



MOHAMMAD GHEIBI

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Liberec, Czech

SUMMARY

Skilled in environmental modeling and sustainable system analysis, with expertise in adsorption processes, including isotherm and kinetic modeling, equilibrium analysis, and performance optimization. Proficient in Life Cycle Assessment (LCA) and Sustainable Materials Management (SMM), supporting circular economy and resource efficiency strategies. Experienced in applying machine learning techniques such as Artificial Neural Networks and Random Forest for predictive modeling, optimization, and decision support systems. Adept in MATLAB-based simulation, data analysis, and uncertainty assessment using Monte Carlo methods. Knowledgeable in wastewater treatment technologies, particularly heavy metal removal using waste-derived adsorbents.

WORK EXPERIENCE

**Institute for
Nanomaterials,
Advanced Technologies
and Innovation, Czechia**
March 2023 – Present

Member of OECH department (Full time)

- Contribution in research on sustainability and environmental modelling.
- Collaboration in interdisciplinary projects.

**Ecological Chemistry
and Engineering
Society – Poland**
2024–Present

Conference & Event Organizing (ECOpole Conference – EU)
(part time)

- Coordinate international events in ecology and engineering.
- Manage media, design, and stakeholder communication efforts.

EDUCATION

Birjand University
of Technology(2011–2015)

B.Sc. (Civil Engineering)

Ferdowsi University of
Mashhad(2015 to 2017)

M.Sc. (Civil and Environmental Engineering)

Technical University of
Liberec (2023–now)

PhD student(Environmental Engineering)

SKILL

Technical

Adsorption

Heavy metal decontaminations

Life cycle assessment

Machine learning modelling

Safe and Sustainable by Design (SSbD)

Machine learning modelling

Optimization in environmental design with AI models

Circular economy

PUBLISHED

<https://www.fm.tul.cz/en/personal/mohammad.gheibi>

SUPERVISOR

doc. Ing. Stanislaw Witold Waclawek, Ph.D.
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LANGUAGE

English (C1 certificate)

Turkish (Fluent)

Persian (Mother language)