

First Name: Amirhossein

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About me

Since childhood, I've been living in South Mehrabad town, which is near the University of Aeronautical Engineering and Mehrabad International Airport. I've always watched planes take off and land as their agile move in the sky and the sense of flying amaze me.

When I was younger, I found it interesting to know how helicopters and aircrafts are made so I decided to make an airplane for myself that's why I chose to study math and science at high school and then received a B.Sc. in mechanical engineering and an MA in Aerospace Structural Engineering.

My family has taught me to respect others and their opinions and take responsibility for my choices; I believe these lessons have made a great change in my life so today, I believe myself and my decisions as my family has always done so.

Languages

Persian: Native

English: Intermediate level (Iran - Canada Language Institute)

German: Elementary (Niveau A1 bis A2/1) - Learning German at Simin German Language Institute
2015-2017

German: Elementary (Niveau A1 bis A2/2) - Learning German at The Austrian Cultural Forum
- Österreichisches Kulturforum (ÖKF) 2018-2019

Certificates

- German Language Course Certificate from the Austrian Cultural Association (ÖKF) 2018-2019
- German Language Course Certificate from Simin German Language Institute 2015-2017
- Health Safety Environment Certificate (H.S.E) from Tehran Oil Refinery Co. Apr. 2015
- Certificate of Training and apprenticeship (Internship) from Tehran Oil Refinery Co. 2014-2015
- CATIA Technical & Engineering Software Training Course from Islamic Azad University, Central Tehran Branch Nov-Dec 2013
- Top rank of the Teaching and learning patterns in mathematics of Education District 9 of Tehran 2003-2004

Education

M.Sc. in Aerospace Engineering (Structural) Sep. 2015-Feb. 2018
Khaje Nasir Toosi University of Technology, Tehran, Iran

Title of Thesis: Aeroelastic analysis of bolted joints in hybrid wings with low aspect ratio in supersonic flow

In this research the analysis of the flutter and free vibration has been conducted over a hybrid trapezoidal wing. The hybrid wing under study here consists of two materials of metal (from the root

of the wing to some length of the span) and composite (from the end of the metal part to the tip of the wing). In the structural part of this study, the theory of thick plate is used in analyzing the wing. The solution method is the assumed modes, and the functions that have been used include the Euler–Bernoulli beam theory. The geometry of this structure is a swept trapezoid. In order to assess aerodynamic forces, piston theory method is used in the range of $\sqrt{2}$ to 5 Mach, the piston theory can be used. In the aeroelasticity analysis, P method was used in order to assess the speed of the flutter.

B.Sc. in Mechanical Engineering

Sep. 2010-Sep. 2015

Islamic Azad University, West Tehran Branch (WTIAU), Tehran, Iran

Title of Thesis: Analysis and Calculations of Induced Draft Counterflow Industrial Cooling Towers at Tehran Oil Refinery Co.

This research has been studied at Tehran Oil Refinery Co. and should be cautious when generalizing to other organizations. In this study, the counter flow tower based on the direction of air flow relative to the water flowing through the tower and it has straight enclosed sides, except for an air entrance near the bottom. Air is taken in at the bottom of the tower, raised countercurrent to the downward flow of water, and exhausted at the top by means of one or more fans. In this research about Corrosion of internal parts of the tower, growth of algae and biological bacteria as well as sediment formation in different parts of the tower has been studied.

Research Interests

- F.S.I. Problem in Plates and Shells
- Mechanical Vibrations
- Structural Dynamics
- Aeroelasticity
- Design and Analysis of Composite Materials
- Continuum Mechanics
- Advanced Engineering Mathematics and Optimization

