Muhammad Khalid

List of Publications by Citations

115 papers	1,730 citations	23 h-index	38 g-index
157 ext. papers	2,506 ext. citations	4.6 avg, IF	6.04 L-index

#	Paper	IF	Citations
115	Optimal sizing of a wind/solar/battery hybrid grid-connected microgrid system. *IET Renewable Power Generation*, **2018**, 12, 72-80	2.9	147
114	A model predictive control approach to the problem of wind power smoothing with controlled battery storage. *Renewable Energy*, **2010**, 35, 1520-1526	8.1	124
113	. *IEEE Transactions on Power Systems*, **2012**, 27, 579-586	7	100
112	A review on the selected applications of forecasting models in renewable power systems. *Renewable and Sustainable Energy Reviews*, **2019**, 100, 9-21	16.2	86
111	. *IEEE Access*, **2017**, 5, 25897-25912	3.5	76
110	Improving Wind Farm Dispatch in the Australian Electricity Market With Battery Energy Storage Using Model Predictive Control. *IEEE Transactions on Sustainable Energy*, **2013**, 4, 745-755	8.2	75
109	Minimization and control of battery energy storage for wind power smoothing: Aggregated, distributed and semi-distributed storage. *Renewable Energy*, **2014**, 64, 105-112	8.1	58
108	On maximizing profit of wind-battery supported power station based on wind power and energy price forecasting. *Applied Energy*, **2018**, 211, 764-773	10.7	49
107	A Coordinated Frequency Regulation Framework Based on Hybrid Battery-Ultracapacitor Energy Storage Technologies. *IEEE Access*, **2018**, 6, 7310-7320	3.5	45
106	Minimizing the energy cost for microgrids integrated with renewable energy resources and conventional generation using controlled battery energy storage. *Renewable Energy*, **2016**, 97, 646-655	8.1	45
105	An optimal operation of wind energy storage system for frequency control based on model predictive control. *Renewable Energy*, **2012**, 48, 127-132	8.1	45
104	An intelligent framework for short-term multi-step wind speed forecasting based on Functional Networks. *Applied Energy*, **2018**, 225, 902-911	10.7	45
103	. *IEEE Access*, **2018**, 6, 5986-6000	3.5	43
102	A Constrained Monotonic Charging/Discharging Strategy for Optimal Capacity of Battery Energy Storage Supporting Wind Farms. *IEEE Transactions on Sustainable Energy*, **2016**, 7, 1224-1231	8.2	39
101	A Comprehensive Review of Recent Advances in Smart Grids: A Sustainable Future with Renewable Energy Resources. *Energies*, **2020**, 13, 6269	3.1	36
100	Multi-step Ahead Wind Forecasting Using Nonlinear Autoregressive Neural Networks. *Energy Procedia*, **2017**, 134, 192-204	2.3	34
99	A Review on the Selected Applications of Battery-Supercapacitor Hybrid Energy Storage Systems for Microgrids. *Energies*, **2019**, 12, 4559	3.1	33

