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General Information



Full Name: **Ali Sadollah**

Date of Birth: **25th May 1984**

Marital Status: **Married**

Nationality: **Iran**

Sex: **Male**

Current Positions: **Associate Professor, University of Science and Culture, Tehran, Iran**

Vice President for Research and Technology

Head of International Collaboration

Permanent Address: **University of Science and Culture, Bahar St., Shahid Qamushi St., Ashrafi Esfahani Blv., Tehran, Iran**

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Ali in Academic Media: LinkedIn, Research Gate, Academia, Google Scholar, ORCID, IntechOpen, figShare, YouTube, Publon, Academig, Scopus

Ali in Persian Websites: FaraDars, Young Researchers Club, USC

Qualification Background

10/2018 ~ Present **Assistant Professor**, School of Mechanical Engineering, *University of Science and Culture*, Ashrafi Esfehani Blvd., Tehran, Iran
Main Research Topic: Engineering Optimization, AI in Mechanical Engineering

06/2017 ~ 11/2018 **Post-Doctoral Research Fellow**, School of Mechanical Engineering, *Sharif University of Technology*, Azadi Avenue, Tehran, Iran
Main Research Topic: Machine learning approaches for smart systems
Supervisor: Professor Hassan Sayyaadi

02/2016 ~ 02/2017 **Post-Doctoral Research Fellow**, School of Electrical and Electronic Engineering (EEE), *Nanyang Technological University* (NTU), 639798, Singapore
Main Research Topic: Distributed adaptive urban traffic signal control using optimization and machine learning approaches
Supervisor: A/Professor Rong Su

09/2013 ~ 09/2015 **Post-Doctoral Research Fellow**, School of Civil Engineering, Faculty of Engineering, *Korea University* (KU), 136-713, Seoul, South Korea.
Main Research Topic: Optimization of water distribution systems using metaheuristics
Supervisor: Professor Joong Hoon Kim

08/2010 ~ 08/2013 **PhD**, Department of Mechanical Engineering, Faculty of Engineering, University of Malaya (UM), 50603, Kuala Lumpur, Malaysia.
Thesis Title: Development and Applications of Metaheuristic Algorithms in Engineering Design and Structural Optimization
Main Research Topic: Computational Mechanics and Computational Intelligence used in engineering structures (Research-Based Program)
Supervisors: Professor Ardeshir Bahreininejad, Professor Mohd Hamdi, and Associate Professor Judha Purbolaksono

09/2007 ~ 08/2010 **Master of Science**, Mechanical Engineering, Applied Mechanics
University of Semnan, Semnan, Iran
Main Research Topic: Composite materials
Supervisor: Professor Abdolhossein Fereidoon, GPA: 16.88 out of 20

09/2002 ~ 08/2007 **Bachelor of Science**, Mechanical Engineering, Mechanics of Solid

Islamic Azad University, Semnan branch, Semnan, Iran,
GPA: 16.56 out of 20

09/1998 ~ 08/2002 **High School Diplomas in Mathematics and Physics** (First Class)
Mohammad High School, Tehran, Iran, GPA: 17.53 out of 20

Major Research Interests



My hobbies are my professions. I do what I enjoy and enjoy what I do. I take all the things I do equally seriously and find them equally enjoyable. However, for scheduling purposes, I shifted my main concentration along the way, which now seems to remain on metaheuristic algorithms and computational sciences.

Research Interests

- Engineering Optimization and Metaheuristics
- Soft Computing Methods
- Machine Learning & Data Mining (e.g., Clustering, Classification)
- Artificial Neural Networks
- Computational Solid Mechanics
- Cold Roll Forming Process (Roller Design)
- Finite Element Analysis
- Mechanical Behavior of Materials
- Computer Modeling & Simulation
- Structures and Design
- Fatigue and Fracture Mechanics
- Algorithm Development (Water Cycle Algorithm and Neural Network Algorithm)

Sport Interests

My major field in sport is Track & Field (sprinting). I obtained the first and second prizes at university competitions in 200 meters in 2011 and 2012, respectively. However, I have involved with several sport activities such as soccer, martial arts, badminton. Furthermore, I am interested in the scientific aspects of sports. In general, I enjoy practicing and learning all types of sports and outdoor activities.

Publications & Research Activities



Published Papers (IF stands for Impact Factor). "*" Means Corresponding Author.

2011

1. **A. Sadollah**, A. Bahreininejad*, "Optimum gradient material for functionally graded dental implant using metaheuristic algorithms". Journal of the Mechanical Behavior of Biomedical Materials, 4(7) (2011) 1384-1395 (IF: 3.9, Q2).

2012

2. **A. Sadollah**, A. Bahreininejad*, H. Eskandar, M. Hamdi, "Mine blast algorithm for optimization of truss structures with discrete variables", Computers & Structures, 102-103 (2012) 49-63 (IF: 4.7, Q1).

3. H. Eskandar, **A. Sadollah**, A. Bahreininejad*, M. Hamdi, "Water cycle algorithm - a

novel metaheuristic optimization method for solving constrained engineering optimization problems", Computers & Structures, 110-111 (2012) 151-166 (Titled as Most Downloaded Articles in Computers & Structures) (IF: 4.7, Q1).

4. **A. Sadollah**, A. Bahreininejad*, "Optimization of die design using metaheuristic methods in cold forward extrusion process", Neural Computing & Applications, 21 2071–2076 (2012) (IF: 6.0, Q1).

2013

5. **A. Sadollah**, M.N.H. Mohamed*, A. Bahreininejad, "Optimum culture conditions for 1,3-Propanediol production from Crude Glycerol using metaheuristic algorithms", Applied Mathematics & Information science (Scopus Indexed), 1(1) (2013) 1-8 (IF: 1.232, Q4).

6. **A. Sadollah**, A. Bahreininejad*, H. Eskandar, M. Hamdi, "Mine Blast Algorithm: a new population based algorithm for solving constrained engineering optimization problems", Applied Soft Computing, 13 (2013) 2592-2612 (23rd out of 24th in Most Downloaded Articles in 2013) (IF: 6.725, Q1).

7. H. Hemmatian, A. Fereidoon, **A. Sadollah**, A. Bahreininejad*, "Optimization of laminate stacking sequence for minimizing weight and cost using elitist ant system optimization", Advances in Engineering Software, 57 (2013) 8-18 (IF: 4.141, Q1).

8. **A. Sadollah**, A. Ghadimi, I.H. Metselaar, A. Bahreininejad*, "Prediction and optimization of stability parameters for Titanium dioxide nanofluid using response surface methodology and artificial neural networks", Science and Engineering of Composite Materials, 20(4) (2013) 319-330 (IF: 1.295, Q3).

9. **A. Sadollah**, A. Bahreininejad*, H. Eskandar, M. Hamdi, "Optimum material gradient for functionally graded dental implant using particle swarm optimization" Advanced Materials Research, 647 (2013) 30-36 (Q4).

10. H. Eskandar, **A. Sadollah**, A. Bahreininejad*, "Weight optimization of truss structures using water cycle algorithm", International Journal of Optimization in Civil Engineering (Scientific Information Database & ISC Indexed), 3(1) (2013) 115-129.

2014

11. **A. Sadollah**, A. Bahreininejad*, M. Hamdi, J. Purbolaksono, "Optimum mechanical behavior of calcium phosphate cement/hydroxyl group functionalized multi-walled carbon nanotubes/bovine serum albumin composite using metaheuristic algorithms", Neural Computing & Applications, 24 (2014) 193-200 (IF: 5.606, Q1).

12. H.M. Khanlou, **A. Sadollah**, B.C Ang, J.H. Kim*, S. Talebian, A. Ghadimi, "Prediction and optimization of electrospinning parameters for polymethyl methacrylate nanofiber fabrication using response surface methodology and artificial neural networks", Neural Computing & Applications, 25(3-4) (2014) 767-777 (IF: 5.606, Q1).

13. **A. Sadollah**, H. Eskandar, J.H. Kim*, "Geometry optimization of a cylindrical fin heat

sink using mine blast algorithm", International Journal of Advanced Manufacturing Technology, 73(5-8) (2014) 795-804 (IF: 3.226, Q1).

