

Eklas Hossain

List of Publications by Year in descending order

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118
papers

4,901
citations

126708

33
h-index

106150

65
g-index

123
all docs

123
docs citations

123
times ranked

3916
citing authors

#	ARTICLE	IF	CITATIONS
1	A Comprehensive Study of Key Electric Vehicle (EV) Components, Technologies, Challenges, Impacts, and Future Direction of Development. <i>Energies</i> , 2017, 10, 1217.	1.6	434
2	Application of Big Data and Machine Learning in Smart Grid, and Associated Security Concerns: A Review. <i>IEEE Access</i> , 2019, 7, 13960-13988.	2.6	298
3	Microgrid testbeds around the world: State of art. <i>Energy Conversion and Management</i> , 2014, 86, 132-153.	4.4	262
4	Diabetes Prediction Using Ensembling of Different Machine Learning Classifiers. <i>IEEE Access</i> , 2020, 8, 76516-76531.	2.6	248
5	Analysis and Mitigation of Power Quality Issues in Distributed Generation Systems Using Custom Power Devices. <i>IEEE Access</i> , 2018, 6, 16816-16833.	2.6	235
6	A Comprehensive Review on Second-Life Batteries: Current State, Manufacturing Considerations, Applications, Impacts, Barriers & Potential Solutions, Business Strategies, and Policies. <i>IEEE Access</i> , 2019, 7, 73215-73252.	2.6	198
7	A Short-Term Load Forecasting Method Using Integrated CNN and LSTM Network. <i>IEEE Access</i> , 2021, 9, 32436-32448.	2.6	175
8	A Novel Smart Healthcare Design, Simulation, and Implementation Using Healthcare 4.0 Processes. <i>IEEE Access</i> , 2020, 8, 118433-118471.	2.6	156
9	A Comprehensive Review of the Load Forecasting Techniques Using Single and Hybrid Predictive Models. <i>IEEE Access</i> , 2020, 8, 134911-134939.	2.6	152
10	A Novel Modified Sine-Cosine Optimized MPPT Algorithm for Grid Integrated PV System under Real Operating Conditions. <i>IEEE Access</i> , 2019, 7, 10467-10477.	2.6	120
11	A Comprehensive Review on Energy Storage Systems: Types, Comparison, Current Scenario, Applications, Barriers, and Potential Solutions, Policies, and Future Prospects. <i>Energies</i> , 2020, 13, 3651.	1.6	120
12	A Hybrid Photovoltaic-Fuel Cell for Grid Integration With Jaya-Based Maximum Power Point Tracking: Experimental Performance Evaluation. <i>IEEE Access</i> , 2019, 7, 82978-82990.	2.6	117
13	Forecasting of COVID-19 cases using deep learning models: Is it reliable and practically significant?. <i>Results in Physics</i> , 2021, 21, 103817.	2.0	112
14	Size Optimization and Sensitivity Analysis of Hybrid Wind/PV Micro-Grids- A Case Study for Bangladesh. <i>IEEE Access</i> , 2019, 7, 150120-150140.	2.6	101
15	Metrics and enhancement strategies for grid resilience and reliability during natural disasters. <i>Applied Energy</i> , 2021, 290, 116709.	5.1	94
16	A Hybrid ANFIS-ABC Based MPPT Controller for PV System With Anti-Islanding Grid Protection: Experimental Realization. <i>IEEE Access</i> , 2019, 7, 103377-103389.	2.6	93
17	A Comprehensive Review on Constant Power Loads Compensation Techniques. <i>IEEE Access</i> , 2018, 6, 33285-33305.	2.6	90
18	A Systematic Review on Cognitive Radio in Low Power Wide Area Network for Industrial IoT Applications. <i>Sustainability</i> , 2021, 13, 338.	1.6	83

