

Siamak Talatahari

List of Publications by Year in descending order

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Version: 2024-02-01

121
papers

8,043
citations

66315

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h-index

51562

86
g-index

122
all docs

122
docs citations

122
times ranked

3957
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | A novel heuristic optimization method: charged system search. <i>Acta Mechanica</i> , 2010, 213, 267-289. | 1.1 | 1,063 |
| 2 | Firefly algorithm with chaos. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2013, 18, 89-98. | 1.7 | 702 |
| 3 | Bat algorithm for constrained optimization tasks. <i>Neural Computing and Applications</i> , 2013, 22, 1239-1255. | 3.2 | 442 |
| 4 | Particle swarm optimizer, ant colony strategy and harmony search scheme hybridized for optimization of truss structures. <i>Computers and Structures</i> , 2009, 87, 267-283. | 2.4 | 407 |
| 5 | Chaos-enhanced accelerated particle swarm optimization. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2013, 18, 327-340. | 1.7 | 324 |
| 6 | Size optimization of space trusses using Big Bang–Big Crunch algorithm. <i>Computers and Structures</i> , 2009, 87, 1129-1140. | 2.4 | 317 |
| 7 | An improved ant colony optimization for constrained engineering design problems. <i>Engineering Computations</i> , 2010, 27, 155-182. | 0.7 | 275 |
| 8 | Optimum design of skeletal structures using imperialist competitive algorithm. <i>Computers and Structures</i> , 2010, 88, 1220-1229. | 2.4 | 240 |
| 9 | Imperialist competitive algorithm combined with chaos for global optimization. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2012, 17, 1312-1319. | 1.7 | 218 |
| 10 | A particle swarm ant colony optimization for truss structures with discrete variables. <i>Journal of Constructional Steel Research</i> , 2009, 65, 1558-1568. | 1.7 | 204 |
| 11 | Optimal design of skeletal structures via the charged system search algorithm. <i>Structural and Multidisciplinary Optimization</i> , 2010, 41, 893-911. | 1.7 | 192 |
| 12 | Chaos Game Optimization: a novel metaheuristic algorithm. <i>Artificial Intelligence Review</i> , 2021, 54, 917-1004. | 9.7 | 154 |
| 13 | Charged system search for optimal design of frame structures. <i>Applied Soft Computing Journal</i> , 2012, 12, 382-393. | 4.1 | 137 |
| 14 | Chaotic swarming of particles: A new method for size optimization of truss structures. <i>Advances in Engineering Software</i> , 2014, 67, 136-147. | 1.8 | 133 |
| 15 | Design optimization of truss structures using cuckoo search algorithm. <i>Structural Design of Tall and Special Buildings</i> , 2013, 22, 1330-1349. | 0.9 | 132 |
| 16 | Coupled eagle strategy and differential evolution for unconstrained and constrained global optimization. <i>Computers and Mathematics With Applications</i> , 2012, 63, 191-200. | 1.4 | 124 |
| 17 | Metaheuristic Algorithms in Modeling and Optimization. , 2013, , 1-24. | | 110 |
| 18 | Crystal Structure Algorithm (CryStAl): A Metaheuristic Optimization Method. <i>IEEE Access</i> , 2021, 9, 71244-71261. | 2.6 | 103 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | An improved ant colony optimization for the design of planar steel frames. <i>Engineering Structures</i> , 2010, 32, 864-873. | 2.6 | 100 |
| 20 | Social Network Search for Solving Engineering Optimization Problems. <i>Computational Intelligence and Neuroscience</i> , 2021, 2021, 1-32. | 1.1 | 100 |
| 21 | Performance-based seismic design of steel frames using ant colony optimization. <i>Journal of Constructional Steel Research</i> , 2010, 66, 566-574. | 1.7 | 97 |
| 22 | Optimization of constrained mathematical and engineering design problems using chaos game optimization. <i>Computers and Industrial Engineering</i> , 2020, 145, 106560. | 3.4 | 91 |
| 23 | Optimal design of Schwedler and ribbed domes via hybrid Big Bang–Big Crunch algorithm. <i>Journal of Constructional Steel Research</i> , 2010, 66, 412-419. | 1.7 | 89 |
| 24 | Fire Hawk Optimizer: a novel metaheuristic algorithm. <i>Artificial Intelligence Review</i> , 2023, 56, 287-363. | 9.7 | 85 |
