

Hossam AGabbar

List of Publications by Year in descending order

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138
papers

1,911
citations

393982

19
h-index

315357

38
g-index

151
all docs

151
docs citations

151
times ranked

1793
citing authors

#	ARTICLE	IF	CITATIONS
1	Review of pipeline integrity management practices. International Journal of Pressure Vessels and Piping, 2010, 87, 373-380.	1.2	254
2	Review of Battery Management Systems (BMS) Development and Industrial Standards. Technologies, 2021, 9, 28.	3.0	165
3	Optimal planning of combined heat and power systems within microgrids. Energy, 2015, 93, 235-244.	4.5	95
4	Microgrid energy management in grid-connected and islanding modes based on SVC. Energy Conversion and Management, 2014, 86, 964-972.	4.4	67
5	Energy consumption and conservation practices in Qatar "A case study of a hotel building. Energy and Buildings, 2014, 84, 55-69.	3.1	64
6	Comfort-based fuzzy control optimization for energy conservation in HVAC systems. Control Engineering Practice, 2014, 32, 172-182.	3.2	63
7	Optimal scheduling of interconnected micro energy grids with multiple fuel options. Sustainable Energy, Grids and Networks, 2016, 7, 80-89.	2.3	59
8	Control and EMS of a Grid-Connected Microgrid with Economical Analysis. Energies, 2018, 11, 129.	1.6	49
9	Electric Vehicle to Power Grid Integration Using Three-Phase Three-Level AC/DC Converter and PI-Fuzzy Controller. Energies, 2016, 9, 532.	1.6	48
10	Performance enhancement of hybrid AC/DC microgrid based D-FACTS. International Journal of Electrical Power and Energy Systems, 2014, 63, 382-393.	3.3	47
11	Improved qualitative fault propagation analysis. Journal of Loss Prevention in the Process Industries, 2007, 20, 260-270.	1.7	34
12	Analysis of Microgrid protection strategies. , 2012, , .		34
13	A new methodology for multiple incipient fault diagnosis in transmission lines using QTA and Naïve Bayes classifier. International Journal of Electrical Power and Energy Systems, 2018, 103, 326-346.	3.3	31
14	Engineering design of green hybrid energy production and supply chains. Environmental Modelling and Software, 2009, 24, 423-435.	1.9	29
15	Comparative study of MSW heat treatment processes and electricity generation. Journal of the Energy Institute, 2018, 91, 481-488.	2.7	28
16	A hybrid statistical genetic-based demand forecasting expert system. Expert Systems With Applications, 2009, 36, 11662-11670.	4.4	26
17	Optimal electrical fast charging stations by enhanced descent gradient and Voronoi diagram. Computers and Electrical Engineering, 2020, 83, 106574.	3.0	25
18	Risk-based performance analysis of microgrid topology with distributed energy generation. International Journal of Electrical Power and Energy Systems, 2012, 43, 1363-1375.	3.3	24

