

# CV

## Personal Data:

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**Experience**      **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 - Explainable  
Artificial Intelligence for Concrete Technologies: Predictive Models and Applications  
with Prof. [Antonio Nanni](#) GPA: 3.90/4.00

**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

- ACI Fellowship foundation 2024
- John Ries Scholarship (Expanded Shale, Clay, and Slate Institute ) 2024
- ACI Emerging Leaders Conference for Young Professionals 2024
- Student of year at 9th Annual Toppel Awards at University of Miami 2024
- Structural Engineering Institute (SEI) Futures Fund Student Scholarship ASCE 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
- Obtaining an award for Iran's National Elites Foundation 2022
- 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 2021
- 1st rank among students at Iran University of Science and Technology, Department of Civil Engineering 2020
- Obtaining an award for Iran's National Elites Foundation 2020
- 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
- Obtaining an award for Iran's National Elites Foundation 2017
- Obtaining an award for Iran's National Elites Foundation 2016
- 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 243 Committee Member-Sea Water Concrete
- 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

64. **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](#))
63. Golafshani, E., **Khodadadi, N.**, Ngo, T., Nanni, A., Behnood, A., (2024), Modelling the compressive strength of geopolymers recycled aggregate concrete using ensemble machine learning, *Advances in Engineering Software*.(IF: 4.8 [-link](#))
62. **Khodadadi, N.**, Roghani, H., Harati, E., Mirdarsoltany, M., De Caso, F., Nanni, A. (2024), Fiber-reinforced polymer (FRP) in concrete: A comprehensive survey, *Construction and Building Materials*.(IF: 7.4 [-link](#))

61. **Khodadadi, N.**, Khodadadi, E., Abdollahzadeh, B., El-Kenawy, E. S. M., Mardanpour, P., Zhao, W., Mirjalili, S. (2024). Multi-objective generalized normal distribution optimization: a novel algorithm for multi-objective problems. *Cluster Computing*(IF: 3.6 [-link](#))
60. 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](#))
59. 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](#))
58. Abdollahzadeh, B,**Khodadadi, N.**, Barshandeh, S., Pavel Trojovský, P.,Gharehchopogh, F. S., EM 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](#))
57. Alharbi, A.H., Khafaga, D.S., Zaki, A.M., El-Kenawy, E.S.M., Ibrahim, A., Abdelhamid, A.A., Eid, M.M., El-Said, M., **Khodadadi, N.**, Abualigah, L. and Saeed, M.A., (2024). Forecasting of energy efficiency in buildings using multilayer perceptron regressor with waterwheel plant algorithm hyperparameter. *Frontiers in Energy Research*(IF:2.6 [-link](#))
56. Amiri, M. H., Mehrabi Hashjin, N., Montazeri, M., Mirjalili, S., **Khodadadi, N.** (2024). Hippopotamus optimization algorithm: a novel nature-inspired optimization algorithm. *Scientific Reports*(IF:4.6 [-link](#))
55. Alharbi, AH., Khafaga, D., El-kenawy, ES., Eid M., Ibrahim, A., Abualigah, L., **Khodadadi, N.**, Abdelhamid, A.(2024). Optimizing Electric Vehicle Paths To Charging Stations Using Parallel Greylag Goose Algorithm and Restricted Boltzmann Machines. *Frontiers in Energy Research*(IF:2.6 [-link](#))
54. Mehrabi Hashjin, N., Amiri, M. H., Mohammadzadeh, A., Mirjalili, S., **Khodadadi, N.** (2024). Novel hybrid classifier based on fuzzy type-III decision maker and ensemble deep learning model and improved chaos game optimization. *Cluster Computing*(IF: 3.6 [-link](#))
53. Towfek, S. K., **Khodadadi, N.** , Abualigah, L., Rizk, F. H. (2024). AI in Higher Education: Insights from Student Surveys and Predictive Analytics using PSO-Guided WOA and Linear Regression. *Journal of Artificial Intelligence in Engineering Practice*( [-link](#))
52. Abualigah L, Oliva D, Jia H, Gul F, **Khodadadi, N.**, Hussien AG, Shinwan MA, Ezugwu AE, Abuhaija B, Zitar RA., (2024),Improved prairie dog optimization algorithm by dwarf mongoose optimization algorithm for optimization problems, *Multi-media Tools and Applications*.(IF: 3 [-link](#))
51. El-Kenawy, E. S. M., Ibrahim, A., Abdelhamid, A. A., **Khodadadi, N.**, Abualigah, L., Eid, M. M. (2024),Predicting Sleep Disorders: Leveraging Sleep Health and Lifestyle Data with Dipper Throated Optimization Algorithm for Feature Selection and Logistic Regression for Classification, *Computational Journal of Mathematical and Statistical Sciences*.([-link](#))
50. Sameh, B., **Khodadadi, N.**, Eid, M. M., Towfek, S. K.(2024), Advancements and Future Directions in Machine Learning for Medical Diagnostics: A Comprehensive Review, *ournal of Journal of Artificial Intelligence and Metaheuristics*.( [-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., Alhussan, 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

