



Curriculum vitae

Bahman Parvandar Asadolahi

• **Home:** Unit 3, Floor 3, No 32, Mazandarani alley, Ghaem Magham Av., Tehran, Iran.
• **P.O. Box:** 1589863578 • **Phone:** (+9821) 88846541 • **Cell phone:** (+98) 9351052029
• **E-mail:** Mech_anic.Bah_man92@gmail.com

EDUCATION

M.Sc. in Mechanical Engineering, Applied Design (Solid Mechanics)

Iran University of Science & Technology, Tehran, Iran 2014 – 2016

Thesis: Mixed Band Adhesive Joints with Plastic Yielding .
Supervisor: Dr. Mohammad Shishesaz
Total GPA: 16.30 out of 20

B.Sc. in Mechanical Engineering, Rolling Stock engineering

Iran University of Science & Technology, Tehran, Iran 2005 – 2009

Thesis: Feasibility Dual Fuel Conversion System for Diesel Engines.
Supervisor: Dr. Mohammad Ali Rezvani
Total GPA: 12.30 out of 20

Diploma in Mathematics and Physics

High School Diploma, Farabi Nonprofit High School, Tehran, Iran 1998 – 2002

Total GPA: 19.27 out of 20

AWARDS AND HONORS

- | | |
|---|--------------|
| Rank of national entrance exam (bachelor): 273 | 2005 |
| Member of the Policy Board at the First Conference on Industry, Technology and Domestic Monitoring and Solutions for Support (2013) | 2013 |
| Presented a paper in 3rd National Conference 1st International Conference on Applied Research in Electrical, Mechanical and Mechatronics Engineering (2016)
(Earned admission to University of Tabriz) | 2016 |
| Membership in the Catia Institute of Iran (www.catia.ir) | 2014-Present |

FIELDS OF RESEARCH INTEREST

Metal Matrix Composites	Light Alloys
Mechanical Metallurgy	Severe Plastic Deformation
Machining	Particle Mechanic
Machining	

PUBLICATIONS

Investigation of contributing variables on abrasive water jet on aluminum alloy 7075 reinforced with Al₂O₃, graphite and silicon carbide.
Frictional Behavior of Severe Plastic Deformed Copper Sample
Investigation on the effects of ECAP route type on the frictional properties of Al 7075
The Study of Porosity and Sic Nanoparticles Effect on Mechanical Behavior of Ti-6Al-4V Alloy with Molecular Dynamics Approach
The Study of crack propagation on Ti-6Al-4V Reinforced with Sic at different temperature
The Study of Porosity and Sic Nanoparticles Effect on Mechanical Behavior of Ti-6Al-4V Alloy with Molecular Dynamics Approach
Interaction of the Influenza Virus and External Field in Infrared and Ultraviolet Frequency Range: Molecular Dynamics Study
Elasto-Plastic Analysis of Adhesively Bonded Single Lap Joints
AB8 drug against COVID-19: Molecular Dynamic Simulations.

CERTIFICATES

ASME Sec VIII Div. 2
Heat exchanger Mechanical Design (ASPEN, BJACL, PVELITE) and Thermal Design (HTRI XIST MODULE)
Catia
Finite Element Analysis in MATLAB
X'pert HighScore Plus (Powder pattern analysis tool)
python scripting for Abaqus
WPS (Welding Procedure Specification)
Micromechanical analysis
LAMMPS Molecular Dynamics Simulator
Fracture mechanics
Fatigue
Air Cooler
CFD (Fluent)

WORK EXPERIENCE

2022-

1. Petro gas Jahan.

- a) Design of mechanical and process equipment for package MRU14 & TGT for TZ.O.R.C (As a Temporary Supervisor of Engineering)