98	An Energy Management System for Residential Autonomous DC Microgrid Using Optimized Fuzzy Logic Controller Considering Economic Dispatch. *Energies*, **2019**, 12, 1457	3.1	31
97	Co-optimized trading of wind-thermal-pumped storage system in energy and regulation markets. *Energy*, **2017**, 138, 991-1005	7.9	31
96	Optimal Planning of Multiple Distributed Generating Units and Storage in Active Distribution Networks. *IEEE Access*, **2018**, 6, 55234-55244	3.5	29
95	Method for planning a wind□solar□battery hybrid power plant with optimal generation-demand matching. *IET Renewable Power Generation*, **2018**, 12, 1800-1806	2.9	29
94	Electric Vehicles Beyond Energy Storage and Modern Power Networks: Challenges and Applications. *IEEE Access*, **2019**, 7, 99031-99064	3.5	28
93	An Efficient ANFIS-Based PI Controller for Maximum Power Point Tracking of PV Systems. *Arabian Journal for Science and Engineering*, **2015**, 40, 2641-2651		26
92	Savizky□olay Filtering for Solar Power Smoothing and Ramp Rate Reduction Based on Controlled Battery Energy Storage. *IEEE Access*, **2020**, 8, 33806-33817	3.5	21
91	Seven-parameter PV model estimation using Differential Evolution. *Electrical Engineering*, **2018**, 100, 971-981	1.5	21
90	Optimal Sizing of Battery Energy Storage for Grid-Connected and Isolated Wind-Penetrated Microgrid. *IEEE Access*, **2020**, 8, 91129-91138	3.5	19
89	Investigation into effects of non-uniform irradiance and photovoltaic temperature on performances of photovoltaic/thermal systems coupled with truncated compound parabolic concentrators. *Applied Energy*, **2019**, 250, 245-256	10.7	18
88	Minimization of Power Losses through Optimal Battery Placement in a Distributed Network with High Penetration of Photovoltaics. *Energies*, **2020**, 13, 140	3.1	18
87	Performance investigation on a novel spectral splitting concentrating photovoltaic/thermal system based on direct absorption collection. *Solar Energy*, **2018**, 163, 552-563	6.8	18
86	Power Quality Improvement in Microgrids Under Critical Disturbances Using an Intelligent Decoupled Control Strategy Based on Battery Energy Storage System. *IEEE Access*, **2019**, 7, 147314-147326	3.5	17
85	Improving the Transient Response of Hybrid Energy Storage System for Voltage Stability in DC Microgrids Using an Autonomous Control Strategy. *IEEE Access*, **2021**, 9, 10460-10472	3.5	16
84	Heat losses and thermal stresses of an external cylindrical water/steam solar tower receiver. *Applied Thermal Engineering*, **2019**, 163, 114241	5.8	15
83	Optimal Sizing of Battery Energy Storage for a Grid-Connected Microgrid Subjected to Wind Uncertainties. *Energies*, **2019**, 12, 2412	3.1	15
82	Enhancing the reliability of a microgrid through optimal size of battery ESS. *IET Generation, Transmission and Distribution*, **2019**, 13, 1499-1508	2.5	15
81	Model predictive control for wind power generation smoothing with controlled battery storage **2009**,		15

80	Model predictive control based efficient operation of battery energy storage system for primary frequency control **2010**,		13
79	Wind Power Economic Dispatch Impact of Radial Basis Functional Networks and Battery Energy Storage. *IEEE Access*, **2019**, 7, 36819-36832	3.5	12
78	Design and performance study on a large-scale hybrid CPV/T system based on unsteady-state thermal model. *Solar Energy*, **2019**, 177, 427-439	6.8	12
77	An Intelligent Battery Energy Storage-Based Controller for Power Quality Improvement in Microgrids. *Energies*, **2019**, 12, 2112	3.1	11
76	. *IEEE Access*, **2019**, 7, 77951-77963	3.5	10
75	A market-oriented wind power dispatch strategy using adaptive price thresholds and battery energy storage. *Wind Energy*, **2018**, 21, 242-254	3.4	10
74	Closure to discussion on "A method for short-term wind power prediction with multiple observation points". *IEEE Transactions on Power Systems*, **2013**, 28, 1898-1899	7	10
73	Thermal losses evaluation of an external rectangular receiver in a windy environment. *Solar Energy*, **2019**, 184, 281-291	6.8	9
72	Optimization and control of a distributed Battery Energy Storage System for wind power smoothing **2011**,		9
71	Wind power dispatch control with battery energy storage using model predictive control **2012**,		8
70	Multi-Input Nonlinear Programming Based Deterministic Optimization Framework for Evaluating Microgrids with Optimal Renewable-Storage Energy Mix. *Sustainability*, **2021**, 13, 5878	3.6	8
69	Impact of wind speed modelling on the predictive reliability assessment of wind-based microgrids. *IET Renewable Power Generation*, **2019**, 13, 2947-2956	2.9	7
68	A MILP-Based Restoration Technique for Multi-Microgrid Distribution Systems. *IEEE Access*, **2019**, 7, 136801-136811	3.5	
67	Diet of the Worm Lizard, Diplometopon zarudnyi (Nikolsky, 1907), in Riyadh province, Saudi Arabia (Reptilia: Trogonophidae). *Zoology in the Middle East*, **2016**, 62, 227-230	0.7	6
66	Optimal size of battery energy storage and monotonic charging/discharging strategies for wind farms **2014**,		6
65	Techno-Economic Assessment and Operational Planning of Wind-Battery Distributed Renewable Generation System. *Sustainability*, **2021**, 13, 6776	3.6	6
64	Stochastic-programming-based bidding strategy for V2G services **2013**,		5
63	Moving Regression Filtering With Battery State of Charge Feedback Control for Solar PV Firming and Ramp Rate Curtailment. *IEEE Access*, **2021**, 9, 13198-13211	3.5	5

