

CV

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Position **University of Miami**, Coral Gable, FL, USA Jan 2023–Current
In the Field of Structure with Prof. [Antonio Nanni](#)
Research Assistant, Structural Engineering, Dept. of Civil and Arch Engineering

Florida International University, Miami, FL, USA May 2022–Dec 2022
Research Assistant, Wind Engineering, Dept. of Civil Engineering

Iran University of Science and Technology, Tehran, Iran Sep 2016–Jan 2021
Research Assistant, Dept. of Civil Engineering
In the Field of Structure Optimization with Prof. [Ali Kaveh](#)

Nakhjevani Academy, Tabriz, Iran Nov 2016–Nov 2021
Scholastic Assessment Test (SAT) Tutor-Math

Nakhjevani Academy, Tabriz, Iran Nov 2016–Nov 2021
Graduate Record Examination (GRE) Tutor-Math

Education **University of Miami**, Coral Gable, FL, USA Jan 2023–Current
Ph.D.(Second) Material and Structural Engineering with Prof. [Antonio Nanni](#)

Iran University of Science and Technology, Tehran, Iran Sep 2016–Jan 2021
Ph.D. (First) Structural Engineering - Optimization of 3D Frames with New Approach Using Different Shaped Sections; A Comparative Study with Prof. [Ali Kaveh](#)
GPA: 3.90/4.00 (19.30/20)

University of Tabriz, Tabriz, Iran Sep 2014–Jul 2016
M.Sc. Structural Engineering - Optimal Design of Steel Box Column Using Charged System Search (CSS) Algorithm with Prof. [Siamak Talatahri](#)
GPA: 3.93/4.00 (19.69/20)

University of Tabriz, Tabriz, Iran Sep 2010– Jul 2014
B.Sc. Civil Engineering
GPA: 3.23/4.00 (16.33/20)

Awards

- Student of year at 9th Annual Toppel Awards at University of Miami 2024
- ACI Fellowship foundation 2024
- SEI Futures Fund Student Scholarship 2024
- Wulkan Family American Public Transportation Foundation Endowed Scholarship 2023
- Awarded a Non-Academic Research Internships for Graduate Students (INTERN) 2023
- Academic Excellence Awardees, University of Miami 2023

- 1st rank among students at Iran University of Science and Technology, Department of Civil Engineering 2020
- 1st rank among students at Iran University of Science and Technology, Department of Civil Engineering 2021
- Obtaining an award for Iran's National Elites Foundation 2019
- 1st rank among researchers at Iran University of Science and Technology, Department of Civil Engineering 2019
- Obtaining awards for Iran's National Elites Foundation 2018
- Province Educational Gold Medal: Awarded by the University of Tabriz, Master of Science (M.Sc.) 2017
- M.Sc. thesis marked, 20 out of 20 2016
- 1st rank among students at University of Tabriz Master of Science (M.Sc.) 2016
- Among 1% of approximately 30,000 Participants Who Passed Iranian Nationwide Universities' Master Entrance Exam in the Field of Civil Engineering 2010
- 1230th rank among more than 310,000 participants in Iranian National University Entrance Exam in the whole country 2010
- 1st rank student for four consecutive years of high-school and pre-university curriculum 2010–2016

Voluntary Activities

- E-Board of ACI's Task Group on Artificial Intelligence
- ACI 135 Committee Voting Member- Machine Learning-Informed Construction and Design
- E-Board of Graduate Student Association (GSA) at University of Miami
- ACI 130-00 Committee Member- Sustainability of Concrete
- ACI 440-00 Committee Member- Fiber Reinforced Polymer Reinforcement
- ACI 440-0G Committee Member- FRP Student
- Teaching physics and mathematics to high school poor students as a charity
- Transplant Organ Procurement Unit Member
- Blood Donation Group Member
- Disaster Engineering Assistance Team (Varzeghan & Kermanshah Earthquakes)