Projects and Abilities

- Programming and the Flow Diagram of Hydro-Pneumatic Circuits for Project of Power & Free Chain Conveyor of Pars Khodro Co. (MATLAB and Visio)
- Aeroelastic analysis of Bolted joints in hybrid wings with low aspect ratio in supersonic flow (Master's project)
- Free vibration analysis of Bolted joints in Hybrid (metal-composite) Thin and Thick trapezoidal plates (MATLAB)
- Free vibration analysis of Thin and Thick trapezoidal plates / Delta wing (Maple and MATLAB)
- Composite and sandwich panel modeling and analyzing (MATLAB)
- Analysis of Dynamic Aeroelastic Instability (particularly Flutter Phenomenon) in gas turbines (Master's seminar)
- Analysis and Calculations of Induced Draft Counterflow Industrial Cooling Towers at Tehran Oil Refinery Co. (Bachelor's Degree Project)
- Calculation of heating and cooling loads of residential environments (Carrier HAP software)

Teaching Experience

- Thinking and Media Literacy Teacher / Amirkabir Private High school, Tehran, Iran
Jul. 2017-Jul. 2018
- Mathematics Teacher Assistant / Amirkabir Private High school, Tehran, Iran
Jul. 2017-Jul. 2018
- Basic Engineering Mathematics Teacher / Tutorials
Since Apr. 2015

Work Experience

- Farname Inc. (Science-Based Research Institute; Professional Publisher of Scientific Journals) Jul. 2017- Now
Access link: <https://farname.ir> (Agency in Iran) & <https://farname-inc.com> (Agency in Canada)

Farname Inc. has an educated and talented team who are trained regarding international standards in publishing industry. It provides services such as editing (verbal and technical), proofreading, page designing, cover design, and IT services including HTML, XML, Plagiarism, DOI and journal managing software and web design. Starting with Winter 2023 Farname Inc. in Iran will be closed and all services are provided through the main branch in Canada. I'm currently working as:

- 1- Operator, Technical Editor and Technical content of website. Access link:
 - 1-1- <https://ijmm.ir> (Iranian Journal of Medical Microbiology)
 - 1-2- <https://ijp.iranpath.org> (Iranian Journal of Pathology)
 - 1-3- <http://journal.richt.ir/en> (Journals of Research Institute and Cultural Heritage and Tourism)
 - 1-4- <https://journal.ihepsa.ir/en> (Iranian Journal of Health Education and Health Promotion): Jul. 2017-Jan. 2020
- 2- Scientific Analyst of Plagiarism (Plagiarism Inspector), based on iThenticate and Data center of Crossref and crawling from Google. Access link: <https://hamsana.com> & <https://hamsana.ir>
- 3- Website administrator, IT services and Technical Specialist at Scientific Journals (YektaWeb, SinaWeb, OJS). Access link:
 - 3-1- <https://ijmm.ir> (Iranian Journal of Medical Microbiology)
 - 3-2- <https://ijp.iranpath.org> (Iranian Journal of Pathology)
 - 3-3- <https://jogcr.com> (Journal of Obstetrics, Gynecology and Cancer Research)
 - 3-4- <https://zums.ac.ir/journal/> (Journal of Advances in Medical and Biomedical Research)
 - 3-5- <http://modernmedlab.com> (Modern Medical Laboratory Journal)
 - 3-6- <http://journal.richt.ir/en> (Journal of Research Institute and Cultural Heritage and Tourism)
 - 3-6-1- <http://athar.richt.ir/en> (Athar Journal)
 - 3-6-2- <http://jdr.richt.ir/en> (Journal of Dialect Research)
 - 3-6-3- <http://kcr.richt.ir/en> (Knowledge of Conservation and Restoration Journal)
 - 3-6-4- <https://icsj.richt.ir/en> (Iranian Conservation Science Journal)
 - 3-6-5- <https://ih.richt.ir/en> (Journal of Iran Heritage)
 - 3-6-6- <http://archj.richt.ir/en> (Archaeology Journal)
 - 3-6-7- <http://tr.richt.ir/en> (Tourism Research Journal)
 - 3-6-8- <http://pc.richt.ir/en> (Anthropological Studies Journal)
 - 3-6-9- <http://chrs.richt.ir/en> (Journal of Cultural Heritage Records Studies)
 - 3-6-10- <http://hni.richt.ir/en> (Honarnameh Journal)
 - 3-6-11- http://journal.richt.ir/index.php?slc_lang=en&sid=14 (Miras-e Iran Zamin Journal)
 - 3-7- <http://nmj.umsha.ac.ir/en> (Avicenna Journal of Nursing and Midwifery Care): Jul. 2017-Mar. 2022
 - 3-8- <http://urology.umsha.ac.ir/en> (Journal of Research in Urology): Jul. 2017-Mar. 2022
 - 3-9- <https://journal.iehfs.ir/en> (Iranian Journal of Ergonomics): Jul. 2017-Mar. 2022
 - 3-10- <http://fdj.iums.ac.ir> (Function and Disability Journal): Jul. 2017-Mar. 2020
 - 3-11- <https://journal.ihepsa.ir/en> (Iranian Journal of Health Education and Health Promotion): Jul. 2017-Jan. 2020
- 4- Co-Publisher, IT services and Journal Technical Advisor. Access link:
 - 4-1- <http://www.rheumres.org> (Rheumatology Research Journal)
 - 4-2- <http://jsst.ias.ir/?lang=en> (Journal of Space Science and Technology)

