CV

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EXPERIENCE

University of California, Berkeley, CA, USA — Feb 2025–Current
In the Field of Earthquake and AI application for Engineering with Prof. Khalid M Mosalam
Post-Doctoral, Pacific Earthquake Engineering Research (PEER) Center

University of Miami, Coral Gable, FL, USA — Jan 2023–May 2025
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
Teaching: Scholastic Assessment Test (SAT) Tutor-Math

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

EDUCATION

University of California, Berkeley, CA, USA — Feb 2025–Current
Post-Doctoral Earthquake and AI application for Engineering with Prof. Khalid M Mosalam

University of Miami, Coral Gable, FL, USA — Jan 2023–May 2025
Ph.D. Structural Engineering - Explainable Artificial Intelligence for Concrete Technologies: Predictive Models and Applications with Prof. Antonio Nanni

Iran University of Science and Technology, Tehran, Iran — Sep 2016–Jan 2021
Ph.D Structural Engineering - Optimization of 3D Frames with New Approach Using Different Shaped Sections; A Comparative Study with Prof. Ali Kaveh

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

University of Tabriz, Tabriz, Iran — Sep 2010– Jul 2014
B.Sc. Civil Engineering

HONARS AND AWARDS

- 5 hot papers with 8 highly cited papers — 2025
- World top 2% scientists batest database prepared by Stanford University researchers and released through Elsevier — 2025
- Civil and & Architectural Engineering (CAE) Outstanding Student Scholarship Award — 2025

June 15, 2026

- Frederick Palmer Prize by the Institution of Civil Engineers (ICE) 2025
- Structural Engineering Institute (SEI) Futures Young Professional 2025
- ACI Fellowship foundation 2024
- Structural Engineering Institute (SEI) Futures Fund Student Scholarship ASCE 2024
- John Ries Scholarship (Expanded Shale, Clay, and Slate Institute) 2024
- Travel Stipend, University of Miami 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
- AELS gradute student, University of Miami 2024
- Awarded Rothberg University of Miami COE Pitch Competition 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

SERVICES

- E-Board of ACI's Task Group on Artificial Intelligence
- ASCE CTA AI Task Force
- 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)

GRANTS & FUNDING

[24.] Bridge Rapid Assessment Center for Extreme Events, $BRACE^2$ for California Department of Transportation (Caltrans)

[23.] Development of Earthquake Thresholds in the Emergency Plan for Bay Area Rapid Transit (BART)

[22.] University Transportation Center (UTC) - Coastal Research and Education Actions for Transportation Equity (CREATE) based at the University of Texas State for financial support under Grant Number: 69A3552348330.

[21.] National Science Foundation I/U-CRC Center for Integration of Composites into Infrastructure (CICI) under Grant Number: 1916342.

[20.] Inter-American Cement Federation (FICEM).

[19.] ACI Center of Excellence for Nonmetallic Building Materials: SG.01.

[18.] National Science Foundation (NSF) Industry Collaborative Research Center(IUCRC) Center for Integration of Composites into Infrastructure (CICI) Grant Number AWD-005851.

[17.] Princess Nourah bint Abdulrahman University Researchers Supporting Grant Number: PNURSP2025R754.

[16.] Princess Nourah bint Abdulrahman University Researchers Supporting Grant Number: PNURSP2026R754.

[15.] French Embassy in Algiers (University Cooperation Program) through the RME (Réseau Mixte des Écoles) Network 2020.

[14.] Research grants from China's Natural Science Foundation under Grant Number: 52008108.

[13.] Guangdong Basic and Applied Basic Research Foundation under Grant Number: 2019A1515110481.

[12.] Tertiary Education Scientific Research Project of Guangzhou Municipal Education Bureau under Grant Number: 2024311971.

[11.] Science and Technology Projects in Guangzhou under Grant Number: 2025A04J4500.

[10.] General Program of National Natural Science Foundation of China Grant Number: 11972144.

[9.] The National Key Research and Development Program of China Grant Number: 2021YFC300205-06.

[8.] Science and Technology Research Program of Chongqing Municipal Education Commission Grant Number: KJQN202501219.

[7.] Natural Science Foundation of Chongqing Grant Number: CSTB2024NSCQ-MSX0744.

[6.] Chongqing municipal natural science foundation Grant Number: CSTB2025NSCQ-GPX0946.

[5.] State Key Laboratory of Bridge and Tunnel Engineering in Mountainous Areas (Chongqing Jiaotong University, China) under the Open Research Fund Project Grant Number: SKLBT-2409.

[4.] Research Funding Project of Chongqing University of Science and Technology, China Grant Number: ckrc20240616.

