Complete list of publications of Masoud Asgari

Monograph:

1. **Asgari, M***. (2016): Optimal material tailoring of 2D heterogeneous cylinder for a prescribed temperature field in transient heat conduction. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 230 (2), pp. 470-483. DOI: 10.1177/1464420715578700
2. **Asgari, M***. (2016): Material optimization of functionally graded heterogeneous cylinder for wave propagation. Journal of Composite Materials, 50 (25), pp. 3525-3538. DOI: 10.1177/0021998315622051
3. **Asgari, M***. (2016): Vibration interaction analysis of non-uniform cross-section beam structure under a moving vehicle. International Journal of Acoustics and Vibrations, 21 (4), pp. 429-439. DOI: 10.20855/ijav.2016.21.4437
4. **Asgari, M***. (2015): Material distribution optimization of 2D heterogeneous cylinder under thermo-mechanical loading. Structural Engineering and Mechanics, 53 (4), pp. 703-723. DOI: 10.12989/sem.2015.53.4.703
5. **Asgari, M***. (2010): Dynamic Analysis of 2D-FGM Materials under Thermo-Mechanical Loading. Tehran. Amirkabir University of Technology (Tehran polytechnic). 180 pp

Further publications:

A) Publications with peer review process

1. H Mojavery Agah, **M Asgari***, (2024): A nature-inspired gradable elliptic-cell lattice structure based on cypress wood texture; theoretical and experimental analysis for mechanical properties, Mechanics of Advanced Materials and Structures 31 (24), 6166-6181.
2. K Kouhi-Lakeh, M Teimouri, **M Asgari***,(2024): Bio-inspired topology optimization driven design for 3D printed radially graded meta-structures; design, modeling and mechanical characteristics, Composite Structures 346, 118435.
3. A Iranmehr, A Tafazoli, **M Asgari***,(2024): Architected tunable twist-compression coupling metastructures based on a generative parametric design for energy absorption and effective mechanical properties, Mechanics Based Design of Structures and Machines 52 (10), 7726-7744
4. M Mazaheri, M Khalajzadeh, **M Asgari***,(2024): Development of a novel multi-cellular origami metastructure and investigation into numerical and experimental energy absorption behaviour, Amirkabir Journal of Mechanical Engineering 56 (5), 717-740
5. Derrick Gharapetian, Mehdi Alian Fini, **Masoud Asgari***, Bahman Shabani, (2024): A nanofluid-based hybrid photovoltaic-thermal -thermoelectric generator system for combined heat and power applications, Energy Conversion and Management 301 (2024) 118066. doi.org/10.1016/j.enconman.2024.118066
6. Mohammadi, Z. **Asgari, M***., Soltani, M. (2023): Mechanical properties of a new 3D printed gradable porous cellular lattice structure considering surface-to-volume capability. Part E: Journal of Process Mechanical Engineering, DOI: 10.1177/09544089231195735
7. Khalili, O.*, **Asgari, M**., (2023): Fluid-Structure Interaction and Structural Simulation of High Acceleration Effects on Surgical Repaired Human Mitral Valve Biomechanics. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine. DOI: 10.1177/09544119231200367