4-3- <http://www.ijrrs.com> (International Journal of Reliability, Risk and Safety: Theory and Application)

4-4- <https://ijvm.ut.ac.ir/> (Iranian Journal of Veterinary Medicine)

4-5- <http://www.ijfifsa.ir/> (Iranian Journal of Finance)

4-6- <https://jidai.ir> (Journal of Islamic Dental Association of Iran (JIDAI))

4-7- <https://mcijournal.com/> (Journal of Multidisciplinary Cancer Investigation)

4-8- <https://ijbd.ir/> (Iranian Journal of Breast Diseases)

5- Website Admin and Content Production Manager (WordPress). Access link:

<http://irsgo.org> (Iranian Association of Women's Cancer Sciences)

Jan. 2020-Jan. 2021

- As the Digikala Seller (Online Seller)

Sep. 2018-Mar. 2021

As the Digikala Seller (Cosmetics & Beauty Appliances and Home Appliances), I'm responsible for maintaining inventory, Content Creation, packaging, labeling, and shipping products to Digikala Fulfillment Center. Access link: <https://www.digikala.com/> & <https://seller.digikala.com/>

- Collaboration with Bestirco Co.

Apr.-Jul. 2018

Collaboration with Bestirco Co. for Programming and the Flow Diagram of Hydro-Pneumatic Circuits for Project of Automated Chain Lubrication System (Power & Free Chain Conveyor) of Pars Khodro Co. Access link: <http://www.bestirco.com> & <http://bestirco.ir/>

- Teacher and Assistance counselor at Amirkabir Private High school, Located in District. 9 in Tehran

Jul. 2017-Jul. 2018

Education assistant/counselor, Thinking & Media Literacy Teacher, Mathematics Teacher Assistant (Teacher of Problem-solving trainer in Mathematic). Access link: <http://amirkabirsch9.ir/>

- Trainee as Execution of Mechanical Facilities of the Building

Jun.-Nov. 2016

I experienced the following internship experience of mechanical facilities of the building by Eng. Aghajani:

- 1- Training experience in "Installation, Repair and Maintenance of Mechanical-Building Facilities and Equipment", which includes: Compression Chiller of Reciprocating Compressor type (discussions include all parts, mostly in the topic of compressor), General Water Supply Pumps and Boilers of Central engine room Atisaz Town. It located in Atisaz Residential Complex, 1st Phase (Evin region).
- 2- Review and repair of the mechanical facilities of Mottahari Burns Hospital (Vanak region).
- 3- Review and repair of the mechanical facilities of West Health Center of Tehran (Ostad Moin region).
- 4- Review and repair of the mechanical facilities of Residential complexes in Zafaranih region.

- Trainee at Tehran Oil Refinery Co. (complementary course)

Apr.-Jul. 2015

Academic internship experience and final undergraduate project at Tehran Oil Refinery Co.

