Ali Aghadadashi

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Tehran, Iran   Email: ali.aghadadashi@energy.sharif.edu

EDUCATION

- **Master of Science – Energy Systems Engineering**
  Sharif University of Technology
  GPA: 3.80/4

  Master Thesis: Bioenergy Supply Chain Optimization Considering Climate Constraints: A case study in Qazvin, Iran (Mark: Excellent)
  Supervisor: Prof. A. Avami

- **Bachelor of Science – Chemical Engineering**
  Azerbaijan Shahid Madani University
  GPA: 3.63/4

  Undergraduate Project: Biodiesel Production from Waste Cooking Oil
  Supervisor: Prof. M. Hosseini

RESEARCH INTERESTS

Machine Learning	Environmental Science	Energy Modeling
Deep Learning	Optimization	Life Cycle Assessment

PROFESSIONAL EXPERIENCES

- **Artificial Intelligence Engineer, Fanavaran Sharif Company**   *Nov 2022 – Present*
  - **Research Projects:** Optimizing fuel consumption of Petrochemical industries using Deep Learning techniques

- **Research Assistant, Sharif University of Technology**   *Sep 2021 – Nov 2022*
  Supervisor: A. Avami
  - **Research Projects**: Predicting Sox and NOx emissions from power plants by Artificial Neural Networks: A case study in Qom province, Iran – Life cycle assessment of refrigerators

PUBLICATIONS

▪ Articles

- Danook, S. H., AL-bonsrulah, H. A., Raja, V., Kolivandi, M., **Aghadadashi, A.,** & Al-Bahrani, M. (2022). Investigations of performance improvements on the evacuated tube solar collector with and without the incorporation of preheater through various engineering approaches. *IET Renewable Power Generation*.

- **Aghadadashi, A.**, Avami, A., (2022). Bioenergy supply chain optimization considering climate constraints: A case study in Qazvin, Iran. *Second National Conference on Waste Green Management.* (In Persian)

- Mirzaee, S., **Aghadadashi, A**., Balfouroosh, S., Shahbazi, A., (2021). Future research of investing in biofuels in Iran with a scenario approach. *5th International congress of Developing Agriculture, Natural Resources, Environment & Tourism of Iran.* (In Persian)

- **Aghadadashi, A**., Avami, A., (2022). Multi-Objective Optimization of Biofuels Supply Chain: A case study in Qazvin, Iran. (Under Review)

- Mirzaee, S., **Aghadadashi, A.**, Shahbazi, A., (2020). Analysis of Ramin Power Plant taxes considering social costs. *National Conference of Applied Researches on Water and Electricity sector.* (In Persian)

▪ Books

- **Aghadadashi, A**., Mirzaee, S., (2019). Mass and Energy Balance. *Chap-o-nashr Iran.* (In Persian)

HONORS & AWARDS

- **Ranked 9th in the 25th nationwide "Scientific Student Olympiad" in the Chemical Engineering, Iran** (2020)

- **Ranked 104th in the nationwide universities entrance exam (6000 + participants) (2020)**

- **Ranked second in the bachelor's degree in class (among 45 participants) (2019)**

TEACHING EXPERIENCES

- **Teaching Assistant – Water & Energy Nexus**   *Sep 2022 – Jan 2023*
  Instructor: Dr. A. Avami (Sharif University of Technology)
- **Teaching Assistant – Energy & Climate Change**   *Sep 2022 – Jan 2023*
  Instructor: Dr. H. Khajehpour (Sharif University of Technology)
- **Teaching Assistant – Water & Energy Nexus**   *Feb 2022 – Jun 2022*
  Instructor: Dr. A. Avami (Sharif University of Technology)
- **Teaching Assistant – Chemical Reactors Design**   *Sep 2020 – Jan 2021*
  Instructor: Dr. M. Hosseini (Azerbaijan Shahid Madani University)

SELECTED PROJECTS

- **Modeling and Optimization of Sox and Nox emissions from thermal power plants using Artificial Neural Networks and Genetic Algorithm**
  Methods: *Deep Learning – Evolutionary Optimization Algorithms*

- **Predicting the Thermal Runaway of Li-ion batteries using Long-Short Term Memory Neural Networks and Abnormality Detection with Clustering Methods**
  Methods: *Time-Series Prediction – LSTM – DBSCAN*

- **Biofuels Supply Chain Optimization Considering Climate Constraints: A Case Study in Qazvin, Iran**
  Methods: *Modeling – Linear Programming – Optimization*

CERTIFICATES & Online Courses

- Deep Learning – Coursera -

- Machine Learning – Coursera – Stanford University

SKILLS

Programming Languages	Python – MATLAB – C# - GAMS - HTML – CSS
Software	Aspentech – PVsyst – SketchUp
Tools	Mendeley - Word – Excel – Power Point – Origin Lab

LANGUAGE SKILLS

Turkish (Native) - **English** (Fluent) – **Persian** (Fluent) – **Arabic** (Familiar)

REFRENCES

Dr. Akram Avami, Assisstant Professor, Sharif University of Technology

Email: Avami@sharif.edu

Dr. Maryam Hosseini, Assisstant Professor,

Email: Hosseini_s@yahoo.com

Dr. Hossein Khajehpour, Assisstant Professor, Sharif University of Technology

Email: Khajehpour@sharif.edu