Curriculum Vitae

Personal Data:

Name and Family: Ali Farzi

Date of Birth: 1975-10-31

Nationality: Iranian

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Educational Background:

Certificate Degree	Field of Specialization	Name of Institution Attended	Date Received
Doctor of Philosophy	Chemical Engineering, Simulation and Control	Isfahan University of Technology, Isfahan, Iran	2008
Master's Degree	Chemical Engineering, Simulation and Control	Isfahan University of Technology, Isfahan, Iran	2001
Undergraduate	Petrochemical Engineering	Shiraz University, Shiraz, Iran	1995

Title of Doctorate Thesis:

Design and Development of Novel Methods for Object-Oriented Data Reconciliation

Title of Master's Thesis:

Modeling Physical-Chemcial-Biological Systems

Title of Undergraduate Thesis:

Production of Hydrogen Peroxide

Current Position: Associate Professor of Chemical Engineering

Teaching Experiences:

Title of Course	Level	Dates From	Dates To	Name of Institution
Statistical Thermodynamics	M.Sc.	2021		Faculty of Agricultural Engineering, Univerity of Tabriz, Tabriz, Iran
Pinch Technology	M.Sc.	2020		Faculty of Mechanical Engineering, Univerity of Tabriz, Tabriz, Iran
Chem. Eng. Software Workshop	Undergraduate	2020		Faculty of Chemical and Petroleum Engineering, Univerity of Tabriz, Tabriz, Iran
Modeling and Simulation of Chemical Processes	M.Sc. and Ph.D.	2010		Faculty of Chemical and Petroleum Engineering, Univerity of Tabriz, Tabriz, Iran
Optimization	M.Sc. and Ph.D.	2011		Faculty of Chemical and Petroleum Engineering, Univerity of Tabriz, Tabriz, Iran
Process Control	Undergraduate	2008		Faculty of Chemical and Petroleum Engineering, Univerity of Tabriz, Tabriz, Iran
Process Control Lab.	Undergraduate	2017		Faculty of Chemical and Petroleum Engineering, Univerity of Tabriz, Tabriz, Iran
Applied Mathematics in Chemical Engineering	Undergraduate	2008		Faculty of Chemical and Petroleum Engineering, Univerity of Tabriz, Tabriz, Iran

Instrument Control	M.Sc.	2010	2018	Faculty of Chemitry, Univerity of Tabriz, Tabriz, Iran
Modern Control	M.Sc.	2011	2014	Faculty of Chemical and Petroleum Engineering, Univerity of Tabriz, Tabriz, Iran
Advanced Thermodynamics	M.Sc.	2009	2016	Faculty of Chemical and Petroleum Engineering, Univerity of Tabriz, Tabriz, Iran
Process Control 2	Undergraduate	2009	2014	Faculty of Chemical and Petroleum Engineering, Univerity of Tabriz, Tabriz, Iran
Unit Opertaions Lab.	Undergraduate	2008	2010	Department of Chemical Engineering, Univerity of Tabriz, Tabriz, Iran
Thermodynaics 2	Undergraduate	2007	2009	Department of Chemical Engineering, Univerity of Tabriz, Tabriz, Iran
Thermodynaics 1	Undergraduate	2008	2008	Department of Chemical Engineering, Univerity of Tabriz, Tabriz, Iran
Software Workshop	Undergraduate	2008	2008	Department of Chemical Engineering, Univerity of Tabriz, Tabriz, Iran
Mass Transfer	Undergraduate	2007	2009	Department of Chemical Engineering, Univerity of Tabriz, Tabriz, Iran
Computer Programming	Undergraduate	2007	2008	Department of Chemical Engineering, Univerity of Tabriz, Tabriz, Iran
Process Control Lab.	Undergraduate	2000	2006	Department of Chemical Engineering, Isfahan University of Technology, Isfahan, Iran

Research Interests:

Chemical and Biochemical Process Modeling, Simulation and Control; Process Optimization; Artificial Neural Networks; Biotechnology; Data Reconciliation; Thermodynamics; Computational Fluid Dynamics

Fields of Expertise:

Chemical Process Modeling and Simulation; Artificial Neural Networks; Catalytic Processes; Professional Programming with different languages including Visual C++, MATLAB, and Python.

Publications:

Journal Papers:

1. M. Faraji, **A. Farzi***, H. Shekaari, A. Rostami, "Performance analysis of phase change composites improved with graphene oxide nanoparticle for thermal energy storage", *Journal of Energy Storage*, 87, 111399, 2024.
2. **A. Farzi***, M. Soltani, A. Ostadrahimi, H. Soleimanzadeh, M. Namjoufar, "Synthesis of a Nanocomposite with Holocellulose Extracted from Barley Straw and Montmorillonite, and Optimization of the Removal of Methylene-Blue Dye Using the Synthesized Adsorbent", *Applied Water Science*, **Accepted for publication**.
3. N. Hadi, **A. Farzi***, "A review on reaction mechanisms and catalysts of ethanol to olefins process", *Chemical Engineering Communications*, 209 (12), 1664-1710, 2022, doi: https://doi.org/10.1080/00986445.2021.1983547.
4. A. Mohammadi, C. Praty, **A. Farzi***, H. Soleimanzadeh, S. Schwarz, M. Stöger-Pollach, J. Bernardi, S. Penner, A. Niaei, "Influence of CeO_2 and WO_3 Addition to Impregnated V_2O_5/TiO_2 Catalysts on the Selective Catalytic Reduction of NOx with NH_3", *Catalysis Letters*, https://doi.org/10.1007/s10562-022-04108-x.
5. N. Kalantari, M. F. Bekheet, P. D. K. Nezhad, J. O. Back, **A. Farzi**, S. Penner, N. Delibaş, S. Schwarz, J. Bernardi, D. Salari, A. Niaei, "Effect of chromium and boron incorporation methods on structural and catalytic properties of hierarchical ZSM-5 in the methanol-to-propylene process", *Journal of Industrial and Engineering Chemistry*, 111, 168-182, 2022.
6. A. Mohammadi, **A. Farzi**, C. Thurner, B. Klötzer, S. Schwarz, J. Bernardi, A. Niaei, S. Penner, "Tailoring the metal-perovskite interface for promotional steering of the catalytic NO reduction by CO in the presence of H2O on Pd-lanthanum iron manganite composites", *Applied Catalysis B: Environmental*, 121160, 2022.
7. **A. Farzi**, N. Shirzad, A. Dehnad, "Biodegradation of Benzene and Toluene by Streptomyces species isolated from the soil of Tabriz Refinery, Eastern-Azerbaijan and investigation of the kinetic model", *Journal of Civil and Environmental Engineering*, 52 (106), 121-130, 2022, doi: https://dx.doi.org/10.22034/jcee.2021.27873.1675, ***[In Persian]***.
8. P. D. K. Nezhad, M. F. Bekheet, N. Bonmassar, A. Gili, F. Kamutzki, A. Gurlo, A. Doran, S. Schwarz, J. Bernardi, S. Praetz, A. Niaei, **A. Farzi**, S. Penner, "Elucidating the Role of Earth Alkaline Doping in Perovskite-Based Dry Reforming of Methane Catalysts", *Catalysis Science & Technology*, 2022, https://doi.org/10.1039/D1CY02044G.
9. N. Kalantari, **A. Farzi**, N. Ç. Delibaş, A. Niaei, D. Salari, "Synthesis of multiple-template zeolites with various compositions and investigation of their catalytic properties", *Research on Chemical Intermediates*, 47 (12), 4957-4984, 2021.
10. M. Namjoufar, **A. Farzi***, A. Karimi, "Removal of Acid Brown 354 from Wastewater by Aminized Cellulose Acetate Nanofibers: Experimental and Theoretical Study of the Effect of Different Parameters on Adsorption Efficiency", *Water Science and Technology*, 83 (7), 1649-1661, 2021.

11. B. Feizi-Afshar and **A. Farzi***, "Dynamic Simulation, Parameter Optimization, and Control of a Reactive Distillation Column for Production of Isopropanol via Propylene Hydration", *Chemical and Biochemical Engineering Quarterly*, 34 (4), 233-242, 2020.

12. P. D. K. Nezhad, M. Behkeet, N. Bonmassar, L. Schlicker, A. Gili, F. Kamutzki, A. Doran, Y. Gao, M. Heggen, S. Schwarz, J. Bernardi, B. Klötzer, A. Niaei, **A. Farzi**, S. Penner, "Mechanistic In-Situ Insights into the Formation, Structural and Catalytic Aspects of the La2NiO4 Intermediate Phase in the Dry Reforming of Methane over Ni-based Perovskite Catalysts", *Applied Catalysis A: General*, 612, 117984, 2021.

13. M. F. Bekheet, P. D. Kheyrollahi-Nezhad, N. Bonmassar, L. Schlicker, A. Gili, S. Praetz, A. Gurlo, A. Doran, Y. Gao, M. Heggen, A. Niaei, **A. Farzi**, S. Schwarz, J. Bernardi, B. Klötzer, S. Penner, "Steering the Methane Dry Reforming Reactivity of Ni/La$_2$O$_3$ Catalysts by Controlled In Situ Decomposition of Doped La$_2$NiO$_4$ Precursor Structures", *ACS Catalysis*, 11 (1), 43-59, 2021.

14. N. Hadi, **A. Farzi**, R. Alizadeh, A. Niaei, Metal-substituted sponge-like MFI zeolites as high-performance catalysts for selective conversion of methanol to propylene, *Microporous and Mesoporous Materials*, 306, 110406, 2020.

15. M. Grünbacher, A. Tarjoman-Nejad, P. D. Kheyrollahi-Nezhad, C. Praty, K. Ploner, A. Mohammadi, A. Niaei, B. Klötzer, S. Schwarz, J. Bernardi, **A. Farzi**, M. J. I. Gómez, V. T. Rivero, S. Penner, "Promotion of La(Cu$_{0.7}$Mn$_{0.3}$)$_{0.98}$M$_{0.02}$O$_{3-\delta}$ (M= Pd, Pt, Ru and Rh) Perovskite Catalysts by Noble Metals for the Reduction of NO by CO", *Journal of Catalysis*, 379, 18-32, 2019.

16. **A. Farzi***, P. Khalati, "Mathematical and Artificial Neural Network Simulation of NOx Selective Catalytic Reduction in a Monolithic Reactor", *Amirkabir Journal of Mechanical Engineering*, 52 (9), 61-70, 2020 ***[In Persian with English abstract]***.

17. N. Sarabchi, S.M. Seyed Mahmoudia, M. Yaria, **A. Farzi**, "Exergoeconomic analysis and optimization of a novel hybrid cogeneration system: High-temperature proton exchange membrane fuel cell/Kalina cycle, driven by solar energy", *Energy Conversion and Management*, 190, 14-33, 2019.

18. **A. Farzi***, A. Dehnad, A. F. Fotouhi, "Biodegradation of Polyethylene Terephthalate Waste using Streptomyces species and Kinetic Modeling of the Process", *Biocatalysis and Agricultural Biotechnology*, 17 (1), 25-31, 2019.

