



Hussain Gharehbaghi

Assistant Professor

College: Mechanical Engineering

Employment Information

Faculty/Department	Position/Rank	Employment Type	Cooperation Type	Grade
(not set)	(not set)	On Contract	Full Time	1

Papers in Conferences

1. F Ghorbani, H Gharehbaghi, A Farrokhabadi, A Bolouri ,Investigation of the Energy Absorption Capacity of Novel 3D-Printed Glass Fiber Reinforced Thermoplastic Bio-Inspired Structures ,20th European Conference on Composite Materials ,2022.
2. MR Mohammad Aliha, H Gharehbaghi, R Ghafoori Ahangar ,Fracture study of a welded aluminum cylinder containing longitudinal crack and subjected to combined residual stress and internal pressure ,12th International Aluminium Conference ,2013.

Papers in Journals

1. A. Musavi, H. Gharehbaghi, M. Sadeghzade, A. Farrokhabadi, S.K. Hedayati & A.H. Behravesh,Investigation of the Equivalent Mechanical and Thermal Properties of the Kite-Shaped Fiber-Reinforced Cellular Structure: Analytical, Numerical and Experimental Approaches,Engineering Structures,2025.
2. H. Gharehbaghi, A.M., Shojaei, M. Sadeghzade & A. Farrokhabadi,Residual stiffness and strength analysis of fatigue behavior in a 3D-printed honeycomb structure of continuous glass fiber-reinforced polylactic acid (PLA) composite,Composites Part C,2025.
3. M. Avarzamani, H. Gharehbaghi, M. Bahrami, A. Farrokhabadi, A.H. Behravesh & S.K. Hedayati,Energy absorption response of functionally graded 3D printed continuous fiber reinforced composite cellular structures: Experimental and numerical approaches,Mechanics of Advanced Materials and Structures,2025.
4. E Hosseinpour, AM Goudarzi, F Morshedsolouk, H Gharehbaghi,Numerical and experimental study on the energy absorption characteristics of thin-walled auxetic cylindrical tubes with varying porosity,Journal of Materials Research and Technology,2025.
5. H Gharehbaghi, M Aghaei,Investigation of creep-fatigue interaction in steam turbine rotor,Forces in Mechanics,2025.
6. M. Sadeghzade, A. Dadashi,, H. Gharehbaghi,Mechanical behavior, process innovations, and future directions of 3d-printed continuous fiber-reinforced polymeric lattice structures: A comprehensive

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7. S Mohammadi Ghalehney, MH Sadeghi, H Barati, H Gharehbaghi, Enhancing auxetic gradient structures for hip joint implants to optimize stress shielding reduction, *Physica Scripta*, 2024.
8. F Ghorbani, H Gharehbaghi, A Farrokhbabadi, A Bolouri, Evaluation of the mechanical properties and energy absorption in a novel hybrid cellular structure, *Aerospace Science and Technology*, 2024.
9. H Gharehbaghi, A Farrokhbabadi, Experimental, analytical, and numerical studies of the energy absorption capacity of bi-material lattice structures based on quadrilateral bipyramid unit cell, *Composite Structures*, 2024.
10. H Gharehbaghi, A Farrokhbabadi, Z Noroozi, Introducing a new hybrid surface strut-based lattice structure with enhanced energy absorption capacity, *Mechanics of Advanced Materials and Structures*, 2024.
11. Sahel Mohammadi Ghalehney, Mohammad Hossien Sadeghi, Hussain Gharehbaghi, Mechanical properties of 2D re-entrant gradient structures produced by additive manufacturing, *Iranian Journal of Science and Technology, Transactions of Mechanical Engineering*, 2024.
12. H Gharehbaghi, M Jamshidi, A Almomani, Experimental and numerical investigation of energy absorption in honeycomb structures based on lozenge grid unit cells under various loading angles, *Composites Part C*, 2024.
13. Fatemeh Ghorbani, Hussain Gharehbaghi, Amin Farrokhbabadi, Amir Bolouri, Amir Hossein Behraves, Seyyed Kaveh Hedayati, Investigation of energy absorption performances of a 3D printed fiber-reinforced bio-inspired cellular structure under in-plane compression loading, *Mechanics of Advanced Materials and Structures*, 2024.
14. H Gharehbaghi, A Farrokhbabadi, Analytical, experimental, and numerical evaluation of mechanical properties of a new unit cell with hyperbolic shear deformable beam theory, *Mechanics of Advanced Materials and Structures*, 2024.
15. M Sadeghzade, H Gharehbaghi, H Toozandehjani, A Farrokhbabadi, Experimental study of energy absorption capability in the lattice structures based on the octagonal bipyramid unit cell, *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, 2023.
16. H Gharehbaghi, A Farrokhbabadi, Parametric study of the energy absorption capacity of 3D-printed continuous glass fiber reinforced polymer cruciform honeycomb structure, *Steel and Composite Structures*, 2023.
17. Amin Farrokhbabadi, Hossein Veisi, Hussain Gharehbaghi, John Montesano, Amir Hossein Behraves, Seyyed Kaveh Hedayati, Investigation of the energy absorption capacity of foam-filled 3D-printed glass fiber reinforced thermoplastic auxetic honeycomb structures, *Mechanics of Advanced Materials and Structures*, 2023.
18. F Ghorbani, H Gharehbaghi, A Farrokhbabadi, A Bolouri, Investigation of the equivalent mechanical properties of the bone-inspired composite cellular structure: analytical, numerical and experimental approaches, *Composite Structures*, 2023.
19. Amin Farrokhbabadi, Hussain Gharehbaghi, Hossein Malekinejad, Mohammad Sebghatollahi, Zahra Noroozi, Hossein Veisi, Study of equivalent mechanical properties and energy absorption of composite honeycomb structures, *International Journal of Applied Mechanics*, 2023.
20. H Gharehbaghi, S Hosseini, R Hosseini, Investigation of the Effect of Welding Residual Stress on Natural Frequencies, Experimental and Numerical Study, *Iranian Journal of Science and Technology, Transactions of Mechanical Engineering*, 2023.
21. H Gharehbaghi, M Sadeghzade, A Farrokhbabadi, Introducing the new lattice structure based on the representative element double octagonal bipyramid, *Aerospace Science and Technology*, 2022.
22. M Sadeghzade, H Gharehbaghi, A Farrokhbabadi, Experimental and analytical studies of mechanical properties of additively manufactured lattice structure based on octagonal bipyramid cubic unit cell, *Additive Manufacturing*, 2021.
23. A Farrokhbabadi, MM Ashrafian, H Gharehbaghi, R Nazari, Evaluation of the equivalent mechanical properties in a novel composite cruciform honeycomb using analytical and numerical

methods, Composite Structures, 2021.

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25. E Hosseinpour, AM Goudarzi, F Morshedsolouk, H Gharehbaghi, Numerical and Experimental Investigation of the Crushing Performance of Perforated Thin-Walled Cylindrical Tubes, Automotive Science and Engineering, 2025.

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27. H Gharehbaghi, A Farrokhhabadi, بررسی تجربی و عددی قابلیت جذب انرژی ساختار مشبک دو ماده ای، نشریه علمی پژوهشی علوم و فناوری کامپوزیت، ۲۰۲۲.

28. H Gharehbaghi, MR Mohammad Aliha, اندازه گیری تجربی و اجزاء محدود تنش پسماند حاصل از جوشکاری، ورق آلومینیومی و بررسی تاثیر آن بر روی مقادیر فرکانس طبیعی، ماهنامه علمی پژوهشی مهندسی مکانیک مدرس، ۲۰۱۸.

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