

Hamed Ahmadi

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Education

(Sep 2009 – Mar 2014) **PhD**, Department of Mechanical Engineering, Tarbiat Modares University, Tehran, Iran.

(Sep 2007 – Sep 2009) **MSc**, Department of Mechanical Engineering, Tarbiat Modares University, Tehran, Iran.

(Sep 2003 – Sep 2007) **BSc**, Department of Mechanical Engineering, Sharif University of Technology, Tehran, Iran.

Professional Experience

(Sep 2020 – present) Dean of Applied Mechanics Group, Department of Mechanical Engineering, Tarbiat Modares University, Tehran, Iran.

(Sep 2016 – present) Assistant Professor, Department of Mechanical Engineering, Tarbiat Modares University, Tehran, Iran.

(Mar 2014 – Jan 2015) Post-doc Fellow, Department of Mechanical Engineering, Tarbiat Modares University, Tehran, Iran.

Research Interests

Impact on Composite Structures, Impact on Bio-Materials, Crash Vehicle Mechanics, Crashworthiness (Materials & Structures), High Strain Rate Mechanical Properties.

Membership

Iranian Society of Mechanical Engineers (ISME).

Iranian Association for Impact Engineering (IRAIE), Vice Chairman of the Board.

Society of Manufacturing Engineering of Iran (SMEIR).

Editorial Position

(2015 – present) Associated Editor & Executive Manager, *Iranian Journal of Manufacturing Engineering* (In Persian).

(2012 – 2018) Associated Editor, *Modares Mechanical Engineering* (In Persian).

Professional Services

Conference Chairman

- ✓ Executive Secretary of The 5th International Conference on Manufacturing Engineering, December 25-26, 2019, Tehran, Iran.
- ✓ Scientific Secretary of The 27th International Conference of Iranian Society of Mechanical Engineering, April 30 – May 2, 2019, Tehran, Iran.
- ✓ Scientific Secretary of The 4th International Conference on Manufacturing Engineering, October 24-25, 2018, Tehran, Iran.
- ✓ Associated of the Scientific Secretary of The 25th International Conference of Iranian Society of Mechanical Engineering, May 2-4, 2017, Tehran, Iran.

Master Thesis Graduation Committee

- ✓ Mohammad Bagher Yousefi, “Investigation of crack growth between reinforcement and shell in composite lattice plates under compressive loading using numerical and experimental methods”, Tarbiat Modares University, Jul 22, 2017.
- ✓ Mohammad Bahrami, “Study and study of matrix crack growth in symmetric layered composites under bending”, Tarbiat Modares University, Sep 20, 2017.
- ✓ Ali Razzaghi, “Experimental and numerical study of the effect of the amount of added alumina nanopowder on the ballistic properties of aluminum nanocomposites made by powder metallurgy”, Tarbiat Modares University, Dec 17, 2017.
- ✓ Arsalan Pourbabaee, “Nonlinear Dynamic Behavior Analysis of a Cracked Rotor System with Hydrodynamic Bearings”, Tarbiat Modares University, Feb 4, 2018.
- ✓ ShirAli Farsvani Mohammadi, “Experimental and numerical study of projectile penetration in concrete with ceramic grains”, Tarbiat Modares University, Mar 7, 2018.
- ✓ Soroush Masoumi, “Experimental and numerical analysis of curved composite sandwich panels with grid-stiffened core under three-point bending”, Tarbiat Modares University, Mar 11, 2018.
- ✓ Alireza Jabbarirad, “Development of ultrasonic welding method for bonding of thermoset reinforced polymers”, Tarbiat Modares University, Sep 8, 2018.
- ✓ Mohammad Ali Mashhadi, “Feasibility study of using composite materials as an alternative to polyamide engine parts”, Tarbiat Modares University, Sep 21, 2019.
- ✓ Iman Mohammadi, “Design and Numerical Modeling of a Composite Guardrail under impact loading due to crash”, University of Tehran, Feb 8, 2020.
- ✓ Mohammad Ghorbanpour, “Optimization of the structure of the car engine compartment made of composite sandwich panels”, University of Tehran, Feb 14, 2020.