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19	Design and Hardware Implementation Considerations of Modified Multilevel Cascaded H-Bridge Inverter for Photovoltaic System. IEEE Access, 2019, 7, 16504-16524.	2.6	69
20	Brain-Computer Interface-Based Humanoid Control: A Review. Sensors, 2020, 20, 3620.	2.1	63
21	An Improved Dynamic Thermal Current Rating Model for PMU-Based Wide Area Measurement Framework for Reliability Analysis Utilizing Sensor Cloud System. IEEE Access, 2021, 9, 14446-14458.	2.6	63
22	Power Enhancement With Grid Stabilization of Renewable Energy-Based Generation System Using UPQC-FLC-EVA Technique. IEEE Access, 2020, 8, 207443-207464.	2.6	59
23	HSIC Bottleneck Based Distributed Deep Learning Model for Load Forecasting in Smart Grid With a Comprehensive Survey. IEEE Access, 2020, 8, 222977-223008.	2.6	57
24	Compact Three Phase Multilevel Inverter for Low and Medium Power Photovoltaic Systems. IEEE Access, 2020, 8, 60824-60837.	2.6	52
25	Survey of Smart Grid Concepts and Technological Demonstrations Worldwide Emphasizing on the Oman Perspective. Applied System Innovation, 2020, 3, 5.	2.7	49
26	A Review on Communication Standards and Charging Topologies of V2G and V2H Operation Strategies. Energies, 2019, 12, 3748.	1.6	48
27	Algorithm for Demand Response to Maximize the Penetration of Renewable Energy. IEEE Access, 2020, 8, 55279-55288.	2.6	48
28	Authentication Protocol for Cloud Databases Using Blockchain Mechanism. Sensors, 2019, 19, 4444.	2.1	46
29	BOLD: Bio-Inspired Optimized Leader Election for Multiple Drones. Sensors, 2020, 20, 3134.	2.1	41
30	An experimental study on eco-friendly and cost-effective natural materials for productivity enhancement of single slope solar still. Environmental Science and Pollution Research, 2022, 29, 1917-1936.	2.7	41
31	A Novel Battery Supported Energy Management System for the Effective Handling of Feeble Power in Hybrid Microgrid Environment. IEEE Access, 2020, 8, 217391-217415.	2.6	39
32	A New Decentralized Control Strategy of Microgrids in the Internet of Energy Paradigm. Energies, 2021, 14, 2183.	1.6	39
33	Density based smart traffic control system using canny edge detection algorithm for congregating traffic information. , 2017, , .		37
34	Peak Reduction and Long Term Load Forecasting for Large Residential Communities Including Smart Homes With Energy Storage. IEEE Access, 2021, 9, 19345-19355.	2.6	35
35	Investigation on the Development of a Sliding Mode Controller for Constant Power Loads in Microgrids. Energies, 2017, 10, 1086.	1.6	30
36	An Overview of Energy Scenarios, Storage Systems and the Infrastructure for Vehicle-to-Grid Technology. Energies, 2018, 11, 2174.	1.6	30

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37	Stability improvement of microgrids in the presence of constant power loads. International Journal of Electrical Power and Energy Systems, 2018, 96, 442-456.	3.3	29
38	A Three-Phase Transformerless T-Type- NPC-MLI for Grid Connected PV Systems with Common-Mode Leakage Current Mitigation. Energies, 2019, 12, 2434.	1.6	29
39	Utility Grid: Present Challenges and Their Potential Solutions. IEEE Access, 2018, 6, 60294-60317.	2.6	28
40	Design and Analysis of Heavily Doped n+ Pocket Asymmetrical Junction-Less Double Gate MOSFET for Biomedical Applications. Applied Sciences (Switzerland), 2020, 10, 2499.	1.3	27
41	A Comprehensive Review on Sustainable Aspects of Big Data Analytics for the Smart Grid. Sustainability, 2021, 13, 13322.	1.6	27
42	Fuzzy logic controller for Dc-Dc buck converter with constant power load. , 2017, , .		24
43	A Qualitative Study on the United States Internet of Energy: A Step Towards Computational Sustainability. IEEE Access, 2020, 8, 69003-69037.	2.6	24
44	Designing a competitive electric vehicle charging station with solar PV and storage. , 2015, , .		23
45	Energy-Efficient Fuzzy Management System for Internet of Things Connected Vehicular Ad Hoc Networks. Electronics (Switzerland), 2021, 10, 1068.	1.8	23
46	Sliding Mode Controller and Lyapunov Redesign Controller to Improve Microgrid Stability: A Comparative Analysis with CPL Power Variation. Energies, 2017, 10, 1959.	1.6	22
47	Axial-Flux PM Disk Generator With Magnetic Gear for Oceanic Wave Energy Harvesting. IEEE Access, 2019, 7, 44813-44822.	2.6	21
48	A Simple Multilevel Space Vector Modulation Technique and MATLAB System Generator Built FPGA Implementation for Three-Level Neutral-Point Clamped Inverter. Energies, 2019, 12, 4332.	1.6	21
49	A Modified Step-Up Converter with Small Signal Analysis-Based Controller for Renewable Resource Applications. Applied Sciences (Switzerland), 2020, 10, 102.	1.3	21
50	Analysis of Optimal Deployment of Several DGs in Distribution Networks Using Plant Propagation Algorithm. IEEE Access, 2020, 8, 175546-175562.	2.6	21
51	Solar PV's Micro Crack and Hotspots Detection Technique Using NN and SVM. IEEE Access, 2021, 9, 127259-127269.	2.6	21
52	Integrated modeling and feasibility analysis of a rooftop photovoltaic systems for an academic building in Bangladesh. International Journal of Low-Carbon Technologies, 2021, 16, 1317-1327.	1.2	21
53	The path of the smart grid -the new and improved power grid. , 2016, , .		19
54	Design and Simulation of a Grid Connected Wind Turbine with Permanent Magnet Synchronous Generator. , 2020, , .		19

