Curriculum Vitae

Leila Khazini, Ph.D.

Birth Date: 01 Sep 1977

Associate Professor, Chemical Engineering and Petroleum Faculty, University of Tabriz, 29 Bahman Blvd., Tabriz, Iran

P0. Box: 5166616471

Email: khazini@tabrizu.ac.ir

Tel: (98) 914 305-7691

Positions

Present: Academic Staff- University of Tabriz (from 2013 –to now on)

Past: Environmental Engineer- Tabriz Oil Refining Company (2005- 2013)

Education

Ph.D.: Chemical engineering- environmental engineering, Sahand University of Technology, Tabriz, Iran (2006- 2011).

M.S: Chemical engineering- environmental engineering, Sahand University of Technology, Tabriz, Iran (2001- 2004).

B.S: Chemical engineering- Petrochemical industry, Sahand University of Technology, Tabriz, Iran (1996- 2000).

Research Field

- ✓ **Air Pollution**
  - **Urban Air Pollution**
  - **Transport Related Air Pollution**
  - **Industrial and Stationary Sources Air Pollution**
- ✓ **Environmental engineering**
- ✓ **Green Productivity Material Flow Cost Accounting**
- ✓ **Fuels and Petroleum Refining Processes**

Awards & Honors

- **Top Innovator in Engineering**, University of Tabriz (2023)
- **Distinguished Educator**, University of Tabriz (2024)
- **Selected Member**, Air Pollution Working Group, Iranian Academy of Sciences
- **Top Industry-Academia Collaborator**, Ministry of Science (2020)
- **Outstanding Technology Professor**, University of Tabriz (2020)
- **Top Research Project Leader**, Ministry of Science (2019)
- **Elite Recruitment**, National Iranian Oil Refining & Distribution Company (2005–2012)
- **Honorary Member**, Research Council of East Azerbaijan Environmental Protection Bureau
- **Founder**:
  - M.Sc. Program in Chemical Engineering – Environmental Engineering
  - B.Sc. Program in Petroleum & Earth Energy Engineering
- **Organizer**, Shams Environmental Event (Under National Elites Foundation & University of Tabriz Innovation Center)
- **Selected professor of communication with industry and society**, Ministry of Science, Research and Technology, Iran (2020)
- **Selected professor of Technology**, University of Tabriz, Tabriz, Iran (2020)
- **Selected professor of Technology,** University of Tabriz, Tabriz, Iran (2018)
- Employment in "Iranian oil refining and distribution Company**" as a talented graduate** (2005)

Professional Experience & Memberships

- **Member, Air Pollution Working Group, Iranian Academy of Sciences (2022–Present)**
- **ean, Faculty of Chemical and Petroleum Engineering, University of Tabriz (2024–Present)**
- **Vice Dean for Education & Research, Faculty of Chemical and Petroleum Engineering (2022–2024)**
- **Head, Air Pollution Working Group, University of Tabriz**
- **Secretary, Systematic Monitoring of Pollutants Project, University of Tabriz**
- **Vice Dean for Education & Research, Faculty of Chemical and Petroleum Engineering (2018–2020)**
- **Senior R&D Specialist, Tabriz Oil Refining Company (2007–2012)**
- **Environmental & Process Engineer, Tabriz Oil Refining Company (2005–2007)**

- **Member, Iranian Chemical Engineering Society**
- **Member, Iranian Productivity Improvement Association**
- **Editorial Board Member, National Conference on Air & Noise Pollution**

Research Experience

1. **Administrator** of "Collection and treatment of emitted volatile organic compound from wastewater treatment unit" project, Founded by Tabriz Refining Oil Company, (2020- 2021)
2. **Administrator** of Tabriz megacity section of "Compilation of Emission Inventory of Air Pollution Sources in the Iranian Megacity" project, Founded by Iran Deportment of Environment (DOE), (2018- 2020)
3. **Administrator** of "Investigation and modelling of traffic related air pollution in Tabriz city, a megacity of Iran and solution suggestion to control it" project, Founded by Centre for International Scientific Studies and Collaboration (CISSC), (2018- 2020)
4. **Administrator** of "Survey on Application of Environmental & Material Flow Cost Accounting in Optimizing of Industries" Project, Founded by University of Tabriz (2014-2015)
5. **Researcher** of "Kinetic Modeling and Laboratory Scale Study of Simultaneous Removal of exhaust Pollution from Sulfur Recovery Plants in an Oil Refinery" Project, Founded by Iranian oil refining and distribution Company (2010 -2013)
6. **Researcher** of "Optimization of Air Pollution Monitoring Stations in Tabriz Oil Refining Company" Project, Founded by Tabriz Oil Refining Company (2011 - 2013)
7. **Researcher** of "Optimization of Biological Wastewater Treatment in Tabriz Oil Refining Company" Project, Founded by Tabriz Oil Refining Company (2007 - 2009)

