

Curriculum Vitae

Personal Data

Surname: Karami
First name: Kaveh
Date of birth: August 22, 1983
Nationality: Iranian

[Google Scholar](#), [ResearchGate](#),
[Linkedin](#), [Orcid](#), [Publons-Web of Science](#), [Scopus](#)

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Dr. Kaveh Karami
Associate Professor of Structural
Engineering at Department of Civil
Engineering, [University of Kurdistan](#).

Last Update: 1 January 2026

Educational Background

2008-2013	PhD in Civil Engineering-Structure	Iran University of Science and Technology (IUST), Tehran, Iran
2006-2008	MSc in Civil Engineering-Structure	Iran University of Science and Technology (IUST), Tehran, Iran
2001-2005	BSc in Civil Engineering	University of Kurdistan (UOK), Sanandaj, Iran

Ph. D. Dissertation Title:

Smart Structural Control of Damaged Structures by Structural Health Monitoring

Supervisor: [Prof. Fereidoun Amini](#)

E-mail: famini@iust.ac.ir

M. Sc. Dissertation Title:

Semi-Active Optimal Control of High Rise Building Based on Capacity Demand Theory

Supervisor: [Prof. Fereidoun Amini](#)

E-mail: famini@iust.ac.ir

Research Interests

- Structural Vibration Control.
 - Passive, Active, Semi-Active and Hybrid Control.
 - Negative Stiffness, Adaptive Stiffness.
 - TMD, MR, Viscous and Friction Dampers.
 - Base Isolation.
 - Coupled Structures.
 - Addaptive Control.
- Structural Health monitoring.
 - Damage Detection.
 - System Identification.
 - Addaptive Identification.
 - Computer Vision.
 - Blind Identification.
 - Machine Learning and Deep Learning.
 - Vision Based System Identification
- Smart Structures and Systems.

Journal papers:

2026 [1]

[18] Azizi, S., **Karami, K.** and Mariani, S. (2026), “Hybrid population-based method for sub-pixel motion estimation and enhanced vision-based modal analysis.”, *Measurement*, 257(Part A), 118476.

2025 [2]

[17] Azizi, S., **Karami, K.** and Mariani, S. (2025), “A Vision-Based Procedure with Subpixel Resolution for Motion Estimation.”, *Sensors*, 25(10), 3101.

[16] **Karami, K.**, Naderi, S. and Batmani, Y. (2025), “Real-Time Damage Detection in Building Structures Using Model-Based Adaptive Control Approach.”, *Journal of Computing in Civil Engineering*, 39(4), 04025033.

2023 [3]

[15] Azizi, S., **Karami, K.** and Mariani, S. (2023), “Full-field modal analysis using video measurements and a blind source separation methodology.”, *Engineering Proceedings*, 58(1), 105.

[14] Azizi, S., **Karami, K.** and Mariani, S. (2023), “Structural identification by means of a digital image correlation technology.”, *Engineering Proceedings*, 58(1), 65.

[13] Azizi, S., **Karami, K.** and Mariani, S. (2023), “Vision-based structural identification using an enhanced phase-based method.”, *Engineering Proceedings*, 58(1), 62.

2021 [2]

[12] **Karami, K.**, and Ahmadi, H. (2021), “Torsional control of asymmetric buildings using online 3-D damage detection and adaptive stiffness devices”, *Structural Control and Health Monitoring*, 28(10), e2804.

[11] Azizi, S., **Karami, K.**, and Nagarajaiah, S. (2021), “Developing a semi-active adjustable stiffness device using integrated damage tracking and adaptive stiffness mechanism”, *Engineering Structures*, 238, 112036.

2020 [3]

[10] **Karami, K.**, Fatehi, P. and Hoseini, A. (2020), “Subspace based identification of structural parameters of the base isolation level”, *Amirkabir Journal of Civil Engineering*, 53(12), 1-3. 10.22060/ceej.2020.18784.6961.

[9] Sourni, S., Batmani, Y. and **Karami, K.** (2020), “Seismic motion control of structures using an adaptive optimal model-free controller”, *Journal of Vibration and Control*, 27(19-20), 2368-84.

[8] **Karami, K.**, Fatehi, P. and Yazdani, A. (2020), “On-line system identification of structures using wavelet-Hilbert transform and sparse component analysis”, *Computer-Aided Civil and Infrastructure Engineering*, 10.1111/mice.12552.

2019 [2]

[7] Manie, S., **Karami, K.** and Fatehi, P. (2019), “Online system identification in smart structures using wavelet transform based sparse component analysis”, *Amirkabir Journal of Civil Engineering*, 52(9), 1-3. 10.22060/ceej.2019.16145.6140.