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19	DC Thermal Plasma Design and Utilization for the Low Density Polyethylene to Diesel Oil Pyrolysis Reaction. <i>Energies</i> , 2017, 10, 784.	1.6	24
20	Optimal Planning of Nuclear-Renewable Micro-Hybrid Energy System by Particle Swarm Optimization. <i>IEEE Access</i> , 2020, 8, 181049-181073.	2.6	22
21	A novel method for real time gear fault detection based on pulse shape analysis. <i>Mechanical Systems and Signal Processing</i> , 2011, 25, 1287-1298.	4.4	21
22	Fuzzy logic control for improved pressurizer systems in nuclear power plants. <i>Annals of Nuclear Energy</i> , 2014, 72, 461-466.	0.9	20
23	Study of small modular reactors in modern microgrids. <i>International Transactions on Electrical Energy Systems</i> , 2015, 25, 1943-1951.	1.2	20
24	Analysis of nuclear-renewable hybrid energy system for marine ships. <i>Energy Reports</i> , 2021, 7, 2398-2417.	2.5	20
25	Risk based life cycle assessment conceptual framework for energy supply systems in large buildings. <i>Journal of Cleaner Production</i> , 2015, 107, 291-309.	4.6	19
26	Techno-Economic Evaluation of Interconnected Nuclear-Renewable Micro Hybrid Energy Systems with Combined Heat and Power. <i>Energies</i> , 2020, 13, 1642.	1.6	19
27	DG Mix and Energy Storage Units for Optimal Planning of Self-Sufficient Micro Energy Grids. <i>Energies</i> , 2016, 9, 616.	1.6	18
28	A comprehensive review on radioactive waste cycle from generation to disposal. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2021, 329, 15-31.	0.7	18
29	Fault diagnosis in gearbox using adaptive wavelet filtering and shock response spectrum features extraction. <i>Structural Health Monitoring</i> , 2013, 12, 169-180.	4.3	17
30	Performance optimization of integrated gas and power within microgrids using hybrid PSO-PS algorithm. <i>International Journal of Energy Research</i> , 2016, 40, 971-982.	2.2	15
31	Synergistic interactions, kinetic and thermodynamic analysis of co-pyrolysis of municipal paper and polypropylene waste. <i>Waste Management</i> , 2022, 146, 86-93.	3.7	14
32	Intelligent topology analyzer for improved plant operation. <i>Industrial Management and Data Systems</i> , 2007, 107, 229-250.	2.2	13
33	Optimal operation and battery management in a grid-connected microgrid. <i>Journal of International Council on Electrical Engineering</i> , 2018, 8, 195-206.	0.4	13
34	Review of energy storage technologies in harsh environment. <i>Safety in Extreme Environments</i> , 2019, 1, 11-25.	1.8	13
35	Optimal Design of Electric Bus Transport Systems With Minimal Total Ownership Cost. <i>IEEE Access</i> , 2020, 8, 119184-119199.	2.6	13
36	Optimal scheduling of energy hubs in interconnected multi energy systems. , 2016, , .		12

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37	Evaluation and optimization of thermoelectric generator network for waste heat utilization in nuclear power plants and non-nuclear energy applications. <i>Annals of Nuclear Energy</i> , 2017, 101, 454-464.	0.9	12
38	Fractional Order PID Control of Hybrid Power System with Renewable Generation Using Genetic Algorithm. , 2019, , .		12
39	Study of ozone concentration from CO2 decomposition in a water cooled coaxial dielectric barrier discharge. <i>Vacuum</i> , 2020, 177, 109370.	1.6	12
40	Recipe formal definition language for operating procedures synthesis. <i>Computers and Chemical Engineering</i> , 2004, 28, 1809-1822.	2.0	11
41	Fuzzy Logic-Based Safety Verification Framework for Nuclear Power Plants. <i>Risk Analysis</i> , 2013, 33, 1128-1145.	1.5	11
42	ANN Model for Energy Demand and Supply Forecasting in a Hybrid Energy Supply System. , 2018, , .		11
43	Modeling and performance analysis of nuclear-renewable micro hybrid energy system based on different coupling methods. <i>Energy Reports</i> , 2020, 6, 189-206.	2.5	11
44	Micro Nuclear Reactors: Potential Replacements for Diesel Gensets within Micro Energy Grids. <i>Energies</i> , 2020, 13, 5172.	1.6	11
45	Flywheel-Based Fast Charging Station "FFCS for Electric Vehicles and Public Transportation. <i>IOP Conference Series: Earth and Environmental Science</i> , 2017, 83, 012009.	0.2	10
46	Improved Performance of Flywheel Fast Charging System (FFCS) Using Enhanced Artificial Immune System (EAIS). <i>IEEE Systems Journal</i> , 2020, 14, 824-831.	2.9	10
47	Modeling Approach for Flexible Production Chain Operation. <i>IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans</i> , 2008, 38, 48-55.	3.4	9
48	Integrated framework for safety control design of nuclear power plants. <i>Nuclear Engineering and Design</i> , 2010, 240, 3550-3558.	0.8	9
49	Dynamic aggregated building electricity load modeling and simulation. <i>Simulation Modelling Practice and Theory</i> , 2014, 42, 19-31.	2.2	9
50	Performance optimisation for novel green plug energy economizer in micro grids based on recent heuristic algorithm. <i>IET Generation, Transmission and Distribution</i> , 2016, 10, 678-687.	1.4	9
51	Risk-based performance analysis for regional hybrid fuel with compressed natural gas option. <i>International Journal of Process Systems Engineering</i> , 2012, 2, 154.	0.2	8
52	Operations optimization towards high performance cooling in commercial buildings. , 2013, , .		8
53	Resilient micro energy grids with gas-power and renewable technologies. , 2014, , .		8
54	Signal de-noising methods for fault diagnosis and troubleshooting at CANDU ® stations. <i>Nuclear Engineering and Design</i> , 2014, 280, 481-492.	0.8	8