- ✓ Mahdi Nikseresht, “Investigation and analysis of dynamic stability of nonlinear vehicle model based on body parameters and vibration isolation of vehicle and passenger”, Tarbiat Modares University, Feb 17, 2020.
- ✓ Sara Neyestani, “Experimental and numerical study of delamination crack growth in hybrid composites”, Tarbiat Modares University, Sep 14, 2020.
- ✓ Seyed Hamed Ghavami, “Investigation of the behavior of polymeric composite laminate bolted joints under impact loading: Numerically and experimentally”, University of Tehran, Feb 7, 2021.
- ✓ Mohammad Sadeghzade, “Investigation and determination of mechanical properties in rves extracted from lattice structures of additive manufacturing”, Tarbiat Modares University, Sep 22, 2021.
- ✓ Mohammad Javidi Shirazi, “Numerical and experimental study of mechanical properties of sandwich panels with foam filled metallic auxetic core”, University of Tehran, Sep 30, 2021.
- ✓ Mohammad Hasan Mohammadi, “Numerical and experimental investigation on the mechanical properties of sandwich panels with metallic double-walled auxetic core”, University of Tehran, Oct 1, 2021.
- ✓ Bita Hashemi, “Analysis of Fiber Metal Laminates under Low Velocity Impact Loading”, Golpayegan University of Technology, Nov 3, 2021.

PhD Thesis Graduation Committee

- ✓ Saman Esfahani, “Design and modeling of an adjustable superficial lens by considering the vibrations of optical nano-intensifiers in contrast to the radiative electromagnetic wave”, Tarbiat Modares University, Feb 25, 2019.
- ✓ Mahdi Baghaei, “Modeling and analysis of aeroelasticity of rectangular composite sheet reinforced with MFC layer exposed to ultrasonic air flow”, Tarbiat Modares University, Feb 18, 2019.
- ✓ Mohammad Hedayatian, “Experimental, Analytical and Numerical analysis of sandwich panel behavior with auxetic core under low velocity impact”, University of Tehran, Oct 4, 2021.

Teaching Experiences

Post-graduate

- ✓ *Impact Mechanics I*
- ✓ *Impact Mechanics II*
- ✓ *Plasticity*
- ✓ *Mechanical Properties of Materials*
- ✓ *Advanced Mathematics*

Undergraduate

- ✓ *Strength of Materials I & II*
- ✓ *Design of Mechanical Elements*
- ✓ *Dynamics*
- ✓ *Statics*

Supervisions

Doctoral Students

- (2013 – 2018) Mehran Ghalami, “*Theoretical, experimental and numerical analysis of the behavior of metal-fiber multilayer sheets under quasi-static penetration and low velocity impact*”
- (2014 – 2019) Amin Khodadadi, “*Numerical and Experimental Analysis of Penetration into Kevlar/Elastomer Composite Flat Panels*”
- (2016 – 2021) Samaneh Asemami, “*Analytical numerical analysis of penetration in elastomeric composite sheets reinforced with fibers kevlar*”
- (2018 – present) Shahide Jannesari, “*Theoretical and Experimental Analysis of Projectile Penetration into Ceramic Elastomer Fiber Metal Laminates*”
- (2019 – present) Maryam Ashktorab, “*Theoretical and numerical analysis of FGM bone plate subjected to low speed oblique impact*”
- (2020 – present) Mohammad Norouzi, “*Theoretical and numerical analysis of low-velocity impact on rubber panels*”

