

Asghar Jamshid Doust

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Education:

- Ph.D. in Aerospace Structures Engineering, Tarbiat Modares University, Tehran, Iran, 2018-Present.
- M.Sc. in Aerospace Structures Engineering, Sharif University of Technology, Tehran, Iran, 2011–2014
- B.Sc. in Aerospace Engineering, Sharif University of Technology, Tehran, Iran, 2007-2011
- Pre-University Certificate in Physics and Mathematics Discipline, Latifi High School, Gilan, Iran, 2007
- High School Diploma in Physics and Mathematics Discipline, Latifi High School, Gilan, Iran, 2006

Research interests:

- Structural Analysis and Optimization
- Smart Materials and Structures
- Dynamics of Structures
- Linear and Nonlinear Finite element Analyses
- Damage Mechanics of Composite Materials

Publications:

- Mohammad Tahmasbi, Asghar Jamshiddoost and Amin Farrokhhabadi; Optimum power of a nonlinear piezomagnetoelastic energy harvester with using multidisciplinary optimization algorithms, *Journal of Intelligent Material Systems and Structures* 2020 .(accepted for publication)

Work Experience:

- Mapna Locomotive Engineering& Manufacturing Company (MLC), Research & Development Department, Senior CAE Engineer, October 2017-Present.
- Avatsoft Institute (www.avatsoft.com), Ansys and HyperWorks Tutor, April 2017- Present.
- Membrane Filtration Technology Center, Mechanical Engineer, September 2015- January 2017.
- Sharif University of Technology, Aerospace engineering department, composite Laboratory, Research collaborator, October 2014- August 2015.

Professional Academic & Industrial Projects:

- M.Sc. Thesis: Failure Modes Analysis and Mechanisms for Life Extension of Gas Turbines
- B.Sc. Thesis: Providing software environment to determine the aircraft engine thrust restrictions
- The output power optimization of a piezo-magneto-elastic beam using algorithms such as fmincon, Genetic and simulated annealing
- Analysis of vibration and output power of piezoelectric structure such as unimorph and bimorph piezoelectric energy harvester by using of ANSYS Piezo and MEMS extension
- Impact Analysis of composite structure with water by using of SPH method in Autodyn software

- Shape, thickness and stacking sequence Optimization of Composite Structures like airplane wing and Engine mount under Static and Buckling loads
- Finite Element Analysis of large Structures like Bogie, Locomotive Car Body, Bogie Bolster, Bogie Frame, etc.
- Static and Fatigue analysis of welds according to DVS 1612 for components like Locomotive bogie and car body
- Topology Optimization of Structures like airplane wing and Engine mount Using Hyperworks software
- Buckling and Stability analysis of locomotive body, etc.
- Simulation of thermal power plant cooling tower under seismic loading
- Design and Analysis of test stands for Gas Turbine, including static and vibration analyses
- Analysis of Matrix crack effect on composite laminate stiffness reduction
- Plastic behavior analysis of heat exchanger under transient thermal loading by using of ANSYS
- Fatigue Analysis of Structures like Bogie Frame, Bogie Bolster, etc.
- Consulting the structural part of ANSYS Workbench
- Consulting the topology, shape, thickness and stacking sequence optimization of composite layers in Hyperworks software
- Transient Thermo Elastic-Plastic Analysis of Gas Turbine Rotor Using ANSYS Workbench 14.0, MS Thesis

Academic Honors and Awards

- Ranked 152th among 100,000 participants in the university entrance exam for B.Sc. degree, 2007
- Ranked 109th among 10,000 participants in the university entrance exam for M.Sc. degree in Aerospace Engineering, 2011
- Ranked 12th in the university entrance exam for Ph.D. degree in Aerospace Engineering, Structure, 2018
- First round qualifier of National Mathematics Olympiad, 2004
- Being selected student to pass the military service as a researcher at Sharif University of Technology, 2015
- Being Selected as distinguished expert in Mapna Locomotive Company, 2018

Computer skills:

- **Engineering**
 - Altair HyperWorks (HyperMesh, HyperView, OptiStruct)
 - Ansys Workbench
 - Autodyn
 - FATEVAS
 - Design Modeler and Space Claim (Geometry Cleanup)
 - Franc2D& 3D
 - SolidWorks
 - CATIA
- **Programing**
 - C#
 - Matlab
- **General**
 - Ms. Office

- Adobe InDesign
- Adobe Acrobat Pro

Referees

- **Amin Farrokhbadi**, Associate Professor of Mechanical Engineering, Sharif University of Technology, Tehran
 - Email: amin-farrokh@modares.ac.ir
 - Official Webpage: www.modares.ac.ir/~amin-farrokh
- **Seyed Ali Hosseini Kordkheili**, Associate Professor of Aerospace Engineering, Sharif University of Technology, Tehran
 - Email: ali.hosseini@sharif.edu
 - Official Webpage: <http://ae.sharif.ir/Faculty-Resume/Hosseini.php>
- **Karim Mazaheri**, Professor of Aerospace Engineering, Sharif University of Technology, Tehran
 - Email: mazaheri@sharif.edu
 - Official Webpage: <http://ae.sharif.ir/Faculty-Resume/Mazaheri.php>

Personality Profile:

- Eager to work in a challenging environment with opportunities for continuous learning
- Self-Learner, Achiever
- Positivity, experiences and passion