Publications – Papers

54. **Khodadadi, N.**, Roghani, H., DeCaso, F., El-kenawy, E. M., Yesha, Y., Nanni, N., (2024), Data-driven PSO-CatBoost machine learning model to predict the compressive strength of CFRP- confined circular Concrete Specimens, *Thin-Walled Structures*.(IF: 6.4 [-link](#))
53. Golafshani, E., **Khodadadi, N.**, Ngo, T., Nanni, A., Behnood, A., (2024), Modelling the compressive strength of geopolymer recycled aggregate concrete using ensemble machine learning, *Advances in Engineering Software*.(IF: 4.8 [-link](#))
52. Zhao, W, Wang, L, Zhang, Z, Fan, H, Zhang, J, Mirjalili, S. A, **Khodadadi, N.**, Cao, Q, (2024), Electric Eel Foraging Optimization: A new bio-inspired optimizer for engineering applications, *Expert Systems with Applications*.(IF: 8.5 [-link](#))
51. El-kenawy, E. M, **Khodadadi, N.**, Mirjalili, S. A, Abdelhamid, A. A, M Eid, M. M, Ibrahim, A, (2024), Greylag Goose Optimization: Nature-inspired optimization algorithm, *Expert Systems with Applications*.(IF: 8.5 [-link](#))
50. Abdollahzadeh, B, **Khodadadi, N.**, Barshandeh, S., Pavel Trojovský, P., Gharehchopogh, F. S., El-kenawy, E. S., Abualigah, L., Mirjalili, S. A., (2024), Puma optimizer (PO): a novel metaheuristic optimization algorithm and its application in machine learning, *Cluster Computing*.(IF: 4.4 [-link](#))
49. Zaki, M. A., **Khodadadi, N.**, Towfek, S. K., (2024), Predictive Analytics and Machine Learning in Direct Marketing for Anticipating Bank Term Deposit Subscriptions, *American Journal of Business and Operations Research*.(IF: - [-link](#))

