



Saeid Kazemzadeh Azad, Ph.D.

Professor

Atilim University

Department of Civil Engineering

06830 İncek, Gölbaşı, Ankara/TURKEY

saeid.azad@atilim.edu.tr

Tel: +90 312 586 83 53

EDUCATION

2010-2014	Middle East Technical University, Structural Engineering, Ph.D.
2007-2009	University of Tabriz, Structural Engineering, M.Sc.
2000-2004	University of Tabriz, Civil Engineering, B.Sc.

ACADEMIC POSITIONS

October/2024	Professor, Department of Civil Engineering, Atilim University
October/2019	Associate Professor, Department of Civil Engineering, Atilim University
October/2014	Assistant Professor, Department of Civil Engineering, Atilim University

ADMINISTRATIVE DUTIES

September/2016	Erasmus+ Departmental Coordinator, Atilim University
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HONORS&AWARDS

1	Listed among the world's top 2% scientists published by Stanford University and Elsevier, 2023.
2	Listed among the world's top 2% scientists published by Stanford University and Elsevier, 2022. (Link: https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/4)
3	METU Thesis of the Year Award, Prof. Dr. Mustafa Parlar Education and Research Foundation, 2014.

RESEARCH INTERESTS

1	Evolutionary Algorithms
2	Structural Optimization
3	Artificial Intelligence
4	Data Science
5	Machine Learning

SELECTED PUBLICATIONS

1	Kazemzadeh Azad, S., Kazemzadeh Azad, S. (2023) A standard benchmarking suite for structural optimization algorithms: ISCSO 2016–2022, <i>Structures</i> , 58, 105409.
2	Kazemzadeh Azad, S., Aminbakhsh, S. (2022) ϵ -constraint guided stochastic search with successive seeding for multi-objective optimization of large-scale steel double-layer grids, <i>Journal of Building Engineering</i> , 46, 103767.
3	Kazemzadeh Azad, S., Akış, T. (2022) Metaheuristic optimization of rotating multilayer composite tubes under internal heating and pressure, <i>IJST, Transactions of Mechanical Engineering</i> , 46, 253-273.
4	Kazemzadeh Azad, S. (2021) Design optimization of real-size steel frames using monitored convergence curve, <i>Structural and Multidisciplinary Optimization</i> , 63, 267–288.
5	Kazemzadeh Azad, S., Aminbakhsh, S. (2021) High-dimensional optimization of large-scale steel truss structures using guided stochastic search, <i>Structures</i> , 33: 1439-1456.
6	Kazemzadeh Azad, S., Aminbakhsh, S., Samer S.S. Shaban (2021) Multi-stage guided stochastic search for optimization and standardization of free-form steel double-layer grids, <i>Structures</i> , 34, 678-699.
7	Kazemzadeh Azad, S., Akış, E. (2020) Cost efficient design of mechanically stabilized earth walls using adaptive dimensional search algorithm, <i>Teknik Dergi</i> , 31(4), 10167- 10188.
8	Kazemzadeh Azad, S. (2019) Monitored convergence curve: a new framework for metaheuristic structural optimization algorithms, <i>Structural and Multidisciplinary Optimization</i> , 60(2), 481-499, 2019.
9	Kazemzadeh Azad, S., Akış, T. (2019), A Study of Shrink-Fitting for Optimal Design of Multi-Layer Composite Tubes Subjected to Internal and External Pressure, <i>IJST, Transactions of Mechanical Engineering</i> , 43, 451–467
10	Bybordiani, M., Kazemzadeh Azad, S. (2019) Optimum design of steel braced frames considering dynamic soil-structure interaction, <i>Structural and Multidisciplinary Optimization</i> , 60(3),1123-1137, 2019.
11	Akış, T., Kazemzadeh Azad, S (2019), Structural Design Optimization of Multi-layer Spherical Pressure Vessels: A Metaheuristic Approach, , <i>IJST, Transactions of Mechanical Engineering</i> , 43, 75-90.
12	Hasançebi, O., Kazemzadeh Azad, S. (2019) Discrete sizing of steel frames using adaptive dimensional search algorithm, <i>Periodica Polytechnica Civil Engineering</i> , 63 (4), 1062–1079.
13	Kazemzadeh Azad, S., Akış, T. (2018) Automated selection of optimal material for pressurized multi-layer composite tubes based on an evolutionary approach, <i>Neural Computing and Applications</i> , 29, 405-416.
14	Kazemzadeh Azad, S. (2018), Seeding the initial population with feasible solutions in metaheuristic optimization of steel trusses, <i>Engineering Optimization</i> , 50, 89-105.
15	Kazemzadeh Azad, Saeid, M Bybordiani, Kazemzadeh Azad, Sina, FKJ. Jawad, (2018), Simultaneous size and geometry optimization of steel trusses under dynamic excitations, <i>Structural and Multidisciplinary Optimization</i> 58 (6), 2545–2563.
16	Kazemzadeh Azad, S. (2017), Enhanced hybrid metaheuristic algorithms for optimal sizing of steel truss structures with numerous discrete variables, <i>Structural and Multidisciplinary Optimization</i> , 55, 2159-2180.
17	Kazemzadeh Azad, S., Hasançebi, O. (2015), Computationally Efficient Discrete Sizing of Steel Frames via Guided Stochastic Search Heuristic, <i>Computers and Structures</i> , 156, 12-28.
18	Kazemzadeh Azad, S., Hasançebi, O. (2015), Discrete sizing optimization of steel trusses under multiple displacement constraints and load cases using guided stochastic search technique, <i>Structural and Multidisciplinary Optimization</i> , 52, 383-404.
19	Hasançebi, O., Kazemzadeh Azad, S. (2015), Adaptive Dimensional Search: A New Metaheuristic Algorithm for Discrete Truss Sizing Optimization, <i>Computers and Structures</i> , 154, 1-16.
20	Hasançebi, O., Kazemzadeh Azad, S. (2015), Improving computational efficiency of bat-inspired algorithm in optimal structural design, <i>Advances in Structural Engineering</i> , 18, 7, 1003-1015.