62	Optimal Sizing, Allocation, Dispatch and Power Flow of Energy Storage Systems Integrated with Distributed Generation Units and a Wind Farm **2018**,		5
61	Optimal Sizing and Cost Minimization of Solar Photovoltaic Power System Considering Economical Perspectives and Net Metering Schemes. *Electronics (Switzerland)*, **2021**, 10, 2713	2.6	4
60	Machine learning in state of health and remaining useful life estimation: Theoretical and technological development in battery degradation modelling. *Renewable and Sustainable Energy Reviews*, **2022**, 156, 111903	16.2	4
59	Model Predictive Control Approach for Optimal Power Dispatch and Duck Curve Handling Under High Photovoltaic Power Penetration. *IEEE Access*, **2020**, 8, 186840-186850	3.5	4
58	Energy Management Strategy Considering Battery Efficiency for Grid-Tied Microgrids During Summer in the Kingdom of Saudi Arabia **2019**,		4
57	Sizing and Allocation for Solar Energy Storage System Considering the Cost Optimization **2019**,		4
56	Wind Energy Conversion Systems and Artificial Neural Networks: Role and Applications **2019**,		4
55	Hybrid Energy Storage System for Voltage Stability in a DC Microgrid Using a Modified Control Strategy **2019**,		4
54	Microgrid Reliability Evaluation Using Distributed Energy Storage Systems **2019**,		4
53	A comprehensive study on the effects of truncation positions of the compound parabolic concentrator eliminating multiple reflections on the performances of concentrating photovoltaic and thermal system. *Applied Thermal Engineering*, **2021**, 183, 116162	5.8	4
52	A method for short-term wind speed time series forecasting using Support Vector Machine Regression Model **2017**,		3
51	Coordinating emission-aware energy trading with V2G services **2013**,		3
50	Two-Stage Stochastic Optimization of Sodium-Sulfur Energy Storage Technology in Hybrid Renewable Power Systems. *IEEE Access*, **2021**, 9, 162962-162972	3.5	3
49	A Reactive Power Compensation Strategy in Radial Distribution Network with High PV Penetration **2019**,		3
48	Optimal Coordinated Planning of Energy Storage and Tie-Lines to Boost Flexibility with High Wind Power Integration. *Sustainability*, **2021**, 13, 2526	3.6	3
47	Sizing of energy storage systems to enhance microgrid reliability **2018**,		3
46	A Novel Design of Static Electrostatic Generator for High Voltage Low Power Applications Based on Electric Field Manipulation by Area Geometric Difference. *Energies*, **2019**, 12, 802	3.1	2
45	Optimization of a power system consisting of wind and solar power plants and battery energy storage for optimal matching of supply and demand **2015**,		2

44	Model Predictive Control of Wind Energy Storage System for Frequency Regulation. *Smart Innovation, Systems and Technologies*, **2011**, 101-110	0.5	2
43	Nonlinear Power System Stabilizer Design for Small Signal Stability Enhancement. *Arabian Journal for Science and Engineering*,1	2.5	2
42	Discussion on Novel Supervisory Control Method for Islanded Droop-Based AC/DC Microgrids *IEEE Transactions on Power Systems*, **2020**, 35, 4138-4138	7	2
41	Development of Short-Term Prediction System for Wind Power Generation Based on Multiple Observation Points **2009**, 89-98		2
40	Fuzzy logic controller for solar power smoothing based on controlled battery energy storage and varying low pass filter. *IET Renewable Power Generation*, **2020**, 14, 3824-3833	2.9	2
39	Impact of Smart Restoration and Energy Storage Systems on the Reliability of Electric Microgrid. *Arabian Journal for Science and Engineering*, **2020**, 45, 1911-1925	2.5	2
38	Integrated Power Management and Nonlinear-Control for Hybrid Renewable Microgrid **2021**,		2
37	Voltage and Frequency Control of Microgrids With Distributed Generations and Battery Energy Storage **2019**,		2
36	**2019**,		2
35	Multi-Objective Optimal DG Sizing and Placement in Distribution Systems Using Particle Swarm Optimization **2019**,		2
34	Residential Demand Side Management in Smart Grid Paradigm **2018**,		2
33	. *IEEE Access*, **2021**, 9, 42771-42785	3.5	2
32	Global Sliding-Mode Control with Fractional-Order Terms for the Robust Optimal Operation of a Hybrid Renewable Microgrid with Battery Energy Storage. *Electronics (Switzerland)*, **2022**, 11, 88	2.6	2
31	A Flexible Operation and Sizing of Battery Energy Storage System Based on Butterfly Optimization Algorithm. *Electronics (Switzerland)*, **2022**, 11, 109	2.6	2
30	Energy Management for Standalone DC Microgrid Using Artificial Bee Colony **2019**,		1
29	Minimizing Active Power Losses in Electricity Networks Based on Optimal Location of Battery Energy Storage System **2019**,		1
28	A Nonlinear Autoregressive Neural Network Model for Short-Term Wind Forecasting **2017**,		1
27	**2017**,		1