MSc Students

- (2013 – 2016) Seyed Mahdi Motaz Barzani, “*Experimental and numerical study of high speed impact on composite foam panels reinforced with crushed glass fibers*”
- (2014 – 2017) Mahdi Ebrahimkhani, “*experimental and numerical investigation of crushing performance of composite tubes with hourglass cross-section*”
- (2014 – 2017) Behzad Ebrahimi, “*Experimental and Numerical investigation on crushing behavior of stitched composite square tube*”
- (2015 – 2018) Sadaf Karkoudi, “*experimental and numerical analysis of impact behaviour of wood composite reinforced with nano particles*”
- (2015 – 2018) Zahra Zaeim, “*Experimental and Numerical Analysis of Aluminium Powder-Ceramic Composite Subjected to Impact Loading*”
- (2015 – 2018) Iman Nateghi, “*Experimental and numerical investigation on the behavior of polymeric foam with added nano particles subjected to impact loading*”
- (2016 – 2019) Mahdi Tayyebati, “*Experimental and numerical analysis of the effects of the use of composite rings on the metallic metal car adsorbents*”
- (2016 – 2019) Yousef Mohammadi, “*Experimental and numerical investigation on the energy absorption of the honeycomb sandwich panels filled with elastomer*”
- (2016 – 2019) Fariba Zarrin, “*Experimental and numerical Investigation of the behavior of Sandwich panel Composite facing and tandem Honeycomb Cores*”
- (2017 – 2019) Ahmad Ataei, “*Experimental and numerical investigation of compression after impact strength of grid stiffened composite panels*”
- (2017 – 2019) Mohammad Amin Zarezadeh, “*experimental and numerical investigation of low-velocity projectile penetration into elastomeric fiber metal laminates*”
- (2017 – 2020) Milad Najafi, “*Experimental and numerical analysis on the behavior of auxetic structures under impact loading*”

- (2017 – 2020) Nima Zahedan, “*Composite reinforcing of the vehicle structures for enhancing the resistance in side crashes*”
- (2017 – 2020) Alireza Taherzadeh Fard, “*Analytical, numerical and experimental investigation of high velocity penetration of elastomer layered fiber metal laminates (EFMLs)*”
- (2016 – 2020) Hossein Javid, “*Experimental and Numerical Investigation of stitching effects on impact properties and post impact behaviour of hybrid composite plates*”
- (2017 – 2020) Faezeh Hamidin, “*manufacture and analysis of sandwich panels with filled and unfilled sine and square corrugated cores*”
- (2018 – 2021) Amirreza Yari, “*Experimental and numerical analysis of the behavior of flat sandwich panels with AAC core and composite face sheets in high velocity impact loading*”
- (2018 – 2021) Zahra Nazari, “*Experimental and numerical investigation of low velocity impact on polyurethane foam with negative poissons ratio*”
- (2017 – 2021) Farshad Jafari, “*Numerical analysis of energy absorption of modified guardrails with rubber plates*”
- (2018 – 2021) Majid Parvaresh, “*Design and Experimental analysis of flexible auxetic structures as energy absorber*”
- (2018 – 2021) Milad Oloumi, “*Experimental and Numerical analysis on the axial collapse of thin-walled tubes with auxetic wall under quasi-static and low-velocity impact loading*”
- (2018 – 2021) Amirreza Tarafdar, “*Experimental and Numerical investigation of axial impact loading on sandwich cylinder with multi-cell core*”
- (2018 – 2021) Javad Nikzare, “*Experimental and numerical analysis of the effect of using pre- perforated plates in front of target against ballistic impact*”
- (2018 – 2021) Moslem Rezaei Faraz, “*Experimental and Numerical investigation of axial impact loading on sandwich cylinder with Thermoplast multi-cell core*”
- (2018 – 2021) Behzad Nasimipour, “*Experimental and numerical investigation on energy absorption of curved rib-reinforced square hollow-section tubes*”
- (2019 – 2021) Bita Salati, “*Experimental and Numerical analysis of the behavior of two-layer capsules of lab on a disk under the quasi-static load*”
- (2019 – present) Seyed Sajad Barzigar, “*Analytical and numerical investigation of using functionally graded thickness honey comb in car hood for reducing pedestrian head injury in accidents*”
- (2019 – present) Bahram Zoghi, “*Experimental and numerical investigation on low velocity impact on electric vehicle battery pack*”
- (2019 – present) Mahdi Shadman, “*Analysis of semi-auxetic laminates under impact loading using machine learning*”
- (2019 – present) Mohammad Kazerouni Haghighat, “*Experimental and Numerical Analysis of High Speed Impact on Tank with Kevlar-Rubber Hybrid Composite Coating*”
- (2019 – present) Mostafa Nouraeinezhad, “*Experimental and numerical analysis of the influence of alumina nanoparticles on the impact behavior of the natural rubber-based elastomer*”
- (2019 – present) Sepehr Fallah, “*An investigation on sandwich panels with thermoplastic surfaces and elastomeric foam core under low speed impact*”
- (2019 – present) Mahdi Saber Sheikh Ahmad, “*Analysis of reagent storage capsule rupture during laboratory disk rotation at a given cycle*”
- (2019 – present) Amir Mohammad Manouchehri, “*experimental and numerical investigation on energy absorption of nonmetal honeycomb core sandwich panel with composite face-sheet under low velocity impact*”