8. Majidi, M., **Asgari, M***. (2023): Nonlinear bending–twisting coupling in electromechanical finite deformation of fiber-reinforced tubular dielectric elastomer for soft actuators. International Journal of Non-Linear Mechanics, 156, art. no. 104480. DOI: 10.1016/j.ijnonlinmec.2023.104480.
9. Sadighi, A., **Asgari, M***. (2023): A novel corrugated carbon-fiber composite tube with circular corrugations on the lateral surface for crashworthiness: Manufacturing method, experimental and numerical analysis. Journal of Composite Materials. DOI: 10.1177/00219983231190700.
10. Agah, H. M., **Asgari, M***. (2023): A nature-inspired gradable elliptic-cell lattice structure based on cypress wood texture; theoretical and experimental analysis for mechanical properties. Mechanics of Advanced Materials and Structures. DOI: 10.1080/15376494.2023.2226133.
11. Teimouri, M., **Asgari, M***. (2023): Developing an efficient coupled function-based topology optimization code for designing lightweight compliant structures using the BESO algorithm. Optimization and Engineering. DOI: 10.1007/s11081-023-09808-w
12. Majidi, M., **Asgari, M*.** (2023): Rate-dependent electromechanical behavior of anisotropic fiber-reinforced dielectric elastomer based on a nonlinear continuum approach: modeling and implementation. European Physical Journal Plus, 138 (1), art. no. 73. DOI: 10.1140/epjp/s13360-023-03688-w.
13. Mortazavi Moghaddam, A., Kheradpisheh, A., **Asgari, M***. (2023): An integrated energy absorbing module for battery protection of electric vehicle under lateral pole impact. International Journal of Crashworthiness, 28 (3), pp. 321-333. DOI: 10.1080/13588265.2022.2075123.
14. Majidi, M., **Asgari, M***. (2023): Developing an Analytical Model for Viscoelastic Anisotropic Dielectric Elastomer and Investigating the Rate Dependent Electromechanical Behavior. Amirkabir J. Mech. Eng., 54(12) (2023) 563-566. DOI: 10.22060/mej.2023.21565.7468
15. Alian Fini, M., Gharapetian, D., **Asgari, M*.** (2022): Efficiency improvement of hybrid PV-TEG system based on an energy, exergy, energy-economic and environmental analysis; experimental, mathematical and numerical approaches. Energy Conversion and Management, 265, art. no. 115767. DOI: 10.1016/j.enconman.2022.115767
16. Shiravand, A., **Asgari, M*.** (2022): A new method for design and calculating the mechanical properties and energy absorption behavior of cellular structures using foam microstructure modeling based on Laguerre tessellation. Structures, 36, pp. 428-444DOI: 10.1016/j.istruc.2021.12.042
17. Sadighi, A., Azimi, M.B., **Asgari, M*.,** Eyvazian, A. (2022): Crashworthiness of hybrid composite-metal tubes with lateral corrugations in axial and oblique loadings. International Journal of Crashworthiness, 27 (6), pp. 1813-1829. DOI: 10.1080/13588265.2021.2017654
18. Allahyari, E., **Asgari, M*.** (2022): Fiber reinforcement characteristics of anisotropic dielectric elastomers: A constitutive modeling development. Mechanics of Advanced Materials and Structures, 29 (26), pp. 5542-5556. DOI: 10.1080/15376494.2021.1958275
19. Sadighi, A., Salaripoor, H., **Asgari, M*.** (2022): Comprehensive study on the crashworthiness of a new developed axially-half corrugated aluminum tubes. International Journal of Crashworthiness, 27 (3), pp. 633-650. DOI: 10.1080/13588265.2020.1836761.
20. A. Tafazoli, **Asgari, M**.*, A. Ghaznavi., (2022): Numerical and Experimental Study Of Energy Absorption of Multi-Layer AluminumComposite Conical Frustum Structures under Axial Loading. Amirkabir J. Mech. Eng., 54(8) (2022) 371-374. DOI: 10.22060/mej.2022.20923.7338
21. Ahmadi, A., **Asgari, M*.** (2021): Novel bio-inspired variable stiffness soft actuator via fiber-reinforced dielectric elastomer, inspired by Octopus bimaculoides. (2021) Intelligent Service Robotics, 14 (5), pp. 691-705. DOI: 10.1007/s11370-021-00388-1

22. Allahyari, E., **Asgari, M***. (2021): Nonlinear dynamic analysis of anisotropic fiber-reinforced dielectric elastomers: A mathematical approach. Journal of Intelligent Material Systems and Structures, 32 (18-19), pp. 2300-2324. DOI: 10.1177/1045389X21995879

23. Mortazavi Moghaddam, A., Kheradpisheh, A., **Asgari, M***. (2021): A basic design for automotive crash boxes using an efficient corrugated conical tube. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 235 (7), pp. 1835-1848. DOI: 10.1177/0954407021990921

24. Teimouri, M., **Asgari, M***. (2021): Mechanical performance of additively manufactured uniform and graded porous structures based on topology-optimized unit cells. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 235 (9), pp. 1593-1618. DOI: 10.1177/0954406220947119

