# Francisco Bellas

List of Publications by Year
in descending order

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|---|---|---|---|
| 121 papers | 608 citations | 759233 12 h-index | 752698 20 g-index |
| 125 all docs | 125 docs citations | 125 times ranked | 444 citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | Autonomous Knowledge Representation forÂEfficient Skill Learning inÂCognitive Robots. Lecture Notes in Computer Science, 2022, , 253-263. | 1.3 | 1 |
| 2 | Motivational engine and long-term memory coupling within a cognitive architecture for lifelong open-ended learning. Neurocomputing, 2021, 452, 341-354. | 5.9 | 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. | 1.3 | 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. | 4.6 | 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. | 0.6 | 5 |
| 11 | Artificial Intelligence Teaching Through Embedded Systems: A Smartphone-Based Robot Approach. Advances in Intelligent Systems and Computing, 2020, , 515-527. | 0.6 | 4 |
| 12 | Producing Parameterized Value Functions Through Modulation for Cognitive Developmental Robots. Advances in Intelligent Systems and Computing, 2020, , 250-262. | 0.6 | 0 |
| 13 | First Steps Towards State Representation Learning for Cognitive Robotics. Lecture Notes in Computer Science, 2020, , 499-510. | 1.3 | 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. | 1.3 | 3 |
| 17 | Simplifying the creation and management of utility models in continuous domains for cognitive robotics. Neurocomputing, 2019, 353, 106-118. | 5.9 | 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. International Journal of Neural Systems, 2019, 29, 1850053. | 5.2 | 17 |
| 20 | Robobo: The Next Generation of Educational Robot. Advances in Intelligent Systems and Computing, 2018, , 359-369. | 0.6 | 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. Integrated Computer-Aided Engineering, 2018, 26, 3-20. | 4.6 | 18 |
| 24 | The Robobo Project: Bringing Educational Robotics Closer to Real-World Applications. Advances in Intelligent Systems and Computing, 2018, , 226-237. | 0.6 | 20 |
| 25 | A Re-description Based Developmental Approach to the Generation of Value Functions for Cognitive Robots. Lecture Notes in Computer Science, 2018, , 671-683. | 1.3 | 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. Lecture Notes in Computer Science, 2017, , 32-42. | 1.3 | 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. Biologically Inspired Cognitive Architectures, 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. Integrated Computer-Aided Engineering, 2016, 23, 237-253. | 4.6 | 10 |
| 35 | Introducing Synaptic Delays in the NEAT Algorithm to Improve Modelling in Cognitive Robotics. Neural Processing Letters, 2016, 43, 479-504. | 3.2 | 5 |
| 36 | Motivational Engine with Sub-goal Identification in Neuroevolution Based Cognitive Robotics. Lecture Notes in Computer Science, 2016, , 659-670. | 1.3 | 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. | 6.9 | 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. | 5.1 | 17 |
| 43 | Ï„-NEAT: Initial experiments in precise temporal processing through neuroevolution. Neurocomputing, 2015, 150, 43-49. | 5.9 | 5 |
| 44 | Studying the Coupled Learning of Procedural and Declarative Knowledge in Cognitive Robotics. Lecture Notes in Computer Science, 2015, , 304-315. | 1.3 | 0 |
| 45 | Embodied Evolution for Collective Indoor Surveillance and Location. Lecture Notes in Computer Science, 2015, , 138-147. | 1.3 | 0 |
| 46 | Autonomous Learning of Procedural Knowledge in an Evolutionary Cognitive Architecture for Robots. Lecture Notes in Computer Science, 2015, , 807-818. | 1.3 | 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. | 3.9 | 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. | 1.3 | 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. | 1.3 | 0 |
| 52 | Specialization analysis of embodied evolution for robotic collective tasks. Robotics and Autonomous Systems, 2013, 61, 682-693. | 5.1 | 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. | 7.2 | 38 |

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| 55 | EDHMoR: Evolutionary designer of heterogeneous modular robots. Engineering Applications of Artificial Intelligence, 2013, 26, 2408-2423. | 8.1 | 39 |
| 56 | Hyperspectral image segmentation through evolved cellular automata. Pattern Recognition Letters, 2013, 34, 1648-1658. | 4.2 | 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. | 2.1 | 18 |
| 60 | Multiscale Dynamic Learning in Cognitive Robotics. Lecture Notes in Computer Science, 2013, , 56-65. | 1.3 | 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. | 5.9 | 0 |
| 65 | Self-organization and Specialization in Multiagent Systems through Open-Ended Natural Evolution. Lecture Notes in Computer Science, 2012, , 93-102. | 1.3 | 0 |
| 66 | Social learning for collaboration through ASiCo based neuroevolution. Journal of Intelligent and Fuzzy Systems, 2011, 22, 125-139. | 1.4 | 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. | 1.3 | 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. | 1.3 | 3 |
| 71 | Task-Driven Species in Evolutionary Robotic Teams. Lecture Notes in Computer Science, 2011, , 138-147. | 1.3 | 3 |
| 72 | Towards an Evolutionary Design of Modular Robots for Industry. Lecture Notes in Computer Science, 2011, , 50-59. | 1.3 | 5 |

