Baris Baykant Alagoz

List of Publications by Year
in descending order

94 papers	1,593 citations	304743 22 h-index	345221 36 g-index
95 all docs	95 docs citations	95 times ranked	1168 citing authors

#	Article	IF	Citations
1	A user-mode distributed energy management architecture for smart grid applications. Energy, 2012, 44, 167-177.	8.8	125
2	An approach for the integration of renewable distributed generation in hybrid DC/AC microgrids. Renewable Energy, 2013, 52, 251-259.	8.9	113
3	Towards Industrialization of FOPID Controllers: A Survey on Milestones of Fractional-Order Control and Pathways for Future Developments. IEEE Access, 2021, 9, 21016-21042.	4.2	106
4	FOPID Controllers and Their Industrial Applications: A Survey of Recent Results 1 1This study is based upon works from COST Action CA15225, a network supported by COST (European Cooperation in) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5(		105
5	Auto-tuning of PID controller according to fractional-order reference model approximation for DC rotor control. Mechatronics, 2013, 23, 789-797.	3.3	98
6	A numerical investigation for robust stability of fractional-order uncertain systems. ISA Transactions, 2014, 53, 189-198.	5.7	60
7	A smart building power management concept: Smart socket applications with DC distribution. International Journal of Electrical Power and Energy Systems, 2015, 64, 679-688.	5.5	58
8	An integer order approximation method based on stability boundary locus for fractional order derivative/integrator operators. ISA Transactions, 2016, 62, 154-163.	5.7	50
9	Renewable energy integration for smart sites. Energy and Buildings, 2013, 64, 456-462.	6.7	48
10	Disturbance rejection performance analyses of closed loop control systems by reference to disturbance ratio. ISA Transactions, 2015, 55, 63-71.	5.7	45
11	A closed-loop energy price controlling method for real-time energy balancing in a smart grid energy market. Energy, 2013, 59, 95-104.	8.8	42
12	Revisiting four approximation methods for fractional order transfer function implementations: Stability preservation, time and frequency response matching analyses. Annual Reviews in Control, 2020, 49, 239-257.	7.9	33
13	Dynamic energy pricing by closed-loop fractional-order PI control system and energy balancing in smart grid energy markets. Transactions of the Institute of Measurement and Control, 2016, 38, 565-578.	1.7	32
14	Electronically reconfigurable two-path fractional-order PI/D controller employing constant phase blocks based on bilinear segments using CMOS modified current differencing unit. Microelectronics Journal, 2019, 86, 114-129.	2.0	32
15	Implicit disturbance rejection performance analysis of closed loop control systems according to communication channel limitations. IET Control Theory and Applications, 2015, 9, 2522-2531.	2.1	31
16	Utilization of energy from waste potential in Turkey as distributed secondary renewable energy source. Renewable Energy, 2016, 90, 493-500.	8.9	31
17	Frequency-controlled wave focusing by a sonic crystal lens. Applied Acoustics, 2009, 70, 1400-1405.	3.3	30
18	Implementation of fractional order filters discretized by modified Fractional Order Darwinian Particle Swarm Optimization. Measurement: Journal of the International Measurement Confederation, 2017, 107, 153-164.	5.0	30

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19	Model Reference Adaptive Control Scheme for Retuning Method-Based Fractional-Order PID Control with Disturbance Rejection Applied to Closed-Loop Control of a Magnetic Levitation System. Journal of Circuits, Systems and Computers, 2018, 27, 1850176.	1.5	28
20	Opportunities for energy efficiency in smart cities. , 2016, , .		26
21	Hurwitz stability analysis of fractional order LTI systems according to principal characteristic equations. ISA Transactions, 2017, 70, 7-15.	5.7	26
22	Sonic crystal acoustic switch device. Journal of the Acoustical Society of America, 2013, 133, EL485-EL490.	1.1	25
23	Time-domain identification of One Noninteger Order Plus Time Delay models from step response measurements. International Journal of Modeling, Simulation, and Scientific Computing, 2019, 10, 1941011.	1.4	24
24	Multi-source energy mixing for renewable energy microgrids by particle swarm optimization. , 2017, , .		22
25	A note on robust stability analysis of fractional order interval systems by minimum argument vertex and edge polynomials. IEEE/CAA Journal of Automatica Sinica, 2016, 3, 411-421.	13.1	20
26	Probabilistic robust stabilization of fractional order systems with interval uncertainty. ISA Transactions, 2015, 57, 101-110.	5.7	17
27	Reference-shaping adaptive control by using gradient descent optimizers. PLoS ONE, 2017, 12, e0188527.	2.5	17
28	Disturbance rejection FOPID controller design in v-domain. Journal of Advanced Research, 2020, 25, 171-180.	9.5	16
29	A NARX Model Reference Adaptive Control Scheme: Improved Disturbance Rejection Fractional-Order PID Control of an Experimental Magnetic Levitation System. Algorithms, 2020, 13, 201.	2.1	14
30	Design of fractional-order PI controllers for disturbance rejection using RDR measure. , 2014, , .		12
31	Sigmoid based PID controller implementation for rotor control. , 2015, , .		11
32	Fractional order linear time invariant system stabilization by brute-force search. Transactions of the Institute of Measurement and Control, 2018, 40, 1447-1456.	1.7	11
33	2DOF multi-objective optimal tuning of disturbance reject fractional order PIDA controllers according to improved consensus oriented random search method. Journal of Advanced Research, 2020, 25, 159-170.	9.5	11
34	An effective analog circuit design of approximate fractional-order derivative models of M-SBL fitting method. Engineering Science and Technology, an International Journal, 2022, 33, 101069.	3.2	10
35	An effective integrated genetic programming and neural network model for electronic nose calibration of air pollution monitoring application. Neural Computing and Applications, 2022, 34, 12633-12652.	5.6	10
36	An FDTD based numerical analysis of microwave propagation properties in a skin–fat tissue layers. Optik, 2013, 124, 5218-5224.	2.9	9