25. Teimouri, M., Mahbod, M., **Asgari, M***. (2021): Topology-optimized hybrid solid-lattice structures for efficient mechanical performance. Structures, 29, pp. 549-560. DOI: 10.1016/j.istruc.2020.11.055

26. Allahyari, E., **Asgari, M***. (2020): Effect of Fibers Configuration on Nonlinear Vibration of Anisotropic Dielectric Elastomer Membrane. International Journal of Applied Mechanics, 12 (10), art. no. 2050114. DOI: 10.1142/S1758825120501148

27. Mohtadifar, N., **Asgari, M***.(2020): New Additively Manufactured Cellular Lattice Structure; Theory and Experiment. Modares Mechanical Engineering. 2020;20(7):1895-1910

28. Azimi, M.B., **Asgari, M***., Salaripoor, H. (2020): A new homo-polygonal multi-cell structures under axial and oblique impacts; considering the effect of cell growth in crashworthiness. International Journal of Crashworthiness, 25 (6), pp. 628-647. DOI: 10.1080/13588265.2019.1628461

29. Mahbod, M., **Asgari, M***., Mittelstedt, C. (2020): Architected functionally graded porous lattice structures for optimized elastic-plastic behaviour. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 234 (8), pp. 1099-1116. DOI: 10.1177/1464420720923004

30. Sadighi, A., Mahbod, M., **Asgari, M***. (2020): Bi-tubular corrugated composite conical–cylindrical tube for energy absorption in axial and oblique loading: Analysis and optimization. Journal of Composite Materials, 54 (18), pp. 2399-2432. DOI: 10.1177/0021998319897407

31. Hashemi, S.S., **Asgari, M***., Rasoulian, A. (2020): An experimental study of nonlinear rate-dependent behaviour of skeletal muscle to obtain passive mechanical properties. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 234 (6), pp. 590-602. DOI: 10.1177/0954411920909705.

32. Teimouri, M., **Asgari, M***. (2021): Developing a Bidirectional Evolutionary Topology Algorithm for Continuum Structures with the Objective Functions of Stiffness and Fundamental Frequency with Geometrical Symmetry Constraint. Amirkabir J. Mech. Eng., 52(1) (2020) 63-66. DOI: 10.22060/mej.2018.13881.5741

33. Mahbod, M., **Asgari, M***. (2020): Multiobjective optimization of a newly developed additively manufactured functionally graded anisotropic porous lattice structure. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 234 (11), pp. 2233-2255. DOI: 10.1177/0954406220903743

34. Allahyari, E., **Asgari, M***., Jafari, A.A. (2020): Nonlinear size-dependent vibration behavior of graphene nanoplate considering surfaces effects using a multiple-scale technique. Mechanics of Advanced Materials and Structures, 27 (9), pp. 697-706. DOI: 10.1080/15376494.2018.1494870

35. Salaripoor, H., Azimi, M.B., **Asgari, M***. (2020): Optimized foam filling configuration in bi-tubular crush boxes; A comprehensive experimental and numerical analysis. Engineering Research Express, 2 (1), art. no. 015012. DOI: 10.1088/2631-8695/ab67ee

36. Ahmadi, A., **Asgari, M***. (2020): Nonlinear coupled electro-mechanical behavior of a novel anisotropic fiber-reinforced dielectric elastomer. International Journal of Non-Linear Mechanics, 119, art. no. 103364. DOI: 10.1016/j.ijnonlinmec.2019.103364

37. Shiravand, A., **Asgari, M***. (2019): Hybrid metal-composite conical tubes for energy absorption; theoretical development and numerical simulation. Thin-Walled Structures, 145, art. no. 106442. DOI: 10.1016/j.tws.2019.106442.

38. Shamshiri M., **Asgari, M***. (2019): Nonlinear Model of Thermoelectric Coupling and Experimental and Numerical Analysis of Thermoelectric Generator Setup. Modares Mechanical Engineering. 2019;19(3):527-538.