- (2019 – present) Alireza Balayi, “*Experimental and numerical analysis of the dynamic stability of Lab On a Disc*”
- (2019 – present) Ali Abbasian, “*Experimental and numerical analysis of the influence of change in characterizations of Magnetorheological Elastomer plates subjected to high velocity impact*”
- (2020 – present) Mohammad Hossein Armanfard, “*Experimental and Numerical Analysis of Low velocity Impact on Natural Fiber Reinforced Elastomeric plane*”
- (2020 – present) Heydar Isam Mohammad Al-Sarhan, “*Experimental and numerical investigation of lithium-ion batteries under low velocity impact*”

Publications

Journals

2022

5. Nima Zahedan, ***Hamed Ahmadi***, Gholamhossein Liaghat, "Experimental and numerical investigation on the multi-optimization of reinforcing the side members of the vehicle structure", Archives of Civil and Mechanical Engineering, Vol. 22, No. 25, 2022. <https://doi.org/10.1007/s43452-021-00351-y>
4. Milad Najafi, ***Hamed Ahmadi***, Gholamhossein Liaghat, "Investigation on the flexural properties of sandwich beams with auxetic core", Journal of the Brazilian Society of Mechanical Sciences and Engineering, Published Online, Jan 27, 2022. <https://doi.org/10.1007/s40430-022-03368-3>
3. Amirreza Tarafdar, Omid Razmkhah, ***Hamed Ahmadi***, Gholamhossein Liaghat, Sahand Chitsaz Charandabi, Moslem Rezaei Faraz, "Effect of layering layout on the energy absorbance of bamboo-inspired tubular composites", Journal of Reinforced Plastics and Composites, Published Online, Jan 21, 2022. <https://doi.org/10.1177/07316844211063865>
2. M.A. Zarezadeh-Mehrizi, Gholamhossein Liaghat, ***Hamed Ahmadi***, A. Taherzadeh Fard, A. Khodadadi, "Numerical and experimental investigation of fiber metal laminates with elastomeric layers under low velocity impact", Polymer Composites, Accepted.
1. A.A. Naderi, K. Imani, ***Hamed Ahmadi***, "Crashworthiness study of an innovative helmet liner composed of an auxetic lattice structure and PU foam", Mechanics of Advanced Composite Structures, Accepted.

2021

13. Sadaf Karkoodi, Gholamhossein Liaghat, Hamid Zarea Hosseinabadi, ***Hamed Ahmadi***, “Characterization of MDF reinforced with Al₂O₃ Nano particles considering physical, mechanical and quasi-static properties”, Wood Material Science & Engineering, 2021, 6(16):380-390. <https://doi.org/10.1080/17480272.2020.1768436>
12. Nima Zahedan, ***Hamed Ahmadi***, S. Atashafrooz, M. Baghaeian, " Experimental and numerical investigation on bending strength of the vehicle bumper beam with internal stiffeners", International Journal of Crashworthiness, 2021, VOL. 26, NO. 6, 661–673. <https://doi.org/10.1080/13588265.2020.1767015>
11. Amirreza Tarafdar, Gholamhossein Liaghat, ***Hamed Ahmadi***, Omid Razmkhah, Sahand Chitsaz Charandabi, Moslem Rezaei Faraz, Ehsan Pedram "Quasi-static and low-velocity impact behavior of the bio-inspired hybrid

