POLYTECHNIQUE MONTRÉAL
LE GÉNIE EN PREMIÈRE CLASSE

Amin Solouki, PhD Student

• Montreal, Quebec H3G 2N7
Phone: +1 438 871 2532 • E-Mail: amin.solouki@polymtl.ca

Education

- **École Polytechnique of Montréal, Montréal, QC, Canada** (---)

Ph.D. Degree, Department of Chemical Engineering

- **Politecnico di Milano, Milan, Italy** (2017)

M.Sc. Degree, Department of Energy Engineering
Thesis: "Modeling infrastructure and implementation of State-of-the-Art Heat Transfer Models into Linde's in-house equation oriented process simulator OPTISIM®"

- **Sharif University of Technology, Tehran, Iran** (2012)

B.Sc. Degree, Department of Chemical Engineering
Thesis: Development of Biomass and Waste to Energy Systems"

Research Interests

- Process Equipment Design, Development and Optimization
- Thermal and Catalytic Fluidized Bed Reactors
- Computational Heat Transfer & Plate Fin Heat Exchangers
- Development of Renewable Energy Resources
- Thermo-Hydraulics of multi-phase flows
- Computer-aided Modeling & Scientific Calculation
- Cryogenics & Liquefaction

Work Experience

• **Process Equipment Design & Computational Mechanics (ENCP)**, Linde AG, Munich, Germany	Thesis Student	2016-2017
• **Process Equipment Design & Computational Mechanics (ENCP)**, Linde AG, Munich, Germany	Intern	2015-2016
• **Arad Industrial Group,** Tehran, Iran	Software Developer	2012-2014
• **Research & Development (R&D)**, **Exir Pharmaceutical Co.,** Borujerd, Iran	Intern	2011

Research Background

- Simulation module Development for Plate-Fin Heat Exchangers used in LNG, Air Separation Units and Refrigeration Processes

- Energy analysis and economic comparison of different Low Carbon Technologies and Energy Systems
- Analysis of different types of air pollution control systems
- Heating and cooling Energy requirements evaluation for a building module
- Multi objective optimization on HT-PEM Fuel Cells
- Design of Shell & Tube Heat Exchangers
- Design of Sieve Tray Distillation Column
- Thermo-Hydraulic & simulation of PWR Nuclear Reactors
- Study of Biomass and renewable energy Systems
- Development of Commercial Nano-Catalysts
- Feasibility study for a Terephtalic Acid Plant

Teaching Experience

• **Introduction to Programming**, Sharif University of Technology, Tehran, Iran	Teaching Assistant	2009-2010

Conference Publications

- Woitalka, A., Thomas, I., Freko, P., Solouki, A., 'Thermo-Hydraulic Simulation of Plate Fin Heat Exchangers using OPTISIM', Proceedings of the 7th International Conference on Advanced Computational Heat Transfer (CHT-17) May, 2017