Teaching Experience

Graduate (PhD & MS):

- Advanced Control of Air Pollution (2015 – continue)
- Conceptual Process Design (2020 – continue)
- Advanced Reactor Design (2018 – continue)
- Advanced Water and Wastewater Treatment Processes (2015 – 2018)
- "Experimental Design for Chemical Engineering" workshop (2011)

Undergraduate:

- Utility Systems (2020 – continue)
- Workshop of Engineering Drawings (2020 – continue)
- Environmental Engineering (2007 – 2020)

- Unit Operation 2 (2015- Environmental engineering (2007 – continue)
- An Introduction to Petroleum Engineering (2013- continue)
- Workshop of Chemical Engineering Software's (2013- 2015)

Supervision

Dissertation

1. "Assessment and Modeling of Heavy Metal Concentrations in Indoor Environments of Lead/Zinc Industries and Proposing Control Methods", Kimia Fotovvat, **in Progress.**
2. "Prediction of PAH Emissions and Exposure in a Petroleum Refinery for Control Strategy Development", Warqa Abdoreza Kazem, **in Progress**
3. "Life cycle assessment of private car transport mode and the effect on GWP of urban transportation: A case study of Tabriz, Iran", Elham Yagooti, **in Progress**
4. "Chemical characterization and source apportionment of Particulate Matters in urban environment of Tabriz megacity using receptor models", Pedram Vousoughi, **Finished**

Thesis

1. "Numerical modeling of heavy metal removal from aqueous solution using hollow fiber membrane module", Mojtaba Ghavidel, **in Progress**
2. "Study of Dispersion Pattern of Primary Pollutants from the Stack of Tabriz Thermal Power Plant with Consideration of Secondary Pollutants", Maryam Mizaee, **in Progress**
3. " Study of exhaust gaseous pollutants from motor vehicles in separation of light and heavy-duty vehicles with emphasis on the type and grade of the roads", Mohammad Dashti, **Finished**
4. " Study of exhaust PM2.5 and nonexhaust TSP, PM10, PM2.5, PM1 and PM0.5 emissions in separation of light and heavy-duty vehicles ", Hojjat Khanloo- **Finished**
5. " Study of road type impact in vehicular Exhaust PM2.5 and nonexhaust TSP, PM10, PM2.5, PM1 and PM0.5 emissions ", Ali Haji- **Finished**
6. " Experimental Study of black carbon and organic carbon in particulate matters In Tabriz In order to determine the mobile resources contribution In their production ", Morteza Mohammadzadeg- **Finished**
7. " Feasibility study of volatile organic compound removal from polluted air in gasoline refueling stations by adsorption process", Sahar Hajavi- **Finished**
8. " Investigation of type and quantity of heavy metals emitted from Naji industrial town of Zanjan and determination of their dispersion radius ", Kimia Fotovvat- **Finished**

9. " Experimental study of the type, amount and effects of pollutants emitted from refueling stations in Tabriz Megacity and determination of their dispersion radius", Amin Morshedi- **Finished**
10. " Experimental study of the type and amount of volatile organic compounds emitted from wastewater treatment plants in oil refineries and providing solutions to reduce emissions ", Shabnam Ziaee- **Finished**
11. " An experimental study on types and amounts of Volatile Organic Compounds in printing industry and solution for controlling them ", Farshad Ahmadilar- **Finished**
12. " Experimental survey on concentration of heavy metals in air particulates emitted by Zinc industries and determine source contributions to air pollution", Rana Rafiee- **Finished**
13. " Study the dispersion of pollutants from the industrial zone of west of Tabriz to investigate the quantity of efficacy in Tabriz metropolitan area", Amir Sadegfamian- **Finished**
14. " Assessing air pollution emitted from Salimi Industrial town, determining the radius of air pollution and its impact on residential areas around", Morteza Pardepoosh- **Finished**
15. "Investigation of PM $_{2.5}$ Emitted from the Gasoil Vehicles and Its Portion in the $PM_{2.5}$ Content of the City ", Khashayar Giami- **Finished**
16. "Investigation of Pollution Emitted from the Gasoil vehicles and Modeling of it", Mehdi Eyvazpoor – **Finished**
17. " Investigation of Pollution Emitted from the Gasoline Vehicles and Modeling of it", Mina Jamshidi - **Finished**
18. "Survey and Modeling of PM Emissions in Tabriz and Developing of Emissions Inventory and Solution Suggestion to Control it", Shahrzad Kalantari – **Finished**
19. "Optimization of Atmospheric Distillation Tower of an Oil Refinery Using Material Flow Cost Accounting", Hessameddin Amiri- **Finished**
20. " Material Flow Cost Accounting Application for Optimization of Vacuum Distillation Tower of an Oil Refinery ", Nasrin Vaezi- **Finished**

