

## Education

- PhD student, Chemical Engineering** 2021
- Laval University, Quebec, Canada
  - Thesis title: Development of resilient municipal wastewater treatment infrastructure targeting water reuse in Nunavik, Quebec
  - Supervisors: Prof. Céline Vaneekhaute
- MSc, Natural Resources Engineering- Environmental Pollution** 2013-16
- Isfahan University of Technology, Isfahan, Iran
  - Thesis title: Biosorption of Hydrocarbon Pollutants Using Marine Macroalgal Biomass *Enteromorpha intestinalis*
  - Supervisors: Prof. Nourollah Mirghaffari, Prof. Omidvar Farhadian
  - 120 ECTS
  - GPA: 81%
- BSc, Natural Resources Engineering- Environment** 2008-12
- Ferdowsi University of Mashhad, Mashhad, Iran
  - Project title: Study of Sustainable Development in Quchan-Farooj Plain
  - Thesis title: Investigating the Effects of Optimum Utilization of Water Resources Conservation in Mashhad Plain
  - 180 ECTS
  - GPA: 73%

## Research Interests

### Applied research in (waste)water treatment

- Application of (Bio)adsorption, Advanced Oxidation, etc. treatment methods
- Using Nanotechnology, Biotechnology, and Nano-biotechnology approaches for (waste)water treatment
- Working on novel methods regarding the removal of contaminants from an aqueous environment

### Environmental Assessment

- Environmental Impact Assessment, Life Cycle Assessment, Environmental Risk Assessment

### Producing novel environmentally-friendly products

- Biosorbent, biofuel, biogas

### Environmental Toxicology and Pharmacology Pollution Prevention and Monitoring

## Experience

### Research

**Ferdowsi University of Mashhad, Department of Environment** 2019-2021

Researcher at Dr. Heidari's group, *Supervisor: Dr. Ava Heidari*

- Studying the life cycle assessment of the steel production from iron scrap
- Studying the life cycle assessment of CO<sub>2</sub> adsorbents

### Iran Sea Research Organization

2017

Main Researcher

- Removal of Heavy Metals (Lead, Zinc and Cadmium) from the Industrial Wastewater using *Sargassum glaucescens* biomass

### Iran Sea Research Organization

2014-15

Main Researcher

- Feasibility of nitrate adsorption from aquacultures wastewater using modified clinoptilolite zeolite by organic surfactant

### Isfahan University of Technology, Department of Environment

2014-15

Researcher & postgraduate student at Central Environmental Laboratory

- Environmental Pollution Laboratory, 3 Semester: autumn 2014, spring 2015, and autumn 2015

## Teaching

### Isfahan University of Technology

2014

Collaborator

- The Solution is Prevention workshop, winter 2014

## Work Projects

### Railway Project

2016-17

Project-manager

- Risk Assessment of the Chabahar-Zahedan Railway Project (The fourth piece of the project)

### Municipality of Isfahan

2015

Collaborator

- Characterization of physical and chemical parameters of solid waste in Isfahan city

## Publications

### Peer-reviewed

2. **Boleydei, H.**, Mirghaffari, N., & Farhadian, O. (2018). Comparative study on adsorption of crude oil and spent engine oil from seawater and freshwater using algal biomass. *Environmental Science and Pollution Research*, 1-12 [link](#)

1. **Boleydei, H.**, & Razavi, Z. (2017). Utilization of Date Palm Trunk Fibers (DPTFs) Waste as a Sorbent for the Removal of Crude Oil from Aqueous Media: Equilibrium Isotherms and Kinetic Studies. *Iranian Journal of Health, Safety and Environment*, 5(4), 1099-1106 [link](#)

### Manuscript

2. Heidari, A., **Boleydei, H.** Life Cycle Assessment of CO<sub>2</sub> adsorbents, submitted.

1. **Boleydei, H.**, Mirghaffari, N., Soleimani, M. Adsorption phenol from aqueous solution using biological refinery sludge-based activated carbon, in preparation.

### Book

1. Heidari, A., **Boleydei, H.**, Khoshyomn, S., Heidari, A.R. Life cycle assessment of steel production from iron scrap in Iran, Publisher: *Scientia Scripts* (27/04/2020), ISBN-10: 620090491X [link](#)

### Conference

4. **Boleydei, H.**, Mirghaffari, N., Farhadian, O. Feasibility study on the biosorption of cadmium from urban and industrial wastewaters by marine macro algal biomass of *Gracilaria salicornia*. The first annual conference of architecture, urban planning and urban management. 19 Dec 2015. Yazd, Iran (in Persian), Oral presentation

3. **Boleydei, H.**, Mirghaffari, N., Farhadian, O. *Application of algae in the process of biosorption of organic pollutants from the aquatic environment*. The first annual conference of architecture, urban planning and urban management. 19 Dec 2015. Yazd, Iran (in Persian), Full article

