

Davood Khoozan

EDUCATION

PhD. in Mechanical Engineering,
Sharif University of Technology, Tehran, Iran, 2015

GPA: 18.43

Thesis Subject: "Upscaling and Simulation of Two-Flow through Porous Media"

MSc. in Reservoir Engineering,
Sharif University of Technology, Tehran, Iran, 2008

GPA: 17.92

Thesis Subject: "Improving Dual Mesh Method in Vorticity-Based Upscaled Grids in Oil Reservoirs"

BSc. in Petroleum Engineering,
BSc. in Mechanical Engineering,
Sharif University of Technology, Tehran, Iran, 2006

GPA: 17.41

Thesis Subject: "Comparison of Upscaling Methods in Two-Phase Flow through Porous Media"

WORK EXPERIENCE

Assistant Professor of Petroleum Engineering,

Tarbiat Modares University, Tehran, Iran

2019-Present

Director, Mapsa Technology Center,

MAPSA Co, Tehran, Iran

2014-2019

Researcher, “Near-Wellbore Upscaling in Gas Condensate Reservoir”,
Research Center for Enhanced Recovery of Oil and Gas, NIOC, Tehran, Iran
2016-2018

Project Manager, “Development of Flow Pro Software for Multi-Phase Flow Simulation in Oil and Gas Pipes and Wellbore”,
Mapsa Co, Tehran, Iran
2017-2019

Project Manager, “Development of Centri Pro Software for Simulation of Centrifuge Capillary Pressure Measurement Experiment”,
Mapsa Co, Tehran, Iran
2015-2018

Project Manager, “Design and Construction of Mudlogging Unit for Drilling Rigs”,
Mapsa Co, Tehran, Iran
2011-2015

Instructor, “Reservoir Simulation with Eclipse 100”, for ICOFC
PTCM, Mahmoudabad, Iran
2011

Reservoir Simulation Consultant, “Master Development Plan (MDP) of Arash Field”, for IOOC
Mapsa Co, Tehran, Iran
2010

Reservoir Simulation Team Member, “Master Development Plan (MDP) of Mokhrtar, Gardan, Sephidzakhoor and Dey Fields”, for ICOFC
Mapsa Co, Tehran, Iran
2009-2010

Senior Technical Programmer, “Development of PVT Pro Software for Simulation of Thermodynamic Behavior of Oil and Gas Reservoirs”,
MAPSA Co, Tehran, Iran
2008-2011

Project manager, “Development of Sim Pro Software for Black-Oil Simulation of Oil and Gas Reservoirs”,

MAPSA Co, Tehran, Iran

2006-2008

JOURNAL PAPERS

Foroughi, S., **Khoozan, D.**, Jamshidi, S., “Optimal distribution function determination for plus fraction splitting”, *The Canadian Journal of Chemical Engineering*, 97 (10), 2752-2764, 2019.

Khoozan, D., Firoozabadi, B., “A-priori Error Estimation of Upscaled Coarse Grids for Water-Flooding Process”, *The Canadian Journal of Chemical Engineering*, 94, 1612-1626, 2016.

Khoozan, D., Firoozabadi, B., “Optimization-based Upscaling for Two-Phase Flow through Porous Media: Structured Grid Generation”, *Transport in Porous Media*, 108 (3), 617-648, 2015.

Khoozan, D., Firoozabadi, B., Rashtchian, D., Ashjari, M.A., “Analytical Dual Mesh Method for Two-Phase Flow through Highly Heterogeneous Porous Media”, *Journal of Hydrology*, 400 (1–2), 195-205, 2011.

Ashjari, M.A., Firoozabadi, B., Mahani, H., **Khoozan, D.**, “Vorticity-Based Coarse Grid Generation for Upscaling Two-Phase Displacements in Porous Media”, *Journal of Petroleum Science and Engineering*, 59 (3-4), 271-288, 2007.

CONFERENCE PAPERS

Alizadeh, M., **Khoozan, D.**, “Design and Development of Mudlogging Software for Drilling Rigs”, presented at the 16th Iranian National Congress of Chemical Engineering, 19-21 Jan 2019, Tehran, Iran.

Keshavarzi, B., **Khoozan, D.**, “Design of Gas System on Mudlogging Units on Drilling Rigs”, presented at the 16th Iranian National Congress of Chemical Engineering, 19-21 Jan 2019, Tehran, Iran.

Khoozan, D., Firoozabadi, B., Rashtchian, D., Ashjari, M.A., “Improved Dual Mesh Method for Simulation of Two-Phase Flow Through Porous Media”, accepted for presentation at the 20th International Symposium on Transport Phenomena, 7-10 July 2009, Victoria BC, Canada.

Khoozan, D., Firoozabadi, B., Ashjari, M.A., “Effect of Upscaling Method on Recovery Performance Prediction of Two-Phase Flow through Porous Media”, accepted for presentation at the 5th International Chemical Engineering Congress & exhibition (IChEC 2008), 2-5 Jan 2008, Kish Island, Iran.

TEACHING EXPERIENCE

Finite Element Method,

Advanced Pressure and Rate Transient Analysis,

Petroleum Engineering Group, Chemical Engineering Department, Tarbiat Modares University, Tehran, Iran

2019-Present

**Drilling Fluids,
Drilling Engineering II,
Statics and Strength of Materials,**

Institute of Petroleum Engineering, Tehran University, Tehran, Iran
2017

**Drilling Engineering II,
Advanced Drilling Engineering,**

Petroleum Engineering Department, Science and Research University, Tehran, Iran
2016-2017

Statics and Strength of Materials,

*Chemical and Petroleum Engineering Department, Sharif University of Technology,
Tehran, Iran*
2008

RESEARCH TOPICS

- Application of Finite Element Method in Petroleum Engineering
- Application of Artificial Intelligence in Petroleum Engineering
- Hydraulic Fracturing
- Upscaling and Multi-Scale Methods in Reservoir Simulation

SUPERVISED MSC
THESIS

- Modeling of Hydraulic Fracturing Process in Naturally Fractured Reservoirs Using Finite Element and Level Set Methods, Seyyed Mehdi Aghaey
- Production Forecasting of Oil Wells Based on Production History Using Artificial Intelligence, Mehrdad Soltani

PETROLEUM
ENGINEERING
SOFTWARE SKILLS

- Schlumberger Eclipse100, Eclipse300, PVTi
- Kappa Saphir, Topaze
- CMG Winprop

LANGUAGE

- TOEFL, score 630, 2007.
- IELTS, score 6.5, 2003.

HONORS AND AWARDS

- Among top three M.Sc. Students at Petroleum Engineering department, Sharif University of Technology
- Among top ten B.Sc. Students at Chemical and Petroleum Engineering and Mechanical Engineering departments, Sharif University of Technology
- Being accepted in the Dual Degree program at Sharif University of Technology which enabled me to study in two majors simultaneously
- Ranked 298th in the nationwide university entrance examination, among 500000 participants