Al/GFRP sandwich tube with hierarchical core: Experimental and numerical investigation", *Composite Structures*, 2021, 276:114567. <https://doi.org/10.1016/j.compstruct.2021.114567>

10. A. Tarafdar, Gh. Liaghat, S. A. Tabatabaei Ghomi, M. Aghaei, ***Hamed Ahmadi***, H. Hafizi Atabak, K. Nosratzadegan, M. Taghi Rahiminezhad, S. Saedghi, "Experimental and Numerical investigation of explosive work hardening process on railway frogs", *Iranian Journal of Manufacturing Engineering*, Vol. 8, No. 9, pp. 23- 36, 2021 (in Persian)

9. S.Samane Asemani, Gholamhossein Liaghatb, ***Hamed Ahmadi***, Yavar Anani, Amin Khodadadi, "Comparison of penetration process of 2-layer elastomeric composite with thermoset composite using energy absorption equations", *Amirkabir Journal of Mechanical Engineering*, 2021, 53(6):14. <https://doi.org/10.22060/MEJ.2020.18500.6829>

8. A. A. Naderi, ***Hamed Ahmadi***, "Determination of stiffness coefficients and buckling strength of composite lattice conical shells using shell fiber path and lattice rib analysis", *Iranian Journal of Manufacturing Engineering*, Vol. 8, No. 7, pp. 31- 42, 2021 (in Persian)

7. M Karimiasl, ***Hamed Ahmadi***, "Theoretical investigation on the buckling behavior of smart composite sandwich panels with viscoelastic core and shape memory alloy included skins", *Polymer Composites*, 2021, 42(10):5361-5373. <https://doi.org/10.1002/pc.26229>

6. S. S. Asemani, Gh. Liaghat, ***Hamed Ahmadi***, Y. Anani, A. Khodadadi, S. Chitsaz Charandabi, "The experimental and numerical analysis of the ballistic performance of elastomer matrix Kevlar composites", *Polymer Testing*, 2021, 102, 107311. <https://doi.org/10.1016/j.polymeresting.2021.107311>

5. Yousef Mohamadi, ***Hamed Ahmadi***, Omid Razmkhah, Gholamhossein Liaghat, "Axial crushing responses of aluminum honeycomb structures filled with elastomeric polyurethane foam", *Thin-Walled Structures*, 2021, 164, 107785. <https://doi.org/10.1016/j.tws.2021.107785>

4. Parvaresh, M., ***Hamed Ahmadi***, and Liaghat, Gh., "Investigation on the Energy Absorption of Elastomeric Auxetic Structures in Quasi-static and Impact Loading", In Persian, *Journal of Science and Technology of Composites*, Vol. 8, No. 1, pp. 1431-1442, 2021.

3. Faezeh Hamidin, Amin Farrokhhabadi, ***Hamed Ahmadi***, "The Effect of Core Shape on the Bending Response of Sandwich Panels with Filled and Unfilled Sine and Square Corrugated Cores", *Journal of Failure Analysis and Prevention*, 2021, 21: 537-546. <https://doi.org/10.1007/s11668-020-01098-z>

2. A. Ataei, ***Hamed Ahmadi***, A. Farrokhhabadi, "Experimental investigation of buckling after impact strength of grid stiffened composite panels", Vol. 7, No. 11, pp. 34- 41, 2020 (in Persian).

1. N. Zahedana, ***Hamed Ahmadi***, G.H. Liaghat, "Experimental and Numerical Investigation on the Flexural Behavior of Composite-Reinforced Top-Hat Shape Beam", *Mechanics of Advanced Composite Structures* 8 (2021) 149 – 156. <https://doi.org/10.22075/mac.2020.19910.1245>

2020

7. M.A. Zarezadeh mehrizi, A. Taherzadeh-Fard; Gh. Liaghat; ***Hamed Ahmadi***; Y. Anani; A. Khodadadi; S.S. Asemani, "Experimental Investigation on the Inter-Laminar Strength in a Hybrid Elastomer Modified Fiber Metal Laminate Under High and Low-Velocity Impact and Quasi-Static Bending", *Amirkabir Journal of Mechanical Engineering*, 2020, 52(10):2931-2950. <https://doi.org/10.22060/MEJ.2019.16385.6358>