Publications:

Books:

- "Emission Inventory of Anthropogenic Air Pollutants and Scenario Evaluation for Air Quality Improvement in Iranian Metropolises" (Univ. of Tehran Press), 2021
- "Air Pollutant Emissions Inventory for Tabriz: Baseline (2017) and Reduction Scenarios" (Univ. of Tehran Press), 2021

Journal:

- **L. Khazini,** MJ. Kalajahi, Y. Rashidi, SMMM Ghomi, "Real-world and bottom-up methodology for emission inventory development and scenario design in medium-sized cities", Journal of Environmental Sciences, 2023.
- P. Vousoughi, **L. Khazini,** Y. Abedini An optimized development of urban air quality monitoring network design based on particulate matters, Environtal Monitoring Assessment, 2025.
- **L. Khazini,** M. Jamshidi Kalajahi, N. Blond., "An analysis of emission reduction strategy for light and heavy-duty vehicles pollutions in high spatial-temporal resolution and emission", Environmental Science Pollution Research, 2021.
- **L. Khazini**, ME Dehkharghanian, A Vaezihir; "Dispersion and modeling discussion of aerosol air pollution caused during mining and processing of open-cast mines", International Journal of Environmental Science and Technology, 2021.
- MJ. Kalajahi, **L. Khazini,** Y. Rashidi, SZ. Heris; "Development of Reduction Scenarios Based on Urban Emission Estimation and Dispersion of Exhaust Pollutants from Light Duty Public Transport: Case of Tabriz, Iran", Emission Control Science and Technology, Volume 6, Issue 1, 2020.
- N. Banan Baghbani, J. Azamat, H. Erfan-Niya, S. Majidi, **L. Khazini**; "Molecular insights into water desalination performance of pristine graphdiyne nanosheet membrane", Journal of Molecular Graphics and Modelling, Volume 101, 2020.
- Y. Mohammadfam, ZS.i Heris, **L. Khazini**; "Experimental Investigation of Fe3O4/hydraulic oil magnetic nanofluids rheological properties and performance in the presence of magnetic field", Tribology International, Volume 142, 2020.
- **L. Khazini**, MJ. Kalajahi, N. Blond; "Investigation of Emissions and Dispersion of Pollutants from Cars in Tabriz City", Journal of Civil and Environmental Engineering, Volume 49, Issue 96, 2019.
- **L. Khazini,** MJ. Kalajahi, KQ. Giashi, Kh. Ashrafi; "Investigation of Emission and Dispersion of PM2.5 Pollutant Emitted from BRT Buses in Tabriz City", Journal of Civil and Environmental Engineering, Volume 101, Issue 101, 2020.
- P. Moshashaei, Sh. Alizadeh, MA. Jafarabadi, **L. Khazini**; "Prioritizing the causes of fire and explosion in the external floating roof tanks", Journal of failure analysis and prevention, Volume 17, Issue 5, 2017.
- **L. Khazini**, E. Fatehifar, B. Fouladpanjeh & M. Ebrahimzadeh; "Simulation of Claus Tail Gas Treatment Unit in a Petroleum Refinery", Energy Sources, Part A, Volume 36, Issue 22, 2014.

- **L. Khazini**, E. Fatehifar, B. Fouladpanjeh & R. Alizadeh, "Application of Taguchi Method for Optimization of Amine- Based Tail Gas Treating Unit in Petroleum Refineries" , Energy Sources, Part A, Volume 36, Issue 7, 2014.
- Rouhi,Ali Reza, E. Fatehifar, **L. Khazini**, "Application of New Inflection Point Method for Hydrodynamics Study in Slurry Bubble Column Reactors" Iranian Journal of Chemical Engineering, Vol. 32, No. 2, 2013.
- **L. Khazini**, E. Fatehifar, R. Alizadeh, Optimized Method for Control of an Oil Refinery Air Pollutants", Iranian Chemical Engineering Journal, Vol. 10, No. 54, 2011.