Manuel F Silva

List of Publications by Year
in descending order

98 papers	1,312 citations	567144 15 h-index	395590 33 g-index
111 all docs	111 docs citations	111 times ranked	1005 citing authors

#	Article	IF	Citations
1	Some Applications of Fractional Calculus in Engineering. Mathematical Problems in Engineering, 2010, 2010, 1-34.	0.6	162
2	Time domain design of fractional differintegrators using least-squares. Signal Processing, 2006, 86, 2567-2581.	2.1	148
3	Advances in Agriculture Robotics: A State-of-the-Art Review and Challenges Ahead. Robotics, 2021, 10, 52.	2.1	130
4	Fractional Order Control of a Hexapod Robot. Nonlinear Dynamics, 2004, 38, 417-433.	2.7	101
5	A Historical Perspective of Legged Robots. JVC/Journal of Vibration and Control, 2007, 13, 1447-1486.	1.5	66
6	A literature review on the optimization of legged robots. JVC/Journal of Vibration and Control, 2012, 18, 1753-1767.	1.5	66
7	Fractional Order PDÎ±Joint Control of Legged Robots. JVC/Journal of Vibration and Control, 2006, 12, 1483-1501.	1.5	51
8	Advances in Forest Robotics: A State-of-the-Art Survey. Robotics, 2021, 10, 53.	2.1	39
9	Modelling and simulation of artificial locomotion systems. Robotica, 2005, 23, 595-606.	1.3	37
10	A Survey of Technologies for Climbing Robots Adhesion to Surfaces. , 2008, , .		37
11	Rigid wing sailboats: A state of the art survey. Ocean Engineering, 2019, 187, 106150.	1.9	33
12	Complex-order dynamics in hexapod locomotion. Signal Processing, 2006, 86, 2785-2793.	2.1	31
13	Kinematic and dynamic performance analysis of artificial legged systems. Robotica, 2008, 26, 19-39.	1.3	28
14	A Survey on Path Planning Algorithms for Mobile Robots. , 2019, , .		28
15	Engineering Education for Sustainable Development: The European Project Semester Approach. IEEE Transactions on Education, 2020, 63, 108-117.	2.0	28
16	The European Project Semester at ISEP: the challenge of educating global engineers. European Journal of Engineering Education, 2015, 40, 328-346.	1.5	25
17	Comparison of Fractional and Integer Order Control of an Hexapod Robot. , 2003, , 667.		16
18	Fostering Professional Competencies in Engineering Undergraduates with EPS@ISEP. Education Sciences, 2019, 9, 119.	1.4	16

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19	Application for automatic programming of palletizing robots. , 2018, , .		14
20	Tuning and Application of Integer and Fractional Order PID Controllers. , 2009, , 245-255.		14
21	Autonomous wheelchair for patientâ€™s transportation on healthcare institutions. SN Applied Sciences, 2021, 3, 354.	1.5	13
22	Collaborative Learning with Sustainability-driven Projects: A Summary of the EPS@ISEP Programme. International Journal of Engineering Pedagogy, 2018, 8, 106.	0.7	13
23	Discretization of Complex-order Algorithms for Control Applications. JVC/Journal of Vibration and Control, 2008, 14, 1349-1361.	1.5	12
24	Using Fractional Derivatives in Joint Control of Hexapod Robots. JVC/Journal of Vibration and Control, 2008, 14, 1473-1485.	1.5	12
25	Climbing Robot for Ferromagnetic Surfaces with Dynamic Adjustment of the Adhesion System. Journal of Robotics, 2012, 2012, 1-16.	0.6	12
26	Architecture of an wheeled climbing robot with dynamic adjustment of the adhesion system. , 2010, , .		11
27	Designing a Robotic Welding Cell for Bus Body Frame Using a Sustainable Way. Procedia Manufacturing, 2017, 11, 207-214.	1.9	10
28	Learning Engineering with EPS@ISEP: Developing Projects for Smart Sustainable Cities. International Journal of Engineering Pedagogy, 2019, 9, 33.	0.7	10
29	Bin Picking Approaches Based on Deep Learning Techniques: A State-of-the-Art Survey. , 2022, , .		9
30	Multi-legged Walking Robot Modelling in MATLAB/SimmechanicsTM and Its Simulation. , 2013, , .		8
31	Development of biomimetic robots in the EPS engineering programme capstone project. , 2015, , .		7
32	Automatic Segmentation of Monofilament Testing Sites in Plantar Images for Diabetic Foot Management. Bioengineering, 2022, 9, 86.	1.6	7
33	Application of Fractional Calculus in Engineering. Springer Proceedings in Mathematics, 2011, , 619-629.	0.5	6
34	POWER ANALYSIS OF MULTI-LEGGED SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 287-292.	0.4	5
35	Modelling, Trajectory Planning and Control of a Quadruped Robot Using MatlabÂ®/Simulinkâ„¢. Advances in Intelligent Systems and Computing, 2018, , 756-767.	0.5	5
36	AdaptPack Studio: an automated intelligent framework for offline factory programming. Industrial Robot, 2020, 47, 697-704.	1.2	5