6. Nima Zahedan, ***Hamed Ahmadi***, GholamHossein Liaghat, “Energy absorption study of a new reinforced tophat section beam under flexural loading”, INTERNATIONAL JOURNAL OF CRASHWORTHINESS, Published Online, Nov 12, 2020. <https://doi.org/10.1080/13588265.2020.1844434>
5. Asemeni S, Liaghat G, ***Hamed Ahmadi***, Anani Y, Khodadadi A., “Experimental and Numerical Analysis of High Velocity Impact on 2-Layer Kevlar/Elastomer Composite”, Modares Mechanical Engineering. 2020; 20(12):2733-2745.
4. Alireza Taherzadeh-Fard, Gholamhossein Liaghat, ***Hamed Ahmadi***, et al. “Experimental and numerical investigation of the impact response of elastomer layered fiber metal laminates (EFMLs)”, Composite Structures, 2020, 245, 112264. <https://doi.org/10.1016/j.compstruct.2020.112264>
3. ***Hamed Ahmadi***, Gholamhossein Liaghat, Sahand Chitsaz Charandabi, “High velocity impact on composite sandwich panels with nano-reinforced syntactic foam core”, Thin-Walled Structures, 2020, 148, 106599. <https://doi.org/10.1016/j.tws.2019.106599>
2. Najafi M, ***Hamed Ahmadi***, Liaghat G.H. Experimental and Numerical Investigation of Energy Absorption in Auxetic Structures under Quasistatic Loading. Modares Mechanical Engineering. 2020;20(2):415-424.
1. M.Tayyebati, ***Hamed Ahmadi***, Gh. Liaghat, Experimental and numerical investigation on crushing of metal-composite hybrid energy absorber under a quasi-static loading, Iranian Journal of Manufacturing Engineering, Vol. 6, No. 8, pp. 57-69, 2019 (in Persian).

2019

11. Amin Khodadadi, Gholamhossein Liaghat, ***Hamed Ahmadi***, Ahmad Reza Bahramian, Omid Razmkhah, “Impact response of Kevlar/rubber composite”, Composite Science and Technology, 2019, 184, 107880. <https://doi.org/10.1016/j.compscitech.2019.107880>
10. I. Boroujeni-Nateghi, Gh. Liaghat, ***Hamed Ahmadi***, “Experimental Study on the Effect of Pentanediol as a Chain Extender on the Mechanical Properties of MDI Polyurethane Foams”, Iranian Journal of Polymer Science and Technology (Persian), 2019, 32:317-326. <https://doi.org/10.22063/JIPST.2019>
9. Khodadadi, A., Liaghat, Gh., ***Hamed Ahmadi***, Bahramian, A., Shahgholian-Ghahfarokhi, D., Anani, Y., Asemani, S.S., “Experimental and numerical analysis of high velocity impact on Kevlar/Epoxy composite plates”, Journal of Science and Technology of Composites, Vol. 6, No. 2, pp. 265-274, 2019. (In Persian)
8. ***Hamed Ahmadi***, M Ekrami, H Sabouri, M Bayat, “Experimental and numerical investigation on the effect of projectile nose shape in low-velocity impact loading on fiber metal laminate panels”, Proc IMechE Part G: J Aerospace Engineering 2019, Vol. 233(10) 3665–3679. <https://doi.org/10.1177/0954410018804384>
7. ***Hamed Ahmadi***, Gh Liaghat, “Analytical and Experimental Investigation of High Velocity Impact on Foam Core Sandwich Panel”, Polymer Composites, 2019, 40(6):2258-2272. <https://doi.org/10.1002/pc.25034>
6. Amin Khodadadi, Gholamhossein Liaghat, Ahmad Reza Bahramian, ***Hamed Ahmadi***, et al. “High velocity impact behavior of Kevlar/rubber and Kevlar/epoxy composites: A comparative study”, Composite Structures, 2019, 216, 159-167. <https://doi.org/10.1016/j.compstruct.2019.02.080>
5. Z. Zaiemyekheh, G.H. Liaghat, ***Hamed Ahmadi***, M.K. Khan, O. Razmkhah, “Effect of strain rate on deformation behavior of aluminum matrix composites with Al₂O₃ nanoparticles”, Materials Science & Engineering A, 2019, 753, 276-284. <https://doi.org/10.1016/j.msea.2019.03.052>

4. Amin Khodadadi, Gholamhossein Liaghat, **Hamed Ahmadi**, et al. “Numerical and experimental study of impact on hyperelastic rubber panels”, Iranian Polymer Journal (2019) 28:113–122.

