



# Mohammadreza Bagheri

 **Address:** School of Petroleum and Petrochemical Engineering, Hakim Sabzevari University, Tohid Shahr, Sabzevar, Iran, Postal Code: 9617976487

 **Phone:** +98 5144012857

 **Email:** [mreza.bagheri@hsu.ac.ir](mailto:mreza.bagheri@hsu.ac.ir)

## Research Interests

---

- Reservoir engineering
- Coupled reactive transport modeling with the geomechanical alterations
- CO<sub>2</sub> storage
- Geomechanics
- Cement and wellbore integrity
- Numerical modeling and computerized methods
- Porous media and multiphase flow modeling
- Particle-based methods

## Education

---

### **September 2017- November 2021:** [Coventry University](#), Coventry, UK

Doctor of Philosophy, Flow measurement and fluid mechanics

Thesis: Reactive Transport Modelling and Geomechanical Investigation of Wellbore Cements in CO<sub>2</sub> Storage Sites

### **September 2012- August 2014:** [University of Tehran](#), Tehran, Iran

Master of Science, Reservoir Engineering

### **September 2008- August 2012:** [Sharif University of Technology](#), Tehran, Iran

Bachelor of Science, Petroleum Engineering

## Selected journal papers

- **Bagheri, M.**, Shariatipour, S.M., and Ganjian, E. (2018) 'A Review of Oil Well Cement Alteration in CO<sub>2</sub>-Rich Environments'. *Construction and Building Materials*, 186C, 946–968.
- **Bagheri, M.**, Shariatipour, S.M., and Ganjian, E. (2019) 'Prediction of the Lifespan of Cement at a Specific Depth Based on the Coupling of Geomechanical and Geochemical Processes for CO<sub>2</sub> Storage'. *International Journal of Greenhouse Gas Control Journal*, 86, 43–65.
- **Bagheri, M.**, Shariatipour, S.M., and Ganjian, E. (2020) 'A methodology for reactive transport modelling and geomechanical investigation of wellbores in CO<sub>2</sub> storage sites'. *Construction and Building Materials*, 121100.
- **Bagheri, M.**, Shariatipour, S. M. and Ganjian, E. (2020) 'Parametric study on the integrity of wellbores in CO<sub>2</sub> storage sites', *Construction and Building Materials*, 121060.
- Pourmalek, A., Newell, A., Butcher, A., Shariatipour, S. M., Milodowski, A, Wood, A. M., and **Bagheri, M.** (2020) 'Deformation bands in high-porosity sandstones: do they help or hinder CO<sub>2</sub> migration and storage in geological formations?', *International Journal of Greenhouse Gas Control*, Elsevier.
- Barria, J., **Bagheri, M.**, Manzanal D., Shariatipour, S.M., Pereira, J. (2020) 'Poromechanical analysis of oil well cements in CO<sub>2</sub>-rich environments' *International Journal of Greenhouse Gas Control*, Elsevier.