

# Hannu Laaksonen

## List of Publications by Year in descending order

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56  
papers

1,190  
citations

759233

12  
h-index

395702

33  
g-index

59  
all docs

59  
docs citations

59  
times ranked

1106  
citing authors

#	ARTICLE	IF	CITATIONS
1	Integration and control of lithium-ion BESSs for active network management in smart grids: Sundom smart grid backup feeding case. <i>Electrical Engineering</i> , 2022, 104, 539-553.	2.0	4
2	Flexibility Potential of a Smart Home to Provide TSO-DSO-level Services. <i>Electric Power Systems Research</i> , 2022, 205, 107767.	3.6	10
3	Three-Level Reduced Switch AC/DC/AC Power Conversion System for High Voltage Electric Vehicles. <i>Sustainability</i> , 2022, 14, 1620.	3.2	5
4	Applications of Probabilistic Forecasting in Smart Grids: A Review. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 1823.	2.5	7
5	Future Renewable Energy Communities Based Flexible Power Systems. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 121.	2.5	14
6	Inrush Current Management During Medium Voltage Microgrid Black Start With Battery Energy Storage System. <i>IEEE Access</i> , 2022, 10, 42287-42296.	4.2	14
7	Energy Management Systems of Grid-Connected Active Buildings. <i>Green Energy and Technology</i> , 2022, , 251-271.	0.6	2
8	Active Building as an Electricity Network Service Provider. <i>Green Energy and Technology</i> , 2022, , 273-293.	0.6	3
9	Two-Layer Game-Based Framework for Local Energy Flexibility Trading. <i>IEEE Access</i> , 2022, 10, 68768-68777.	4.2	1
10	Modeling a Local Electricity Market for Transactive Energy Trading of Multi-Aggregators. <i>IEEE Access</i> , 2022, 10, 68792-68806.	4.2	5
11	Flexibility Services Provision by Frequency-Dependent Control of On-Load Tap-Changer and Distributed Energy Resources. <i>IEEE Access</i> , 2021, 9, 45587-45599.	4.2	13
12	Local market models. , 2021, , 79-90.		1
13	Evolution of the Electricity Distribution Networksâ€™ Active Management Architecture Schemes and Microgrid Control Functionalities. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 2793.	2.5	7
14	Modelling battery energy storage systems for active network managementâ€™ coordinated control design and validation. <i>IET Renewable Power Generation</i> , 2021, 15, 2426-2437.	3.1	5
15	Towards Flexible Distribution Systems: Future Adaptive Management Schemes. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 3709.	2.5	19
16	Control and Co-ordination of Flexibilities for Active Network Management in Smart Grids â€™ Li-ion BESS Fast Charging Case. , 2021, , .		0
17	Optimal Operation of Solar Powered Electric Vehicle Parking Lots Considering Different Photovoltaic Technologies. <i>Clean Technologies</i> , 2021, 3, 503-518.	4.2	11
18	Role of Smart Homes and Smart Communities in Flexibility Provision. , 2021, , 21-40.		1

#	ARTICLE	IF	CITATIONS
19	Compliance of Distribution System Reactive Flows with Transmission System Requirements. Applied Sciences (Switzerland), 2021, 11, 7719.	2.5	2
20	Adaptation of DER Control Schemes and Functions During MV Network Back-up Connection. , 2021, , .		1
21	A Local Capacity Market Providing Local and System-Wide Flexibility Services. IEEE Access, 2021, 9, 52336-52351.	4.2	20
22	Microgrid Protection with Conventional and Adaptive Protection Schemes. Power Systems, 2021, , 523-579.	0.5	4
23	An Islanding Detection Technique for Inverter-Based Distributed Generation in Microgrids. Energies, 2021, 14, 130.	3.1	29
24	Peer-to-Peer Electricity Market Based on Local Supervision. IEEE Access, 2021, 9, 156647-156662.	4.2	3
25	Iterative Game Approach for Modeling the Behavior of Agents in a Competitive Flexibility Trading. IEEE Access, 2021, 9, 165227-165238.	4.2	4
26	Power Electronic Converters Simulation Model Verification for Grid Code Compliance Testing. , 2021, , .		0
27	Flexibility Forecast at Local Energy Community Level. , 2021, , .		1
28	Characterisation and Modelling Lithium Titanate Oxide Battery Cell by Equivalent Circuit Modelling Technique. , 2021, , .		5
29	Towards Flexibility Trading at TSO-DSO-Customer Levels: A Review. Energies, 2020, 13, 165.	3.1	42
30	Solutions to Increase PV Hosting Capacity and Provision of Services from Flexible Energy Resources. Applied Sciences (Switzerland), 2020, 10, 5146.	2.5	18
31	A New Local Market Structure for Meeting Customer-Level Flexibility Needs. , 2020, , .		6
32	Optimized Operation of Local Energy Community Providing Frequency Restoration Reserve. IEEE Access, 2020, 8, 180558-180575.	4.2	41
33	Functional Analysis of the Microgrid Concept Applied to Case Studies of the Sundom Smart Grid. Energies, 2020, 13, 4223.	3.1	10
34	Soft Open Point in Distribution Networks. IEEE Access, 2020, 8, 210550-210565.	4.2	43
35	Lithium-ion BESS Integration for Smart Grid Applications - ECM Modelling Approach. , 2020, , .		8
36	Accelerated Real-Time Simulations for Testing a Reactive Power Flow Controller in Long-Term Case Studies. Journal of Electrical and Computer Engineering, 2020, 2020, 1-17.	0.9	9

