

# Joong Hoon Kim

## List of Publications by Year in descending order

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82  
papers

7,130  
citations

304602

22  
h-index

82499

72  
g-index

90  
all docs

90  
docs citations

90  
times ranked

4993  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | PARAMETER ESTIMATION OF THE NONLINEAR MUSKINGUM MODEL USING HARMONY SEARCH. Journal of the American Water Resources Association, 2001, 37, 1131-1138.   | 1.0 | 332       |
| 2  | Water cycle algorithm for solving constrained multi-objective optimization problems. Applied Soft Computing Journal, 2015, 27, 279-298.   | 4.1 | 213       |
| 3  | Water cycle algorithm with evaporation rate for solving constrained and unconstrained optimization problems. Applied Soft Computing Journal, 2015, 30, 58-71.   | 4.1 | 173       |
| 4  | Battle of the Water Calibration Networks. Journal of Water Resources Planning and Management - ASCE, 2012, 138, 523-532.  | 1.3 | 134       |
| 5  | Water cycle, mine blast and improved mine blast algorithms for discrete sizing optimization of truss structures. Computers and Structures, 2015, 149, 1-16.   | 2.4 | 107       |
| 6  | Water cycle algorithm for solving multi-objective optimization problems. Soft Computing, 2015, 19, 2587-2603.   | 2.1 | 99        |
| 7  | Battle of the Water Networks II. Journal of Water Resources Planning and Management - ASCE, 2014, 140, .  | 1.3 | 92        |
| 8  | Optimal Rehabilitation Model for Water Distribution Systems. Journal of Water Resources Planning and Management - ASCE, 1994, 120, 674-692.   | 1.3 | 83        |
| 9  | A cooperative particle swarm optimizer with stochastic movements for computationally expensive numerical optimization problems. Journal of Computational Science, 2016, 13, 68-82.                        | 1.5 | 76        |
| 10 | Water cycle algorithm: A detailed standard code. SoftwareX, 2016, 5, 37-43.   | 1.2 | 75        |
| 11 | Gradient-based Water Cycle Algorithm with evaporation rate applied to chaos suppression. Applied Soft Computing Journal, 2017, 53, 420-440.   | 4.1 | 61        |
| 12 | Harmony Search Algorithm: A Unique Music-inspired Algorithm. Procedia Engineering, 2016, 154, 1401-1405.  | 1.2 | 48        |
| 13 | Approximate solving of nonlinear ordinary differential equations using least square weight function and metaheuristic algorithms. Engineering Applications of Artificial Intelligence, 2015, 40, 117-132. | 4.3 | 40        |
| 14 | Mine blast harmony search: A new hybrid optimization method for improving exploration and exploitation capabilities. Applied Soft Computing Journal, 2018, 68, 548-564.                                   | 4.1 | 39        |
| 15 | A comprehensive review on water cycle algorithm and its applications. Neural Computing and Applications, 2020, 32, 17433-17488.   | 3.2 | 38        |
| 16 | Improved mine blast algorithm for optimal cost design of water distribution systems. Engineering Optimization, 2015, 47, 1602-1618.   | 1.5 | 37        |
| 17 | Overview of Harmony Search algorithm and its applications in Civil Engineering. Evolutionary Intelligence, 2014, 7, 3-16.   | 2.3 | 32        |
| 18 | Development of a PDA model for water distribution systems using harmony search algorithm. KSCE Journal of Civil Engineering, 2010, 14, 613-625.   | 0.9 | 29        |