[3.] National Natural Science Foundation of China Grant Number: 12072098.

[2.] National Natural Science Foundation of China Grant Numbers: 52278291, U20A20314.

[1.] Chongqing Natural Science Foundation of China Grant Numbers:CSTB2022NSCQLZX0006, CSTB2022TIAD-KPX0205, cstc2022ycjh-bgzxm0086.

PUBLICATIONS – Civil Engineering

[40.] Mirdarsoltany, M., **Khodadadi, N.**, & Nanni, A. (2026). Strength performance of hexagonal, hollow, and perforated GFRP-Reinforced concrete units: experimental, numerical, and AI-based investigations. *Scientific reports.* (IF: 3.9–link).

[39.] Yu, Y., Zhou, L **Khodadadi, N.**, & Nanni, A. (2025). Size Effects on Uniaxial Compression and Tension in Recycled Aggregate Concrete Fabricated Using Conventional and Equivalent Mortar Volume Techniques. *Journal of Materials in Civil Engineering.* (IF: 3.0–link).

[38.] Ataei, S., Ataei, S.T., Rahmani, Z., Ghajari, E., Mohammadagha, M., **Khodadadi, N.** and Mosalam, K.M., (2026). Artificial Intelligence in Bridge Structural Health Monitoring: A Comprehensive Systematic Analysis of Methods, Models, and Applications. *Archives of Computational Methods in Engineering.* (IF: 12.1–link).

[37.] Hussain, Z., **Khodadadi, N.**, & Nanni, A. (2026). Reassessment of Two-way Shear Equation in ACI 440.11 Building Code. *Structural Journal.*(IF: 1.5–link).

[36.] Eid, M. M., Alhussan, A. A., Mattar, E. A., **Khodadadi, N.**, & El-Kenawy, E. S. M. (2026). Concrete Strength Prediction Using Machine Learning and Somersaulting Spider Optimizer. *Computer Modeling in Engineering & Sciences.*(IF: 0.86–link).

[35.] Aghajanzadeh, I.,**Khodadadi, N.**, Suraneni, P.,& Nanni, A. (2026). Seawater-mixed concrete – A review with focus on durability properties. *Applied Ocean Research.*(IF: 4.4–link).

[34.] **Khodadadi, N.**, Roghani, H., De Caso, F., El-kenawy, E. S. M., Yesha, Y., & Nanni, A. (2025). Machine learning approach for the flexural strength of 3D-printed fiber-reinforced concrete based on the meta-heuristic algorithm. *Structural Concrete.*(IF: 3.3–link).

[33.] **Khodadadi, N**., Golafshani, E., Roghani, H., Behnood, A.,El-kenawy, S., Ngo, T. & Nanni, A. (2025). Predicting the Compressive Strength of Glass Fiber-Reinforced Polymer Confined-Concrete Elements using Metaheuristics-Guided Machine Learning. *International Journal of Concrete Structures and Materials,*(IF: 4.1–link).

[32.] Yu, X., **Khodadadi, N.**, Song, A., Hu, Y., & Nanni, A. (2025). Corrosion-Fatigue Interaction and Residual Life Prediction of Steel Reinforcement under Aggressive Environmental Conditions. *Journal of Building Engineering,,*(IF: 7.4–link).

[31.] Chakali, Y., Sadok, A. H., **Khodadadi, N.**, Tahlaiti, M., & Nanni, A. (2025). Evaluation of the compactness of granular mixes for roller compacted concrete design using SPO-ANN. *Road Materials and Pavement Design,*(IF: 3.7–link).

[30.] Yu, Y.,**Khodadadi, N**., Song, A., Hu, T.,& Nanni, A. (2025). Computational intelligence model for predicting the compressive strength of FRP-confined concrete column. *Structural Concrete,*(IF: 3.3–link).

[29.] Yu, Y., Zhou, L **Khodadadi, N**., & Nanni, A. (2025). Explainable Machine Learning Framework with Experimental Validation for Strength Prediction of Magnesium Phosphate Cement. *International Journal of Concrete Structures and Materials,*(IF: 4.1–link).

[28.] Taffese, W. Z., **Khodadadi, N**., Zhu, Y., Mirjalili, S., & Nanni, A. (2025). A Generative Adversarial Network Enhanced Ensemble Learning-based Prediction Model for Moment Improvement Effect of UHPC Strengthened Damaged RC Beams. *Case Studies in Construction Materials,*(IF: 6.6–link).