48. Alzubi, S., Abualigah, L., Sharaf, M., Daoud, M., **Khodadadi, N.**, Jia, H., (2023), Synergistic Swarm Optimization Algorithm, *Computer Modeling in Engineering and Sciences*.(IF: 2.4 [-link](#))
47. Mirdarsoltany, M, Roghani, H, Tale Masoule, M. S, **Khodadadi, N.**, Ghahremaninezhad, A, Nanni, N, (2023), Evaluating GFRP bars under axial compression and quantifying load-damage correlation, *Construction and Building Materials*.(IF: 7.4 [-link](#))
46. Afrasyabi, P, Mesgari, M. S, El-sayed, M, Kaveh, M, Ibrahim, A, **Khodadadi, N.**, (2023), A crossover-based multi-objective discrete particle swarm optimization model for solving multi-modal routing problems, *Decision Analytics Journal*.(IF: - [-link](#))
45. Tarek, Z, Shams, M. Y, Towfek, S. K, Alkahtani, H. K, Ibrahim, A, Abdelhamid, A. A, Eid, M. M, **Khodadadi, N.**, Abualigah, L, Khafaga, D. S, Elshewey, A. M, **Khodadadi, N.**, (2023), An Optimized Model Based on Deep Learning and Gated Recurrent Unit for COVID-19 Death Prediction, *Biomimetics*.(IF: 4.5 [-link](#))
44. Elshewey, A. M, Shams, M. Y, Tawfeek, S. M, Alharbi, A. H, Ibrahim, A, Abdelhamid, A. A, Eid, M. M, **Khodadadi, N.**, Abualigah, L, Khafaga, A. S, Tarek, Z, **Khodadadi, N.**, (2023), Optimizing HCV Disease Prediction in Egypt: The hyOPTGB Framework, *Diagnostics*.(IF: 3.6 [-link](#))
43. Harati Khalilabad, E, Emparanza, A. R, De Caso, F, Roghani, H, **Khodadadi, N.**, Nanni, N. (2023), Characterization Specifications for FRP Pultruded Materials: From Constituents to Pultruded Profiles, *Fibers*.(IF: [-link](#))
42. **Khodadadi, N.**, Khodadadi, E, Al-Tashi, Q, El-Kenawy, E. M, Abualigah, L, Abdulkadir, S. J, Alqushaibi, A, Mirjalili, S. A(2023), BAOA: binary arithmetic optimization algorithm with K-nearest neighbor classifier for feature selection, *IEEE Access*.(IF: 3.9 [-link](#))
41. **Khodadadi, N.**, Khodadadi, E, Al-Tashi, Q, El-Kenawy, E. M, Abualigah, L, Abdulkadir, S. J, Alqushaibi, A, Mirjalili, S. A(2023), BAOA: binary arithmetic optimization algorithm with K-nearest neighbor classifier for feature selection, *Journal of Artificial Intelligence and Metaheuristics (JAIM)*.
40. **Khodadadi, N.**, El-Kenawy, E.S.M., De Caso, F., Alharbi, A.H., Khafaga, D.S. and Nanni, A., (2023), The Mountain Gazelle Optimizer for truss structures optimization, *Applied Computing and Intelligence*.(IF: - [-link](#))
39. **Khodadadi, N.**, Harati, E., De Caso, F., Nanni, A., (2023), "Optimizing Truss Structures Using Composite Materials under Natural Frequency Constraints with a New Hybrid Algorithm Based on Cuckoo Search and Stochastic Paint Optimizer (CSSPO), *Buildings*.(IF: 4.26 [-link](#))
38. **Khodadadi, N.**, Çiftçioğlu, A. Ö, Mirjalili, S., Nanni, A., (2023), A comparison performance analysis of eight meta-heuristic algorithms for optimal design of truss structures with static constraints, *Decision Analytics Journal*.(IF: - [-link](#))
37. Zhao, W., Wang, L., Zhang, Z., Mirjalili, S., Khodadadi, N. and Ge, Q., (2023), Quadratic Interpolation Optimization (QIO): A new optimization algorithm based on generalized quadratic interpolation and its applications to real-world engineering problems, *Computer Methods in Applied Mechanics and Engineering*.(IF: 7.2 [-link](#))
36. Abualigah, L., Oliva, D., Jia, H., Gul, F., **Khodadadi, N.**, Hussien, A.G., Shinwan, M.A., Ezugwu, A.E., Abuhaija, B. and Zitar, R.A., (2023), Improved prairie dog optimization algorithm by dwarf mongoose optimization algorithm for optimization problems, *Multimedia Tools and Applications*.(IF: 3.6 [-link](#))
35. Abdelhamid, A.A., El-kenawy, E.S.M., Ibrahim, A., Eid, M.M., Khafaga, D.S., Alhusan, A.A., Mirjalili, S., **Khodadadi, N.**, Lim, W.H. and Shams, M.Y., (2023), Innovative Feature Selection Method Based on Hybrid Sine Cosine and Dipper Throated Optimization Algorithms, *IEEE Access*.(IF: 3.367 [-link](#))

