Edo Abraham

List of Publications by Year
in descending order

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49	901	471061	500791
papers	citations	17	28
		h-index	g-index

56	56	56	815
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Graph-Theoretic Framework for Assessing the Resilience of Sectorised Water Distribution Networks. Water Resources Management, 2016, 30, 1685-1699.	1.9	132
2	Demonstrating demand response from water distribution system through pump scheduling. Applied Energy, 2016, 170, 377-387.	5.1	82
3	Optimal Active Control and Optimization of a Wave Energy Converter. IEEE Transactions on Sustainable Energy, 2013, 4, 324-332.	5.9	77
4	Control of water distribution networks with dynamic DMA topology using strictly feasible sequential convex programming. Water Resources Research, 2015, 51, 9925-9941.	1.7	64
5	Exploring Optimal Pump Scheduling in Water Distribution Networks with Branch and Bound Methods. Water Resources Management, 2016, 30, 5333-5349.	1.9	38
6	WaterBox. , 2015, , .		35
7	Extending the Envelope of Demand Response Provision though Variable Speed Pumps. Procedia Engineering, 2017, 186, 584-591.	1.2	25
8	Sparse Null Space Algorithms for Hydraulic Analysis of Large-Scale Water Supply Networks. Journal of Hydraulic Engineering, 2016, 142, .	0.7	24
9	Quadratic head loss approximations for optimisation problems in water supply networks. Journal of Hydroinformatics, 2017, 19, 493-506.	1.1	23
10	Approximation of System Components for Pump Scheduling Optimisation. Procedia Engineering, 2015, 119, 1059-1068.	1.2	22
11	Sustainable Water Resources Management in an Arid Area Using a Coupled Optimization-Simulation Modeling. Water (Switzerland), 2020, 12, 885.	1.2	22
12	Pressure-Leak Duality for Leak Detection and Localization in Water Distribution Systems. Journal of Water Resources Planning and Management - ASCE, 2022, 148, .	1.3	21
13	Iterative Multistage Method for a Large Water Network Sectorization into DMAs under Multiple Design Objectives. Journal of Water Resources Planning and Management - ASCE, 2017, 143, .	1.3	20
14	Scalable Pareto set generation for multiobjective co-design problems in water distribution networks: a continuous relaxation approach. Structural and Multidisciplinary Optimization, 2017, 55, 857-869.	1.7	19
15	Model Reduction and Outer Approximation for Optimizing the Placement of Control Valves in Complex Water Networks. Journal of Water Resources Planning and Management - ASCE, 2019, 145, .	1.3	19
16	Multi-Objective Model Predictive Control for Real-Time Operation of a Multi-Reservoir System. Water (Switzerland), 2020, 12, 1898.	1.2	19
17	Decreasing the Discoloration Risk of Drinking Water Distribution Systems through Optimized Topological Changes and Optimal Flow Velocity Control. Journal of Water Resources Planning and Management - ASCE, 2018, 144, .	1.3	18
18	Graph-theoretic Surrogate Measures for Analysing the Resilience of Water Distribution Networks. Procedia Engineering, 2015, 119, 1241-1248.	1.2	17