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37	A note on demand side load management by maximum power limited load shedding algorithm for smart grids. , 2015, , .		9
38	A Numerical Study for Plant-Independent Evaluation of Fractional-order PID Controller Performance 1 1This study is based upon works from COST Action CA15225, a network supported by COST (European) Tj ETQq0.0 0 rgBT9/Overlock		
39	Fine-Tuning of Feedback Gain Control for Hover Quad Copter Rotors by Stochastic Optimization Methods. Iranian Journal of Science and Technology - Transactions of Electrical Engineering, 2020, 44, 1663-1672.	2.3	9
40	Estimation of Reduced Order Equivalent Circuit Model Parameters of Batteries from Noisy Current and Voltage Measurements. Balkan Journal of Electrical and Computer Engineering, 2018, 6, 224-231.	0.6	9
41	Disturbance Rejection FOPID Control of Rotor by Multi-Objective BB-BC Optimization Algorithm. , 2017, , .		8
42	Multi-Loop Model Reference Proportional Integral Derivative Controls: Design and Performance Evaluations. Algorithms, 2020, 13, 38.	2.1	8
43	Power converters modeling in Matlab/Simulink for microgrid simulations. , 2016, , .		7
44	A note on applications of time-domain solution of Cole permittivity models. Optik, 2017, 139, 272-282.	2.9	7
45	Stabilization of Fractional Order PID Controllers for Time-Delay Fractional Order Plants by Using Genetic Algorithm. , 2018, , .		7
46	Tuning of fractional order PID with master-slave stochastic multi-parameter divergence optimization method. , 2014, , .		6
47	PID controller design based on second order model approximation by using stability boundary locus fitting. , 2015, , .		6
48	An experimental investigation for error-cube PID control. Transactions of the Institute of Measurement and Control, 2015, 37, 652-660.	1.7	6
49	Improvement of IIR filter discretization for fractional order filter by discrete stochastic optimization. , 2016, , .		6
50	Masterâ€"Slave Stochastic Optimization for Model-Free Controller Tuning. Iranian Journal of Science and Technology - Transactions of Electrical Engineering, 2017, 41, 153-163.	2.3	6
51	Multi-Loop model reference adaptive control of fractional-order PID control systems. , 2017, , .		6
52	Disturbance Rejection Fractional Order PID Controller Design in v-domain by Particle Swarm Optimization. , 2019, , .		6
53	Optimal V-Plane Robust Stabilization Method for Interval Uncertain Fractional Order PID Control Systems. Fractal and Fractional, 2021, 5, 3.	3.3	6
54	An analysis of corona field charging kinetics for polydisperse aerosol particles by considering concentration and mobility. Journal Physics D: Applied Physics, 2010, 43, 365205.	2.8	5