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|----|--|-----|-----------|
| 19 | Non-Dominated Sorting Harmony Search Differential Evolution (NS-HS-DE): A Hybrid Algorithm for Multi-Objective Design of Water Distribution Networks. <i>Water (Switzerland)</i> , 2017, 9, 587. | 1.2 | 26        |
| 20 | Metaheuristic algorithms for approximate solution to ordinary differential equations of longitudinal fins having various profiles. <i>Applied Soft Computing Journal</i> , 2015, 33, 360-379.    | 4.1 | 23        |
| 21 | Optimal design of water supply networks for enhancing seismic reliability. <i>Reliability Engineering and System Safety</i> , 2016, 146, 79-88.  | 5.1 | 23        |
| 22 | Optimization of Upstream Detention Reservoir Facilities for Downstream Flood Mitigation in Urban Areas. <i>Water (Switzerland)</i> , 2016, 8, 290.   | 1.2 | 22        |
| 23 | Self-adaptive multi-objective harmony search for optimal design of water distribution networks. <i>Engineering Optimization</i> , 2017, 49, 1957-1977.   | 1.5 | 22        |
| 24 | Multiobjective Automatic Parameter Calibration of a Hydrological Model. <i>Water (Switzerland)</i> , 2017, 9, 187.   | 1.2 | 18        |
| 25 | Seismic-Reliability-Based Optimal Layout of a Water Distribution Network. <i>Water (Switzerland)</i> , 2016, 8, 50.  | 1.2 | 16        |
| 26 | Optimal cost design of water distribution networks using a decomposition approach. <i>Engineering Optimization</i> , 2016, 48, 2141-2156.  | 1.5 | 14        |
| 27 | Optimizing Re-Chlorination Injection Points for Water Supply Networks Using Harmony Search Algorithm. <i>Water (Switzerland)</i> , 2018, 10, 547.  | 1.2 | 14        |
| 28 | Improving the Quality of Pareto Optimal Solutions in Water Distribution Network Design. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2017, 143, 04017036.                  | 1.3 | 11        |
| 29 | Long-term versus Real-time Optimal Operation for Gate Regulation during Flood in Urban Drainage Systems. <i>Urban Water Journal</i> , 2018, 15, 750-759.   | 1.0 | 10        |
| 30 | Investigation of Rainfall Forecast System Characteristics in Real-Time Optimal Operation of Urban Drainage Systems. <i>Water Resources Management</i> , 2020, 34, 1773-1787.                     | 1.9 | 10        |
| 31 | Seismic Reliability-Based Multiobjective Design of Water Distribution System: Sensitivity Analysis. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2017, 143, .              | 1.3 | 9         |
| 32 | Application of life cycle energy analysis for designing a water distribution network. <i>International Journal of Life Cycle Assessment</i> , 2018, 23, 1174-1191.                               | 2.2 | 9         |
| 33 | Development of a Hybrid Harmony Search for Water Distribution System Design. <i>KSCE Journal of Civil Engineering</i> , 2018, 22, 1506-1514.   | 0.9 | 9         |
| 34 | Development of Multi-Objective Optimal Redundant Design Approach for Multiple Pipe Failure in Water Distribution System. <i>Water (Switzerland)</i> , 2019, 11, 553.                             | 1.2 | 9         |
| 35 | Improvement of Cyber-Attack Detection Accuracy from Urban Water Systems Using Extreme Learning Machine. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 8179.                                  | 1.3 | 9         |
| 36 | Robust Urban Drainage System: Development of a Novel Multiscenario-Based Design Approach. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2019, 145, 04019027.                | 1.3 | 7         |