2015

14. **A. Sadollah**, D.G. Yoo, J.H. Kim*, "Improved mine blast algorithm for optimal cost design of water distribution systems", Engineering Optimization, 47(12) (2015) 1602-1618 (IF: 3.230, Q2).

15. **A. Sadollah**, H. Eskandar, J.H. Kim*, "Water cycle algorithm for solving constrained multi-objective problems", Applied Soft Computing, 27 (2015) 279-298 (IF: 6.725, Q1).

16. **A. Sadollah**, H. Eskandar, A. Bahreininejad*, J.H. Kim, "Water cycle algorithm for solving multi-objective optimization problems", Soft Computing, 19(9) (2015) 2587-2603 (IF: 3.643, Q2).

17. **A. Sadollah**, H. Eskandar, A. Bahreininejad*, J.H. Kim, "Water cycle, mine blast and improved mine blast algorithms for discrete sizing optimization of truss structures", Computers & Structures, 149 (2015) 1-16 (Titled as Most Cited Articles in Computers & Structures) (IF: 4.578, Q1).

18. **A. Sadollah**, H. Eskandar, A. Bahreininejad*, J.H. Kim, "Water cycle algorithm with evaporation rate for solving constrained and unconstrained optimization problems", Applied Soft Computing, 30 (2015) 58-71 (IF: 6.725, Q1).

19. **A. Sadollah**, H. Eskandar, D.G. Yoo, J.H. Kim*, "Approximate solving of nonlinear ordinary differential equations using least square weight function and metaheuristic algorithms", Engineering Applications of Artificial Intelligence, 40 (2015) 117-132 (IF: 6.212, Q1).

20. D.G. Yoo, H.M. Lee, **A. Sadollah**, J.H. Kim*, "Optimal Pipe Size Design for Looped Irrigation Water Supply System using Harmony Search: Saemangeum Project Area", The Scientific World Journal, Vol. 2015, Article ID 651763 (2015) 1-10 (IF: 1.625, Q2).

21. **A. Sadollah**, Y. Choi, D.G. Yoo, J.H. Kim*, "Metaheuristic algorithms for approximate solution to ordinary differential equations of longitudinal fins having various profiles", Applied Soft Computing, 33 (2015) 360-379 (IF: 6.725, Q1).

22. D.G. Yoo, G. Chung, **A. Sadollah**, J.H. Kim*, "Applications of network analysis and multi-objective genetic algorithm for selecting optimal water quality sensor locations in water distribution networks", KSCE Journal of Civil Engineering, 19(7) (2015) 2333-2344 (IF: 1.805, Q2).

23. M.H Almasi*, **A. Sadollah**, S. Mounes, M. Karim, "Optimization of a transit services model with a feeder bus and rail system using metaheuristic algorithms", Journal of Computing in Civil Engineering, 29(6) (2015) 04014090(1-13), (IF: 4.640, Q1).

2016

24. R. Sheikholeslami, B. Gholipour Khalili, **A. Sadollah**, J.H. Kim*, "Optimization of reinforced concrete retaining walls via hybrid firefly algorithm with upper bound strategy", KSCE Journal of Civil Engineering, 20(6) (2016) 2428–2438 (IF: 1.805, Q2).

25. T.T. Ngo, **A. Sadollah**, J.H. Kim*, "A cooperative particle swarm optimizer with stochastic movements for computationally expensive numerical optimization problems", Journal of computational Science, 13 (2016) 68-82 (IF: 3.976, Q1).

26. **A. Sadollah**, H. Eskandar, H.M. Lee, D.G. Yoo, J.H. Kim*, "Water cycle algorithm: a detailed standard code", SoftwareX, 5 (2016) 37-43 (IF: 3.4, Q2).

27. H.M. Lee, D.G. Yoo, **A. Sadollah**, J.H. Kim*, "Optimal cost design of water distribution networks using a decomposition approach", Engineering Optimization, 48(12) (2016) 2141-2156 (IF: 3.230, Q2).

28. M.H Almasi, **A. Sadollah**, S. Kang*, M.R. Karim, "Optimization of an improved intermodal transit model equipped with feeder bus and railway systems using metaheuristics", Sustainability, 8 (2016), 537-563 (IF: 3.251, Q1).

29. K. Gao, P.N. Suganthan, Q.K. Pan*, M.F. Tasgetiren, **A. Sadollah**, "Artificial Bee Colony Algorithm for Scheduling and Rescheduling Fuzzy Flexible Job Shop Problem with New Job Insertion", Knowledge-Based Systems, 109 (2016), 1–16 (IF: 8.038, Q1).

30. K. Gao*, Y. Zhang, **A. Sadollah**, R. Su, "Optimizing Urban Traffic Light Scheduling Problem Using Harmony Search with Ensemble of Local Search", Applied Soft Computing, 48 (2016) 359–372 (IF: 6.725, Q1).

2017

31. S.M.A. Pahnehkolaei, A. Alfi*, **A. Sadollah**, J.H. Kim, "Gradient-based water cycle algorithm with evaporation rate applied to chaos suppression", Applied Soft Computing, 53 (2017) 420–440 (IF: 6.725, Q1).

32. **A. Sadollah***, N. Yadav, K. Gao, R. Su, "Metaheuristic optimization methods for approximate solving of singular boundary value problems", Journal of Experimental & Theoretical Artificial Intelligence, 29(4) (2017) 823-842 (IF: 2.2, Q3).

33. K. Gao*, Y. Zhang, **A. Sadollah**, A. Lentzakis, R. Su, "Jaya, harmony search, and water cycle algorithms for solving large-scale real-life urban traffic light scheduling problem", Swarm and Evolutionary Computation, 37 (2017) 58-72 (IF: 7.177, Q1).

34. J. Yazdi, **A. Sadollah**, E.H. Lee, D.G. Yoo, J.H. Kim*, "Application of multi-objective evolutionary algorithms for the rehabilitation of storm sewer pipe networks", Journal of Flood Risk Management, 10(3) (2017) 326–338 (IF: 3.884, Q1).

35. M. Moradi, **A. Sadollah**, H. Eskandar*, H. Eskandar, "Application of water cycle algorithm to portfolio selection", Economic Research, 30(1) (2017) 1277-1299 (IF: 3.034, Q2).

2018

36. M. Almasi, **A. Sadollah**, Y. Oh, D.K. Kim, S. Kang*, "Optimal coordination strategy for an integrated multimodal transit system considering multiple objectives", Sustainability, 10(3) (2018) 734(1-28) (IF: 3.251, Q1).

37. **A. Sadollah**, H. Sayyaadi, D.G Yoo, H.M. Lee, J.H. Kim*, "Mine blast harmony search: a new hybrid optimization method for improving exploration and exploitation capabilities", Applied Soft Computing, 68 (2018) 548-564 (IF: 6.725, Q1).

38. K. Gao*, L. Wang, J. Luo, H. Jiang, **A. Sadollah**, Q. Pan, "Discrete harmony search algorithm for scheduling and rescheduling the reprocessing problems in remanufacturing: A case study", Engineering Optimization, 50(6) (2018) 965-981 (IF: 3.230, Q2).

39. E. Osaba*, J. Del Ser, **A. Sadollah**, N. Bilbao, D. Camacho, "A discrete water cycle algorithm for solving the symmetric and asymmetric traveling salesman problem", Applied Soft Computing, 71 (2018) 277-290 (IF: 6.725, Q1).

40. **A. Sadollah**, H. Sayyaadi*, A. Yadav, "A dynamic metaheuristic optimization model inspired by biological nervous systems: Neural network algorithm", Applied Soft Computing, 71 (2018) 747-782 (IF: 6.725, Q1).

2019

41. S.H. Mahdavi*, F. Rahimzadeh Rofooei, **A. Sadollah**, C. Xu, "A wavelet-based scheme for impact identification of framed structures using combined genetic and water cycle algorithms", Journal of Sound and Vibration, 443 (2019) 25-46 (IF: 3.655, Q1).