39. Shiravand, A., **Asgari, M***. (2019): A New Method for Eestimating the Compressive Strain of Cellular Structures using Microstructure of Foams Based on Laguerre Tessellations. MEJ, Volume 53, Issue 6, Pages 3629-3644. DOI: 0.22060/mej.2020.18265.6795

40. Sadighi, A., Eyvazian, A., **Asgari, M***., Hamouda, A.M. (2019): A novel axially half corrugated thin-walled tube for energy absorption under Axial loading. Thin-Walled Structures, 145, art. no. 106418. DOI: 10.1016/j.tws.2019.106418

41. Mahbod, M., **Asgari, M***. (2019): Crushing analysis of empty and foam-filled cylindrical and conical corrugated composite tubes. Mechanics of Advanced Composite Structures, 6 (1), pp. 35-44. DOI: 10.22075/macs.2019.16155.1165

42. Allahyari, E***., Asgari, M**. (2019): Effect of magnetic-thermal field on nonlinear wave propagation of circular nanoplates. Journal of Electromagnetic Waves and Applications, 33 (17), pp. 2296-2316. DOI: 10.1080/09205071.2019.1677271

43. Teimouri, M., **Asgari, M***. (2019): Multi-objective BESO topology optimization for stiffness and frequency of continuum structures. Structural Engineering and Mechanics, 72 (2), pp. 181-190. DOI: 10.12989/sem.2019.72.2.181

44. **Asgari, M***., Keyvanian, S.S. (2019): Crash injury analysis of knee joint considering pedestrian safety. Journal of Biomedical Physics and Engineering, 9 (5), pp. 569-578DOI: 10.31661/jbpe.v0i0.424

45. Allahyari, E**., Asgari, M***. (2019): Effects of in-phase and anti-phase large amplitude nonlinear models for double-layer nanostructures. SN Applied Sciences, 1 (8), art. no. 813. DOI: 10.1007/s42452-019-0844-2

46. Ahmadi, A., **Asgari, M***. (2019): Efficient crushable corrugated conical tubes for energy absorption considering axial and oblique loading. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 233 (11), pp. 3917-3935. DOI: 10.1177/0954406218806006

47. Allahyari, E., **Asgari, M***., Pellicano, F. (2019): Nonlinear strain gradient analysis of nanoplates embedded in an elastic medium incorporating surface stress effects. European Physical Journal Plus, 134 (5), art. no. 191. DOI: 10.1140/epjp/i2019-12575-4

48. Mahbod, M., **Asgari, M***. (2019): Elastic and plastic characterization of a new developed additively manufactured functionally graded porous lattice structure: Analytical and numerical models. International Journal of Mechanical Sciences, 155, pp. 248-266. DOI: 10.1016/j.ijmecsci.2019.02.041

49. Allahyari, E., **Asgari, M***. (2019): Thermo-mechanical vibration of double-layer graphene nanosheets in elastic medium considering surface effects; developing a nonlocal third order shear deformation theory. European Journal of Mechanics, A/Solids, 75, pp. 307-321. DOI: 10.1016/j.euromechsol.2019.01.022.

50. Mahbod, M., **Asgari, M***. (2019): Mechanical Properties of Functionally Graded Porous Biomaterials for Application in Prosthesis Replacement Using Analytical and Numerical Solution. Modares Mechanical Engineering. 19(11):2717-2727

51. Golzari, A., **Asgari, M***. (2018): Dynamic analysis and wave propagation in rotating heterogeneous cylinders under moving load and thermal conditions; implementing an efficient mesh free method. Applied Mathematical Modelling, 61, pp. 377-407. DOI: 10.1016/j.apm.2018.05.001

52. Mahbod, M., **Asgari, M***. (2018): Energy absorption analysis of a novel foam-filled corrugated composite tube under axial and oblique loadings. Thin-Walled Structures, 129, pp. 58-73. DOI: 10.1016/j.tws.2018.03.023

53. Allahyari, E., **Asgari, M***. (2018): Vibration behavior of nanocomposite plate reinforced by pristine and defective graphene sheets; an analytical approach. International Journal of Engineering, Transactions A: Basics, 31 (7), pp. 1095-1102. DOI: 10.5829/ije.2018.31.07a.13

54. **Asgari, M***., Babaee, A., Jamshidi, M. (2018): Multi-objective optimization of tapered tubes for crashworthiness by surrogate methodologies. Steel and Composite Structures, 27 (4), pp. 427-438. DOI: 10.12989/scs.2018.27.4.427

55. Moradi, B., **Asgari, M***. (2018): Brain Trauma in Vehicle Side Crash; Developing a Computational Model for DiffuseAxonal and Subdural Hematoma Injuries. Amirkabir Journal of Mechanical Engineering, 50(1) (2018) 31-34. DOI: 10.22060/mej.2017.11803.5187

56. **Asgari, M***., B. Rashedi. (2018): Pertinence of Sheep Knee Joint for Calibration of Ligaments' Constitutive Equations; Experimental and Theoretical Study. AUT J. Mech. Eng., 2(2) (2018) 165-176. DOI: 10.22060/ajme.2018.13821.5322.

