

Andreas Sumper

List of Publications by Year in descending order

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118
papers

5,719
citations

109264

35
h-index

79644

73
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138
all docs

138
docs citations

138
times ranked

6172
citing authors

#	ARTICLE	IF	CITATIONS
1	Planning of High-Power Charging Stations for Electric Vehicles: A Review. Applied Sciences (Switzerland), 2022, 12, 3214.	1.3	13
2	Electrical Infrastructure Design Methodology of Dynamic and Static Charging for Heavy and Light Duty Electric Vehicles. Energies, 2021, 14, 3362.	1.6	10
3	Assessment of the Visual Impact of Existing High-Voltage Lines in Urban Areas. Electricity, 2021, 2, 285-299.	1.4	3
4	Techno-Economic Assessment of Flexibility Options Versus Grid Expansion in Distribution Grids. IEEE Transactions on Power Systems, 2021, 36, 3830-3839.	4.6	19
5	Baseline Energy Use Modeling and Characterization in Tertiary Buildings Using an Interpretable Bayesian Linear Regression Methodology. Energies, 2021, 14, 5556.	1.6	8
6	A data-driven methodology for enhanced measurement and verification of energy efficiency savings in commercial buildings. Applied Energy, 2021, 301, 117502.	5.1	24
7	Advanced Distribution Measurement Technologies and Data Applications for Smart Grids: A Review. Energies, 2020, 13, 3730.	1.6	21
8	Electricity: A New Open Access Journal. Electricity, 2020, 1, 60-61.	1.4	2
9	The multi-energy system co-planning of nearly zero-energy districts " Status-quo and future research potential. Applied Energy, 2020, 267, 114953.	5.1	47
10	General form of consensus optimization for distributed OPF in HVAC-VSC-HVDC systems. International Journal of Electrical Power and Energy Systems, 2020, 121, 106049.	3.3	6
11	Centralised and Distributed Optimization for Aggregated Flexibility Services Provision. IEEE Transactions on Smart Grid, 2020, 11, 3257-3269.	6.2	42
12	A review of deterministic and data-driven methods to quantify energy efficiency savings and to predict retrofitting scenarios in buildings. Renewable and Sustainable Energy Reviews, 2020, 131, 110027.	8.2	56
13	A Comparison of Power Conversion Systems for Modular Battery-Based Energy Storage Systems. IEEE Access, 2020, 8, 29557-29574.	2.6	21
14	RESOLVD: ICT services and energy storage for increasing renewable hosting capacity in LV distribution grids. , 2020, , .		0
15	Extending 2-D space vector PWM for three-phase four-leg inverters. EPE Journal (European Power) Tj ETQq1 1 0.784314 rgBT ₃ /Overload 0.7		
16	Contribution of Smart Cities to the Energy Sustainability of the Binomial between City and Country. Applied Sciences (Switzerland), 2019, 9, 3247.	1.3	9
17	A scheduling optimization model of electric water heaters for electricity cost minimization with limited information. , 2019, , .		1
18	Optimal feeder flow control for grid connected microgrids. International Journal of Electrical Power and Energy Systems, 2019, 112, 144-155.	3.3	13