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|----|---|-----|-----------|
| 37 | Smallest-Small-World Cellular Harmony Search for Optimization of Unconstrained Benchmark Problems. Journal of Applied Mathematics, 2013, 2013, 1-9.   | 0.4 | 6         |
| 38 | Optimal Pipe Size Design for Looped Irrigation Water Supply System Using Harmony Search: Saemangeum Project Area. Scientific World Journal, The, 2015, 2015, 1-10.  | 0.8 | 6         |
| 39 | Optimal Layout and Pipe Sizing of Urban Drainage Networks to Improve Robustness and Rapidity. Journal of Water Resources Planning and Management - ASCE, 2021, 147, .   | 1.3 | 6         |
| 40 | Linear System Theory-Based Optimization of Detention Basin's Location and Size at Watershed Scale. Journal of Hydrologic Engineering - ASCE, 2016, 21, .  | 0.8 | 5         |
| 41 | Performance Measures of Metaheuristic Algorithms. Advances in Intelligent Systems and Computing, 2016, , 11-17.   | 0.5 | 5         |
| 42 | Investigating the Convergence Characteristics of Harmony Search. Advances in Intelligent Systems and Computing, 2016, , 3-10.   | 0.5 | 5         |
| 43 | Exploring the Efficiency of Harmony Search Algorithm for Hydropower Operation of Multi-reservoir Systems: A Hybrid Cellular Automata-Harmony Search Approach. Advances in Intelligent Systems and Computing, 2017, , 252-260. | 0.5 | 5         |
| 44 | Application of a Meta-heuristic Optimization Algorithm Motivated by a Vision Correction Procedure for Civil Engineering Problems. KSCE Journal of Civil Engineering, 2018, 22, 2623-2636.                                     | 0.9 | 5         |
| 45 | Performance comparison of metaheuristic algorithms using a modified Gaussian fitness landscape generator. Soft Computing, 2020, 24, 7383-7393.  | 2.1 | 5         |
| 46 | Development of a Multiscenario Planning Approach for Urban Drainage Systems. Applied Sciences (Switzerland), 2020, 10, 1834.  | 1.3 | 5         |
| 47 | Decentralization-based optimization of detention reservoir systems for flood reduction in urban drainage areas. Urban Water Journal, 2018, 15, 445-452.   | 1.0 | 4         |
| 48 | Performance Comparison of Metaheuristic Optimization Algorithms Using Water Distribution System Design Benchmarks. Advances in Intelligent Systems and Computing, 2019, , 97-104.   | 0.5 | 4         |
| 49 | Topological and mechanical redundancy-based optimal design of water distribution systems in many-objective optimization. Engineering Optimization, 2020, 52, 1974-1991.   | 1.5 | 4         |
| 50 | Calibration of C-Town Network Using Harmony Search Algorithm. , 2011, , .   |     | 3         |
| 51 | Development and Application of Leakage Detection Model for Water Distribution Networks considering Uncertainty Analysis. Korean Society of Hazard Mitigation, 2014, 14, 177-185.  | 0.1 | 3         |
| 52 | Optimal Leakage Detection Model of Water Distribution Systems Using Semi-Pressure Driven Analysis and Harmony Search. Korean Society of Hazard Mitigation, 2012, 12, 23-31.   | 0.1 | 3         |
| 53 | Development of Optimal Pipe Size Design Tool for Irrigation Systems and its Application to Saemangeum Reclamation Area. Irrigation and Drainage, 2016, 65, 58-68.   | 0.8 | 2         |
| 54 | Mine Blast Harmony Search and Its Applications. Advances in Intelligent Systems and Computing, 2016, , 155-168.   | 0.5 | 2         |