57. M. A. Dehghanian, **Asgari, M***. (2018): بررسی و بهینه سازی رفتار جاذب‌های انرژی چند جداره و چندسلولی با مقاطع مختلف

Investigation and Optimization of Multi-walled Multi-cell Energy Absorbers considering Different Cross-sections. JMEUT. Volume 48, Issue 4, Pages 143-152.

58. **Asgari M*.,** Khanmohammadi, A., Parsa, M., (2018): مدل‌سازی و پیاده‌سازی اجزا محدود رفتار خمشی ناهمسانگرد محرک‌های الاستومر دی‌الکتریک تقویت شده با الیاف زاویه‌دار متقاطع

Cyclic Plasticity Behavior of Thick Walled FGM Cylinder Based on Nonlinear Kinematic Hardening. JMEUT, Volume 48, Issue 2, Pages 201-208

59. Sharifikia, D., **Asgari, M***. (2017): Dynamic analysis of healthy and edge-to-edge repaired mitral valve behavior subjected to high G accelerations. Journal of Mechanics in Medicine and Biology, 17 (2), art. no. 1750032. DOI: 10.1142/S0219519417500324

6. **Asgari, M***. (2017): Free vibration analysis of functionally heterogeneous hollow cylinder based on three dimensional elasticity theory. International Journal of Acoustics and Vibrations, 22 (2), pp. 151-160. DOI: 10.20855/ijav.2017.22.2460

60. **Asgari, M***., Hashemi, S.S. (2016): Dynamic visco-hyperelastic behavior of elastomeric hollow cylinder by developing a constitutive equation. Structural Engineering and Mechanics, 59 (4), pp. 601-619. DOI: 10.12989/sem.2016.59.4.601.

61. S. Saadatmand Hashemi, **Asgari, M***, (2016): Development and Calibration of 3D Constitutive Equations for Nonlinear Passive Multi-Axial Finite Deformations of Skeletal Muscles, Modares Mechanical Engineering. Vol. 16, No. 9, pp. 298-306.

62. A. Noamani, V. Dehghan Niestanak, **Asgari, M***, (2016): 3D Unpressurized Model for Non Linear Dynamic Analysis of Human Aortic Valve in Dynamic Condition, Modares Mechanical Engineering. Vol. 16, No. 3, pp. 263-272. 2016.

63. Azimi, M.B., **Asgari, M***. (2016): Energy absorption characteristics and a meta-model of miniature frusta under axial impact. International Journal of Crashworthiness, 21 (3), pp. 222-230. DOI: 10.1080/13588265.2016.1164445

64. Shariyat, M*., Sarvi, Z., **Asgari, M**. (2016): A unit-cell-based three-dimensional molecular mechanics analysis for buckling load, effective elasticity and Poisson's ratio determination of the nanosheets. Molecular Simulation, 42 (5), pp. 353-369. DOI: 10.1080/08927022.2015.1054282

65. Azimi, M.B., **Asgari, M***. (2016): A new bi-tubular conical-circular structure for improving crushing behavior under axial and oblique impacts. International Journal of Mechanical Sciences, 105, pp. 253-265. DOI: 10.1016/j.ijmecsci.2015.11.012.