26. Abualigah, L., Sbenaty, B., Ikotun, A.M., Zitar, R.A., Alsoud, A.R., **Khodadadi, N.**, Ezugwu, A.E., Hanandeh, E.S. and Jia, H., 2024. "Aquila optimizer: review, results and applications",Morgan Kaufmann.Book Chapter: Metaheuristic Optimization Algorithms: Optimizers, Analysis and Applications, ([link](#)).
25. Abualigah, L., Alshatti, S.M., Ikotun, A.M., Zitar, R.A., Alsoud, A.R., **Khodadadi, N.**, Ezugwu, A.E., Hanandeh, E.S., Jia, H. and Zare, M., 2024. "Spider monkey optimizations: application review and results". Morgan Kaufmann. Book Chapter: Metaheuristic Optimization Algorithms: Optimizers, Analysis and Applications,([link](#)).
24. Abualigah, L., Al Turk, A.A., Ikotun, A.M., Zitar, R.A., Alsoud, A.R., **Khodadadi, N.**, Hussien, A.G. and Jia, H., 2024. "Social spider optimization algorithm: survey and new applications". Morgan Kaufmann. Book Chapter: Metaheuristic Optimization Algorithms: Optimizers, Analysis and Applications,([link](#)).
23. Abualigah, L., Ababneh, A., Ikotun, A.M., Zitar, R.A., Alsoud, A.R., **Khodadadi, N.**,Ezugwu, A.E., Hanandeh, E.S. and Jia, H., 2024. "A Survey of cuckoo search algorithm: optimizer and new applications". Morgan Kaufmann. Book Chapter: Metaheuristic Optimization Algorithms: Optimizers, Analysis and Applications,([link](#)).
22. Abualigah, L., Ahmad, E.N., Ikotun, A.M., Zitar, R.A., Alsoud, A.R., **Khodadadi, N.**,Ezugwu, A.E. and Jia, H., 2024. "Animal migration optimization algorithm: novel optimizer, analysis, and applications". Morgan Kaufmann. Book Chapter: Metaheuristic Optimization Algorithms: Optimizers, Analysis and Applications,([link](#)).
21. Abualigah, L., Ikotun, A.M., Zitar, R.A., Alsoud, A.R., **Khodadadi, N.**, Ezugwu, A.E., Hanandeh, E.S. and Jia, H., 2024. "Whale optimization algorithm: analysis and full survey". Morgan Kaufmann. Book Chapter: Metaheuristic Optimization Algorithms: Optimizers, Analysis and Applications,([link](#)).
20. Abualigah, L., Abusaleem, A., Ikotun, A.M., Zitar, R.A., Alsoud, A.R., **Khodadadi, N.**,Ezugwu, A.E., Hanandeh, E.S. and Jia, H., 2024." Arithmetic optimization algorithm: a review and analysis". Morgan Kaufmann. Book Chapter: Metaheuristic Optimization Algorithms: Optimizers, Analysis and Applications,([link](#)).
19. Abualigah, L., Abu-Dalhoum, E., Ikotun, A.M., Zitar, R.A., Alsoud, A.R., **Khodadadi, N.**, Ezugwu, A.E., Hanandeh, E.S. and Jia, H., 2024. "Teaching–learning-based optimization algorithm: analysis study and its application". In Metaheuristic Optimization Algorithms. Morgan Kaufmann. Book Chapter: Metaheuristic Optimization Algorithms: Optimizers, Analysis and Applications,([link](#)).
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.([link](#)).
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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 geopolymer 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.
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#### 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)

<b>Journals Reviewer</b>	<ul style="list-style-type: none"> <li>• Scientific Reports</li> <li>• PLOS ONE</li> <li>• IEEE Access</li> <li>• Neurocomputing</li> <li>• Applied Intelligence (APIN)</li> <li>• Soft Computing</li> <li>• Computational Intelligence and Neuroscience</li> <li>• CMC-Computers, Materials and Continua</li> <li>• Decision Analytics Journal</li> <li>• Intelligent Automation &amp; Soft Computing</li> <li>• Frontiers in Energy Research</li> <li>• Computer Systems Science and Engineering</li> <li>• Artificial Intelligence Review</li> </ul>	
<b>Patent</b>	1. Kiddy Searcher Robot Raily	2018
<b>Teaching experience</b>	<b>University of Tabriz</b> , Tabriz, Iran Course: Engineering mathematics <b>University of Tabriz</b> , Tabriz, Iran Course: Statics	2014–2015  2011–2014
<b>Interests</b>	<ul style="list-style-type: none"> <li>• Concrete and advanced composite-based systems</li> <li>• Structural Engineering</li> <li>• Materials Engineering</li> <li>• Optimal Analysis of Structures</li> <li>• Machine Learning</li> <li>• Evolutionary Algorithms</li> <li>• Introduction, Improvement, Hybridization and Applications of DS Methods</li> <li>• Steel Structures</li> <li>• Data Science (DS)</li> </ul>	
<b>Sport Awards</b>	1st rank of Province Swimming Champion 1st rank of Province Soccer Champion 1st rank of Province Futsal Champion	2019 2018 2017
<b>Languages</b>	<ul style="list-style-type: none"> <li>• English: Proficient &amp; IELTS Score: 6.5 (L=7.5, R=6.5 S=6.5, W=6)</li> <li>• Kurdish: Native</li> <li>• Persian: as Native</li> <li>• Azari: as Native</li> <li>• Turkish: Proficient</li> </ul>	
<b>skills</b>	<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	