34. Alharbi, A.H., Towfek, S.K., Abdelhamid, A.A., Ibrahim, A., Eid, M.M., Khafaga, D.S., **Khodadadi, N.**, Abualigah, L. and Saber, M., (2023) Diagnosis of Monkeypox Disease Using Transfer Learning and Binary Advanced Dipper Throated Optimization Algorithm, *Biomimetics*.(IF: 4.5 [-link](#))
33. Alhussan, A.A., Abdelhamid, A.A., Towfek, S.K., Ibrahim, A., Abualigah, L., **Khodadadi, N.**, Khafaga, D.S., Al-Otaibi, S. and Ahmed, A.E., (2023), Classification of Breast Cancer Using Transfer Learning and Advanced Al-Biruni Earth Radius Optimization, *Biomimetics*.(IF: 4.5 [-link](#))
32. Alharbi, A.H., Abdelhamid, A.A., Ibrahim, A., Towfek, S.K., **Khodadadi, N.**, Abualigah, L., Khafaga, D.S., Ahmed, A.E.(2023), Improved Dipper-Throated Optimization for Forecasting Metamaterial Design Bandwidth for Engineering Applications, *Biomimetics*.(IF: 4.5 [-link](#))
31. Abdelhamid, A.A., Towfek, S.K., **Khodadadi, N.**, Alhussan, A.A., Khafaga, D.S., Eid, M.M. and Ibrahim, A., (2023), Waterwheel Plant Algorithm: A Novel Metaheuristic Optimization Method, *Processes*.(IF: 3.5 [-link](#))
30. **Khodadadi, N.**, Abualigah, L., Qasem Al-Tashi, Q., Mirjalili, S., (2023), Multi-objective chaos game optimization, *Neural Computing and Applications*.(IF: 5.102 [-link](#))
29. **Khodadadi, N.**, Talatahari, S. and Gandomi, A.H, (2023), ANNA: Advanced neural network algorithm for optimization of structures,*Proceedings of the Institution of Civil Engineers-Structures and Buildings*.(IF: 1.53 [-link](#))
28. El-Kenawy, E.S.M., Mirjalili, S., **Khodadadi, N.**, Abdelhamid, A.A., Eid, M.M., El-Said, M. and Ibrahim, A., (2023), Feature selection in wind speed forecasting systems based on meta-heuristic optimization,*Plose One*.(IF: 3.752 [-link](#))
27. Atteia, G., El-kenawy, E.S.M., Samee, N.A., Jamjoom, M.M., Ibrahim, A., Abdelhamid, A.A., Azar, A.T., **Khodadadi, N.**, Ghanem, R.A. and Shams, M.Y., (2023), Adaptive Dynamic Dipper Throated Optimization for Feature Selection in Medical Data, *Computer Systems Science and Engineering*.(IF: 4.39 [-link](#))
26. El Sayed, M., Abdelhamid, A.A., Ibrahim, A., Mirjalili, S., **Khodadadi, N.**, Alhussan, A.A. and Khafaga, D.S., (2023), Al-Biruni Earth Radius (BER) Metaheuristic Search Optimization Algorithm, *Computer Systems Science and Engineering*.(IF: 4.39 [-link](#))
25. Khafaga, D. S., Karim, F. K., Abdelhamid, A. A., El-Kenawy, E. M., Alkahtani, H. K., **Khodadadi, N.**, Hadwan, M., Ibrahim, A.,(2023), Voting Classifier and Metaheuristic Optimization for Network Intrusion Detection, *Computers, Materials and Continua*.(IF: 4.15 [-link](#))
24. Sharma, S.,**Khodadadi, N.**, Saha, A.K., Gharehchopogh, F.S. and Mirjalili, S., (2022), Non-dominated Sorting Advanced Butterfly Optimization Algorithm for Multi-objective Problems, *Journal of Bionic Engineering*.(IF:3.27 [-link](#))
23. Khafaga, D.S., Ibrahim, A., El-Kenawy, E.S.M., Abdelhamid, A.A., Karim, F.K., Mirjalili, S., **Khodadadi, N.**, Lim, W.H., Eid, M.M. and Ghoneim, M.E., (2022), An Al-Biruni Earth Radius Optimization-Based Deep Convolutional Neural Network for Classifying Monkeypox Disease, *Diagnostics*.(IF: 3.992 [-link](#))
22. Abdollahzadeh, B., Soleimani, G. F., **Khodadadi, N.** and Mirjalili, S., (2022), Mountain Gazelle Optimizer: A New Nature-inspired Metaheuristic Algorithm for Global Optimization Problems, *Advances in Engineering Software*.(IF: 4.141 [-link](#))
21. **Khodadadi, N.**, Abualigah, L., El-Kenawy, E. M., Snasel, V., and Mirjalili, S., (2022), An Archive-based Multi-Objective Arithmetic Optimization Algorithm for Solving Industrial Engineering Problems, *IEEE Access*.(IF: 3.367 [-link](#))
20. Nouhi, B., **Khodadadi, N.**, Azizi, M., Talatahari, S., and Gandomi, A. H., (2022), Multi-Objective Material Generation Algorithm (MOMGA) for Optimization Purposes, *IEEE Access*.(IF: 3.367 [-link](#))

