

Hossam AGabbar

List of Publications by Year in descending order

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138
papers

1,911
citations

394286

19
h-index

315616

38
g-index

151
all docs

151
docs citations

151
times ranked

1793
citing authors

#	ARTICLE	IF	CITATIONS
1	Financial and technical planning of decarbonized hybrid energy systems for modern cities. , 2022, , 399-414.		0
2	CTIMS: Automated Defect Detection Framework Using Computed Tomography. Applied Sciences (Switzerland), 2022, 12, 2175.	1.3	5
3	Synergistic interactions, kinetic and thermodynamic analysis of co-pyrolysis of municipal paper and polypropylene waste. Waste Management, 2022, 146, 86-93.	3.7	14
4	Demonstration of Resilient Microgrid with Real-Time Co-Simulation and Programmable Loads. Technologies, 2022, 10, 83.	3.0	2
5	Simulated testing algorithm for ÂµPMU full observation of unbalanced radial distribution grid. Electric Power Systems Research, 2021, 191, 106842.	2.1	3
6	Review of Battery Management Systems (BMS) Development and Industrial Standards. Technologies, 2021, 9, 28.	3.0	165
7	Optimal Planning of Integrated Nuclear-Renewable Energy System for Marine Ships Using Artificial Intelligence Algorithm. Energies, 2021, 14, 3188.	1.6	8
8	A comprehensive review on radioactive waste cycle from generation to disposal. Journal of Radioanalytical and Nuclear Chemistry, 2021, 329, 15-31.	0.7	18
9	Modeling of Interconnected Infrastructures with Unified Interface Design toward Smart Cities. Energies, 2021, 14, 4572.	1.6	4
10	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
11	Energy saving and management of water pumping networks. Heliyon, 2021, 7, e07820.	1.4	8
12	Fractional PID Controller Tuning Using Krill Herd for Renewable Power Systems Control. , 2021, , .		1
13	Development of Knowledge Base Using Human Experience Semantic Network for Instructive Texts. Applied Sciences (Switzerland), 2021, 11, 8072.	1.3	0
14	Analysis of nuclear-renewable hybrid energy system for marine ships. Energy Reports, 2021, 7, 2398-2417.	2.5	20
15	PLL wrap function for synchronization in phase jump disturbances. Ingenieria E Investigacion, 2021, 41, e84955.	0.2	0
16	Resiliency Analysis of Hybrid Energy Systems within Interconnected Infrastructures. Energies, 2021, 14, 7499.	1.6	2
17	Design of Fast Charging Station with Energy Management for eBuses. Vehicles, 2021, 3, 807-820.	1.7	4
18	Conceptual Process Design, Energy and Economic Analysis of Solid Waste to Hydrocarbon Fuels via Thermochemical Processes. Processes, 2021, 9, 2149.	1.3	3

#	ARTICLE	IF	CITATIONS
19	Improved Performance of Flywheel Fast Charging System (FFCS) Using Enhanced Artificial Immune System (EAIS). IEEE Systems Journal, 2020, 14, 824-831.	2.9	10
20	Optimizing Charging Infrastructures of Electric Bus Routes to Minimize Total Ownership Cost. , 2020, , .		5
21	Optimal Planning of Nuclear-Renewable Micro-Hybrid Energy System by Particle Swarm Optimization. IEEE Access, 2020, 8, 181049-181073.	2.6	22
22	Optimal Design of Electric Bus Transport Systems With Minimal Total Ownership Cost. IEEE Access, 2020, 8, 119184-119199.	2.6	13
23	Modeling and performance analysis of nuclear-renewable micro hybrid energy system based on different coupling methods. Energy Reports, 2020, 6, 189-206.	2.5	11
24	Effects of Ultra-Fast Charging System for Battery Size of Public Electric Bus. , 2020, , .		7
25	Approximate Power Loss Minimization in Radial Distribution Networks Using the Feeder Reconfiguration. , 2020, , .		0
26	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
27	Energyâ€™Water Nexus: Integration, Monitoring, KPIs Tools and Research Vision. Energies, 2020, 13, 6697.	1.6	3
28	Micro Nuclear Reactors: Potential Replacements for Diesel Gensets within Micro Energy Grids. Energies, 2020, 13, 5172.	1.6	11
29	Enhanced Nature-Inspired Meta-Heuristic Algorithm for Microgrid Performance Improvement. Electric Power Components and Systems, 2020, 48, 459-470.	1.0	1
30	Optimal electrical fast charging stations by enhanced descent gradient and Voronoi diagram. Computers and Electrical Engineering, 2020, 83, 106574.	3.0	25
31	Techno-Economic Evaluation of Interconnected Nuclear-Renewable Micro Hybrid Energy Systems with Combined Heat and Power. Energies, 2020, 13, 1642.	1.6	19
32	Study of ozone concentration from CO2 decomposition in a water cooled coaxial dielectric barrier discharge. Vacuum, 2020, 177, 109370.	1.6	12
33	Hierarchical control architecture for resilient interconnected microgrids for mass transit systems. IET Electrical Systems in Transportation, 2020, 10, 320-327.	1.5	6
34	Realization of MPPT of PMSG-Based Wind Turbines Using New MPPT Indices. , 2019, , .		2
35	Nuclear-Powered Hybrid Energy Storage-Based Fast Charging Station for Electrification Transportation. , 2019, , .		6
36	Fractional Order PID Control of Hybrid Power System with Renewable Generation Using Genetic Algorithm. , 2019, , .		12