[6] **Karami, K.**, Manie, S., Ghafouri, Kh. and Nagarajaiah, S. (2019), “Nonlinear structural control using integrated DDA/ISMP and semi-active tuned mass damper”, *Engineering Structures*, 181C, 589-604.

2016 [2]

[5] **Karami, K.**, Nagarajaiah, S. and Amini, F. (2016), “Developing a smart structure using integrated DDA/ISMP and semi-active variable stiffness device”, *Smart Structures and Systems*, 18(5), 955-982.

[4] **Karami, K.** and AkbarAbadi, Sh. (2016), “Developing a smart structure using integrated subspace-based damage detection and semi-active control”, *Computer-Aided Civil and Infrastructure Engineering*, 31(11), 887-903.

2012 [2]

[3] **Karami, K.** and Amini, F. (2012), “Decreasing the damage in smart structures using integrated online DDA/ISMP and semi-active control”, *Smart Materials and Structures*, 21, 105017.

[2] Amini, F. and **Karami, K.** (2012), “Damage detection algorithm based on identified system Markov parameters (DDA/ISMP) in building structures with limited sensors”, *Smart Materials and Structures*, 21, 055010.

2011 [1]

[1] Amini, F. and **Karami, K.** (2011), "Capacity design by developed pole placement structural control", *Structural Engineering and Mechanics*, 39(1), 147-168.

Conference papers:

2025 [2]

[23] Moradi, E. and **Karami, K.** (2025), "Structural damage identification using the modified flexibility matrix method", *14th International Congress on Civil Engineering, Tehran*. P9.(In Persian).

[22] Moradi, E. and **Karami, K.** (2025), "Structural damage identification using the modified modal strain energy method", *14th International Congress on Civil Engineering, Tehran*. P9.(In Persian).

2024 [2]

[21] **Karami, K.**, Amiri, K. and Fatehi, P. (2024), "System identification using source single points based sparse component analysis.", *14th National Congress on Civil Engineering, Zanjan*. P9.(In Persian).

[20] **Karami, K.**, and Zabihi, H. (2024), "Damage detection in structures using model updating and adaptive approach.", *14th National Congress on Civil Engineering, Zanjan*. P9.(In Persian).

2023 [1]

[19] **Karami, K.**, Amiri, K. and Fatehi, P. (2023), "Identification of structural systems using the development of the single source point method in the sparse component analysis.", *13th International Congress on Civil Engineering, Tehran*. P8.(In Persian).

2022 [1]

[18] Azizi, S. and **Karami, K.** (2022), "Vision based modal identification of structures using phase extraction and linearization", *13th National Congress on Civil Engineering, Isfahan*. P7.(In Persian).

2021 [2]

[17] Fatehi, P., **Karami, K.** and Zandsalimi, K. (2021), "3D Identification of torsional modes of structural systems using sparse component analysis based on the Hilbert-Wavelet transform", *12th International Congress on Civil Engineering, Mashhad*. P9.(In Persian).

[16] Azizi, S., **Karami, K.** and Zandsalimi, K. (2021), "Blind modal identification of vibrating structures by imaging using the extracted phase", *12th International Congress on Civil Engineering, Mashhad*. P9.(In Persian).

2020 [2]

[15] Naderi, S., **Karami, K.** and Batmani, Y. (2020), “Real time damage detection in building structures using model-based adaptive control approach”, *12th National Congress on Civil Engineering, Tabriz*. P9.(In Persian).

[14] **Karami, K.** and Karimi, F. (2020), “System identification of the non-classical damping structures using sparse component analysis”, *12th National Congress on Civil Engineering, Tabriz*. P10.(In Persian).

2018 [4]

[13] **Karami, K.** and Shafiee, A. (2018), “Determining mid-story isolation parameters in control of structures”, *11th International Congress on Civil Engineering, Tehran*. P8.(In Persian).

[12] **Karami, K.**, Yazdani,A. and Fatehi, P. (2018), “Structural identification using sparse components analysis and Hilbert transform to reduce existing disturbances”, *11th International Congress on Civil Engineering, Tehran*. P8.(In Persian).

[11] **Karami, K.** and Azizi, S. (2018), “Semi-active seismic control of damaged structures using a combination of health monitoring and negative stiffness device”, *11th International Congress on Civil Engineering, Tehran*. P8.(In Persian).

[10] **Karami, K.** and Adabi, F. (2018), “Smart control of adjacent building structures using structural health monitoring”, *11th International Congress on Civil Engineering, Tehran*. P8.(In Persian).

2016 [3]

[9] **Karami, K.** and Ahmadi, H. (2016), “Torsional control of tall buildings using integrated real time damage detection and semi-active variable stiffness device”, *9th National Congress on Civil Engineering, Mashhad*. P10.(In Persian).