21	S. Kazemzadeh Azad, O. Hasançebi, MP. Saka, Guided stochastic search technique for discrete sizing optimization of steel trusses: A design-driven heuristic approach, <i>Computers and Structures</i> , 134, 62-74, 2014.
22	O. Hasançebi, S. Kazemzadeh Azad, An exponential big bang-big crunch algorithm for discrete design optimization of steel frames, <i>Computers and Structures</i> , 110-111: 167-179, 2012.
23	S. Kazemzadeh Azad, O. Hasançebi, An Elitist Self-Adaptive Step-Size Search for Structural Design Optimization, <i>Applied Soft Computing</i> , 19, 226-235, 2014.
24	Saeid Kazemzadeh Azad, Oğuzhan Hasançebi, Sina Kazemzadeh Azad, Upper bound strategy for metaheuristic-based design optimization of steel frames, <i>Advances in Engineering Software</i> , 57, 19-32, 2013.
25	S. Kazemzadeh Azad, O. Hasançebi, S. Kazemzadeh Azad, O. K. Erol, Upper Bound Strategy in Optimum Design of Truss Structures: A Big Bang-Big Crunch Algorithm Based Application, <i>Advances in Structural Engineering</i> , 16 (6), 1035-1046, 2013.
26	O. Hasançebi, S. Kazemzadeh Azad, Discrete size optimization of steel trusses using a refined big bang-big Crunch Algorithm, <i>Engineering Optimization</i> , 46(1), 61-83, 2014.
27	S. Kazemzadeh Azad, O. Hasançebi, Improving Computational Efficiency of Particle Swarm Optimization for Optimal Structural Design, <i>International Journal of Optimization in Civil Engineering</i> , 3(4), 563-574, 2013.
28	Saeid Kazemzadeh Azad, Sina Kazemzadeh Azad, O. Hasançebi, Structural Optimization Problems of the ISCSO 2011-2015: A Test Set, <i>International Journal of Optimization in Civil Engineering</i> , 6 (4), 629-638, 2016.
29	S. Kazemzadeh Azad, O. Hasançebi, Optimum design of skeletal structures using metaheuristics: a survey of the state-of-the-art, <i>International Journal of Engineering and Applied Sciences</i> , 6(3), 1-11, 2014.
30	Saeid Kazemzadeh Azad, O. Hasançebi, , Sina Kazemzadeh Azad, computationally efficient optimum design of large-scale steel frames, <i>International Journal of Optimization in Civil Engineering</i> , 4(2): 233-259, 2014.
31	Saeid Kazemzadeh Azad, Sina Kazemzadeh Azad, Anand Jayant Kulkarni, Structural Optimization Using a Mutation-Based Genetic Algorithm, <i>International Journal of Optimization in Civil Engineering</i> , 2(1), 80-100, 2012.
32	O. Hasançebi, Saeid Kazemzadeh Azad, Sina Kazemzadeh Azad, Automated sizing of truss structures using a computationally improved SOPT algorithm, <i>International Journal of Optimization in Civil Engineering</i> , 3(2), 209-221, 2013.
33	O. Hasançebi, S. Kazemzadeh Azad, An efficient metaheuristic algorithm for engineering Optimization: SOPT, <i>International Journal of Optimization in Civil Engineering</i> , 2(4), 479-487, 2012.
34	S. Kazemzadeh Azad, O. Hasançebi, O. K. Erol, Evaluating efficiency of big-bang big-crunch algorithm in benchmark engineering optimization problems, <i>International Journal of Optimization in Civil Engineering</i> , 1(3), 495-505, 2011.
35	Sina Kazemzadeh Azad, Saeid Kazemzadeh Azad, Optimum Design of Structures Using an Improved Firefly Algorithm, <i>International Journal of Optimization in Civil Engineering</i> , 1(2), 327-340, 2011.