Utility No.1 & 2: The hot-lime process, Cooling Towers unit (Induced Draft Counterflow), Tank units and fueling pumps, High pressure steam production (Boiler) and distribution unit, Air production unit, Power generating unit (generators), Substation unit.

Utility No.3: axial flow compressors of advanced gas turbines (Hitachi H-25 Gas Turbines), DM Unit, HRSG Unit, GTG Unit. Access link: <http://www.tehranrefinery.ir/> and <https://www.torc.ir>

- Trainee at Tehran Oil Refinery Co. (first course)

Apr.-Jul. 2014

- **Trainee at Horshid Industrial Company (Manufacturing Engineering)** Jun.-Oct. 2013
I experienced the following Academic internship experience in the industrial unit by Eng. Hossieni Yazdi:
Production and manufacturing of CNG fuel tank cap, production and manufacturing of Automobile steering equipment, etc. Equipped with state-of-the-art CNC multi-axis turning centers and vertical and horizontal machining centers, CNC lathe machine, Metal Cutting Band Saw (Bandsaw machine model 220A), Lathe machine, Radial Drilling Machines, Centerless Grinding Machines, Tailstock Machines, Plastic Injection Machine, etc.
- **employee at Neshan Gostar Co. (part time)** Sep. 2012-Jun. 2013
The company's field of work includes designing and producing of polycarbonate and crystalline labels and soft markings, designing and printing aircraft load tags and carbonless log sheet for aircraft engineering, related to Mahan Airlines, designing and manufacturing of various types of guarantee booklets and labels for Sunny Co. and BiMax Hood Co. and Hava Behbod Jonob Co.
- **Library clerk at The Central Library of the Faculty of Engineering of Islamic Azad University, West Tehran Branch.** Sep. 2011-Sep. 2012
- **employee at Neshan Gostar Co. (part time)** Jul.-Dec. 2010

Published articles

- Zakeri, M. & Chehrehara, A. (2017). Smart Roadways Technology Using Nanostructured Solar Cells. *Journal of the Iranian Mechanical Engineers Association (Mechanical Engineering)*, 16(113): 67-73. Access link: http://mmep.isme.ir/article_26391.html
- Irani, S.; Chehrehara, A.; & Shaffaghat, S. (2018). Free Vibration Analysis of Thick Metal and Composite Cantilever Sweep Plates. *The 17th international conference of the Iranian Aerospace Society*, Article number: aero-00400319. Access link: <http://aero2018.ias.ir/fa/>

Computer Skills

Languages: FORTRAN, PYTHON, HTML

Software & Applications: MATLAB, MAPLE, Abaqus, MS Project, Microsoft Visio, ICDL, WordPress, Endnote, Mendeley, (Learning Python 3.0 and later)

Intelligent Journal Management Software: the YektaWeb intelligent software, the SinaWeb intelligent software (OJS)

References:

- **Dr. Saied Irani**

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- **Dr. Mahnaz zakeri**

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- **Dr. Ramin Ghasemiasl**

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- **Engr. Abdollah (Babak) Dehghan**

General Manager of BEST IR Co. (Industrial finishing & conveyor sys.)

Design & manufacturing of:

painting shop, Blasting shop, conveyor systems ; Pretreatment systems (PT Lines); Sand Blast & Shot Blasts; booth and systems; Electro deposition system (ED lines); Metal painting booth;

Paint curing oven; Conveyor systems: monorail, P&F , Free Flow, Roller Bead, ... , at Overhead and Inverted types; Plastic painting system; Paint Mixing Room system (PMR); Robotic and Manual spray system (Airless, Air-assist, Electro static); Powder painting systems;

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- **Prof. Mohammadreza Jalali Nadoushan**

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- **Prof. Nadereh Behtash**

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- **Prof. Alireza Anisi**

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- **BScN, MScN. Morteza Shamsizadeh**

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- **Dr. Mohammad Babamiri**

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Address: School of Public Health, Hamadan University of Medical Sciences, Opposite of Mardom Park, Hamadan, Iran.

Email: mohammad.babamiri@yahoo.com & m.babamiri@umsha.ac.ir