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55	Building thermal energy modeling with loss minimization. Simulation Modelling Practice and Theory, 2014, 49, 110-121.	2.2	8
56	Optimal Planning of Integrated Nuclear-Renewable Energy System for Marine Ships Using Artificial Intelligence Algorithm. Energies, 2021, 14, 3188.	1.6	8
57	Energy saving and management of water pumping networks. Heliyon, 2021, 7, e07820.	1.4	8
58	Key performance indicators (KPIs) for evaluation of energy conservation in buildings. , 2013, , .		7
59	A multi-objective evolutionary optimization of fuzzy controller for energy conservation in air conditioning systems. International Journal of Energy Research, 2014, 38, 847-859.	2.2	7
60	Supervisory controller for power management of AC/DC microgrid. , 2016, , .		7
61	Effects of Ultra-Fast Charging System for Battery Size of Public Electric Bus. , 2020, , .		7
62	Fault Semantic Networks for Accident Forecasting of LNG Plants. Lecture Notes in Computer Science, 2010, , 427-437.	1.0	7
63	Plant object-orientated model formalization " case study: HDS plant design. Design Studies, 2003, 24, 101-108.	1.9	6
64	A robust method for coupling detection among process variables. International Journal of Process Systems Engineering, 2012, 2, 93.	0.2	6
65	Energy Semantic Network for Building Energy Management. Intelligent Industrial Systems, 2015, 1, 213-231.	1.0	6
66	Performance evaluation of gas-power strategies for building energy conservation. Energy Conversion and Management, 2015, 93, 187-196.	4.4	6
67	Key performance assessment of fuel cell based distributed energy generation system in resilient micro energy grid. , 2015, , .		6
68	Risk Assessment of Micro Energy Grid Protection Layers. Energies, 2017, 10, 1176.	1.6	6
69	Sizing Analysis of Hybrid DC Fast Charging System for Electric Vehicles. , 2018, , .		6
70	Nuclear-Powered Hybrid Energy Storage-Based Fast Charging Station for Electrification Transportation. , 2019, , .		6
71	A Novel Sooty Terns Algorithm for Deregulated MPC-LFC Installed in Multi-Interconnected System with Renewable Energy Plants. Energies, 2021, 14, 5393.	1.6	6
72	Hierarchical control architecture for resilient interconnected microgrids for mass transit systems. IET Electrical Systems in Transportation, 2020, 10, 320-327.	1.5	6