2. Loghmani, F., **Boleydei, H.**, Abbasi, M. *Greenhouse Gases Reduction Strategies for Landfill*, International Conferences on Sustainable Development, Strategies & Challenges with a Focus on Agriculture, Natural Resources, Environment and Tourism. 24-26 Feb 2015. Tabriz, Iran (in Persian), Full article

1. Abbasi, M., **Boleydei, H.** *Environmental Impact Assessment Using Iranian Matrix Method, Case study: Sarouj cement factory*. The 1st Conference on Environment of Payam Noor University. 22 May 2014. Isfahan, Iran (in Persian), Full article

## Scholarships, Awards & Honours

### MSc Entrance Exam

2013

- Ranked as 48<sup>th</sup> among more than 4400 applicants in Iranian University Entrance Exam for master's program of Environment engineering
- Fully funded

### BSc Entrance Exam

2008

- Ranked in the top 5% among more than 460,000 applicants in Iranian University Entrance Exam (Konkour exam)

- Fully funded

## Courses

### Online through Coursera

Programming for Everybody (Getting Started with Python) [link](#)

- University of Michigan, cert. earned at 13/05/2020

Understanding Research Methods [link](#)

- University of London, cert. earned at 26/04/2020

How to Write and Publish a Scientific Paper [link](#)

- École Polytechnique, cert. earned at 29/06/2020

The Science of Success [link](#)

- University of Michigan, cert. earned at 16/07/2020

Academic Information Seeking [link](#)

- University of Copenhagen and Technical University of Denmark (DTU), cert. earned at 24/07/2020

### Online through The Knights of Safety

#### (The International Association for Chemical Safety)

ISO 14001:2015 Environmental Management System Awareness [link](#)

ISO 50001:2018 Energy Management System Awareness [link](#)

Hazardous Substances Routes-to-Entry [link](#)

Understanding Motivation and Motivational Factors [link](#)

## Selected

### MSc.

Industrial Pollution, Marine Pollution, Complementary Environmental Pollution, Sewage Treatment, Environmental Impact Assessment, Land Use Planning, Landscape Planning and Assessment, Advanced Statistical Methods

### BSc.

General Chemistry, Geology, Ecology, Genetics, Statistics and Probability, General Microbiology, Soil Science, Hydrology, Air Pollution, Water and Soil Pollution, Solid Waste Management, Organic Chemistry, Aquatic Plants, Marine Ecology

## Conferences & Workshops

### Meetings and Conferences Organized

**Session organizer at TEDxOmid, Ferdowsi University of Mashhad, Iran** ~500 attendees Dec. 27, 2019

- Theme of TEDx: The Way

**Session organizer at the 1<sup>st</sup> International Conference of IALE Isfahan University of Technology, Iran** ~200 attendees Oct. 30-31, 2013

- IALE: International Association for Landscape Ecology

### Attended Conferences

**The first annual conference of architecture, urban planning and urban management-National Conference** 2015

- 2 days, Yazd, Iran

**International conference on sustainable development, strategies and challenges** 2015

- 3 days, Tabriz, Iran

**The First Conference on Environment of Payam Noor University- National Conference** 2014

- 1 day, Payam Noor University, Isfahan, Iran

**The 1<sup>st</sup> International Conference of IALE-Iran** 2013

- 2 days, Isfahan University of Technology, Isfahan, Iran

### Attended Workshops

**Health, safety, and environment management system workshop** 2015

- 2 days, IQS International Certification

- Design in Invisible, Buy Design Solution is Everywhere workshop** 2013  
· 1 day, IUT, Isfahan, Iran
- Impacts of Large Dams on Landscape workshop** 2013  
· 3 hours, IUT, Isfahan, Iran
- Safety, Protection, and Management of Laboratory** 2013  
· 7 days, Laboratories environment safety and health office, IUT, Isfahan, Iran

## Membership

### International Water Resources Association (IWRA)

- member No: 8179

### Chartered Institution of Water and Environmental Management (CIWEM)

## Volunteer Experience

### Water supply project to impassable rural areas in Southeastern Iran (Chabahar city)

- Finding gaps, challenges, and priorities

### Member of Women's Society Against Environmental Pollution NGO

- Some projects: Public awareness and local knowledge awareness, Zero waste in school, Training natural resources in Sistan, Zero plastic training

### Member of Environmental conservationist in Environmental Activist Forum

## Skills

### Languages

#### English

- General and Academic

#### Persian

- Native

#### Baluchi

- Mother tongue

## Computer & IT

### Professional

- Microsoft Office, Operating Systems, EndNote, Mendeley, Origin, Sigma Plot, GPS-X, SimaPro

### Basic

- GraphPad Prism, Minitab, LaTeX, Python