PERSONAL INFORMATION

Gholamreza Masoudi Rad

RESEARCH INTERESTS

Environmental Engineering	Biofuel production, Biomass conversion technologies, Water and Wastewater Engineering, Air Pollutants Control, Renewable Energies, Recycling of Waste, Thermo Valorization
Computational Fluid Dynamic	Fluid Mechanics, Heat Transfer, Combustion, Multiphase Flow, CFD

EDUCATION AND TRAINING

2021-2024 **M.Sc. in Chemical Engineering (chemical engineering for innovative processes and products)** Total Average: 110/110

Sapienza University of Rome, Italy, Taught entirely in English

- Thesis: Modelling of Hydrodynamic cavitation for waste hydrocarbon cracking by the Method of CFD (Fluent)

Supervisors: Prof. G. Vilardi, Eng. Daniele Patrizi, Valentina Segneri

2014-2018 **B.Sc. in Chemical Engineering** Total Average: 17.65/20

Petroleum University of Technology, Ahwaz, Iran

Ranked First among students of chemical engineering

- Thesis: Modelling of Turbulent Forced Convection Heat Transfer of Non-Newtonian Nanofluids by the Method of CFD, Supervisors: Prof. A. Shariati, Dr. B. Bazooyar

2020 **Introduction to Programming with MATLAB**

by École Vanderbilt University in Nashville, Tenn, US, from coursera

- 9 weeks of study, 3-4 hours/week, Grade Achieved: 100.00%

2020 **Introduction to Household Water Treatment and Safe Storage**

by École Polytechnique Fédérale de Lausanne, from coursera

- 5 weeks of study, 4-6 hours/week, Grade Achieved: 95.54%

HONORS AND AWARDS

2024 Jan - Now **Received scholarship from Sapienza University of Rome**

Sviluppo di un modello CFD multifasico di un reattore per la valorizzazione termochimica di correnti di scarto.

2014-2018 **1st Rank among B.Sc. Students of Chemical Engineering (summa cum laude)**

Petroleum University of Technology, Total Average: 17.65/20

2014-2018 **Received Scholarship**

Petroleum University of Technology

2014 **Top 1.0% In Nationwide Entrance Exam of Iranian Universities, Very Competitive with Nearly 220,000 Participants**

WORK EXPERIENCE

2018-2020 **Quality Control and Laboratory Inspector**

National water and wastewater company of Iran

- Regular water and wastewater sampling and laboratory analysis

2017-2017 **Summer Work Experience**
Iranian Offshore Oil Company (IOOC), Falat Ghare Company (Bahregan)

2016-2016 **Summer Work Experience**
Catalytic Cracking Unit, Isfahan Refinery, Isfahan, Iran.

TEACHING ASSISTANCE

2017-2018 **Heat transfer II under Dr. A. Shariati's supervision**
Petroleum University of Technology

2017-2018 **Applied mathematics under Dr. A. Shariati's supervision**
Petroleum University of Technology

PUBLICATIONS

2021 **Nanomaterial-Incorporated Polymer Composite for Industrial Effluent: from Synthesis to Application (Material Science and Material Engineering, Elsevier Chapter Book, 2021).**
Author: Y. Tamsilian, M. Shirazi, Gh. Masoudi Rad

2021 **Polymer nanocomposite characterization and applications (Material Science and Material Engineering, Elsevier Chapter Book).**
Author: M. Shirazi, Gh. Masoudi Rad, Y. Tamsilian

ACADEMIC PROJECTS

2023 **Automation of the fluidized bed reactor cleaning system of a pharmaceutical company**
Conducted unsteady simulations of a reactor tank using ANSYS FLUENT and the DPM model to evaluate the efficacy of a rotating water jet for automated cleaning. Demonstrated expertise in fluid dynamics and engineering analysis for process optimization.

Sapienza University of Rome

2022 **Numerical study of temporal evolution of the concentration field in a 2-d square cavity of side length L equipped with the velocity field deriving from the stream-function Using COMSOL**
Sapienza University of Rome

PERSONAL SKILLS

Mother tongue: Persian (Farsi)

Other languages

	IELTS TEST WAS TAKEN ON JAN 28TH 2021				OVERAL
	Listening	Reading	Speaking	Writing	
English	8.5	8	7.5	6.5	7.5
Italian	A2				

PROGRAMMING SKILLS

ASPEN Plus, ANSYS Fluent, ANSYS, COMSOL Multiphysics, SolidWorks, Python, MATLAB, Microsoft Office Suite (Word, Excel, PowerPoint), Simulink, LaTeX