Umar Farooq

List of Publications by Year in descending order

90 papers	613 citations	933264 10 h-index	752573 20 g-index
91 all docs	91 docs citations	91 times ranked	567 citing authors

#	Article	IF	Citations
1	Image processing based fault classification in power systems with classical and intelligent techniques. Journal of Intelligent and Fuzzy Systems, 2022, 43, 1921-1932.	0.8	2
2	Investigation of the Power Quality Concerns of Input Current in Single-Phase Frequency Step-Down Converter. Applied Sciences (Switzerland), 2022, 12, 3663.	1.3	4
3	Bilateral Teleoperation Control of a Bipedal Robot Gait Using a Manipulator. IFAC-PapersOnLine, 2022, 55, 765-770.	0.5	1
4	Teleoperation of Multi-Degrees-of-Freedom Manipulator through Composite State Convergence Scheme. IFAC-PapersOnLine, 2022, 55, 126-130.	0.5	0
5	A Simple Two-Stage AC-AC Circuit Topology Employed as High-Frequency Controller for Domestic Induction Heating System. Applied Sciences (Switzerland), 2021, 11, 8325.	1.3	6
6	Multivariable Unconstrained Pattern Search Method for Optimizing Digital PID Controllers Applied to Isolated Forward Converter. Energies, 2021, 14, 77.	1.6	11
7	A Bipolar Voltage Gain Boost AC-AC Converter Based on Four Switching Transistors. Applied Sciences (Switzerland), 2021, 11, 10254.	1.3	1
8	A New Dual Polarity Direct AC-AC Voltage Regulator Ensuring Voltage Step-Up and Step-Down Capabilities. Applied Sciences (Switzerland), 2021, 11, 11944.	1.3	2
9	A New Single-Phase AC Voltage Converter With Voltage Buck Characteristics for Grid Voltage Compensation. IEEE Access, 2020, 8, 48886-48903.	2.6	14
10	A New Single-Phase Direct Frequency Controller Having Reduced Switching Count without Zero-Crossing Detector for Induction Heating System. Electronics (Switzerland), 2020, 9, 430.	1.8	9
11	An Impedance Network-Based Three Level Quasi Neutral Point Clamped Inverter with High Voltage Gain. Energies, 2020, 13, 1261.	1.6	8
12	Online identification of nonlinear systems using neo-fuzzy supported brain emotional learning network. Journal of Intelligent and Fuzzy Systems, 2020, 38, 6045-6051.	0.8	0
13	Optimal Power Flow and Unified Control Strategy for Multi-Terminal HVDC Systems. IEEE Access, 2019, 7, 92642-92650.	2.6	16
14	An enhanced state convergence architecture incorporating disturbance observer for bilateral teleoperation systems. International Journal of Advanced Robotic Systems, 2019, 16, 172988141988005.	1.3	0
15	A composite state convergence scheme for bilateral teleoperation systems. IEEE/CAA Journal of Automatica Sinica, 2019, 6, 1166-1178.	8.5	7
16	Design of Three Phase Solid State Transformer Deployed within Multi-Stage Power Switching Converters. Applied Sciences (Switzerland), 2019, 9, 3545.	1.3	4
17	A Single-Phase Buck and Boost AC-to-AC Converter with Bipolar Voltage Gain: Analysis, Design, and Implementation. Energies, 2019, 12, 1376.	1.6	14
18	Derivative-Free Direct Search Optimization Method for Enhancing Performance of Analytical Design Approach-Based Digital Controller for Switching Regulator. Energies, 2019, 12, 2183.	1.6	5

