



Education

- **Polytechnique Montreal, Montreal, QC, Canada** (since 2020)
Ph.D. Student, Department of Chemical Engineering
- **Isfahan University of Technology, Isfahan, Iran** (2015-2018)
M.Sc. Degree, Department of Chemical Engineering-Process Design
Thesis: Algorithm design and software development for design calculation of pervaporation systems.
- **Isfahan University of Technology, Isfahan, Iran** (2011-2015)
B.Sc. Degree, Department of Chemical Engineering
Thesis: A study on performance and control of first and higher order of processing systems with time-delay.

Research Interests

- Intelligent modeling and simulation
- Machine learning and artificial intelligence
- Process design and optimization
- Membrane technology development
- Fluidized bed reactor modeling and design
- Greenhouse gas control technology and environmental issues

Journal Publications

- F., Vatankhah, A., Moheb, A., Mehrabani-Zeinabad, "A study on the effects of feed temperature and concentration on design of a multi-stage pervaporation system for isopropanol-water separation using commercial available modules with inter-stage heating", *J. Membr. Sci.*, 618 (2021) 118717.
- F. Vatankhah, A. Moheb, A. Mehrabani-Zeinabad, "Modeling and simulation of non-isothermal pervaporation process for separation of isopropanol-water mixture", *The 10th International Chemical Engineering Congress & Exhibition*, Isfahan, Iran, May 6-10, 2018.
- M. Botshekan, A. Moheb, F. Vatankhah, K. Karimi, M. Shafiei, "Energy saving alternatives for renewable ethanol production with the focus on separation/purification units: A techno-economic analysis", *Submitted to Energy*.

Work Experience

- | | | |
|--|----------------------------------|------------------------|
| ▪ Isfahan University of Technology, Isfahan, Iran | Research & Development Assistant | (Apr. 2019-June 2019) |
| ▪ Isfahan University of Technology, Isfahan, Iran | Teaching Assistant | (Sept. 2015-June 2018) |
| ▪ Process Control | | |
| ▪ Mass transfer in Chemical Engineering | | |
| ▪ Heat transfer in Chemical Engineering | | |
| ▪ Saman Energy Company, Isfahan, Iran | Energy Audit Internship | (July 2017-Sept. 2017) |
| ▪ Isfahan University of Technology, Isfahan, Iran | Software Developer | (July 2016-Sept. 2016) |
| ▪ Esfahan Petrochemical Company (EPC), Isfahan, Iran | Internship | (Aug. 2014-Sept. 2014) |
| ▪ Isfahan Power Plant, Isfahan, Iran | Internship | (July 2014-Aug. 2014) |

Honors and Rewards

- Ranked top 10% among all undergraduate students, Chemical Engineering Department, IUT, 2011-2015.
- Being exempted from the M.Sc. entrance exam as an “Exceptionally Talented” student, IUT, 2014.
- Awarded the permission to pass more than 20 honor credits in any desired field of Chemical Engineering as an “Exceptionally Talented” student, IUT, 2012.
- Ranked top 0.5% among 284000 participants in the Iranian undergraduate nationwide university entrance exam, 2011.
- Gained acceptance into B.Sc. Chemical Engineering, Isfahan University of Technology which is the 3rd highest-ranking university in Iran.