26	A method for minimizing energy cost in a microgrid with hybrid renewable power generation using controlled battery energy storage **2016**,		1
25	Reliability Assessment of Microgrids with Multiple Distributed Generations and Hybrid Energy Storage **2018**,		1
24	An adaptive control algorithm for wind power dispatch using a battery energy storage system **2015** ,		1
23	Transmission lines induced currents in human bodies using charge simulation method **2012**,		1
22	Model predictive control of distributed and aggregated Battery Energy Storage System for capacity optimization **2011**,		1
21	**2009**,		1
20	Stochastic Approach for Optimal Sizing and Allocation of Energy Storage Systems **2021**,		1
19	A Strategy for Utilization of Reactive Power Capability of PV Inverters **2019**,		1
18	**2019**,		1
17	Primary Frequency Regulation by Demand Side Response. *Arabian Journal for Science and Engineering*, **2021**, 46, 9627-9637	2.5	1
16	An Efficient Scenario Generation Technique for Short-Term Wind Power Production **2018**,		1
15	Optimal Dispatch of Distributed Generation Units, Wind Farms and Energy Storage Systems **2018**,		1
14	A strategy for residential demand response management in modern electricity markets **2018**,		1
13	Robust Control for Optimized Islanded and Grid-Connected Operation of Solar/Wind/Battery Hybrid Energy. *Sustainability*, **2022**, 14, 5673	3.6	1
12	Double Moving Average Methodology for Smoothing of Solar Power Fluctuations with Battery Energy Storage		0
11	Discussion on Decentralized Optimal Frequency Control in Autonomous Microgrids *IEEE Transactions on Power Systems*, **2020**, 35, 4972-4972	7	0
10	Neural network predictive control for smoothing of solar power fluctuations with battery energy storage. *Journal of Energy Storage*, **2021**, 42, 103014	7.8	0
9	A Review of Improvements in Power System Flexibility: Implementation, Operation and Economics. *Electronics (Switzerland)*, **2022**, 11, 581	2.6	0

8	AC/DC fault handling and expanded DC power flow expression in hybrid multi-converter DC grids. *International Journal of Electrical Power and Energy Systems*, **2022**, 141, 107989	5.1	0
7	Enhancing Transient Response and Voltage Stability of Renewable Integrated Microgrids. *Sustainability*, **2022**, 14, 3710	3.6	0
6	Discussion on "Short-Term Reactive Power Planning to Minimize Cost of Energy Losses Considering PV Systems" *IEEE Transactions on Smart Grid*, **2020**, 11, 1812-1812	10.7	
5	Metabolism of the spade-headed Amphisbaenian worm lizard, (Nikolsky, 1907), in Saudi Arabia (Reptilia: Trogonophidae). *Saudi Journal of Biological Sciences*, **2018**, 25, 178-181	4	
4	Direction Dependent Power Curves for Wind Power Prediction: A Case Study. *Smart Innovation, Systems and Technologies*, **2011**, 121-127	0.5	
3	Soft Load Shedding Based Demand Control of Residential Consumers. *Electronics (Switzerland)*, **2022**, 11, 615	2.6	
2	Experiment and Numerical Analysis of Thermal Performance of a Billboard External Receiver. *Energies*, **2022**, 15, 2188	3.1	
1	Discussion on "Mitigation of Fault Induced Delayed Voltage Recovery (FIDVR) by PV-STATCOM" *IEEE Transactions on Power Systems*, **2022**, 37, 1665-1665	7	