42. H.M. Lee, D. Jung, **A. Sadollah**, D.G. Yoo, J.H. Kim*, "Generation of benchmark problems for optimal design of water distribution systems", Water, 11(8) (2019) 1637-1651 (IF: 3.103, Q1).

43. **A. Sadollah***, K. Gao, Y. Zhang, Y. Zhang, R. Su, "Management of traffic congestion in adaptive traffic signals using a novel classification-based approach", Engineering Optimization, 51(9) (2019) 1509-1528 (IF: 3.230, Q2).

44. H. Sayyaadi*, **A. Sadollah**, A. Yadav, N. Yadav, "Stability and iterative convergence of water cycle algorithm for computationally expensive and combinatorial Internet shopping optimization problems", Journal of Experimental & Theoretical Artificial Intelligence, 31 (5) (2019) 701–721 (IF: 2.2, Q3).

2020

45. Y. Choi, **A. Sadollah**, J.H. Kim*, "Improvement of cyber-attack detection accuracy from urban water systems using extreme learning machine", Applied Sciences (SCIE Journal), 10(22) (2020) 8179 (IF: 2.7, Q2).

46. H.M. Lee, D. Jung, **A. Sadollah**, J. H. Kim*, "Performance comparison of metaheuristic algorithms using a modified Gaussian fitness landscape generator", Soft Computing (SCIE Journal), 24 (2020) 7383–7393 (IF: 3.643, Q2).

47. **A. Sadollah**, M. Nasir, Z.W. Geem*, "Sustainability and optimization: from conceptual

fundamentals to applications", Sustainability, 12(5) (2020) 2027 (1-34) (IF: 3.251, Q1).

48. M. Nasir, **A. Sadollah**, Y.H. Choi, J.H. Kim*, "A comprehensive review on water cycle algorithm and its applications", Neural Computing and Applications, 32 (2020) 17433–17488 (IF: 5.606, Q1).

49. M. Nasir, **A. Sadollah**, J.H. Yoon, Z.W. Geem*, "Comparative study of harmony search algorithm and its applications in China, Japan and Korea" Applied Sciences, 10 (2020) 3970 (1-26) (IF: 2.679, Q2).

50. A. Yadav*, **A. Sadollah**, N. Yadav, J.H. Kim, "Self-adaptive global mine blast algorithm for numerical optimization", Neural Computing and Applications, 32 (2020) 2423-2444 (IF: 5.606, Q1).

51. K. Gao, Y. Huang, **A. Sadollah**, L. Wang*, "A review of energy‐efficient scheduling in intelligent production systems", Complex & Intelligent Systems, 6 (2020) 237-249, Complex & Intelligent Systems (IF: 5.8, Q1).

52. **A. Sadollah**, "How do artificial neural networks lead to developing an optimization method?" Trends in Computer Science and Information Technology, 5(1) (2020) 67-69.

2021

53. M. Nasir*, **A. Sadollah**, I. Berkan Aydilek, A. Lashkar Ara, S.A. Nabavi-Niaki, "A combination of FA and SRPSO algorithm for Combined Heat and Power Economic Dispatch", Applied Soft Computing, 102 (2021) 107088 (IF: 6.6, Q1).

54. **A. Sadollah**, K. Gao, J.H. Kim*, "Memetic computing for imprecise solution of T-shaped heat transfer fins" Engineering Optimization, 53(9) (2021) 1504-1522 (IF: 2.2, Q2).

55. M.H. Almasi, Y. Oh, **A. Sadollah**, Y.J. Byon, S. Kang*, "Urban transit network optimization under variable demand with single and multi-objective approaches using metaheuristics: The case of Daejeon, Korea", International Journal of Sustainable Transportation, 15(5) (2021) 1-21 (IF: 3.9, Q2).

56. M. Nasir, **A. Sadollah**, P. Grzegorzewski, J.H. Yoon, Z.W. Geem*, "Harmony search algorithm and fuzzy logic theory: an extensive review from theory to applications", Mathematics, 9 (2021) 2665 (IF: 2.2, Q1).

2022

57. Y. Hou, Y. Fu*, K. Gao, H. Zhang, **A. Sadollah**, "Modelling and Optimization of Integrated Distributed Flow Shop Scheduling and Distribution Problems with Time Windows", Expert System with Applications, 187 (2022) 115827 (IF: 7.5, Q1).

58. Z. He, K. Wang, H. Li, H. Song, Z. Lin, K. Gao*, **A. Sadollah**, "Improved Q-learning algorithm for solving permutation flow shop scheduling problems", IET Collaborative Intelligent Manufacturing, 4(1) (2022) 35–44 (IF: 3.1, Q3).

59. Y. Fu, Y. Hou*, Z. Chen, X. Pu, K. Gao, **A. Sadollah**, "Modelling and scheduling integration of distributed production and distribution problems via black widow optimization", Swarm and Evolutionary Computation, 68 (2022) 101015 (IF: 8.5, Q1).

60. S.M. Razavi*, **A. Sadollah**, A.K. Al-Shamiri, "Prediction and optimization of electrical conductivity for polymer-based composites using design of experiment and artificial neural networks", Neural Computing and Applications, 34 (2022) 7653–7671 (IF: 4.5, Q1).

61. P. Ziyaei, M. Khorasanchi*, H. Sayyadi, **A. Sadollah**, "Minimizing the levelized cost of energy in an offshore wind farm with non-homogeneous turbines through layout optimization", Ocean Engineering, 249 (2022) 110859 (IF: 5.5, Q1).

62. B. Etaati*, A. Abdollahi Dehkordi, **A. Sadollah**, M. El-Abd, M. Neshat, "A comparative state-of-the-art constrained metaheuristics framework for truss optimisation on shape and sizing", Mathematical Problems in Engineering, 6078986, 13 pages (SJR: 0.4, Scopus Q2).

63. X. Ma, Y. Fu*, K. Gao*, **A. Sadollah**, K. Wang, "Integration routing and scheduling for multiple home health care centers using a multi-objective cooperation evolutionary algorithm with stochastic simulation" Swarm and Evolutionary Computation, 75 (2022) 101175 (IF: 8.5, Q1).

64. G.H. Lee, **A. Sadollah**, S.H. Park, Z.W. Geem*, "HS-Solver: Spreadsheet based harmony search algorithm solver for various optimization problems" SoftwareX, 20 (2022) 101262 (IF: 2.4, Q2).

2023

65. X. Ma, Y. Fu*, K. Gao, L. Zhu, **A. Sadollah**, "A Multi-Objective Scheduling and Routing Problem for Home Health Care Services via Brain Storm Optimization", Complex System Modeling and Simulation, 3(1) (2023) 32-46 (SJR: 1.385, Q1).

66. D. Khurana, A. Yadav, **A. Sadollah**, "A non-dominated sorting based multi-objective neural network algorithm", MethodX, 10 (2023) 102152 (IF: 1.9, Q2).

67. M. Nasir, **A. Sadollah**, H. Barati, M. Khodabakhshi, J.H. Kim*, "Generation Rescheduling Based Contingency Constrained Optimal Power Flow Considering Uncertainties Through Stochastic Modeling", IETE Journal of Research, 70(5) (2023) 4917–4939 (IF: 1.3, Q4).

68. H. Jahanshiri, **A. Sadollah***, "Multi-objective metaheuristic approach for analyzing static and dynamic behaviors of functionally graded Timoshenko beams", Mechanics of Advanced Materials and Structures, 31(28) (2023) 10201–10220 (IF: 6.6, Q1).

2024

69. B. Etaati, M. Neshat, A. Abdollahi Dehkordi, N. Salami Pargoo, M. El-Abd, **A. Sadollah**, A.H. Gandomi*, "Shape and sizing optimisation of space truss structures using a new cooperative coevolutionary-based algorithm", Results in Engineering, 21 (2024) 101859 (IF: 7.9, Q1).

70. Y. Fu, X. Ma, K. Gao*, H. Wang, **A. Sadollah**, L.Y. Chen, "Multi-Objective Migrating Birds Optimization for Solving Stochastic Home Health Care Routing and Scheduling Problems Considering Caregiver Working Time Constraints" Swarm and Evolutionary Computation, 85 (2024) 101484 (IF: 8.5, Q1).