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19	Energy sustainability analyses using feasible indicators for urban areas. International Journal of Energy and Water Resources, 2019, 3, 127-140.	1.3	6
20	Development of sustainable energy indexes by the utilization of new indicators: A comparative study. Energy Reports, 2019, 5, 375-383.	2.5	76
21	Special Issue on Microgrids. Applied Sciences (Switzerland), 2019, 9, 4710.	1.3	0
22	Measuring urban energy sustainability and its application to two Spanish cities: Malaga and Barcelona. Sustainable Cities and Society, 2019, 45, 335-347.	5.1	38
23	Technical and economic comparison of grid supportive vanadium redox flow batteries for primary control reserve and community electricity storage in Germany. International Journal of Energy Research, 2019, 43, 337-357.	2.2	30
24	Quantum Grid. , 2019, , 283-314.		1
25	Smart rural grid pilot in Spain. , 2019, , 315-345.		2
26	Economic evaluation of Nearly Zero Energy Cities. Applied Energy, 2019, 237, 404-416.	5.1	28
27	Integral approach to energy planning and electric grid assessment in a renewable energy technology integration for a 50/50 target applied to a small island. Applied Energy, 2019, 233-234, 524-543.	5.1	21
28	A model for an economic evaluation of energy systems using TRNSYS. Applied Energy, 2018, 215, 765-777.	5.1	22
29	Microgrid clustering architectures. Applied Energy, 2018, 212, 340-361.	5.1	168
30	Optimal operation of hybrid high voltage direct current and alternating current networks based on OPF combined with droop voltage control. International Journal of Electrical Power and Energy Systems, 2018, 101, 176-188.	3.3	5
31	Optimization problem for meeting distribution system operator requests in local flexibility markets with distributed energy resources. Applied Energy, 2018, 210, 881-895.	5.1	156
32	Optimization of the Operation of Smart Rural Grids through a Novel Energy Management System. Energies, 2018, 11, 9.	1.6	16
33	Local Flexibility Market Design for Aggregators Providing Multiple Flexibility Services at Distribution Network Level. Energies, 2018, 11, 822.	1.6	171
34	Smart Grid Architecture for Rural Distribution Networks: Application to a Spanish Pilot Network. Energies, 2018, 11, 844.	1.6	20
35	Active power control in a hybrid PV-storage power plant for frequency support. Solar Energy, 2017, 144, 49-62.	2.9	39
36	Impact of operation strategies of large scale battery systems on distribution grid planning in Germany. Renewable and Sustainable Energy Reviews, 2017, 74, 1042-1063.	8.2	59

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37	PV, Wind and Storage Integration on Small Islands for the Fulfilment of the 50-50 Renewable Electricity Generation Target. Sustainability, 2017, 9, 905.	1.6	14
38	Methodology for the Evaluation of Resilience of ICT Systems for Smart Distribution Grids. Energies, 2017, 10, 1287.	1.6	6
39	Renewable technologies for generation systems in islands and their application to Cozumel Island, Mexico. Renewable and Sustainable Energy Reviews, 2016, 64, 348-361.	8.2	25
40	Techno-economic comparison of a schedule-based and a forecast-based control strategy for residential photovoltaic storage systems in Germany. Electrical Engineering, 2016, 98, 375-383.	1.2	7
41	Day-ahead micro-market design for distributed energy resources. , 2016, , .		20
42	Real time experimental implementation of optimum energy management system in standalone Microgrid by using multi-layer ant colony optimization. International Journal of Electrical Power and Energy Systems, 2016, 75, 265-274.	3.3	217
43	Optimal Operation of DC Networks to Support Power System Outage Management. IEEE Transactions on Smart Grid, 2016, 7, 2953-2961.	6.2	27
44	Experimental validation of a single phase Intelligent Power Router. Sustainable Energy, Grids and Networks, 2015, 4, 1-15.	2.3	19
45	DFIG-based offshore wind power plant connected to a single VSC-HVDC operated at variable frequency: Energy yield assessment. Energy, 2015, 86, 311-322.	4.5	17
46	Maximum wind power plant generation by reducing the wake effect. Energy Conversion and Management, 2015, 101, 73-84.	4.4	34
47	Coordinated operation of wind turbines and flywheel storage for primary frequency control support. International Journal of Electrical Power and Energy Systems, 2015, 68, 313-326.	3.3	53
48	Probabilistic Agent-Based Model of Electric Vehicle Charging Demand to Analyse the Impact on Distribution Networks. Energies, 2015, 8, 4160-4187.	1.6	69
49	MV and LV Residential Grid Impact of Combined Slow and Fast Charging of Electric Vehicles. Energies, 2015, 8, 1760-1783.	1.6	35
50	Hybrid AC-DC Offshore Wind Power Plant Topology: Optimal Design. IEEE Transactions on Power Systems, 2015, 30, 1868-1876.	4.6	35
51	Optimization of Surge Arrester Locations in Overhead Distribution Networks. IEEE Transactions on Power Delivery, 2015, 30, 674-683.	2.9	15
52	Voltage Control of Distribution Grids with Multi-Microgrids Using Reactive Power Management. Advances in Electrical and Computer Engineering, 2015, 15, 83-88.	0.5	13
53	Impact Evaluation of Plug-in Electric Vehicles on Power System. Power Systems, 2015, , 149-178.	0.3	2
54	A review of high temperature superconductors for offshore wind power synchronous generators. Renewable and Sustainable Energy Reviews, 2014, 38, 404-414.	8.2	60

