



NAME & SURNAME: Milad Mohammareh Nezhad Rabieh

DATE OF BIRTH: 16 May 1980



ADDRESS, SUBURB, STATE, POSTAL CODE: Engineering Faculty, Shahid Chamran University of Ahvaz, Golestan Boulevard, Ahvaz, Khuzestan, Iran, Postcode: 6135783151



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PROFESSIONAL PROFILE:

Assistant Professor of Chemical Engineering in Shahid Chamran University (SCU) of Ahvaz

EDUCATION BACKGROUND:

Ph.D. in Chemical Engineering, Amirkabir University of Technology, Tehran, Iran, 2006-2011

Thesis Title: *“Phase equilibrium calculations of water/hydrocarbon mixture in high pressure using association equation of state”*

M.Sc. In Hydrocarbon Reservoir Engineering, Amirkabir University of Technology, Tehran, Iran, 2002-2005

Dissertation Title: *“Prediction of heavy hydrocarbon's precipitation in well casings, pipelines & process facilities”*

B.Sc. In Chemical Engineering, Amirkabir University of Technology, Tehran, Iran, 1998-2002

Dissertation Title: *“Simulation of the Naft Shahr gas sweetening unit in unsteady-state condition using HYSYS”*

TEACHING AND TRAINING EXPERIENCE:

- Advanced Mathematics (MSc. of Drilling Engineering)
- Manufacturing Process (BSc. of Mechanical Engineering)
- Material & Energy Balance (BSc. of Chemical Engineering)
- Static & Properties of Material (BSc. of Chemical Engineering)
- Organic Chemistry (BSc. of Chemical Engineering)
- Seminar (MSc. of Drilling Engineering)
- Industrial Chemistry (BSc. of Applied Chemistry)
- Principle of Engineering Calculations (BSc. of Applied Chemistry)

HONOURS AND AWARDS:

Top Researcher in Commercialization of Technology, Annual Research Week by the Khuzestan

INTERESTS AND RESEARCH FIELDS:

- Thermodynamics & Phase Equilibrium Calculations
- Process Design
- Equipment Design
- Computational Fluid Dynamics

RESEARCH ACTIVITIES:

PUBLICATIONS:

- Rabieh, M. M., Nasernejad, B., Dadvar, M., & Modarres, H. (2017). *"Calculation of multicomponent vapor-liquid critical point using the Dividing Rectangles global optimization algorithm"*, Petroleum Science and Technology, 35(9), 910-921.
- Ebrahimi, M., & Rabieh, M. M. (2012). *"Fast and accurate reservoir modeling: genetic algorithm versus DIRECT method"*, World Academy of Science, Engineering and Technology, International Journal of Mechanical, Aerospace, Industrial, Mechatronic and Manufacturing Engineering, 6(1), 305-311.
- Eliassi, A., Rabieh, M.M., Kargari, A. & Goodarzbod, H.R. (2007), *"Selection of appropriate thermodynamic equations for the simulation of separation columns of vinyl chloride unit of Iran, Bandar Imam Petrochemical Company (BIPC)"*, European Congress of Chemical Engineering (ECCE-6).

RESEARCH PROJECTS:

- *"Design a pressure swing adsorption pilot plant for purification of syn. gas"*, **Designer & construction supervisor**, 2018 (undergoing)
- *"Design a waste amine thermal reclaiming unit for the IGTC"*, **Designer & construction supervisor**, 2018 (undergoing)

- “*Design and modeling of a cyclone-type wellhead desander using CFD*”, **Designer & simulator**, 2018
- “*Design and modeling of a filter-type desander for oil production units*”, **Designer & simulator**, 2017-2018
- “*Developing a three-phase equilibrium calculation software for prediction of the greenhouse effect of emitted gasses from surface facilities*”, **Researcher & programmer**, 2016-2017
- “*Modelling of the photo-reduction reaction rates of CO₂ in batch-pressure swing conditions using MATLAB*”, **Researcher & programmer**, 2016
- “*Design and construction of a lab-scale pilot plant for photo-reduction of CO₂ to CO and CH₄*”, **Designer**, 2016
- “*Design and implementation of a new lining for acid storage and acid tanker trailers*”, **Designer**, 2017
- “*Design and construction of a cement powder storage system*”, **Process & pressure vessel designer**, 2016
- “*Design and optimization of gas to liquid portable unit*”, **Project manager & designer**, 2015-2016
- “*Design and Manufacturing of an 8½" PDC Drill Bit for the NISOC*”, **Geometry designer & simulator**, 2014-2015
- “*Design and of wastewater treatment and neutralization unit of gas turbine cleaning unit for the NISOC*”, **Process designer**, 2013-2015
- “*Design and construction manufacturing of a 17½ Tri-Cone drill bit for the NISOC*”, **Geometry designer & simulator**, 2011-2016
- “*PDC Drill Bit Cutters Position Optimization Software*”, **Designer & programmer**, 2013
- “*Formulation of green asphaltene removal solvent*”, **Researcher**, 2012
- “*Design, fabrication & calibration of a portable Tank Prover for the IOTC*”, **Project manager & designer**, 2011-2016
- “*Probability study of using solar energy in surface facilities*”, **Designer**, 2011-2012
- “*Developing a well-test interpretation software using semi-automatic reservoir model-fitting algorithm*”, **Algorithm designer & programmer**, 2011
- “*Formulation of paint removal for an epoxy paint over cold section aluminum blade of turbines for the NISOC*”, **Researcher**, 2011
- “*Formulation of the aluminum oxide removing chemical for the gas turbine cleaning unit for the NISOC*”, **Researcher**, 2011
- “*Design and construction of a mobile wellbore asphaltene removal tool*”, **Project manager & designer**, 2010-2011
- “*Synthesis and purification of diphenhydramine hydrochloride*”, **Pilot designer**, 2010
- “*Formulation of a water base high-temperature lubricant for seamless pipe manufacturing line*”, **Project manager**, 2008-2010
- “*Design of 250 tons Bentonite Powder Storage and Transportation Facilities*”, **Project manager & designer**, 2008
- “*Design and Construction of Change Over Flap*”, **Project manager & designer**, 2008

Curriculum Vitae



- “*Design and manufacturing of a 7200 cubic feet cement bulk*”, **Project manager & designer**, 2008
- “*Improvement of physical properties of asphalt pavement using chemical additives for Ahvaz municipality*”, **Researcher**, 2006-2007
- “*Selecting appropriate thermodynamic equations for the simulation of separation columns of BIPC*”, **Researcher & simulator**, 2006
- “*Conceptual and basic design of a closed-loop supercritical fluid extraction pilot plant*”, **Designer**, 2006
- “*Design and construction of a fluidized-bed reactor pilot plant for methanol to formaldehyde conversion for the IROST*”, **Construction supervisor and control logic designer**, 2006
- “*Design and construction of a packed-bed reactor pilot plant for methanol to dimethyl ether conversion for the IROST*”, **Construction Supervisor and control logic designer**, 2005-2006
- “*Creating software for the design of reverse osmosis water treatment units*”, **Programmer**, 2004-2005

OTHER ACTIVITIES:

- Generation of Know-How and Manufacturing of Industrial Equipment &Part
- Generation of Know-How of Production and Implementation of Temporary Gel-Plug for Hydrocarbon Wells
- Feasibility Study of Manufacturing the Tubing for Hydrocarbon Wells

LANGUAGES:

PERSIAN: Native Language

ENGLISH: Fluent (IELTS Overall Band Score: 7)