SELECTED CONFERENCE PRESENTATIONS

1	S. Kazemzadeh Azad, Reducing computation cost of evolutionary optimization algorithms in structural engineering Applications, Workshop on Optimisation, Metric Bounds, Approximation and Transversality (WOMBAT), The University of Sydney, Australia, 2023.
2	S. Kazemzadeh Azad, Combinatorial optimization in structural engineering: recent trends and future needs, 17th Cologne-Twente Workshop on Graphs & Combinatorial Optimization (CTW 2019), University of Twente, Enschede, Netherlands, 2019.
3	S. Kazemzadeh Azad, Computer-aided design optimization in structural engineering using metaheuristics, 12th International Conference on Advanced Computational Engineering and Experimenting (ACE-X), Amsterdam, Netherlands, 2018.
4	S. Kazemzadeh Azad, Elitist population size reduction for computationally efficient optimum design of real-size steel structures using evolutionary algorithms, 11th International Conference on Advanced Computational Engineering and Experimenting (ACE-X), Vienna, Austria, 2017.
5	S. Kazemzadeh Azad, Evaluating sensitivity of stochastic search techniques to profile list ordering in discrete sizing of steel frames, 11th ASMO UK / ISSMO conference on Engineering Design Optimization / NOED2016, Technical University of Munich, Germany, 2016.
6	O. Hasançebi and S. Kazemzadeh Azad, Improving the Big Bang-Big Crunch Algorithm for Optimum Design of Steel Frames, in B.H.V. Topping, (Editor), Proceedings of the Eighth International Conference on Engineering Computational Technology, Civil-Comp Press, Stirlingshire, UK, Paper 52, 2012.
7	Kulkarni, A.J., Kale, I.R., Tai, K. and Kazemzadeh Azad, S. (2012) "Discrete Optimization of Truss Structure Using Probability Collectives", in Proceedings of the 12th International Conference on Hybrid Intelligent Systems (HIS2012), IEEE, Pune, India, 4-7 December 2012, pp.225-230, doi: 10.1109/HIS.2012.6421338.
8	K. Koohestani, S. Kazemzadeh Azad, "An Adaptive Real-Coded Genetic Algorithm for Size and Shape Optimization of Truss Structures", in B.H.V. Topping, Y. Tsompanakis, (Editors), "Proceedings of the First International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering", Civil-Comp Press, Stirlingshire, UK, Paper 13, 2009.

COURSES TAUGHT

1	Structural Analysis (CE 321)
2	Structural Optimization (CE 423)
3	Advanced Structural Analysis (CE 519)
4	Analysis of Framed Structures (CE 444)
5	Basic Mechanics II: Dynamics (CE 202)
6	Optimization in Civil Engineering (CE 523)

EDITORIAL BOARD/ SCIENTIFIC / ADVISORY COMMITTEE MEMBERSHIPS

1	International Journal of Optimization in Civil Engineering
2	The 16th International Conference on Evolutionary Computation Theory and Applications, Porto, Portugal, 2024.
3	The 15th International Conference on Evolutionary Computation Theory and Applications, Rome, Italy, 2023.
4	The 14th International Conference on Evolutionary Computation Theory and Applications, Malta, 2022.
5	The 1st International Conference on Intelligent Systems and Applications, India, May 2022.
6	The 6th International Conference on Harmony Search, Soft Computing and Applications, ICHSA 2020, Istanbul, Turkey, 2020.
7	The 8th International Steel Structures Symposium, Konya, Turkey, October 2019.
8	The 7th International Steel Structures Symposium, Gaziantep, Turkey, October 2017.