Emil M Petriu

List of Publications by Year
in descending order

87 papers	1,995 citations	346980 22 h-index	536525 29 g-index
87 all docs	87 docs citations	87 times ranked	1969 citing authors

#	Article	IF	Citations
1	Optimal tuning of interval type-2 fuzzy controllers for nonlinear servo systems using Slime Mould Algorithm. International Journal of Systems Science, 2023, 54, 2941-2956.	3.7	86
2	Reinforcement Learning-based control using Q-learning and gravitational search algorithm with experimental validation on a nonlinear servo system. Information Sciences, 2022, 583, 99-120.	4.0	99
3	Hybrid Particle Filterâ€“Particle Swarm Optimization Algorithm and Application to Fuzzy Controlled Servo Systems. IEEE Transactions on Fuzzy Systems, 2022, 30, 4286-4297.	6.5	117
4	Neuro-Fuzzy Grasp Control for a Teleoperated Five Finger Anthropomorphic Robotic Hand. , 2022, , .		1
5	Experiment-Based Approach to Teach Optimization Techniques. IEEE Transactions on Education, 2021, 64, 88-94.	2.0	41
6	Tensor productâ€based model transformation approach to cart position modeling and control in pendulumâ€cart systems. Asian Journal of Control, 2021, 23, 1238-1248.	1.9	9
7	Tensor productâ€based model transformation approach to tower crane systems modeling. Asian Journal of Control, 2021, 23, 1313-1323.	1.9	54
8	Intelligent Parking Vehicle Identification and Classification System. , 2021, , .		5
9	Nature-Inspired Optimization Algorithms for Path Planning and Fuzzy Tracking Control of Mobile Robots. Springer Tracts in Nature-inspired Computing, 2021, , 129-148.	1.2	5
10	Data-Driven Model-Free Sliding Mode and Fuzzy Control with Experimental Validation. International Journal of Computers, Communications and Control, 2021, 16, .	1.2	7
11	Design of Low-Cost Fuzzy Controllers with Reduced Parametric Sensitivity Based on Whale Optimization Algorithm. , 2020, , .		6
12	Dynamic Tactile Exploration for Texture Classification using a Miniaturized Multi-modal Tactile Sensor and Machine Learning. , 2020, , .		4
13	Wilt Dataset-based Comparative Analysis of Three Neural Networks. , 2020, , .		0
14	Evolving Fuzzy Models for Prosthetic Hand Myoelectric-Based Control. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 4625-4636.	2.4	120
15	Teleoperated Grasping Using a Robotic Hand and a Haptic-Feedback Data Glove. , 2020, , .		5
16	In-Hand Telemanipulation Using a Robotic Hand and Biology-Inspired Haptic Sensing. , 2019, , .		5
17	Heart Rate Detection Using a Miniaturized Multimodal Tactile Sensor. , 2019, , .		2
18	Estimating the Orientation of Objects from Tactile Sensing Data Using Machine Learning Methods and Visual Frames of Reference. Sensors, 2019, 19, 2285.	2.1	15

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19	Combination of Data-Driven Active Disturbance Rejection and Takagi-Sugeno Fuzzy Control with Experimental Validation on Tower Crane Systems. Energies, 2019, 12, 1548.	1.6	35
20	Tensor Productâ€“Based Model Transformation and Sliding Mode Control of Electromagnetic Actuated Clutch System. , 2019, , .		4
21	Model -Free Adaptive Control With Fuzzy Component for Tower Crane Systems. , 2019, , .		13
22	Comparative Study of Control Structures for Maglev Systems. , 2018, , .		2
23	Object Recognition Through Manipulation Using Tactile Enabled Prosthetic Fingers and Feedback Glove - Experimental Study. , 2018, , .		3
24	Teaching a Robot Sign Language using Vision-Based Hand Gesture Recognition. , 2018, , .		7
25	Structure and Evolving Fuzzy Models for Prosthetic Hand Myoelectric-Based Control Systems. , 2018, , .		5
26	Evolving fuzzy models for the position control of magnetic levitation systems. , 2017, , .		4
27	Fuzzy controlled object manipulation using a three-fingered robotic hand. , 2017, , .		4
28	Multimodal Bio-Inspired Tactile Sensing Module. IEEE Sensors Journal, 2017, 17, 3231-3243.	2.4	42
29	Grey Wolf Optimizer Algorithm-Based Tuning of Fuzzy Control Systems With Reduced Parametric Sensitivity. IEEE Transactions on Industrial Electronics, 2017, 64, 527-534.	5.2	225
30	Stable grasping and object reorientation with a three-fingered robotic hand. , 2017, , .		1
31	Combined control solution for an advanced mechatronics application. , 2017, , .		1
32	Takagi-Sugeno fuzzy controller structures for twin rotor aerodynamic systems. , 2017, , .		4
33	Fuzzy logic-based adaptive control scheme for magnetic levitation systems. , 2017, , .		1
34	Tensor product-based model transformation for position control of magnetic levitation systems. , 2017, , .		19
35	Virtual Reference Feedback Tuning of Model-Free Control Algorithms for Servo Systems. Machines, 2017, 5, 25.	1.2	23
36	An Easily Understandable Grey Wolf Optimizer and Its Application to Fuzzy Controller Tuning. Algorithms, 2017, 10, 68.	1.2	44

