Tufan Kumbasar

List of Publications by Year
in descending order

91 papers	1,660 citations	471477 17 h-index	361001 35 g-index
95 all docs	95 docs citations	95 times ranked	1087 citing authors

#	Article	IF	Citations
1	Parameter optimization of interval Type-2 fuzzy neural networks based on PSO and BBBC methods. IEEE/CAA Journal of Automatica Sinica, 2019, 6, 247-257.	13.1	133
2	Big Bang–Big Crunch optimization based interval type-2 fuzzy PID cascade controller design strategy. Information Sciences, 2014, 282, 277-295.	6.9	90
3	A Self-Tuning zSlices-Based General Type-2 Fuzzy PI Controller. IEEE Transactions on Fuzzy Systems, 2015, 23, 991-1013.	9.8	90
4	Robust Stability Analysis and Systematic Design of Single-Input Interval Type-2 Fuzzy Logic Controllers. IEEE Transactions on Fuzzy Systems, 2016, 24, 675-694.	9.8	88
5	Type-2 Fuzzy Logic Controllers Made Even Simpler: From Design to Deployment for UAVs. IEEE Transactions on Industrial Electronics, 2018, 65, 5069-5077.	7.9	85
6	Type-2 fuzzy model based controller design for neutralization processes. ISA Transactions, 2012, 51, 277-287.	5.7	67
7	Adaptive fuzzy model based inverse controller design using BB-BC optimization algorithm. Expert Systems With Applications, 2011, 38, 12356-12364.	7.6	63
8	Online tuning of fuzzy PID controllers via rule weighing based on normalized acceleration. Engineering Applications of Artificial Intelligence, 2013, 26, 184-197.	8.1	62
9	A simple design method for interval type-2 fuzzy pid controllers. Soft Computing, 2014, 18, 1293-1304.	3.6	59
10	An Open Source Matlab/Simulink Toolbox for Interval Type-2 Fuzzy Logic Systems. , 2015, , .		58
11	Current development on using Rotary Inverted Pendulum as a benchmark for testing linear and nonlinear control algorithms. Mechanical Systems and Signal Processing, 2019, 116, 347-369.	8.0	58
12	A new fractional-order general type-2 fuzzy predictive control system and its application for glucose level regulation. Applied Soft Computing Journal, 2020, 91, 106241.	7.2	53
13	Interval type-2 fuzzy inverse controller design in nonlinear IMC structure. Engineering Applications of Artificial Intelligence, 2011, 24, 996-1005.	8.1	49
14	Analysis of the performances of type-1, self-tuning type-1 and interval type-2 fuzzy PID controllers on the Magnetic Levitation system. , 2014, , .		44
15	Towards Systematic Design of General Type-2 Fuzzy Logic Controllers: Analysis, Interpretation, and Tuning. IEEE Transactions on Fuzzy Systems, 2021, 29, 226-239.	9.8	39
16	Learning with Type-2 Fuzzy activation functions to improve the performance of Deep Neural Networks. Engineering Applications of Artificial Intelligence, 2019, 85, 372-384.	8.1	32
17	A survey on advancement of hybrid type 2 fuzzy sliding mode control. Neural Computing and Applications, 2018, 30, 331-353.	5.6	31
18	Inverse fuzzy Model Control with online adaptation via Big Bang-Big Crunch optimization. , 2008, , .		29

