SimulationOptimization Modeling: A Survey and Potential Application in Reservoir Systems Operation

#	Paper	IF	Citations
329	Deriving multiple near-optimal solutions to deterministic reservoir operation problems. *Water Resources Research*, **2011**, 47,	5.4	58
328	Joint Operation of the Multi-Reservoir System of the Three Gorges and the Qingjiang Cascade Reservoirs. **2011**, 4, 1036-1050		61
327	Decision Support System for Optimizing Reservoir Operations Using Ensemble Streamflow Predictions. *Journal of Water Resources Planning and Management - ASCE*, **2011**, 137, 72-82	2.8	84
326	Reservoir operation under variable climate: Case of Rozva Dam, Zimbabwe. **2011**, 36, 1112-1119		8
325	Design of Barrages with Genetic Algorithm Based Embedded Simulation Optimization Approach. *Water Resources Management*, **2011**, 25, 409-429	3.7	19
324	Optimizing Safe Yield Policy Implementation. *Water Resources Management*, **2011**, 25, 483-508	3.7	15
323	Hybrid RES-HEP Systems Development. *Water Resources Management*, **2011**, 25, 2219-2239	3.7	6
322	Derivation of Aggregation-Based Joint Operating Rule Curves for Cascade Hydropower Reservoirs. *Water Resources Management*, **2011**, 25, 3177-3200	3.7	101
321	Reservoirs Effects on the Interannual Variability of Winter and Spring Streamflow in the St-Maurice River Watershed (Quebec, Canada). *Water Resources Management*, **2011**, 25, 3661-3675	3.7	20
320	An Operation-Based Scheme for a Multiyear and Multipurpose Reservoir to Enhance Macroscale Hydrologic Models. **2012**, 13, 270-283		38
319	ECONOMICS AND THE MODELING OF WATER RESOURCES AND POLICIES. **2012**, 25, 168-218		112
318	Reservoir Optimization-Simulation with a Sediment Evacuation Model to Minimize Irrigation Deficits. *Water Resources Management*, **2012**, 26, 3173-3193	3.7	23
317	Discretized and Continuous Target Fields for the Reservoir Release Rules During Floods. *Water Resources Management*, **2012**, 26, 3457-3477	3.7	9
316	Downstream Hydrological Impacts of Hydropower Development in the Upper Mekong Basin. *Water Resources Management*, **2012**, 26, 3495-3513	3.7	106
315	Parameter Identification for a Slug Test in a Well with Finite-Thickness Skin Using Extended Kalman Filter. *Water Resources Management*, **2012**, 26, 4039-4057	3.7	2
314	A Model for Solving the Optimal Water Allocation Problem in River Basins with Network Flow Programming When Introducing Non-Linearities. *Water Resources Management*, **2012**, 26, 4059-4071	3.7	19
313	Optimal Reservoir Operation for Hydropower Generation using Non-linear Programming Model. **2012**, 93, 111-120		32

294	Effectiveness and Efficiency of Scheduling Regional Water Resources Projects. *Water Resources Management*, **2013**, 27, 665-693	3.7	5
293	A Data-driven Model for Large Wildfire Behaviour Prediction in Europe. **2013**, 18, 1861-1870		20
292	An Efficient Parallel Algorithm for Large Scale Hydrothermal System Operation Planning. **2013**, 28, 4888-4896		18
291	Participatory Optimization Scenario for Water Resources Management: A Case from Jordan. *Water Resources Management*, **2013**, 27, 1949-1962	3.7	8
290	Comparison of generic simulation models for water resource systems. **2013**, 40, 214-225		50
289	Frameworks for amending reservoir water management. **2013**, 29, 194-201		9
288	Value-driven river management: A Murray River case study. **2013**, 17,		1
287	Evaluating changes to reservoir rule curves using historical water-level data. **2013**, 11, 323-328		4
286	Risk-based methodology for parameter calibration of a reservoir flood control model. **2013**, 13, 965-981		15
285	Determination of cost coefficients of a priority-based water allocation linear programming model ⬚ a network flow approach. **2014**, 18, 1857-1872		9
284	Combined Simulation-Optimization Model for Assessing Irrigation Water Supply Capacities of Reservoirs. **2014**, 140, 04014005		10
283	Reservoir Optimization and Simulation Modeling: A Case Study. **2014**, 195-215		0
282	Evaluation of a multi-reservoir hydropower system using a simulation model. **2014**, 20, 177-187		4
281	Evaluating Infrastructure Alternatives for Regional Water Supply Systems by Model-assisted Cost-benefit Analysis ⬚A Case Study from Apulia, Italy. **2014**, 89, 1460-1469		2
280	Simulating High-Elevation Hydropower with Regional Climate Warming in the West Slope, Sierra Nevada. *Journal of Water Resources Planning and Management - ASCE*, **2014**, 140, 714-723	2.8	11
279	Parameter uncertainty analysis of reservoir operating rules based on implicit stochastic optimization. *Journal of Hydrology*, **2014**, 514, 102-113	6	75
278	Screening Investments to Reduce the Risk of Hydrologic Failures in the Headwork System Supplying Apulia (Italy) ⬚Role of Economic Evaluation and Operation Hydrology. *Water Resources Management*, **2014**, 28, 1251-1275	3.7	4
277	Adapting Multireservoir Operation to Shifting Patterns of Water Supply and Demand. *Water Resources Management*, **2014**, 28, 625-643	3.7	25

276 A Framework for Short-term Operational Planning for Water Grids. *Water Resources Management*, **2014**, 28, 2367-2380 — 3.7 — 6

275 Variable Sets and Fuzzy Rating Interval for Water Allocation Options Assessment. *Water Resources Management*, **2014**, 28, 2833-2849 — 3.7 — 7