#	ARTICLE	IF	CITATIONS
19	Recent Approaches of Forecasting and Optimal Economic Dispatch to Overcome Intermittency of Wind and Photovoltaic (PV) Systems: A Review. Energies, 2019, 12, 4392.	1.6	39
20	Artificial Intelligence-Based Controller for DC-DC Flyback Converter. Applied Sciences (Switzerland), 2019, 9, 5108.	1.3	5
21	A Time-Delayed Multi-Master-Single-Slave Non-Linear Tele-Robotic System Through State Convergence. IEEE Access, 2018, 6, 5447-5459.	2.6	3
22	Optimized Digital Controllers for Switching-Mode DC-DC Step-Down Converter. Electronics (Switzerland), 2018, 7, 412.	1.8	11
23	State Convergence Based Design of a Single-Master-Multi-Slave Nonlinear Teleoperation System. , 2018, , .		2
24	An Extended State Convergence Architecture for Multilateral Teleoperation Systems. IEEE Access, 2017, 5, 2063-2079.	2.6	10
25	Neo-Fuzzy Integrated Adaptive Decayed Brain Emotional Learning Network for Online Time Series Prediction. IEEE Access, 2017, 5, 1037-1049.	2.6	24
26	Neo-Fuzzy Supported Brain Emotional Learning Based Pattern Recognizer for Classification Problems. IEEE Access, 2017, 5, 6951-6968.	2.6	9
27	Solution of an Economic Dispatch Problem Through Particle Swarm Optimization: A Detailed Survey â€" Part II. IEEE Access, 2017, 5, 24426-24445.	2.6	56
28	Solution of an Economic Dispatch Problem Through Particle Swarm Optimization: A Detailed Survey - Part I. IEEE Access, 2017, 5, 15105-15141.	2.6	94
29	Fuzzy logic based parameter adjustment model for adaptive decayed brain emotional learning network with application to online time series prediction. , 2017, , .		2
30	Problems in constructing a discrete-time controller using frequency response plots in w-plane. , 2017, , .		1
31	Elimination of limit cycle in unexcited Van der Pol system using fuzzy supported state space controllers. , 2016, , .		1
32	Fuzzy state convergence based bilateral control of a tele-robotic system in unknown environments. , 2016, , .		0
33	Fuzzy bilateral control of time delayed nonlinear tele-robotic system in unknown environments through state convergence. , 2016, , .		1
34	Transparent fuzzy bilateral control of a nonlinear teleoperation system through state convergence. , 2016, , .		3
35	State convergence based bilateral control of nonlinear teleoperation system represented by TS fuzzy models. , 2016, , .		2
36	Automatic license plate recognition using extracted features. , 2016, , .		31

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37	Set-point tracking of a dc-dc boost converter through optimized PID controllers. , 2016, , .		13
38	Fuzzy Model Based Bilateral Control Design of Nonlinear Tele-Operation System Using Method of State Convergence. IEEE Access, 2016, 4, 4119-4135.	2.6	31
39	Compensation of the nonlinearities present in the digital control loop. , 2016, , .		1
40	Experimental study of optimal Takagi Sugeno fuzzy controller for rotary inverted pendulum. , 2015, , .		3
41	Optimization of discrete-time controller applied to DC-DC step-down converter. , 2015, , .		2
42	Observer based fuzzy LMI regulator for stabilization and tracking control of an aeropendulum. , 2015, , .		4
43	Design and implementation of a robotic car to recognize traffic signs. , 2015, , .		0
44	An interval type-2 fuzzy regulator for magnetic levitation system. , 2015, , .		1
45	Controller design for low-input voltage switching converters having non-minimum phase characteristics. , 2015, , .		4
46	Comparative Analysis of Analog Controllers for DC-DC Buck Converter. Journal of Automation and Control Engineering, 2015, 3, 447-451.	0.3	2
47	An improved PID controller for switching converters. , 2014, , .		1
48	Application of a robust fuzzy logic controller with smaller rule base to a DC-DC buck converter. , 2014, , .		1
49	Design and experimental evaluation of a state feedback controller for two wheeled balancing robot. , 2014, , .		4
50	Robust Takagi-Sugeno Fuzzy Speed Regulator for DC Series Motors. , 2014, , .		1
51	Graphical user interface based controller design for switching converters. , 2014, , .		2
52	Fuzzy LMI servo controller for uncertain ball and beam system. , 2014, , .		0
53	Fuzzy logic based control of vibration energy harvesting device for automotive suspension system. , 2014, , .		0
54	Design and comparison of observer based pole placement and LQR controllers for DC motor position control. WIT Transactions on Information and Communication Technologies, 2014, , .	0.0	0

