Mahmoud A Alahmad

List of Publications by Year
in descending order

83 papers	1,086 citations	759055 12 h-index	552653 26 g-index
83 all docs	83 docs citations	83 times ranked	1143 citing authors

#	Article	IF	Citations
1	Modeling Discharge Behavior of Multicell Battery. IEEE Transactions on Energy Conversion, 2010, 25, 1133-1141.	3.7	122
2	Data-Driven Charging Demand Prediction at Public Charging Stations Using Supervised Machine Learning Regression Methods. Energies, 2020, 13, 4231.	1.6	94
3	A Comparative Study of Three Feedback Devices for Residential Real-Time Energy Monitoring. IEEE Transactions on Industrial Electronics, 2012, 59, 2002-2013.	5.2	90
4	An adaptive utility interactive photovoltaic system based on a flexible switch matrix to optimize performance in real-time. Solar Energy, 2012, 86, 951-963.	2.9	85
5	A Review of Approaches for Sensing, Understanding, and Improving Occupancy-Related Energy-Use Behaviors in Commercial Buildings. Energies, 2015, 8, 10996-11029.	1.6	66
6	An enhanced circuit-based model for single-cell battery. , 2010, , .		59
7	A Novel Design of Adaptive Reconfigurable Multicell Battery for Power-Aware Embedded Networked Sensing Systems. , 2007, , .		49
8	Battery switch array system with application for JPL's rechargeable micro-scale batteries. Journal of Power Sources, 2008, 177, 566-578.	4.0	36
9	Estimation of induction motor equivalent circuit parameters from nameplate data. , 2012, , .		33
10	Evaluation and Analysis of a New Solid-State Rechargeable Microscale Lithium Battery. IEEE Transactions on Industrial Electronics, 2008, 55, 3391-3401.	5.2	31
11	Adaptive photovoltaic system. , 2010, , .		29
12	Resiliency of Smart Power Meters to Common Security Attacks. Procedia Computer Science, 2015, 52, 145-152.	1.2	25
13	Switch array system for thin film lithium microbatteries. Journal of Power Sources, 2004, 136, 401-407.	4.0	20
14	Integrating physical and virtual environments to conserve energy in buildings. Energy and Buildings, 2011, 43, 3710-3717.	3.1	17
15	Dynamic reconfigurable multi-cell battery: A novel approach to improve battery performance. , 2012, , .		17
16	Energy harvesting for wireless sensor networks: applications and challenges in smart grid. International Journal of Sensor Networks, 2016, 21, 226.	0.2	17
17	Cognitive Radio for Smart Grid with Security Considerations. Computers, 2016, 5, 7.	2.1	15
18	The IOT mediated built environment: A brief survey. , 2016, , .		14

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19	Analysis of batteries in the built environment an overview on types and applications. , 2017, , .		14
20	Analysis of User Charging Behavior at Public Charging Stations. , 2019, , .		13
21	On the Discourse of Energy as Material: Future Feedback Technologies and Directions for Experiencing Energy. IEEE Transactions on Industrial Informatics, 2014, 10, 742-751.	7.2	12
22	Exploring the factors that motivate female students to enroll and persist in a collegiate STEM degree program. , 2013, , .		10
23	An Adaptive Photovoltaic Topology to Overcome Shading Effect in PV Systems. International Journal of Photoenergy, 2015, 2015, 1-9.	1.4	10
24	Real Time Power Monitoring Detection Based on Sequence Time Domain Reflectometry Approach. Journal of Computer and Communications, 2018, 06, 92-103.	0.6	10
25	A Battery-Aware Deployment Scheme for Cooperative Wireless Sensor Networks. , 2009, , .		9
26	Energy efficient building automation: A survey paper on approaches and technologies for optimized building operation. , 2014, , .		9
27	A load-disaggregation framework to sense personalized energy-use information in commercial buildings. Energy and Buildings, 2020, 207, 109633.	3.1	9
28	Real Time Power Monitoring &amp; integration with BIM. , 2010, , .		8
29	Development of Non-Intrusive Occupant Load Monitoring (NIOLM) in Commercial Buildings: Assessing Occupants' Energy-Use Behavior at Entry and Departure Events. , 2015, , .		8
30	Online scheduling scheme for smart electric vehicle charging infrastructure. , 2017, , .		8
31	Analysis of Energy Consumption at Public Charging Stations, a Nebraska Case Study. , 2020, , .		8
32	Characterization of a search algorithm to determine number of electric vehicle charging stations between two points on an Interstate or US-Highway. , 2017, , .		7
33	Indices to Determine the Environmental and Economic Impact of Using an Electric Vehicle over Gasoline or Hybrid Vehicles on a Regional Basis. , 2018, , .		7
34	Integrating Sustainable Design into Architectural Engineering Education: UNL-AE Program. Journal of Architectural Engineering, 2011, 17, 75-81.	0.8	6
35	Packet error rate analysis in IoT for industrial air conditioning system. , 2017, , .		6
36	High Voltage MOSFET Gate/Bulk Driver Controller for a Microbattery Switch Matrix in a 0.35 Î¼ m Microwave SOI Technology. Analog Integrated Circuits and Signal Processing, 2005, 44, 203-211.	0.9	5