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37	Review of energy storage technologies in harsh environment. Safety in Extreme Environments, 2019, 1, 11-25.	1.8	13
38	Demonstration of Advanced Electric Wheel and Integrated Test Platform. , 2019, , .		0
39	Comparative study of MSW heat treatment processes and electricity generation. Journal of the Energy Institute, 2018, 91, 481-488.	2.7	28
40	RF-assisted DC single beam plasma generation for multi-beam nuclear fusion. Ain Shams Engineering Journal, 2018, 9, 1745-1751.	3.5	1
41	Stochastic uncertainty quantification for safety verification applications in nuclear power plants. Annals of Nuclear Energy, 2018, 113, 399-408.	0.9	3
42	Resilient Interconnected Microgrids for Subway Networks. , 2018, , .		1
43	Wireless Flywheel-Based Fast Charging Station (WFFCS). , 2018, , .		1
44	An Approach for Energy Conservation Management Systems in Buildings. , 2018, , .		1
45	ANN Model for Energy Demand and Supply Forecasting in a Hybrid Energy Supply System. , 2018, , .		11
46	Optimal operation and battery management in a grid-connected microgrid. Journal of International Council on Electrical Engineering, 2018, 8, 195-206.	0.4	13
47	Design of Resilient Energy Storage Platform for Power Grid Substation. , 2018, , .		2
48	Sizing Analysis of Hybrid DC Fast Charging System for Electric Vehicles. , 2018, , .		6
49	X-Pinch Plasma Generation Testing for Neutron Source Development and Nuclear Fusion. Energies, 2018, 11, 988.	1.6	2
50	Control and EMS of a Grid-Connected Microgrid with Economical Analysis. Energies, 2018, 11, 129.	1.6	49
51	A new methodology for multiple incipient fault diagnosis in transmission lines using QTA and Na ⁺ ve Bayes classifier. International Journal of Electrical Power and Energy Systems, 2018, 103, 326-346.	3.3	31
52	Safety design of Experimental Plasma Generation Systems. Journal of Loss Prevention in the Process Industries, 2017, 47, 140-150.	1.7	0
53	Evaluation and optimization of thermoelectric generator network for waste heat utilization in nuclear power plants and non-nuclear energy applications. Annals of Nuclear Energy, 2017, 101, 454-464.	0.9	12
54	Enhanced MG with optimum operational cost of pumping water distribution systems. , 2017, , .		4