274 Optimizing Reservoir Operation Policy Using Chance Constraint Nonlinear Programming for Koga Irrigation Dam, Ethiopia. *Water Resources Management*, **2014**, 28, 4957-4970 — 3.7 — 26

273 Joint operation and dynamic control of flood limiting water levels for mixed cascade reservoir systems. *Journal of Hydrology*, **2014**, 519, 248-257 — 6 — 59

272 Reservoir operation using El Niño forecasts—case study of Daule Peripa and Baba, Ecuador. *Hydrological Sciences Journal*, **2014**, 59, 1559-1581 — 3.5 — 11

271 Modeling water flows in a serial irrigation reservoir system considering irrigation return flows and reservoir operations. **2014**, 143, 131-141 — 15

270 A Multi-Objective Optimization Model for Coordinated Regulation of Flow and Sediment in Cascade Reservoirs. *Water Resources Management*, **2014**, 28, 4019-4033 — 3.7 — 14

269 Identifying Explicit Formulation of Operating Rules for Multi-Reservoir Systems Using Genetic Programming. *Water Resources Management*, **2014**, 28, 1545-1565 — 3.7 — 44

268 Examining Two Different Approaches to Modelling Management and Operation Rules in a Single River System Model. *Water Resources Management*, **2014**, 28, 1713-1732 — 3.7 — 4

267 Reservoir Optimization in Water Resources: a Review. *Water Resources Management*, **2014**, 28, 3391-3405 — 3.7 — 160

266 A decision support system for on-line leakage localization. **2014**, 60, 331-345 — 40

265 Modeling the Inference between Upstream Inflow Hydrographs and Downstream Flooded Areas in a Reservoir Driven System. **2014**, 108, 207-218 — 2

264 Flood inference simulation using surrogate modelling for the Yellow River multiple reservoir system. **2014**, 55, 250-265 — 12

263 Optimal Allocation of Agricultural Water Resources Based on Virtual Water Subdivision in Shiyang River Basin. *Water Resources Management*, **2014**, 28, 2243-2257 — 3.7 — 52

262 Multi-objective reservoir operation under emergency condition: Abbaspour reservoir case study with non-functional spillways. **2014**, 7, 374-384 — 7

261 Water Supply Optimization: An IPA Approach. **2014**, 47, 265-270

260 Water Accounts and Water Stress Indexes in the European Context of Water Planning: The Jucar River Basin. **2014**, 89, 1470-1477 — 4

259 Adaptive multi-objective simulation–optimization framework for dynamic flood control operation in a river–reservoir system. **2015**, 46, 893-911 — 9

258	Comparison of optimisation methods tested on testing functions and discrete event simulation models. **2015**, 10, 279		2
257	Augmentation of an artificial neural network and modified stochastic dynamic programing model for optimal release policy. **2015**, 46, 689-704		2
256	Orthogonal Dimension Reduction Search Algorithm for Optimal Operation of Hydropower Systems. **2015**,		
255	Model of Long-Term Optimal Operation of a Multi-Reservoir System under the Cascade Storage Energy Control. **2015**,		
254	Climate Change, Water Supply and Sanitation: Risk Assessment, Management, Mitigation and Reduction. **2015**, 14,		1
253	On inclusion of water resource management in Earth system models ‭Part 2: Representation of water supply and allocation and opportunities for improved modeling. **2015**, 19, 63-90		92
252	Optimal design of seasonal flood limited water levels and its application for the Three Gorges Reservoir. *Journal of Hydrology*, **2015**, 527, 1045-1053	6	124
251	OPTIWAM: An Intelligent Tool for Optimizing Irrigation Water Management in Coupled Reservoir‭Groundwater Systems. *Water Resources Management*, **2015**, 29, 3841-3861	3.7	11
250	Controlled approximation of the value function in stochastic dynamic programming for multi-reservoir systems. **2015**, 12, 539-557		4
249	Modelling monthly operation policy for the Mosul Dam, northern Iraq. **2015**, 5, 179		1
248	State-of-the-Art for Modelling Reservoir Inflows and Management Optimization. *Water Resources Management*, **2015**, 29, 1267-1282	3.7	32
247	Multi-Objective Operations of Multi-Wetland Ecosystem: iModel Applied to the Everglades Restoration. *Journal of Water Resources Planning and Management - ASCE*, **2015**, 141, 04015008	2.8	2
246	Integrated simulation and optimization scheme of real-time large-scale water supply network: applied to Catalunya case study. **2015**, 91, 59-70		9
245	An adaptive watershed management assessment based on watershed investigation data. **2015**, 55, 1006-21		4
244	Managing Hydroelectric Reservoirs Over an Extended Horizon Using Benders Decomposition With a Memory Loss Assumption. **2015**, 30, 563-572		8
243	Optimal design of multi-storage network for combined sewer overflow management using a diversity-guided, cyclic-networking particle swarm optimizer ‭A case study in the Gunja subcatchment area, Korea. **2015**, 42, 6966-6975		10
242	Optimal design of hydraulic structures with hybrid differential evolution multiple particle swarm optimization. **2015**, 42, 303-310		3
241	Comparison of Modified Downhill Simplex and Differential Evolution with other Selected Optimization Methods Used for Discrete Event Simulation Models. **2015**, 100, 807-815		2