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37	The “BIM's 4D+” dimension: Real time energy monitoring. , 2011, , .		5
38	Modeling packet rate covert timing channels. , 2013, , .		5
39	Determining optimal locations of electrified transportation infrastructure on interstate/us-highways. , 2017, , .		5
40	Case studies validating algorithm to determine the number of charging station placed in an Interstate and US-Highway. , 2017, , .		5
41	Ruler-Search Technique (RST) Algorithm to Locate Charging Infrastructure on a Particular Interstate or US-Highway. , 2018, , .		5
42	Framework for Extracting and Characterizing Load Profile Variability Based on a Comparative Study of Different Wavelet Functions. IEEE Access, 2020, 8, 217483-217498.	2.6	5
43	A Case Study to Quantify Variability in Building Load Profiles. IEEE Access, 2021, 9, 127799-127813.	2.6	5
44	Non-intrusive electrical load monitoring and profiling methods for applications in energy management systems. , 2011, , .		4
45	Reevaluation of induction motor loss models for conventional and harmonic power flow. , 2012, , .		4
46	Electrical Distribution Systems for Commercial Reference Building Models. Journal of Architectural Engineering, 2014, 20, 04013005.	0.8	4
47	A survey of adaptive systems supporting green energy in the built environment. , 2015, , .		4
48	Novel multilevel inverter topology design for adaptive dynamic systems. , 2015, , .		4
49	Overview of ICT in the advancement of electric vehicle penetration: Overview of vehicle grid communication system and charging infrastructure and a case study of economic and environmental benefits of electric vehicles in Nebraska. , 2016, , .		4
50	An Overview of Technologies for Lower Energy Consumption in Smart Buildings. , 2018, , .		4
51	Microwave silicon on insulator-based design of a power management system for Jet Propulsion Laboratory's rechargeable micro-scale batteries. IET Circuits, Devices and Systems, 2010, 4, 261.	0.9	3
52	Addressable and energy management system for the built environment (I). , 2011, , .		3
53	An Adaptive photovoltaic-inverter topology. , 2011, , .		3
54	Economic Input-Output Life Cycle Assessment of Water Reuse Strategies in Residential Buildings. , 2011, , .		3

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55	Advancing electric vehicle penetration. , 2015, , .		3
56	Harvesting from Ambient Energy: Designing Enabling Technologies for Sustainable Buildings. , 2019, , .		3
57	Real-time remote energy consumption location for power management application. Advances in Building Energy Research, 2019, , 1-21.	1.1	3
58	Framework to Develop Time- and Voltage-Dependent Building Load Profiles Using Polynomial Load Models. IEEE Access, 2021, 9, 128328-128344.	2.6	3
59	A Framework for Scheduling Household Charging of Electric Vehicles. , 2022, , .		3
60	Learning Applications in the Architectural Engineering Educational Setting. Journal of Architectural Engineering, 2010, 16, 126-135.	0.8	2
61	Green and Sustainable Technologies for the Built Environment. , 2011, , .		2
62	A novel Photovoltaic/Battery Structure for Solar Electrical Vehicles [PVBS for SEV]. , 2011, , .		2
63	Information technology and the smart grid - A pathway to conserve energy in buildings. , 2013, , .		2
64	Energy node locator — A pathway to track energy at the point of use, remotely, in buildings. , 2014, , .		2
65	Analysis of PEV User Charging Behavior at Household Charging Stations, Omaha Case Study. , 2021, , .		2
66	Energy Optimization Technologies in Smart Homes. , 2020, , .		2
67	Challenges in load profile monitoring: Case study. , 2015, , .		1
68	Modeling and simulation of adaptive batteries storage system. , 2016, , .		1
69	Correlation study between features of a geographic location and Electric Vehicle Uptake. , 2021, , .		1
70	Understanding the Correlation of Demographic Features with BEV Uptake at the Local Level in the United States. Sustainability, 2022, 14, 5016.	1.6	1
71	High impedance nano charger for on-chip 50nAH rated microbatteries. , 2006, , .		0
72	An adaptive reconfigurable dc-dc converter for renewable energy applications. , 2009, , .		0

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73	MOSFET charger controller circuit for on chip power cells in aeronautical applications. , 2009, , .		0
74	Combinatorics &amp; power consumption. , 2011, , .		0
75	Optimization of energy storage systems in HEV's. , 2011, , .		0
76	Conserving energy in UAE buildings: Demand side management and methods for experiencing energy. , 2013, , .		0
77	Understanding the factors that affect female enrollment and retention in collegiate STEM programs. , 2015, , .		0
78	A novel twelve level inverter topology for adaptive input sources. , 2015, , .		0
79	New six level inverter topology. , 2016, , .		0
80	Novel adaptive battery system for integration with multi-level inverters. , 2017, , .		0
81	Novel Frequency Offset Estimation Scheme for Reliable Wireless Communication using Modified K-Means Clustering. , 2019, , .		0
82	Harmonic Elimination Technique in Three-Phase Five-Level Cascade H-Bridge Multilevel Inverters from Three-Phase Perspective. , 2019, , .		0
83	PEVs Idle Time Prediction at Public Charging Stations Using Machine-Learning Methods. , 2021, , .		0