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37	The European project semester at ISEP learning to learn engineering. , 2013, , .		4
38	Developing an aquaponics system to learn sustainability and social compromise skills. Journal of Technology and Science Education, 2016, 5, .	0.5	4
39	AdaptPack Studio: Automatic Offline Robot Programming Framework for Factory Environments. , 2019, , .		4
40	Offline Programming of Collision Free Trajectories for Palletizing Robots. Advances in Intelligent Systems and Computing, 2018, , 680-691.	0.5	4
41	A survey on localization, mapping, and trajectory planning for quadruped robots in vineyards. , 2022, , .		4
42	COMPARISON OF DIFFERENT ORDERS PADÉ FRACTIONAL ORDER PD05 CONTROL ALGORITHM IMPLEMENTATIONS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 373-378.	0.4	3
43	An industrial robotics course based on a graphical simulation package. , 2013, , .		3
44	Converting Robot Offline Programs to Native Code Using the AdaptPack Studio Translators. , 2019, , .		3
45	Sail Carâ€"An EPSÂ©ISEP 2019 Project. , 2020, , .		3
46	Driverless Wheelchair for Patientâ€™s On-Demand Transportation in Hospital Environment*. , 2020, , .		3
47	Solar Dehydrator. , 2019, , .		3
48	Fuzzy Control Architecture for a Mobile Robot System. , 2011, , .		3
49	DISCRETIZATION OF COMPLEX-ORDER DIFFERINTEGRALS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 274-279.	0.4	2
50	Control and Dynamics of Fractional Order Systems. Studies in Computational Intelligence, 2009, , 235-251.	0.7	2
51	QUADRUPED ROBOT OPTIMIZATION USING A GENETIC ALGORITHM. , 2011, , .		2
52	Biomechanical modeling and simulation of the spider crab (maja brachydactyla). , 2013, , .		2
53	Development and simulation on V-REP of an algorithm for the RoboCup@Work BNT. , 2014, , .		2
54	Design and implementation of a biologically inspired swimming robot an EPS@ISEP 2014 spring project. , 2015, , .		2

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55	Aquaponics system an EPS@ISEP 2014 spring project. , 2015, , .		2
56	Implementation of a novel industrial robotics course and its evaluation by students. , 2015, , .		2
57	A robot in the classroom. , 2015, , .		2
58	Learning sustainability by developing a solar dryer for microalgae retrieval. Journal of Technology and Science Education, 2016, 5, .	0.5	2
59	Educating global engineers with EPS@ISEP: The â€œpet trackerâ€•project experience. , 2016, , .		2
60	Airfoil Selection and Wingsail Design for an Autonomous Sailboat. Advances in Intelligent Systems and Computing, 2020, , 305-316.	0.5	2
61	Didactic Robotic Fish â€" An EPS@ISEP 2016 Project. Advances in Intelligent Systems and Computing, 2017, , 239-253.	0.5	2
62	SCARA Self Posture Recognition Using a Monocular Camera. IEEE Access, 2022, 10, 25883-25891.	2.6	2
63	Performance analysis of multi-legged systems. , 0, , .		1
64	Introduction to the Special Issue on Modeling and Control of Artificial Locomotion Systems. JVC/Journal of Vibration and Control, 2006, 12, 1291-1291.	1.5	1
65	FRACTIONAL PDÎ± CONTROL OF AN HEXAPOD ROBOT. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 370-375.	0.4	1
66	Realization of Fractional-Order Controllers: Analysis, Synthesis and Application to the Velocity Control of a Servo System. Nonlinear Physical Science, 2011, , 43-82.	0.2	1
67	Neural control of an autonomous robot. , 2014, , .		1
68	Design and implementation of a biologically inspired flying robot an EPS@ISEP 2014 spring project. , 2015, , .		1
69	Design and development of a solar dryer for microalgae retrieval an EPS@ISEP 2013 spring project. , 2015, , .		1
70	Design of sustainable domes in the context of EPS@ISEP. , 2016, , .		1
71	Prototyping Small Robots for Junior Competitions: MicroFactory Case study. IFAC-PapersOnLine, 2016, 49, 121-126.	0.5	1
72	Balcony Greenhouse. , 2017, , .		1