240	Optimum Operation of Reservoir Using Two Evolutionary Algorithms: Imperialist Competitive Algorithm (ICA) and Cuckoo Optimization Algorithm (COA). *Water Resources Management*, **2015**, 29, 3749-3769	3.7	51
239	Sensitivity of Regional Water Supply Systems Models to the Level of Skeletonization ⬜A Case Study from Apulia, Italy. **2015**, 119, 535-544		1
238	Reservoir Design Optimization Incorporating Performance Indices. *Water Resources Management*, **2015**, 29, 4305-4318	3.7	2
237	Development of Simulation-Optimization Model (MUSIC-GA) for Urban Stormwater Management. *Water Resources Management*, **2015**, 29, 4649-4665	3.7	20
236	Model-Based Assessment of Water, Food, and Energy Trade-Offs in a Cascade of Multipurpose Reservoirs: Case Study of the Sesan Tributary of the Mekong River. *Journal of Water Resources Planning and Management - ASCE*, **2015**, 141, 05014007	2.8	20
235	Key issues for determining the exploitable water resources in a Mediterranean river basin. **2015**, 503-504, 319-28		15
234	Comparative analysis of evolving artificial neural network and reinforcement learning in stochastic optimization of multireservoir systems. *Hydrological Sciences Journal*, **2016**, 61, 1141-1156	3.5	11
233	Dealing with rainfall forecast uncertainties in real-time flood control along the Demer river. **2016**, 7, 18023		
232	Efficient discretization of state variables in stochastic dynamic programming model of Ukai reservoir, India. **2016**, 22, 293-304		7
231	Genetic Algorithm applied to reservoir operation optimization with emphasis on the Moroccan context. **2016**,		4
230	ASTRO-DF: Adaptive sampling trust-region optimization algorithms, heuristics, and numerical experience. **2016**,		2
229	Large Scale Reservoirs System Operation Optimization: the Interior Search Algorithm (ISA) Approach. *Water Resources Management*, **2016**, 30, 3389-3407	3.7	22
228	A Genetic Algorithm Parallel Strategy for Optimizing the Operation of Reservoir with Multiple Eco-environmental Objectives. *Water Resources Management*, **2016**, 30, 2127-2142	3.7	28
227	Multi-objective optimization of multi-purpose multi-reservoir systems under high reliability constraints. **2016**, 75, 1		2
226	Application of PSO algorithm in short-term optimization of reservoir operation. **2016**, 188, 667		24
225	Modelling and assessment of the combined impacts of climatic and demographic change on a multipurpose reservoir system in the Harz mountains. **2016**, 75, 1		2
224	Quantifying the robustness of optimal reservoir operation for the Xinanjiang-Fuchunjiang Reservoir Cascade. *Water Science and Technology: Water Supply*, **2016**, 16, 79-86	1.4	3
223	Effect of Hedging-Integrated Rule Curves on the Performance of the Pong Reservoir (India) During Scenario-Neutral Climate Change Perturbations. *Water Resources Management*, **2016**, 30, 445-470	3.7	22

222	Optimal operation of Mula reservoir with combined use of dynamic programming and genetic algorithm. **2016**, 2, 1-12		9
221	A set of linked optimization models for an inter-basin water transfer. *Hydrological Sciences Journal*, **2016**, 61, 371-392	3.5	11
220	Multi-Reservoir System Operation Theory and Practice. **2016**, 1-110		4
219	Generalized Mathematical Simulation Formulation for Reservoir Systems. *Journal of Water Resources Planning and Management - ASCE*, **2016**, 142, 04016004	2.8	3
218	Advances in Water Resources Management. **2016**,		3
217	Modelling Intelligent Water Resources Allocation for Multi-users. *Water Resources Management*, **2016**, 30, 1395-1413	3.7	28
216	Basin/Reservoir System Integration for Real Time Reservoir Operation. *Water Resources Management*, **2016**, 30, 1653-1668	3.7	12
215	Derivation of water and power operating rules for multi-reservoirs. *Hydrological Sciences Journal*, **2016**, 61, 359-370	3.5	20
214	Linking groundwater simulation and reservoir system analysis models: The case for California Central Valley. **2016**, 77, 168-182		22
213	Incorporating Hydrologic Routing into Reservoir Operation Models: Implications for Hydropower Production Planning. *Water Resources Management*, **2016**, 30, 623-640	3.7	4
212	Many-Objective Analysis to Optimize Pumping and Releases in Multireservoir Water Supply Network. *Journal of Water Resources Planning and Management - ASCE*, **2016**, 142, 04015049	2.8	12
211	A neural network based general reservoir operation scheme. **2016**, 30, 1151-1166		29
210	Optimal planning of decentralised storage tanks to reduce combined sewer overflow spills using particle swarm optimisation. **2017**, 14, 202-211		3
209	Hydro power flexibility for power systems with variable renewable energy sources: an IEA Task 25 collaboration. **2017**, 6, e220		23
208	Improving operating policies of large-scale surface-groundwater systems through stochastic programming. *Water Resources Research*, **2017**, 53, 1407-1423	5.4	16
207	SOM-Based Decision Support System for Reservoir Operation Management. **2017**, 22, 04017012		5
206	Reliability Improved Stochastic Dynamic Programming for Reservoir Operation Optimization. *Water Resources Management*, **2017**, 31, 1795-1807	3.7	9
205	Performance of a system of reservoirs on futuristic front. **2017**, 7, 2667-2680		3