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19	Optimal PID control of spatial inverted pendulum with big bang–big crunch optimization. IEEE/CAA Journal of Automatica Sinica, 2020, 7, 822-832.	13.1	26
20	Design and experimental validation of single input type-2 fuzzy PID controllers as applied to 3 DOF helicopter testbed. , 2016, , .		21
21	Type-2 Fuzzy Logic-Based Linguistic Pursuing Strategy Design and Its Deployment to a Real-World Pursuit Evasion Game. IEEE Transactions on Cybernetics, 2020, 50, 211-221.	9.5	20
22	Design and Deployment of Fuzzy PID Controllers to the nano quadcopter Crazyflie 2.0. , 2018, , .		19
23	Altitude and Position Control of Parrot Mambo Minidrone with PID and Fuzzy PID Controllers. , 2019, , .		18
24	Design and development of FOLLY: A self-foldable and self-deployable quadcopter. Aerospace Science and Technology, 2020, 100, 105807.	4.8	17
25	A big bang-big crunch optimization based approach for interval type-2 fuzzy PID controller design. , 2013, , .		15
26	Interval Type-2 Fuzzy PID Controllers. , 2015, , 285-294.		15
27	An inverse controller design method for interval type-2 fuzzy models. Soft Computing, 2017, 21, 2665-2686.	3.6	15
28	Hand Gesture Recognition Systems with the Wearable Myo Armband. , 2018, , .		15
29	Exact inversion of decomposable interval type-2 fuzzy logic systems. International Journal of Approximate Reasoning, 2013, 54, 253-272.	3.3	14
30	Hybrid Adaptive Type–2 Fuzzy Tracking Control of Chaotic Oscillation Damping of Power Systems. Asian Journal of Control, 2017, 19, 1114-1125.	3.0	13
31	Interval Type-2 Fuzzy Cognitive Map-Based Flight Control System for Quadcopters. International Journal of Fuzzy Systems, 2020, 22, 2504-2520.	4.0	13
32	A New Approach for Tactical Decision Making in Lane Changing: Sample Efficient Deep Q Learning with a Safety Feedback Reward. , 2020, , .		13
33	A Gradient Descent based online tuning Mechanism for PI Type Single input Interval Type-2 fuzzy logic controllers. , 2015, , .		12
34	Big Bang-Big Crunch optimized hierarchical sliding-mode control of X-Z inverted pendulum. Simulation Modelling Practice and Theory, 2018, 86, 25-35.	3.8	12
35	Design of an interval type-2 fuzzy logic controller based on conventional PI controller. , 2012, , .		11
36	A Deep Learning-Based Pipeline for Teaching Control Theory: Transforming Feedback Control Systems on Whiteboard Into MATLAB. IEEE Access, 2020, 8, 84631-84641.	4.2	11

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37	Robust stability analysis of PD type single input interval type-2 fuzzy control systems. , 2014, , .		10
38	More Than Accuracy: A Composite Learning Framework for Interval Type-2 Fuzzy Logic Systems. IEEE Transactions on Fuzzy Systems, 2023, 31, 734-744.	9.8	10
39	Gradient Descent and Extended Kalman Filter based self-tuning Interval Type-2 Fuzzy PID controllers. , 2016, , .		9
40	A framework for designing cognitive trajectory controllers using genetically evolved interval type‑2 fuzzy cognitive maps. International Journal of Intelligent Systems, 2022, 37, 305-335.	5.7	9
41	Self-tuning interval type-2 fuzzy PID controllers based on online rule weighting. , 2013, , .		8
42	Type-2 fuzzified flappy bird control system. , 2016, , .		8
43	Adaptive backstepping controller design for MIMO cancer immunotherapy using Laguerre polynomials. Journal of the Franklin Institute, 2020, 357, 4664-4679.	3.4	8
44	Type-2 Fuzzy Model Inverse Controller Design Based on BB-BC Optimization Method. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 5308-5313.	0.4	7
45	A one to three input mapping IT2-FLC PID design strategy. , 2013, , .		7
46	The simplest interval type-2 fuzzy PID controller: Structural analysis. , 2014, , .		7
47	On the fundamental differences between the NT and the KM center of Sets Calculation Methods on the IT2-FLC performance. , 2015, , .		7
48	Revisiting Karnik–Mendel Algorithms in the framework of Linear Fractional Programming. International Journal of Approximate Reasoning, 2017, 82, 1-21.	3.3	7
49	Boundary function based Karnik-Mendel type reduction method for Interval Type-2 Fuzzy PID controllers. , 2014, , .		6
50	General derivation and analysis for input–output relations in interval type-2 fuzzy logic systems. Soft Computing, 2015, 19, 1283-1293.	3.6	6
51	Game of spheros: A real-world pursuit-evasion game with type-2 fuzzy logic. , 2017, , .		6
52	On the design and gain analysis of IT2-FLC with a case study on an electric vehicle. , 2017, , .		6
53	FOLLY: A Self Foldable and Self Deployable Autonomous Quadcopter. , 2018, , .		6
54	Inverse-model predictive control based on INFUMO-BB-BC optimization. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 294-299.	0.4	5