19. A. Tarjomannejad, P. Rashidi-Zonouz, M. E. Masoumi, A. Niaei, **A. Farzi**, "LaFeO3 Perovskites Obtained from Different Methods for NO + CO Reaction, Modeling and Optimization of Synthesis Process by Response Surface Methodology", *Journal of Inorganic and Organometallic Polymers and Materials*, 28 (5), 2012-2022, 2018.

20. M.S. Izadkhah, **A. Farzi**, "Mathematical and artificial neural network modeling of production of ethylene from ethane pyrolysis in a tubular reactor", *Petroleum Science and Technology*, 36 (11), 732-738, 2018.

21. A. Mohammadi, **A. Farzi**, "Modeling and Simulation of Direct Partial Oxidation of Methane to Methanol in a Fluidized Bed Reactor", Journal of Modeling in Engineering, 16 (52), 2018 ***[In Persian]***.

22. **A. Farzi**, A. Dehnad, N. Shirzad, F. Norouzifard, "Biodegradation of high-density polyethylene using Streptomyces species", *Journal of Coastal Life Medicine*, 5 (11), 474-479, 2017, doi: https://doi.org/10.12980/JCLM.5.2017J7-94.

23. A. Tarjomannejad, **A. Farzi**, A. Niaei, D. Salari, "NO reduction by CO over LaB$_{0.5}$B'$_{0.5}$ O$_3$ (B = Fe, Mn, B' = Fe, Mn, Co, Cu) perovskite catalysts, an experimental and kinetic study", *Journal of the Taiwan Institute of Chemical Engineers*, 78, 200-211, 2017.

24. **A. Farzi**, M. J. Jomea, "Simulation and Control of a Methanol-To-Olefins Laboratory Fixed-Bed Reactor", *Iranian Journal of Chemistry and Chemical Engineering*, 36 (2), 175-190, 2017.

25. A. Tarjomannejad, A. Niaei, M. J. Illán-Gómez, **A. Farzi**, D. Salari, V. Albaladejo-Fuentes, "NO + CO reaction over LaCu$_{0.7}$B$_{0.3}$O$_3$ (B= Mn, Fe, Co) and La$_{0.8}$A$_{0.2}$Cu$_{0.7}$Mn$_{0.3}$O$_3$ (A=Rb, Sr, Cs, Ba) perovskite-type catalysts", *Journal of Thermal Analysis and Calorimetry*, 129 (2), 671-680, 2017.

26. P. Abdi, **A. Farzi**, A. Karimi, "Application of a hybrid enzymatic and photo-fenton process for investigation of azo dye decolorization on TiO$_2$/metal-foam catalyst", *Journal of the Taiwan Institute of Chemical Engineers*, 71, 137-144, 2017.

27. N. Hajizadeh, N. Shirzad, **A. Farzi**, M. Salouti, A. Momeni, "Biodegradation of resorcinol by Pseudomonas sp.", *Journal of Coastal Life Medicine*, 4 (12), 932-934, 2016.

28. A. Tarjomannejad, **A. Farzi**, M. J. Illán-Gómez, A. Niaei, D. Salari, V. Albaladejo-Fuentes, "Catalytic Reduction of NO by CO over LaMn$_{1-x}$Fe$_x$O$_3$ and La$_{0.8}$A$_{0.2}$Mn$_{0.3}$Fe$_{0.7}$O$_3$ (A = Sr, Cs, Ba, Ce) Perovskite Catalysts", *Catalysis Letters*, 146 (11), 2330-2340, 2016.

29. A. Tarjomannejad, **A. Farzi**, A. Niaei, D. Salari, "An experimental and kinetic study of toluene oxidation over LaMn$_{1-x}$B$_x$O$_3$ and La$_{0.8}$A$_{0.2}$Mn$_{0.3}$B$_{0.7}$O$_3$ (A=Sr, Ce and B=Cu, Fe) nano-perovskite catalysts", *Korean Journal of Chemical Engineering*, 33 (9), 2628-2637, 2016.

30. N. Hajizadeh, N. Shirzad, **A. Farzi**, "Biodegradation of Xylene Using Pseudomonas sp. Isolated from Northwest of Iran", *Iranian Journal of Public Health*, 45 (Suppl. 2), 23, 2016.

31. A. Tarjomannejad, A. Niaei, **A. Farzi**, D. Salari, P. Rashidi Zonouz, "Catalytic Oxidation of CO Over LaMn$_{1-x}$B$_x$O$_3$ (B = Cu, Fe) Perovskite-type Oxides", *Catalysis Letters*, 146 (8), 1544-1551, 2016.

32. **A. Farzi**, S. M. Bayrami, "Treatment of ethylene spent caustic pollutant using sulfuric acid", *International Journal of Scientific & Engineering Research*, 6 (10), 382-386, 2015.

33. **A. Farzi**, A. Tarjomannejad, "Prediction of phase equilibria in binary systems containing acetone using artificial neural network", *International Journal of Scientific & Engineering Research*, 6 (9), 358-363, 2015.

34. N. Shirzad, **A. Farzi**, N. Hajizadeh, "Bioremediation of Basic Red 46 by Pseudomonas sp.", *Advances in Bioresearch*, 6 (4), 88-92, 2015.

35. N. Shirzad, **A. Farzi**, A. Dehnad, N. Hajizadeh, "Optimization of benzene biodegradation using Streptomyces isolated from Tabriz Refinery", *Iranian Journal of Public Health*, 43 (2), 43, 2014.

