



# MOJTABA YAZDANI

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[Mojtaba Yazdani - Google Scholar](#), [DBM-Yazdani](#), [SUT-M.Yazdani](#)

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A mechanical engineer with 18 years of experience specializing in experimental solid mechanics and FEM data analysis. 13 years as an associate professor at the Sahand University of Technology. 2009 won Khwarizmi Youth Award for Innovation recipient.

## EXPERIENCE

FEBRUARY 2010 – NOW (FULL-TIME)

**ACADEMIC STAFF**, SAHAND UNIVERSITY OF TECHNOLOGY

I became an assistant professor and researcher at the Sahand University of Technology in 2010. After six years, I was promoted to associate professor and am currently pursuing a full professorship. In the meantime, I've utilized my experience to construct one of the best-equipped laboratories for dynamic loading tests in Iran, where I research the dynamic behavior of materials.

## EXECUTIVE

2011 – NOW

**FOUNDER AND MANAGER**, DYNAMIC BEHAVIOR OF MATERIALS (D.B.M.) RESEARCH LABORATORY, SAHAND UNIVERSITY OF TECHNOLOGY

2018 – 2022

**VICE PROVOST**, MECHANICAL ENGINEERING FACULTY, SAHAND UNIVERSITY OF TECHNOLOGY

2019 – NOW

**CONSULTANT IN SOLID MECHANICS**, MOTORSAZAN COMPANY, TRACTORSAZI GROUP

FEBRUARY 2006 – MARCH 2009 (PART-TIME)

**ENGINEER IN SOLID MECHANICS**, MACHINERY DEPARTMENT, IRAN RAILWAY RESEARCH CENTER

## AWARDS

- Second place 2008 Khwarizmi Youth Award for applied research – mechanical engineering
- Iran national elite foundation program for doctoral scholarships, 2008.
- Iran national elite foundation credit prize for young assistant professors, 2010.

## **EDUCATION**

**DECEMBER 2009**

**P. H D.,** TARBAIT MODARES UNIVERSITY, TEHRAN, IRAN

**SEPTEMBER 2006**

**MSC.,** TARBAIT MODARES UNIVERSITY, TEHRAN, IRAN

**SEPTEMBER 2002**

**BSC,** TABRIZ UNIVERSITY, TABRIZ, IRAN

**SEPTEMBER 1997**

**HIGH SCHOOL DIPLOMA,** AZADEGHAN TALENT HIGH SCHOOL, MARAGHEH, IRAN

## **PATENTS**

- Special filament winding machine for isogrid composite cylinder shells (Registered in Iran)
- Microcellular aluminum foam (Registered in Turkey)
- Polymeric impact energy absorber (Registering in Iran)

## **SKILLS**

- Research team managing
- Taught mechanical engineering courses
- Design, manufacturing, and data analysis of mechanical engineering test equipment
- Finite element analysis
- Experimental analysis of the mechanical properties of materials

## **RESEARCH FIELDS**

- Production of metal foams for energy absorption
- Production of the polymeric impact energy absorber
- Lightweight composite structures
- Collision mechanics

## **SPECIAL SKILLS IN MECHANICAL ENGINEERING**

- Design, manufacturing, and data analysis of drop weight test equipment
- Design and manufacturing, and data analysis of split pressure Hopkinson bar

- Design and manufacturing of a special filament winding machine for grid-stiffened composite shells
- Design and manufacturing of equipment for microcellular aluminum foam fabrication.

