

SHIRIN KHORVASH

CHEMICAL ENGINEER

CONTACT

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Rome, Italy

PROFESSIONAL SUMMARY

Chemical Engineer with a strong background in sustainable chemistry, process design, and biochemical engineering. Experienced in optimizing chemical processes for energy and environmental applications, focusing on wastewater treatment, bio-electrochemical systems, and composite materials. Skilled in integrating research and industrial solutions to drive innovation.

WORK EXPERIENCE

Process Design and Control Engineer

Parsia Gas Company (2018–2020)

- Designed and optimized **chemical processes for gas production and treatment systems**.
- Developed **process control strategies** to enhance **operational efficiency and safety**.
- Collaborated with **cross-functional teams** to improve system reliability.

Business Economics Researcher (Internship)

Isfahan Science and Technology Town (ISTT) (2016–2017)

- Conducted **market research** and established **connections between startups and industries**.
- Analyzed **market trends** to support technology-based business development.

Chemical Engineering Intern

Chemical Industries Investment Co. (ICIIC) (2013)

- Assisted in **process optimization and workflow efficiency improvements**.
- Conducted **safety evaluations** for chemical processes.

EDUCATION

Sapienza University of Rome

M.Sc. in Chemical Engineering (Graduated: 2024)

- **Thesis:** Optimization of thermoplastic resin for recycled non-woven fabric-reinforced composites using **in-situ polymerization and Vacuum-Assisted Resin Infusion (VARI)**.

Islamic Azad University, Shahreza Branch

M.Sc. in Biochemical Engineering (Graduated: 2016)

- **Published research on wastewater treatment and bio-sorbent materials.**

Islamic Azad University, Shahreza Branch

B.Sc. in Chemical Engineering (Petrochemical Industries) (Graduated: 2013)

PUBLICATIONS

- **Removal of methylene blue dye by immobilized mixture of brown alga"** – *Desalination and Water Treatment*, 2019 (DOI: 10.5004/dwt.2019.24334)

SKILLS & COMPETENCIES

- **Technical Tools:** Aspen HYSYS, MATLAB, COMSOL, Microsoft Office Suite
- **Languages:** English (Fluent), Italian (A2), German (Basic)
- **Core Skills:** Process Design, Research & Development, Sustainable Engineering, Technical Writing, Team Collaboration