[27.] Yu, X., Liu, Q. F., **Khodadadi, N**., Hu, T., Liu, J., & Nanni, A. (2025). Probabilistic Assessment of Chloride Ion Migration in Concrete: Enhancing Predictive Accuracy and Gaining Insights into Distribution Patterns. *Journal of Materials in Civil Engineering,*(IF: 3.5–link).

[26.] Yu, X., Song, A., **Khodadadi, N**., Yu, Y., & Nanni, A. (2025). A novel approach

for predicting FRP debonding strain in concrete using an optimized self-learning model. *Composite Structures*,(IF: 7.1–link).

[25.] Yu, X., **Khodadadi, N**., Song, A., Yu, Y., & Nanni, A. (2025). Prediction and analysis of punching shear capacity in steel fiber reinforced concrete slab using machine learning. *Results in Engineering*,(IF: 7.9–link).

[24.] Mirdarsoltany, M., Hussain, Z., **Khodadadi, N**., & Nanni, A. (2025). Hexagonal, hollow and perforated concrete units reinforced with GFRP bars: Experimental and FEM analysis. *Construction and Building Materials* ,(IF: 8.0–link).

[23.] Nanni, A., Aghajanzadeh, I., Suraneni, P., & **Khodadadi, N** (2025). Seawater-mixed Concrete A literature review, *Structural 254 – gennaio-marz.*(IF:-–link).

[22.] Yu, X., Hu, T., **Khodadadi, N.**, Liu, Q., & Nanni, A. (2025). Modeling chloride ion diffusion in recycled aggregate concrete: A fuzzy neural network approach integrating material and environmental factors. *Structures.*(IF: 3.9 –link).

[21.] Panagant, N., Mahajan, S., Sait, S. M., Yıldız, B. S., Yıldız, A. R., **Khodadadi, N.**, & Mehta, P. (2025). Multi-objective optimization of truss structures using the enhanced Lichtenberg algorithm. *Materials Testing.*(IF: 2.4–link).

[20.] Zheng, S., Hu, T., **Khodadadi, N.**, & Nanni, A. (2024). Explainable prediction model for punching shear strength of FRP-RC slabs based on kernel density estimation and XGBoost. *Scientific reports.*(IF: 3.8 –link).

[19.] Hu, T., Zhang, H., **Khodadadi, N.**, Taffese, W. Z., & Nanni, A. (2024). Enhancing bond strength prediction at UHPC-NC interface: A data-driven approach with augmentation and explainability. *Construction and Building Materials.*(IF: 7.4–link).

[18.] Abdelmalak, M. E. S., **Khodadadi, N.**, Zaki, A. M., Eid, M. M., Rizk, F. H., Ibrahim, A., Abualigah, L., & El-kenawy, E. S. M. (2024). Pothole Detection in Asphalt Roads: A Comprehensive Approach for Enhanced Road Maintenance and Safety with AlexNet Model. International Telecommunications Conference (ITC-Egypt). *IEEE.*(IF: 3.4 –link)

[17.] **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)

[16.] 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)

[15.] **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)

[14.] 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)

[13.] 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)

[12.] **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)

[11.] **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)

[10.] **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)

[9.] **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)

[8.] **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)

[7.] **Khodadadi, N.**, Mirjalili, S, (2022), Truss Optimization with Natural Frequency Constraints Using Generalized Normal Distribution Optimization, *Applied Intelligence.*(IF: 1.58 –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.**, Farahamand 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 – General Engineering / AI / Computer Science

[69.] Zhao, W., Xie, Y., Wang, L., Zhang, Z., Khodadadi, N., & Mirjalili, S. (2026). An effective Bezier curve-based optimization (BCO) for large-scale numerical problems and 3D unmanned aerial vehicle path planning with efficient multiple threats evasion. *Advanced Engineering Informatics.*(IF: 9.9–link).

[68.] Zibaei, H., Mesgari, M. S., El-Kenawy, E. S. M., & **Khodadadi, N.** (2026). A spatial agent-based modeling to allocate land use for brownfield sites on an urban scale. *Landscape and Urban Planning.*(IF: 9.2–link).

[67.] Barshandeh, S., **Khodadadi, N.**, Abdollahzadeh, B., Mohammadzadeh, A., El-Kenawy, E. S. M., Eid, M. M., & Mosalam, K. M. (2026). Gray langurs optimizer: a multi-group bio-inspired optimization algorithm. *Artificial Intelligence Review.* (IF: 13.9–link).

[66.] Khafaga, D. S., El-Kenawy, E. S. M., **Khodadadi, N.**, Eid, M. M., & Mirjalili, S. (2026). Optimizing image watermarking integrity and visual quality via DTPSO and hybrid transform methods. *Scientific Reports.*(IF: 3.9–link).