36. A. Dehnad, F. Ahmadifard, **A. Farzi**, N. Hajizadeh, N. Shirzad, "Biodegradation of resorcinol using Streptomyces sp. bacteria isolated from the North West of Iran", *Iranian Journal of Public Health*, 43 (2), 247, 2014.

37. N. Hadi, A. Niaei, S. R. Nabavi, **A. Farzi**, M. N. Shirazi, "Development of a New Kinetic Model for Methanol to Propylene Process on Mn/H-ZSM-5 Catalyst", *Chemical and Biochemical Engineering Quarterly*, 28 (1), 53-63, 2014.

38. N. Hadi, A. Niaei, S. R. Nabavi, **A. Farzi**, "Kinetic Study of Methanol to Propylene Process on High Silica H-ZSM5 Catalyst", *Iranian Journal of Chemical Engineering*, 10 (4), 16-27, 2013.

39. P. N. Panahi, S. M. Mousavi, A. Niaei, **A. Farzi**, D. Salari, "Modeling and Simulation of Styrene Monomer Reactor: Mathematical and Artificial Neural Network Model", *International Journal of Scientific & Engineering Research*, 3 (2), 1-7, 2012.

40. S. M. Mousavi, P. N. Panahi, A. Niaei, **A. Farzi**, D. Salari, "Simulation of methanol synthesis from synthesis gas in fixed bed catalytic reactor using mathematical modeling and neural networks", *International Journal of Scientific & Engineering Research*, 3 (3), 1-7, 2012.

41. **A. Farzi**, A. Z. Mehrabani, R. B. Bozorgmehry, "On-Line Nonlinear Dynamic Data Reconciliation Using Extended Kalman Filtering: Application to a Distillation Column and a CSTR", *Iranian Journal of Chemistry and Chemical Engineering*, 28 (3), 1-14, 2009.

42. **A. Farzi**, A. Z. Mehrabani, R. B. Bozorgmehry, "Dynamic Data Reconciliation Using Artificial Neural Networks", *Journal of the Engineering Faculty of University of Tabriz*, 36 (2), 81-86, 2008 **[In Persian]**.

43. **A. Farzi**, A. Z. Mehrabani, R. B. Bozorgmehry, "Development of an Object-Oriented Methodology for Data Reconciliation"**,** *The Korean Journal of Chemical Engineering***,** 25 (5), 955-965**,** 2008.

44. **A. Farzi**, A. Z. Mehrabani, "Modelsaz: An Object-Oriented Computer-Aided Modeling Environment", *Iranian Journal of Chemistry and Chemical Engineering*, 23 (1), 35-50, 2004.

45. A. Z. Mehrabani, **A. Farzi**, "Mathematical Representation of Tree Structure of Processing Systems", *Iranian Journal of Chemistry and Chemical Engineering* **[Persian Edition]**, 20 (2), 79-85.,2001 **[In Persian]**.

Papers Presented at National and International Scientific Assemblies:

1. N. Kalantari, **A. Farzi**,, N. Delibaş, A. Niaei, D. Salari, "Structural and Surface study of ZSM-5 with Nano pore Size Distribution with MTP application approach", *2nd Eurasian Conference on Nanotechnology, Baku, Azerbaijan*, 2021.

2. S. Bahrami, **A. Farzi**, H. R. Khaledian, A. Tarjomannejad, A. Niaei, "Analysis of NO + CO Reduction over $LaCo_{0.5}B_{0.5}O_3$ (B=Cr, Cu, Mn) Perovskite-Type Nanocatalysts Using Artificial Neural Networks', *3rd National and 1st International Conference on Applied Researches in Chemistry & Chemical Engineering, Tehran, Iran,* 2016

3. H. R. Khaledian, **A. Farzi**, S. Bahrami, S. Salehi, A. Tarjomannejad, "Modeling, Simulation and Optimization of Dry Reforming of Methane Process by Using Artificial Neural Network and Genetic Algorithm", *3rd National and 1st International Conference on Applied Researches in Chemistry & Chemical Engineering, Tehran, Iran,* 2016

4. A. Tarjomannejad, **A. Farzi**, A. Niaei, D. Salari, "Catalytic NO reduction with CO over $La_{1-x}Ca_xCo_{0.7}Mn_{0.3}O_3$ Perovskite-Type mixed oxides", *The 9th International Chemical Engineering Congress & Exhibition (IChEC 2015), Shiraz, Iran,* 2015

5. A. Tarjomannejad, **A. Farzi**, A. Niaei, D. Salari, P. R. Zonouz, "Analysis of simultaneous NO-CO reaction on $La_{0.8}Ce_{0.2}Co_{0.7}Mn_{0.3}O_3$ Perovskite-Type", *The 9th International Chemical Engineering Congress & Exhibition (IChEC 2015), Shiraz, Iran,* 2015

6. R. Ghasemi, M. Tahmasebpoor, **A. Farzi**, "Modeling the size of nanoparticle agglomerates in fluidization", *The 9th International Chemical Engineering Congress & Exhibition (IChEC 2015), Shiraz, Iran,* 2015

7. M. Babaei , **A. Farzi**, A. Dehnad, "Evaluation of variables affecting L-asparaginase production by indigenous Streptomyces isolates using Plackett-Burman design", *The 9th International Chemical Engineering Congress & Exhibition (IChEC 2015), Shiraz, Iran,* 2015

8. P. Abdi, **A. Farzi**, A. Karimi, "Decolorization of water pollutant from aquatic life and its effect on human life by Advanced Oxidation Process", *The 9th International Chemical Engineering Congress & Exhibition (IChEC 2015), Shiraz, Iran,* 2015