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55	Control of a Flywheel Energy Storage System for Power Smoothing in Wind Power Plants. IEEE Transactions on Energy Conversion, 2014, 29, 204-214.	3.7	117
56	Flicker mitigation by reactive power control in wind farm with doubly fed induction generators. International Journal of Electrical Power and Energy Systems, 2014, 55, 285-296.	3.3	25
57	Participation of wind power plants in system frequency control: Review of grid code requirements and control methods. Renewable and Sustainable Energy Reviews, 2014, 34, 551-564.	8.2	289
58	Experimental validation of a real-time energy management system using multi-period gravitational search algorithm for microgrids in islanded mode. Applied Energy, 2014, 128, 164-174.	5.1	205
59	Active power estimation of photovoltaic generators for distribution network planning based on correlation models. Energy, 2014, 64, 758-770.	4.5	10
60	Technical and economic assessment of offshore wind power plants based on variable frequency operation of clusters with a single power converter. Applied Energy, 2014, 125, 218-229.	5.1	36
61	Contribution of type-2 wind turbines to sub-synchronous resonance damping. International Journal of Electrical Power and Energy Systems, 2014, 55, 714-722.	3.3	10
62	Distribution system reconfiguration using genetic algorithm based on connected graphs. Electric Power Systems Research, 2013, 104, 216-225.	2.1	44
63	Experimental validation of a real time energy management system for microgrids in islanded mode using a local day-ahead electricity market and MINLP. Energy Conversion and Management, 2013, 76, 314-322.	4.4	199
64	Modeling of Second Generation HTS Cables for Grid Fault Analysis Applied to Power System Simulation. IEEE Transactions on Applied Superconductivity, 2013, 23, 5401204-5401204.	1.1	6
65	Type-2 Wind Turbine with Additional Sub-synchronous Resonance Damping. , 2013, , .		8
66	Experimental evaluation of a real time energy management system for stand-alone microgrids in day-ahead markets. Applied Energy, 2013, 106, 365-376.	5.1	155
67	Energy management of flywheel-based energy storage device for wind power smoothing. Applied Energy, 2013, 110, 207-219.	5.1	132
68	Pareto Optimal Reconfiguration of Power Distribution Systems Using a Genetic Algorithm Based on NSGA-II. Energies, 2013, 6, 1439-1455.	1.6	91
69	Modeling, Control and Experimental Validation of a Flywheel-Based Energy Storage Device. EPE Journal (European Power Electronics and Drives Journal), 2013, 23, 41-51.	0.7	3
70	Probabilistic Method to Assess the Impact of Charging of Electric Vehicles on Distribution Grids. Energies, 2012, 5, 1503-1531.	1.6	28
71	Requirements for EV charge stations with photovoltaic generation and storage. , 2012, , .		1
72	PSS CONTROLLER FOR WIND POWER GENERATION SYSTEMS. International Journal of Modern Physics B, 2012, 26, 1246012.	1.0	4

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73	Dynamic Model of an HTS Cable for Power Grid Simulation. Physics Procedia, 2012, 36, 1272-1278.	1.2	4
74	Modeling and validation of a flywheel energy storage lab-setup. , 2012, , .		15
75	Power oscillation damping supported by wind power: A review. Renewable and Sustainable Energy Reviews, 2012, 16, 4994-5006.	8.2	135
76	Modeling and control of a pitch-controlled variable-speed wind turbine driven by a DFIG with frequency control support in PSS/E. , 2012, , .		8
77	Power generation efficiency analysis of offshore wind farms connected to a SLPC (single large power) Tj ETQq1 1 0,784314 rgBT /Over	4.5	90
78	Optimum voltage control for loss minimization in HVDC multi-terminal transmission systems for large offshore wind farms. Electric Power Systems Research, 2012, 89, 54-63.	2.1	123
79	A review of energy storage technologies for wind power applications. Renewable and Sustainable Energy Reviews, 2012, 16, 2154-2171.	8.2	1,252
80	A utility connected microgrid based on power emulators. , 2011, , .		7
81	Object oriented backward/forward algorithm for unbalanced and harmonic polluted distribution systems. , 2011, , .		1
82	Electric vehicles in power systems with distributed generation: Vehicle to Microgrid (V2M) project. , 2011, , .		10
83	Frequency control of isolated wind and diesel hybrid MicroGrid power system by using fuzzy logic controllers and PID controllers. , 2011, , .		15
84	Control of a Wind Farm Based on Synchronous Generators With a Central HVDC-VSC Converter. IEEE Transactions on Power Systems, 2011, 26, 1632-1640.	4.6	59
85	Modeling and simulation of the fixed speed wind power generation system for grid studies. , 2011, , .		3
86	Life-cycle assessment of a photovoltaic system in Catalonia (Spain). Renewable and Sustainable Energy Reviews, 2011, 15, 3888-3896.	8.2	102
87	Reactive power dispatch in wind farms using particle swarm optimization technique and feasible solutions search. Applied Energy, 2011, 88, 4678-4686.	5.1	85
88	Analysis of a multi turbine offshore wind farm connected to a single large power converter operated with variable frequency. Energy, 2011, 36, 3272-3281.	4.5	23
89	Pitch control system design to improve frequency response capability of fixed-speed wind turbine systems. European Transactions on Electrical Power, 2011, 21, 1984-2006.	1.0	21
90	Control for power conditioner based PEM Fuel Cell and back-up power system with Supercapacitor. , 2011, , .		0