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73	Design of fault simulator. Reliability Engineering and System Safety, 2009, 94, 1289-1298.	5.1	5
74	Micro grid renewables dynamic and static performance optimization using genetic algorithm. , 2015, , .		5
75	Design and control of resilient interconnected microgrid for sustained railway. , 2017, , .		5
76	Fault diagnosis of micro energy grids using Bayesian belief network and adaptive neuro-fuzzy interference system. , 2017, , .		5
77	Optimizing Charging Infrastructures of Electric Bus Routes to Minimize Total Ownership Cost. , 2020, , .		5
78	CTIMS: Automated Defect Detection Framework Using Computed Tomography. Applied Sciences (Switzerland), 2022, 12, 2175.	1.3	5
79	Trend analysis using real time fault simulation for improved fault diagnosis. , 2007, , .		4
80	Gearbox Fault Detection Using Real Coded Genetic Algorithm and Novel Shock Response Spectrum Features Extraction. Journal of Nondestructive Evaluation, 2013, 33, 111.	1.1	4
81	Tuning of fault semantic network using Bayesian theory for probabilistic fault diagnosis in process industry. , 2013, , .		4
82	Micro Grid stability enhancement using SVC with fuzzy model reference learning controller algorithm. , 2015, , .		4
83	Hierarchical safety control for micro energy grids using adaptive neuro-fuzzy decision making method. , 2016, , .		4
84	Integrated modeling for optimized regional transportation with compressed natural gas fuel. AEJ - Alexandria Engineering Journal, 2016, 55, 533-545.	3.4	4
85	FSN-based cosimulation for fault propagation analysis in nuclear power plants. Process Safety Progress, 2016, 35, 53-60.	0.4	4
86	Enhanced MG with optimum operational cost of pumping water distribution systems. , 2017, , .		4
87	Modeling of Interconnected Infrastructures with Unified Interface Design toward Smart Cities. Energies, 2021, 14, 4572.	1.6	4
88	Design of Fast Charging Station with Energy Management for eBuses. Vehicles, 2021, 3, 807-820.	1.7	4
89	FSN-based fault modeling in CANDU® stations. Annals of Nuclear Energy, 2014, 65, 325-337.	0.9	3
90	Application of principal component analysis for the diagnosis of neutron overpower system oscillations in CANDU reactors. Nuclear Engineering and Design, 2014, 270, 238-248.	0.8	3

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91	Application of Safety Instrumented System (SIS) approach in older nuclear power plants. Nuclear Engineering and Design, 2016, 301, 1-14.	0.8	3
92	Smart distribution system Volt/VAR control using the intelligence of smart transformer. , 2016, , .		3
93	Control Architecture of Resilient Interconnected Microgrids (RIMGs) for Railway Infrastructures. Energy Procedia, 2017, 141, 594-603.	1.8	3
94	Conceptual Design and Energy Analysis of Integrated Combined Cycle Gasification System. Sustainability, 2017, 9, 1474.	1.6	3
95	Stochastic uncertainty quantification for safety verification applications in nuclear power plants. Annals of Nuclear Energy, 2018, 113, 399-408.	0.9	3
96	Modeling of a Plasma-Based Waste Gasification System for Solid Waste Generated Onboard of Typical Cruiser Vessels Used as a Feedstock. Designs, 2020, 4, 33.	1.3	3
97	Energyâ€™Water Nexus: Integration, Monitoring, KPIs Tools and Research Vision. Energies, 2020, 13, 6697.	1.6	3
98	Simulated testing algorithm for ÂµPMU full observation of unbalanced radial distribution grid. Electric Power Systems Research, 2021, 191, 106842.	2.1	3
99	Evaluation of renewable energy deployment scenarios for building energy management. AIMS Energy, 2016, 4, 742-761.	1.1	3
100	Conceptual Process Design, Energy and Economic Analysis of Solid Waste to Hydrocarbon Fuels via Thermochemical Processes. Processes, 2021, 9, 2149.	1.3	3
101	Modelling and simulation framework for pollution control of chemical processes. International Journal of Environment and Pollution, 2007, 29, 165.	0.2	2
102	Evaluation of thermal comfort and cooling performance of residential buildings in arid climates. , 2013, , .		2
103	Modeling, evaluation, and optimization of gas-power and energy supply scenarios. Frontiers in Energy, 2016, 10, 393-408.	1.2	2
104	Performance evaluation of a new signal processing system design to improve CANDU SDS1 trip response during large break LOCA events. Journal of Nuclear Science and Technology, 2016, 53, 1513-1520.	0.7	2
105	Bayesian-neuro-fuzzy network based online condition monitoring system for resilient micro energy grid using FPGA. , 2017, , .		2
106	Design of Resilient Energy Storage Platform for Power Grid Substation. , 2018, , .		2
107	X-Pinch Plasma Generation Testing for Neutron Source Development and Nuclear Fusion. Energies, 2018, 11, 988.	1.6	2
108	Realization of MPPT of PMSG-Based Wind Turbines Using New MPPT Indices. , 2019, , .		2