[8] Mohammadi- KaniSavaran, A., Yazdani, A. and **Karami, K.** (2016), “Estimation of the period and deflection amplification factor for steel structures using Bayesian approach”, *9th National Congress on Civil Engineering, Mashhad*. P9.(In Persian).

[7] Manie, S., **Karami, K.** and Ghafouri, KH. (2016), “Damage control of smart structures using integrated real time damage detection and variable stiffness TMD”, *9th National Congress on Civil Engineering, Mashhad*. P8.(In Persian).

2015 [2]

[6] Mohammadi- KaniSavaran, A., Yazdani, A. and **Karami, K.** (2015), “Updating deflection amplification factor for moment resisting steel frame structures using Bayesian approach”, *3rd International Congress on Civil Engineering, Architecture & Urban development, Tehran*. P10.(In Persian).

[5] **Karami, K.** and AkbarAbadi, SH. (2015), “Decreasing the damage in smart isolated structures using integrated structural health monitoring and semi-active control”, *4th National Conference on New Materials & Structures in Civil Engineering, Yasuj*. P10.(In Persian).

[4] **Karami, K.** and Ahmadi, H. (2015), “A new damage detection method based on Identified system Markov parameters in 3d structures”, *4th National Conference on New Materials & Structures in Civil Engineering, Yasuj*. P10.(In Persian).

2009 [1]

[3] Amini, F. and **Karami, K.** (2009), “Optimal Placement of Semi-Active Control Devices Based on Capacity Diagram in Elastic Zone using Genetic algorithm”, *the 8th International Congress on Civil Engineering, Shiraz*. 328-336.(In Persian).

2008 [2]

[2] **Karami, K.**, Holakoo, A., Mahmoodpour, A. and Zandsalimi, K. (2008), “Assessing influences of Openings in Diaphragm Rigidity”, *the 14th National Conference of Civil engineering Students, Semnan*. 58-64.(In Persian).

[1] Mahmoodpour, A. and **Karami, K.** (2008), “Determining Lower Bound of Ultimate Load in Cracked Plate Using Decreasing Module of Elasticity”, *the 14th National Conference of Civil engineering Students, Semnan*. 94-100.(In Persian).

Postgraduate Thesis Supervision:

PhD Students:

- 1- **Milad Amini**, PhD Student, “*Online Structural Health Monitoring of Structures Based on Adaptive Control and Real-Time Damage Compensation*”, 2025 to present.
- 2- **Samira Azizi**, PhD Student, “*Structural assessment based on Blind Source Identification methods using images analysis*”, 2021 to present.

MSc Students:

- 1- **Masoud Shakourian**, MSc Student, “*Structural Modal Identification via Modified Time-Varying Filtering Based on Empirical Mode Decomposition*”, 2025 to present.
- 2- **Mohammad Navid Dana**, MSc Student, “*Modal parameters identification of structural systems via deep learning*”, 2025 to present.
- 3- **Lina Tahsin Ali**, MSc Student, “*Optimal stiffness distribution of shear walls in height based on passive control strategy*”, 2025 to present.
- 4- **Asra taherkhoo**, MSc Student, “*Semi-active control of high-rise buildings using inter-story isolation systems*”, 2025 to present.
- 5- **Nishtman Karami**, MSc Student, “*Damage detection in structural system using convolutional neural networks based on time-frequency domain*”, 2025 to present.
- 6- **Muhammad Ajan Haqyar**, MSc Student, “*Cost evaluation of steel MRF structures equipped with LRB isolation systems*”, 2024 to present.

- 7- **Alireza Divanbagi**, MSc Student, “*Smart control of wind turbine based on combination of structural health monitoring and vibration control*”, 2023 to present.
- 8- **Erfan Moradi**, MSc Student, “*Damage detection in structures using flexibility matrix and modal strain energy*”, 2023 to present.
- 9- **HesamAldin Zabihi**, MSc Student, “*Damage detection in structures using reduced order system and model updating*”, 2021 to present.
- 10- **Kaihan Amiri**, MSc Student, “*Development of single source points technique to identify higher order modes in structural systems*”, 2021 to 2023.
- 11- **Samira Naderi**, M.S. Student, “*Real time damage detection in building structures using model-based adaptive control approach*”, 2019 to 2021.
- 12- **Farzad Karimi**, M.S. Student, “*Developing blind modal identification for non-proportionally damped structures by time-frequency method*”, 2019 to 2021.
- 13- **Pezhman Fatehi**, M.S. Student, “*Damage detection based on blind source identification*”, 2016 to 2018.
- 14- **Asra Hoseini**, M.S. Student, “*Subspace based structural parameters identification of base isolation level*”, 2016 to 2018.
- 15- **Samira Azizi**, M.S. Student, “*Smart control of damaged structures using negative stiffness device*”, 2016 to 2018.
- 16- **Ashkan Shafiee**, M.S. Student, “*Determining mid-story isolation parameters in control of structures*”, 2015 to 2017.
- 17- **Farzaneh Adabi**, M.S. Student, “*Smart control of adjacent building structures using structural health monitoring*”, 2014 to 2017.
- 18- **Khatib Ghafouri**, M.S. Student, “*Damage control of smart structures using integrated real time damage detection and variable stiffness TMD*”, 2013 to 2016.
- 19- **Hasan Ahmadi**, M.S. Student, “*Torsional control of tall buildings using integrated real time damage detection and semi-active variable stiffness device*”, 2013-2015.
- 20- **Shahnaz Akbarabadi**, M.S. Student, “*Damage Detection Algorithm Based on Subspace Method in Building Structures*”, 2013-2015.