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37	Tactile Profile Classification Using a Multimodal MEMs-Based Sensing Module. Proceedings (mdpi), 2017, 1, 27.	0.2	4
38	Multimodal Bio-Inspired Tactile Sensing Module for Surface Characterization. Sensors, 2017, 17, 1187.	2.1	24
39	Evolving fuzzy models for the position control of twin rotor aerodynamic systems. , 2016, , .		5
40	Experiment-based comparison of nature-inspired algorithms for optimal tuning of PI-fuzzy controlled nonlinear DC servo systems. , 2016, , .		0
41	Model-based filtering and compression of oscillometric blood pressure pulses. , 2016, , .		1
42	Particle Swarm Optimization of fuzzy models for electromagnetic actuated clutch systems. , 2016, , .		2
43	Evolving fuzzy models for myoelectric-based control of a prosthetic hand. , 2016, , .		20
44	Recurrent dynamic neural network model for myoelectric-based control of a prosthetic hand. , 2016, , .		13
45	Optimal motion prediction using a primitive-based model-free iterative control approach for crane systems. , 2015, , .		1
46	Dynamic Sign Language Recognition for Smart Home Interactive Application Using Stochastic Linear Formal Grammar. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 596-605.	2.4	55
47	Backtracking Search Optimization Algorithm-based approach to PID controller tuning for torque motor systems. , 2015, , .		6
48	Data-driven optimal model-free control of twin rotor aerodynamic systems. , 2015, , .		7
49	Model predictive control solution for magnetic levitation systems. , 2015, , .		8
50	Takagi-Sugeno PD+I fuzzy control of processes with variable moment of inertia. , 2015, , .		4
51	PI and PID controller tuning for an automotive application using backtracking search optimization algorithms. , 2015, , .		6
52	Nature-inspired optimal tuning of input membership functions of Takagi-Sugeno-Kang fuzzy models for Anti-lock Braking Systems. Applied Soft Computing Journal, 2015, 27, 575-589.	4.1	83
53	Multi-robot charged system search-based optimal path planning in static environments. , 2014, , .		4
54	Data-driven model-free control of twin rotor aerodynamic systems: Algorithms and experiments. , 2014, , .		13

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55	Adaptive hybrid Particle Swarm Optimization-Gravitational Search Algorithm for fuzzy controller tuning. , 2014, , .		8
56	Online identification of evolving Takagiâ€“Sugenoâ€“Kang fuzzy models for crane systems. Applied Soft Computing Journal, 2014, 24, 1155-1163.	4.1	63
57	Performance analysis of torque motor systems with PID controllers tuned by Bacterial Foraging Optimization algorithms. , 2014, , .		7
58	Model-free tuning solution for sliding mode control of servo systems. , 2014, , .		15
59	Design and testing of a constrained data-driven iterative reference input tuning algorithm. , 2014, , .		4
60	Iterative Data-Driven Tuning of Controllers for Nonlinear Systems With Constraints. IEEE Transactions on Industrial Electronics, 2014, 61, 6360-6368.	5.2	70
61	Dynamic hand gesture recognition for human-robot and inter-robot communication. , 2014, , .		15
62	Iterative Data-Driven Controller Tuning with Actuator Constraints and Reduced Sensitivity. Journal of Aerospace Information Systems, 2014, 11, 551-564.	1.0	2
63	Modeling and control of an Electric drive system with continuously variable reference, moment of inertia and load disturbance. , 2013, , .		6
64	Data-Driven Reference Trajectory Tracking Algorithm and Experimental Validation. IEEE Transactions on Industrial Informatics, 2013, 9, 2327-2336.	7.2	59
65	2-DOF control solutions for an electric drive system under continuously variable conditions. , 2013, , .		0
66	Dynamic sign language and voice recognition for smart home interactive application. , 2013, , .		10
67	Stability analysis and design of a class of MIMO fuzzy control systems. Journal of Intelligent and Fuzzy Systems, 2013, 25, 145-155.	0.8	73
68	Fuzzy logicâ€based adaptive gravitational search algorithm for optimal tuning of fuzzyâ€controlled servo systems. IET Control Theory and Applications, 2013, 7, 99-107.	1.2	69
69	Simulated annealing approach to fuzzy modeling of servo systems. , 2013, , .		1
70	Multi-robot GSA- and PSO-based optimal path planning in static environments. , 2013, , .		14
71	Simulated annealing-based optimization of fuzzy models for magnetic levitation systems. , 2013, , .		2
72	Bio-inspired solutions for intelligent android perception and control. , 2013, , .		0

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73	Constrained data-driven controller tuning for nonlinear systems. , 2013, , .		1
74	Low-cost neuro-fuzzy control solution for servo systems with variable parameters. , 2013, , .		5
75	Novel Tensor Product Models for Automatic Transmission System Control. IEEE Systems Journal, 2012, 6, 488-498.	2.9	61
76	Adaptive control solutions for the position control of electromagnetic actuated clutch systems. , 2012, , .		10
77	Stable Iterative Correlation-based Tuning algorithm for servo systems. , 2012, , .		4
78	Dynamic hand gesture recognition from Bag-of-Features and local part model. , 2012, , .		7
79	Experiment-based approach to reference trajectory tracking. , 2012, , .		4
80	Novel Adaptive Gravitational Search Algorithm for Fuzzy Controlled Servo Systems. IEEE Transactions on Industrial Informatics, 2012, 8, 791-800.	7.2	102
81	2-DOF PI(D) Takagi-Sugeno and sliding mode controllers for BLDC drives. , 2012, , .		2
82	Takagi-Sugeno fuzzy control solutions for BLDC drives. , 2012, , .		2
83	Biology-inspired multimodal tactile sensor system. , 2011, , .		2
84	Human action recognition from local part model. , 2011, , .		11
85	Experiment-Based Teaching in Advanced Control Engineering. IEEE Transactions on Education, 2011, 54, 345-355.	2.0	59
86	Magnetic Levitation System laboratory-based education in control engineering. , 2010, , .		3
87	Absolute-type position transducers using a pseudorandom encoding. IEEE Transactions on Instrumentation and Measurement, 1987, IM-36, 950-955.	2.4	30