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109	Resiliency Analysis of Hybrid Energy Systems within Interconnected Infrastructures. <i>Energies</i> , 2021, 14, 7499.	1.6	2
110	Demonstration of Resilient Microgrid with Real-Time Co-Simulation and Programmable Loads. <i>Technologies</i> , 2022, 10, 83.	3.0	2
111	Neurofuzzy-based learning algorithm for fault detection & simulation. , 2007, , .		1
112	Non-destructive testing of machines to reduce maintenance time and cost. , 2012, , .		1
113	Fault semantic network for micro grid diagnosis and control. , 2012, , .		1
114	Risk-based microgrid design and protection & Demonstration at UOIT. , 2012, , .		1
115	Detecting nonlinear interrelation patterns among process variables using genetic programming. <i>Soft Computing</i> , 2014, 18, 1283-1292.	2.1	1
116	CHP within smart micro energy grid: optimum operation with distributed energy resources. <i>International Journal of Process Systems Engineering</i> , 2015, 3, 268.	0.2	1
117	Co-simulation for real time safety verification of nuclear power plants. <i>Mechanical Engineering Journal</i> , 2017, 4, 15-00532-15-00532.	0.2	1
118	RF-assisted DC single beam plasma generation for multi-beam nuclear fusion. <i>Ain Shams Engineering Journal</i> , 2018, 9, 1745-1751.	3.5	1
119	Resilient Interconnected Microgrids for Subway Networks. , 2018, , .		1
120	Wireless Flywheel-Based Fast Charging Station (WFFCS). , 2018, , .		1
121	An Approach for Energy Conservation Management Systems in Buildings. , 2018, , .		1
122	Enhanced Nature-Inspired Meta-Heuristic Algorithm for Microgrid Performance Improvement. <i>Electric Power Components and Systems</i> , 2020, 48, 459-470.	1.0	1
123	Fractional PID Controller Tuning Using Krill Herd for Renewable Power Systems Control. , 2021, , .		1
124	BBN-Based Reasoning Approach for Safety Verification Using FSN. <i>Journal of Chemical Engineering of Japan</i> , 2015, 48, 684-689.	0.3	1
125	Safety design of next generation SUI of CANDU stations. <i>Nuclear Engineering and Design</i> , 2013, 254, 53-66.	0.8	0
126	Research on multi-data sources data center architecture at UOIT. , 2013, , .		0

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127	Optimal planned scheduling of distributed generators in microgrids. , 2015, , .		0
128	Signal processing system design for improved shutdown system of CANDU® nuclear reactors in large break LOCA events. Nuclear Engineering and Design, 2016, 298, 255-263.	0.8	0
129	Safety design of Experimental Plasma Generation Systems. Journal of Loss Prevention in the Process Industries, 2017, 47, 140-150.	1.7	0
130	Anomaly Detection in a Reactor Coolant Pump Flywheel System via Pulse Shape Analysis. Journal of Failure Analysis and Prevention, 2017, 17, 1174-1181.	0.5	0
131	Comparative analyses of scheduling scenarios to facilitate optimal operation of interconnected micro energy grids. , 2017, , .		0
132	Short report on the potential of energy recovery from plastic wastes in Tehran. , 2017, , .		0
133	Demonstration of Advanced Electric Wheel and Integrated Test Platform. , 2019, , .		0
134	Approximate Power Loss Minimization in Radial Distribution Networks Using the Feeder Reconfiguration. , 2020, , .		0
135	Development of Knowledge Base Using Human Experience Semantic Network for Instructive Texts. Applied Sciences (Switzerland), 2021, 11, 8072.	1.3	0
136	PLL wrap function for synchronization in phase jump disturbances. Ingenieria E Investigacion, 2021, 41, e84955.	0.2	0
137	ICONE23-1952 Co-Simulation for Real Time Safety Verification of Nuclear Power Plants. The Proceedings of the International Conference on Nuclear Engineering (ICONE), 2015, 2015.23, _ICONE23-1-_ICONE23-1.	0.0	0
138	Financial and technical planning of decarbonized hybrid energy systems for modern cities. , 2022, , 399-414.		0