19. El-Kenawy, M. E., **Khodadadi, N.**, Khoshnaw, A., Mirjalili, S., Alhussan, A. A., Khafaga, D. S., Ibrahim, A., Abdelhamid, A. A., (2022), Advanced Dipper-Throated Meta-Heuristic Optimization Algorithm for Digital Image Watermarking, *Applied Sciences*.(IF: 2.67 [-link](#))
18. Abdelhamid, A. A., El-Kenawy, M. E., **Khodadadi, N.**, Mirjalili, S., Khafaga, D. S., Alharbi, A. H., Ibrahim, A., M Eid, M., Saber, M., (2022), Classification of Monkeypox Images Based on Transfer Learning and the Al-Biruni Earth Radius Optimization Algorithm, *Mathematics*.(IF: 2.84 [-link](#))
17. M Eid, M., El-Kenawy, M. E., **Khodadadi, N.**, Mirjalili, S., Khodadadi, E., Abotaleb, M., Alharbi, A. H., Abdelhamid, A. A., Ibrahim, A., Amer, M. G., Kadi, A., Khafaga, D. S., (2022), Meta-Heuristic Optimization of LSTM-Based Deep Network for Boosting the Prediction of Monkeypox Cases, *Mathematics*.(IF: 2.84 [-link](#))
16. A Alsayadi, H.,**Khodadadi, N.**, and Kumar, S., (2022), Improving the Regression of Communities and Crime Using Ensemble of Machine Learning Models, *Journal of Artificial Intelligence and Metaheuristics*.([-link](#))
15. **Khodadadi, N.**, Soleimanian, G. F., and Mirjalili, S. (2022), MOAVOA: a new multi-objective artificial vultures optimization algorithm, *Neural Computing and Applications*.(IF: 5.606 [-link](#))
14. El-Kenawy, E. M., Mirjalili, S., Abdelhamid A. A., Ibrahim, A., **Khodadadi, N.**, Eid, M. M (2022), Meta-Heuristic Optimization and Keystroke Dynamics for Authentication of Smartphone Users, *Mathematics*(IF: 2.59 [-link](#))
13. Zhao, W., Zhang, Z., Mirjalili, S., Wang, L., **Khodadadi, N.**, Mirjalili, S. M, (2022), An effective multi-objective artificial hummingbird algorithm with dynamic elimination-based crowding distance for solving engineering design problems, *Computer Methods in Applied Mechanics and Engineering*.(IF: 6.756 [-link](#))
12. Azizi, M. ,Talatahari, S., **Khodadadi, N.**, and Sareh, P, (2022), Multi-Objective Atomic Orbital Search (MOAOS) for Global and Engineering Design Optimization, *IEEE Access*.(IF: 3.367 [-link](#))
11. **Khodadadi, N.**,Abualigah, L., and Mirjalili, S, (2022), Multi-objective Stochastic Paint Optimizer (MOSPO), *Neural Computing and Applications*.(IF: 5.606 [-link](#))
10. **Khodadadi, N.**, Talatahari, S. , and Dadras Eslamlou, A., (2022), MOTEO: a novel multi-objective thermal exchange optimization algorithm for engineering problems, *Soft Computing*.(IF: 6.725 [-link](#))
9. **Khodadadi, N.**, ,Snasel, V., and Mirjalili, S, (2022) Dynamic Arithmetic Optimization Algorithm for Truss Optimization Under Natural Frequency Constraints, *IEEE Access*.(IF: 3.367 [-link](#))
8. **Khodadadi, N.**, Mirjalili, S, (2022), Truss Optimization with Natural Frequency Constraints Using Generalized Normal Distribution Optimization, *Applied Intelligence*.(IF: 1.58 [-link](#))
7. **Khodadadi, N.**, Azizi, M. ,Talatahari, S., and Sareh, P, (2021), Multi-Objective Crystal Structure Algorithm (MOCryStAl): Introduction and Performance Evaluation, *IEEE Access*(IF: 3.367 [-link](#))
6. Kaveh, A., **Khodadadi, N.**, and Talatahari, S., (2021), A Comparative Study for the Optimal Design of Steel Structures Using CSS and ACSS Algorithms, *International Journal of Optimization in Civil Engineering*.(IF: 0.9 [-link](#))
5. Kaveh, A., Talatahari, S. and **Khodadadi, N.**, (2020), Stochastic Paint Optimizer: Theory and Application in Civil Engineering, *Engineering with Computers*. (IF: 5.030 [-link](#))
4. Kaveh, A., **Khodadadi, N.**, Farahmand Azar, B. and Talatahari, S., (2020), Optimal design of large-scale frames with an advanced charged system search algorithm using box-shaped sections, *Engineering with Computers*. (IF: 5.030 [-link](#))