| 25 | A multi-stage particle swarm for optimum design of truss structures. <i>Neural Computing and Applications</i> , 2013, 23, 1297-1309. | 3.2 | 80 |
| 26 | Upgraded Whale Optimization Algorithm for fuzzy logic based vibration control of nonlinear steel structure. <i>Engineering Structures</i> , 2019, 192, 53-70. | 2.6 | 78 |
| 27 | Optimum design of tower structures using Firefly Algorithm. <i>Structural Design of Tall and Special Buildings</i> , 2014, 23, 350-361. | 0.9 | 76 |
| 28 | Material Generation Algorithm: A Novel Metaheuristic Algorithm for Optimization of Engineering Problems. <i>Processes</i> , 2021, 9, 859. | 1.3 | 67 |
| 29 | Parameter identification of Bouc-Wen model for MR fluid dampers using adaptive charged system search optimization. <i>Journal of Mechanical Science and Technology</i> , 2012, 26, 2523-2534. | 0.7 | 66 |
| 30 | Charged system search for optimum grillage system design using the LRFD-AISC code. <i>Journal of Constructional Steel Research</i> , 2010, 66, 767-771. | 1.7 | 59 |
| 31 | An enhanced charged system search for configuration optimization using the concept of fields of forces. <i>Structural and Multidisciplinary Optimization</i> , 2011, 43, 339-351. | 1.7 | 59 |
| 32 | Optimum design of fuzzy controller using hybrid ant lion optimizer and Jaya algorithm. <i>Artificial Intelligence Review</i> , 2020, 53, 1553-1584. | 9.7 | 59 |
| 33 | Social Network Search for Global Optimization. <i>IEEE Access</i> , 2021, 9, 92815-92863. | 2.6 | 59 |
| 34 | Optimum design of frame structures using the Eagle Strategy with Differential Evolution. <i>Engineering Structures</i> , 2015, 91, 16-25. | 2.6 | 57 |
| 35 | Geometry and topology optimization of geodesic domes using charged system search. <i>Structural and Multidisciplinary Optimization</i> , 2011, 43, 215-229. | 1.7 | 55 |
| 36 | Chaotic imperialist competitive algorithm for optimum design of truss structures. <i>Structural and Multidisciplinary Optimization</i> , 2012, 46, 355-367. | 1.7 | 55 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Stochastic paint optimizer: theory and application in civil engineering. <i>Engineering With Computers</i> , 2022, 38, 1921-1952. | 3.5 | 53 |
| 38 | NEW DESIGN EQUATIONS FOR ELASTIC MODULUS OF CONCRETE USING MULTI EXPRESSION PROGRAMMING. <i>Journal of Civil Engineering and Management</i> , 2015, 21, 761-774. | 1.9 | 51 |
| 39 | Hybrid charged system search and particle swarm optimization for engineering design problems. <i>Engineering Computations</i> , 2011, 28, 423-440. | 0.7 | 50 |
| 40 | Hybrid Algorithm of Harmony Search, Particle Swarm and Ant Colony for Structural Design Optimization. <i>Studies in Computational Intelligence</i> , 2009, , 159-198. | 0.7 | 47 |
| 41 | Krill herd algorithm for optimum design of truss structures. <i>International Journal of Bio-Inspired Computation</i> , 2013, 5, 281. | 0.6 | 47 |
| 42 | Multi-Objective Crystal Structure Algorithm (MOCryStAl): Introduction and Performance Evaluation. <i>IEEE Access</i> , 2021, 9, 117795-117812. | 2.6 | 46 |
| 43 | Semi-active direct control method for seismic alleviation of structures using MR dampers. <i>Structural Control and Health Monitoring</i> , 2013, 20, 1021-1042. | 1.9 | 44 |
| 44 | Optimal design of real-size building structures using quantum-behaved developed swarm optimizer. <i>Structural Design of Tall and Special Buildings</i> , 2020, 29, e1747. | 0.9 | 35 |
| 45 | A hybrid cuckoo-harmony search algorithm for optimal design of water distribution systems. <i>Journal of Hydroinformatics</i> , 2016, 18, 544-563. | 1.1 | 34 |
| 46 | Optimal design of large-scale frames with an advanced charged system search algorithm using box-shaped sections. <i>Engineering With Computers</i> , 2021, 37, 2521-2541. | 3.5 | 33 |
| 47 | Optimization of Engineering Design Problems Using Atomic Orbital Search Algorithm. <i>IEEE Access</i> , 2021, 9, 102497-102519. | 2.6 | 32 |
| 48 | Application of ant colony optimization to optimal design of open channels. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2009, 47, 656-665. | 0.7 | 31 |
