Miguel Gabriel Villarreal-Cervantes

List of Publications by Year
in descending order

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57 papers	580 citations	687335 13 h-index	713444 21 g-index
61 all docs	61 docs citations	61 times ranked	425 citing authors

#	Article	IF	Citations
1	Event-triggered control optimal tuning through bio-inspired optimization in robotic manipulators. ISA Transactions, 2022, 128, 81-105.	5.7	1
2	Neuronal Constraint-Handling Technique for the Optimal Synthesis of Closed-Chain Mechanisms in Lower Limb Rehabilitation. Applied Sciences (Switzerland), 2022, 12, 2396.	2.5	3
3	Optimal Tuning of the Speed Control for Brushless DC Motor Based on Chaotic Online Differential Evolution. Mathematics, 2022, 10, 1977.	2.2	7
4	Adaptive Controller Tuning Method Based on Online Multiobjective Optimization: A Case Study of the Four-Bar Mechanism. IEEE Transactions on Cybernetics, 2021, 51, 1272-1285.	9.5	12
5	Pareto optimal synthesis of eight-bar mechanism using meta-heuristic multi-objective search approaches: application to bipedal gait generation. International Journal of Systems Science, 2021, 52, 671-693.	5.5	8
6	Optimum Synthesis of Four-Bar Mechanism by Using Relative Angle Method: A Comparative Performance Study. IEEE Access, 2021, 9, 132990-133010.	4.2	9
7	Path-Planning for Mobile Robots Using a Novel Variable-Length Differential Evolution Variant. Mathematics, 2021, 9, 357.	2.2	8
8	Integrated design of a lower limb rehabilitation mechanism using differential evolution. Computers and Electrical Engineering, 2021, 92, 107103.	4.8	6
9	Integrated Structure-Control Design of a Bipedal Robot Based on Passive Dynamic Walking. Mathematics, 2021, 9, 1482.	2.2	4
10	Empirical Study of Constraint-Handling Techniques in the Optimal Synthesis of Mechanisms for Rehabilitation. Applied Sciences (Switzerland), 2021, 11, 8739.	2.5	3
11	Offline robust tuning of the motion control for omnidirectional mobile robots. Applied Soft Computing Journal, 2021, 110, 107648.	7.2	7
12	Novel Asynchronous Activation of the Bio-Inspired Adaptive Tuning in the Speed Controller: Study Case in DC Motors. IEEE Access, 2021, 9, 138976-138993.	4.2	2
13	Meta-heuristic algorithms for the control tuning of omnidirectional mobile robots. Engineering Optimization, 2020, 52, 325-342.	2.6	18
14	Periodic Event-Triggered Control strategy for a (3,0) mobile robot network. ISA Transactions, 2020, 96, 490-500.	5.7	22
15	Optimized Path-Planning in Continuous Spaces for Unmanned Aerial Vehicles Using Meta-Heuristics. IEEE Access, 2020, 8, 176774-176788.	4.2	20
16	Evolutionary Optimization of Ensemble Learning to Determine Sentiment Polarity in an Unbalanced Multiclass Corpus. Entropy, 2020, 22, 1020.	2.2	7
17	Optimum Nozzle Design for a Viscous Liquid by Using Multi-Objective Search Approaches. IEEE Access, 2020, 8, 112688-112707.	4.2	1
18	Asynchronous bio-inspired tuning for the DC motor speed controller with simultaneous identification and predictive strategies. , 2020, , .		0