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55	Adaptive fuzzy Internal Model Control design with bias term compensator. , 2011, , .		5
56	An Approach to Represent Time Series Forecasting via Fuzzy Numbers. , 2014, , .		5
57	An IMC based fuzzy self-tuning mechanism for fuzzy PID controllers. , 2015, , .		5
58	A rule based fuzzy gesture recognition system to interact with Sphero 2.0 using a smart phone. , 2017, , .		5
59	Interpreting Variational Autoencoders with Fuzzy Logic: A step towards interpretable deep learning based fuzzy classifiers. , 2020, , .		5
60	Aggressive maneuvering of a quadcopter via differential flatness-based fuzzy controllers: From tuning to experiments. Applied Soft Computing Journal, 2022, 126, 109223.	7.2	5
61	Peak Observer Based Self-tuning of Type-2 Fuzzy PID Controllers. Lecture Notes in Computer Science, 2014, , 487-497.	1.3	4
62	An Internal Model Control based design method for Single input Fuzzy PID controllers. , 2015, , .		4
63	A smart dermoscope design using artificial neural network. , 2017, , .		4
64	A fuzzy logic-based autonomous car control system for the JavaScript Racer game. Transactions of the Institute of Measurement and Control, 2021, 43, 1028-1038.	1.7	4
65	Deep learning frameworks to learn prediction and simulation focused control system models. Applied Intelligence, 2022, 52, 662-679.	5.3	4
66	An inversion method for interval type-2 fuzzy logic systems. , 2011, , .		3
67	Online fuzzy rule weighting method for fuzzy PID controllers via Big Bang-Big Crunch optimization. , 2013, , .		3
68	A Type-2 Fuzzy Cascade Control Architecture for Mobile Robots. , 2013, , .		3
69	Performance evaluation of interval type-2 and online rule weighing based Type-1 Fuzzy PID controllers on a pH process. , 2014, , .		3
70	Revisiting KM algorithms: A Linear Programming approach. , 2015, , .		3
71	Enhancing the Learning of Interval Type-2 Fuzzy Classifiers with Knowledge Distillation. , 2021, , .		3
72	An Enhanced Fuzzy Linguistic Term Generation and Representation for time series forecasting. , 2015, , .		2

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73	Fuzzy Logic Based Self-Driving Racing Car Control System. , 2018, , .		2
74	Analyzing the Control Surfaces of Type-1 and Interval Type-2 FLCs through an Experimental Study. , 2018, , .		2
75	YAFT: A Fuzzy Logic based Real Time Two-Wheeled Inverted Pendulum Robot. , 2018, , .		2
76	Single Vs. Double Input Interval Type-2 Fuzzy PID Controllers: Which One is Better?. , 2018, , .		2
77	Big Bang Big Crunch based Near-Optimal Guidance Law for Interceptor Problem. , 2019, , .		2
78	A Design Approach for General Type-2 Fuzzy Logic Controllers with an Online Scheduling Mechanism. , 2020, , .		2
79	Parameter Identification and Auto-Tuning of IPMSM for Self-Commissioning. , 2020, , .		2
80	Integrating Interval Type-2 Fuzzy Sets into Deep Embedding Clustering to Cope with Uncertainty. , 2021, , .		2
81	Interval type-2 fuzzy PID controllers and an online self-tuning mechanism. Pamukkale University Journal of Engineering Sciences, 2016, 22, 643-649.	0.4	2
82	Landing on the moon with type-2 fuzzy logic. , 2017, , .		1
83	Capturing Uncertainty with Interval Fuzzy Logic Systems through Composite Deep Learning. , 2021, , .		1
84	Interval Type-2 Fuzzy Systems as Deep Neural Network Activation Functions. , 0, , .		1
85	A fuzzy logic based intelligent autonomous vehicle control system design in the TORCS game environment. Pamukkale University Journal of Engineering Sciences, 2018, 24, 1435-1442.	0.4	1
86	An Intelligent Overtaking Assistant System for Autonomous Vehicles. Advances in Intelligent Systems and Computing, 2021, , 1068-1076.	0.6	1
87	Catch me if you can: A pursuit-evasion game with intelligent agents in the Unity 3D game environment. , 2020, , .		1
88	A Vision Based Positioning Gas Leakage Test Automation System. , 2018, , .		0
89	Self-Commissioning of Electrical Parameters for Sensorless IPMSM Drives. , 2019, , .		0
90	Human Operator Modelling with Interval-valued Takagi-Sugeno Fuzzy Models. , 2019, , .		0

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91	A New Insight on the Mappings of Type-2 Fuzzy Logic Systems. , 2019, , .		0