9. P. Abdi, **A. Farzi**, A. Karimi, "Immobilization of GOx enzyme and TiO2 nano-particles on metalfoam support and their effect on removal of azo dye", *The 9th International Chemical Engineering Congress & Exhibition (IChEC 2015), Shiraz, Iran,* 2015

10. A. Niaei, P. R. Zounoz, , A. Tarjomannejad, **A. Farzi**, "Catalytic Behavior of Perovskite Nanoperovskites for NO+CO Reduction from Environment", *Third Intl. Conf. on Advances in Bio-Informatics and Environmental Engineering - ICABEE 2015, Rome, Italy,* 2015

11. N. Entekhabi, P. Amirabedi, **A. Farzi**, R. Yegani, "Thermodynamic investigation of three phase diagram in polymer solutions for membrane synthesis using liquid-liquid phase separation", *The 12th International Conference on Membrane Science and Technology, Tehran, Iran,* 2015

12. N. Entekhabi, M. Zamanloo, **A. Farzi**, "A review of mathematical modeling and simulation of thrombolysis", *2nd International Iranian Stroke Congress, Shiraz, Iran,* 2015

13. N. Hajizadeh, N. Shirzad, **A. Farzi**, "Bacterial Degradation of Phenol by Pseudomonas sp.", *The 16th International and Iranian Congress of Microbiology, Tehran, Iran,* 2015

14. N. Shirzad, N. Hajizadeh, **A. Farzi**, "Biodegradation of Xylene Using Pseudomonas sp. Isolated from Northwest of Iran", *The 16th International and Iranian Congress of Microbiology, Tehran, Iran,* 2015

15. N. Shirzad, **A. Farzi**, A. Dehnad, N. Hajizadeh, "Optimization of toluene biodegradation using Streptomyces isolated from the region of East Azarbaijan", *15th International Iranian Congress of Microbiology, Tehran, Iran,* 2014

16. A. Tarjomannejad, **A. Farzi**, "Kinetic Modeling of Methane Gas Reforming Process for Production of Hydrogen Fuel and Optimization using Genetic Algorithm *[In Persian]*", *3rd National Conference of Fuel, Energy & Environment [In Persian], Karaj, Iran,* 2013

17. H. Farzi, **A. Farzi**, A. Dehnad, "Design of a Bioreactor for Biodegradation of Aromatic Components Using Streptomyces Bacteria *[In Persian]*", *First Bioremediation Conference [In Persian], Tehran, Iran,* 2013

18. H. Farzi, **A. Farzi**, A. Dehnad, "Design of Air Injection System for the Designed Bioreactor in Biodegradation of Aromatic Components Using Streptomyces Bacteria *[In Persian]*", *First Bioremediation Conference [In Persian], Tehran, Iran,* 2013

19. N. Shirzad, **A. Farzi**, A. Dehnad, N. Hajizadeh, "Biodegradation of Toluene and Benzene Using *Streptomyces* Bacteria Isolated from the Soil of East-Azerbaijan Province, Iran in Laboratory Scale *[In Persian]*", *First National Conference on Agriculture and Environmental Sciences [In Persian], Shiraz, Iran,* 2014

20. N. Shirzad, **A. Farzi**, A. Dehnad, N. Hajizadeh, "Biodegradation of Benzene Using *Streptomyces* Bacteria Isolated from the Soil of East-Azerbaijan Province, Iran in Laboratory Scale and Assessment of Its Kinetic Model *[In Persian]*", *First National Conference on Agriculture and Environmental Sciences [In Persian], Shiraz, Iran,* 2014

21. N. Shirzad, N. Hajizadeh, A. Dehnad, F. Ahmadifard, **A. Farzi**, "Biodegradation of Toluene Using *Streptomyces* Bacteria Isolated from the Soil of East-Azerbaijan Province, Iran in Laboratory Scale *[In Persian]*", *3rd National Conference on Health, Environment & Sustainable Development [In Persian], Bandarabbas, Iran,* 2014

22. H. Aghapoor, N. Hajizadeh, A. Dehnad, **A. Farzi**, "Study of the Effect of G8 and M5 Isolates of Streptomyces Bacteria on Performance Modification of Wastewater Bioreactor of Tabriz Petrochemical Co. *[In Persian]*", *3rd National Conference on Health, Environment & Sustainable Development [In Persian], Bandarabbas, Iran ,* 2014

23. F. Ahmadifard, N. Hajizadeh, N. Shirzad, **A. Farzi**, "Investigation of the Capability of *Streptomyces* Bacteria Isoltaed from the Soil of East-Azerbaijan Province, Iran on Biodegradation of Malachite-Green *[In Persian]*", *3rd National Conference on Health, Environment & Sustainable Development [In Persian], Bandarabbas, Iran ,* 2014

24. M. Modirpour, F. Yazdian, **A. Farzi**, Z. M. Hosseini, S. A. Shojaosadati, "Modeling of the RTD in an external airlift bioreactor for SCP production from methane", *The 8th International Chemical Engineering Congress & Exhibition (IChEC 2014), Kish Island, Iran,* 2014

25. M. Jamshidi, F. Yazdian, **A. Farzi**, A. S. Z. Hatamian, S. Boshagh, "Mathematical modeling of the resistance time distribution in an airlift bioreactor for petrolum biodesulfurization", *The 8th International Chemical Engineering Congress & Exhibition (IChEC 2014), Kish Island, Iran,* 2014