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19	Cryptosystem Based on the Elliptic Curve With a High Degree of Resistance to Damage on the Encrypted Images. IEEE Access, 2020, 8, 218777-218792.	4.2	3
20	Multi-objective meta-heuristic optimization in intelligent control: A survey on the controller tuning problem. Applied Soft Computing Journal, 2020, 93, 106342.	7.2	69
21	Periodic Event-Triggered Control for the Stabilization of Robotic Manipulators. IEEE Access, 2020, 8, 111553-111565.	4.2	5
22	Indirect adaptive control using the novel online hypervolume-based differential evolution for the four-bar mechanism. Mechatronics, 2020, 69, 102384.	3.3	8
23	Offline Optimum Tuning of the Proportional Integral Controller for Speed Regulation of a BLDC Motor Through Bio-inspired Algorithms. Communications in Computer and Information Science, 2020, , 169-184.	0.5	0
24	Frontal-Sagittal Dynamic Coupling in the Optimal Design of a Passive Bipedal Walker. IEEE Access, 2019, 7, 427-449.	4.2	11
25	Synergistic Design of the Bipedal Lower-Limb through Multiobjective Differential Evolution Algorithm. Mathematical Problems in Engineering, 2019, 2019, 1-17.	1.1	3
26	Bio-inspired adaptive control strategy for the highly efficient speed regulation of the DC motor under parametric uncertainty. Applied Soft Computing Journal, 2019, 75, 29-45.	7.2	21
27	A Dynamic Optimization Approach to Adaptive Control for the Four-Bar Linkage Mechanism. Advances in Intelligent Systems and Computing, 2019, , 892-906.	0.6	0
28	An adaptive control study for the DC motor using meta-heuristic algorithms. Soft Computing, 2019, 23, 889-906.	3.6	22
29	Differential evolution based adaptation for the direct current motor velocity control parameters. Mathematics and Computers in Simulation, 2018, 150, 122-141.	4.4	6
30	Adaptive Control for the Four-Bar Linkage Mechanism Based on Differential Evolution. , 2018, , .		1
31	Concurrent design of a lower limb rehabilitation mechanism. Enfoque, 2018, 9, 57-68.	0.4	0
32	Event-Triggered Control for a Three DoF Manipulator Robot. Enfoque, 2018, 9, 33-44.	0.4	0
33	Approximate and Widespread Pareto Solutions in the Structure-Control Design of Mechatronic Systems. Journal of Optimization Theory and Applications, 2017, 173, 628-657.	1.5	12
34	An adaptive control study for a DC motor using meta-heuristic algorithms. IFAC-PapersOnLine, 2017, 50, 13114-13120.	0.9	12
35	Multi-Objective On-Line Optimization Approach for the DC Motor Controller Tuning Using Differential Evolution. IEEE Access, 2017, 5, 20393-20407.	4.2	30
36	Optimal Adaptive Control of a DC Motor Using Differential Evolution Variants. , 2017, , .		2

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37	Off-line PID control tuning for a planar parallel robot using DE variants. Expert Systems With Applications, 2016, 64, 444-454.	7.6	41
38	Motion Control Design for an Omnidirectional Mobile Robot Subject to Velocity Constraints. Mathematical Problems in Engineering, 2015, 2015, 1-15.	1.1	12
39	An Optimum Synthesis of a Planar Mechanism Using a Dynamic-based Approach. IEEE Latin America Transactions, 2015, 13, 1497-1503.	1.6	3
40	Adaptive Control of a DC Motor Based on Swarm Intelligence. , 2015, , .		1
41	Stabilization of a (3,0) mobile robot by means of an event-triggered control. ISA Transactions, 2015, 58, 605-613.	5.7	18
42	Synergetic structureâ€“control design via a hybrid gradient-evolutionary algorithm. Optimization and Engineering, 2015, 16, 511-539.	2.4	9
43	Modeling and Construction of a Furuta Pendulum Prototype. , 2014, , .		8
44	Optimum Design of Parallelogram Five-bar Manipulator for Dexterous Workspace by using ELEMAEF in Differential Evolution. Applied Mathematics and Information Sciences, 2014, 8, 2129-2140.	0.5	2
45	Robust Structure-Control Design Approach for Mechatronic Systems. IEEE/ASME Transactions on Mechatronics, 2013, 18, 1592-1601.	5.8	38
46	Optimum Design of a 3R Robot with a Parallelogram Five-Bar Mechanism for Dexterous Workspace by Using Metaheuristic Algorithm. , 2013, , .		0
47	Kinematic Dexterity Maximization of an Omnidirectional Wheeled Mobile Robot: A Comparison of Metaheuristic and SQP Algorithms. International Journal of Advanced Robotic Systems, 2012, 9, 161.	2.1	7
48	Parametric reconfiguration improvement in non-iterative concurrent mechatronic design using an evolutionary-based approach. Engineering Applications of Artificial Intelligence, 2011, 24, 757-771.	8.1	23
49	Robust integrated design for dynamic systems in engineering design. , 2010, , .		0
50	Differential evolution techniques for the structure-control design of a five-bar parallel robot. Engineering Optimization, 2010, 42, 535-565.	2.6	28
51	Structure-control mechatronic design of the planar 5R 2DoF parallel robot. , 2009, , .		6
52	Concurrent redesign of an underactuated robot manipulator. Mechatronics, 2009, 19, 178-183.	3.3	20
53	Structure-control dynamic design of parallel robots for end-effector trajectory tracking and singularity avoidance. , 2008, , .		0
54	Differential Evolution for the Control Gain's Optimal Tuning of a Four-bar Mechanism. Polibits, 0, 47, 67-73.	0.0	3

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55	Dynamic approach to optimum synthesis of a four-bar mechanism using a swarm intelligence algorithm. Kybernetika, 0, , 786-803.	0.0	1
56	Influence of the Binomial Crossover in the DE Variants Based on the Robot Design with Optimum Mechanical Energy. Polibits, 0, 51, 39-46.	0.0	0
57	PC Based Open Control Architecture for Mechatronic Systems. Polibits, 0, 54, 17-24.	0.0	0