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Date of Birth: March 22, 1987

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PROFESSIONAL PROFILE:

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

EDUCATION BACKGROUND:

Ph.D.: Chemical Engineering-Transport Phenomena (2017), Petroleum University of Technology-Iran University of Science and Technology, Iran, Ahvaz-Tehran.

Thesis title:

Experimental Study and Population Balance Modeling of Asphaltene Precipitation

M.Sc.: Petroleum Reservoir Engineering (2011), Sharif University of Technology, Tehran, Iran.

Dissertation title:

Experimental Investigation of New Polymers for Enhanced Oil Recovery from One of the Iranian Oil Reservoirs

B.Sc.: Petroleum Reservoir Engineering, Petroleum University of Technology (2009), Iran, Ahvaz.

Dissertation title:

Well Production Improvement by Evaluating and Decreasing Formation Damage in Underbalanced and Overbalanced Drilling Operations

TEACHING AND TRAINING EXPERIENCE:

- Teaching “Design and Planning of Wells” at Shahid Chamran University of Ahvaz (2018-2021).
- Teaching “Offshore Drilling” at Shahid Chamran University of Ahvaz (2019-2021).
- Teaching “Advanced Drilling Engineering” at Shahid Chamran University of Ahvaz (2019-2021).
- Teaching “Multiphase Flow in Wells and Pipelines” at Shahid Chamran University of Ahvaz (2019-2021).
- Teaching “Transport Phenomena in Porous Media” at Shahid Chamran University of Ahvaz (2020-2021).
- Teaching “Advanced Drilling Fluids” at Shahid Chamran University of Ahvaz (2019-2020).
- Teaching “Applied Mathematics in Chemical Engineering” at Petroleum University of Technology (2014&2018).
- Teaching “Numerical Analysis for Engineering” at Jundi-Shapur University of Technology, Dezful (2018-2019).
- Teaching “Mass Transfer Operations” at Petroleum University of Technology (2017-2018).
- Teaching “Mass Transfer Operations” at Jundi-Shapur University of Technology, Dezful (2015-2018).
- Teaching “Thermodynamics I” at Jundi-Shapur University of Technology, Dezful (2017-2019).
- Teaching “Chemical Engineering Software Workshop-Aspen Hysys” at Jundi-Shapur University of Technology, Dezful (2017-2018).
- Teaching “Engineering Mathematics” at Jundi-Shapur University of Technology, Dezful (2017-2018).

- Teaching “Thermodynamics II” at Jundi-Shapur University of Technology, Dezful (2016-2018).
- Teaching “Applied Mathematics in Chemical Engineering” at Jundi-Shapur University of Technology, Dezful (2015-2017).
- Teaching “Unit Operations I” at Jundi-Shapur University of Technology, Dezful (2016-2017).
- Teaching “Introduction to Petroleum Engineering” at Petroleum University of Technology (2014-2015).
- Teaching “Two-Phase Flow in Pipes” at Petroleum University of Technology (2011-2013).
- Teaching “Drilling Engineering (1)” at Petroleum University of Technology (2012).
- Laboratory Assistant in “Fluid Mechanic” Course at Petroleum University of Technology (2012-2013).
- Laboratory Assistant in “Heat Transfer” Course at Petroleum University of Technology (2012-2013).
- Laboratory Assistant in “Petroleum Refinery” Course at Petroleum University of Technology (2012-2013).
- Research Assistant in Reservoir Rock Properties Lab, Sharif University of Technology.

HONOURS AND AWARDS:

- Ranked 1 in “Science Qualification Exam” among 43 B.Sc. Students of Petroleum Production Engineering at PUT (Petroleum University of Technology).
- Ranked 1 in Pre University among 90 students.
- Ranked 4 in M.Sc. Entrance Examination in Reservoir Engineering.
- Ranked 4 among 43 Students of Reservoir Engineering at Petroleum University of Technology.
- Ranked 2600 among More than 329828 Participants in Nationwide Entrance Exam of Universities in the Country.
- Ranked 1000 among More than 151373 Participants in National Entrance Exam of Universities in the Country, July 2005.
- Awarded the Scholarship (fellowship) for B.Sc. in Petroleum Engineering at Petroleum University of Technology.
- The certificate of Upstream Oil/Gas project Management from Total Company, Ahvaz, February 2009.

INTERESTS AND RESEACH FIELDS:

- Kinetics of Asphaltene Precipitation and Deposition
- Population Balance Modeling of Particulate Processes
- Enhanced Oil Recovery: Experimental & Modeling
- Modeling of Multiphase Flow in Pipelines & Wellbores

RESEARCH ACTIVITIES:

PUBLICATIONS:

1. Hoseini-Moghadam, S.M.A., Ghiasimehr, B., Torkaman, M., Mirmarghabi, P. “The Role of Temperature and Porous Media Morphology on the Performance of Anionic and Cationic Surfactants for Enhanced Heavy Oil Recovery”, Journal of Molecular Liquids, 2021.
2. Hosseini-Moghadam, S.M.A., Zahedi-Nejad, A., Bahrami, M., Torkaman, M., Ghayyem, M.-A. “Experimental and Modeling Investigations of Temperature Effect on Chemical Inhibitors of Asphaltene Aggregation”, Journal of Petroleum Science and Engineering, 2021.
3. M. Torkaman; M. Bahrami; and M.R. Dehghani “Influence of Temperature on Aggregation and Stability of Asphaltenes. II. Orthokinetic Aggregation”, Journal of Energy & Fuels, 2018.
4. M. Torkaman; M. Bahrami; and M.R. Dehghani “Influence of Temperature on Aggregation and Stability of Asphaltenes. I. Perikinetik Aggregation”, Journal of Energy & Fuels, 2017.
5. H. Soleimani-Khormakala, M. Torkaman; and M. Bahrami; “The Effect of Shear Rate on Aggregation and Fragmentation of Asphaltene Aggregates”, Journal of Dispersion Science and Technology, 2018.
6. R. Ghol Gheysari; R. Songolzadeh; M. Torkaman; M. Safari; and Ghassem Zargar “Novel PSO-LSSVM Model for Predicting Liquid Rate of Two Phase Flow through Wellhead Chokes”, Journal of Natural Gas Science & Engineering, 2015.
7. S. Morshedi, M. Torkaman , M. Sedaghat , and M. Ghazanfari “Simulation of Microbial Enhanced Oil Recovery by Using a Two Layer Perceptron Neural Network”, Journal of Petroleum Science and Technology, 2014.

CONFERENCE PRESENTATIONS:

1. Hoseini-Moghadam, S.M.A., Ghiasimehr, B., Torkaman, M., Mirmarghabi, P. "Study of Temperature Effect on Efficiency of Surfactant Flooding in a Glass Micromodel", *2nd International Conference on Chemistry and Chemical Engineering, 2021.*
2. Zahedi-Nejad, A., Bahrami, M., Torkaman, M. "Population Balance Modeling of Asphaltene Aggregation in Crude Oil at Different Temperatures", *The 7th International Conference on Chemical and Petroleum Engineering, 2021.*
3. Hosseini-Moghadam, S.M.A., Bahrami, M., Torkaman, M. "Experimental Investigation of the Performance of Organic Acids as Asphaltene Inhibitors", *The 7th International Conference on Chemical and Petroleum Engineering, 2021.*
4. M. Torkaman; M. Bahrami; and M.R. Dehghani "Assessing the Precipitation Kinetics of Asphaltenes in Heptane/Toluene Mixtures", *4th International Conference on Recent Innovations in Chemistry and Chemical Engineering, 2017.*
5. H. Soleimani-Khormakala,; M. Bahrami and M. Torkaman; "Population Balance Modeling of Asphaltene Aggregates Growth" *5th International Conference on Recent Innovations in Chemistry and Chemical Engineering, 2018.*
6. H. Soleimani-Khormakala,; M. Bahrami and M. Torkaman; "Experimental Investigation of the Effect of Shear Rate on Asphaltene Particle Size Distribution" *5th International Conference on Recent Innovations in Chemistry and Chemical Engineering, 2018.*
7. A.R. Sadeghinia; M. Torkaman and M. Shafiee; Simulation and Investigation of the influence of Operational Parameters in the Metathesis Process" *2nd International Biennial Oil, Gas and Petrochemical Conference, 2018.*
8. M. Torkaman, S.Morshedi, M. Masihi and M.H. Ghazanfari "Simulation of Microbial Enhanced Oil Recovery by Using of Neural Networks, *7th International Chemical Engineering Congress & Exhibition, 2011.*
9. S.Morshedi, M.H. Sedaghat, M. Torkaman, D. Rashtchian, M. Masihi and M.H. Ghazanfari "Experimental Investigation of Effect of Heterogeneities in Performance of Water and ASP Flooding", *7th International Chemical Engineering Congress & Exhibition, 2011.*

10. S.Morshedi, S. Foroughi, M. Torkaman, M.H. Ghazanfari and M. Masihi “Core Scale Numerical Modeling of Enhanced Oil Recovery Surfactant Flooding from Oil Reservoirs”, *7th International Chemical Engineering Congress & Exhibition, 2011.*

RESEARCH PROJECTS:

- Experimental Investigation and Modelling of Temperature Effect on Surge and Swab Pressures in Elliptic Concentric Annuli
- Studying the Role of Morphology in Chemical Enhanced Oil Recovery Processes using Eclipse Simulator
- Modeling and Simulation of Acidizing Process to Study Effective Operation Parameters
- Modeling of Asphaltene Precipitation and Deposition in Pipelines
- Investigation of Inhibitors on the Precipitation Kinetics of Asphaltenes under Shear Stress
- Investigation of the effect of particle size on asphaltene deposition in the presence of antiaggregants in a Couette device
- Experimental Investigation on Effect of Shear Rate on Asphaltene Fractal Dimension

PROFESSIONAL MEMBERSHIPS:

- Faculty Sponsor of *SPE* Student Chapter of Shahid Chamran University (SCU) of Ahvaz.
- Member of EAGE (European Association of Geoscientists and Engineers).

LANGUAGES:

Persian (native)

English (Upper Intermediate)