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55	Design and comparison of type-1 and interval type-2 fuzzy gain scheduling controllers for ball and beam system. , 2013, , .		1
56	An integrated approach towards designing an embedded wireless monitoring and access control system using RFID and MMS technologies. , 2013, , .		3
57	Design and implementation of fuzzy logic based autonomous car for navigation in unknown environments. , 2013, , .		7
58	A neural network controller for Cartesian Plotter. , 2013, , .		1
59	Half cycle pairs method for harmonic analysis of cycloconverter voltage waveform. , 2013, , .		5
60	Design and comparison of Takagi-Sugeno type-1 and interval type-2 fuzzy logic controllers for posture stabilization of wheeled mobile robot. , 2013, , .		1
61	An interval type-2 fuzzy LQR positioning controller for wheeled mobile robot. , 2013, , .		6
62	On the interval type-2 fuzzy logic control of ball and plate system. , 2013, , .		7
63	A weighted matrix algorithm for vision based lane following in autonomous navigation. , 2013, , .		0
64	An interval type-2 Fuzzy PD controller for ball and beam system. , 2013, , .		2
65	A 2D simulator for vision based autonomous road following. , 2013, , .		3
66	Constrained Model-Based Predictive Controller for a High-Frequency Low-Power DC-DC Buck Converter. International Journal on Electrical Engineering and Informatics, 2013, 5, 316-339.	0.3	4
67	Corridor navigation with fuzzy logic control for sonar based mobile robots. , 2012, , .		2
68	Fuzzy logic based wall tracking controller for mobile robot navigation. , 2012, , .		4
69	Design and FPGA implementation of 1-degree-of-freedom discrete PID controller for power switching converter. , 2012, , .		6
70	Comparative analysis of fuzzy logic controllers for corridor following behaviour of mobile robot. , 2011, , .		1
71	Fuzzy logic based robust pole-placement controller for DC-DC buck converter. , 2011, , .		4
72	Application of neural network based model predictive controller to power switching converters. , 2011, , .		4

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73	Comparative analysis of zero order Sugeno and Mamdani fuzzy logic controllers for obstacle avoidance behavior in mobile robot navigation. , 2011, , .		9
74	Ball-Scorer: Design and fabrication of an autonomous ball scoring robot. , 2010, , .		2
75	Design and development of an image processing based automatic library storage system. , 2010, , .		1
76	Microcontroller Based Low Cost Controlled Rectifiers Training Module for Power Electronics Laboratory. , 2010, , .		0
77	An Integrated Library Management System for Book Search and Placement Tasks. , 2010, , .		3
78	Vehicle Detection and Shape Recognition Using Optical Sensors: A Review. , 2010, , .		9
79	Design and development of microcontroller based autonomous peg placement robot. , 2010, , .		0
80	Design and low cost implementation of a fuzzy logic controller for wall following behavior of a mobile robot. , 2010, , .		9
81	Comparative analysis of fuzzy logic and neural network based controllers for line tracking task in mobile robots. , 2010, , .		1
82	Cost effective wireless attendence and access control system. , 2010, , .		3
83	A low cost microcontroller implementation of fuzzy logic based hurdle avoidance controller for a mobile robot. , 2010, , .		5
84	Effective Techniques to Reduce Cross Border Interefernce in Cellular Networks. , 2010, , .		0
85	A low cost microcontroller implementation of neural network based hurdle avoidance controller for a car-like robot. , 2010, , .		7
86	GPS-GSM Integration for Enhancing Public Transportation Management Services. , 2010, , .		15
87	Design and Development of an Image Processing Based Adaptive Traffic Control System with GSM Interface. , 2009, , .		12
88	Cognitive Radio: A Breakthrough, Revolution in Wireless Communication. , 2009, , .		0
89	An Overview of the Factors Responsible for GPS Signal Error: Origin and Solution. , 2009, , .		1
90	A Low Cost Artificial Vision System for Visually Impaired People. , 2009, , .		6