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55	Efficiency improvement of solar cell using compound parabolic concentrator and sun tracking system. , 2008, , .		18
56	Hybrid microgrid testbed involving wind/solar/fuel cell plants: A desing and analysis testbed. , 2014, , .		18
57	Performance Enhancement of PV System Configurations Under Partial Shading Conditions Using MS Method. IEEE Access, 2021, 9, 56630-56644.	2.6	18
58	Microgrid facility at European union. , 2014, , .		17
59	Modeling of Airgap Fluxes and Performance Analysis of Five Phase Permanent Magnet Synchronous Generator for Wind Power Application. IEEE Access, 2020, 8, 195472-195486.	2.6	17
60	A Compact and Cost Efficient Multiconverter for Multipurpose Applications. IEEE Access, 2020, 8, 86810-86823.	2.6	17
61	Development of a Novel Technological Readiness Assessment Tool for Fuel Cell Technology. IEEE Access, 2020, 8, 132237-132252.	2.6	16
62	Design Modification in Single-Tooth Winding Double-Stator Switched Reluctance Motor for Torque Ripple Mitigation. IEEE Access, 2021, 9, 19078-19096.	2.6	16
63	Combined Approach for Power Loss Minimization in Distribution Networks in the Presence of Gridable Electric Vehicles and Dispersed Generation. IEEE Systems Journal, 2022, 16, 3284-3295.	2.9	16
64	Microgrid test-bed design with renewable energy sources. , 2014, , .		15
65	Development of Lyapunov redesign controller for microgrids with constant power loads. Renewable Energy Focus, 2017, 19-20, 49-62.	2.2	15
66	Fixed Point Implementation of Grid Tied Inverter in Digital Signal Processing Controller. IEEE Access, 2020, 8, 89215-89227.	2.6	15
67	Solar Energy in the United States: Development, Challenges and Future Prospects. Energies, 2021, 14, 8142.	1.6	15
68	Design and Implementation of Improved Three Port Converter and B4-Inverter Fed Brushless Direct Current Motor Drive System for Industrial Applications. IEEE Access, 2020, 8, 149093-149112.	2.6	13
69	Solar cell efficiency improvement using compound parabolic concentrator and an implementation of sun tracking system. , 2008, , .		12
70	Resonant Energy Carrier Base Active Charge-Balancing Algorithm. Electronics (Switzerland), 2020, 9, 2166.	1.8	12
71	Real-Time Non-Intrusive Electrical Load Classification Over IoT Using Machine Learning. IEEE Access, 2021, 9, 115053-115067.	2.6	12
72	Multi-Class Probabilistic Atlas-Based Whole Heart Segmentation Method in Cardiac CT and MRI. IEEE Access, 2021, 9, 66948-66964.	2.6	12

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73	Exploring the Utilization of Energy Storage Systems for Frequency Response Adequacy of a Low Inertia Power Grid. IEEE Access, 2021, 9, 129933-129950.	2.6	12
74	Implementation of hybrid energy storage systems to compensate microgrid instability in the presence of constant power loads. , 2016, , .		11
75	A Review of Control Methods on Suppression of 2% Ripple for Single-Phase Quasi-Z-Source Inverter. IEEE Access, 2020, 8, 42055-42070.	2.6	11
76	Low voltage power line characterization as a data transfer method in public electricity distribution networks and indoor distribution networks. , 2008, , .		10
77	Design and data analysis for a belt-for-blind for visual impaired people. International Journal of Advanced Mechatronic Systems, 2011, 3, 384.	0.1	10
78	Electric Vehicle Charge Stations Location Analysis and Determinationâ€”Ankara (Turkey) Case Study. Energies, 2019, 12, 3472.	1.6	10
79	Comprehensive NILM Framework: Device Type Classification and Device Activity Status Monitoring Using Capsule Network. IEEE Access, 2020, 8, 179995-180009.	2.6	10
80	Design a grid tie inverter for PMSG wind turbine using FPGA & DSP builder. , 2016, , .		9
81	A wave-to-wire model of ocean wave energy conversion system using MATLAB/Simulink platform. , 2016, , .		8
82	Nose tracking cursor control for the people with disabilities: An improved HCI. , 2017, , .		8
83	Overview of quality of service evaluation of a charging station for electric vehicle. , 2017, , .		8
84	A Comparative Analysis of Deep Neural Networks for Hourly Temperature Forecasting. IEEE Access, 2021, 9, 160646-160660.	2.6	8
85	Artificial Neural Network Based Dynamic Voltage Restorer for Improvement of Power Quality. , 2018, , .		7
86	Power Loss Analysis of Solar Photovoltaic Integrated Model Predictive Control Based On-Grid Inverter. Energies, 2020, 13, 4669.	1.6	7
87	Implementation of Different MPPT Techniques in Solar PV Tree under Partial Shading Conditions. Sustainability, 2021, 13, 7208.	1.6	7
88	IoT Based Smart Energy Management in Residential Applications. , 2019, , .		6
89	Design of a Convolutional Neural Network Based Smart Waste Disposal System. , 2019, , .		6
90	Location-Based Optimized Service Selection for Data Management with Cloud Computing in Smart Grids. Energies, 2019, 12, 4517.	1.6	6