#	ARTICLE	IF	CITATIONS
37	Sizing and Allocation of Battery Energy Storage Systems in Åland Islands for Large-Scale Integration of Renewables and Electric Ferry Charging Stations. <i>Energies</i> , 2020, 13, 317.	3.1	31
38	Comparison and Evaluation of State of Charge Estimation Methods for a Verified Battery Model. , 2020, , .		5
39	Control and Management of Distribution Networks with Flexible Energy Resources. <i>International Review of Electrical Engineering</i> , 2020, 15, 213.	0.2	7
40	Microgrids as energy and flexibility providers for TSO-level networks. <i>CIREC - Open Access Proceedings Journal</i> , 2020, 2020, 787-790.	0.1	1
41	Modelling and Simulation of Hybrid PV & BES Systems as Flexible Resources in Smartgrids – Sundom Smart Grid Case. , 2019, , .		7
42	Autonomous Soft Open Point Control for Active Distribution Network Voltage Level Management. , 2019, , .		9
43	Testing an IEC 61850-based Light-weighted Controller for Reactive Power Management in Smart Distribution Grids. , 2019, , .		2
44	Controller Development for Reactive Power Flow Management Between DSO and TSO Networks. , 2019, , .		6
45	Islanding Detection During Intended Island Operation of Nested Microgrid. , 2018, , .		7
46	Prospects and Costs for Reactive Power Control in Sundom Smart Grid. , 2018, , .		7
47	Combined islanding detection scheme utilising active network management for future resilient distribution networks. <i>Journal of Engineering</i> , 2018, 2018, 1054-1060.	1.1	3
48	Enhanced MV microgrid protection scheme for detecting high-impedance faults. , 2017, , .		8
49	Future-proof islanding detection schemes in Sundom Smart Grid. <i>CIREC - Open Access Proceedings Journal</i> , 2017, 2017, 1777-1781.	0.1	11
50	Method for high-impedance fault detection. <i>CIREC - Open Access Proceedings Journal</i> , 2017, 2017, 1295-1299.	0.1	11
51	Requirements for coordinated ancillary services covering different voltage levels. <i>CIREC - Open Access Proceedings Journal</i> , 2017, 2017, 1421-1424.	0.1	10
52	Protection Scheme for Island Operated Medium-Voltage Microgrid. <i>International Review of Electrical Engineering</i> , 2015, 10, 510.	0.2	11
53	Adaptive Protection and Microgrid Control Design for Hailuoto Island. <i>IEEE Transactions on Smart Grid</i> , 2014, 5, 1486-1493.	9.0	151
54	Advanced Islanding Detection Functionality for Future Electricity Distribution Networks. <i>IEEE Transactions on Power Delivery</i> , 2013, 28, 2056-2064.	4.3	129

#	ARTICLE	IF	CITATIONS
55	Protection Principles for Future Microgrids. IEEE Transactions on Power Electronics, 2010, 25, 2910-2918.	7.9	399
56	A two-stage stochastic bilevel programming approach for offering strategy of DER aggregators in local and wholesale electricity markets. IET Renewable Power Generation, 0, , .	3.1	3