

Dr. SIVASANKAR P

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Indian Institute of Petroleum and Energy, Visakhapatnam -530003, India.
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EDUCATION

PhD in Petroleum Engineering, Indian Institute of Technology – Madras, July 2018.

(Specialization in Mathematical Modelling & Numerical Simulation of Enhanced Oil Recovery Process)

M.Tech in Petroleum Engineering, Indian Institute of Technology – Madras, 2012.

WORK EXPERIENCE

Assistant Professor, Department of Petroleum Engineering & Earth Sciences,
Indian Institute of Petroleum and Energy (IPE), Visakhapatnam. (August 2019- Present)

Assistant Professor, School of Petroleum Technology,
Pandit Deendayal Petroleum University (PDPU), Gandhinagar. (July 2018- July 2019)

RESEARCH AREAS

- Numerical reservoir simulation
- Enhanced Oil Recovery (EOR)
- Data analytics in EOR
- Coupled multiphase fluid flow and multi-species reactive transport in processes in porous media
- CO₂ sequestration
- Bio-remediation of subsurface oil spills

COURSES TAUGHT

Courses being taught at IPE

- Enhanced Oil Recovery
- Transport in Porous Media
- Prospecting, Field Development and Asset Management

Courses taught at PDPU

- Reservoir Engineering
- Reservoir Modelling & Simulation
- Geomechanics & Strength of Materials

NON-TEACHING RESPONSIBILITIES

- Faculty Co-Ordinator - Career Development Cell, IPE.
- Faculty Co-Ordinator - Literary, Fine Arts & Dramatics Committee, IPE.

PUBLICATIONS

Papers Published in Journals (IF- Impact Factor as on June 2020)

1. Ganesh, H., **Sivasankar, P.**, Sivakumar, P., Sircar., A. 2019. Sustainable drilling operations by utilizing waste biomass as a lost circulation additive. *Energy Sources Part A: Recovery, Utilization And Environmental Effects*. (IF: 1.184)
2. **Sivasankar, P.**, Suresh Kumar, G., 2019. Influence of bio-clogging induced formation damage on performance of microbial enhanced oil recovery processes. *Fuel*. 236, 100-109. (IF: 5.578).
3. **Sivasankar, P.**, Suresh Kumar, G., 2018. Modelling the influence of interaction between injection and formation brine salinities on in-situ microbial enhanced oil recovery processes by coupling of multiple-ion exchange transport model with multiphase fluid flow and multi-species reactive transport models. *Journal of Petroleum Science and Engineering*. 163, 435-452 (IF: 3.706)
4. **Sivasankar, P.**, Suresh Kumar, G., 2017. Improved Empirical Relations for Estimating Original Oil in Place Recovered During Microbial Enhanced Oil Recovery Under Varied Salinity Conditions. *Petroleum Science and Technology*. 35, 2036–2043. (IF: 0.976)
5. **Sivasankar, P.**, Suresh Kumar, G., 2017. Influence of pH on dynamics of microbial enhanced oil recovery processes using biosurfactant produced *Pseudomonas putida*: Mathematical modelling and numerical simulation. *Bioresource Technology*. 224, 498-508. (IF: 7.539)
6. **Sivasankar, P.**, Kanna, R., Suresh Kumar, G., Gummadi, S.N., 2016. Numerical modelling of biophysicochemical effects on multispecies reactive transport in porous media involving *Pseudomonas putida* for potential microbial enhanced oil recovery application. *Bioresource Technology*. 211, 348-359. (IF: 7.539)
7. Vivek, R., **Sivasankar, P.**, Suresh Kumar, G., 2017. Accelerating dissolution trapping by low saline WAG injection scenario. *Energy Procedia*. 114, 5038-5047.
8. **Sivasankar, P.**, Suresh Kumar, G., 2014. Numerical modelling of enhanced oil recovery by microbial flooding under non-isothermal conditions. *Journal of Petroleum Science and Engineering*. 124, 161-172. (IF: 3.706)

Conference Papers Presented:

1. **Sivasankar, P.**, Sivakumar P., Hari Ganesh., Sircar, A. 2018. Numerical modelling of in-situ bioremediation of petroleum hydrocarbon contaminated groundwater aquifer by microbial flooding. *International Conference on Advances and Challenges for Sustainable Ecosystems, held at National Institute of Technology – Trichy, Tamilnadu, India*.
2. Ganesh, H., **Sivasankar, P.**, Sivakumar, P., Sircar, A. 2018. Sustainable drilling operations by utilizing waste biomass as a lost circulation additive. *International Conference on Advances and Challenges for Sustainable Ecosystems, held at National Institute of Technology – Trichy, Tamilnadu, India*.
3. Vivek, R., **Sivasankar, P.**, Suresh Kumar, G., 2017. Accelerating dissolution trapping by low saline WAG injection scenario. *Energy Procedia*. 114, 5038-5047.

4. Sivasankar, P., Suresh Kumar, G., 2016. Modelling the coupled effects of temperature, injection rate and microbial kinetic parameters on oil recovery by microbial flooding. SPE Annual Technical Symposium and Exhibition, Dammam, Saudi Arabia.

5. Sivasankar, P., Suresh Kumar, G., 2015. Numerical modelling of microbial enhanced oil recovery process under the effect of reservoir temperature, pH and microbial sorption kinetics. SPE 174637-MS, SPE Asia Pacific Enhanced Oil Recovery Conference, Kuala Lumpur, Malaysia.