2. Esfahan Machine Manufacturing Company (EMMC Tehran-Iran -

2015 - 2022

- a) Design of Mechanical and Process Equipment (Pressure Vessels, Towers, Storage Tanks (FIXED ROOF, DOME ROOF, RECTANGULAT TANK, ETC), Spherical Tanks According to ASME Section II, Section V, Section VIII, Div. I, Div. II Section IX, Section X(BPVC Section X-Fiber-Reinforced Plastic Pressure Vessels), API Standards (API 650, 620), WRC 107.
- b) Heat Transfer by Heat Exchangers TEMA Design
- c) ASME Section X-Fiber-Reinforced Plastic Pressure Vessels
- d) Mechanical design of refinery and oilfield equipment.
- e) Review of issued engineering documents and Mechanical calculation books by other members of the design team.
- f) Review detail drawings and Make necessary engineering changes.
- g) Present and review internal shop fabrication procedures.
- h) Technical evaluation of bids and preparing technical proposal.
- i) Working on Scanning electron microscope images for Investigation of contributing variables on abrasive water jet on aluminum alloy 7075 reinforced with Al₂O₃, graphite and silicon carbide article.

3. Irankhodro (Without insurance)

2008-2009

<http://www.emmc.ir/emmc>

TEACHING EXPERIENCE

Lecturer in “Catia training course”, Mechanical Engineering Esfahan Machine Manufacturing Company (EMMC)— Tehran— Iran, fall 2017.

Lecturer in “Abaqus (RVE) training course”, Mechanical Engineering Esfahan Machine Manufacturing Company (EMMC)— Tehran— Iran, winter 2020.

Lecturer in “ASME section viii div 1 training course”, Mechanical Engineering Esfahan Machine Manufacturing Company (EMMC)— Tehran— Iran, winter 2020.

COMPUTER SKILLS

Environments: Windows (XP, 8.1)

General Software: Microsoft Office

Programming: MATLAB, Python.

Statistical Software: Minitab (Data Analysis, Statistical & Process Improvement Tools)

Mechanical Engineering: Catia (Modeling + Simulation), PV Elite (Pressure vessel, Tower), Tank (Storage tank), Nozzle Pro ((straight, hillside, pad-reinforced), saddles, lugs and pipe shoes), Ansys fluent (fluid mechanics, Heat transfer ...), Ansys work Bench

(ASME SECTIONS VIII DIV. 2.), Abaqus (solid mechanics, subroutine, Script, RVE),
X'pert HighScore Plus (Powder pattern analysis tool), ADAMS, MATLAB (FEM)
ASPEN

HTRI Exchanger
LAMMPS Molecular Dynamics Simulator
Patran software
Franc3D software
Avogadro
Python programming

LANGUAGES

Persian (Farsi) – First language
English (Farsi) – Second language
IELTS test 7.5 (Reading: 7, Listening: 7.5, Speaking: 7.5, Writing: 7)
GRE Score: (Verbal Reasoning: 145, Quantitative: 145, Analytical Writing: 4)

SELECTED PROJECTS

Fabrication of Hybrid AMMC by stir casting process including a furnace, reinforcement feeder and mechanical stirrer to make vortex leading to the mixing of reinforcement material namely Al₂O₃, Sic and graphite reinforcement particles at 700 RPM for 15 minutes.

Experimental set up (AAJ machining). In abrasive aqua jet machining, abrasive particles are mixed with high-velocity water so as to transfer the momentum to the abrasive. In addition, some process parameters namely traverse speed, water jet pressure, abrasive flow rate, various types of reinforcement particles and their weight percentages and their effects on composites by using ANOVA analysis, scanning electron microscopy and X-Ray diffraction were investigated.

INTERESTS

Charitable Acts
Swimming
Travelling
Watching movies

REFERENCES :

Mohammad Shishesaz, Full Professor, Mechanical Eng. Department, Shahid Chamran University of Ahvaz, Ahvaz, Iran

Email: mshishehsaz@scu.ac.ir

Google Scholar: <https://scholar.google.com/citations?user=KDwRljEAAAAJ&hl=en>

Akbar Javdani, Amirkabir University of Technology (Tehran Polytechnic)

Email: akbarjavadani@aut.ac.ir

Google Scholar: <https://scholar.google.com/citations?user=JsU59b4AAAAJ&hl=en>