204	Flexible Strategy Searching Algorithms for Long Term Optimal Operation Models for Inter Basin Hydropower Reservoir Systems. **2017**,		
203	Optimization of hydropower system operation by uniform dynamic programming for dimensionality reduction. **2017**, 134, 718-730		61
202	Improved multi-objective model and analysis of the coordinated operation of a hydro-wind-photovoltaic system. **2017**, 134, 813-839		68
201	Hydropower system operation optimization by discrete differential dynamic programming based on orthogonal experiment design. **2017**, 126, 720-732		87
200	A simulation-optimization approach for sales and operations planning in build-to-order industries with distant sourcing: Focus on the automotive industry. **2017**, 112, 469-482		16
199	A Hybrid Optimal Model for Daily Reservoir Regulation Problem Under Fuzzy Random Environment. **2017**, 15, 35-49		1
198	Hydropower Optimization Using Artificial Neural Network Surrogate Models of a High-Fidelity Hydrodynamics and Water Quality Model. *Water Resources Research*, **2017**, 53, 9444-9461	5.4	38
197	Simulation Model Robustness Check- Indicators of Pessimistic Models Pre and Post History Match Case Study Fotis Reservoir. **2017**,		
196	Optimization of the Garzan Hydropower System operations. **2017**, 10, 1		2
195	Reservoir adaptive operating rules based on both of historical streamflow and future projections. *Journal of Hydrology*, **2017**, 553, 691-707	6	20
194	Participatory Framework for Assessment and Improvement of Tools (ParFAIT): Increasing the impact and relevance of water management decision support research. **2017**, 95, 432-446		16
193	A Quadratic Programming Approach for Fixed Head Hydropower System Operation Optimization Considering Power Shortage Aspect. *Journal of Water Resources Planning and Management - ASCE*, **2017**, 143, 06017005	2.8	11
192	Optimizing Multireservoir System Operating Policies Using Exogenous Hydrologic Variables. *Water Resources Research*, **2017**, 53, 9845-9859	5.4	8
191	A method for implementing the real-time dynamic control of flood-limited water level. **2017**, 76, 1		6
190	Aggregated surrogate simulator for groundwater-surface water management via simulation-optimization modeling: Theory, development and tests. **2017**, 96, 210-231		8
189	Multi-objective reservoir operation during flood season considering spillway optimization. *Journal of Hydrology*, **2017**, 552, 554-563	6	24
188	Nile River Basin modelling for water resources management a literature review. **2017**, 15, 39-52		10
187	An optimisation model for reservoir operation. **2017**, 170, 175-183		1

| 186 | Integrating Historical Operating Decisions and Expert Criteria into a DSS for the Management of a Multireservoir System. *Journal of Water Resources Planning and Management - ASCE*, **2017**, 143, 04016069 | 2.8 | 11 |

| 185 | A flood decrease strategy based on flow network coupled with a hydraulic simulation software 1 1This work was partially supported by the urban community of Le Grand Tarbes.. **2017**, 50, 3171-3176 | | 3 |

| 184 | Increased hydropower potential at Niagara: a scenario-based analysis. **2018**, 45, 676-683 | | 1 |

| 183 | Optimal design of interception for flood control: An integrated simulation approach. **2018**, 19, 103-116 | | 1 |

| 182 | Optimizing electrical power production of hydropower system by uniform progressive optimality algorithm based on two-stage search mechanism and uniform design. **2018**, 190, 432-442 | | 54 |

| 181 | Impact of Water Resources Development on Water Availability for Hydropower Production and Irrigated Agriculture of the Eastern Nile Basin. *Journal of Water Resources Planning and Management - ASCE*, **2018**, 144, 05018007 | 2.8 | 16 |

| 180 | Combining Model Predictive Control with a Reduced Genetic Algorithm for Real-Time Flood Control. *Journal of Water Resources Planning and Management - ASCE*, **2018**, 144, 04017083 | 2.8 | 22 |

| 179 | Artificial neural networks: applications in the drinking water sector. *Water Science and Technology: Water Supply*, **2018**, 18, 1869-1887 | 1.4 | 15 |

| 178 | Multi-Objective Simulation-Optimization Model for Long-term Reservoir Operation using Piecewise Linear Hedging Rule. *Water Resources Management*, **2018**, 32, 1901-1911 | 3.7 | 21 |

| 177 | Optimizing Hydropower Reservoirs Operation via an Orthogonal Progressive Optimality Algorithm. *Journal of Water Resources Planning and Management - ASCE*, **2018**, 144, 04018001 | 2.8 | 22 |

| 176 | Energy and reserve scheduling under ambiguity on renewable probability distribution. **2018**, 160, 205-218 | | 7 |

| 175 | Developing a decision support framework for real-time flood management using integrated models. **2018**, 11, S866-S883 | | 12 |

| 174 | Application of Cat Swarm Optimization Algorithm for Optimal Reservoir Operation. **2018**, 144, 04017057 | | 19 |

| 173 | Optimization of large-scale hydropower system peak operation with hybrid dynamic programming and domain knowledge. **2018**, 171, 390-402 | | 37 |

| 172 | Multipurpose Design of the Flow-Control System of a Steep Water Main. *Journal of Water Resources Planning and Management - ASCE*, **2018**, 144, 05017018 | 2.8 | 4 |

| 171 | Introducing modified version of penguins search optimization algorithm (PeSOA) and its application in optimal operation of reservoir systems. *Water Science and Technology: Water Supply*, **2018**, 18, 1484-1496 | 1.4 | 5 |

| 170 | Optimization of variable-head hydropower system operation considering power shortage aspect with quadratic programming and successive approximation. **2018**, 143, 1020-1028 | | 21 |

| 169 | Improved Implicit Stochastic Optimization technique under drought conditions: the case study of Agrißinni water system. **2018**, 16, 493-504 | | 3 |

