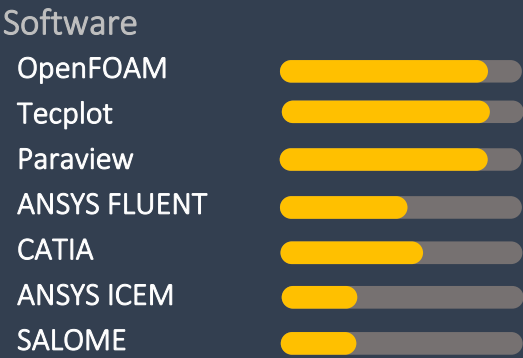










Skills



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Personal Information

Name	Birth date	Nationality
Shayan Habibi	22 Jan. 1997	Iranian

Education

2019 – 2022	MS in Mechanical Engineering <i>Sharif University of Technology (SUT), Tehran, Iran</i> <ul style="list-style-type: none">Project advisor: Dr. B. FiroozabadiGPA: 19.25/20 (4/4)
2015 – 2019	BS in Mechanical Engineering <i>Iran University of Science Technology (IUST), Tehran, Iran</i> <ul style="list-style-type: none">Project advisor: Dr. M. SiavashiGPA: 17.39/20 (3.722/4)
2011 – 2015	Diploma in Physics and Mathematics <i>Salam high school, Tehran, Iran</i> <ul style="list-style-type: none">GPA: 19.63/20

Research Interests

- Computational Fluid Dynamics (CFD)
- Turbulent Flows
- Buoyancy-Driven Flows
- Large Eddy and Direct Numerical Simulations
- Turbulent Jets and Plumes
- Optical Flow Diagnostic Techniques

Honours and Awards

Ranked 4 th (out of 119) in MS program <i>Sharif University of Technology (SUT), Tehran, Iran</i>
Ranked 6 th 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 rd in Flamenco guitar competitions <i>Second competition of performing Flamenco guitar, Qazvin, Iran</i>

Publications

- Journal**
4. **Habibi, S.**, Azadi, A., and Firoozabadi, B. Identification of coherent structures in inclined negatively buoyant jets with sloped beds (**In preparation**).
 3. Azadi, A., Firoozabadi, B., Ashanani, A. A., and **Habibi, S.** Effects of bed obstacles on the behaviour of inclined dense jets (**In review**).
 2. **Habibi, S.**, Azadi, A., and Firoozabadi, B., Large Eddy Simulation of Inclined Negatively Buoyant Jets with Sloped Beds (**In review**).
 1. Jafari, M., Jamshidian Ghalehsefidi, M., and **Habibi, S.**, 2022. Application of numerical simulation to solid phase-microextraction for decreasing of extraction time of Pyrene and Phthalate esters on solid coatings, *Journal of Chromatography A* (**Accepted**).
- Conference**
2. **Habibi, S.**, Azadi, A., Ashanani, A. A., and Firoozabadi, B., 2021, Evolution of Shear and Buoyancy Driven Vortices of an Inclined Negatively Buoyant Jet, *19th Fluid Dynamics Conference*.
 1. **Habibi, S.**, Azadi, A., and Firoozabadi, B., 2021, 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* (In Persian).

Relative Coursework

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

Teaching Experience

Teaching Assistantship

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

Projects

2019 - 2022 MS project

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

Thesis title: Numerical investigation of the seabed inclination effects on mixing characteristics of the brine discharged jet from desalination plants

Advisor: Dr. B. Firoozabadi

2021

Computational fluid dynamics

Sharif University of Technology (SUT)

Two-dimensional fully unstructured (polygonal cells) cell-centred finite volume MATLAB code for solving scalar transport equation with discontinuities using various TVD schemes

2020

Optical measurement systems and lab.

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

Velocity measurements using Particle Image Velocimetry (PIV):

1. Mixing of a non-buoyant jet
2. Convective heat transfer
3. Swirl mixing

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

Dr. B. Firoozabadi

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Dr. M. T. Manzari


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Dr. A. Moosavi


Associate Professor

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Dr. M. Aryanpour

Assistant Professor

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