	3.5	0
65	Self-organization and Specialization in Multiagent Systems through Open-Ended Natural Evolution. Lecture Notes in Computer Science, 2012, , 93-102.	1.0	0
66	Social learning for collaboration through ASiCo based neuroevolution. Journal of Intelligent and Fuzzy Systems, 2011, 22, 125-139.	0.8	6
67	Are evolutionary algorithm competitions characterizing landscapes appropriately. , 2011, , .		2
68	Time in hyperspectral processing: A temporal based classification approach. , 2011, , .		0
69	Evolutionary Procedure for the Progressive Design of Controllers for Collective Behaviors. Lecture Notes in Computer Science, 2011, , 471-478.	1.0	1
70	Solving a Heterogeneous Fleet Vehicle Routing Problem with Time Windows through the Asynchronous Situated Coevolution Algorithm. Lecture Notes in Computer Science, 2011, , 200-207.	1.0	3
71	Task-Driven Species in Evolutionary Robotic Teams. Lecture Notes in Computer Science, 2011, , 138-147.	1.0	3
72	Towards an Evolutionary Design of Modular Robots for Industry. Lecture Notes in Computer Science, 2011, , 50-59.	1.0	5

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73	Automatic model decomposition and reuse in an evolutionary cognitive mechanism. <i>Evolving Systems</i> , 2010, 1, 129-141.	2.4	1
74	Multilevel Darwinist Brain (MDB): Artificial Evolution in a Cognitive Architecture for Real Robots. <i>IEEE Transactions on Autonomous Mental Development</i> , 2010, 2, 340-354.	2.3	72
75	An Adaptive Approach for the Progressive Integration of Spatial and Spectral Features When Training Ground-Based Hyperspectral Imaging Classifiers. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2010, 59, 2083-2093.	2.4	15
76	Open-ended evolution as a means to self-organize heterogeneous multi-robot systems in real time. <i>Robotics and Autonomous Systems</i> , 2010, 58, 1282-1291.	3.0	34
77	A cognitive developmental robotics architecture for lifelong learning by evolution in real robots. , 2010, , .		5
78	Real-Valued Multimodal Fitness Landscape Characterization for Evolution. <i>Lecture Notes in Computer Science</i> , 2010, , 567-574.	1.0	13
79	Automatic Behavior Pattern Classification for Social Robots. <i>Lecture Notes in Computer Science</i> , 2010, , 88-95.	1.0	3
80	Web-Based Multimedia Tools for Monitoring and E-Learning. , 2010, , 1-21.		2
81	Automatic Speech-Lip Synchronization System for 3D Animation. <i>Lecture Notes in Computer Science</i> , 2009, , 122-129.	1.0	1
82	Using promoters and functional introns in genetic algorithms for neuroevolutionary learning in non-stationary problems. <i>Neurocomputing</i> , 2009, 72, 2134-2145.	3.5	7
83	Population dynamics analysis in an agent-based artificial life system for engineering optimization problems. , 2009, , .		2
84	Using Spiking Neural Networks for the Generation of Coordinated Action Sequences in Robots. <i>Lecture Notes in Computer Science</i> , 2009, , 1013-1020.	1.0	1
85	Asynchronous Situated Coevolution and Embryonic Reproduction as a Means to Autonomously Coordinate Robot Teams. <i>Lecture Notes in Computer Science</i> , 2009, , 351-359.	1.0	2
86	Adaptively Coordinating Heterogeneous Robot Teams through Asynchronous Situated Coevolution. <i>Lecture Notes in Computer Science</i> , 2009, , 75-82.	1.0	3
87	Hydrodynamic Design of Control Surfaces for Ships Using a MOEA with Neuronal Correction. <i>Lecture Notes in Computer Science</i> , 2009, , 96-103.	1.0	0
88	An Incremental Learning Algorithm for Optimizing High-Dimensional ANN-Based Classification Systems. <i>Lecture Notes in Computer Science</i> , 2009, , 1037-1044.	1.0	0
89	A Behavior Based Architecture with Auction-Based Task Assignment for Multi-robot Industrial Applications. <i>Lecture Notes in Computer Science</i> , 2009, , 372-381.	1.0	4
90	Improving Performance in HPC Centers by Modeling Users Through an Evolutionary Virtual Interface. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2008, 57, 1885-1893.	2.4	1