## **NUMBER OF PUBLICATIONS**

## **NUMBER OF CITATIONS RECEIVED**

## **H-INDEX:**

## **PUBLICATIONS**

- M. Hajizadeh, M. Yazdani, H. Khodarahmi, Experimental study of the low-velocity impact behavior of open-cell aluminum foam made by the infiltration method, *International Journal of Protective Structures*, 2023.
- M. Yazdani, Sh. Sharifloo, M. Rezaei, Buckling Behavior and Energy Absorption of Grid-Stiffened Composite Cylinders under Low-Velocity Axial Impact, *Polymer Composites*, 2023.
- B. Teimouri, M. Yazdani, Closed-cell aluminum foams with spherically-adjustable pores: numerical and experimental investigation of effective parameters, *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, 2023.
- A. Parsa, M. Yazdani, Effect of geometrical parameters on compression performance and energy absorption of pyramidal thin-walled tube core sandwich panel, *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, 2023.
- B. Teimouri, M. Yazdani, Experimental and numerical analysis of parameters affecting the mechanical behavior of closed cell aluminum foam in low-speed impact, *Iranian Journal of Manufacturing Engineering*, Vol. 9, No. 12, pp. 43- 53, 2023 (in Persian).
- H. Hasan-nezhad, M. Yazdani, Investigate the dynamic compressive (cushioning) response of 3D GFRP composites when the STF matrix base material is modified PEG, *Journal of Molecular Liquids*, Vol. 366, pp. 120304, 2022.
- H. Hasan-nezhad, M. Yazdani, A. Akbari, M. Salami-Kalajahi, M. R. Kalhori, Study the effects of PEG modification methods on the resistance of 3D E-glass woven-STF composites at

quasi-static and low-velocity impact loads, *Journal of Molecular Liquids*, Vol. 362, pp. 119781, 2022.

- H. Borghei, B. Behjat, M. Yazdani, Effect of adhesive and nanocomposite layers on lap shear strength of layup bonded joints, *Journal of Adhesion Science and Technology*, Vol. 36, No. 7, pp: 731-747, 2022.
- H. Salimi, M. Hajizadeh, M. R. Kalhori, S. Jalili, M. Yazdani, Low-Cycle Fatigue Assessment of Open-Cell A332 Aluminum Alloy Foams, *International Journal of Fatigue*, Vol. 159, pp: 106797, 2022.
- H. Hasan-nezhad, M. Yazdani, M. Jeddi, High-and Low-velocity Impact Experiments on Treated STF/3D Glass Fabrics, *Thin-Walled Structures Journal*, Vol. 171, No. 2, pp: 108720, 2022.
- J. Dabbagh, B. Behjat, M. Yazdani, and M. Rezaei. Experimental Investigation of the Effect of Functionalized Graphene Oxide on the Mechanical Properties of Epoxy Adhesive. *Journal of Mechanical Engineering* Vol. 51, No. 4 pp: 277-286, 2022 (in Persian).
- M. Jeddi, M. Yazdani, H. Hasan-nezhad, Experimental Study on Puncture Resistance of 2D and 3D Glass Fabrics Reinforced with Shear Thickening Fluid (STF), *AUT Journal of Mechanical Engineering*, 2021, (Online Published)
- Parsa, M. Yazdani, Presentation of a new construction methodology and experimental study of the energy absorption of pyramid core sandwich panels, *Iranian Journal of Manufacturing Engineering*, Vol. 8, No. 7, pp. 10-19, 2021 (In Persian)
- Khabazaghdam, B. Behjat, M. Yazdani, L. F. M. Da Silva, E. A. S. Marques & X. Shang, Creep behavior of a graphene-reinforced epoxy adhesively bonded joint: experimental and numerical investigation, *The Journal of Adhesion*, Vol. 97, No. 13 pp: 1189-1210, 2021.
- M. Jeddi, M. Yazdani, H. Hasan-nezhad, Energy Absorption Characteristics of Aluminum Sandwich Panels with Shear Thickening Fluid (STF) Filled 3D Fabric Cores under Dynamic Loading Conditions, *Thin-Walled Structures Journal*, Vol. 168, No. 11, pp: 108254, 2021.
- M. Hajizadeh, M. Yazdani, Sh. Vesali, H. Khodarahmi, T. Mirzababaie Mostofi, An experimental study on the quasi-static compression behavior of open-cell aluminum foams focusing on controlling the space holder particle size, *Journal of Manufacturing Processes*, Vol. 70, No. 10, pp. 193-204, 2021.
- R. Jami, M. R. Khoshnavan Azar, M. Yazdani, Experimental and numerical comparison of the effects of phase transformation changes and asymmetric welding on residual stresses in gas

pipe welding using LTT filler, Iranian Journal of Manufacturing Engineering, Vol. 8, No. 4, pp. 39- 49, 2021 (in Persian).