66. Sarvi, Z., **Asgari, M***., Shariyat, M., Googarchin, H.S. (2015): Explicit expressions describing elastic properties and buckling load of BN nanosheets due to the effects of vacancy defects. Superlattices and Microstructures, 88, pp. 668-678. DOI: 10.1016/j.spmi.2015.10.028

67. Z. Sarvi , M. Shariyat* and **Asgari**, **M.** (2015): Closed-form Molecular Mechanics Formulations for the 3D Local Buckling and 2D Effective Young's Modulus of the Nanosheets. JAMECH, Vol. 46, No. 1, January. 2015, pp 51-62

68. **Asgari, M**., Akhlaghi, M*. (2011): Thermo-mechanical analysis of 2d-fgm thick hollow cylinder using graded finite elements. (2011) Advances in Structural Engineering, 14 (6), pp. 1059-1073. DOI: 10.1260/1369-4332.14.6.1059

69. **Asgari, M**., Akhlaghi, M*. (2011): Natural frequency analysis of 2D-FGM thick hollow cylinder based on three-dimensional elasticity equations. European Journal of Mechanics, A/Solids, 30 (2), pp. 72-81. DOI: 10.1016/j.euromechsol.2010.10.002

70. **Asgari, M**., Akhlaghi, M*. (2010): Transient thermal stresses in two-dimensional functionally graded thick hollow cylinder with finite length. Archive of Applied Mechanics, 80 (4), pp. 353-376. DOI: 10.1007/s00419-009-0321-2

71. **Asgari, M**., Akhlaghi, M*., Hosseini, S.M. (2009): Dynamic analysis of two-dimensional functionally graded thick hollow cylinder with finite length under impact loading. Acta Mechanica, 208 (3-4), pp. 163-180. DOI: 10.1007/s00707-008-0133-4

72. **Asgari, M**., Akhlaghi, M*. (2009): Transient heat conduction in two-dimensional functionally graded hollow cylinder with finite length. Heat and Mass Transfer/Waerme- und Stoffuebertragung, 45 (11), pp. 1383-1392. DOI: 10.1007/s00231-009-0515-8

B) Submitted publications with peer review process

1. Iranmehr, A., Taffazoli, A., **Asgari, M***. (2023): Architected tunable twist-compression coupling metastructures based on a generative parametric design for energy absorption and effective mechanical properties. Mechanics Based Design Of Structures And Machines

2. Majidi, M., **Asgari, M***. (2023): Nonlinear Electromechanical Responses in Multi-layered Fiber-reinforced Dielectric Elastomer Composites as Thin-walled Smart Soft Actuators. Thin-Walled Structures

3. Taffazoli, A., **Asgari, M***. (2023): Crushing analysis of aluminum/composite FML conical structures; Numerical and experimental investigation. Structural Engineering and Mechanics, An International Journal

C) Publications without peer review process

1. Mohtadifar, N.*, **Asgari, M**. (2019): New Radially Graded Porous Additively Manufactured Cellular Structure for Bone Implants Theoretical and Experimental Analysis. 26th National and 4th International Iranian Conference on Biomedical Engineering, ICBME 2019, art. no. 9030379, pp. 43-48. DOI: 10.1109/ICBME49163.2019.9030379.

2. Mahbod, M.*, **Asgari, M**. (2018): Mechanical Properties of Functionally Graded Biomaterials in Bone Replacement; Analytical and Numerical Solution. 25th Iranian Conference on Biomedical Engineering and 2018 3rd International Iranian Conference on Biomedical Engineering, ICBME 2018, art. no. 8703574. DOI: 10.1109/ICBME.2018.8703574

3. Hashemi, S.S.*, **Asgari, M**., Rasoulian, A. (2017): A mathematical modeling for in vitro skeletal muscle behavior in shear deformation modes. 23rd Iranian Conference on Biomedical Engineering and 2016 1st International Iranian Conference on Biomedical Engineering, ICBME 2016, art. no. 7890973, pp. 285-289. DOI: 10.1109/ICBME.2016.7890973

4. Ehsan Allahyari, **Asgari M**.*, Masoumi, A. (2018): Thermo-mechanical vibration of double-layer graphene nanocomposites considering surface effects, International Conference on Composite Structures, 4-7 September 2018 – University of Bologna, Italy.

5. Mahbod M., **Asgari M**.*, (2018): Mechanical properties of functionally graded biomaterials in bone replacement; analytical and numerical solution, 25th Iranian Conference on Biomedical Engineering (ICBME 2018) Nov 26-28, 2018 Tehran, Iran.