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91	Regional Pole Placers of Power Systems under Random Failures/Repair Markov Jumps. <i>Energies</i> , 2021, 14, 1989.	1.6	6
92	Implementation of unit commitment algorithm: A comprehensive droop control technique to retain microgrid stability. , 2016, , .		5
93	Improved Stability Criteria for Time-Varying Delay System Using Second and First Order Polynomials. <i>IEEE Access</i> , 2020, 8, 210961-210969.	2.6	5
94	Comparative Thermal and Demagnetization Analysis of the PM Machines with Neodymium and Ferrite Magnets. <i>Energies</i> , 2022, 15, 4484.	1.6	5
95	Microgrid facility around Asia and far east. , 2014, , .		4
96	Voltage and frequency stability analysis of AC microgrid. , 2015, , .		4
97	Performance of grid-voltage synchronization algorithms based on frequency-and phase-locked loop during severe grid fault conditions. , 2016, , .		4
98	An autonomous robot: Using ANN to navigate in a static path. , 2017, , .		4
99	Comparison of Different Hybrid Renewable Energy Systems With Optimized PV Configuration to Realize the Effects of Multiple Schemes. , 2019, , .		4
100	Stability Analysis and Efficiency Optimization of an Inductive Power Transfer System With a Constant Power Load. <i>IEEE Access</i> , 2020, 8, 209762-209775.	2.6	4
101	Projected Performance of InGaAs/GaAs Quantum Dot Solar Cells: Effects of Cap and Passivation Layers. <i>IEEE Access</i> , 2020, 8, 212339-212350.	2.6	4
102	Feasibility analysis: Evaluating sites for possible renewable energy options and their implications to minimize the cost. <i>International Journal of Electrical Engineering and Education</i> , 2020, , 002072092092853.	0.4	4
103	Design and Performance Analysis of Tandem Organic Solar Cells: Effect of Cell Parameter. <i>IEEE Access</i> , 2021, 9, 40665-40680.	2.6	4
104	Suppressing Voltage Spikes of MOSFET in H-Bridge Inverter Circuit. <i>Electronics (Switzerland)</i> , 2021, 10, 390.	1.8	4
105	Stability Analysis of MIMO Microgrid Systems in d - q Axis Platform with Constant Power Loads Based on Popov Absolute Stability Criterion. <i>Electric Power Components and Systems</i> , 2017, 45, 2200-2215.	1.0	3
106	Future of power generation in bangladesh: Present condition and future implications. , 2017, , .		3
107	Analysis and Implementation for a Walking Support System for Visually Impaired People. , 0, , 179-195.		3
108	Grid-voltage synchronization algorithm for grid tied renewable energy sources during adverse grid fault condition. , 2016, , .		2

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109	Evaluation and development of a self-ruling internal control system for preventing car accidents using artificial neural network. , 2017, , .		2
110	Reducing Generation Cost by Optimum Load Scheduling in Smart Grid Considering System Loss. , 2018, , .		2
111	Feasibility study of grid-connected solar plant: An in-depth analysis of system modeling and proper technology selection. International Journal of Electrical Engineering and Education, 2023, 60, 159-175.	0.4	2
112	High performance parameter observation of induction motor with sensorless vector Control using extended Kalman filter. , 2017, , .		1
113	Small Signal Stability with the Householder Method in Power Systems. Energies, 2019, 12, 3412.	1.6	1
114	Design of a Portable Solar Desalination System. , 2020, , .		1
115	Understanding the nonlinear behavior of EEG with advanced machine learning in artifact elimination. Biomedical Physics and Engineering Express, 2022, 8, 015017.	0.6	1
116	Solar Photovoltaic Industry Overview. , 2022, , 1-21.		1
117	A High Static Performance Hierarchical Three-Dimensional Shifted Completely Connected Network. IEEE Access, 2022, 10, 43812-43836.	2.6	1
118	A Novel Tradeoff Analysis between Traffic Congestion and Packing Density of Interconnection Networks for Massively Parallel Computers. Applied Sciences (Switzerland), 2021, 11, 10798.	1.3	0