3. Kaveh, A., Dadras Eslamlou, A. and **Khodadadi, N.**, (2020), Dynamic Water Strider Algorithm for Optimal Design of Skeletal Structures, *Periodica Polytechnica Civil Engineering*.(IF: 1.140–[link](#))
2. Kaveh, A., Talatahari, S. and **Khodadadi, N.**, (2019), The Hybrid Invasive Weed Optimization-Shuffled Frog-leaping Algorithm Applied to Optimal Design of Frame Structures, *Periodica Polytechnica Civil Engineering*. (IF: 1.140–[link](#))
1. Kaveh, A., Talatahari, S. and **Khodadadi, N.**, (2019), Hybrid Invasive Weed Optimization-Shuffled Frog-Leaping Algorithm for Optimal Design of Truss Structures, *Iranian Journal of Science and Technology, Transactions of Civil Engineering*.(IF: 0.975–[link](#))

Publications– Book Chapters

18. **Khodadadi, N.**, Mirjalili, S. Z., Mirjalili, S. M., Nadim-Shahraki, M. H., Mirjalili, S.. (2024) "Multi-objective archived-based whale optimization algorithm" Academic Press. Book Chapter: Handbook of Whale Optimization Algorithm.
17. **Khodadadi, N.**,El-kenawy, E. S. M., Eid, M. M., Azzi, Z., Abdelhamid, A. A., Mirjalili, S. (2024) "Whale optimization algorithm for optimization of truss structures with multiple frequency constraints" Academic Press. Book Chapter: Handbook of Whale Optimization Algorithm.
16. **Khodadadi, N.**,El-kenawy, E. S. M., Faridmarandi, S., Ghahfarokhi, M. S., Ibrahim, A., Mirjalili, S. (2024) "A novel version of whale optimization algorithm for solving optimization problems" Academic Press. Book Chapter: Handbook of Whale Optimization Algorithm.
15. Ibrahim, A., El-kenawy, E. S. M., **Khodadadi, N.**, Eid, M. M., Abdelhamid, A. A. (2024) "Guided whale optimization algorithm (guided WOA) with its application" Academic Press. Book Chapter: Handbook of Whale Optimization Algorithm.
14. **Khodadadi, N.**, Soleimanian, F. Gh, Abdollahzadeh, B., Mirjalili, S., (2023) "Space truss structures' optimization using metaheuristic optimization algorithms" Academic Press. Book Chapter: Comprehensive Metaheuristics.
13. Abdollahzadeh, B.,Soleimanian, F. Gh,**Khodadadi, N.**, Mirjalili, S., (2023) "Metaheuristics for clustering problems" Academic Press. Book Chapter: Comprehensive Metaheuristics.
12. Khazalah, A., Prasanthi, B., Thomas, D., Vello, N., Jayaprakasam, S., Sumari, P., Abualigah, L, E Ezugwu, A., Hanandeh, E. S.,**Khodadadi, N.**, (2023) "Image Processing Identification for Sapodilla Using Convolution Neural Network (CNN) and Transfer Learning Techniques" Springer. Book Chapter: Classification Applications with Deep Learning and Machine Learning Technologies
11. **Khodadadi, N.**,Mirjalili, S. M.,,Zhao, W., Zhang, Z., Wang, L. and Mirjalili, S., (2023) "Multi-Objective Artificial Hummingbird Algorithm" Springer. Book Chapter: Advances in Swarm Intelligence.[\(link\)](#)
10. Mirjalili, S.M, Mirjalili, S.Z,**Khodadadi, N.**, Snasel, V., and Mirjalili, S., (2023) "Grey Wolf Optimizer, Whale Optimization Algorithm, and Moth Flame Optimization for Optimizing Photonics Crystals " Springer. Book Chapter: Advances in Swarm Intelligence.[\(link\)](#)
9. Abdollahzadeh, B., Soleimanian, G. F,**Khodadadi, N.** and Mirjalili, S., (2023) "A Hybrid African Vulture Optimization Algorithm and Harmony Search: Algorithm and Application in Clustering" Springer. Book Chapter: Advances in Swarm Intelligence.[\(link\)](#)
8. **Khodadadi, N.**, Mirjalili, S.M, Mirjalili, S.Z, and Mirjalili, S., (2022) "Chaotic Stochastic Paint Optimizer (CSPO) " Springer. Book Chapter: Proceedings of 7th International Conference on Harmony Search, Soft Computing and Applications.[\(link\)](#)
7. **Khodadadi, N.**, Soleimanian, G. F, Abdollahzadeh, B., and Mirjalili, S., (2022) "AMHS: Archive-Based Multi-objective Harmony Search Algorithm " Springer. Book