6. Sadighi, A. , **Asgari, M**, (2018): Energy Absorption Analysis of Empty and Foam-Filled Bi-tubular Composite Tube under Axial and Oblique Loading, The 6th International Conference on Composites:Characterization, Fabrication and Application (CCFA-6), Dec. 11-12, 2018, Tehran, Iran.

7. Teimouri, M. , **Asgari, M**, (2018): Modified BESO Topology Optimization Algorithm for Fundamental Frequency Considering Geometrical Symmetry Constraint, The Biennial International Conference on Experimental Solid Mechanics (X-Mech 2018), 13-14 Feb., 2018, Tehran, Iran.

8. Haji Akbari, H., **Asgari, M***, (2018): Parametric study of single and multi-bolted joints in composite structures, The Biennial International Conference on Experimental Solid Mechanics (X-Mech 2018), 13-14 Feb., 2018, Tehran, Iran

9. **Asgari M**.*, Ehsan Allahyar, Multiple-scale analysis of nonlinear free vibration of nanoplate including surface effects, 2nd World Congress & Expo on Materials Science and Nanoscience, September 25-27, 2017 in Valencia, Spain.

10. Salaripoor, H., **Asgari**, M*., (2017): Experimental and Numerical Study of Crushing Behavior of Multi-Walled Polygonal Cross section Tubes Using COPRAS Multi Criteria Decision Making Algorithm, 25th Annual International Conference on Mechanical Engineering, ISME2017, 2-4 May 2017, Tarbiat Modares university, Tehran, Iran.

11. Moradi B., **Asgari M.**, (2017): Analysis of Brain Trauma in Side CrashBased on FEM Model, 7thd Conference on Engineering and Natural Science, Prague, Chech Republic, 21-22 July, 2017.

12. Sanaz S. Hashemi*, **Asgari M.**, (2016): Akbar Rasoulian, A Mathematical Modeling for in Vitro Skeletal Muscle Behavior in Shear Deformation Mode, 23th Iranian Conference on Biomedical Engineering (ICBME 2016), 2016 Tehran, Iran.

13. Sharifikia D., **Asgari D.***, (2016): Healthy and Edge-to-Edge Repaired Mitral Valve Dynamic Simulation, 2nd Conference on Novel Approaches of Biomedical Engineering in Cardiovascular Diseases, Tehran, Iran, 21-22 January, 2016.

14. D. Sharifikia, **M. Asgari***, (2015): Explicit Dynamic Analysis of Mitral Valve Closure using Hyperelastic Constitutive Modeling, 23 rd Annual International Conference on Mechanical Engineering-ISME2015, 12-14 May, 2015, Tehran, Iran.

15. M. Taheri, **M. Asgari***, (2014): An Exact Solution for Creep Behaviour of Functionally Graded Thick Spherical Pressure Vessel, 22nd Annual International Conference on Mechanical Engineering-ISME2014, 12-14 May, 2014, Ahwaz, Iran.

16. **M. Asgari***, A. Khanmohammadi and M. Parsa, (2014):mCyclic Behavior of Thick Walled FGM Cylinder Based on Nonlinear Kinematic Hardening Models, 4th International Conference on Composites Characterization, Fabrication and Application, December 16-17, 2014, Tehran, Iran.

17. D. Sharifikia, **M. Asgari***, (2014): Structural Simulation of Human Mitral Valve Behaviour Cosidering Effects of Material Nonlinearities, 21th Iranian Conference on Biomedical Engineering (ICBME 2014) Nov 26-28, 2014 Tehran, Iran.

18. **M. Asgari***, A. Ghorbanpour, S. Mortazavi, (2013): Buckling of Double walled Carbon Nano Coned Embedded in Elastic Foundation, 21st Annual International Conference on Mechanical Engineering-ISME2013, 7-9 May, 2013, Tehran, Iran.

19. **M. Asgari***, A. Bahri, H.R. Lari, (2012): Effective Finite Element Models for Fatigue Analysis of Bolted Connections in Megawatt Wind Turbine Structure, The International Conference on Experimental Solid Mechanics and Dynamics (X-Mech-2012), March 6-7, 2012, Tehran, Iran.