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| 73 | Automatic model decomposition and reuse in an evolutionary cognitive mechanism. Evolving Systems, 2010, 1, 129-141. | 3.9 | 1 |
| 74 | Multilevel Darwinist Brain (MDB): Artificial Evolution in a Cognitive Architecture for Real Robots. IEEE Transactions on Autonomous Mental Development, 2010, 2, 340-354. | 1.6 | 72 |
| 75 | An Adaptive Approach for the Progressive Integration of Spatial and Spectral Features When Training Ground-Based Hyperspectral Imaging Classifiers. IEEE Transactions on Instrumentation and Measurement, 2010, 59, 2083-2093. | 4.7 | 15 |
| 76 | Open-ended evolution as a means to self-organize heterogeneous multi-robot systems in real time. Robotics and Autonomous Systems, 2010, 58, 1282-1291. | 5.1 | 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. Lecture Notes in Computer Science, 2010, , 567-574. | 1.3 | 13 |
| 79 | Automatic Behavior Pattern Classification for Social Robots. Lecture Notes in Computer Science, 2010, , 88-95. | 1.3 | 3 |
| 80 | Web-Based Multimedia Tools for Monitoring and E-Learning. , 2010, , 1-21. | | 2 |
| 81 | Automatic Speech-Lip Synchronization System for 3D Animation. Lecture Notes in Computer Science, 2009, , 122-129. | 1.3 | 1 |
| 82 | Using promoters and functional introns in genetic algorithms for neuroevolutionary learning in non-stationary problems. Neurocomputing, 2009, 72, 2134-2145. | 5.9 | 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. Lecture Notes in Computer Science, 2009, , 1013-1020. | 1.3 | 1 |
| 85 | Asynchronous Situated Coevolution and Embryonic Reproduction as a Means to Autonomously Coordinate Robot Teams. Lecture Notes in Computer Science, 2009, , 351-359. | 1.3 | 2 |
| 86 | Adaptively Coordinating Heterogeneous Robot Teams through Asynchronous Situated Coevolution. Lecture Notes in Computer Science, 2009, , 75-82. | 1.3 | 3 |
| 87 | Hydrodynamic Design of Control Surfaces for Ships Using a MOEA with Neuronal Correction. Lecture Notes in Computer Science, 2009, , 96-103. | 1.3 | 0 |
| 88 | An Incremental Learning Algorithm for Optimizing High-Dimensional ANN-Based Classification Systems. Lecture Notes in Computer Science, 2009, , 1037-1044. | 1.3 | 0 |
| 89 | A Behavior Based Architecture with Auction-Based Task Assignment for Multi-robot Industrial Applications. Lecture Notes in Computer Science, 2009, , 372-381. | 1.3 | 4 |
| 90 | Improving Performance in HPC Centers by Modeling Users Through an Evolutionary Virtual Interface. IEEE Transactions on Instrumentation and Measurement, 2008, 57, 1885-1893. | 4.7 | 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. | 1.3 | 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. | 0.9 | 0 |
| 94 | A Complex Systems Based Tool for Collective Robot Behavior Emergence and Analysis. Lecture Notes in Computer Science, 2008, , 633-640. | 1.3 | 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. | 1.3 | 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. | 1.3 | 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. | 4.7 | 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. | 1.3 | 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. | 1.3 | 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. | 1.3 | 5 |
| 108 | Evolution of Cooperating ANNs Through Functional Phenotypic Affinity. Lecture Notes in Computer Science, 2005, , 333-340. | 1.3 | 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. | 1.3 | 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. | 1.3 | 0 |
| 112 | A Profiling Based Intelligent Resource Allocation System. Lecture Notes in Computer Science, 2005, , 840-846. | 1.3 | 0 |
| 113 | Some thoughts on the use of sampled fitness functions for the multilevel Darwinist brain. Information Sciences, 2004, 161, 159-179. | 6.9 | 1 |
| 114 | Considerations in the application of evolution to the generation of robot controllers. Information Sciences, 2001, 133, 127-148. | 6.9 | 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 motivaciÃ³n de los estudiantes basadas en proyectos. , 0, , 83-96. | | 0 |