<https://doi.org/10.1007/s13726-018-0682-x>

3. M. Ghalami-Chooabar, Gh. Liaghat, M. Sadighi, **Hamed Ahmadi**, “Optimization of manufacture process of Glass/Polycarbonate thermoplastic laminates using Taguchi method”, Iranian Journal of Manufacturing Engineering, Vol. 5, No. 4, pp. 37-43, 2019 (in Persian).

2. S.A. Taghizadeh, A. Farrokhbabadi, Gh. Liaghat, E. Pedram, H. Malekinejad, S. Farsavani Mohammadi, **Hamed Ahmadi**, “Characterization of compressive behavior of PVC foam infilled composite sandwich panels with different corrugated core shapes”, Thin-Walled Structures, 2019, 135, 160-172. <https://doi.org/10.1016/j.tws.2018.11.019>

1. **Hamed Ahmadi**, Gholamhossein Rahimi, “Analytical and experimental investigation of transverse loading on grid stiffened composite panels”, Composites Part B, 2019, 159, 184-198.

<https://doi.org/10.1016/j.compositesb.2018.09.040>

2018

4. M Ghalami-Chooabar, Gh Liaghat, M Sadighi, **Hamed Ahmadi**, “Eccentric low-velocity impact on fiber-metal laminates under in-plane loading using unified zigzag theory”, Composite Structures, 2018, 201, pp: 315-325.

<https://doi.org/10.1016/j.compstruct.2018.06.027>

3. M Ghalami-Chooabar, Gh Liaghat, M Sadighi, **Hamed Ahmadi**, O Razmkhah, A Aboutorabi, “Static analysis of highly anisotropic laminated beam using unified zig-zag theory subjected to mechanical and thermal loading”, International journal of Mechanical Sciences, 2018, 141, pp: 491-501. <https://doi.org/10.1016/j.ijmecsci.2018.04.030>

2. M. Ebrahimkhani, Gh. Liaghat, **Hamed Ahmadi**, “Simulation of crushing performance of Composite Energy Absorber under impact loading using Continuum Damage Mechanics approach”, Modares Mechanical Engineering, Vol. 17, No. 12, pp. 505-513, 2018 (in Persian).

1. M. Ghalami Chooabar, A. Bayat, Gh. H. Liaghat, **Hamed Ahmadi**, “Analysis of low velocity impact on nano-beam using modified couple stress theory”, Modares Mechanical Engineering, Vol. 17, No. 12, pp. 42-46, 2018 (in Persian).

2017

3. M. Ekrami, **Hamed Ahmadi**, M. Bayat, H. Sabouri, “Experimental study of projectiles with flat, conical and hemispherical nose shapes on low velocity impact on GLARE 3”, Modares Mechanical Engineering, Vol. 17, No. 7, pp. 109-118, 2017 (in Persian).

2. M. Ghalami-Chooabar, Gh. H. Liaghat, M. Sadighi, **Hamed Ahmadi**, “Static analysis of transversely anisotropic laminates using improved zig-zag theory subjected to sinusoidal load”, Modares Mechanical Engineering, Vol. 17, No. 94 pp. 393-398, 2017 (in Persian)

1. A Afrouzian, H Movahhedi, Gh Liaghat, **Hamed Ahmadi**, “Effect of nano-particles on the tensile flexural and perforation properties of the glass/epoxy composites”, JOURNAL OF REINFORCED PLASTICS AND COMPOSITES, 2017, 36 (12), pp:900-916. <https://doi.org/10.1177/0731684417694753>

