

Mostafa Mahdavi

Current position PhD Student, Materials Science and Engineering Department, Georgia Tech

Education:

- **PhD** Material Engineering (2017–current)
Georgia Institute of Technology
Supervisor: Prof. Hamid Garmestani
 - **M.Sc.** Mechanical engineering (2013–2016)
University of Tehran
Major: Solid Mechanics
Minors: Composite materials, Modeling
Dissertation: “Mechanical and Thermal simulation of carbon nanotube composites from neutron scattering experiment results.”
Supervisor: Dr. Majid Baniassadi, Advisor: Dr. Mehran Tehrani
 - **B.Sc.** Mechanical Engineering (2009–2013)
Ferdowsi University of Mashhad
Dissertation: “Investigation of Gas Turbines Exergy”
Supervisor: Dr. Mohammad Mamorian
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Honors and Awards:

- Ranked 9th among more than 140 mechanical engineering B.Sc. students of Mechanical Engineering Department, Ferdowsi University, spring 2013
 - Ranked 87th among more than 40,000 mechanical engineering B.Sc. students. The Iranian University entrance exam for graduate programs, spring 2013
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Research Experience:

- Graduate Research Assistant (2017–Current)
Department of Materials Science and Engineering, Georgia Institute of Technology
Supervisor: Prof. Hamid Garmestani.
 - Graduate Research Assistant (2013–2016)
Department of Mechanical Engineering, University of Tehran
Supervisor: Dr. Majid Baniassadi.
 - Undergraduate Research Assistant (2012–2013)
Department of Engineering, Mechanical Engineering, Ferdowsi University
Supervisor: Dr. Mahammad Mamorian
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Research Interests:

- Composite Materials
 - Nanostructures
 - Smart Materials
 - Material Design
 - Material Characterization
 - Reconstruction
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Publications:

- M. Mahdavi, M. Baniassadi, M. Baghani, M. Dadmun & M. Tehrani. (2015).” 3D reconstruction of carbon nanotube networks from neutron scattering experiments”. *Nanotechnology*, 26(38), 385704.
 - M. Mahdavi, M. Taherzadeh Boroujeni, M. Baniassadi, M. Tehrani & M. Karimpour “Evaluating the Effect of mechanical loading on the effective thermal conductivity of carbon nanotube reinforced rubber by FEM”, *ICE2016, Dubai, Emirates, 2016*, Accepted.
 - Mostafa Mahdavi, Ensieh Yousefi, Majid Baniassadi, Morad Karimpour, and Mostafa Baghani. "Effective thermal and mechanical properties of short carbon fiber/natural rubber composites as a function of mechanical loading." *Applied Thermal Engineering* 117 (2017): 8-16.
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Teaching Experience:

Teaching assistant, Numerical Method, University of Tehran, fall semester 2014

Graduate Courses:

- Continuum Mechanics
 - Finite Element method
 - Computational Nanomechanics
 - Micromechanics
 - Theory of Viscoelasticity
 - Seminar
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Computer Skills:

- Programing Language FORTRAN 90, C/C++
- Program ABAQUS, MATLAB, Solid Works, CATIA, LAMMPS, Tecplot, Microsoft Office
- Subroutine VUMAT, UMAT

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References:

- Hamid Garmestani, Professor of Materials and Science Engineering, Georgia Institute of Technology, Atlanta, US, hamid.garmestani@mse.gatech.edu
- Majid Baniassadi, Assistant Professor of Mechanical Eng. University of Tehran, Iran, +98-918-1621480, m.baniassadi@ut.ac.ir
- Mehran Tehrani, Assistant Professor of Mechanical Eng. University of New Mexico, United States, mtehrani@unm.edu