| 49 | Optimum design of gravity and reinforced retaining walls using enhanced charged system search algorithm. <i>KSCE Journal of Civil Engineering</i> , 2014, 18, 1464-1469. | 0.9 | 30 |
| 50 | Regional bivariate modeling of droughts using L-comoments and copulas. <i>Stochastic Environmental Research and Risk Assessment</i> , 2017, 31, 1199-1210. | 1.9 | 30 |
| 51 | Optimum Design of Gravity Retaining Walls Using Charged System Search Algorithm. <i>Mathematical Problems in Engineering</i> , 2012, 2012, 1-10. | 0.6 | 29 |
| 52 | A hybrid CSS and PSO algorithm for optimal design of structures. <i>Structural Engineering and Mechanics</i> , 2012, 42, 783-797. | 1.0 | 29 |
| 53 | Optimal tuning of fuzzy parameters for structural motion control using multiverse optimizer. <i>Structural Design of Tall and Special Buildings</i> , 2019, 28, e1652. | 0.9 | 28 |
| 54 | An inverse TSK model of MR damper for vibration control of nonlinear structures using an improved grasshopper optimization algorithm. <i>Structures</i> , 2020, 26, 406-416. | 1.7 | 28 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | Tribe-charged system search for parameter configuration of nonlinear systems with large search domains. <i>Engineering Optimization</i> , 2021, 53, 18-31. | 1.5 | 28 |
| 56 | Parameter estimation of copula functions using an optimization-based method. <i>Theoretical and Applied Climatology</i> , 2017, 129, 21-32. | 1.3 | 27 |
| 57 | Hybrid Invasive Weed Optimization-Shuffled Frog-Leaping Algorithm for Optimal Design of Truss Structures. <i>Iranian Journal of Science and Technology - Transactions of Civil Engineering</i> , 2020, 44, 405-420. | 1.0 | 27 |
| 58 | Optimum design of building structures using Tribe-Interior Search Algorithm. <i>Structures</i> , 2020, 28, 1616-1633. | 1.7 | 27 |
| 59 | Engineering design optimization using chaotic enhanced charged system search algorithms. <i>Acta Mechanica</i> , 2012, 223, 2269-2285. | 1.1 | 26 |
| 60 | Predicting the climbing rate of slip formwork systems using linear biogeography-based programming. <i>Applied Soft Computing Journal</i> , 2018, 70, 263-278. | 4.1 | 26 |
| 61 | Regional drought frequency analysis using L-moments and adjusted charged system search. <i>Journal of Hydroinformatics</i> , 2017, 19, 426-442. | 1.1 | 24 |
| 62 | Meta-Heuristic Algorithms for Hydrologic Frequency Analysis. <i>Water Resources Management</i> , 2011, 25, 1855-1879. | 1.9 | 23 |
| 63 | Optimum design of steel frames with semi-rigid connections using Big Bang-Big Crunch method. <i>Steel and Composite Structures</i> , 2013, 14, 431-451. | 1.3 | 23 |
| 64 | Optimal Design of Magnetorheological Damper Based on Tuning Bouc-Wen Model Parameters Using Hybrid Algorithms. <i>KSCE Journal of Civil Engineering</i> , 2020, 24, 867-878. | 0.9 | 22 |
| 65 | MOTEO: a novel multi-objective thermal exchange optimization algorithm for engineering problems. <i>Soft Computing</i> , 2022, 26, 6659-6684. | 2.1 | 22 |
| 66 | Enriched Imperialist Competitive Algorithm for system identification of magneto-rheological dampers. <i>Mechanical Systems and Signal Processing</i> , 2015, 62-63, 506-516. | 4.4 | 21 |
| 67 | Accelerated Particle Swarm for Optimum Design of Frame Structures. <i>Mathematical Problems in Engineering</i> , 2013, 2013, 1-6. | 0.6 | 20 |
| 68 | Tribe-charged system search for global optimization. <i>Applied Mathematical Modelling</i> , 2021, 93, 115-133. | 2.2 | 20 |
| 69 | Structural Optimization Using Krill Herd Algorithm. , 2013, , 335-349. | | 19 |
| 70 | A new hybrid optimization algorithm for recognition of hysteretic non-linear systems. <i>KSCE Journal of Civil Engineering</i> , 2013, 17, 1099-1108. | 0.9 | 18 |
| 71 | Seismic energy-based design of BRB frames using multi-objective vibrating particles system optimization. <i>Structures</i> , 2020, 24, 227-239. | 1.7 | 18 |
| 72 | Optimum Design of Truss Structures Under Frequency Constraints using Hybrid CSS-MBLS Algorithm. <i>KSCE Journal of Civil Engineering</i> , 2018, 22, 1840-1853. | 0.9 | 16 |

