Ivan Stoianov

List of Publications by Year
in descending order

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46 papers	1,807 citations	430874 18 h-index	289244 40 g-index
47 all docs	47 docs citations	47 times ranked	1390 citing authors

#	Article	IF	Citations
1	Optimization-Based Selection of Hydrants and Valves Control in Water Distribution Networks for Fire Incidents Management. IEEE Systems Journal, 2023, 17, 134-145.	4.6	2
2	Bi-objective design-for-control of water distribution networks with global bounds. Optimization and Engineering, 2022, 23, 527-577.	2.4	5
3	Convex Heuristics for Optimal Placement and Operation of Valves and Chlorine Boosters in Water Networks. Journal of Water Resources Planning and Management - ASCE, 2022, 148, .	2.6	6
4	Adaptive Model Predictive Control for Fire Incidents in Water Distribution Networks. Journal of Water Resources Planning and Management - ASCE, 2022, 148, .	2.6	3
5	Relax-tighten-round algorithm for optimal placement and control of valves and chlorine boosters in water networks. European Journal of Operational Research, 2021, 295, 690-698.	5.7	9
6	Pipe breaks and estimating the impact of pressure control in water supply networks. Reliability Engineering and System Safety, 2021, 210, 107525.	8.9	21
7	Prior Assumptions for Leak Localisation in Water Distribution Networks with Uncertainties. Water Resources Management, 2021, 35, 5105-5118.	3.9	3
8	Closure to â€œRegularization of an Inverse Problem for Parameter Estimation in Water Distribution Systemsâ€•by Alexander Waldron, Filippo Pecci, and Ivan Stoianov. Journal of Water Resources Planning and Management - ASCE, 2021, 147, .	2.6	1
9	Optimal control of water distribution networks without storage. European Journal of Operational Research, 2020, 284, 345-354.	5.7	18
10	Regularization of an Inverse Problem for Parameter Estimation in Water Distribution Networks. Journal of Water Resources Planning and Management - ASCE, 2020, 146, .	2.6	10
11	A comparative study of statistical and machine learning methods to infer causes of pipe breaks in water supply networks. Urban Water Journal, 2020, 17, 534-548.	2.1	20
12	Sequential Convex Optimization for Detecting and Locating Blockages in Water Distribution Networks. Journal of Water Resources Planning and Management - ASCE, 2020, 146, .	2.6	5
13	Localizing Leakage Hotspots in Water Distribution Networks via the Regularization of an Inverse Problem. Journal of Hydraulic Engineering, 2020, 146, 04020025.	1.5	13
14	An MINLP-Based Approach for the Design-for-Control of Resilient Water Supply Systems. IEEE Systems Journal, 2020, 14, 4579-4590.	4.6	14
15	Redundant flow estimation methods for robust hydraulic control in water supply networks. Journal of Hydroinformatics, 2019, 21, 571-592.	2.4	5
16	Continuous Chlorine Detection in Drinking Water and a Review of New Detection Methods. Johnson Matthey Technology Review, 2019, 63, 103-118.	1.0	23
17	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, .	2.6	19
18	Global optimality bounds for the placement of control valves in water supply networks. Optimization and Engineering, 2019, 20, 457-495.	2.4	16

#	Article	IF	Citations
19	Impact of network sectorisation on water quality management. Journal of Hydroinformatics, 2018, 20, 424-439.	2.4	13
20	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, .	2.6	18
21	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.	3.7	5
22	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.	1.6	11
23	Quadratic head loss approximations for optimisation problems in water supply networks. Journal of Hydroinformatics, 2017, 19, 493-506.	2.4	23
24	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.	2.7	6
25	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.	0.9	6
26	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.	3.5	19
27	Demonstrating demand response from water distribution system through pump scheduling. Applied Energy, 2016, 170, 377-387.	10.1	82
28	A Graph-Theoretic Framework for Assessing the Resilience of Sectorised Water Distribution Networks. Water Resources Management, 2016, 30, 1685-1699.	3.9	132
29	Biofouling and in situ electrochemical cleaning of a boron-doped diamond free chlorine sensor. Electrochemistry Communications, 2016, 71, 79-83.	4.7	31
30	Exploring Optimal Pump Scheduling in Water Distribution Networks with Branch and Bound Methods. Water Resources Management, 2016, 30, 5333-5349.	3.9	38
31	Sparse Null Space Algorithms for Hydraulic Analysis of Large-Scale Water Supply Networks. Journal of Hydraulic Engineering, 2016, 142, .	1.5	24
32	Approximation of System Components for Pump Scheduling Optimisation. Procedia Engineering, 2015, 119, 1059-1068.	1.2	22
33	Investigating the Impact of Sectorized Networks on Discoloration. Procedia Engineering, 2015, 119, 407-415.	1.2	7
34	Control of water distribution networks with dynamic DMA topology using strictly feasible sequential convex programming. Water Resources Research, 2015, 51, 9925-9941.	4.2	64
35	Mathematical Programming Methods for Pressure Management in Water Distribution Systems. Procedia Engineering, 2015, 119, 937-946.	1.2	12
36	Graph-theoretic Surrogate Measures for Analysing the Resilience of Water Distribution Networks. Procedia Engineering, 2015, 119, 1241-1248.	1.2	17

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37	Efficient Preconditioned Iterative Methods for Hydraulic Simulation of Large Scale Water Distribution Networks. Procedia Engineering, 2015, 119, 623-632.	1.2	6
38	Pipe Failure Analysis and Impact of Dynamic Hydraulic Conditions in Water Supply Networks. Procedia Engineering, 2015, 119, 253-262.	1.2	92
39	Analytical and experimental investigation of chlorine decay in water supply systems under unsteady hydraulic conditions. Journal of Hydroinformatics, 2014, 16, 690-709.	2.4	7
40	Adaptive water distribution networks with dynamically reconfigurable topology. Journal of Hydroinformatics, 2014, 16, 1280-1301.	2.4	57
41	In-pipe water quality monitoring in water supply systems under steady and unsteady state flow conditions: A quantitative assessment. Water Research, 2012, 46, 235-246.	11.3	70
42	Power-Extraction Circuits for Piezoelectric Energy Harvesters in Miniature and Low-Power Applications. IEEE Transactions on Power Electronics, 2012, 27, 4514-4529.	7.9	198
43	PIPENETa wireless sensor network for pipeline monitoring. , 2007, , .		215
44	The dynamic effect of pipe-wall viscoelasticity in hydraulic transients. Part IIâ€”model development, calibration and verification. Journal of Hydraulic Research/De Recherches Hydrauliques, 2005, 43, 56-70.	1.7	208
45	Water hammer in pressurized polyethylene pipes: conceptual model and experimental analysis. Urban Water Journal, 2004, 1, 177-197.	2.1	67
46	The dynamic effect of pipe-wall viscoelasticity in hydraulic transients. Part Iâ€”experimental analysis and creep characterization. Journal of Hydraulic Research/De Recherches Hydrauliques, 2004, 42, 517-532.	1.7	164