Chapter: Proceedings of 7th International Conference on Harmony Search, Soft Computing and Applications.([link](#))

6. Mirjalili, S.Z, **Khodadadi, N.**, Sajeev, S., Saha, R., Mirjalili, S.M, and Mirjalili, S., (2022) "Evolutionary Population Dynamic Mechanisms for the Harmony Search Algorithm " Springer. Book Chapter: Proceedings of 7th International Conference on Harmony Search, Soft Computing and Applications.([link](#))
5. **Khodadadi, N.**, Mirjalili, S.M, and Mirjalili, S., (2022) "Multi-objective Moth-Flame Optimization Algorithm for Engineering Problems " CRC Press. Book Chapter: Handbook of Moth-Flame Optimization Algorithm: Variants, Hybrids, Improvements, and Applications.([link](#))
4. **Khodadadi, N.**, Mirjalili, S.M, and Mirjalili, S., (2022) "Optimal Design of Truss Structures with Continuous Variable Using Moth-Flame Optimization " CRC Press. Book Chapter: Handbook of Moth-Flame Optimization Algorithm: Variants, Hybrids, Improvements, and Applications.([link](#))
3. Mirjalili, S.M, Davar, S., **Khodadadi, N.**, and Mirjalili, S., (2022) "Design Optimization of Photonic Crystal Filter Using Moth-Flame Optimization Algorithm " CRC Press. Book Chapter: Handbook of Moth-Flame Optimization Algorithm: Variants, Hybrids, Improvements, and Applications.([link](#))
2. Al-Tashi, Q., Mirjalili, S., Wu, J., Abdulkadir, S.J, Shami, T.M, **Khodadadi, N.**, and Alqushaibi, A., (2022) "Moth-Flame Optimization Algorithm for Feature Selection: A Review and Future Trends " CRC Press. Book Chapter: Handbook of Moth-Flame Optimization Algorithm: Variants, Hybrids, Improvements, and Applications.([link](#))
1. Abualigah, A., Abd Elaziz, M., **Khodadadi, N.**, Forestiero, A., Jia, H., and Gandomi, A. H., (2022) "Aquila Optimizer Based PSO Swarm Intelligence for IoT Task Scheduling Application in Cloud Computing" Springer, Cham. Book Chapter: Integrating Meta-Heuristics and Machine Learning for Real-World Optimization Problems.([link](#))

Publications – Book

1. **Khodadadi, N.** and Broujerdian, V., (2020), *Introduction to Fracture Mechanic (In Persian)*, Iran University of Science and Technology Publications, Vol. 1, ISBN:978-964-454-502-3, Tehran, Iran.

Publications – Conferences

9. **Khodadadi, N.**, Roghani, H., De Caso, F., Yelena, Y., Mirjalili, S. and Nanni, N., (2024), Machine Learning Approach for the Flexural Strength of 3D-Printed Fiber-Reinforced Concrete (3DP-FRC) Based on the Meta-heuristic Algorithm with Sensitivity Analysis, *American Concrete Institute (ACI) Convention*, New Orleans, USA.
8. **Khodadadi, N.**, De Caso, F., and Nanni, N., (2024), Machine learning approach for the flexural strength of 3D-printed fiber-reinforced concrete (3DP-FRC) based on the meta-heuristic algorithm with sensitivity analysis, *Engineering Mechanics Institute Conference and Probabilistic Mechanics and Reliability Conference*, Chicago, USA.
7. **Khodadadi, N.**, Golafshani, E., Ngo, T., Behnood, A., De Caso, F., and Nanni, N., (2024), Modeling the compressive strength of geopolymers recycled aggregate concrete using ensemble machine learning, *Engineering Mechanics Institute Conference and Probabilistic Mechanics and Reliability Conference*, Chicago, USA.
6. **Khodadadi, N.**, De Caso, and Nanni, N., (2024), Training machine learning model with metaheuristic algorithms to predict the compressive strength of GFRP- confined circular concrete specimens, *Engineering Mechanics Institute Conference and Probabilistic Mechanics and Reliability Conference*, Chicago, USA.
5. **Khodadadi, N.**, De Caso, F., Yelena, Y., Mirjalili, S. and Nanni, N., (2023), Meta-Heuristic Optimization: Effective Machine Learning Techniques for Concrete Structures, *American Concrete Institute (ACI) Convention*, Boston, USA.

