_____   **Contact information**   _____

Name: Nima Geran Malek

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Webpage: Google Scholar profile

_____   **Education**   _____

2015-09-23 - 2017-11-15:

> **M.Sc. in Automotive Engineering (Mechanical - Body and Structure):**
> Iran University of Science & Technology, Tehran, Iran
> - GPA: 3.8

2007-09-23 - 2013-02-18:

> **B.Sc. in Mechanical Engineering:**
> Foulad Institute of Technology, Esfahan, Iran
> Department of Mechanical Engineering
> - GPA: 3.8
> - Supervisor: Dr. Ebrahim Shirani (Editor in Chief Journal of Applied Fluid Mechanics, JAFM - Abdus Salam International Centre for Theoretical Physics (ICTP))

_____   **Research Interests**   _____

- Engineering design
- Machine learning
- Structural optimization
- Smart materials
- Wearable sensors
- Additive manufacturing

- Composite materials

_____   **Publications** _____

Published journal articles

1. Machine learning regression approaches for predicting the ultimate buckling load of variable-stiffness composite cylinders
   DOI: (https://doi.org/10.1007/s00707-020-02878-2)
2. An open-source framework for the FE modeling and optimal design of fiber-steered variable-stiffness composite cylinders using water strider algorithm
   DOI: (https://doi.org/10.1080/15397734.2020.1835489)
3. Highly Stretchable and Sensitive Strain Sensors based on Carbon Nanotubes-Elastomer Nanocomposites: The Effect of Environmental Factors on Piezoresistivity
   DOI: (https://doi.org/10.1039/D0TC00373E)
   (Journal of Materials Chemistry C, Q1, IF: 6.641)
4. Electrical properties of stretchable and skin-mountable PDMS/MWCNT hybrid composite films for flexible strain sensors
   DOI: (https://doi.org/10.1177/0021998319853034)
   (Journal of Composite Materials, IF: 1.755)

5. An open-source computational framework for optimization of laminated composite plates
    (Acta Mechanica, Q1, IF: 2.166)
6. Effects of the impactor geometrical shape on the non-linear low-velocity impact response of sandwich plate
    with CNTRC face sheets.
    DOI: (https://doi.org/10.1177/1099636218778998)
    (Journal of Sandwich Structures & Materials, Q1, IF: 5.015)
7. Robust design optimization of laminated plates under uncertain bounded buckling loads. Structural and
    Multidisciplinary Optimization, 1-15.
    DOI: (https://doi.org/10.1007/s00158-018-2106-0)
    (Structural and Multidisciplinary Optimization, Q1, IF: 3.925)
8. Buckling load of laminated composite plates using three variants of the biogeography-based optimization
    algorithm.
    DOI: (https://doi.org/10.1007/s00707-017-2068-0)
    (Acta Mechanica, Q1, IF: 2.166)
9. Comprehensive optimization of friction stir weld parameters of lap joint AA1100 plates using artificial neural
    networks and modified NSGA-II.
    DOI: (https://doi.org/10.1088/2053-1591/aac6f6)
    (Materials Research Express, IF: 1.449)
10. Optimum stacking sequence design of composite laminates for maximum buckling load capacity using
    parameter-less optimization algorithms. Engineering with Computers, 1-20.
    DOI: (https://doi.org/10.1007/s00366-018-0634-2)
    (Engineering with Computers, IF: 3.551)

Conference papers

11. Evaluation of non-linear Effects in Piezoresistive PDMS/MWCNT Sensing Elements
    Mohammad Nankali, Norouz Mohammad Nouri, Nima Geran Malek Kheili
    The Biennial International Conference on Experimental Solid Mechanics - X-Mech 2018 (***This paper was
    nominated by X-Mech 2018***)
12. Piezoresistive Behavior of PDMS/CNT Nanocomposites Made by Vacuum Filtration Method
    Mohammad Nankali, Nima Geran Malek Kheili, Norouz Mohammad Nouri, Mahdi Navidbakhsh
    1st Iran Congress On Industrial Applications of Advanced Materials and Manufacturing (***This paper was
    nominated by the Congress***)
13. Investigation on The Size of Reinforcement in AZ31/Al2O3 Nanocomposite with Array Distribution
    Abolfazl Khalkhali, Behnam Anbarlooie, Nima Geran Malek Kheili, Mohammad Nankali
    1st Iran Congress On Industrial Applications of Advanced Materials and Manufacturing
14. Evaluation of The Mechanical Properties of Carbon Nanotube Nanocomposites and The Effect of the Number
    of Interphase Layers Using the Representative Volume Element (RVE)
    Abolfazl Khalkhali, Mohammad Javad Saranjam, Nima Geran Malek Kheili, Hamed Rezvanpour
    Iran industrial applications of composite structures

Submitted manuscripts

15. Evaluation of Non-linear Effects in PDMS/MWCNT Hybrid Films for Wearable Strain Sensors

_____   **Software**   _____

Programming: Python, MATLAB
Eng. Software: Powermill, Mastercam, ABAQUS (Advanced), CATIA (Advanced)
Other Software: Corel Draw, Keyshot, , Adobe Photoshop, Tecplot, Microsoft Office

_____   **Accomplished Courses**   _____

- CNC Turning (Certified)
- CNC Milling (Certified)
- Python Scripting in ABAQUS
- ABAQUS Training Course
- Fracture Mechanic with FEM simulation (ABAQUS)
- Advanced CATIA Training Course, CATIA III
- Intermediate Corel Draw Training Course

_____ **Teaching Experience** _____

- Strength of Materials
- Advanced Integrated Manufacturing
- Calculus

_____ **English Language proficiency** _____

TOEFL	Overall: 93

_____ **GRE Score** _____

Overall	304
Verbal Reasoning	142
Quantitative Reasoning	162
Analytical Writing	3.0

_____ **References** _____

Dr. Ebrahim Shirani, Emeritus Professor Isfahan University of Technology, Mechanical Engineering Department, Isfahan, 84156-83111 Iran
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Best regards,

Nima Geran Malek Kheili

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