Safoura Sadeghi Ronizi

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INTEREST

Computational Mechanics Additive Manufacturing Soft-Robotic Smart Material AI
Fluid-Structure Interaction Dynamics & Vibrations

EDUCATION

- **Persian Gulf University** — Bushehr, Iran
  Master of Science - Mechanical Engineering; GPA: 3.57/4.0 — *Jan.2018 - Sep.2022*

  Courses: *Finite Element Method (4.0/4.0), Theory of Plate and Shell (4.0/4.0), Continuum Mechanics (4.0/4.0), Theory Of Elasticity (4.0/4.0)*

- **Shahrood University of Technology** — Shahrood, Iran
  Bachelor of Science - Mechatronics Engineering; GPA: 2.95/4.0 — *Sep.2012 - Sep.2016*

RESEARCH EXPERIENCE

- **Computational Mechanics Center** — Persian Gulf university
  Research Assistant — *Jan.2018 - Sep.2022*

  - **Dynamic analysis of curvilinear fiber composites plate**: Dynamic behavior analysis of laminated composite reinforced by curvilinear fibers under moving mass based on HSDT (Supervisor: Saeedreza Mohebpour)
  - **Thermo-elastic Analysis of MEMS**: Analysis of the thermoelastic effect of MEMS in two-dimensional Continua's
  - **Natural Frequency of rectangular plate**: Natural frequency analysis of rectangular plates based on CPT theory using DQM
  - **Shape sensitivity analysis of Beam**: Sensitivity analysis of beam using the complex variable method

- **Mechatronics Lab** — Shahrood University of Technology
  Undergraduate Researcher — *Sep.2012 - Jul.2016*

  - **Intelligent Power Plant Monitoring System**: Development and prototyping of a multi-sensor data acquisition system (Supervisor: Majid Hashemian)
  - **Surgical Robot Platform**: Dynamic and vibration simulation of a soft surgical robot platform
  - **Electromagnetic actuator**: Design and prototyping of an electromagnetic gearbox and actuator

PUBLICATIONS

- **Ronizi, S.S.**, Mohebpour S.R. , Malekzadeh P. , "Free vibration and buckling analysis of triangular reinforced SMA plate" (under review)

- **Ronizi, S.S.**, Tadi Beni Y., "GL-based thermo-elasticity in two-dimensional bounded micro-media" (under review)

- **Ronizi, S.S.**, Tadi Beni Y., "Developing an efficient three-dimensional Hermite-family element for gradient elasticity analysis" (under review)

SELECTED PROJECTS

- **Transducer (CAD Design, System Design)**: A PLC based transducer system for testing the Motors
- **Altimeter (Sensor Design)**: An altimeter based on PLC in order to heigh detection
- **Photobioreactor (System Design)**: Design a photobioreactor for growing photoautotrophic organisms
- **Point Cloud Surface reconstruction(Computer Vision)**: Develop a FEM algorithm for point cloud data construction

Teaching & Mentoring Experience

Pouriya Khani Academy — Tehran, Iran
German Language Lecturer — *Aug.2019 - Present*

Persian Gulf University — Bushehr, Iran
Mentoring — *Sep.2016 - Sep.2021*
- **Mathematics Course**: Math 101,102 & Engineering Math
- **Finite Element Method Course**: Finite Element 101
- **Matlab Programming Instructor**: Matlab 101 & Simulink

Ariana Robotic Institute — Bushehr, Iran
Robotic Lecturer — *Jan.2019 - Jun.2020*
- *Mechanism Design*
- CAD Design (Solid Works)
- Prototyping & Additive Manufacturing

Work Experience

Farabard Company — Shiraz, Iran
IT Specialist: DevOps and Networking, Automate Testing Procedures, Python Developer — *Jan.2017 - Feb.2018*

Farabard Company — Shiraz, Iran
Intern: CAD Design (Solid Works - AutoCAD), Set Welding Procedure Specification, NDT Testing — *Jun.2016 - Sep.2016*

KIA Motors representatives — Shiraz, Iran
Intern: V6 Motor Maintenance, Automatic Gearbox Calibration, QC — *Jun.2014 - Sep.2014*

Skills Summary

- **Programming**: Python, Matlab, Fortran, C, C++
- **Subroutine**: UMAT, UEL, Dload
- **Tools**: Solidworks, AutoCAD, Abaqus, GIT, Comsol, Ansys, Proteus, Simulink, SAM
- **Platforms**: Linux, PLC, Arduino, AVR, LATEX
- **Soft Skills**: Critical thinking, Systematic thinking, Project management, Problem Solving
- **Language**: English(Proficient), German(Fluent), Japanese(Conversational),Spanish(Basic), Farsi (Native)

Honors and Awards

Academic Rank — Bushehr , Iran
Ranked First among all graduate student in master — *Jan.2018 - Sep.2022*

Volunteer Experience

Academic Association — Shahrood , Iran
Organizer — *Sep.2014 - Sep.2015*
- *Held conferences on industry-academic relations, scientific competitions & classes*