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91	Internal and External Memory in Neuroevolution for Learning in Non-stationary Problems. Lecture Notes in Computer Science, 2008, , 62-72.	1.0	2
92	Application domain study of evolutionary algorithms in optimization problems. , 2008, , .		3
93	Automatic Preprocessing and Classification System for High Resolution Ultra and Hyperspectral Images. Studies in Computational Intelligence, 2008, , 313-340.	0.7	0
94	A Complex Systems Based Tool for Collective Robot Behavior Emergence and Analysis. Lecture Notes in Computer Science, 2008, , 633-640.	1.0	5
95	On the Analysis of Turbulent Flow Signals by Artificial Neural Networks and Adaptive Techniques. , 2007, , .		0
96	Incremental Evolution of Stigmergy-Based Multi Robot Controllers Through Utility Functions. Lecture Notes in Computer Science, 2007, , 1187-1195.	1.0	2
97	Auto Adjustable ANN-Based Classification System for Optimal High Dimensional Data Analysis. , 2007, , 588-596.		0
98	Evolutionary Tool for the Incremental Design of Controllers for Collective Behaviors. Lecture Notes in Computer Science, 2007, , 587-596.	1.0	0
99	Adaptive Spatio-Spectral Hyperspectral Image Processing for Online Industrial Classification of Inhomogeneous Materials. , 2006, , .		1
100	An Adaptive Visual Gesture Based Interface for Human Machine Interaction in Intelligent Workspaces. , 2006, , .		1
101	Using Adaptive Artificial Neural Networks for Reconstructing Irregularly Sampled Laser Doppler Velocimetry Signals. IEEE Transactions on Instrumentation and Measurement, 2006, 55, 916-922.	2.4	5
102	Autom atic Profiling and Behavior Prediction of Computer System Users. , 2006, , .		2
103	Intelligent Virtual Interface for Improving Performance in HPC Centers by Modelling Users and their Satisfaction. , 2006, , .		1
104	Adaptive Learning Application of the MDB Evolutionary Cognitive Architecture in Physical Agents. Lecture Notes in Computer Science, 2006, , 434-445.	1.0	3
105	Integration of Spatial Information in Hyperspectral Imaging for Real Time Quality Control in an Andalusite Processing Line. Lecture Notes in Computer Science, 2006, , 292-299.	1.0	0
106	SNAKE-LIKE BEHAVIORS USING MACROEVOLUTIONARY ALGORITHMS AND MODULATION BASED ARCHITECTURES. , 2006, , .		1
107	Complex Behaviours Through Modulation in Autonomous Robot Control. Lecture Notes in Computer Science, 2005, , 717-724.	1.0	5
108	Evolution of Cooperating ANNs Through Functional Phenotypic Affinity. Lecture Notes in Computer Science, 2005, , 333-340.	1.0	0

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109	Induced Behavior in a Real Agent Using the Multilevel Darwinist Brain. Lecture Notes in Computer Science, 2005, , 425-434.	1.0	6
110	Analysis of Hot-Wire Anemometer Turbulent Signals by Means of Delay Based Networks. , 2005, , .		0
111	Blind Signal Separation Through Cooperating ANNs. Lecture Notes in Computer Science, 2005, , 847-853.	1.0	0
112	A Profiling Based Intelligent Resource Allocation System. Lecture Notes in Computer Science, 2005, , 840-846.	1.0	0
113	Some thoughts on the use of sampled fitness functions for the multilevel Darwinist brain. Information Sciences, 2004, 161, 159-179.	4.0	1
114	Considerations in the application of evolution to the generation of robot controllers. Information Sciences, 2001, 133, 127-148.	4.0	13
115	Applying synaptic delays for virtual sensing and actuation in mobile robots. , 2000, , .		3
116	Engineering CORBA-based distributed systems. , 0, , .		0
117	Modelling the world with statistically neutral PBGAs. Enhancement and real applications. , 0, , .		1
118	Reconstructing irregularly sampled laser doppler velocimetry signals by using artificial neural networks. , 0, , .		0
119	On the use of delay based networks in the analysis of turbulent signals. , 0, , .		0
120	Parallel Job Scheduling through Evolutionary Based Cognitive Strategies. , 0, , .		2
121	Experiencias para la mejora del proceso de aprendizaje y la motivaci3n de los estudiantes basadas en proyectos. , 0, , 83-96.		0