71. F. Liu, K. Gao, D. Li, **A. Sadollah**, "Ensemble evolutionary algorithms equipped with Q-learning strategy for solving distributed heterogeneous permutation flowshop scheduling problems considering sequence-dependent setup time", IET Collaborative Intelligent Manufacturing, 6(1) (2024) e12099 (IF: 3.1, Q3).

72. H. Eskandar, **A. Sadollah**, M. Sheikhi Azqandi*, S. Rahnama, "Multi objective optimization of composite laminate stacking considering mechanical properties using water cycle algorithm", Advances in Computational Design, 9(4) (2024) 327-346 (IF: 0.6, Q4).

73. H.M. Lee, **A. Sadollah**, Y. Choi, J. Joo*, D.G. Yoo, "Development and Sensitivity Analysis of Improved Harmony Search Algorithm with Multiple Memory Structure for Large-Scale Optimization of Pipe Design Cost in Water Distribution Networks", Sustainability, 16(15), (2024) 6689 (IF: 3.3, Q2).

2025

74. M. Nasir, **A. Sadollah***, S.A. Mirjalili, S.A. Mansouri, M. Safaraliev, A. Rezaee Jordehi, "A Comprehensive Review on Applications of Grey Wolf Optimizer in Energy Systems" Archives of Computational Methods in Engineering, 32 (2025) 2279–2319 (IF:12.1, Q1).

75. B. Qiu, K. Gao*, H. Yu, **A. Sadollah**, "Modelling and scheduling distributed assembly permutation flow-shops using reinforcement learning-based evolutionary algorithms", Engineering Applications of Artificial Intelligence, 142 (2025) 109851 (IF: 8, Q1).

76. **A. Sadollah**, S.M. Razavi*, A.K. Al-Shamiri, "Effect of bending load on electrical conductivity of carbon/epoxy composites filled with nanoparticles using design of experiment and artificial neural networks", Results in Engineering, 25 (2025) 104174 (IF: 7.9, Q1).

77. N. Khorami, A. Nikkhoo, **A. Sadollah**, A. Permanoon, F. Hejazi*, "Computational Time Reduction in Meso-Scale Masonry Structure Analysis by Nonlinear Topology Optimization Methods", International Journal of Civil Engineering, 23 (2025) 1263–1286 (IF: 2, Q2).

78. A.A. Mahmoud, A.A. El-Sayed, A.M. Aboraya, I.N. Fathy, N. Zygouris, **A. Sadollah**, I.S. Agwa, B.A. Tayeh, P.G. Asteris*, "Synergizing Machine Learning and Experimental Analysis to Predict Post-heating Compressive Strength in Waste Concrete", Structural Concrete 26(3) (2025) 2916-2950 (IF: 3.3, Q2).

Published Persian Papers "*" Means Corresponding Author.

1- محمد صادقی، **علی سعداله*** ، "بهینه‌سازی توان و وزن چرخدنده‌های ساده به کمک روش‌های بهینه‌سازی فرا ابتکاری و روش‌های اجزا محدود"، یافته های نوین کاربردی و محاسباتی در سیستم های مکانیکی، دوره 2، شماره 1، خرداد 1401، صفحه 31-23 (رتبه الف).

2- **علی سعداله***، جواد ریاضت، "بهینه‌سازی فرایند شناسایی پارامتر مدل های تک‌دیودی، دودیودی، و سه‌دیودی سلول خورشیدی توسط الگوریتم بهینه سازی شبکه عصبی"، نشریه علوم کاربردی و محاسباتی در مکانیک، دوره 36، شماره 1، اردیبهشت 1403، صفحه 142-123 (رتبه الف).

3- **علی سعداله***، داود براتی، امیرحسین دودانگه، "بررسی اثر زاویه و طول مولدهای گردابه با ساختار سینوسی بر عملکرد مبدل‌های حرارتی فشرده"، نشریه علوم کاربردی و محاسباتی در مکانیک، دوره 36، شماره 4، دی 1403، صفحه 57-74 (رتبه الف).

4- نیما خرمی*، علی نیکخو، **علی سعداله**، علی پرمنون و فرزاد حجازی، "کاهش هزینه محاسباتی تحلیل سازه‌های بنایی در مقیاس مزو با استفاده از ترکیب بهینه‌سازی توپولوژی و معیار تسلیم دراگر-پراگر" نشریه مهندسی عمران شریف، 20 شهریور 1403 (رتبه الف).

Conference Proceedings (Underline Means Presenter)

2012

1. **A. Sadollah**, A. Bahreininejad*, H. Eskandar, M. Hamdi, "Optimum material gradient for functionally graded dental implant using particle swarm optimization", International Conference of Biomaterial and Bioengineering, 2012 (ICBB 2012), 19-20 December, Hong Kong.

2013

2. **A. Sadollah**, H. Eskandar, J.H. Kim*, D.G. Yoo, "Sizing optimization of sandwich panels having prismatic core using water cycle algorithm", The 4th Global Congress on Intelligent Systems 2013 (GCIS 2013), IEEE, 3-4 December, pp. 325-328, Hong Kong.

2014

3. **A. Sadollah**, D.G. Yoo, J.H. Kim*, "Water cycle algorithm and its application to water pumping system", Accepted Abstract (International Session), Korea Water Research Association, 15-16 May 2014, Busan, South Korea.

4. **A. Sadollah**, D.G. Yoo, J. Yazdi, J.H. Kim*, Y. Choi, "Application of water cycle algorithm for optimal cost design of water distribution systems", The 11th International Conference on Hydroinformatics (HIC 2014), 17-21 August 2014, New York City, New York, USA.

5. D.G. Yoo**, A. Sadollah**, J.H. Kim*, H.M. Lee, "Application of new hybrid harmony search algorithms based on cellular automata theory for solving magic square problems", Proceedings of 4th International Conference on Soft Computing for Problem Solving Advances in Intelligent Systems and Computing (SocPros 2014), Volume 335, pp. 245-253, 27-29 December 2014, NIT Silchar, Silchar, Assam, India.

2015

6. Y. Choi, H.M. Lee, D.G. Yoo, J.H. Kim*, **A. Sadollah**, J.H. Choi, "Development of Opti-HSNET for the optimal design of water distribution network", International Conference Data Mining, Civil and Mechanical Engineering (ICDMCME 2015), Feb. 1-2, 2015, Bali, Indonesia.

7. J.H. Kim*, H.M. Lee, D. Jung, **A. Sadollah**, "Performance Measures of Metaheuristic Algorithms", The 2nd International Conference on Harmony Search Algorithm (ICHSA 2015), Aug. 19-21, 2015, Hana Square, Korea University, Seoul, South Korea.

8. **A. Sadollah**, H.M. Lee, D.G. Yoo, J.H. Kim*, "Mine blast harmony search and its applications", The 2nd International Conference on Harmony Search Algorithm (ICHSA 2015), Aug. 19-21, 2015, Hana Square, Korea University, Seoul, South Korea.

9. **A. Sadollah**, Y. Choi, J.H. Kim*, "Metaheuristic optimization algorithms for approximate solutions to ordinary differential equations", IEEE Congress on Evolutionary Computation (CEC 2015), May 25-28, 2015, Sendai International Center, Sendai, Japan.

10. J.H. Kim*, et al., "KU battle of metaheuristic algorithms 1: Development of six new algorithms", The 2nd International Conference on Harmony Search Algorithm (ICHSA 2015), Aug. 19-21, 2015, Hana Square, Korea University, Seoul, South Korea.

11. J.H. Kim*, et al., "KU battle of metaheuristic algorithms 2: Performance test", The 2nd International Conference on Harmony Search Algorithm (ICHSA 2015), Aug. 19-21, 2015, Hana Square, Korea University, Seoul, South Korea.

12. J.H. Kim*, T.T Ngo, **A. Sadollah**, "A new collaborative approach to particle swarm optimization for global optimization", Proceedings of 5th International Conference on Soft Computing for Problem Solving Advances in Intelligent Systems and Computing (SocPros 2015), 18-20 December 2015, IIT Roorkee, India.