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55	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
56	Bayesian-neuro-fuzzy network based online condition monitoring system for resilient micro energy grid using FPGA. , 2017, , .		2
57	Design and control of resilient interconnected microgrid for sustained railway. , 2017, , .		5
58	Control Architecture of Resilient Interconnected Microgrids (RIMGs) for Railway Infrastructures. Energy Procedia, 2017, 141, 594-603.	1.8	3
59	Comparative analyses of scheduling scenarios to facilitate optimal operation of interconnected micro energy grids. , 2017, , .		0
60	Co-simulation for real time safety verification of nuclear power plants. Mechanical Engineering Journal, 2017, 4, 15-00532-15-00532.	0.2	1
61	Fault diagnosis of micro energy grids using Bayesian belief network and adaptive neuro-fuzzy interference system. , 2017, , .		5
62	Conceptual Design and Energy Analysis of Integrated Combined Cycle Gasification System. Sustainability, 2017, 9, 1474.	1.6	3
63	Flywheel-Based Fast Charging Station "FFCS" for Electric Vehicles and Public Transportation. IOP Conference Series: Earth and Environmental Science, 2017, 83, 012009.	0.2	10
64	Risk Assessment of Micro Energy Grid Protection Layers. Energies, 2017, 10, 1176.	1.6	6
65	Short report on the potential of energy recovery from plastic wastes in Tehran. , 2017, , .		0
66	DC Thermal Plasma Design and Utilization for the Low Density Polyethylene to Diesel Oil Pyrolysis Reaction. Energies, 2017, 10, 784.	1.6	24
67	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
68	DG Mix and Energy Storage Units for Optimal Planning of Self-Sufficient Micro Energy Grids. Energies, 2016, 9, 616.	1.6	18
69	Optimal scheduling of interconnected micro energy grids with multiple fuel options. Sustainable Energy, Grids and Networks, 2016, 7, 80-89.	2.3	59
70	Performance optimization of integrated gas and power within microgrids using hybrid PSO-PS algorithm. International Journal of Energy Research, 2016, 40, 971-982.	2.2	15
71	Performance optimisation for novel green plug-in energy economizer in micro-grids based on recent heuristic algorithm. IET Generation, Transmission and Distribution, 2016, 10, 678-687.	1.4	9
72	Application of Safety Instrumented System (SIS) approach in older nuclear power plants. Nuclear Engineering and Design, 2016, 301, 1-14.	0.8	3

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73	Modeling, evaluation, and optimization of gas-power and energy supply scenarios. <i>Frontiers in Energy</i> , 2016, 10, 393-408.	1.2	2
74	Smart distribution system Volt/VAR control using the intelligence of smart transformer. , 2016, , .		3
75	Supervisory controller for power management of AC/DC microgrid. , 2016, , .		7
76	Optimal scheduling of energy hubs in interconnected multi energy systems. , 2016, , .		12
77	Hierarchical safety control for micro energy grids using adaptive neuro-fuzzy decision making method. , 2016, , .		4
78	Integrated modeling for optimized regional transportation with compressed natural gas fuel. <i>AJ - Alexandria Engineering Journal</i> , 2016, 55, 533-545.	3.4	4
79	FSN-based cosimulation for fault propagation analysis in nuclear power plants. <i>Process Safety Progress</i> , 2016, 35, 53-60.	0.4	4
80	Signal processing system design for improved shutdown system of CANDU® nuclear reactors in large break LOCA events. <i>Nuclear Engineering and Design</i> , 2016, 298, 255-263.	0.8	0
81	Performance evaluation of a new signal processing system design to improve CANDU SDS1 trip response during large break LOCA events. <i>Journal of Nuclear Science and Technology</i> , 2016, 53, 1513-1520.	0.7	2
82	Evaluation of renewable energy deployment scenarios for building energy management. <i>AIMS Energy</i> , 2016, 4, 742-761.	1.1	3
83	Energy Semantic Network for Building Energy Management. <i>Intelligent Industrial Systems</i> , 2015, 1, 213-231.	1.0	6
84	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
85	Micro grid renewables dynamic and static performance optimization using genetic algorithm. , 2015, , .		5
86	Optimal planned scheduling of distributed generators in microgrids. , 2015, , .		0
87	Performance evaluation of gas-power strategies for building energy conservation. <i>Energy Conversion and Management</i> , 2015, 93, 187-196.	4.4	6
88	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
89	Optimal planning of combined heat and power systems within microgrids. <i>Energy</i> , 2015, 93, 235-244.	4.5	95
90	Micro Grid stability enhancement using SVC with fuzzy model reference learning controller algorithm. , 2015, , .		4

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91	Key performance assessment of fuel cell based distributed energy generation system in resilient micro energy grid. , 2015, , .		6
92	Study of small modular reactors in modern microgrids. International Transactions on Electrical Energy Systems, 2015, 25, 1943-1951.	1.2	20
93	BBN-Based Reasoning Approach for Safety Verification Using FSN. Journal of Chemical Engineering of Japan, 2015, 48, 684-689.	0.3	1
94	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
95	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
96	Resilient micro energy grids with gas-power and renewable technologies. , 2014, , .		8
97	Dynamic aggregated building electricity load modeling and simulation. Simulation Modelling Practice and Theory, 2014, 42, 19-31.	2.2	9
98	Signal de-noising methods for fault diagnosis and troubleshooting at CANDU Â® stations. Nuclear Engineering and Design, 2014, 280, 481-492.	0.8	8
99	Comfort-based fuzzy control optimization for energy conservation in HVAC systems. Control Engineering Practice, 2014, 32, 172-182.	3.2	63
100	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
101	Fuzzy logic control for improved pressurizer systems in nuclear power plants. Annals of Nuclear Energy, 2014, 72, 461-466.	0.9	20
102	Microgrid energy management in grid-connected and islanding modes based on SVC. Energy Conversion and Management, 2014, 86, 964-972.	4.4	67
103	Energy consumption and conservation practices in Qatarâ€™A case study of a hotel building. Energy and Buildings, 2014, 84, 55-69.	3.1	64
104	Detecting nonlinear interrelation patterns among process variables using genetic programming. Soft Computing, 2014, 18, 1283-1292.	2.1	1
105	Building thermal energy modeling with loss minimization. Simulation Modelling Practice and Theory, 2014, 49, 110-121.	2.2	8
106	FSN-based fault modeling in CANDUÂ® stations. Annals of Nuclear Energy, 2014, 65, 325-337.	0.9	3
107	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
108	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