26. S. Farshbaf, E.Yaghooti, **A. Farzi**, "Optimization of reaction parameters of radiation induced grafting of 1-vinylimidazole onto poly (ethylene-co-tetraflouroethene) using Artificial Neural Network and Genetic Algorithm", *The 8th International Chemical Engineering Congress & Exhibition (IChEC 2014), Kish Island, Iran,* 2014

27. A. Naghizadeh, **A. Farzi**, "CFD Modeling of an Industrial Scale Pneumatic Conveying Dryer Using DPM Method", *The 8th International Chemical Engineering Congress & Exhibition (IChEC 2014), Kish Island, Iran,* 2014

28. A. Tarjoman Nejad, **A. Farzi**, "Effect of Turbulence Models in Modeling of The Release and Dispersion of Explosive Gases Lighter Than Air", *The 8th International Chemical Engineering Congress & Exhibition (IChEC 2014), Kish Island, Iran,* 2014

29. A. Tarjoman Nejad, **A. Farzi**, "Simulation and Economic Analysis of Distillation Columns Arrangements for Three Component Separation", *The 8th International Chemical Engineering Congress & Exhibition (IChEC 2014), Kish Island, Iran,* 2014

30. S. Shoabargh, M. B. Sabeti, **A. Farzi**, "Simulation and Optimization of Synthesizing TiO2 Nanoparticles by MOCVD Process", *14th Iranian National Chemical Engineering Congress, Tehran, Iran,* 2012

31. N. Hadi, M. N. Shirazi, A. Niaei, **A. Farzi**, S. R. Khoshbakhti, "Investigation of Optimum Flow Rate and Reaction Temperature for Producing of Propylene on Modified Mn/HZSM5 Nano Catalyst: Methanol to Propylene (MTP) Process", *4th International Conference on Nanostructures (ICNS4), Kish Island, Iran,* 2012

32. S. M. Mousavi, A. Niaei, D. Salari, P. N. Panahi, **A. Farzi**, "Mathematical modeling and simulation of styrene monomer reactor: a Case Study", *The 7th International Chemical Engineering Congress & Exhibition (IChEC 2011), Kish Island, Iran,* 2011

33. N. Hadi, M. N. Shirazi, A. Niaei, **A. Farzi**, S. R. Nabavi, "A lumped kinetic model for conversion of methanol to propylene (MTP) process using HZSM-5 nano catalyst", *The 7th International Chemical Engineering Congress & Exhibition (IChEC 2011), Kish Island, Iran,* 2011

34. F. Farshi, **A. Farzi**, A. Niaei, "Mathematical Modeling and Steady-State Simulation of Catalytic Naphtha Reforming Using Artificial Neural Networks", *The 7th International Chemical Engineering Congress & Exhibition (IChEC 2011), Kish Island, Iran,* 2011

35. **A. Farzi**, M. Aghbolaghi, "Simulation and Control of a Nonlinear CSTR System by Fuzzy-Logic Controller and Comparison with Traditional Controller", *The 7th International Chemical Engineering Congress & Exhibition (IChEC 2011), Kish Island, Iran,* 2011

36. M. J. Jomea, **A. Farzi**, A. Niaei, "Modeling and Simulation of a Methanol-To-Olefines Fixed-Bed Reactor in Steady-State and Dynamic Conditions", *The 7th International Chemical Engineering Congress & Exhibition (IChEC 2011), Kish Island, Iran,* 2011

37. P. Zeynali, M. S. Mahmoodi, **A. Farzi**, V. Zare, "Exergy Analysis of Chemically Recuperated Gas-Turbine Cycle with Intermediate Cooler *[In Persian]*", *18th Annual Conference of Mechanical Engineering [In Persian], Sharif University of Technology, Tehran, Iran,* 2010

38. **A. Farzi**, A. Z. Mehrabani, "Application of Data Reconciliation on Closed-Loop Response of a Distillation Column", *13th Iranian National Chemical Engineering Congress & 1st International Regional Chemical and Petroleum Engineering, Kermanshah, Iran,* 2010

39. **A. Farzi**, S. Behnam, N. Ghazinour, "Modeling and simulation of Catalytic Reforming of Magnaformer of Bandar-Imam Petrochemical Complex", *The 5th International Chemical Engineering Congress (IChEC 2008), Kish Island, Iran,* 2008

40. **A. Farzi**, A. Z. Mehrabani, R. B. Bozorgmehry, "LSSDR: An Object Oriented Linear Steady State Data Reconciliation Software", *The 5th International Chemical Engineering Congress (IChEC 2008), Kish Island, Iran,* 2008

41. **A. Farzi**, A. Z. Mehrabani, R. B. Bozorgmehry, "SSDR: an Object-Oriented Steady-State Data Reconciliation Software", *18th International Congress of Chemical And Process Engineering (CHISA2008), Prague, Czech Republic,* 24-28 August 2008

42. **A. Farzi**, A. Z. Mehrabani, R. B. Bozorgmehry, "On-Line Nonlinear Dynamic Data Reconciliation Using Extended Kalman Filtering: Application to a Distillation Column", *International Conference on Modeling and Simulation (CITICOMS2007), Coimbatore, India,* 2007

43. **A. Farzi**, A. Z. Mehrabani, R. B. Bozorgmehry, "SSDR: An Object-Oriented Steady State Data Reconciliation Software", *34th International Conference of Slovak Society of Chemical Engineering (SSCHE07), Slovak Society,* 2007

44. **A. Farzi**, A. Z. Mehrabani, R. B. Bozorgmehry, "Online Nonlinear Dynamic Data Reconciliation Using Extended Kalman Filtering: Case Study for a CSTR", *34th International Conference of Slovak Society of Chemical Engineering (SSCHE07), Slovak Society,* 2007