13. J. Bahl, D. Shyam, S. Gunturi, A. Bahreininejad*, **A. Sadollah**, R. Narayanan, "Mine blast algorithm for the estimation of pharmacokinetic and pharmacodynamics parameters", (Poster Presentation), Oct. 25-29, 2015, American Association of Pharmaceutical Scientists (AAPS) Annual Meeting and Exposition, Orlando, Florida (Poster Presentation).

2016

14. H.M. Lee, D. Jung, **A. Sadollah**, J.H. Kim*, "Test problem generation using a modified Gaussian fitness landscape generator", The 12th International Conference on Hydroinformatics (HIC 2016), 21-26 August 2016, Incheon, South Korea.

15. **A. Sadollah***, R. Su, J.H. Kim, K. Gao, "Approximate solutions of heat transfer fins with convex and exponential profiles using Fourier-based optimization method", IEEE Congress on Evolutionary Computation (CEC 2016), July 24-29, 2016, Vancouver, Canada, pp. 5106-5112.

16. A. Barzegar, **A. Sadollah**, L. Rajabpour, R. Su*, "Optimal power flow solution using water cycle algorithm", The 14th International Conference on Control, Automation, Robotics and Vision (ICARCV 2016), November 13–15, 2016, Phuket, Thailand.

17. **A. Sadollah***, K. Gao, A. Barzegar, R. Su, "Improved model of combinatorial Internet shopping optimization problem using evolutionary algorithms", The 14th International Conference on Control, Automation, Robotics and Vision (ICARCV 2016), November 13–15, 2016, Phuket, Thailand.

18. K. Gao, **A. Sadollah**, Y. Zhang, R. Su*, "Discrete Jaya algorithm for flexible job shop scheduling problem with new job insertion", 14th International Conference on Control, Automation, Robotics and Vision (ICARCV 2016), Nov. 13–15, 2016, Phuket, Thailand.

19. E. Mendez, O. Castillo, J. Soria, P. Melin*, **A. Sadollah**, "Water cycle algorithm with fuzzy logic for dynamic adaptation of parameters", Mexican International Conference on Artificial Intelligence (MICAI 2016), pp. 250-260 October 23-29, Cancún, Mexico.

20. K. Gao, Y. Zhang, **A. Sadollah**, R. Su*, "Jaya algorithm for solving urban traffic signal control problem", 14th International Conference on Control, Automation, Robotics and Vision (ICARCV 2016), November 13–15, 2016, Phuket, Thailand.

2017

21. T.T. Ngo, **A. Sadollah**, D.G. Yoo, Y.M. Choo, S.H. Jun, J.H. Kim*, "The extraordinary particle swarm optimization and its application in constrained engineering problems", The 3rd International Conference on Harmony Search Algorithm (ICHSA 2017), Advances in Intelligent Systems and Computing 514:35-41, February 22-24, 2017, Bilbao (Bizkaia, Basque Country), Spain.

22. S.J Mousavi*, P. Nakhaei, **A. Sadollah**, J.H. Kim, "Optimization of hydropower storage projects using harmony search algorithm", The 3rd International Conference on Harmony Search Algorithm (ICHSA 2017), Advances in Intelligent Systems and Computing 514:261-270, February 22-24, 2017, Bilbao (Bizkaia, Basque Country), Spain.

23. J.H. Kim*, H.M. Lee, D. Jung, **A. Sadollah**, "Engineering benchmark problem generation and performance measurement of evolutionary algorithms", IEEE Congress on Evolutionary Computation (CEC 2017), DOI: 10.1109/CEC.2017.7969380, June 5-8, 2017, Donostia - San Sebastián, Spain.

24. K. Gao, Y. Zhang, **A. Sadollah**, R. Su*, "Improved artificial bee colony algorithm for solving urban traffic light scheduling problem", IEEE Congress on Evolutionary Computation (CEC 2017), 395-402, June 5-8, 2017, Donostia - San Sebastián, Spain.

25. **A. Sadollah***, M. Moradi, H. Eskandar, H. Eskandar, "Non-dominated sorting water cycle algorithm for optimal selection of cardinality constrained portfolio problem", International Conference on Recent Trends in Operations Research and Statistics (RTORS 2017), 28-30 December 2017, Indian Institute of Technology Roorkee, Roorkee, Uttarakhand, India.

2018

26. H.M. Lee, D. Jung, **A. Sadollah**, E.H. Lee, J.H. Kim*, "Performance comparison of metaheuristic optimization algorithms using water distribution system design benchmarks", The Fourth International Conference on Harmony Search, Soft Computing and Applications (ICHSA 2018), February 7-9, 2018, BML Munjal University, Gurgaon, India.

27. M. Khorasanchi, H. Sayyaadi*, P. Ziyaei, **A. Sadollah**, "Layout optimization of a wind farm with various sizes of turbine", 20th International Marine Industries Conference, 17-19 Dec. 2018, Kish Island, Iran.

2019

28. **A. Sadollah***, J.H. Kim, Y. Choi, N. Karamodin, "4-Rule harmony search algorithm for solving computationally expensive optimization test problems", The Fifth International Conference on Harmony Search, Soft Computing and Applications (ICHSA 2019), July 20-22, 2019, Kunming, China.

2020

29. **A. Sadollah**, M. Nasir, A.K. Al-Shamiri, J.H Kim*, "Improvement of voltage profile and loss reduction based on optimal placement and sizing of renewable distributed generations using 4-rule harmony search algorithm", The Sixth International Conference on Harmony Search, Soft Computing and Applications (ICHSA 2020), July 16-17 (Online), 2020, Istanbul, Turkey.

30. A.K. Al-Shamiri**, A. Sadollah**, J.H Kim*, "Harmony search algorithms for optimizing extreme learning machines", The Sixth International Conference on Harmony Search, Soft Computing and Applications (ICHSA 2020), July 16-17 (Online), 2020, Istanbul, Turkey.

31. M. Nasir, **A. Sadollah***, E. Osaba, J. Del Ser, "A Novel Metaheuristic Approach for Loss Reduction and Voltage Profile Improvement in Power Distribution Networks Based on Simultaneous Placement and Sizing of Distributed Generators and Shunt Capacitor Banks", In: Analide C., Novais P., Camacho D., Yin H. (eds.) Intelligent Data Engineering and Automated Learning – IDEAL 2020 (Online). IDEAL (2020). Lecture Notes in Computer Science, Vol. 12489, 21st International Conference, Guimaraes, Portugal, November 4–6, 2020, Proceedings, Part II.

2022

32. M. Ershad, **A. Sadollah***, "Optimal Solving of Uninhabited Combat Air Vehicle Path Planning Using Neural Network Algorithm", 7th International Conference on Harmony Search, Soft Computing and Applications (ICHSA 2022). Lecture Notes on Data Engineering and Communications Technologies, Vol. 140. pp. 73-82, 23-24 Feb. 2022, Seoul, South Korea.

33. M. Sadeghi, **A. Sadollah***, S.M. Razavi, "Spur Gear Optimization Using Metaheuristics and Computer Aided Engineering Design", 7th International Conference on Harmony Search, Soft Computing and Applications (ICHSA 2022), Lecture Notes on Data Engineering and Communications Technologies, Vol. 140. pp. 311-321, 23-24 Feb. 2022, Seoul, South Korea.

34. S.M. Ardehalizadeh, **A. Sadollah***, "Net-Zero Energy Building Using Metaheuristics in Melbourne City", 7th International Conference on Harmony Search, Soft Computing and Applications (ICHSA 2022), Lecture Notes on Data Engineering and Communications Technologies, Vol. 140. pp. 289-299, 23-24 Feb. 2022, Seoul, South Korea.

35. A. Khoshnoudrad, S.M. Razavi*, **A. Sadollah**, F. Taghiha, "Investigation of the Effect of Nanoclay on Composite Plates under Low Speed Impact Using Artificial Neural Networks", 7th International Conference on Harmony Search, Soft Computing and Applications (ICHSA 2022), Lecture Notes on Data Engineering and Communications Technologies, Vol. 140. pp. 335-344, 23-24 Feb. 2022, Seoul, South Korea.