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|----|---|-----|-----------|
| 73 | Fuzzy Adaptive Charged System Search for global optimization. Applied Soft Computing Journal, 2021, 109, 107518. | 4.1 | 16 |
| 74 | Optimum design of steel building structures using migration-based vibrating particles system. Structures, 2021, 33, 1394-1413. | 1.7 | 16 |
| 75 | Multiobjective Atomic Orbital Search (MOAOS) for Global and Engineering Design Optimization. IEEE Access, 2022, 10, 67727-67746. | 2.6 | 16 |
| 76 | Solving Parameter Identification of Nonlinear Problems by Artificial Bee Colony Algorithm. Mathematical Problems in Engineering, 2014, 2014, 1-6. | 0.6 | 15 |
| 77 | A chaotic imperialist competitive algorithm for optimum cost design of cantilever retaining walls. KSCE Journal of Civil Engineering, 2013, 17, 972-979. | 0.9 | 13 |
| 78 | Optimum energy-based design of BRB frames using nonlinear response history analysis. Structural and Multidisciplinary Optimization, 2018, 57, 1005-1019. | 1.7 | 13 |
| 79 | Control of the nonlinear building using an optimum inverse TSK model of MR damper based on modified grey wolf optimizer. Engineering Structures, 2020, 214, 110657. | 2.6 | 13 |
| 80 | Crystal structure optimization approach to problem solving in mechanical engineering design. Multidiscipline Modeling in Materials and Structures, 2022, 18, 1-23. | 0.6 | 13 |
| 81 | Optimization of Large-Scale Frame Structures Using Fuzzy Adaptive Quantum Inspired Charged System Search. International Journal of Steel Structures, 2022, 22, 686-707. | 0.6 | 13 |
| 82 | Optimal Parameter Estimation for Muskingum Model Using a CSS-PSO Method. Advances in Mechanical Engineering, 2013, 5, 480954. | 0.8 | 12 |
| 83 | Operation of two major reservoirs of Iran under IPCC scenarios during the XXI century. Hydrological Processes, 2018, 32, 3254-3271. | 1.1 | 12 |
| 84 | Design optimization of fuzzy controllers in building structures using the crystal structure algorithm (CryStAl). Advanced Engineering Informatics, 2022, 52, 101616. | 4.0 | 12 |
| 85 | Extended "Mononobe-Okabe" Method for Seismic Design of Retaining Walls. Journal of Applied Mathematics, 2013, 2013, 1-10. | 0.4 | 11 |
| 86 | The Hybrid Invasive Weed Optimization-Shuffled Frog-leaping Algorithm Applied to Optimal Design of Frame Structures. Periodica Polytechnica: Civil Engineering, 0, , . | 0.6 | 11 |
| 87 | Multivariate regional frequency analysis: Two new methods to increase the accuracy of measures. Advances in Water Resources, 2017, 107, 290-300. | 1.7 | 10 |
| 88 | A Robust Finite Element Analysis of the Rail-Wheel Rolling Contact. Advances in Mechanical Engineering, 2013, 5, 272350. | 0.8 | 10 |
| 89 | Improved arithmetic optimization algorithm for design optimization of fuzzy controllers in steel building structures with nonlinear behavior considering near fault ground motion effects. Artificial Intelligence Review, 2022, 55, 4041-4075. | 9.7 | 10 |
| 90 | On the efficiency of semi-active smart structures: self-regulating MR dampers control system for tall buildings. Structural Design of Tall and Special Buildings, 2014, 23, 1027-1044. | 0.9 | 9 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 91 | Shear design curves of unstiffened plate girder web panels at high temperatures. <i>Journal of Constructional Steel Research</i> , 2020, 164, 105808. | 1.7 | 9 |
| 92 | Optimal design of low- and high-rise building structures by Tribe-Harmony Search algorithm. <i>Decision Analytics Journal</i> , 2022, 3, 100067. | 2.7 | 9 |
| 93 | A general model for meta-heuristic algorithms using the concept of fields of forces. <i>Acta Mechanica</i> , 2011, 221, 99-118. | 1.1 | 8 |
| 94 | Shear wall layout optimization of tall buildings using Quantum Charged System Search. <i>Frontiers of Structural and Civil Engineering</i> , 2020, 14, 1131-1151. | 1.2 | 7 |
| 95 | An Extensive Review of Charged System Search Algorithm for Engineering Optimization Applications. <i>Springer Tracts in Nature-inspired Computing</i> , 2021, , 309-334. | 1.2 | 7 |