4. **Khodadadi, N.**,Roghani, H., De Caso, F.,Kenawy,S.K.,Yelena,Y.,and Nanni, N., (2023), PSO-CatBoost Machine Learning Model to Predict the Compressive Strength of CFRP- Confined Circular Concrete Columns, *American Concrete Institute (ACI) Convention*, Boston, USA.
3. Veladi, H. and **Khodadadi, N.**, (2020), A review of evaluation in seismic performance of wood building structures with numerical and experimental methods, *2nd International Congress On Engineering, Technology and Innovation*, Darmstadt University, Germany.
2. Veladi, H. and **Khodadadi, N.**, (2020), An experimental study on assessing behavior of quay walls under the action of irregular waves using Artificial Neural Network, *2nd. International Congress on science & Engineering*, Paris, France.
1. **Khodadadi, N.**, Pourabdollah, O. and Ali Ordoukhani, A., (2018), Lightweight steel structures and its advantages over traditional manufacturing methods, *Second National Conference on Structural Engineering of Iran*, Tehran, Iran.

Journals Editor

- **Editor Board:** Journal of Artificial Intelligence and Metaheuristics
- **Editor Board:** Big Data, AI, and the Environment (specialty section of Frontiers in Environmental Science)
- **Guest Editor:** Intelligent Automation & Soft Computing (Issues: Optimization Algorithm for Intelligent Computing Application)
- **Guest Editor:** Computers, Materials & Continua (Issues: Optimization for Artificial Intelligence Application)

Journals Reviewer

- Scientific Reports
- PLOS ONE
- IEEE Access
- Neurocomputing
- Applied Intelligence (APIN)
- Soft Computing
- Computational Intelligence and Neuroscience
- CMC-Computers, Materials and Continua
- Decision Analytics Journal
- Intelligent Automation & Soft Computing
- Frontiers in Energy Research
- Computer Systems Science and Engineering
- Artificial Intelligence Review

Patent

1. Kiddy Searcher Robot Raily 2018

Teaching experience

- University of Tabriz**, Tabriz, Iran 2014–2015
 Course: Engineering mathematics
- University of Tabriz**, Tabriz, Iran 2011–2014
 Course: Statics

Interests

- Concreteand advanced composite-based systems
- Structural Engineering
- Materials Engineering
- Optimal Analysis of Structures
- Machine Learning
- Evolutionary Algorithms
- Introduction, Improvement, Hybridization and Applications of DS Methods
- Steel Structures
- Data Science (DS)

Sport Awards	1st rank of Province Swimming Champion	2019
	1st rank of Province Soccer Champion	2018
	1st rank of Province Futsal Champion	2017

- Languages**
- English: Proficient & IELTS Score: 6.5 (L=7.5, R=6.5 S=6.5, W=6)
 - Kurdish: Native
 - Persian: as Native
 - Azari: as Native
 - Turkish: Proficient

skills

<u>Programming:</u>	MATLAB, FORTRAN, GIT, PYTHON, LATEX
<u>Engineering Softwares:</u>	OpenSees, Etabs, Sap, Safe, AutoCad
<u>Operating Systems:</u>	MacOs, IOS, Windows, Linux
<u>Statistical tools:</u>	R, SPSS, Minitab
<u>Sports:</u>	Having a Certified Lifeguard, professional Soccer player, professional swimmer
<u>Music Instrument:</u>	Playing Iranian Santoor