Hamed Khatam Bolouri Sangjoeei

Master of Energy Engineering, Bachelor of Mechanical Engineering

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Date of birth 09/04/1995

Work Experience

Research Assistant   06/2017 - 06/2018
University of Tehran, Tehran, Iran

Marine and Hydrokinetic (MHK) Energy Research And Development lab, SELECTED PROJECTS:

- Numerical Analysis and Optimization of Nano-fluid based concentrating Photovoltaic Thermal (CPV/T) Collector with Organic Rankine Cycle using EES
- Numerical Analysis and Construction of solar desalination system for MAPNA group company competition, I introduced a Novel configuration of CPVT for solar receiver, using EES and Solidworks
- CFD Simulation and Parametric analysis of Ducted wind turbine (INVELOX), analyzing the effect of intake diameter and innovate intake designing to increase energy density using ANSYS fluent, CFX, Solidworks flow simulation, Autocad
- Numerical Analysis and CFD Simulation of flow over Airfoil NACA 2014 using ANSYS fluent, Qblade
- Designing and 3D printing a prototype of pump and fan impeller using CF_turbo, Solidworks
- CFD simulation of vortex shedding using ANSYS fluent with user defined functions (Matlab)
- CFD simulation of HWAT using ANSYS fluent, Q_blade
- Heat transfer in Heat Exchangers, a shell and tube heat exchanger using ANSYS Fluent and user defined functions

During these projects I was looking forward to tackle new technologies, I have analytical, entrepreneurial and result-oriented mindset and I value the power of teamwork and diversity in my projects.

Rotating Equipment and piping Engineer, internship   03/2015 – 06/2015
Oil industries engineering and construction company (OIEC), Tehran, Iran
I became familiar with specs writing, drawing P&ID and Process flow diagram (PFD) in an oil and gas plant and Selecting rotary equipment.

Teaching Assistant

University of Tehran, Tehran, Iran   2017-2018
Turbomachinery course B.Sc.
Teaching software (CF_Turbo, QBlade),

Education

M.Sc. Energy Engineering, Renewables and Environmental Sustainability   09/18 – ongoing
Politecnico di Milano
B.Sc. Mechanical Engineering
International University of Tehran   09/13 - 09/17

Publication & Awards

Awarded Gold scholarship, M.Sc. Politecnico di Milano

"Heat recovery of Nano-fluid based concentrating Photovoltaic Thermal (CPV/T) Collector with Organic Rankine Cycle" Journal: Energy conversion and management, 2019
Top 5th team in solar desalination MAPNA group company competition, Iran   Ongoing

Skills

- Mechanical Engineering
  ANSYS® Fluent, Solid Works®, Auto CAD®, CF_turbo®, Aspen Plus, QBlade®, TRNSYS
- Programing Languages
  EES©, C++, Python, MATLAB®, FreeFem ++, Ampl, Wolfram Mathematica.
- Application
  Microsoft Office® (Word, Excel, Power Point)

Selected Courses

- Computational Fluid Dynamics
- Electric Conversion Of Renewable Energy Sources
- Energy Systems
- Fluid Machines For Low-Carbon Technologies
- Fundamentals Of Chemical Processes For Energy And Environment
- Numerical Methods For Optimization & Functional Analysis And Numerics For PDEs
  Renewable Energy And Low-Carbon Technologies
- Smart Grids And Regulation For Renewable Energy
- Incompressible Aerodynamics

Languages

English   ●●●●●   Italian   ●●○○○
Full Professional Proficiency   Limited Working Proficiency
Persian   ●●●●●

Hobbies

Hiking, swimming, mountain climbing in group, football, Table Tennis, Biking