



Seyedali Maghami

Department of Mechanical Engineering
Ferdowsi University of Mashhad, Mashhad, Iran

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Research Interests

- Composite and Hybrid Materials
- Finite Element Method
- Analytical and Numerical Methods
- Impact Analysis
- Dynamics and Vibrations

Education

- **Ferdowsi University of Mashhad (FUM)**

M.Sc. in Applied Mechanics

Supervisor: Professor Masoud Tahani

Thesis: “Bending analysis of laminated shell panels with general boundary conditions and lay-ups under mechanical, thermal and electrical loadings using a semi-analytical method”

Graduation date: September 2012, Overall GPA: 17.78 out of 20

- **Ferdowsi University of Mashhad (FUM)**

B.Sc. in Solid Mechanics

Supervisor: Professor Jalil Rezaeepazhand

Thesis: “Numerical simulation of axial crush of thin walled tubes as an energy absorber with metal and hybrid material”

Graduation date: August 2010, Overall GPA: 16.10 out of 20

Honors and Awards

- Ranked 3rd among graduated M.Sc. students in the program
- Honored as “Exceptional Talent” upon B.Sc. graduation
- Accepted for master program in applied mechanics as an exceptional talent (without entrance exam)
- Among top 0.3% of volunteers in the Iranian nation-wide university entrance exam for B.Sc. degree (Accepted at FUM, a top five university among Iranian universities)

Publications

Journal Papers

- **Maghami, S.A.**, Tahani, M., Afsharfard, A., “Electromechanical bending response of laminated panels with piezoelectric layers and arbitrary laminations under general boundary conditions” (Under preparation).
- **Maghami, S.A.**, Tahani, M., “Thermal bending analysis of doubly-curved composite laminated shell panels with general boundary conditions and laminations”, *Journal of Thermal Stresses*, Vol.38., pp. 250-270, (2015).
- **Maghami, S.A.**, Rezaeepazhand, J., Yousefsani, S.A., “Effect of corner bluntness on energy absorbing capability of non-circular metallic tubes subjected to axial impact”, *International Journal of Engineering Transactions B*, Vol.26., pp. 875-884, (2013).
- Yousefsani, S.A., Rezaeepazhand, J., **Maghami, S.A.**, “Axial crush of metallic and hybrid energy absorbing thin-walled tubes with polygonal cross-sections: Numerical analysis”, *International Journal of Automotive Engineering*, Vol.3., pp. 293-304, (2013).

Conference Proceedings

- **Maghami, S.A.**, Tahani, M., “Thermal bending analysis of moderately thick laminated shell panels with general boundary conditions using multi-term extended Kantorovich method”, 40th Annual Conference of North American Thermal Analysis Society (NATAS), Orlando, Florida, USA, 2012.
- **Maghami, S.A.**, Tahani, M., “Bending analysis of laminated cylindrical shell panels with general boundary conditions using multi-term extended Kantorovich method”, *International Conference on Mechanical Engineering and Advanced Technology (ICMEAT)*, Isfahan, Iran, 2012.
- Yousefsani, S.A., **Maghami, S.A.**, Rezaeepazhand, J., “Effect of cross-section bluntness on energy-absorbing of thin walled square tubes in axial impact”, 19th Annual Conference of Mechanical Engineering (ISME), Birjand, Iran, 2011.

Projects and Experiences

- Collaboration in design and manufacturing of a medical ultrasound training simulator with Avin Teb company: avin-teb.ir (2017)
- Finite element damage simulation of low-velocity impact test in laminated composite plates within LS-DYNA (2016)
- Simulation of bird-strike on shell panels using SPH-FE method within LS-DYNA (2016)
- Design, programming and administration of website of Mechanical Engineering Department at FUM: mech.um.ac.ir (2015 – Present)
- Finite element simulation of vibrations of twisted blades of wind turbines (2014)
- Analytical solution for free vibration of deep laminated panels using Lévy method (2014)
- Condition monitoring and simulation of the vehicle dynamics within CARSIM (2011)
- A member of manufacturing team of Barsava, a hybrid vehicle participated in the third national competition of hybrid vehicles among Iranian universities (2011)

- Some Course Projects: Design of power transmission system of an elevator, simulation of human humerus using CT-scan based image processing, finite element simulation of crack propagation within ABAQUS (2010-2012)

Teaching Experiences

Graduate Course (TA)

- Advanced Composites, Prof. M. Tahani – FUM (Fall 2015)
- Advanced Composites, Prof. M. Tahani – FUM (Fall 2014)
- Advanced Composites, Prof. M. Tahani – International Campus of FUM (Fall 2014)

Undergraduate Course (TA)

- Machine Element Design II, Prof. K. Farhangdoost – FUM (Spring 2011)

Software and Programming Skills

Programming & Calculation

- MATLAB, Fortran, Python, C#, Java

Modeling

- Solidworks, CATIA, Mechanical Desktop

Analysis

- ANSYS, ABAQUS, LS-DYNA

Office and General Skills

- Microsoft Office Word, Excel and PowerPoint, HTML, CSS

Test Scores

- TOEFL iBT, Dec. 2017, Total score: 101 (R: 28, L: 27, S: 22, W: 24)

References

- **Masoud Tahani, Professor**
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- **Hamid Moeenfard, Associate Professor**
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