| 96 | Influence of Polypropylene Length on Stability and Flow of Fiber-reinforced Asphalt Mixtures. <i>Civil Engineering Journal (Iran)</i> , 2016, 2, 538-545. | 1.2 | 7 |
| 97 | Active Vibration Control of Seismically Excited Building Structures by Upgraded Grey Wolf Optimizer. <i>IEEE Access</i> , 2021, 9, 166658-166673. | 2.6 | 7 |
| 98 | Chaotic Charged System Search with a Feasible-Based Method for Constraint Optimization Problems. <i>Mathematical Problems in Engineering</i> , 2013, 2013, 1-8. | 0.6 | 6 |
| 99 | Risk-Based Arch Dam Optimization Using Hybrid Charged System Search. <i>ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering</i> , 2018, 4, . | 1.1 | 6 |
| 100 | Numerical investigation on ultimate shear strength of long steel plate girder web panels at high temperatures. <i>Journal of Building Engineering</i> , 2020, 29, 101070. | 1.6 | 6 |
| 101 | Evaluation of the Mechanical Properties of Normal Concrete Containing Nano-MgO under Freeze-Thaw Conditions by Evolutionary Intelligence. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 2529. | 1.3 | 5 |
| 102 | Metaheuristically optimized nano-MgO additive in freeze-thaw resistant concrete: a charged system search-based approach. <i>Engineering Research Express</i> , 2021, 3, 035001. | 0.8 | 5 |
| 103 | Reliability Analysis of Semiactive Magnetorheological Dampers Subjected to Harmonic Excitations. <i>Advances in Mechanical Engineering</i> , 2013, 5, 643927. | 0.8 | 5 |
| 104 | Optimum Performance-Based Seismic Design of Frames Using Metaheuristic Optimization Algorithms. , 2013, , 419-437. | | 4 |
| 105 | Optimum Performance-Based Seismic Design Using a Hybrid Optimization Algorithm. <i>Mathematical Problems in Engineering</i> , 2014, 2014, 1-8. | 0.6 | 4 |
| 106 | Soft Computing Methods in Civil Engineering. <i>Scientific World Journal, The</i> , 2015, 2015, 1-2. | 0.8 | 4 |
| 107 | Optimal Parameter Identification of Fuzzy Controllers in Nonlinear Buildings Based on Seismic Hazard Analysis Using Tribe-Charged System Search. <i>Studies in Systems, Decision and Control</i> , 2021, , 99-132. | 0.8 | 4 |
| 108 | Seismic loss optimum design of steel structures using learning-based charged system search. <i>Structural Design of Tall and Special Buildings</i> , 2022, 31, . | 0.9 | 4 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 109 | Optimum structural design of full-scale steel buildings using drift-tribe-charged system search. Earthquake Engineering and Engineering Vibration, 2022, 21, 825-842. | 1.1 | 3 |
| 110 | Optimum Design of Skeletal Structures via Big Bangâ€“Big Crunch Algorithm. , 2013, , 173-205. | | 2 |
| 111 | Ant Colony Optimization for Estimating Parameters of Flood Frequency Distributions. , 2013, , 121-146. | | 2 |
| 112 | Application of Taguchi Method and Genetic Algorithm for Calibration of Soil Constitutive Models. Journal of Applied Mathematics, 2013, 2013, 1-11. | 0.4 | 2 |
| 113 | Statistical and Probabilistic Approach in Monitoring-Based Structure Rating and Risk Assessment. Mathematical Problems in Engineering, 2014, 2014, 1-2. | 0.6 | 2 |
| 114 | Application of Multi-objective Charged System Search Algorithm for Optimization Problems. Scientia Iranica, 2018, . | 0.3 | 2 |
| 115 | Multiobjective charged system search for optimum location of bank branch. , 2022, , 119-133. | | 2 |
| 116 | Graph Products and Its Applications in Mathematical Formulation of Structures. Journal of Applied Mathematics, 2012, 2012, 1-16. | 0.4 | 1 |
| 117 | Computational Intelligence in Civil and Hydraulic Engineering. Mathematical Problems in Engineering, 2013, 2013, 1-2. | 0.6 | 1 |
| 118 | Determining the Optimum Section of Tunnels Using Ant Colony Optimization. Mathematical Problems in Engineering, 2013, 2013, 1-7. | 0.6 | 1 |
| 119 | The Algebraic Riccati Matrix Equation for Eigendecomposition of Canonical Forms. Mathematical Problems in Engineering, 2013, 2013, 1-7. | 0.6 | 0 |
| 120 | Advances of Artificial Intelligence in Mechanical Engineering. Advances in Mechanical Engineering, 2014, 6, 843730. | 0.8 | 0 |
| 121 | Application of multiobjective Gray Wolf Optimization in gasification-based problems. , 2022, , 133-156. | | 0 |