Ghulam Abbas

List of Publications by Year
in descending order

87 papers	883 citations	567281 15 h-index
88 all docs	88 docs citations	88 times ranked

552781 26 g-index

765 citing authors

#	Article	IF	Citations
1	A Transformerless AC-AC Converter with Improved Power Quality Employed to Step-Down Power Frequency at Output. Energies, 2022, 15, 667.	3.1	5
2	Smart Assistive System for Visually Impaired People Obstruction Avoidance Through Object Detection and Classification. IEEE Access, 2022, 10, 13428-13441.	4.2	46
3	Sliding Mode Observer-Based Fault Detection in Continuous Time Linear Switched Systems. Energies, 2022, 15, 1090.	3.1	3
4	Image processing based fault classification in power systems with classical and intelligent techniques. Journal of Intelligent and Fuzzy Systems, 2022, 43, 1921-1932.	1.4	2
5	Investigation of the Power Quality Concerns of Input Current in Single-Phase Frequency Step-Down Converter. Applied Sciences (Switzerland), 2022, 12, 3663.	2.5	4
6	Perception Action Aware-Based Autonomous Drone Race in a Photorealistic Environment. IEEE Access, 2022, 10, 42566-42576.	4.2	1
7	Teleoperation of Multi-Degrees-of-Freedom Manipulator through Composite State Convergence Scheme. IFAC-PapersOnLine, 2022, 55, 126-130.	0.9	0
8	MTDC Grids: A Metaheuristic Solution for Nonlinear Control. Energies, 2022, 15, 4263.	3.1	8
9	A Transformer-Less Multiconverter Having Output Voltage and Frequency Regulation Characteristics, Employed with Simple Switching Algorithms. Applied Sciences (Switzerland), 2021, 11, 3075.	2.5	4
10	Residential and commercial UPS User's contribution to load shedding and possible solutions using renewable energy. Energy Policy, 2021, 151, 112194.	8.8	3
11	HVdc Circuit Breakers: Prospects and Challenges. Applied Sciences (Switzerland), 2021, 11, 5047.	2.5	15
12	A Comprehensive Review on Integration Challenges, Optimization Techniques and Control Strategies of Hybrid AC/DC Microgrid. Applied Sciences (Switzerland), 2021, 11, 6242.	2.5	47
13	Characteristics of Battery Management Systems of Electric Vehicles with Consideration of the Active and Passive Cell Balancing Process. World Electric Vehicle Journal, 2021, 12, 120.	3.0	34
14	A Simple Two-Stage AC-AC Circuit Topology Employed as High-Frequency Controller for Domestic Induction Heating System. Applied Sciences (Switzerland), 2021, 11, 8325.	2.5	6
15	A Systematic Review of Key Challenges in Hybrid HVAC–HVDC Grids. Energies, 2021, 14, 5451.	3.1	9
16	An Improved Bipolar Voltage Boost AC Voltage Controller With Reduced Switching Transistors. IEEE Access, 2021, 9, 90402-90417.	4.2	6
17	Power Quality Analysis of the Output Voltage of AC Voltage and Frequency Controllers Realized with Various Voltage Control Techniques. Applied Sciences (Switzerland), 2021, 11, 538.	2.5	12
18	A Modified Hybrid Particle Swarm Optimization With Bat Algorithm Parameter Inspired Acceleration Coefficients for Solving Eco-Friendly and Economic Dispatch Problems. IEEE Access, 2021, 9, 82169-82187.	4.2	27