Teaching Experience

Undergraduate:

- Analysis of Structures I&II.
- Mechanics of Materials I&II.
- Statics.
- Dynamics.
- Fundamentals of Earthquake Engineering.
- Application of Computer in Civil Engineering.
- Steel and Concrete Building Design.

Graduate:

- Structural Dynamics Theory and Computation.
- Structural Vibration Control.
- Structural Health monitoring.
- Static Nonlinear Analysis of Structures.
- Dynamic Nonlinear Analysis of Structures.

Sabbatical

1. Karami, K., Nagarajaiah, S. and Amini, F., Decreasing damage due to strong earthquakes in smart structures using integrated online DDA/ISMP and semi-active variable stiffness device. Research project during Six months sabbatical period for collaboration on research related to damage detection and semi-active structural control at Rice University, Houston Texas, USA, from 15/March/2012 to 14/September/2012.

Activities:

Computer Skills

- MAPLE, MATHEMATICA, MATLAB and TABLE CURVE.
- VISUAL STUDIO.
- ETABS, SAFE, SAP, OPENSEES, PERFORM, SEISMO SIGNAL and SEISMO STRUCT.
- AUTOCAD and ARCHICAD.

Referee

I am referee of the following journals:

1. [Mechanical Systems and Signal Processing](#)
2. [Structural Control and Health Monitoring](#)
3. [Engineering Structures](#)
4. [Journal of Vibration and Control](#)
5. [Journal of Sound and Vibration](#)
6. [Smart Structures and Systems, An International Journal](#)
7. [Structures](#)
8. [International Journal of Structural Stability and Dynamics](#)
9. [Earthquakes and Structures, An International Journal](#)
10. [Journal of Engineering Mechanics-ASCE](#)
11. [Scientific Reports](#)
12. [Nonlinear Dynamics](#)
13. [Engineering Applications of Artificial Intelligence](#)
14. [IET Image Processing](#)
15. [IEEE Access](#)
16. [Civil Engineering Infrastructures Journal](#)
17. [Journal of Engineering Science & Technology](#)
18. [Journal of Aerospace Technology and Management](#)
19. [Amirkabir Journal of Civil Engineering](#)
20. [Journal of Iranian Society of Civil Engineering](#)
21. [International Journal of Advanced Structural Engineering](#)
22. [Journal of Civil and Environmental Engineering](#)
23. [Journal of Rehabilitation in Civil Engineering](#)
24. [Journal of Journal of Soft Computing in Civil Engineering](#)
25. [Journal of Structural and Construction Engineering](#)

Positions

- a) Associate professor of structural engineering at department of civil engineering, university of Kurdistan, (2021 to 2024).
- b) Member of the civil council at university of Kurdistan, (2021 to 2024).
- c) Head of civil engineering department at university of Kurdistan, (2019 to 2022).
- d) Scientific advisor to the society of civil engineering students, (2017 to 2018).
- e) Scientific advisor to the society of civil engineering students, (2014 to 2015).
- f) Assistant professor of structural engineering at department of civil engineering, university of Kurdistan, (2013 to 2021).
- g) Member of the American Society of Civil Engineering (ASCE).
- h) Member of the American Concrete Institute (ACI).

Awards

- a) Distinguished Researcher of Civil Engineering Department, University of Kurdistan, in 2025.
- b) Distinguished Teacher of Civil Engineering Department, University of Kurdistan, in 2023.
- c) Distinguished Teacher of Civil Engineering Department, University of Kurdistan, in 2021.
- d) Admission Rank in MSc test: 103 (Among the 2468 participants) in 2006.
- e) Second rank as a BSc graduate at University of Kurdistan in 2005.

Languages

- Kurdish (Native Language)
- Persian (Iranian Formal Language)
- English (Spoken, Written)

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