MEHRAN AHMADPOUR

Curriculum Vitae

Department of Energy Engineering
Sharif University of Technology
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EDUCATION

Master of Science in Energy Systems Engineering — ***Sep 2019 – Feb 2022***

Sharif University of Technology (SUT)

GPA: 4.0/4.0

Thesis: *"Improvement of Industrial Symbiosis Between Greenhouses and Industrial Waste Heat Sources by Employing Organic Rankine Cycle (ORC)"*

Supervisors: Dr. R. Roshandel; Dr. M. Behshad Shafii

Bachelor of Science in Mechanical Engineering — ***Sep 2013 – Sep 2018***

Science and Research Branch of Islamic Azad University (SRBIAU)

Thesis: *"Optimization of Industrial Axial Compressor Blade Sections"*

Supervisor: Dr. A. Nejati

RESEARCH INTERESTS

- *Modelling and optimization of energy systems*
- *Building energy performance and thermal comfort*
- *Renewable energy systems*
- *Machine learning applications in energy systems*

PUBLICATIONS

- **Ahmadpour. M**, Roshandel. & Shafii, M.B. The effect of organic Rankine cycle system design on energy-based agro-industrial symbiosis. *Energy Efficiency* 17, 39 (2024). https://doi.org/10.1007/s12053-024-10221-0

- **Ahmadpour. M**, Roshandel. & Shafii, M.B. Comparative Analysis of Two Approaches to Pumped Thermal Energy Storage: Independent Heat Pump and Organic Rankine Cycle Systems vs. Reversible ORC/HP System. Journal of *Energy Conversion and Management* (In Preparation).

EXPERIENCE

Research Assistant — *Summer 2021*

Department of Energy Engineering, Sharif University of Technology

Renewable Energy Systems Lab

Supervisor: Dr. R. Roshandel

- Installed a solar water-heating system
- Conducted an experimental study on solar thermal energy collectors

Teaching Assistant — *Fall 2020 Fall 2021*

Department of Energy Engineering, Sharif University of Technology

Course: *Advanced Mathematical Programming* (Graduate-level course)

Supervisor: Dr. R. Roshandel Course Number: *46311*

- Led tutorial sessions for up to 30 graduate students
- Created assignments and held problem-solving sessions
- Graded midterms, final exams and term papers

Teaching Assistant — *Fall 2020*

Department of Energy Engineering, Sharif University of Technology

Course: *Process Engineering* (Graduate-level course)

Supervisor: Dr. A. Avami Course Number: *46310*

- Provided instructions in use of process simulators
- Created assignments and graded term papers
- Led tutorial sessions for up to 20 graduate students

COMPUTER SKILLS

Programing: Python, MATLAB

Engineering Software: COMSOL, CATIA, EES, Aspen Plus

General: Microsoft Office, Adobe Photoshop, Mendeley

LANGUAGES

• **English:** TOEFL iBT® Test: (103 out of 120) • **Persian:** Native