#	Article	IF	Citations
19	Multivariable Unconstrained Pattern Search Method for Optimizing Digital PID Controllers Applied to Isolated Forward Converter. Energies, 2021, 14, 77.	3.1	11
20	A Bipolar Voltage Gain Boost AC-AC Converter Based on Four Switching Transistors. Applied Sciences (Switzerland), 2021, 11, 10254.	2.5	1
21	A New Dual Polarity Direct AC-AC Voltage Regulator Ensuring Voltage Step-Up and Step-Down Capabilities. Applied Sciences (Switzerland), 2021, 11, 11944.	2.5	2
22	Technical Assessment of Hybrid HVDC Circuit Breaker Components under M-HVDC Faults. Energies, 2021, 14, 8148.	3.1	11
23	Comparative Analysis of Ground-Mounted vs. Rooftop Photovoltaic Systems Optimized for Interrow Distance between Parallel Arrays. Energies, 2020, 13, 3639.	3.1	21
24	A Hybrid Metaheuristic Approach for the Solution of Renewables-Incorporated Economic Dispatch Problems. IEEE Access, 2020, 8, 127608-127621.	4.2	22
25	Multi-Objective Optimal Power Flow With Integration of Renewable Energy Sources Using Fuzzy Membership Function. IEEE Access, 2020, 8, 143185-143200.	4.2	17
26	Solving Renewables-Integrated Economic Load Dispatch Problem by Variant of Metaheuristic Bat-Inspired Algorithm. Energies, 2020, 13, 6225.	3.1	26
27	A New Single-Phase AC Voltage Converter With Voltage Buck Characteristics for Grid Voltage Compensation. IEEE Access, 2020, 8, 48886-48903.	4.2	14
28	A New Single-Phase Direct Frequency Controller Having Reduced Switching Count without Zero-Crossing Detector for Induction Heating System. Electronics (Switzerland), 2020, 9, 430.	3.1	9
29	An Impedance Network-Based Three Level Quasi Neutral Point Clamped Inverter with High Voltage Gain. Energies, 2020, 13, 1261.	3.1	8
30	A Novel Load Scheduling Mechanism Using Artificial Neural Network Based Customer Profiles in Smart Grid. Energies, 2020, 13, 1062.	3.1	14
31	A Multi-Terminal HVdc Grid Topology Proposal for Offshore Wind Farms. Applied Sciences (Switzerland), 2020, 10, 1833.	2.5	6
32	Online identification of nonlinear systems using neo-fuzzy supported brain emotional learning network. Journal of Intelligent and Fuzzy Systems, 2020, 38, 6045-6051.	1.4	0
33	A Technique for Better Energy Management of Single-Stage Topology of Stand-Alone Photovoltaic System. International Journal of Integrated Engineering, 2020, 12, .	0.4	0
34	Optimal Power Flow and Unified Control Strategy for Multi-Terminal HVDC Systems. IEEE Access, 2019, 7, 92642-92650.	4.2	16
35	An enhanced state convergence architecture incorporating disturbance observer for bilateral teleoperation systems. International Journal of Advanced Robotic Systems, 2019, 16, 172988141988005.	2.1	0
36	A composite state convergence scheme for bilateral teleoperation systems. IEEE/CAA Journal of Automatica Sinica, 2019, 6, 1166-1178.	13.1	7

#	ARTICLE	IF	CITATIONS
37	Design of Three Phase Solid State Transformer Deployed within Multi-Stage Power Switching Converters. Applied Sciences (Switzerland), 2019, 9, 3545.	2.5	4
38	A Single-Phase Buck and Boost AC-to-AC Converter with Bipolar Voltage Gain: Analysis, Design, and Implementation. Energies, 2019, 12, 1376.	3.1	14
39	Derivative-Free Direct Search Optimization Method for Enhancing Performance of Analytical Design Approach-Based Digital Controller for Switching Regulator. Energies, 2019, 12, 2183.	3.1	5
40	A Single-Phase Buck-Boost Matrix Converter with Low Switching Stresses. Mathematical Problems in Engineering, 2019, 2019, 1-19.	1.1	13
41	MTâ€"HVdc Systems Fault Classification and Location Methods Based on Traveling and Non-Traveling Wavesâ€"A Comprehensive Review. Applied Sciences (Switzerland), 2019, 9, 4760.	2.5	8
42	Recent Approaches of Forecasting and Optimal Economic Dispatch to Overcome Intermittency of Wind and Photovoltaic (PV) Systems: A Review. Energies, 2019, 12, 4392.	3.1	39
43	Artificial Intelligence-Based Controller for DC-DC Flyback Converter. Applied Sciences (Switzerland), 2019, 9, 5108.	2.5	5
44	A Hybrid Time Series Forecasting Model for Disturbance Storm Time Index using a Competitive Brain Emotional Neural Network and Neo-Fuzzy Neurons. Acta Polytechnica Hungarica, 2019, 16, .	2.9	0
45	A Time-Delayed Multi-Master-Single-Slave Non-Linear Tele-Robotic System Through State Convergence. IEEE Access, 2018, 6, 5447-5459.	4.2	3
46	A Protection Scheme for Multi-Terminal VSC-HVDC Transmission Systems. IEEE Access, 2018, 6, 3159-3166.	4.2	48
47	Optimized Digital Controllers for Switching-Mode DC-DC Step-Down Converter. Electronics (Switzerland), 2018, 7, 412.	3.1	11
48	Multi-Objective Optimization of VSC Stations in Multi-Terminal VSC-HVdc Grids, Based on PSO. IEEE Access, 2018, 6, 62995-63004.	4.2	27
49	An efficient single-phase ac-to-ac buck and boost matrix converter. , 2017, , .		1
50	Power quality analysis of a three phase ac-to-dc controlled converter. , 2017, , .		2
51	Modeling and simulation of optical current transformer using operational amplifiers. , 2017, , .		3
52	Scope of Video Magnification in Human Pulse Rate Estimation. , 2017, , .		5
53	Solution of an Economic Dispatch Problem Through Particle Swarm Optimization: A Detailed Survey â€" Part II. IEEE Access, 2017, 5, 24426-24445.	4.2	56
54	Solution of an Economic Dispatch Problem Through Particle Swarm Optimization: A Detailed Survey - Part I. IEEE Access, 2017, 5, 15105-15141.	4.2	94