45. **A. Farzi**, A. Z. Mehrabani, "Application of Artificial Neural Networks in Control of a Distillation Column: A Case Study", *17th International Congress of Chemical And Process Engineering (CHISA2006), Prague, Czech Republic,* 27-31 August 2006

46. **A. Farzi**, A. Z. Mehrabani, "Control of a Methanol-Water Distillation Column Using NARMA-L2 Artificial Neural Network *[In Persian]*", *10th Iranian National Chemical Engineering Congress, University of Sistan and Baluchestan, Zahedan, Iran,* 2005

47. **A. Farzi**, A. Z. Mehrabani, "Investigation of the performance of a fuzzy logic controller in control of a methanol-water distillation column", *9th Iranian National Chemical Engineering Congress, Iran University of Science and Technology, Tehran, Iran,* 2004

48. **A. Farzi**, A. Z. Mehrabani, F. Sheikholeslam, "Simulation and control of a distillation column with a fuzzy logic controller", *16th International Congress of Chemical And Process Engineering (CHISA 2004), Prague, Czech Republic,* 22-26 August 2004

49. **A. Farzi**, M. H. Kowsari, "A Software Tool for Calculation of Thermal Conductivity of Mono- and Di-Atomic Gases *[In Persian]*", *8th Iranian National Chemical Engineering Congress, Ferdowsi University of Mashhad, Mashhad, Iran,* 2003

50. **A. Farzi**, A. Z. Mehrabani, "Shabihtaz - An Object Oriented Modeling and Simulation Environment *[In Persian]*", *Proceedings of 7th Iranian National Chemical Engineering Congress [In Persian], 4, 200-207, University of Tehran, Tehran Iran,* 2002

51. **A. Farzi**, A. Z. Mehrabani, S. Gh. Etemad,, "SimuChemPro: An Object-Oriented Environment for Modeling and Simulation", *15th International Congress of Chemical And Process Engineering (CHISA 2002), Prague, Czech Republic,* 25-29 August 2002

52. **A. Farzi**, A. Z. Mehrabani, "Mathematical Representation of Physical Structure of Complex Systems *[In Persian]*", *Proceedings of 6th Iranian National Chemical Engineering Congress [In Persian], 1, 85-92, Isfahan University of Technology, Isfahan, Iran,* 2001

53. **A. Farzi**, A. Z. Mehrabani, "Modelsaz – An Object-Oriented Modeling Software Tool *[In Persian]*", *Proceedings of 6th Iranian National Chemical Engineering Congress [In Persian]*, 1, 77-84, Isfahan University of Technology, Isfahan, Iran, 2001

Research Activities:

Title of Project	Place of Work	Year
Simulation of adsorption desalination and adsorption chiller processes with two and four adsorption beds using different isotherm models and development of a software tool for this purpose in MATLAB	Faculty of Chemical and Petroleum Engineering, University of Tabriz, Tabriz, Iran	2022
Cooperation in setting up of CNC measurement device for Tehran University	Faculty of Mechanical Engineering, Tehran University, Tehran, Iran	2022
Development of a Software Tool for the Simulation of Farashband Gas Refinery	Iranian Central Oil Fields Company, Shiraz, Iran	2010
Simulation of Gas Processing Unit for Pars Special Economic Energy Zone in Assaluyeh (Phase 1 of Assaluyeh) using HYSYS	Department of Chemical Engineering, Isfahan University of Technology, Isfahan, Iran	2009
Installation of Process Control Experimental Apparatus and Control System in Control Laboratories of Some Domestic Universities	Alborz Kusha Company, Tehran, Iran	2008
Development of a Data-base Software Tool for the Calculation of Physical Properties of Substances (PPDBS)	Department of Chemical Engineering, Isfahan University of Technology, Isfahan, Iran	2004
Development of a Software Tool for the Simulation of Catalytic Reforming Unit for Bandar Imam Petrochemical Complex	Bandar Imam Petrochemical Company, Iran	2004
Development of a Software Tool for Equilibrium Calculations using Continuous Thermodynamics	Department of Chemical Engineering, Isfahan University of Technology, Isfahan, Iran	2003
Development of a Software Tool for the Calculation of Thermal Conductivity and Viscosity of Mono and Multi-Atomic Gases	Department of Chemistry, Isfahan University of Technology, Isfahan, Iran	2003
Development of a Software Tool for the Simulation of Chemical Processes	Department of Chemical Engineering, Isfahan University of Technology, Isfahan, Iran	2001

Supervisor for Graduate Students:

Student Name	Degree	Thesis Title	Graduation Date
Asal Besharati	M.Sc.	Synthesis of polyamide /polysulfone thin film nanocomposite membranes and comparison of their performance with other composite and conventional membranes for the removal of methylene blue and methyl green dayes	2023
Sara Masoomi	M.Sc.	Study of the performance of polysulfone-based membranes modified by tungsten sulfide and graphene oxide nanoparticles for the removal of methylene blue and Congo red pollutants from wastewater	2023
Rasool Farzi	M.Sc.	Experimental study of polymeric and composite adsorbents of Hydrogen sulfide and linking of them databank to Aspen Adsorption for simulation of Hydrogen sulfide removal process	2022
Ali Moradi	M.Sc.	Simulation and optimization of industrial used oil purification process and presenting a new method for its treatment	2022
Shabnam Hosseinoghli	M.Sc.	Production of calcium carbonate nanoparticles and their application for the production of hydrophobic coatings	2021
Abbas Ebrahimi	M.Sc.	CFD simulation of the process of CO2 separation from natural gas in a gas–liquid hollow fiber membrane contactor	2020
Milad Soltani	M.Sc.	Extraction of Holocellulose from Barley Stalks and Preparation of Natural Zeolite-Holocellulose Composites for Removal of Induatrial Dye Pollutants	2020
Bahareh Feizi Afshar	M.Sc.	Optimization and control of reactive distillation column for production of isopropanol using propylene hydration	2020

