

PEYMAN LAHE MOTLAGH



Peyman lahe motlagh

Personal Information **Marital status:** Married
Date of Birth: 22 January 1990
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Education **PhD** **Koc university** 2015(fall)–2020(October)
Major: Mechanical engineering
Vibration and Acoustic, PhD thesis: Shunt damping **GPA : (3.73/4.00)**
Final project (PhD. Thesis): Electro-elastic modeling of electromechanical structures for usage of energy harvesting and shunt damping.
M.Sc. **Sharif University of Technology** 2012(Fall)-2014(Fall)
Major: Mechanical Engineering, Applied Design **GPA: 16.15/20 (3.55/4.00)**
Final project (M.Sc. Thesis): FEM modeling and sensitivity analysis of stiffness and damping factor of heavy duty tires with experiments. (Grade: 19.1/20).
B.Sc. **Sharif University of Technology** 2008(Fall)-2012(Spring)
Major: Mechanical Engineering. **GPA: 16.18/20 (3.4/4.00)**
Final project (B.Sc. Thesis): CFD modeling and possibility analysis of turbocharging Wankel motors (Grade: 19.6/20).

Publications • Journal papers

1. Amirreza Aghakhani, Peyman lahe motlagh, Bekir bediz, Ipek Basdogan . “**A general electromechanical model for thick plates with integrated piezo-patches using spectral-Tchebychev method**”, *journal of sound and vibration*. doi.org/10.1016/j.jsv.2019.06.016
2. Peyman lahe motlagh, Ipek basdogan “**Multimode piezoelectric shunt damping of thin plates by arrays of separately shunted patches**”, *Smart material and structures*, submitted.
3. Peyman lahe motlagh, Bekir Bediz, Ipek basdogan, “**A spectral Tchebychev solution for electrostatic analysis of thin curved panels with multiple integrated piezo-patches**”, *journal of sound and vibration*. doi.org/10.1016/j.jsv.2020.115612
4. Peyman lahe motlagh, Mirmey Sam Rafiei, Bekir Bediz, Ipek basdogan , “**Electrostatic analysis of curved smart FGM composite panels with multiple integrated piezo-patches, a first-order shear deformation model using spectral Tchebychev**”, *composite structures*, [10.1016/j.compstruct.2021.113714](https://doi.org/10.1016/j.compstruct.2021.113714)
5. Lahe Motlagh, Peyman; Saadat foomani, Mahmoud; Falah rajabzade, Famida ” **Investigating the dynamic properties of rubber tires in an experimental way and presenting a novel model for predicting its behavior. (in persian)** “*National Electronic Achievements in Engineering and Basic Sciences*.

- **Conference Papers**

1. Peyman Lahe motlagh, Ipek Basdogan, “**Passive vibration control of a plate via piezoelectric shunt damping with FEM and ECM**”, SPIE 2018. Oral presentation.
2. Peyman Lahe motlagh, Ipek Basdogan , “ **Multimode damping of thin plates by arrays of separately shunted piezoelectric patches** “,45. Deutsche Jahrestagung für Akustik.
3. Lahe Motlagh, Peyman; Saadat foumani, Mahmoud; Falah rajabzade, Famida; ” **Effect of tire rubber modeling in different material conditions on tire vibrations and its effect on tire stiffness and damping**”. Second International Conference on Advances in Engineering and Basic Sciences. Presentation.

- **Book editor**

1. Sarafrazi. peyman;”**Catia design in mechanical engineering**”; editor: **Lahe Motalgh, Peyman (ISBN:978-964-8407-20-4)**
2. Sarafrazi. peyman;”**Catia and advanced modelling**”; editor: **Lahe Motalgh, Peyman (ISBN:978-964-8407-19-8)**

Teaching Experience **Koc university, Istanbul, Turkey**

- Teaching Assistant, Mechanical engineering, 2015- now, Heat.
- Teaching Assistant, Mechanical engineering, 2015- now, Strength of material.

Sharif University Of Technology, Tehran, Iran

- Teaching Assistant, Mechanical Engineering, 2012-13, Catia and Ansys.
- Teaching assistant, Industrial drafting, 2013-2014, Solidwork and Autocad.
- Assistant, UAV competition, Sharif university of technology.

Computer skills

- 1) SOLIDWORKS
- 2) ABAQUS
- 3) Ansys workbench
- 4) Ansys Apdl (+subroutine coding)
- 5) Matlab
- 6) Catia
- 7) NetDB software

Honors and Awards

- Ranked 316th** among 300,000, Iranian undergraduate entrance exam, 2008.
- Ranked 13th** among 100,000, Iranian graduate entrance exam, 2012.
- Ranked 43th** among 100000 participant in Iranian chemistry Olympiad, 2007.
- Ranked 3rd** among 10000 participants in provincial physics *competition*.
- Top Student Award (1st Rank)** - Junior and senior year, high school, 2006-2008.

Research Interests

- Dynamic analysis
- Vibration
- Mechanical Design
- Piezoelectric materials