[65.] Ali Alhussan, A., Radwan, M., **Khodadadi, N.**, Mattar, E. A., & Kenawy, S.

(2026). Towards Intelligent Agricultural Forecasting: Quantum Temporal Models for Potato Yield Prediction. *Potato Research.* (IF: 2.1–link).

[64.] Alhussan, A.A., El-Kenawy, E.S.M., Eid, M.M. and **Khodadadi, N.**, (2026). Hybrid Al-Biruni and Puma Optimization (BERPO) for boosting the classification of Quality-of-Service (QoS) in 5G networks. *Journal of Network and Computer Applications.* (IF: 8.0–link).

[63.] Wang, L., Ge, Q., Zhang, Z., Gu, S., **Khodadadi, N.**, Hsieh, C.I. and Zhao, W., (2026). A New Water Demand Prediction Approach using Adjustable Self-Feedback Gain Elman Neural Networks Coupled with Enhanced Sparrow Search Algorithm. *Water Resources Management.*(IF: 4.7–link).

[62.] El-kenawy, E.S.M., **Khodadadi, N.**, Mirjalili, S., Zaki, A.M., Ibrahim, A., Alhussan, A.A., Khafaga, D.S. and Eid, M.M., (2026). Glider snake optimizer (GSO): a nature-inspired metaheuristic algorithm for global and engineering optimization problems. *Artificial Intelligence Review.* (IF: 13.9–link).

[61.] Alharbi, A. H., Eid, M. M., **Khodadadi, N.**, Mattar, E. A., & Elkenawy, S. (2026). A Metaheuristic Football Optimization Algorithm Integrated with Large Language Models for Automated Seismic Time-Series Modeling.*Computer Modeling in Engineering & Sciences.*(IF: 0.86–link).

[60.] Takieldeen, A., Towfek, S., Zaki, A., & **Khodadadi, N.** (2025). IoT-Based Cybersecurity Threat Detection Using Feature Se-lection and Dipper Throated Optimization Algorithm. *International Journal of Telecommunications,*(IF: -–link).

[59.] Ghasemi, M., **Khodadadi, N.**, Trojovský, P., Li, L., Mansor, Z., Abualigah, L., Alharbi, A.H. and El-Kenawy, E.S.M., (2025). Kirchhoff's law algorithm (KLA): a novel physics-inspired non-parametric metaheuristic algorithm for optimization problems. *Artificial Intelligence Review,*(IF: 14.9 –link).

[58.] Shami, T. M., Al-Tashi, Q., **Khodadadi, N.**, Abdulkadir, S. J., Ahmed, A., & Mirjalili, S. (2025). Dimension selection: an innovative metaheuristic strategy for particle swarm optimization. *Cluster Computing,*(IF: 4.1 –link).

[57.] Ghasemi, M., Akbari, M. A., Zare, M., Mirjalili, S., Deriche, M., Abualigah, L., & **Khodadadi, N**. (2025). Birds of prey-based optimization (BPBO): a metaheuristic algorithm for optimization. *Evolutionary Intelligence,*(IF: 2.6 –link).

[56.] Goodarzimehr, V., Pereira, J. L. J., & **Khodadadi, N**. (2025). MOSRS: An engineering multi-objective optimization through Einsteinian concept. *PLoS One,*(IF: 3.7 –link).

[55.] Alharbi, A. H., Rizk, F. H., Gaber, K. S., Eid, M. M., El-Kenawy, E. S. M., Khodadadi, E., & **Khodadadi, N**. (2025). Hybrid deep learning optimization for smart agriculture: Dipper throated optimization and polar rose search applied to water quality prediction. *PLoS One.*(IF: 3.7 –link).

[54.] Wang L, Du H, Zhang Z, Hu G, Mirjalili S, **Khodadadi N**, Hussien AG, Liao Y, Zhao W.(2025). Tianji's horse racing optimization (THRO): a new metaheuristic inspired by ancient wisdom and its engineering optimization applications. *Artificial Intelligence Review.*(IF: 14.9 –link).

[53.] Elshewey, A. M., Alhussan, A. A., Khafaga, D. S., Radwan, M., El-Kenawy, E. S. M., & **Khodadadi, N**. (2025). An enhanced adaptive dynamic metaheuristic optimization algorithm for rainfall prediction depends on long short-term memory. *PLoS One.*(IF: 3.7 –link).

[52.] Naser MZ, Al-Bashiti MK, Tapeh AT, Naser A, Kodur V, Hawileh R, Abdalla J, **Khodadadi N**, Gandomi AH, Eslamlou AD (2025). A review of benchmark and test functions for global optimization algorithms and metaheuristics. *Wiley Interdisciplinary Reviews: Computational Statistics.*(IF: 5.4 –link).