168	Peak operation of hydropower system with parallel technique and progressive optimality algorithm. **2018**, 94, 267-275		35
167	Self-optimization system dynamics simulation of reservoir operating rules. **2018**, 246, 01013		3
166	An Ecologically Oriented Operation Strategy for a Multi-Reservoir System: A Case Study of the Middle and Lower Han River Basin, China. **2018**, 4, 627-634		6
165	Combining Grey Relational Analysis and a Bayesian Model Averaging Method to Derive Monthly Optimal Operating Rules for a Hydropower Reservoir. **2018**, 10, 1099		7
164	Managing Conflicting Water Resource Goals and Uncertainties in a Dam-Network by Exploring the Solution Space. **2018**,		
163	Machine learning for energy-water nexus: challenges and opportunities. **2018**, 2, 228-267		22
162	Water resources management sustainability: Review of the simulation and optimization approaches. **2018**,		
161	An Ensemble Optimization Framework for Coupled Design of Hydropower Contracts and Real-Time Reservoir Operating Rules. *Water Resources Research*, **2018**, 54, 8401-8419	5.4	4
160	Optimization of Multi-Reservoir Operating Rules for a Water Supply System. *Water Resources Management*, **2018**, 32, 4543-4559	3.7	1
159	Developing a successive linear programming model for head-sensitive hydropower system operation considering power shortage aspect. **2018**, 155, 252-261		26
158	Deriving operating rules for a large-scale hydro-photovoltaic power system using implicit stochastic optimization. **2018**, 195, 562-572		75
157	Integration of time series forecasting in a dynamic decision support system for multiple reservoir management to conserve water sources. **2018**, 40, 1398-1416		14
156	Reservoir Management Using a Network Flow Optimization Model Considering Quadratic Convex Cost Functions on Arcs. *Water Resources Management*, **2018**, 32, 3505-3518	3.7	2
155	Multi-Timescale Joint Optimal Dispatch Model Considering Environmental Flow Requirements for a Dewatered River Channel: Case Study of Jinping Cascade Hydropower Stations. *Journal of Water Resources Planning and Management - ASCE*, **2018**, 144, 05018014	2.8	5
154	Real-Time Flood Control by Tree-Based Model Predictive Control Including Forecast Uncertainty: A Case Study Reservoir in Turkey. **2018**, 10, 340		10
153	Multiobjective Optimization Modeling Approach for Multipurpose Single Reservoir Operation. **2018**, 10, 427		6
152	Adopting GMSE-PSO Model to Reduce Groundwater Withdrawal by Integrated Water Resources Management. **2018**, 12, 619-629		9
151	Review of Mathematical Programming Applications in Water Resource Management Under Uncertainty. **2018**, 23, 753-777		24

150	Optimal Operation of the Eastern Nile System Using Genetic Algorithm, and Benefits Distribution of Water Resources Development. **2018**, 10, 921		14
149	Optimal Operation of Hydropower Reservoirs under Climate Change: The Case of Tekeze Reservoir, Eastern Nile. **2018**, 10, 273		20
148	Deriving Optimal Operating Rules of a Multi-Reservoir System Considering Incremental Multi-Agent Benefit Allocation. *Water Resources Management*, **2018**, 32, 3629-3645	3.7	7
147	A parallel multi-objective particle swarm optimization for cascade hydropower reservoir operation in southwest China. **2018**, 70, 562-575		69
146	A general storage model with applications to energy systems. **2019**, 41, 71-97		1
145	Dynamic and Intelligent Modeling Methods for Joint Operation of a Flood Control System. *Journal of Water Resources Planning and Management - ASCE*, **2019**, 145, 04019044	2.8	9
144	SimulationꟷOptimization Tool for Multiattribute Reservoir Systems. **2019**, 24, 04019028		2
143	Towards Circular Water Neighborhoods: Simulation-Based Decision Support for Integrated Decentralized Urban Water Systems. **2019**, 11, 1227		7
142	Development of a Reservoir System Operation Model for Water Sustainability in the Yaqui River Basin. *Journal of Water Resources Planning and Management - ASCE*, **2019**, 145, 04019033	2.8	2
141	Improved dynamic programming for parallel reservoir system operation optimization. **2019**, 131, 103373		23
140	. **2019**, 7, 158170-158182		11
139	Managing Conflicting Water Resource Goals and Uncertainties in a Dam Network by Exploring the Solution Space. **2019**, 141,		5
138	Optimization of Water-Supply and Hydropower Reservoir Operation Using the Charged System Search Algorithm. **2019**, 6, 5		17
137	Hedging as an adaptive measure for climate change induced water shortage at the Pong reservoir in the Indus Basin Beas River, India. **2019**, 687, 554-566		16
136	An argument-driven classification and comparison of reservoir operation optimization methods. **2019**, 128, 74-86		31
135	Hydropower reservoir reoperation to adapt to large-scale photovoltaic power generation. **2019**, 179, 268-279		36
134	Optimizing stormwater low-impact development strategies in an urban watershed considering sensitivity and uncertainty. **2019**, 191, 340		15
133	Optimized Reservoir Management for Meeting Conflicting Stakeholder Preferences: Methodological Innovations with Evidence from Iran. **2019**, 79-100		

132 Hydropower Flexibility for Power Systems with Variable Renewable Energy Sources. **2019**, 385-405 0

131 Water-Energy-Food Nexus Sustainability in the Upper Blue Nile (UBN) Basin. **2019**, 7, 20

130 Stochastic multi-objective modeling for optimization of water-food-energy nexus of irrigated agriculture. **2019**, 127, 209-224 75

129 A mixed integer linear programming model for unit commitment of thermal plants with peak shaving operation aspect in regional power grid lack of flexible hydropower energy. **2019**, 175, 618-629 66

128 Optimal energy production from wind and hydroelectric power plants. **2019**, 41, 2219-2232 8

127 How Important Are Model Structural and Contextual Uncertainties when Estimating the Optimized Performance of Water Resource Systems?. *Water Resources Research*, **2019**, 55, 2170-2193 5.4 9

126 Machine Learning, Urban Water Resources Management and Operating Policy. **2019**, 8, 173 13

125 Regla de Cobertura Óptima (RCO) de embalses para evitar sequías. Caso de estudio: Riogrande II, Colombia. **2019**, 6, 168-181

124 Effect of dynamically varying zone-based hedging policies on the operational performance of surface water reservoirs during climate change. **2019**, 488, 277-289 4

123 China's large-scale hydropower system: operation characteristics, modeling challenge and dimensionality reduction possibilities. **2019**, 136, 805-818 66

122 Assessment approach to the floodwater utilization potential of a basin and an empirical analysis from China. **2019**, 78, 1 4