- R. Jami, M. R. Khoshnavan Azar, M. Yazdani, The Effect of Thickness, Welding Metals Sequence and Composition on Residual Stresses in Welding Gas Steel Pipes using LTT filler, Iranian Journal of Manufacturing Engineering, Vol. 8, No. 2, pp. 11- 22, 2021 (in Persian)
- M. Jeddi, M. Yazdani, Dynamic Compressive Response of 3D GFRP Composites with Shear Thickening Fluid (STF) Matrix as Cushioning Materials, Journal of Composite Materials, Vol. 55, No. 16, pp: 2151-2164, 2021.
- H. Salimi, M. Pourgol-mohammad, M. Yazdani, Low-Cycle Fatigue Assessment of Metallic Materials Based on Thermodynamic Entropy Generation - Methodology and Model Development, International Journal of Fatigue, Vol. 144, pp 106058, 144, 2021.
- J. Dabbagh, B. Behjat, M. Yazdani, L. F. M. Da Silva, An experimental investigation on low cycle fatigue behavior of GO-NH<sub>2</sub> reinforced epoxy adhesive, Part L: Journal of Materials: Design and Applications, vol. 235, No. 4, pp 763-776, 2021.
- H. Hasan-nezhad, M. Yazdani, M. Salami-Kalajahi, M. Jeddi, Mechanical Behavior of 3D GFRP Composite with Pure and Treated Shear Thickening Fluid Matrix Subject to Quasi-Static Puncture and Shear Impact Loading, Journal of Composite Materials, Vol. 54, No. 26, pp: 3933-3948, 2020.
- Soltan Mohammad Lou, M. Pourgol-Mohammad, M. Yazdani, Probabilistic Life Assessment of Gas Turbine Blade Alloys under Creep, International Journal of Reliability, Risk and Safety: Theory and Application, Vol. 3, No. 2, pp. 9-17, 2020.
- M. Pourmostafaei, M. Pourgol-Mohammad, M. Yazdani, and H. Salimi, Physics of Failure-Based Reliability Assessment for Systems Exposed to Sliding Wear Under Uncertainty. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering 6, no. 2 (2020): 021010.
- E. Aligholizadeh, M. Yazdani, H. Sabouri, Modeling hyper-viscoelastic behavior of elastomeric materials (HDPE/POE blend) at different dynamic biaxial and uniaxial tensile strain rates by a new dynamic tensile-loading mechanism, Journal of Elastomers & Plastics, Vol. 52, No. 4, pp: 285-303,2020
- H. Salimi, M. Pourgol-mohammad, M. Yazdani, Metal Fatigue Assessment Based on Temperature Evolution and Thermodynamic Entropy Generation, International Journal of Fatigue, Vol. 127, pp. 403-416, 2019

- Abbaszadeh, M. Yazdani, F. Abbasi, A. Rashed, Investigating the behavior of silicon coated Kevlar fabric under low-velocity impact: experimental and numerical study, *Journal of Thermoplastic Composite Materials*, Vol. 32, No. 05, pp. 635-656, 2019
- H. Borghei, B. Behjat, M. Yazdani, The impact of graphene nanoparticle additives on the strength of simple and hybrid adhesively bonded joints, *Journal of Composite Materials*, Vol. 53, No. 23, pp. 3335-3346, 2019
- Mirzaei-Solhi, J. Khalil-Allafi, M. Yusefi, M. Yazdani and A. Mohammadzadeh, Fabrication of aluminum foams by using CaCO<sub>3</sub> foaming agent, *Materials Research Express*, Vol. 5, No. 9, 096526, 2018.
- Khalili Jam, M. Yazdani, T. Saeid, The production of aluminum foam with a new method and the study of its compressive behavior, *Modares Mechanical Engineering*, Vol. 18, No. 05, pp. 462-471, 2018 (in Persian)
- E. Aligholizadeh, M. Yazdani, H. Sabouri, Experimental investigation of strain rate effect on reinforced elastomeric material behavior (HDPE/POE) under quasi-static and dynamic loading, *Modares Mechanical Engineering*, Vol. 18, No. 4, pp. 619-626, 2018 ( in Persian)
- R. Amooyi Dizaji, M. Yazdani, E. Aligholizadeh, A. Rashed, Effect of 3D-Woven Glass Fabric and Nanoparticles Incorporation on Impact Energy Absorption of GLARE Composites, *Polymer Composites*, Vol. 39, No.10, pp. 3528-3536, 2018.
- R. Amooyi Dizaji, M. Yazdani, Low-Velocity Impact Response of CARALL Composites Reinforced With Nano Particles, *Modares Mechanical Engineering*, Vol. 17, No. 2, pp. 58-64, 2017, (in Persian).
- R. Amooyi Dizaji, M. Yazdani, An experimental investigation of the effect of 3D fabric in the amount of energy absorbed in the GLARE composite, *Modares Mechanical Engineering*, Vol. 16, No. 4, pp. 49-54, 2016 (in Persian).
- M. Yazdanipour, M. Pourgol-Mohammad, N.A. Choupani, M. Yazdani, Fatigue life prediction based on probabilistic fracture mechanics: a case study of automotive parts. *ASCE-ASME J Risk and Uncert in Engrg Sys Part B Mech Engrg*, Vol. 2, No. 1, 011002-1, 2016.
- S. Shiri, M. Pourgol-Mohammad, M. Yazdani, Prediction of Remaining Fatigue Cycles in Composite Materials Under Uncertainty, *ASCE-ASME J Risk and Uncert in Engrg Sys Part B Mech Engrg*, Vol. 2, No. 1, pp: 011001-1 - 011001-6, 2016.