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91	Dynamic Simulation of HTSC Cables With a Conventional Simulation Program. IEEE Transactions on Applied Superconductivity, 2011, 21, 1025-1029.	1.1	4
92	Promotion of renewable energy in Latin America for the security of electric supply. , 2011, , .		0
93	Protection system remote laboratory. , 2011, , .		3
94	Probabilistic analysis in normal operation of distribution system with distributed generation. , 2011, , .		1
95	Grid impact analysis of a HTSC cable by using an enhanced conventional simulator. Journal of Physics: Conference Series, 2010, 234, 032007.	0.3	3
96	Maximum generation power evaluation of variable frequency offshore wind farms when connected to a single power converter. Applied Energy, 2010, 87, 3103-3109.	5.1	47
97	Modeling and control of the doubly fed induction generator wind turbine. Simulation Modelling Practice and Theory, 2010, 18, 1365-1381.	2.2	87
98	Methodology for the assessment of the impact of existing high voltage lines in urban areas. Energy Policy, 2010, 38, 6036-6044.	4.2	21
99	Short-term voltage stability of fixed-speed wind turbines: Comparison of single and double cage. , 2010, , .		5
100	Permanent magnet synchronous generator offshore wind farms connected to a single power converter. , 2010, , .		7
101	Experience on the implementation of a microgrid project in Barcelona. , 2010, , .		26
102	Deterministic and Probabilistic Assessment of the Impact of the Electrical Vehicles on the Power Grid. Renewable Energy and Power Quality Journal, 2010, 1, 1505-1509.	0.2	4
103	Electrical vehicles: State of art and issues for their connection to the network. , 2009, , .		23
104	Response of Fixed Speed Wind Turbines to System Frequency Disturbances. IEEE Transactions on Power Systems, 2009, 24, 181-192.	4.6	65
105	Modeling the stochastic dependencies in a probabilistic load flow including wind generation. , 2009, , .		4
106	Ride-Through Control of a Doubly Fed Induction Generator Under Unbalanced Voltage Sags. IEEE Transactions on Energy Conversion, 2008, 23, 1036-1045.	3.7	159
107	Development and implementation of a condition monitoring system in a substation. , 2007, , .		9
108	Assess the impact of photovoltaic generation systems on low-voltage network: software analysis tool development. , 2007, , .		7

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109	IEC 61850 as a flexible tool for electrical systems monitoring. , 2007, , .		11
110	Power quality education using a remote monitoring laboratory. , 2007, , .		5
111	Selection criteria of high-power static Uninterruptible Power Supplies. , 2007, , .		0
112	Digital simulation of voltage dip characteristics of wind turbine systems. , 2007, , .		8
113	A Distance PLC Programming Course Employing a Remote Laboratory Based on a Flexible Manufacturing Cell. IEEE Transactions on Education, 2006, 49, 278-284.	2.0	75
114	Mitigation of Capacitor Bank Energization Harmonic Transients. , 2006, , .		3
115	The Optimization of Microgrids Operation through a Heuristic Energy Management Algorithm. Advanced Engineering Forum, 0, 8-9, 185-194.	0.3	7
116	Monitoring Power Quality in Microgrids Based on Disturbances Propagation Algorithms. Advanced Engineering Forum, 0, 8-9, 127-138.	0.3	1
117	Reactive Power Compensation. , 0, , 371-398.		5
118	Monitoring Power Quality. , 0, , 445-462.		0