121 Optimum socio-environmental flows approach for reservoir operation strategy using many-objectives evolutionary optimization algorithm. **2019**, 651, 1877-1891 15

120 Review and comparison of performance indices for automatic model induction. **2019**, 21, 13-31 15

119 ICRRM 2019 System Reliability, Quality Control, Safety, Maintenance and Management. **2020**, 3

118 Integrated preventive maintenance and flow shop scheduling under uncertainty. **2020**, 32, 852-887 5

117 Ecological reservoir operation based on DFM and improved PA-DDS algorithm: A case study in Jinsha river, China. **2020**, 26, 1723-1741 11

116 Maximizing energy production from hydropower dams using short-term weather forecasts. **2020**, 146, 1560-1577 25

115 An effective three-stage hybrid optimization method for source-network-load power generation of cascade hydropower reservoirs serving multiple interconnected power grids. **2020**, 246, 119035 32

114	Inferring efficient operating rules in multireservoir water resource systems: A review. **2020**, 7, e1400		9
113	Optimum outflow determination of the multi-reservoir system using constrained improved artificial bee colony algorithm. **2020**, 24, 10739-10754		4
112	Multireservoir system operation optimization by hybrid quantum-behaved particle swarm optimization and heuristic constraint handling technique. *Journal of Hydrology*, **2020**, 590, 125477	6	13
111	GRAPS: Generalized Multi-Reservoir Analyses using probabilistic streamflow forecasts. **2020**, 133, 104802		1
110	Risk analysis of reservoir floodwater utilization coupling meteorological and hydrological uncertainties. **2020**, 34, 1507-1521		3
109	Development and Evaluation of the Hydropower Reservoir Rule Curve for a Sustainable Water Supply. **2020**, 12, 9641		2
108	Probabilistic Model for Real-Time Flood Operation of a Dam Based on a Deterministic Optimization Model. **2020**, 12, 3206		3
107	Ensemble hydrological forecasts for reservoir management of the Shipshaw River catchment using limited data. **2020**, 45, 372-390		1
106	Optimizing Current and Future Hydroelectric Energy Production and Water Uses of the Complex Multi-Reservoir System in the Aliakmon River, Greece. **2020**, 13, 6499		2
105	Comparison of River Basin Water Level Forecasting Methods: Sequential Neural Networks and Multiple-Input Functional Neural Networks. **2020**, 12, 4172		5
104	Integrating Fuzzy System and Meta-Heuristic Algorithms to Predict Influent Parameters for a Sewage Treatment. **2020**, 498, 012076		0
103	Hydropower Case Study Collection: Innovative Low Head and Ecologically Improved Turbines, Hydropower in Existing Infrastructures, Hydropeaking Reduction, Digitalization and Governing Systems. **2020**, 12, 8873		21
102	Institutional Framework for Modeling Water Availability and Allocation. **2020**, 12, 2767		3
101	Integration and Evaluation of Forecast-Informed Multiobjective Reservoir Operations. *Journal of Water Resources Planning and Management - ASCE*, **2020**, 146, 04020038	2.8	10
100	Optimizing the Management Strategies of a Multi-Purpose Multi-Reservoir System in Vietnam. **2020**, 12, 938		3
99	Monthly Operation Optimization of Cascade Hydropower Reservoirs with Dynamic Programming and Latin Hypercube Sampling for Dimensionality Reduction. *Water Resources Management*, **2020**, 34, 2029-2041	3.7	14
98	Developing Operation Procedures for Individual Reservoirs in a Large Multistate River Basin in Context of Tribunal Awards. *Journal of Water Resources Planning and Management - ASCE*, **2020**, 146, 05020013	2.8	1
97	Evolutionary algorithms, swarm intelligence methods, and their applications in water resources engineering: a state-of-the-art review. **2020**, 3, 135-188		31

96	The response of sediment phosphorus retention and release to reservoir operations: Numerical simulation and surrogate model development. **2020**, 271, 122688		8
95	Probabilistic long-term reservoir operation employing copulas and implicit stochastic optimization. **2020**, 34, 931-947		4
94	Mitigating the Impacts of Climate Change on the Performance of Multi-Purpose Reservoirs by Changing the Operation Policy from SOP to MLDR. *Water Resources Management*, **2020**, 34, 1495-1516	3.7	14
93	Optimized fuzzy inference system to enhance prediction accuracy for influent characteristics of a sewage treatment plant. **2020**, 722, 137878		17
92	Speeding up computational times in simheuristics combining genetic algorithms with discrete-Event simulation. **2020**, 103, 102089		23
91	Deriving optimal operation of reservoir proposing improved artificial bee colony algorithm: standard and constrained versions. **2020**, 22, 263-280		8
90	Uncertainty Quantification in Water Resource Systems Modeling: Case Studies from India. **2020**, 12, 1793		5
89	A Generalized Dynamic Programming Modelling Approach for Integrated Reservoir Operation. *Water Resources Management*, **2020**, 34, 1335-1351	3.7	7
88	Comparison of short-term streamflow forecasting using stochastic time series, neural networks, process-based, and Bayesian models. **2020**, 126, 104669		26
87	A water resource simulator in Python. **2020**, 126, 104635		13
86	Heuristic Input Variable Selection in Multi-Objective Reservoir Operation. *Water Resources Management*, **2020**, 34, 617-636	3.7	5
85	Impacts of Inflow Variations on the Long Term Operation of a Multi-Hydropower-Reservoir System and a Strategy for Determining the Adaptable Operation Rule. *Water Resources Management*, **2020**, 34, 1649-1671	3.7	4
84	Bi-objective algorithm based on NSGA-II framework to optimize reservoirs operation. *Journal of Hydrology*, **2020**, 585, 124830	6	20
83	Dynamic programming integrated particle swarm optimization algorithm for reservoir operation. **2020**, 11, 515-529		9
82	Application of bi-objective genetic programming for optimizing irrigation rules using two reservoir performance criteria. **2021**, 19, 55-65		3
81	A multi-state Markov chain model for rainfall to be used in optimal operation of rainwater harvesting systems. **2021**, 285, 124912		6
80	Decision support for scenario analysis in a complex water resource project. **2021**, 9, 52-68		
79	A new optimized model to control eutrophication in multi-purpose reservoirs. **2021**, 18, 3357		1

