

## Skills

Programming

MATLAB

C++

Software

OpenFOAM

Tecplot

Paraview

ANSYS FLUENT

CATIA

ANSYS ICEM

SALOME

Experimental Techniques

PIV

LIF

LA

Fluid Dynamics

CFD

English Language (IELTS)

Overall: 7

Speaking: 6.5

Listening: 7.5









Reading: 7

Writing: 6.5

GRE

In progress ...

## Contact

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## Personal Information

Name	Birth date	Nationality
Shayan Habibi	22 Jan. 1997	Iranian

## Education

2019 – Date	MS in Mechanical Engineering <i>Sharif University of Technology (SUT), Tehran, Iran</i> <ul style="list-style-type: none"><li>Project advisor: Dr. B. Firoozabadi</li><li>GPA: 19.25/20 (4/4)</li></ul>
2015 – 2019	BS in Mechanical Engineering <i>Iran University of Science Technology (IUST), Tehran, Iran</i> <ul style="list-style-type: none"><li>Project advisor: Dr. M. Siavashi</li><li>GPA: 17.39/20 (3.72/4)</li></ul>
2011 – 2015	Diploma in Physics and Mathematics <i>Salam high school, Tehran, Iran</i> <ul style="list-style-type: none"><li>GPA: 19.63/20</li></ul>

## Research Interests

- Computational Fluid Dynamics (CFD)
- Turbulent Flows
- Large Eddy Simulation (LES)
- Buoyancy Driven Flows
- Jet Flows
- Optical Flow Diagnostic Techniques

## Honours and Awards

Ranked 3 <sup>rd</sup> in MS program <i>Sharif University of Technology (SUT), Tehran, Iran</i>
Ranked 6 <sup>th</sup> in MS program entrance exam <i>National Organization of Educational Testing, Iran</i>
Candidate for direct MS program <i>Iran University of Science and Technology (IUST), Tehran, Iran</i>
Ranked 3 <sup>rd</sup> in Flamenco guitar competitions <i>Second competition of performing Flamenco guitar, Qazvin, Iran</i>

## Publications

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- Journal**
2. **Habibi, S.**, Azadi, A., Firoozabadi, B., "Identification of coherent structures in inclined negatively buoyant jets with sloped beds", (Under preparation).
  1. **Habibi, S.**, Azadi, A., Firoozabadi, B., "Large eddy simulation of inclined negatively buoyant jets with sloped beds", (Submitted).
- Conference**
2. **Habibi, S.**, Azadi, A., Ashanani, A. A., Firoozabadi, B., "Evolution of Shear and Buoyancy Driven Vortices of an Inclined Negatively Buoyant Jet", 19th Fluid Dynamics Conference, 2021, Tehran, (Submitted).
  1. **Habibi, S.**, Azadi, A., Firoozabadi, B., "Numerical investigation of the sea bed inclination effects on the spreading of inclined dense jets discharged from reverse osmosis desalination plants", The 7th International Conference on Environmental Engineering and Natural Resource, 2021, Tehran, (In Persian).

## Relative Coursework

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<b>Computational Fluid Dynamics (CFD)</b> <i>Grade: 20/20</i>	<b>Advanced Numerical Analysis</b> <i>Grade: 19.5/20</i>	<b>Advanced Fluid Mechanics</b> <i>Grade: 20/20</i>
<b>Continuum Mechanics</b> <i>Grade: 19/20</i>	<b>Convective Heat Transfer</b> <i>Grade: 19/20</i>	<b>Advanced Mathematics I</b> <i>Grade: 20/20</i>

## Teaching Experience

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### Teaching Assistantship

- Numerical Analysis, Instructor: Dr. M. Aryanpour, 2021
- Advanced Fluid Mechanics, Instructor: Dr. A. Moosavi, 2021
- Advanced Mathematics I, Instructor: Dr. A. Moosavi, 2020
- Fluid Mechanics I, Instructor: Dr. M. Siavashi, 2017

## Projects

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<b>Currently</b>	<b>MS project</b> <i>Sharif University of Technology (SUT), Centre of Excellence in Energy Conversion (CEEC)</i> Thesis title: Numerical investigation of the seabed inclination effects on mixing characteristics of the brine discharged jet from desalination plants Advisor: Dr. B. Firoozabadi
<b>2020</b>	<b>Optical measurement systems and lab.</b> <i>Sharif University of Technology (SUT), Centre of Excellence in Energy Conversion (CEEC)</i> Velocity measurements using Particle Image Velocimetry (PIV): <ol style="list-style-type: none"><li>1. Mixing of a non-buoyant jet</li><li>2. Convective heat transfer</li><li>3. Swirl mixing</li></ol>

Concentration and temperature measurements using Laser Induced Fluorescence (LIF):

1. Mixing of a vertical dense jet
2. Mixing of a vertical cold jet

2020

### Case study in fluid dynamics

*Sharif University of Technology (SUT)*

Similarity solutions of power-law gravity currents propagating in confined and unconfined beds

2020

### Case study in continuum mechanics

*Sharif University of Technology (SUT)*

Analytical solutions of oscillatory couette flow of an Oldroyd B fluid using Fourier transform theorem

2020

### Case study in heat and fluid flow

*Sharif University of Technology (SUT), Centre of Excellence in Energy Conversion (CEEC)*

Analytical solutions for an electro-osmotic flow in a slit micro-channel

2019

### BS project

*Iran University of Science and Technology (IUST)*

Thesis title: Mathematical modelling and simulation of the pulse and investigating the affecting factors


Advisor: Dr. M. Siavashi


## References

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Dr. B. Firoozabadi


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Dr. M. T. Manzari

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