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- V. Khaliji, M. Yazdani, N. Choupani, Experimental determination of translaminar fracture toughness of woven glass epoxy composite using a new fixture, *Modares Mechanical Engineering*, Vol. 15, No. 11, pp. 330-338, 2015 (In Persian).
- Rashed, M. Yazdani, Studying the performance of multi-layered ceramic-epoxy armor under high-velocity impact with finite element method, *Modares Mechanical Engineering*, Vol. 15, No. 1, pp. 11-20, 2015 (In Persian).
- S. Shiri, M. Yazdani, M. Pourgol-mohammad, A fatigue damage accumulation model based on stiffness degradation of composite materials, *Journal of Materials & Design*, Vol. 88, pp. 1290-1295, 2015.
- S. Shiri, M. Yazdani, M. Pourgol-mohammad, Fatigue life prediction of polymeric composites based on the simultaneous degradation of stiffness and strength under two-stage loading, *Modares Mechanical Engineering*, Vol. 14, No. 14, pp. 137-142, 2015 (In Persian).
- S. Shiri, M. Pourgol-mohammad, M. Yazdani, Effect of strength dispersion on fatigue life prediction of composites under two-stage loading, *Journal of Material & Design*, Vol. 65, pp. 1189–1195, 2015.
- Rashed, M. Yazdani, Studying the behavior of ceramic armors impacted by a 7.62-mm APM2 projectile, *Modares Mechanical Engineering*, Vol. 14, No.14, pp. 125-136, 2015 (In Persian).
- M. A. Ghasemi, M. Yazdani, E. Soltanabadi, Buckling behavior investigation of grid stiffened composite conical shells under axial loading, *Modares Mechanical Engineering*, Vol. 14, No. 15, pp. 170-176, 2015 (In Persian).
- M. A. Ghasemi, M. Yazdani, Analysis of effective parameters on the buckling of grid stiffened composite shells based on the first order shear deformation theory, *Modares Mechanical Engineering*, Vol. 13, No. 10, pp. 51-61, 2014 (In Persian).
- M. Yazdani, M. Rezghi, M.R. Khalili, B. Moomivand, Analysis of free edge stresses in a cross-ply composite plate by applying shooting method, *Modares Mechanical Engineering*, Vol. 13, No. 9, pp. 1-11, 2013 (In Persian).
- M. Yazdani, G.H. Rahimi, Behavior of GFRP Stiffened and Unstiffened Shells under Cyclic Axial Loading and Unloading, *Journal of Reinforced Plastics and Composites*, Vol. 30, Issue 5, pp. 440-445, 2011.

- M. Yazdani, G.H. Rahimi, The Effects of Helical Ribs' Number and Grid Types on the Buckling of Thin-Walled GFRP Stiffened Shells under Axial Loading, Journal of Reinforced Plastics and Composites, Vol.29 Issue 17 pp. 2568-2575, 2010.

## **LIST OF FUNDED RESEARCH PROJECTS**

### **COURSES TAUGHT**

- Static
- Mechanics of materials
- Mechanical engineering design
- Composite materials
- Advanced engineering mathematics
- Theory of plates and shells
- Impact mechanics
- Continuum mechanics
- Theory of elasticity

### **LIST OF REFERENCES**