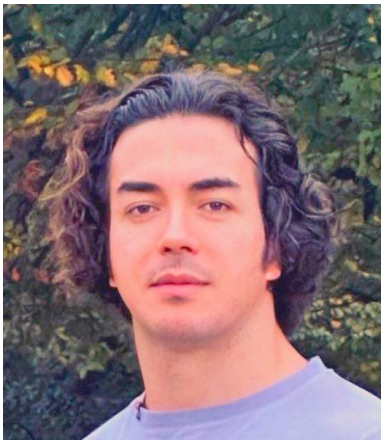

MOHAMMAD AMIR NESHAT

Location: Genova, Italy
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Date of Birth: 28 July 1988

RESEARCH INTERESTS

Numerical simulation, Computational fluid dynamics, Biomechanics and biomedical, multiphase flows. Solar energy. Optimization and Artificial intelligence.

EDUCATION

University of Genoa 2020-2023
Ph. D in Mechanical Engineering
University of Science and Technology
MSc. in Mechanical Engineering 2012 - 2015
University of Birjand
BSc. in Fluid Mechanics 2007 - 2011
National Organization for Development of Exceptional Talents
Middle School, High School and Pre-University Certificate in Mathematics 2001 – 2008

English Proficiency

TOEFL: 94/120

EXPERIENCES

Giovanni Solari Laboratory(GS-Windyn)
Research Fellow **2024-current**

HAVAYAR INDUSTRIAL GROUP
Supervisor (full-time) **2018-2020**
Project Engineer (full time) **2016 – 2018**

SIEMENS GROUP
R&D group Fluid mechanic Junior (part time) **2012 – 2016**

TECHNICAL REPORTS

- Atmospheric boundary layer(ABL) modeling by CFD simulation inside a wind tunnel and conducted with PIV & LDV measurements
- Analyzing the aerodynamics of a vertiport under varying upstream turbulence conditions and altitudes for stable landing and takeoff of EVTOL aircraft.
- CFD simulation and FEM analysis of the rotors of screw compressor at different operating points
- Compressors Thrust Bearing Selection via CFD Simulation for screw Compressors
- Turbocharger Optimization for Railway Applications: Emphasis on Compressor Design
- Post-Processing of Experimental Data Derived from PIV and LDV Measurements
- Computational Investigation of Centrifugal Solid-Liquid Separators (ISEP)
- Computational Analysis of Flow Patterns and Cavitation in Centrifugal Pumps
- Cyclone Separator Design and Computational Analysis for Solid-Gas Separation in Industrial Vacuum Settings
- Assessing the Influence of Fluid-Induced Thermal Stress on Fatigue Stress within T-Junction Pipes
- Exploring Microturbine Implementation in Combined Heat and Power (CHP) Cycles
- Thermal Analysis of Cryogenic Tanks: Exploring Various Support Materials and Tank Configurations
- Analysis of Turboexpander for Achieving Minimum Outlet Temperature in a Cryogenic System
- Enhancing an Industrial Gas Turbine's Axial Compressor Stage through Artificial Intelligence-Based Optimization
- Numerical analyses of a 5 KW solar chemical reactor for the co-production of zinc and synthesis gas.
- Numerical study on laminar convection heat transfer in a parallel plate with longitudinal vortex generators.

PUBLICATIONS

- M.A.Neshat, Ali Farsi " Performance of vapor-liquid cyclone in different operating conditions ", Journal of Chemical Engineering and Processing - Process Intensification, 2024
- Edward Canepa, Andrea Cattanei, Mohammad Amir Neshat "CFD STUDY OF THE LEAKAGE FLOW IN LOW-SPEED AXIAL-FAN WITH ROTATING SHROUD" Proceedings of 15th European Conference on Turbomachinery Fluid dynamics & Thermodynamics, ETC15, 2023; Budapest, Hungary.
- M.A.Neshat, M.Akhlaghi, A.Fathi, H.Khaledi "Investigating the effect of blade sweep and lean in one stage of an industrial gas turbine's transonic compressor," Journal of propulsion and research power, Elsevier 2015.
- M.A.Neshat, A.Fathi, S.hassanzadeh, S.Jeidi, H.Rahimi" Computational fluid dynamic of co-production of Zinc and syngas in a solar reactor," Journal of Energy Engineering, Springer 2016.

HONORS AND AWARDS

Awarded a research fellowship to Contribute to enhancing the understanding of wind behavior in urban environments. 2024

First ranked for Ph.D. scholarship in University of Genova, Italy 2020

First ranked for Ph.D. scholarship in North Dakota University, USA 2019

Recipient of the national reward for Outstanding Contributions to the Field of Oil-Free Screw Compressor Technology, recognizing dedication to innovation and excellence

Responsible for reviews and quality of the research papers in **International Journal of Computational and Theoretical Chemistry (IJCTC)** 2018

Ranked Top 0.2% among Participants in Nationwide 2012

University Entrance Exam for MSc Degree in Fluid Mechanical Engineering

Ranked Top 2% among Participants in Nationwide 2007

University Entrance Exam for BSc Degree in Sciences and Engineering

Qualified to Participate in National Student Contests on Physics, Chemistry and Mathematic 2006

Accepted for High School Education in National Organization for Development of Exceptional Talents 2004

Accepted for Middle School Education in National Organization for Development of Exceptional Talents

SKILLS

Programming

C, MATLAB Formal Modeling

Computational Tools

Star CCm+, ANSYS FLUENT, SYSTEM COUPLING, STATIC AND TRANSIENT STRACTURAL ANALYSIS, THERMAL STRESS ANALYSIS, ANSYS ICEM CFD, CFX, BLADEGEN, TURBOGRID, CF TURBO, ANSYS MESH,

Modeling tools

CATIA, INVENTOR

Application

Microsoft Office, Adobe Photoshop, Microsoft Visual Studio, Excel

Other

VMWare

LANGUAGES

English – fluent

Persian – native

Italian – intermediate

Dutch- basic

MEMBERSHIPS

Iranian Mechanical Society, Iranian Bodybuilding Club

EXTRA-CURRICULAR ACTIVITIES

Studying, Travelling, Sports, Movies, Music.

REFERENCES

Available upon request.