[51.] El-Kenawy, E. S. M., Alhussan, A. A., Khodadadi, N., Mirjalili, S., & Eid, M. M. (2025). Predicting potato crop yield with machine learning and deep learning for sustainable agriculture. *Potato Research.*(IF: 2.9 –link).

[50.] Zhao, W., Zhang, Z., **Khodadadi, N.**, & Wang, L. (2025). A deep learning model coupled with metaheuristic optimization for urban rainfall prediction. *Journal of Hydrology.*(IF: 5.9 –link).

[49.] Abdollahzadeh, B., Javadi, H., Torağay, O., Epicoco, N., & **Khodadadi, N.** (2025). The green marine waste collector routing optimization with puma selectison-based neighborhood search algorithm. *Cluster Computing.*(IF: 3.6 –link).

[48.] Wu, X., Hu, T., **Khodadadi, N.**, & Nanni, A. (2025). Prediction on Quasi-static Compression Deformation Modes of Circular Tubes based on Machine Learning. *International Journal of Mechanical Sciences.*(IF: 7.1 –link).

[47.] Amiri, M.H., Hashjin, N.M., Najafabadi, M.K., Beheshti, A. and **Khodadadi, N.**, (2025). An innovative data-driven AI approach for detecting and isolating faults in gas turbines at power plants. *Expert Systems with Applications.*(IF: 7.5 –link).

[46.] **Khodadadi, N.**, Ehteram, M., Karami, H., Nadimi-Shahraki, M.H., Abualigah, L. and Mirjalili, S., (2025). Leader selection based Multi-Objective Flow Direction Algorithm (MOFDA): A novel approach for engineering design problems. *Results in Engineering.Cluster Computing.*(IF: 6 –link).

[45.] Mozhdehi, A.T., **Khodadadi, N.**, Aboutalebi, M., El-kenawy, E.S.M., Hussien, A.G., Zhao, W., Nadimi-Shahraki, M.H. and Mirjalili10, S., (2025). Divine Religions Algorithm: a novel social-inspired metaheuristic algorithm for engineering and continuous optimization problems. *Cluster Computing.*(IF: 3.6 –link).

[44.] Nadimi-Shahraki, M. H., Taghian, S., Javaheri, D., Sadiq, A. S., **Khodadadi, N.**, & Mirjalili, S. (2024). MTV-SCA: multi-trial vector-based sine cosine algorithm. *Cluster Computing.*(IF: 3.6 –link)

[43.] **Khodadadi, N.**, Towfek, S.K., Zaki, A.M., Alharbi, A.H., Khodadadi, E., Khafaga, D.S., Abualigah, L., Ibrahim, A., Abdelhamid, A.A. and Eid, M.M., 2024. Predicting normalized difference vegetation index using a deep attention network with bidirectional GRU: a hybrid parametric optimization approach. *International Journal of Data Science and Analytics.* (IF: 3.4 –link)

[42.] El-Kenawy, E.S.M., Rizk, F.H., Zaki, A.M., Elshabrawy, M., Ibrahim, A., Abdelhamid, A.A., **Khodadadi, N.**, ALmetwally, E.M. and Eid, M.M., (2024). Nioa: A novel metaheuristic algorithm modeled on the stealth and precision of Japanese ninjas. *Journal of Artificial Intelligence in Engineering Practice.*(IF: - –link)

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[2.] **Khodadadi, N.**, Khalid M. Mosalam, Antonio Nanni, *Artificial Intelligence in Concrete Structures and Technologies: Concepts, Models*, Studies in Computational Intelligence, Springer. and Applications

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

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[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.

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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.

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- 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 EXPERIENCES

University of Tabriz, Tabriz, Iran — 2014–2016
Course: Engineering mathematics

University of Tabriz, Tabriz, Iran — 2014–2016
Course: Statics

Iran University of Science and Technology (IUST), Tehran, Iran — 2018–2020
Course: Introduction to Optimization, Introduction to Fracture Mechanic

Azad University Kish International, Kish Island, Iran — 2019–2022
Course: Structural Analysis I & II
Course: Sechanics of Materials I & II

Florida International University (FIU), Miami, FL, USA — 2022–2023
Course: Numerical Methods with MATLAB

University of Miami (UM), Miami, FL, USA — 2024–2025
Course: Concrete Reinforced Concrete Design

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
- Kurdish: Native
- Persian: as Native
- Azari: as Native
- Turkish: Proficient

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