20. **M. Asgari***, A. Bahri, H.R. Lari, (2012): Finite Element Based Fatigue Analysis of Bolted joints in Multi-Megawatt wind Turbines Main Frame, NAUN International Conferences of Recent Researches in Applied Mechanics, , March 7-9, 2012, Athens, Greece.

21. M. Noorijani, **M. Asgari**, M. Akhlaghi*, (2010): Volume Fraction Optimization of 2D FGM Thick Hollow Cylinder under Mechanical and Thermal Loading using Genetic Algorithm, 18th Annual (International) Conference on Mechanical Engineering (ISME2008) May 14-16, 2010, Sharif University of Technology, Tehran, Iran.

22. **M. Asgari**, M. Akhlaghi*, (2009): Analysis of 2D Functionally Graded Hollow Cylinder under Transient Thermal Loading for Heat Resisting, 19th International Workshop on Computational Mechanics (IWCMM'19), September 1-4 2009, Constanta, Romania.

23. **M. Asgari**, M. Akhlaghi*, M. Sadighi, (2008): Material Distribution Design of Functionally Graded Hollow Cylinder under Transient Thermal Loading for Heat Resisting', 16th Annual (International) Conference on Mechanical Engineering (ISME2008) May 14-16, 2008, Shahid Bahonar University of Kerman, Iran.

24. **M. Asgari**, M. Akhlaghi*, S. M. Hoseini, (2008): Analysis of Transient Stress Wave in Two-Dimensional Functionally Graded Tick Hollow Cylinder with Finite Length, CSME-SCGM biannual conference, 2008, Ottawa, Canada.

25. **M. Asgari**, M. Akhlaghi*, (2008): Two-Dimensional Functionally Graded Cylindrical Shell with Finite Length under Impact Loading, 10th International Conference on Structures Under Shock and Impact (SUSI2008), 14 - 16 May 2008, Algarve, Portugal.

26. **M. Asgari,** M. Akhlaghi*, M. Sadighi, (2008): Reduction of Transient Thermal Stresses in Finite Length Hollow Cylinder by Using Two-Dimensional Functionally Graded Materials, 4th International Conference on High Performance Structures and Materials (HPSM2008), 13 - 15 May, 2008, London, UK.

27. **M. Asgari** M. Akhlaghi*, M. Sadighi, (2007): Two-Dimensional Wave Propagation in Functionally Graded Cylindrical Shell with Finite Length', 3rd Int. Conf. On Applied and Theoretical Mechanic (MECHANICS'07), Dec. 14-16, 2007, Tenerife, Spain.

28. M.T. Ahmadian*, E. Esmailzadeh, **M. Asgari**, (2006): Dynamic Analysis of Non-uniform Cross-Section Beam under Moving Mass Using Finite Element Method', 14th International Mechanical Engineering Conference ISME2006, May 16-18, 2006, Isfahan University of Technology, Isfahan, Iran.

29. M.T. Ahmadian*, E. Esmailzadeh, **M. Asgari**, (2006): Stress Distribution Analysis of a Non-uniform Cross-Section Beam under Moving Mass', The Biennial Canadian Society of Mechanical Engineering Forum Conference CSME2006, May 21-23, 2006, Calgary, Alberta, Canada.

30. Ahmadian M.T.*, Esmailzadeh E**., Asgari M**., (2006): Dynamical stress distribution analysis of a non-uniform cross-section beam under moving mass', Proceedings of ASME International Mechanical Engineering Congress and Exposition, Chicago, Illinois, USA, November 5-10, 2006.

E) Patents

1. **Asgari, M**., Kiani, K., Shamshiri, M. A., Izadipour, N., (2017): Hybrid Thermoelectric system for energy harvesting from hot exhaust gas, PN: H02B 1/01; F001N 05/00. Application date: 2017/April/18. Iranian National Patent.
2. Alian Fini, M., Gharapetian, D., **Asgari, M**. (2020): Combined Heat and Electricity Recovery System by Photovoltaic-Thermoelectric elements, PN: H02S 40/44; F24S 10/00. Application date: 2019/July/1. Iranian National Patent.

F) Books:

1. Advances in Dielectric Elastomer Composites: A Nonlinear Elasticity Framework, M Asgari, M Majidi

CRC Press, 2025. DOI:10.1201/9781003571469

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