78	Combined Aggregated Sampling Stochastic Dynamic Programming and Simulation-Optimization to Derive Operation Rules for Large-Scale Hydropower System. **2021**, 14, 625		1
77	Reservoir operation for optimal water use of Kabalega reservoir in Uganda. **2021**, 5, 311-321		3
76	Reliability analysis for reservoir water supply due to uncertainties in hydrological factors, rainfall-runoff routing and operating rule curves. **2021**, 34, 24-45		1
75	Effectiveness of improved bootstrap aggregation (IBA) technique in mapping hydropower to climate variables. **2021**, 5, 299-310		1
74	Impact of the quality of hydrological forecasts on the management and revenue of hydroelectric reservoirs a conceptual approach. **2021**, 25, 1033-1052		13
73	Integrated Simulation-Optimization Framework for Water Allocation Based on Sustainability of Surface Water and Groundwater Resources. *Journal of Water Resources Planning and Management - ASCE*, **2021**, 147, 05021001	2.8	12
72	Large scale reservoir operation through integrated meta-heuristic approach. **2021**, 13, 359-382		2
71	Water storage change assessment in the Seyhan Reservoir (Turkey) using HEC-ResSim model. **2021**, 14, 1		3
70	Importance of multiple time step optimization in river basin planning and management: a case study of Damodar River basin in India. *Hydrological Sciences Journal*, **2021**, 66, 809-825	3.5	3
69	Computationally efficient evolutionary optimisation for joint reservoir design-operations. 1-16		1
68	Optimization of reservoir operating curves and hedging rules using genetic algorithm with a new objective function and smoothing constraint: application to a multipurpose dam in Morocco. **2021**, 193, 196		3
67	A method to include reservoir operations in catchment hydrological models using SHETRAN. **2021**, 138, 104980		1
66	Performance Comparison of Equivalent Reservoir and Multireservoir Models in Forecasting Hydropower Potential for Linking Water and Power Systems. *Journal of Water Resources Planning and Management - ASCE*, **2021**, 147, 04021005	2.8	1
65	Research on the Dispatching Rules of Inter-Basin Water Transfer Projects Based on the Two-Dimensional Scheduling Diagram. **2021**, 9,		0
64	DynaProg: Deterministic Dynamic Programming solver for finite horizon multi-stage decision problems. **2021**, 14, 100690		6
63	Sensitivity of Forecast Value in Multiobjective Reservoir Operation to Forecast Lead Time and Reservoir Characteristics. *Journal of Water Resources Planning and Management - ASCE*, **2021**, 147,	2.8	2
62	Water sharing policies conditioned on hydrologic variability to inform reservoir operations. **2021**, 25, 3617-3634		0
61	Comparison of Representative Heuristic Algorithms for Multi-Objective Reservoir Optimal Operation. *Water Resources Management*, **2021**, 35, 2741-2762	3.7	3

60	Evaluation of climate change impacts on the optimal operation of multipurpose reservoir systems using cuckoo search algorithm. **2021**, 80, 1		1
59	Alocaão Óima dos recursos hídricos em sistema no Alto curso do rio Piranhas - PB. **2021**, 69, 133-145		
58	Two-Stage Metaheuristic Mixed Integer Nonlinear Programming Approach to Extract Optimum Hedging Rules for Multireservoir Systems. *Journal of Water Resources Planning and Management - ASCE*, **2021**, 147, 04021070	2.8	2
57	Reducing Predictive Uncertainty in Real-Time Reservoir Operations by Coupling LARS-WG with ARNO Continuous RainfallRunoff Model. **2021**, 26, 05021025		0
56	Storage Reservoir Operation and Management. **2021**, 777-799		3
55	Use of Computing Techniques for Flood Management in a Coastal Region of South GujaratA Case Study of Navsari District. **2020**, 108-117		5
54	Dynamic Data Driven Ensemble for Wildfire Behaviour Assessment: A Case Study. **2013**, 11-22		2
53	An Architecture for Adaptive Robust Modelling of Wildfire Behaviour under Deep Uncertainty. **2013**, 367-380		2
52	Fuzzy Postprocessing to Advance the Quality of Continental Seasonal Hydrological Forecasts for River Basin Management. **2020**, 21, 2375-2389		5
51	Intelligent Water Resources Management Strategy under Urbanization. **2016**, 05, 314-325		1
50	Evaluation method of rainflood resource utilization availability and its application in the Hanjiang River Basin. *Water Science and Technology: Water Supply*, **2020**, 20, 3557-3575	1.4	1
49	Identifying Efficient Operating Rules for Hydropower Reservoirs Using System Dynamics ApproachA Case Study of Three Gorges Reservoir, China. **2019**, 11, 2448		8
48	Modeling and Solving of Joint Flood Control Operation of Large-Scale Reservoirs: A Case Study in the Middle and Upper Yangtze River in China. **2021**, 13, 41		4
47	Optimal Short-term Cascade Reservoirs Operation using Genetic Algorithm. **2011**, 4, 297-305		8
46	Optimal Reservoir Operation for Irrigation of Multiple Crops using Fuzzy Logic. **2011**, 4, 493-513		6
45	An Integrated Water Resources and Economic Approach for Optimizing Water Allocation Policies. **2014**, 06, 1444-1456		3
44	Simulation-Based Optimization Method of Compensative Operation for Cascade Reservoirs Considering Ecological Flow Constraint. **2013**, 02, 196-205		
43	Determination of cost coefficients of priority-based water allocation linear programming model a network flow approach.		