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55	A space charge motion simulation with FDTD method and application in negative corona electrostatic field analysis. Applied Mathematics and Computation, 2012, 218, 9007-9017.	2.2	5
56	Multi-source energy mixing by time rate multiple PWM for microgrids. , 2016, , .		5
57	Adaptive Control of Nonlinear TRMS Model by Using Gradient Descent Optimizers. , 2018, , .		5
58	A numerical method for the analysis of polydisperse aerosol particles charging in a coaxial electrode system. Journal of Electrostatics, 2012, 70, 111-116.	1.9	4
59	Theoretical demonstration of the hybrid focusing points of sonic crystal flat lenses and possible applications. Chinese Physics B, 2013, 22, 076201.	1.4	4
60	Detection of RR interval alterations in ECG signals by using first order fractional filter. , 2016, , .		4
61	A theoretical investigation on moving average filtering solution for fixed-path map matching of noisy position data. International Journal of Sensor Networks, 2019, 29, 213.	0.4	4
62	An experimental analog circuit realization of Matsuda's approximate fractional-order integral operators for industrial electronics. Engineering Research Express, 0, , .	1.6	4
63	A Robust Frequency-Domain-Based Order Reduction Scheme for Linear Time-Invariant Systems. IEEE Access, 2021, 9, 165773-165785.	4.2	4
64	An efficient PID-based optimizer loop and its application in De Jong's functions minimization and quadratic regression problems. Systems and Control Letters, 2022, 159, 105090.	2.3	4
65	Optimal F-domain stabilization technique for reduction of commensurate fractional-order SISO systems. Fractional Calculus and Applied Analysis, 2022, 25, 803-821.	2.2	4
66	An Evolutionary Field Theorem: Evolutionary Field Optimization in Training of Power-Weighted Multiplicative Neurons for Nitrogen Oxides-Sensitive Electronic Nose Applications. Sensors, 2022, 22, 3836.	3.8	4
67	Towards energy webs: Hierarchical tree topology for future smart grids. , 2015, , .		3
68	Power regulated DC/DC driver design by hierarchical control. Turkish Journal of Electrical Engineering and Computer Sciences, 2016, 24, 1325-1339.	1.4	3
69	Utilization of energy from waste plants for microgrids. , 2016, , .		3
70	Discretization of fractional order transfer functions by weighted multi-objective particle swarm optimization method. , 2017, , .		3
71	Adaptive Gradient Descent Control of Stable, First Order, Time-delay Dynamic Systems According to Time-Varying FIR Filter Model Assumption. , 2019, , .		3
72	Fractional Order Model Identification of Receptor-Ligand Complexes Formation by Equivalent Electrical Circuit Modeling. , 2019, , .		3

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73	Probabilistic Relational Connectivity Analysis of Bigram Models. , 2019, , .		3
74	Multi-loop Model Reference Adaptive PID Control for Fault-Tolerance. Balkan Journal of Electrical and Computer Engineering, 2019, 7, 276-285.	0.6	3
75	Design of Robust PI Controllers for Interval Plants With Worst-Case Gain and Phase Margin Specifications in Presence of Multiple Crossover Frequencies. IEEE Access, 2022, 10, 67713-67726.	4.2	3
76	Effects of fractional order integration on ASDM signals. International Journal of Dynamics and Control, 2017, 5, 10-17.	2.5	2
77	A Genetic Programming Based Pollutant Concentration Predictor Design for Urban Pollution Monitoring Based on Multi-Sensor Electronic Nose. , 2021, , .		2
78	Frequency deviation indicators for estimation of energy balance state in smart AC grids. , 2016, , .		1
79	Possible Contributions of Smart Grids to Regional Development of Countries. , 2018, , .		1
80	A Set-point Filter Type 2DOF Fractional Order PID Control System Design Scheme for Improved Disturbance Rejection Control. SSRN Electronic Journal, 2018, , .	0.4	1
81	A Theoretical Study on Event Spreading Prediction by Probabilistic Connectivity Analysis in Dispersive Networks. , 2019, , .		1
82	Image processing based object tracking application with fractional-order model reference controller. Pamukkale University Journal of Engineering Sciences, 2016, 22, 659-665.	0.4	1
83	A Note on Commensurate-Order Characteristic Root Equivalency Class of Linear Time Invariant Systems. Balkan Journal of Electrical and Computer Engineering, 0, , 86-89.	0.6	1
84	Behavioural modelling of delayed imbalance dynamics in nature: a parametric modelling for simulation of delayed instability dynamics. International Journal of General Systems, 2022, 51, 313-333.	2.5	1
85	A distance-based dynamical transition analysis of time series signals and application to biological systems. Journal of Biological Physics, 2012, 38, 293-303.	1.5	0
86	Energy consumption analysis of motorized transportation in cities by considering average mobile mass. , 2016, , .		0
87	A theoretical investigation on consideration of initial conditions in fractional-order transfer function modeling. , 2017, , .		0
88	Fractional Order Filter Discretization by Particle Swarm Optimization Method. Advances in Dynamics, Patterns, Cognition, 2019, , 133-144.	0.3	0
89	Genetik Algoritma ile DüÅŸük Duyarlılığa Sahip Optimal FOPID Denetleyici Tasarımı. , 2019, , .		0
90	Software Implementation of FOPID Controllers with Tuning Capability for Fractional FOPDT Plants. , 2021, , .		0

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91	A theoretical investigation on moving average filtering solution for fixed-path map matching of noisy position data. International Journal of Sensor Networks, 2019, 29, 213.	0.4	0
92	Performance Analysis of SMDO Method with Benchmark Functions with Matlab Toolbox. Journal of the Institute of Science and Technology, 0, , 2451-2460.	0.9	0
93	PIDA Denetçilerin Bozucu Dışlama Performansının Teorik İncelenmesi. European Journal of Science and Technology, 0, , 42-53.	0.5	0
94	Value Set-Based Numerical Analysis of Robust Stability for Fractional-Order Retarded Quasi-Polynomials with Uncertain Parameters and Uncertain Fractional Orders. Lecture Notes in Networks and Systems, 2021, , 18-23.	0.7	0