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55	Problems in constructing a discrete-time controller using frequency response plots in w-plane. , 2017, , .		1
56	Elimination of limit cycle in unexcited Van der Pol system using fuzzy supported state space controllers. , 2016, , .		1
57	Design and construction of mobility assistive hybrid automobile for impaired persons. , 2016, , .		0
58	Calculation of CPU performance, power and cost using Hadoop. , 2016, , .		1
59	Fuzzy bilateral control of time delayed nonlinear tele-robotic system in unknown environments through state convergence. , 2016, , .		1
60	State convergence based bilateral control of nonlinear teleoperation system represented by TS fuzzy models. , 2016, , .		2
61	Set-point tracking of a dc-dc boost converter through optimized PID controllers. , 2016, , .		13
62	Fuzzy Model Based Bilateral Control Design of Nonlinear Tele-Operation System Using Method of State Convergence. IEEE Access, 2016, 4, 4119-4135.	4.2	31
63	Compensation of the nonlinearities present in the digital control loop. , 2016, , .		1
64	Optimization of discrete-time controller applied to DC-DC step-down converter. , 2015, , .		2
65	Design and implementation of a robotic car to recognize traffic signs. , 2015, , .		0
66	An interval type-2 fuzzy regulator for magnetic levitation system. , 2015, , .		1
67	Controller design for low-input voltage switching converters having non-minimum phase characteristics. , 2015, , .		4
68	Comparative Analysis of Analog Controllers for DC-DC Buck Converter. Journal of Automation and Control Engineering, 2015, 3, 447-451.	0.3	2
69	An improved PID controller for switching converters. , 2014, , .		1
70	Application of a robust fuzzy logic controller with smaller rule base to a DC-DC buck converter. , 2014, , .		1
71	Design and analysis of SMC for second order DC-DC flyback converter. , 2014, , .		6
72	Robust Takagi-Sugeno Fuzzy Speed Regulator for DC Series Motors. , 2014, , .		1

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73	Graphical user interface based controller design for switching converters. , 2014, , .		2
74	A neural network controller for Cartesian Plotter. , 2013, , .		1
75	Application of machine vision for performance enhancement of footing machine used in leather industry of Pakistan. , 2013, , .		1
76	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.	0.5	4
77	Corridor navigation with fuzzy logic control for sonar based mobile robots. , 2012, , .		2
78	A two loop fuzzy controller for goal directed navigation of mobile robot. , 2012, , .		1
79	Design and FPGA implementation of 1-degree-of-freedom discrete PID controller for power switching converter. , 2012, , .		6
80	Comparative analysis of fuzzy logic controllers for corridor following behaviour of mobile robot. , 2011, , .		1
81	Fuzzy logic based robust pole-placement controller for DC-DC buck converter. , 2011, , .		4
82	Application of neural network based model predictive controller to power switching converters. , 2011, , .		4
83	Comparative analysis of zero order Sugeno and Mamdani fuzzy logic controllers for obstacle avoidance behavior in mobile robot navigation. , 2011, , .		9
84	Design and analysis of fuzzy logic based robust PID controller for PWM-based switching converter. , 2011, , .		8
85	Design, low cost implementation and comparison of MIMO Mamdani Fuzzy Logic Controllers for wall tracking behavior of mobile robot. , 2011, , .		2
86	Design and implementation of a PWM-based digital controller for a high-frequency dc-dc buck converter working in CCM using classical control techniques. , 2010, , .		2
87	Optimal state-space controller for power switching converter. , 2010, , .		12