#	Article	IF	Citations
19	Optimized Control of Pressure Reducing Valves in Water Distribution Networks with Dynamic Topology. Procedia Engineering, 2015, 119, 1003-1011.	1.2	17
20	Global optimality bounds for the placement of control valves in water supply networks. Optimization and Engineering, 2019, 20, 457-495.	1.3	16
21	Electricity Price Forecasting in European Day Ahead Markets: A Greedy Consideration of Market Integration. IEEE Access, 2021, 9, 119954-119966.	2.6	16
22	Battle of Postdisaster Response and Restoration. Journal of Water Resources Planning and Management - ASCE, 2020, 146, 04020067.	1.3	14
23	Managing Water Quality in Intermittent Supply Systems: The Case of Mukono Town, Uganda. Water (Switzerland), 2020, 12, 806.	1.2	13
24	Mathematical Programming Methods for Pressure Management in Water Distribution Systems. Procedia Engineering, 2015, 119, 937-946.	1.2	12
25	Modeling Variable Speed Pumps for Optimal Pump Scheduling. , 2016, , .		11
26	Penalty and relaxation methods for the optimal placement and operation of control valves in water supply networks. Computational Optimization and Applications, 2017, 67, 201-223.	0.9	11
27	Optimal Control for Precision Irrigation of a Largeâ€Scale Plantation. Water Resources Research, 2020, 56, e2019WR026989.	1.7	11
28	Optimal salinity and water level control of water courses using Model Predictive Control. Environmental Modelling and Software, 2019, 112, 36-45.	1.9	9
29	A Greedy Algorithm for Optimal Sensor Placement to Estimate Salinity in Polder Networks. Water (Switzerland), 2019, 11, 1101.	1.2	8
30	Identification of the Methanogenesis Inhibition Mechanism Using Comparative Analysis of Mathematical Models. Frontiers in Bioengineering and Biotechnology, 2019, 7, 93.	2.0	7
31	Integrative technology hubs for urban food-energy-water nexuses and cost-benefit-risk tradeoffs (II): Design strategies for urban sustainability. Critical Reviews in Environmental Science and Technology, 2021, 51, 1533-1583.	6.6	7
32	Dynamic Time Warping Clustering to Discover Socioeconomic Characteristics in Smart Water Meter Data. Journal of Water Resources Planning and Management - ASCE, 2021, 147, .	1.3	7
33	Efficient Preconditioned Iterative Methods for Hydraulic Simulation of Large Scale Water Distribution Networks. Procedia Engineering, 2015, 119, 623-632.	1.2	6
34	Lower-Order <formula formulatype="inline"><tex Notation="TeX">H_{infty}</tex></formula> Filter Design for Bilinear Systems With Bounded Inputs. IEEE Transactions on Signal Processing, 2015, 63, 895-906.	3.2	6
35	Investigating trade-offs between the operating cost and green house gas emissions from water distribution systems. Sustainable Energy Technologies and Assessments, 2017, 21, 13-22.	1.7	6
36	Network Analysis, Control Valve Placement and Optimal Control of Flow Velocity for Self-Cleaning Water Distribution Systems. Procedia Engineering, 2017, 186, 576-583.	1.2	6

#	Article	IF	Citations
37	Outer approximation methods for the solution of co-design optimisation problems in water distribution networks * *This work was supported by the NEC-Imperial SmartWater Systems project. The authors acknowledge the EPSRC Industrial CASE Studentship project EP/I501444/1, from which the case study model BWFLnet was derived.. IFAC-PapersOnLine, 2017, 50, 5373-5379.	0.5	6
38	Constraint-Preconditioned Inexact Newton Method for Hydraulic Simulation of Large-Scale Water Distribution Networks. IEEE Transactions on Control of Network Systems, 2017, 4, 610-619.	2.4	5
39	Nonlinear model predictive control of salinity and water level in polder networks: Case study of Lissertocht catchment. Agricultural Water Management, 2022, 264, 107502.	2.4	5
40	Maximizing Waterâ€“Foodâ€“Energy Nexus Synergies at Basin Scale. Advances in Science, Technology and Innovation, 2020, , 67-70.	0.2	4
41	Optimal active control of a wave energy converter. , 2012, , .		3
42	Integrative technology hubs for urban food-energy-water nexuses and cost-benefit-risk tradeoffs (I): Global trend and technology metrics. Critical Reviews in Environmental Science and Technology, 2021, 51, 1397-1442.	6.6	3
43	Estimator design for input-constrained bilinear systems with application to wave energy conversion. , 2013, , .		2
44	Model Predictive Control of Salinity in a Polder Ditch Under High Saline Groundwater Exfiltration Conditions: A Test Case. IFAC-PapersOnLine, 2017, 50, 3160-3164.	0.5	2
45	The water use of heating pathways to 2050: analysis of national and urban energy scenarios. Environmental Research Letters, 2021, 16, 055031.	2.2	2
46	Operational planning of WEF infrastructure: quantifying the value of information sharing and cooperation in the Eastern Nile basin. Environmental Research Letters, 2021, 16, 085006.	2.2	2
47	Probabilistic DAM price forecasting using a combined Quantile Regression Deep Neural Network with less-crossing quantiles. , 2021, , .		2
48	Multi-market demand response from pump-controlled open canal systems: an economic MPC approach to pump-scheduling. Journal of Hydroinformatics, 2022, 24, 838-855.	1.1	2
49	Model Predictive Control of Salinity and Water Level in a Hypothetical Polder Ditch: Is it Possible to Use the Discretized Linearized Physical Equations for Optimization. , 0, , .		0