Mina Khoshbahar Nobari	M.Sc.	Modeling and Optimization of Copper Production Process by Hydrometallurgical Method	2019
Mahsa Vaezi	M.Sc.	Modeling and Optimization of Copper Production Process Using Pyrometallurgical Method	2018
Saideh Nazari	M.Sc.		2018
Elham Farjadifar	M.Sc.	Dynamic Modeling and Optimization of Catalytic Methanol to Propylene Process (MTP)	2018
Naser Soltanzadeh	M.Sc.	Retrofit of heat exchanger networks using Harmony Search algorithm (HS) coupled with Nonlinear Programming optimization method considering pressure drop	2017
Ali Tarjomannejad	Ph.D.	Selective Catalytic Reduction of Nox by CO over Perovskite Nanocatalyst: Catalyst Design and Optimization and Kinetic Modeling	2017
Nazila Entekhabi	M.Sc.	Simulation of thrombolysis by tissue-Plasminogen Activator (t-PA) using Computational Fluid Dynamics (CFD)	2016
Vahid Mohammadian	M.Sc.	Process Modeling, Simulation and Design for Production of Hydrogen Peroxide by Anthraquinone Autooxidation Method	2016
Mohsen Roohi	M.Sc.	CFD modeling of natural gas to aromatics process (GTL)	2015
Mohammad Baghal Sedghi	M.Sc.	Retrofit of heat exchanger networks using Imperialist Competitive Algorithm (ICA) with considering pressure drop	2015
Asghar Mohammadi	M.Sc.	Modeling, Simulation and Control of Direct Partial Oxidation of Methane to Methanol in a Fluidized Bed Reactor	2014
Abolfazl Abdi	M.Sc.	Investigation of the performance of packed-bed reactor for the enzymatic removal of dissolved oxygen in water	2014
Parisa Abdi	M.Sc.	Study of photocatalytic process coupled with biofenton for treatment of organic pollutants	2014
Amir G. Naghizadeh	M.Sc.	CFD Simulation of Pneumatic Conveying Dryer of Tabriz Petrochemical Complex EPS Unit	2014
Farzaneh Delzendeh	M.Sc.	Modeling, Simulation and Control of Iso-Propnaol Production Reactive Distillation Column	2014
Neshat Bakhshi	M.Sc.	Control of methanol to olefins process in pilot-plant scale with conventional and intelligent control methods	2013
Saeid Moslemi Bayrami	M.Sc.	Removal Spent Caustic as an Environmental Pollutant and Its Conversion to Valuable Products	2013
Naser Hadi	M.Sc.	Development of a kinetic model for methanol to propylene process using modofied zeolite nano-catalyst	2012
Mohammd Javad Jomea	M.Sc.	Dynamic modeling and control of methanol to olefins process in a fixed-bed reactor	2012
Mahlegha Pourabbas	M.Sc.	Investigation of coke deposition and deactivation of transition metal catalysts supported on ZSM-5 zeolite in MTG process	2010

Advisor for Graduate Students:

Student Name	Degree	Thesis Title	Graduation Date
Niloufar Sarabchi	Ph.D.	Energy, Exergy and Thermoeconomic Analysis of Combined Cycles Based on PEMFC by Solar Reforming	2019
Abolfazl Shabanimehr	M.Sc.	Synthesis and optimization of the nano structure H-ZSM-5 catalysts modified with transition metals using smart techniques for methanol to propylene process	2018
Jafar Hamedi-rad	M.Sc.	Improvement of Ardabil Cement rotary Kiln operation with artificial intelligence methods	2015
Elham Tabbakhi	M.Sc.	Modeling and Simulation of the Propane Dehydrogenation Process Reactor	2015
Mina Safari Farshchi	M.Sc.	Modeling of the removal of some volatile compounds and nitrogen oxide using nano-structured provskite catalysts	2014
Samira Ranjbar Rad	M.Sc.	Mathematical modeling and simulation of the reactor and optimization of catalytic conversion of methanol to propylene	2014
Safura Sangdovini	M.Sc.	Modeling and simulation of catalytic conversion of methanol to gasoline in an industrial fixed-bed reactor	2014
Leyla Khani	M.Sc.	Thermodynamic analysis of combined fuel cell-absoption refrigeration GAX cycle	2014

Mohammd Mohammadi	M.Sc.	Optimization of operational conditions of T-103 in TPC for more separation of gasoline and fuel oil	2012
Dariush Omidfar	M.Sc.	Development of the kinetic model of catalytic oxidation of some volatile compounds o $Pt/\gamma\text{-}Al_2O_3$ catalyst	2010
Ata Chitsaz	M.Sc.	Application of chemical recuperator in advanced gas-turbine cycles	2010
Peyman Zeynali	M.Sc.	Energy analysis of chemically recuperated gas-turbine with different fuels	2009

Language Proficiency:

Language	Degree of Proficiency											
	Writing				Reading				Speaking			
	Native	Good	Fair	Poor	Native	Good	Fair	Poor	Native	Good	Fair	Poor
Farsi	✔				✔				✔			
Turkish (Azeri)	✔				✔				✔			
English		✔			✔						✔	