Shahab Golshan

Education

- **University of Tehran, Tehran, Iran** (2013-2018)

  Ph.D. Degree, Department of Chemical Engineering

  Thesis: Hybrid Deterministic-Stochastic Modeling of Spouted Bed

- **University of Tehran, Tehran, Iran** (2011-2013)

  M.Sc. Degree, Department of Chemical Engineering

  Thesis: Development and Optimization of Bayesian Networks for Chemical Processes with Recycle Flows

- **University of Tehran, Tehran, Iran** (2007-2011)

  B.Sc. Degree, Department of Chemical Engineering

Research Interests

- Numerical Modeling
- Discrete Element Method
- Computational Fluid Dynamics / Coupled CFD-DEM
- Multiphase Flow
- Machine Learning

Work Experience

- Polytechnique Montreal, Montreal, QC — Post-doctoral researcher — 2019-now
- Process Design and Simulation Center, University of Tehran, Tehran, Iran — Post-doctoral researcher — 2018-2019
- Multiphase Flow Laboratory, Hacettepe University, Ankara, Turkey — Research Assistant — 2015-2016

Teaching Experience

Shahab Golshan, PhD

- Montréal, Québec
- Phone: +1 438 866 1914
- E-Mail: shahab.golshan@polymtl.ca

Engineering Mathematics, Department of Biotechnology, University of Tehran, Tehran, Iran	Lecturer	2018
Process Simulation, Mahshahr Petrochemical Complex, Mahshahr, Iran	Lecturer	2013
Application of Math in Chemical Engineering, Department of Chemical Engineering, University of Tehran, Tehran, Iran	Teaching Assistant	2013, 2014
Advanced Mathematics, Department of Chemical Engineering, University of Tehran, Tehran, Iran	Teaching Assistant	2013, 2014, 2015
Reactor Design, Department of Chemical Engineering, University of Tehran, Tehran, Iran	Teaching Assistant	2013, 2014
Mass & Energy Balance, Department of Chemical Engineering, University of Tehran, Tehran, Iran	Teaching Assistant	2012
Numerical Calculations, Department of Chemical Engineering, University of Tehran, Tehran, Iran	Teaching Assistant	2011

Journal Publications

• **Golshan, S.**, Zarghami, R., Norouzi, H.R. and Mostoufi, N., 2017. Granular Mixing in Nauta Blenders. *Powder Technology*, 305, 279-288.

• **Golshan, S.**, Zarghami, R. and Mostoufi, N., 2017. Hydrodynamics of Slot-Rectangular Spouted Beds: Process Intensification. *Chemical Engineering Research and Design*, 121, 315-328.

• **Golshan, S.**, Sotudeh-Gharebagh, R., Zarghami, R., Mostoufi, N., Blais, B. and Kuipers, J.A.M., 2020. Review and Implementation of CFD-DEM Applied to Chemical Process Systems. *Chemical Engineering Science*, 115646.

• **Golshan, S.**, Esgandari, B., Zarghami, R., Blais, B. and Saleh, K., 2020. Experimental and DEM Studies of Velocity Profiles and Residence Time Distribution of Non-spherical Particles in Silos. *Powder Technology*, 373, 510-521.

- **Golshan, S.**, Yaman, O., Koksal, M., Kulah, G., Zarghami, R. and Mostoufi, N., 2018. A New Correlation for Minimum Spouting Velocity for Conical Spouted Beds Operating with High Density Particles. *Experimental Thermal and Fluid Science*, 96, 358-370.

- **Golshan, S.**, Zarghami, R. and Mostoufi, N., 2019. A Hybrid Deterministic–Stochastic Model for Spouted Beds. *Particuology*, 42, 104-113.

- **Golshan, S.** and Blais, B., 2020. Insights into Granular Mixing in Vertical Ribbon Mixers. *Canadian Journal of Chemical Engineering*.

- **Golshan, S.**, Zarghami, R. and Saleh, K., 2019. Modeling Methods for Gravity Flow of Granular Solids in Silos. *Reviews in Chemical Engineering*.