42   Reservoir Operation Management by Optimization and Stochastic Simulation: A Case Study. **2014**, 217-238

41   On inclusion of water resource management in Earth System models Part 2: Representation of water supply and allocation and opportunities for improved modeling.

40   Optimizing Multi-purpose Reservoir Operation Using Particle Swarm Intelligence. **2016**, 209-220

39   Coordinating Regional and Urban Water Networks. **2017**, 385-400

38   Optimal energy production in the Yeilrmak River Basin. 1-1

37   Application of Linear Programming - Genetic Algorithm Combination for Urmodi Reservoir Operation. **2020**, 98-103   0

36   Generator of genetic seismic signals. **2019**, 58, 179-188   1

35   Recent Developments in the Application of Water Resource Dispatching Systems in China. **2021**, 13, 26   1

34   Optimal Switching in a Dynamic, Stochastic, Operating Environment. **2020**,

33   Optimum contributions of hydropower reservoirs to the minimum flow of Vu Gia Thu Bon river basin. **2020**, 15, 1083-1095   0

32   Mitigate water shortage by improving hydropower generation strategy of the cascade reservoir system in the Be River Basin, Vietnam. *Water Science and Technology: Water Supply*, **2020**, 20, 3216-3232 1.4

31   Funciones analíticas a partir de un modelo estocástico de las extracciones de una presa hidroeléctrica después de la temporada de lluvias. **2020**, 24, 235   1

30   Impact of Different Parameters in the Development of Operating Policies of a Reservoir Using Stochastic Dynamic Modelling Technique. **2022**, 353-369

29   Quadratic approximate dynamic programming for scheduling water resources: a case study. **2020**,

28   Optimal Water Allocation Under Climate Change, Based on Stochastic Dynamic Programming Model Approach in Ribb Reservoir, Amhara, Ethiopia. *Water Conservation Science and Engineering*, **2022**, 7, 33   1.6   1

27   WEB.BM a web-based river basin management model with multiple time-step optimization and the SSARR channel routing options. *Hydrological Sciences Journal*, 1-16   3.5   0

26   A hydrologically-driven approach to climate change adaptation for multipurpose multireservoir systems. *Climate Risk Management*, **2022**, 36, 100427   4.6

25   Network flow and flood routing model for water resources optimization.. *Scientific Reports*, **2022**, 12, 3937   4.9   1

24	Optimization of the Operation Rule Curves for Cascade Reservoirs Using the Cuckoo Search Algorithm. *Advances in Civil Engineering*, **2022**, 2022, 1-11	1.3	
23	Optimal Operation Rules for Parallel Reservoir Systems with Distributed Water Demands. *Journal of Water Resources Planning and Management - ASCE*, **2022**, 148,	2.8	0
22	Operations management of large hydro-PV hybrid power plants: case studies in China. **2022**, 439-502		
21	Improved multi-reservoir operation rules of water supply system based on target storage curves. *Water Science and Technology: Water Supply*,	1.4	
20	Optimization of supervised learning models for modeling of mean monthly flows. *Neural Computing and Applications*,	4.8	0
19	Optimizing the Management of Multireservoir Systems Under Shifting Flow Regimes. *Water Resources Research*, **2022**, 58,	5.4	0
18	Optimizing Joint Flood Control Operating Charts for Multireservoir System Based on Multigroup Piecewise Linear Function. *Water Resources Management*,	3.7	0
17	A Comprehensive Simulator for Hydropower Investment Decisions. **2022**,		
16	The battle of river basin models: the Narmada River Basin challenge. *Hydrological Sciences Journal*,	3.5	
15	Cascade reservoirs adaptive refined simulation model based on the mechanism-AI coupling modeling paradigm. *Journal of Hydrology*, **2022**, 612, 128229	6	0
14	Optimal allocation of regional water resources in an arid basin: insights from Integrated Water Resources Management. **2022**, 71, 910-925		0
13	Application of the Coupled Simulation-Optimization Method for the Optimum Cut-off Design Under a Hydraulic Structure.		
12	Assessment of the uncertainty of evaporation estimation models using Bayesian Model Averaging and their impact on reservoir operation.		
11	Sustainability Analysis of Minimization of Spills from a Reservoir. **2023**, 945-952		0
10	Optimum hydraulic design of cut-off under hydraulic structures using the simulation-optimization method.		0
9	Application of artificial intelligence in environmental sustainability and climate change. **2023**, 293-316		0
8	Real-time model predictive control study of run-of-river hydropower plants with data-driven and physics-based coupled model. **2023**, 617, 128942		1
7	Reservoir operation in the context of inter-basin water transfer. 27,		0

| 6 | Development of water re-allocation policy under uncertainty conditions in the inflow to reservoir and demands parameters: A case study of Karaj AmirKabir dam. | 0 |

| 5 | Modeling competitive-cooperative relationship between flood control and hydropower generation within hierarchical gaming structure of reservoir operation. **2023**, 620, 129429 | 0 |

| 4 | A Systematic Review of Optimization of Dams Reservoir Operation Using the Meta-heuristic Algorithms. | 0 |

| 3 | State-of-the-art review: Operation of multi-purpose reservoirs during flood season. **2023**, 618, 129165 | 0 |

| 2 | Development of water re-allocation policy under uncertainty conditions in the inflow to reservoir and demands parameters: a case study of Karaj AmirKabir dam. **2023**, 27, 6521-6547 | 0 |

| 1 | A parallel approximate evaluation-based model for multi-objective operation optimization of reservoir group. **2023**, 78, 101288 | 0 |