2024

36. P. Ahadzadeh, **A. Sadollah***, "Belt Optimization using Water Cycle Algorithm Considering Allowable Power Transmission and Cost", 9th International and 20th National Conference on Manufacturing Engineering (ICME 2024), 21-22 Feb. 2024, Tehran, Iran.

37. E. Mahdavimajd, **A. Sadollah***, "Optimum Design of Ship Propeller Using Metaheuristics and FEM", 9th International and 20th National Conference on Manufacturing Engineering (ICME 2024), 21-22 Feb. 2024, Tehran, Iran.

38. G. Sarvari, **A. Sadollah***, "Topology Optimization Along with FEM for 2D Problems", 9th International and 20th National Conference on Manufacturing Engineering (ICME 2024), 21-22 Feb. 2024, Tehran, Iran.

Book Chapters (Contribution to Books)

2012

1. **A. Sadollah**, A. Bahreininejad, "Optimum material gradient for functionally graded dental implant using simulated annealing". In: *Simulated Annealing - Single and Multiple Objective Problems*, Edited by M.S.G. Tsuzuki, Croatia, ISBN 978-953-51-0767-5, Publisher: InTech Publication, pp. 217-238 (Chapter 11) (Oct. 17, 2012).

2015

2. **A. Sadollah**, J.H. Kim, "Imprecise Solutions of Ordinary Differential Equations for Boundary Value Problems Using Metaheuristic Algorithms". In: *Handbook of Research on Modern Optimization Algorithms and Applications in Engineering and Economics,* Editors: P. Vasant, G-W Weber, V.N. Dieu, Publisher: IGI Global Publication, pp. 401-421 (Chapter 15) (March, 2015).

2016

3. E. Mendez, O. Castillo, J. Soria, **A. Sadollah**, "Water cycle algorithm with fuzzy dynamic adaptation of parameters". In: *Nature-Inspired Design of Hybrid Intelligent Systems*, Editors: P. Melin, O. Castillo, J. Kacprzyk, Volume 667 of the series Studies in Computational Intelligence, pp. 297-311, (Chapter 20), Publisher: Springer (10th Dec. 2016).

2018

4. **A. Sadollah**, "Which membership function in fuzzy logic system is appropriate?". In: *Fuzzy Logic Based in Optimization Methods and Control Systems and its Applications*, Editor: A. Sadollah , Publisher: InTech Publication (Chapter 1) (31th Oct. 2018).

2023

5. A. Rezvanian, S.M. Vahidipour, **A. Sadollah**, "An Overview of Ant Colony Optimization Algorithms for Dynamic Optimization Problems". In: *Ant Colony Optimization - Recent Variants, Application and Perspectives,* Editor*:* A. Sadollah, Publisher: InTech Publication (Chapter 12) (5th June 2023).

Book Editor

2018

1. **A. Sadollah**, Book Title: "Fuzzy Logic Based in Optimization Methods and Control Systems and its Applications", InTechOpen Publication, (31th Oct. 2018) (96 Pages).

2020

2. **A. Sadollah**, C.M. Travieso-Gonzalez, Book Title: "Recent Trends in Artificial Neural Networks: from Training to Prediction", InTechOpen Publication, (4th March 2020) (150 Pages).

3. **A. Sadollah**, T. Sinha, Book Title: "Recent Trends in Computational Intelligence", InTechOpen Publication, (6th May 2020) (198 Pages).

2023

4. I.R. Kale, **A. Sadollah,** Book Title: "Optimization Methods for Structural Engineering"**,** Springer Singapore Publication, (7th June 2023) (225 Pages).

2024

5. M. Andriychuk, **A. Sadollah**, Book Title: "Optimization Algorithms - Classics and Recent Advances" InTechOpen Publication, (10th July 2024) (242 Pages).

Under Review & Ready to Submit Manuscripts

1. Reliability based optimal design of hydropower projects using extended harmony search algorithm, *Not Decided*.
2. Artificial neural network method for numerical solution of two-parameter singularly perturbed boundary value problems of type convection diffusion and less severe boundary layer problem, *Computational and Applied Mathematics*.
3. Optimum tilt angle and orientation of solar surfaces in Chabahar, Iran using metaheuristics, *Sustainable Computing: Informatics and Systems.*
4. A Novel Fully Informed Water Cycle Algorithm for Solving Optimal Power Flow Problems in Electric Grids, *Electrical Engineering*.
5. A Comprehensive Review on Jaya Algorithm: Improvements, Applications, and

Prospects, *Swarm and Evolutionary Computation.*

6. Offshore Wind Farm Layout Optimization Considering Levelized Cost Of Energy Using Metaheuristics, *Not decided.*
7. Assembly Line Balancing Problems in Electric Vehicle Using Metaheuristics and a Mathematical Optimization Method: A Case Study, *Not decided*.
8. The Distributed Permutation Flowshop Scheduling Problem with Modified Completion Time Criterion, *Not Decided*.
9. Offshore Wind Farm Layout Optimization Considering Levelized Cost of Energy Using Metaheuristics, *Not Decided*.
10. A Comprehensive Review on Finite Element Method and Topology Optimization Approaches Under Different Scenarios for 2D and 3D Problems, *Structures*.

Other Academic Activities

Awards & Honors

- Best presented paper at ICHSA 2015, 19-21 Aug. 2015, Seoul, South Korea
- Best conference paper at SocPros 2014, 27-29 Dec. 2014, Silchar, Assam, India
- Best student paper at SocPros 2015, 18-20 Dec. 2015, IIT Roorkee, India
- Developer of Water Cycle Algorithm (WCA) as a metaheuristic optimization method
- Excellent reviewer reported by Publons.com.
- Member of Young Researchers and Elite Club
- Book Editor of InTechOpen Publication (Book Title: Fuzzy Logic Based in Optimization Methods and Control Systems and its Applications)
- Best conference paper at ICHSA 2018, 7-9 Feb. 2018, Gurougram, India
- **Among Worlds Top 1% Highly Cited Researchers according by ESI (2020-2024)**
- **Among Worlds Top 2% Highly Cited Researchers published by Stanford University (2020-2024)**
    - In NEWS (Persian):

      Iranian Students News Agency

      Bar Khat News

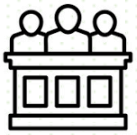
      Sarmayeh 24
- **Among Worlds Top 1% scientist published by ISC (2020-2024)**
- Best young researcher at University of Science and Culture in 1398 (2019)
- Best researcher at University of Science and Culture in 1399 (2020)

- Best researcher at University of Science and Culture in 1400 (2021)
- Publons Peer Review Awards 2017, Top 1% in Field of Mathematics
- Publons Peer Review Awards 2017, Top 1% in Field of Computer Science
- Publons Peer Review Awards 2018, Top 1% in Field of Computer Science
- Winner of Frontiers of Knowledge Award by SoCTA 2021



Invited Talks

- **A. Sadollah,** "Recently developed metaheuristic algorithms and their applications in water and civil engineering", First Symposium of harmony search algorithm, Korea University, Seoul, South Korea, 13-14 February 2014.
- **A. Sadollah,** "Mine blast and water cycle algorithms: ideas and strategies", 4th International Conference on Soft Computing for Problem Solving (SocPros 2014), 27-29 December 2014, NIT Silchar, Silchar, Assam, India.
- **A. Sadollah,** "Water cycle and neural network algorithms: Theory and practice", 4th on Contemporary Issues in Computer Information and Sciences, 23-24 Jan. 2019, Kharazmi University, Karaj, Iran.
- **A. Sadollah,** "Water cycle and neural network algorithms", Soft Computing Research Society (SCRS), SCRS Lecture Series: NIA-I, 12 June 2020, Akbar Bhawan Chankyapuri, Chanakyapuri, New Delhi, Delhi 110021, India (two online sessions).
- **A. Sadollah,** "How do artificial neural networks lead to developing an optimization method?" 6th International Conference on Soft Computing Theories and Applications (SoCTA) 2021, Indian Institute of Information Technology Kota, Rajasthan, India, 17-19 December 2021 (Keynote Speaker, Online Session).