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73	Design, Modeling, and Simulation of a Wing Sail Land Yacht. Applied Sciences (Switzerland), 2021, 11, 2760.	1.3	1
74	Towards Active Course Marks for Autonomous Sailing Competitions. , 2015, , 67-75.		1
75	Water Intellibuoyâ€"An EPS@ISEP 2018 Project. Advances in Intelligent Systems and Computing, 2019, , 439-449.	0.5	1
76	TEACHING EMBEDDED/IOT TO ALL ENGINEERS. EDULEARN Proceedings, 2022, , .	0.0	1
77	Development of an AGV Controlled by Fuzzy Logic. Intelligent Systems, Control and Automation: Science and Engineering, 2013, , 313-322.	0.3	0
78	Development of an application for balancing product flow lines through genetic algorithms. International Journal of Business Excellence, 2016, 9, 310.	0.2	0
79	Off-Line Programming of Grinding Robots at Grohe Portugal. , 2016, , .		0
80	LSA Portraiture Robot. Advances in Intelligent Systems and Computing, 2016, , 341-352.	0.5	0
81	Self-Oriented Solar Mirror. , 2017, , .		0
82	Outdoor Intelligent Shader. , 2018, , .		0
83	Introduction to the Special Issue â€œRobotica 2016â€• Journal of Intelligent and Robotic Systems: Theory and Applications, 2019, 93, 417-417.	2.0	0
84	Vertical Farmingâ€"An EPS@ISEP 2018 Project. Advances in Intelligent Systems and Computing, 2019, , 428-438.	0.5	0
85	Editorial of the topical collection â€œstate of the art on autonomous robot systems and competitionsâ€• SN Applied Sciences, 2021, 3, 1.	1.5	0
86	Human-Machine Interface for the Control of a Climbing Robot. , 2011, , .		0
87	Simulation and Control of a Spider Crab Biomechanical Model. , 2013, , .		0
88	Smart Object for 3D Interaction. Lecture Notes in Electrical Engineering, 2014, , 49-61.	0.3	0
89	Biomechanical study of the Spider Crab as inspiration for the development of a biomimetic robot. Biomaterials and Biomechanics in Bioengineering, 2015, 2, 249-269.	0.4	0
90	BIOLOGICAL INSPIRED APPROACH FOR THE INSPECTION OF STRUCTURES IN THE SPLASH ZONE. , 2017, , .		0

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91	USING ROBOTICS TO TEACH SYSTEMS ENGINEERING: A HANDS-ON LEARNING COURSE EXAMPLE. , 2017, , .		0
92	Escargot Nursery â€" An EPS@ISEP 2017 Project. Advances in Intelligent Systems and Computing, 2018, , 884-895.	0.5	0
93	Multipurpose Urban Sensing Equipmentâ€"An EPS@ISEP 2018 Project. Advances in Intelligent Systems and Computing, 2019, , 415-427.	0.5	0
94	Waste to Fungi. , 2019, , .		0
95	Smart Companion Pillow â€" An EPS@ISEP 2019 Project. Advances in Intelligent Systems and Computing, 2020, , 465-476.	0.5	0
96	Robotics and the European Project Semester. Advances in Higher Education and Professional Development Book Series, 2022, , 205-219.	0.1	0
97	Active Learning Strategies for Sustainable Engineering. Advances in Higher Education and Professional Development Book Series, 2022, , 146-164.	0.1	0
98	Gerber File Parsing for Conversion to Bitmap Imageâ€"The VINCI7D Case Study. IEEE Access, 2022, 10, 69659-69679.	2.6	0