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|----|---|-----|-----------|
| 55 | Development of warm initial solution approaches to improve the quality of Pareto optimal solutions in water distribution network design. , 2017, , .  |     | 2         |
| 56 | Engineering benchmark generation and performance measurement of evolutionary algorithms. , 2017, , .  |     | 2         |
| 57 | Generation of Benchmark Problems for Optimal Design of Water Distribution Systems. Water (Switzerland), 2019, 11, 1637.   | 1.2 | 2         |
| 58 | Copycat Harmony Search: Considering Poor Music Playerâ€™s Followship Toward Good Player. Advances in Intelligent Systems and Computing, 2019, , 113-118.                                    | 0.5 | 2         |
| 59 | Comparison of Parameter-Setting-Free and Self-adaptive Harmony Search. Advances in Intelligent Systems and Computing, 2019, , 105-112.  | 0.5 | 2         |
| 60 | A New Parallelization Scheme for Harmony Search Algorithm. Advances in Intelligent Systems and Computing, 2016, , 147-152.  | 0.5 | 2         |
| 61 | Sensitivity Analysis on Migration Parameters of Parallel Harmony Search. Advances in Intelligent Systems and Computing, 2017, , 3-7.  | 0.5 | 2         |
| 62 | Optimal Sewer Network Design Considering Resilience: Resulting Design Comparison for Different Level of Failure Depth. Korean Society of Hazard Mitigation, 2018, 18, 95-106.               | 0.1 | 2         |
| 63 | CACAIE: The best compendium for natureâ€™inspired algorithms and their applications in civil engineering. Computer-Aided Civil and Infrastructure Engineering, 2021, 36, 1483-1484.         | 6.3 | 2         |
| 64 | Harmony Search Algorithms for Optimizing Extreme Learning Machines. Advances in Intelligent Systems and Computing, 2021, , 11-20.   | 0.5 | 2         |
| 65 | Development of Practical Design Approaches for Water Distribution Systems. Applied Sciences (Switzerland), 2019, 9, 5117.   | 1.3 | 1         |
| 66 | Application of Self-adaptive Method in Multi-objective Harmony Search Algorithm. Advances in Intelligent Systems and Computing, 2017, , 15-21.  | 0.5 | 1         |
| 67 | The Extraordinary Particle Swarm Optimization and Its Application in Constrained Engineering Problems. Advances in Intelligent Systems and Computing, 2017, , 35-41.                        | 0.5 | 1         |
| 68 | Improvement of GR4J Model Applying Soil Moisture Accounting Process and Its Application in Korea Basin. Korean Society of Hazard Mitigation, 2012, 12, 255-262.                             | 0.1 | 1         |
| 69 | Development and Applications of Multi-layered Harmony Search Algorithm for Improving Optimization Efficiency. Journal of the Korea Academia-Industrial Cooperation Society, 2016, 17, 1-12. | 0.0 | 1         |
| 70 | Multi-layered Harmony Search Algorithm: Introduction of a Novel and Efficient Structure. Advances in Intelligent Systems and Computing, 2017, , 8-14.                                       | 0.5 | 1         |
| 71 | Optimization of Hydropower Storage Projects Using Harmony Search Algorithm. Advances in Intelligent Systems and Computing, 2017, , 261-270.   | 0.5 | 1         |
| 72 | Multi-objective Optimization of the Reinforced Concrete Beam. Advances in Intelligent Systems and Computing, 2021, , 171-178.   | 0.5 | 1         |

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|----|---|-----|-----------|
| 73 | Approximate solutions of heat transfer fins with convex and exponential profiles using fourier-based optimization method. , 2016, , .   |     | 0         |
| 74 | KU Battle of Metaheuristic Optimization Algorithms 2: Performance Test. Advances in Intelligent Systems and Computing, 2016, , 207-213.   | 0.5 | 0         |
| 75 | Multiobjective Parameter Calibration of a Hydrological Model Using Harmony Search Algorithm. Advances in Intelligent Systems and Computing, 2020, , 76-81.  | 0.5 | 0         |
| 76 | Performance Quantification of Search Operators in Hybrid Harmony Search Algorithms. Advances in Intelligent Systems and Computing, 2021, , 1-9.   | 0.5 | 0         |
| 77 | Memetic computing for imprecise solution of T-shaped heat transfer fins. Engineering Optimization, 2021, 53, 1504-1522.   | 1.5 | 0         |
| 78 | Development of Inter-ethnic Harmony Search Algorithm Based on Inter-ethnic Reconciliation. Lecture Notes on Data Engineering and Communications Technologies, 2021, , 1-9.  | 0.5 | 0         |
| 79 | Efficiency Evaluation of Harmony Search Algorithm according to Constraint Handling Techniques : Application to Optimal Pipe Size Design Problem. Journal of the Korea Academia-Industrial Cooperation Society, 2015, 16, 4999-5008. | 0.0 | 0         |
| 80 | A Comparative Study of Exploration Ability of Harmony Search Algorithms. Advances in Intelligent Systems and Computing, 2017, , 22-31.  | 0.5 | 0         |
| 81 | Freestyle Rap Harmony Search (FRHS) for Engineering Problem Optimization. Advances in Intelligent Systems and Computing, 2021, , 21-31.   | 0.5 | 0         |
| 82 | Development of a Cyberattack Detection Model for a Water Distribution System using Water Quality and Hydraulic Criteria. Korean Society of Hazard Mitigation, 2020, 20, 47-56.  | 0.1 | 0         |