Committee Member

- Scientific and Organizing Committee for the 2nd International Conference on Harmony Search Algorithm 2015 (ICHSA 2015), 20-21 Aug. 2015, Seoul, South Korea.
- Scientific Committee for the 5th International Student Competition in Structural Optimization (ISCSO 2015).
- Session chair for the 2nd International Conference on Harmony Search Algorithm (ICHSA 2015), 20-21 Aug 2015, Korea University, Seoul, South Korea.
- Technical program committee for the 1st EAI International Conference on Computer Science and Engineering, November 11–12, 2016, Penang, Malaysia.

- Session chair (Session FP12: Engineering applications) for IEEE CEC 2016, 24-29, July 2016, Vancouver, Canada.
- International scientific committee for the 3rd International Conference on Harmony Search Algorithm 2017 (ICHSA 2017), 20-21 Aug 2017, Spain.
- Organizer of invited session at 14th International Conference on Control, Automation, Robotics and Vision (ICARCV 2016), Invited Session: "Evolutionary Algorithms for Scheduling and Combinatorial Optimization", November 13–15, 2016, Phuket, Thailand.
- Co-chair of Technical Session at the 14th International Conference on Control, Automation (ICARCV 2016), Session: Su35 - Evolutionary Algorithms for Scheduling & Combinatorial Optimization, November 13–15, 2016, Phuket, Thailand.
- Scientific Committee for the 6th International Student Competition in Structural Optimization (ISCSO 2016).
- Member of Program Committee at IEEE International Conference on Evolutionary Computation, Donostia – San Sebastián, Spain, June 5-8, 2017, In: Special Session on Engineering Applications of Evolutionary Computation. By: A. H. Gandomi & J.H. Kim.
- Program committee member/reviewer for the 8th Workshop on Computational Optimization, Modelling and Simulation at International Conference on Computational Science, Zürich, Switzerland, 12-14 June, 2017.
- International scientific committee and PC member for the 3rd International Conference on Harmony search, Soft Computing and Applications 2018 (ICHSA 2018), Feb. 07-09 2018, Gurgaon, India.
- Scientific Committee for the 7th International Student Competition in Structural Optimization (ISCSO 2017).
- Session chair for ICHSA 2018, 7-9, Feb. 2018, Gurgaon, India.
- Member of scientific committee for the 6th International Conference on Harmony search, Soft Computing and Applications, 2020 (ICHSA 2020), Apr. 22-24, Istanbul, Turkey.
- International scientific collaborator Joint Research Laboratory on Artificial Intelligence (JRL-AI).
- General chair, session chair, and member of scientific committee for the 7th International Conference on Harmony search, Soft Computing and Applications, 2022 (ICHSA 2022), Apr. 23-24 Feb. 2022, Virtual Conference, Korea University, Seoul, South Korea.
- Editorial member of AI, Computer Science and Robotics Technology journal from 2021 ~ Present.



Reviewer for Journal and Conference Proceedings

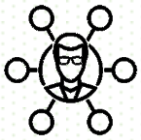
- Applied Soft Computing (Publisher: Elsevier)
- Information Science (Publisher: Elsevier)
- Transactions of the Institute of Measurement and Control (Publisher: SAGE)

- Neural Computing and Applications (Publisher: Springer)
- Journal of Applied Mechanics-Transactions of the ASME
- Swarm and Evolutionary Computation (Publisher: Elsevier)
- Structural Engineering and Mechanics, an International Journal
- International Journal of Computational Methods
- Journal of Hydro-environment Research (Publisher: Elsevier)
- Engineering Science and Technology: An International Journal
- Mechanics of Advanced Composite Structures
- Journal of computational applied mechanics (Publisher: University of Tehran)
- Transactions of the Institute of Measurement and Control (Publisher: SAGE)
- Iranian Journal of Science and Technology Transactions of Mechanical Engineering
- Sub-reviewer of the 2nd and 3rd ICHSA 2015, 2017, 2018 (International Conference on Harmony search algorithm, Soft computing and Applications)
- Sub-reviewer of the 14th International Conference on Control, Automation, Robotics and Vision (ICARCV 2016)
- Associate Editor of the 15th International Conference on Control, Automation, Robotics and Vision (ICARCV 2018)



Supported Grants & International Funds

- Exploratory Research Grant Scheme (ERGS), University of Malaya, August 2011 ~ August 2013, (Project Title: Development and Applications of Metaheuristic Algorithms in Engineering Design and Structural Optimization), Kuala Lumpur, Malaysia.
- National Research Foundation (NRF) of Korean Government, Korea University, July 2013 ~ September 2015 (Project Title: Establishment of Original Technology and Globalization Strategy of Harmony Search Algorithm), Seoul, South Korea.
- Economic Development Board of Singapore, Nanyang Technological University, February 2016 ~ February 2017, (Project Title: Distributed adaptive urban traffic signal control based on V2X information Infrastructure), Singapore.
- Strategic Center for Energy and Sustainable Development, Semnan branch, Islamic Azad University, May 2015 ~ Jun 2015, (Project Title: Optimal cost design of water distribution networks using a decomposition approach), Semnan, Iran.
- Sharif University of Technology, Under International Elite Association, Tehran, Iran (June 2017 ~ July 2018).



Affiliated universities and research institutes

- Faculty of Engineering, University of Malaya, 50603 Kuala Lumpur, Malaysia
- School of Civil, Environmental and Architectural Engineering, Korea University, 136-713, Seoul, South Korea

- School of Electrical and Electronic Engineering, Nanyang Technological University, 639798, Singapore
- Strategic Center for Energy and Sustainable Development, Semnan branch, Islamic Azad University, Semnan, Iran
- Young Researchers and Elites club, Science and Research Branch, Islamic Azad University, Tehran, Iran
- School of Mechanical Engineering, Sharif University of Technology, Azadi Avenue, Tehran, Iran
- Department of Mechanical Engineering, University of Science and Culture, Tehran, Iran

Research Performance Metrics (Last Update: 18th February 2025)



H-Index (Based on Google Scholar): **35** i10-Index: **67**
Total Citation (Based on Google Scholar): **7159**
Research Items: **135**
Researcher ID: **H-1199-2011**

H-Index (Based on Scopus): **30**
Total Citation (Based on Scopus): **5261 total citations by 3947 documents**
Research Items: **99**
Subject Area: Computer Science, Engineering
Co-authors: **122** Scopus ID: **37124859400**

H-Index (Based on Web of Science): **27**
Total Citation (Based on Web of Science): **4322**
Total Publication Indexed (Based on Web of Science): **96**
Citing Articles (Based on Web of Science): **3306**
ORCID: **0000-0002-7782-4126**

H-Index (Based on ResearchGate): **33**
Total Citation (Based on ResearchGate): **6373**
Reads: **89,858** Research Items: **134**
Recommendation: **339** Research Interest Score**: 4145**

Peer Review Metrics Reported (Last Update: 24th September 2023)

- Active member of Publons.com as a registered reviewer (ID: 452656)
- Publons Peer Review Awards 2017, Top 1% in Field of Mathematics
- Publons Peer Review Awards 2017, Top 1% in Field of Computer Science
- Publons Peer Review Awards 2018, Top 1% in Field of Computer Science

Verified Reviews: **172** (Median: 1 & 99th Percentile)

Employment Backgrounds & Academic Experiences



Academic Experiences

Past

- Visiting scholar at Korea University, Seoul, South Korea (July-August, 2019).
- Post-doctoral research fellow at Nanyang Technological University, Singapore (Feb. 2016 ~ Feb. 2017).
- Post-doctoral research fellow at Korea University, South Korea (Sep. 2013 ~ Sep. 2015).
- Research assistant at University of Malaya (Aug. 2011 ~ Aug. 2013).
- Supervising 3 MSc students and 2 PhD candidates at University of Malaya (2010~2013).
- Supervising graduate students (Water lab), at Korea University, Korea (2013 ~ 2015).
- Lecturer at Islamic Azad University of Robat Karim, Tehran, Iran (Sep. 2017 ~ Sep 2018) (Teaching Code: 308298406689501, Internal Code: 95134).
- Lecturer at Islamic Azad University of Parand, Tehran, Iran (Sep. 2017 ~ Sep. 2018) (Teaching Code: 308298406689501, Internal Code: 961352).
- Lecturer and guest assistant professor at Sharif University of Technology, Tehran, Iran (June 2017 ~ Nov. 2018).