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109	Operations optimization towards high performance cooling in commercial buildings. , 2013, , .		8
110	Fuzzy Logic-Based Safety Verification Framework for Nuclear Power Plants. Risk Analysis, 2013, 33, 1128-1145.	1.5	11
111	Safety design of next generation SUI of CANDU stations. Nuclear Engineering and Design, 2013, 254, 53-66.	0.8	0
112	Key performance indicators (KPIs) for evaluation of energy conservation in buildings. , 2013, , .		7
113	Fault diagnosis in gearbox using adaptive wavelet filtering and shock response spectrum features extraction. Structural Health Monitoring, 2013, 12, 169-180.	4.3	17
114	Tuning of fault semantic network using Bayesian theory for probabilistic fault diagnosis in process industry. , 2013, , .		4
115	Evaluation of thermal comfort and cooling performance of residential buildings in arid climates. , 2013, , .		2
116	Research on multi-data sources data center architecture at UOIT. , 2013, , .		0
117	A robust method for coupling detection among process variables. International Journal of Process Systems Engineering, 2012, 2, 93.	0.2	6
118	Risk-based performance analysis for regional hybrid fuel with compressed natural gas option. International Journal of Process Systems Engineering, 2012, 2, 154.	0.2	8
119	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
120	Non-destructive testing of machines to reduce maintenance time and cost. , 2012, , .		1
121	Analysis of Microgrid protection strategies. , 2012, , .		34
122	Fault semantic network for micro grid diagnosis and control. , 2012, , .		1
123	Risk-based microgrid design and protection — Demonstration at UOIT. , 2012, , .		1
124	A novel method for real time gear fault detection based on pulse shape analysis. Mechanical Systems and Signal Processing, 2011, 25, 1287-1298.	4.4	21
125	Review of pipeline integrity management practices. International Journal of Pressure Vessels and Piping, 2010, 87, 373-380.	1.2	254
126	Integrated framework for safety control design of nuclear power plants. Nuclear Engineering and Design, 2010, 240, 3550-3558.	0.8	9

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127	Fault Semantic Networks for Accident Forecasting of LNG Plants. Lecture Notes in Computer Science, 2010, , 427-437.	1.0	7
128	A hybrid statistical genetic-based demand forecasting expert system. Expert Systems With Applications, 2009, 36, 11662-11670.	4.4	26
129	Design of fault simulator. Reliability Engineering and System Safety, 2009, 94, 1289-1298.	5.1	5
130	Engineering design of green hybrid energy production and supply chains. Environmental Modelling and Software, 2009, 24, 423-435.	1.9	29
131	Modeling Approach for Flexible Production Chain Operation. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2008, 38, 48-55.	3.4	9
132	Trend analysis using real time fault simulation for improved fault diagnosis. , 2007, , .		4
133	Neurofuzzy-based learning algorithm for fault detection & simulation. , 2007, , .		1
134	Modelling and simulation framework for pollution control of chemical processes. International Journal of Environment and Pollution, 2007, 29, 165.	0.2	2
135	Intelligent topology analyzer for improved plant operation. Industrial Management and Data Systems, 2007, 107, 229-250.	2.2	13
136	Improved qualitative fault propagation analysis. Journal of Loss Prevention in the Process Industries, 2007, 20, 260-270.	1.7	34
137	Recipe formal definition language for operating procedures synthesis. Computers and Chemical Engineering, 2004, 28, 1809-1822.	2.0	11
138	Plant object-orientated model formalization " case study: HDS plant design. Design Studies, 2003, 24, 101-108.	1.9	6