

Curriculum Vitae

Pouya Mohtat

Personal Information

- Current position: Mechanical Engineer, in charge of design and supervision on manufacturing of mechanical structures and machinery related to water and waste water treatment plants, Toolgostar industrial Co.
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Education

M.Sc., Mechanical Engineering, Marine Engineering Division

Sharif University of Technology – GPA: 16.72 out of 20 (2013–2016)

Thesis: Experimental investigation on clean energy extraction from Vortex Induced Vibration of an elastically mounted cylinder

B.Sc., Mechanical Engineering

Amirkabir University of Technology – GPA: 16.44 out of 20 (2007–2012)

Thesis: Irregular wave analysis through Goda-Suzuki method and evaluation of wave reflection coefficient

B.Sc., Marine Engineering

Amirkabir University of Technology – GPA: 16.57 out of 20 (2007–2013)

Thesis: Experimental three point separation of incident and reflected ocean waves from a solid oblique wall

Research Interests

Experimental fluid dynamics and building test beds to investigate fluid-structure interaction especially vortex induced vibrations. Drag reduction and flow control through passive and active boundary layer manipulation. Computational fluid dynamics and its validation by experimental data in order to generate novel and accurate modeling of fluid dynamics.

Robotics and control with emphasize on exploiting sensor data from a complex, unstructured and changing environment to build robotic systems that are pervasive and intelligent. Autonomous drones and MAVs and their navigation. Machine learning and algorithms that enable drones and robotic vehicles to be adaptive and flexible. Multi-agent and swarms of robotic systems.

Academic Positions

- Research assistant at the marine engineering division, Sharif University of Technology (2014–2016)
- Member of educational planning for marine students at Research and planning office of ministry of Education, Tehran, Iran (3/2015–12/2015)
- Teacher assistant at Department of mechanical engineering, Amirkabir University of Technology, C programming (Fall 2010)

Industrial Positions

- Mechanical Engineer, in charge of design and supervision on manufacturing of mechanical structures and machinery related to water and waste water treatment plants, Toolgostar Industrial Co. (2015–now)
- Technical office employee at Control Gostar Jahed Co. (2008-2015)
- Intern at Arak Machinery company (6/2013–9/2013)

Skills and Interests:

- **Work:** 9 years working experience at different industrial companies
- **Laboratory Experience:** experience in manufacturing and laboratory work at the National Iranian Marine Laboratory (NIMALA)
- **Computer skills:** MS office, MS windows, good knowledge of network systems, Video editing by adobe premiere pro
- **Programming and Computational software:** C programming, MATLAB, ANSYS CFX, html, css and php coding of professional websites
- **Design software:** AutoCAD, Autodesk Inventor, SolidWorks, SAP2000, ROSA
- **Language:** Native in Persian, Fluent in Italian, English: TOFLE overall: 105 (Reading: 29, Listening: 28, Speaking: 23, Writing: 25)
- **Sports:** Swimming, Water polo, Running, Mountaineering
- **Culture:** Professional classic flute player, Music, Cinema and Theatre, Reading

Honors and Awards

- Honored as an exceptional student from Center of Excellence at Amirkabir University of Technology (2009-2013)
- Awarded to follow two bachelor degree programs simultaneously (Mechanical engineering as well as Ocean engineering) at the Amirkabir university of Technology as an honored student
- Received admission for M.Sc. at Sharif University of Technology as the second highest scoring student at the national entrance exam (among more than 10,000 applicants)

Publications

Journal Papers

1. S Boreyri, MJ Ketabdari, **P Mohtat**, A Moosavi, “Transverse vibration analysis of FGM plates with in-plane non-homogeneous material”, *International Journal of Physical Research Vol.4, 2016, pp.43-47*
2. S Boreyri, **P Mohtat**, MJ Ketabdari, A Moosavi, “Vibration analysis of a tapered beam with exponentially varying thickness resting on Winkler foundation using the differential transform method”, *International Journal of Physical Research Vol. 2 2014, pp.10-15.*

Under Review

3. N Nemati, M Abbaspour, **P Mohtat**, “Numerical simulation of smooth circular cylinder flow-induced motion for investigation of mass ratio effect on vortex-induced vibration energy convertor”, *Renewable Energy , Sep. 2017*

Conference Papers

1. MJ Ketabdari, A Moosavi, **P Mohtat**, “Vibration Analysis of Plates with In-Plane Material Inhomogeneity”, *International Sound and Vibration Conference, ISAV2015*
2. A Moosavi, MJ Ketabdari, P mohtat, “On free vibration of an exponentially varying thickness beam using a semi-analytical approach”, *International Sound and Vibration Conference, ISAV2013*