Present

- Assistant Professor at University of Science and Culture, Tehran, Iran (Feb. 2018 ~ Present).
- Online Lecturer at FaraDars, Course Taught: "Water Cycle Algorithm for solving unconstrained, constrained, and discrete optimization problems" (In Persian).
- Online Lecturer at FaraDars, Course Taught: "Teaching Technical English to Mechanical Engineers" (In Persian).

Industrial Experiences

Past

- Served as researcher at a manufacture factory in order to carry out the MSc final project, Semnan, Iran, (Aug. 2009 ~ Aug. 2010).
- Assemble manager at a computer assembling company, Semnan, Iran, (Sep. 2006 ~ Sep. 2008).
- Consulter of engineering and design section at Razi Metallurgical Research Center (Founded 1982).

Present

- Designer and consultant of cold roll forming products at Avin Sanat Company, 2007 ~ present.

Teaching & Lecturing Experience



I am a firm believer in active learning, and I try to maintain a very lively and interactive classroom. To me, teaching is not about lecturing to students; it is about presenting theories, concepts, and empirical material to students in a way that they can integrate this information into their own life experience. I try to accomplish this not only in my presentations and lectures, but in the questions that structure classroom discussion and, particularly, in writing assignments. Below are my taught courses and interested courses based on my study background and research experience:

Taught Courses (2009 ~ Present):

Past

- Engineering Drawing, at University of Malaya (Oct. 2012 ~ Mar. 2013).
- Introduction to optimization Theory & Neural Networks, Course Code: ACE538 (graduate students), at Korea University, Seoul, South Korea (Jun. 2015 ~ Sep. 2015).
- Numerical Computation in Engineering, at Korea University, Seoul. South Korea, (Aug. 2014 ~ Sep. 2015).
- Strength of Material I, at Robat Karim Azad University (Sep. 2017 ~ Aug. 2018).
- Numerical Optimization, at Robat Karim Azad University (Sep. 2017 ~ Aug. 2018).
- Elasticity, at Robat Karim Azad University (Sep. 2017 ~ Aug. 2018).
- Statics, at Robat Karim Azad University (Sep. 2017 ~ Aug. 2018).
- Statics, at Parand Azad University, Tehran, Iran (Sep. 2017 ~ Aug. 2018).
- Statics, at Sharif University of Technology, Tehran, Iran (Feb. 2018 ~ Jun 2018).
- Strength of Material II, at University of Science and Culture, Tehran, Iran (Feb. 2018 ~ Jun 2018).

Present

- Teaching Technical English to Mechanical Engineers, at University of Science and Culture, Tehran, Iran (Feb. 2018 ~ Present).
- Element of Mechanical Engineering Design, at University of Science and Culture, Tehran, Iran (Nov. 2018 ~ Present).
- Finite Elements in Engineering, at University of Science and Culture, Tehran, Iran (Nov. 2018 ~ Present).
- Principles of Materials Science and engineering, at University of Science and Culture, Tehran, Iran (Nov. 2018 ~ Present).

- Engineering Mechanics: Dynamics, at University of Science and Culture, Tehran, Iran (Sep. 2019 ~ Present).
- Optimum Design in Engineering, at University of Science and Culture, Tehran, Iran (Sep. 2024 ~ Present).
- Research Methodology, at University of Science and Culture, Tehran, Iran (Sep. 2024 ~ Present).

Selected Graduated BS & MSc students:

- Mr. Fooghani, Thesis Title: "Manufacture of laboratory prototype 3D printer machine by means of Fused Deposition Modeling method"
- Mr. Ardehali, Thesis Title: "Optimum orientation of solar panels: Chabahar case study (Published at Sustainable Computing: Informatics and Systems)"
- Mrs. Shafee, Thesis Title: "Discussion of diesel engine turbochargers using GASTURB and MATLAB softwares"
- Mr. Mojtaba Ershad, Thesis Title: "Unmanned air vehicles optimization using simulated annealing optimization method" (Published at ICHSA 2022)
- Mr. Ali Shayegani, Thesis Title: "Static analysis of cylindrical pressure vessels using finite element method"
- Mr. Naser Abed, Thesis Title: "Optimization of multi-pass face milling via neural network algorithm"
- Mr. Mohammad Sadeghi, Thesis Title: "Weight and power optimization of spur gears using metaheuristics and finite element method" (Published at ICHSA 2022)
- Mr. Hossein Jahanshiri, Thesis Title: "Multi-Objective Metaheuristic Approach for Analyzing Static and Dynamic Behaviors of Functionally Graded Timoshenko Beams" (Published at Mechanics of Advanced Materials and Structures)
- Mrs. Golsa Sarvari, Thesis Title: "Beam Topology Optimization Using Finite Element and Metaheuristic Approaches"

Some Interested Courses:

- Elementary Heat Transfer
- Theory of Plates and Shells
- Introduction to Artificial Neural Network and Fuzzy System
- Engineering optimization
- Metaheuristics and Global Optimization

Additional Skills



Computer & Software Skills:

- Microsoft office (WORD, EXCEL, POWERPOINT, VISIO), Latex.
- Mechanical engineering software (CAD/CAE) including ABAQUS, ANSYS, SOLIDWORKS, AUTOCAD, and CATIA.
- Industrial engineering software such as LINGO, LINDO, Minitab.
- WordPress (Site design software)

Practical Skills:

- Having experience in practical activities such as welding and plating.
- Ability in assembling all parts and hardware of PC and laptops.

Programming Languages:

- MATLAB (Advanced)
- Python (Advanced)

Languages Proficiency & International Experiences



- Farsi (Persian): Mother tongue (Native)
- English: Total score TOEFL iBT= 87 (Received Date: 01/16/2010)

  Reading: Excellent Writing: Excellent Listening: Excellent Speaking: Fluent
- Germany: Basic (10 months living in Germany when I was 10 years old)
- Korean: Introductory (Living for 2 years as a post-doc research fellow)

International Experiences ("Purpose"):

- Iran (Motherland Country)
- Germany (Mainz, Dortmund, and Düsseldorf) "Visiting"
- France (Paris, Nantes) "Visiting"
- Netherland "Visiting"
- Belgium "Visiting"
- China (Beijing, Shanghai, Hangzhou, and Kunming) "Visiting & Conference"
- Malaysia (Kuala Lumpur, Johor, Penang, Perlis, and Melaka) "PhD Program"
- Saudi Arabia (Mecca, Medina, and Jeddah) "Visiting"
- Indonesia (Medan) "Visiting"
- Hong Kong "Conference for 2 times"

- Singapore “Post-Doctoral Position”
- South Korea (Seoul, Busan, Ulsan, Daegu, and Incheon) “Post-Doctoral Position”
- Thailand (Phuket) “Conference”
- United State of America (New York City, New York) “Conference”
- India (Silchar, Agra, Delhi, Gurgaon) “Conference”
- Japan (Sendai, Tokyo) “Conference”
- Spain (Bilbao) “Conference”

Certificate of Technical Documents



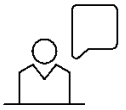
- Degree of technical standard ISO/TS 16949:2002, NIS CERT Company.
- Degree of internal auditor ISO/TS 16949:2002, NIS CERT Company.
- Degree of welding inspector, PASACO Company (NDT LEVEL II PT, MT).

Membership Affiliations



- Member of Young Researchers and Elite club (Membership No.: 9586123002)
- Member of Iranian Organization for Engineering Order of Building (Mechanical Engineer)
- Professional member of ASME (Membership No.: 100310631)
- Professional member of IEEE (Membership No.: 91081107)
- Professional member of IEEE Computational Intelligence Society (CIS)
- Professional member of Big Data Community, IEEE
- Professional member of Cloud Computing Community, IEEE

References



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Declaration



I, hereby, state that the statements made above are true to the best of my knowledge and belief. For further information, please feel free to contact me.

Ali Sadollah