2011-2016

7. **Hamed Ahmadi**, Gh Liaghat “Investigation on Tensile Properties of Plain and Nanoclay Reinforced Syntactic Foams“, International journal of composite materials, 2016, 6(1), pp:34-41.
6. **Hamed Ahmadi**, Gh Liaghat, M M Shokrieh, H Hadavinia, A Ordys, A Aboutorabi “Quasi-Static and Dynamic Compressive Properties of Ceramic Microballoon Filled Syntactic Foam“, journal of composite materials, 2015, 49 (10), pp:1255-1266.
5. **Hamed Ahmadi**, Gh Liaghat, M M Shokrieh, A Aboutorabi, A Ordys, H Hadavinia “Compressive Properties of Nanoclay Reinforced Syntactic Foams at Quasi-Static and High Strain Rate Loading “, Polymer-Plastics Technology and Engineering, 2014, 53, pp:990-999.
4. **Hamed Ahmadi**, Gh.H. Liaghat, M. Mehrdad Shokrieh, “Volume fraction and microballoon size effects on the compressive properties of epoxy/ceramic microballoon syntactic foam”, Modares Mechanical Engineering, Vol. 14, No. 4, pp. 37-44, 2014. (In Persian)
3. **Hamed Ahmadi**, Gh.H. Liaghat, M. Mehrdad Shokrieh, “Experimental investigation of fabrication parameters effects on the mechanical properties of epoxy/ceramic microballon syntactic foams”, Modares Mechanical Engineering, Vol. 14, No. 2, pp. 47-54, 2014. (In Persian)
2. **Hamed Ahmadi**, Gh Liaghat, H Sabouri, E Bidkhouri, “Experimental and Analytical Investigation on the Impact Properties of Glare Fiber Metal Laminates”, journal of composite materials, 2012, 47(13), pp: 1605-1615
1. H Sabouri, **Hamed Ahmadi**, Gh Liaghat, “Ballistic Impact Perforation into GLARE Targets: Experimental, Numerical Modeling and Investigation of Aluminum Stacking Sequence”, International Journal of Vehicle Structures and Systems, 2011, 3(3), pp: 178-183

Conference Contribution

38. A.R Yari, G.H Liaghat, **Hamed Ahmadi**, "Experimental study of quasi-static perforation of AAC panels", 6th international and 17th National Conference on Manufacturing Engineering, 2-4 March, 2021, Tehran, Iran.
37. A.R Tarafdar, G.H Liaghat, **Hamed Ahmadi**, E Pedram, M. Rezaei Faraz, "Experimental and Numerical analysis of tubular composite energy absorber subjected to quasi static axial compression", 6th international and 17th National Conference on Manufacturing Engineering, 2-4 March, 2021, Tehran, Iran.
36. M Rezaei Faraz, G.H Liaghat, **Hamed Ahmadi**, A.R Tarafdar, "Experimental investigation of the quasi-static response of pure polypropylene and aluminum tubes", 6th international and 17th National Conference on Manufacturing Engineering, 2-4 March, 2021, Tehran, Iran.
35. Nima Zahedan **Hamed Ahmadi** · Gholamhossein Liaghat, "Numerical study of composite sandwich panels with compound cellular core of auxetic lattice structure and foam under low velocity impact load", 6th international and 17th National Conference on Manufacturing Engineering, 2-4 March, 2021, Tehran, Iran.
34. Zahra Nazari, **Hamed Ahmadi** · Gholamhossein Liaghat, "Effect of auxeticity on the polyurethane foam's structure", 6th international and 17th National Conference on Manufacturing Engineering, 2-4 March, 2021, Tehran, Iran.
33. Asemi S, Liaghat G, **Hamed Ahmadi**, Anani Y, "Experimental study of the ballistic impact on the Kevlar/Elastomer Composite", 6th international and 17th National Conference on Manufacturing Engineering, 2-4 March, 2021, Tehran, Iran.

32. Nikzare J, Liaghat G, ***Hamed Ahmadi***, "Investigation on the pre-perforated plates", 6th international and 17th National Conference on Manufacturing Engineering, 2-4 March, 2021, Tehran, Iran.
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