- **Golshan, S.**, Esgandari, B. and Zarghami, R., 2017. CFD-DEM and TFM Simulations of Spouted Bed. *Chemical Engineering Transactions*, 57, 1249-1254.

- Blais, B., Barbeau, L., Bibeau, V., Gauvin, S., El Geitani, T., **Golshan, S.**, Kamble, R., Mikahori, G. and Chaouki, J., 2020. Lethe: An Open-source Parallel High-order Adaptive CFD Solver for Incompressible Flows. *SoftwareX*, 12, p.100579.

- Saleh, K., **Golshan, S.** and Zarghami, R., 2018. A Review on Gravity Flow of Free-Flowing Granular Solids in Silos–Basics and Practical Aspects. *Chemical Engineering Science*, 192, 1011-1035.

- Mostafaei, F., **Golshan, S.**, Zarghami, R., Gharebagh, R.S. and Mostoufi, N., 2020. Investigating the Bubble Dynamics in Fluidized Bed by CFD-DEM. *Powder Technology*.

- Ghods, N., **Golshan, S.**, Zarghami, R. and Sotudeh-Gharebagh, R., 2019. CFD-DEM Modelling of Particles Attrition in Jet-in-Fluidized Beds. *Chemical Engineering Research and Design*, 148, 336-348.

• Mohammadi, A., Zarghami, R., Lefebvre, D., **Golshan, S.** and Mostoufi, N., 2019. Soft Sensor Design and Fault Detection Using Bayesian Network and Probabilistic Principal Component Analysis. *Journal of Advanced Manufacturing and Processing*, 1(4), p.e10027.

• Mohammadi, A., Bonilla, J., Zarghami, R. and **Golshan, S.**, 2018. A Novel Heat Exchanger Design Method Using a Delayed Rejection Adaptive Metropolis Hasting Algorithm. *Applied Thermal Engineering*, 137, 808-821.

• Göbel, F., **Golshan, S.**, Norouzi, H.R., Zarghami, R. and Mostoufi, N., 2019. Simulation of Granular Mixing in a Static Mixer by the Discrete Element Method. *Powder Technology*, 346, 171-179.

Conference Publications

• **Golshan, S.**, Zarghami, R., Mostoufi, N., Koksal, M. and Kulah, G., 2017. CFD-DEM Simulation of a Conical Spouted Bed Operating with High Density Particles. In Proceedings of the 7th International Conference on Discrete Element Methods (947-955). Springer Singapore.

• **Golshan, S.**, Mostoufi, N., Zarghami, R., and Norouzi, H., 2015. Discrete Element Method Simulation of Continuous Blenders. In The 16th International Conference on Fluid Flow Technologies, Budapest, Hungary.

• **Golshan, S.**, Mostoufi, N., Zarghami, R., and Sotudeh-Gharebagh, R., 2018. CFD-DEM: Introduction to Modeling of Multi-Phase Flows. In ICACSE2018, India.

• Esgandari, B., **Golshan, S.**, Zarghami, R. and Sotudeh-Gharebagh, R., Hydrodynamics of Spouted Fluidized Beds with Different Injection Patterns using CFD-DEM.

• Padash, A., Esgandari, B., Mostoufi, N., Zarghami, R., and **Golshan, S.** 2017. S. Effect of Drag Force on the Fluidized Bed Hydrodynamics. In The 8th National Conference on CFD Applications in Chemical & Petroleum Industries, Tehran, Iran.

Honors and Awards

- Member of National Elites Foundation, Iran   2016-now

Shahab Golshan, PhD

- Montréal, Québec
- Phone: +1 438 866 1914   • E-Mail: shahab.golshan@polymtl.ca

- Reviewer of Canadian Journal of Chemical Engineering   2020-now

- Reviewer of Chemical Product and Process Modeling Journal   2018-now

- Reviewer of Journal of Chemical and Petroleum Engineering   2018-now

- Head of the Executive Committee, 9th Conference on CFD Applications in Chemical and Petroleum Industries, University of Tehran   Nov. 2018