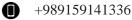
# Ali Mozhdehi Fard



Ali.mozhdehifard@gmail.com

fin l LinkedIn Profile



# **EDUCATION**

Master of Science, Civil Engineering, NIT, Babol, Iran

2017-2020

Selected Courses: Finite elements: 16/20	(Top Mark)
Computational Hydraulics: 17/20	(Top Mark)
Advance finite elements: 18.5/20	(Top Mark)
Seminar and Research Methods: 20/20	(Top Mark)

Thesis title: Viscoelastic Support Effects on Fluid-Structure Interaction

Bachelor of Science, Civil Engineering, Sajjad University of Technology, Mashhad, Iran 2012-2016

in water Hammer using Discrete least squares meshless method

(Top Mark) Selected Courses: Hydrology:20/20 Hydrulic Engineering: 16.25/20 Water and Wastewater Engineering: 18/20

### **PUBLICATION**

#### **Conference paper and presentation:**

Ali Mozhdehi fard, Ali Rahmani Firoozjaee, 2020, 18th National Hydraulic Conference of Iran, "The effect of numerical parameters in discrete least-squares Meshless method in the analysis of water hammer phenomenon", Tehran, Iran, 3-5 Februrary, (in Persian).

#### **Journal Publication:**

Ali Mozhdehi fard, Ali Rahmani Firoozjaee, 2022 "Modeling of water hammer with fluid-structure interaction in elastic pipelines using discrete least squares method", International Journal of Pressure Vessels and Piping (under review)

### **RESEARCH INTERESTS**

- Numerical methods: Finite Element, Finite Difference, and Meshless Methods •
- **Computational Fluid Dynamics**
- Machine Learning and optimization techniques

### **PROFESSIONAL EXPERIENCES**

#### **Engineering Experiences**

#### Scrum master and Python developer, Mashhad, Iran

As a Scrum master, I learned to lead a team and used agile coaching techniques to improve teamwork performance and manage the project in the best possible way.

#### Member of Project manager team at Axon Tower project, Mashhad, Iran

Achieving experience in measuring and documenting the construction process and quantity surveying and estimating.

#### Site manager in a residential construction project, Mashhad, Iran

I learned how to monitor building costs and project progress and I understood a lot about conducting quality and safety inspections.

#### **Teaching Experiences**

Teacher's Assistant, Hydraulic Engineering, NIT, Babol, Iran

I got a lot of experience and skills as a lecturer and mentor for hydraulic Engineering students, such as communication, teaching, and documenting skills.

#### FORTRAN Workshop, NIT, Babol, Iran

Manager and teacher of the workshop whit the goal to help students develop programs with FORTRAN to solve finite element method and CFD problems.

#### English Teacher, Mashhad, Iran

Teaching English to students and IELTS candidates not only satisfy my passion for teaching but also help me sharpen my language skills.

#### Math and English Teacher, Iran

I am holding free online courses for underprivileged high school students. It satisy my

### **Selected Academic Experiences**

Developing supervised and unsupervised machine learning algorithms. learning Finite difference method and solving partial differential equations. Improving my skills in finite element method and developing program by FORTRAN and MATLAB. I worked with HEC-RAS, FLOW-3D, and ANSYS for modeling different hydraulic problems. Structural design of concrete and steel structures using ETABS.

### SOFTWARE AND SKILLS

- FORTRAN (Advance)
- Python (Advance)
- MATLAB (Advance)
- hydraulic modelling softwares like: Flow3D, HEC-RAS, Open Foam, Ansys (Intermediate)
- Microsoft Office (Word, Excel, PowerPoint) (Advance)
- Computational methods such as: Finite Elemen, Finite difference, Meshless methods (Advance)
- Independent Research, Analytical Mind, Fast Learner

### HONORS AND AWARDS

- Accepted directly for graduate study at babol noshiravani university which is one of the best universities among Iranian engineering universities.
- Ranked  $3^{rd}$  among all master graduate students in the department of civil engineering.

### LANGUAGE

- **Persian** (native)
- English (Professional working proficiency) Test Score: IELTS total score: 7.0 (Listening:8/Reading:7/Speaking:6.5/Writing:6)

### **VOLUNTEERING ACTIVITIES**

- Collaboration as a cartoonist in a university journal called "Roozegar-e-no". Mashhad, Iran 2013-2015
- Member of Noshirvani Charity Association, NIT, Babol, Iran 2017-2018
- Member of Dast Mehr Charity Association, Babol, Iran
  **2021-Present**

#### 2018-2020

#### **2019-2020** FORTRAN

### 2020-Present

# 2021-Present