

Dr. Bisweswar Ghosh is a Research Assistant Professor in the Petroleum Engineering Program at the Petroleum Institute, Abu Dhabi. For last four academic years he involved in teaching undergraduate courses (mostly design projects), supervising graduate thesis work, developing modern research facilities and investigating industry sponsored research projects. Prior to joining PI Dr. Ghosh served Sultan Qaboos University (SQU), Muscat, as Petroleum Engineering Research Consultant (2005-2007), responsible for establishment and supervision of funded research programs. Concurrently he was consultant for Petroleum Development Oman (PDO) in the area of Water and Gas Shutoff and Formation Damage mitigation studies and job design. Previously he was Senior Production Research Scientist at Institute of Oil & Gas Production Technology, an R&D wing of ONGC, India from 1996 to 2005. The research activities were in the area of Water & Gas Shutoff, Well Stimulation, Sand Control, Drilling & Completion Fluid design and flow assurance. Under his leadership, the team has successfully completed nearly 35 sponsored projects, produced two patents and received several awards and merit certificates. Dr. Ghosh commenced his career in the Petroleum Industry with ONGC, India in 1985 and in next ten years of service gained rich experience in Production operations, Well services and Drilling & completion fluid.

Dr. Ghosh holds a B.Sc (Honors) in Chemistry from Burdwan University, an M.Sc. in Physical Chemistry from Indian Institute of Technology (IIT) and a Ph.D. in Petroleum science from University of Nagpur, India.

Research Interests and Areas of Specialization

- Flow assurance issues – Asphaltene and scale deposition in wellbore
- Improved recovery through chemical flooding
- Application of electrokinetics for oil recovery and well stimulation
- Waterflooding and control of excess water production
- Formation damage – Prevention and mitigation

Patents

1. **Ghosh, B.**, Wahaibi Y. M., and Bimani. A. S. “Methods and compositions for selectively sealing high temp. fractured carbonate subterranean formation by rig-less operation”. IN 2008MU00157Appl. (2009), A 20090220. – Published.
2. **Ghosh, B.**, Bimani, A. S., and Wahaibi. Y. M. “A self selective bio - polymer gel composition, for permeability modification and method of treating an oil well for limiting water production”. IN 2008MU00128 A 20080627. – Awarded
3. **Ghosh, B.**, Bansal, B. D., Anand, R K., Singh S. C. and Singh. B. D. “ A process for preparing crosslinked polymer gel for water and gas shutoff in high temperature oil wells”. IN 2004MU00898 A 20060616. Awarded.
4. **Ghosh, B.**, Bansal, B. D., Anand, R K., Singh S. C. and Singh. B. D. “A process for preparing monomer gel, for water control in low permeable oil wells”. IN 2004MU00897 A 20060616. Awarded.

Representative Papers and Publications

1. **Ghosh, B.**, Pillay, A.E., Kundu, S.S., Senthilmurugan, B. and Stephen, S., “Application of Ablative laser depth – profiling (ICP-MS) to probe diagenetic information linked to secondary mineral deposition in carbonate reservoir rock – Part 2”. Canadian Journal of Pure and Applied Sciences, Vol. 4, No. 3, pp. 1267-1274 (2010).

2. Pillay, A. E., **Ghosh, B.**, Senthilmurugan, B., Stephen S., and Abd-Elhameed. A. "Ablative laser depth – profiling (ICP-MS) of reservoir cores to evaluate homogeneity of strontium and barium distributions linked to scale deposition". Canadian Journal of Pure and applied Science. Vol. 4. No. 1. Pp 1081 – 1085 (2010).
3. Senthilmurugan, B., **Ghosh, B.**, Kundu, S.S., and Kameshwari, B. "Maleic acid based scale inhibitors for calcium sulfate scale inhibition in high temperature application". Journal of Petroleum Science and Engineering. Elsevier. 75 pp 189-195 (2010)
4. **Ghosh, B.**, Kundu, S. S., Senthilmurugan, B. and Haroun, M. "Upstream scale inhibition in carbonate reservoir – Evaluation of a green chemistry". International Journal of Petroleum Science and Technology. ISSN 0973-6328, Volume 3, Number 1 (2009), pp. 51–64.
5. Senthilmurugan, B., **Ghosh, B.**, Kundu, S.S. and Kameshwari, B., "Association of anion - cation and calcite scale inhibition study by a synthesized copolymer in aqueous medium. "International Journal of Petroleum Science and Technology", ISSN 0973-6328, Volume 3, Number 1 (2009). pp. 35–42.
6. Haroun, M.; **Ghosh, B.**; Chilingar, G.V.; Wittle, K.; Pamukcu, S. and Badawi, M. "In-situ diversion of scale forming ions through electrokinetic method". SPE Western Regional Meeting, 27–29 May 2010. SPE 133619.
7. **Ghosh, B.** and Senthilmurugan, B. "Self selective water control technology for fractured horizontal wells – A rig-less option". 20th International oilfield chemistry symposium. Geilo. Norway. (Publication available with Energy Institute. UK & University of Tulsa, USA).
8. Senthilmurugan, B. and **Ghosh, B.** "A threshold scale inhibitor for high temperature application". 20th International oilfield chemistry symposium. Geilo. Norway. (Publication available with Energy Institute. UK & University of Tulsa, USA).
9. Haroun, M.; **Ghosh, B.**; Chilingar, G.V.; Wittle, K.; Pamukcu, S. and Badawi, M. "In-situ diversion of scale forming ions through electrokinetic method". SPE Western Regional Meeting, 27–29 May 2010. SPE 133619.
10. Senthilmurugan, B.; **Ghosh, B.**; Gordon Graham and Kundu, S.S. "The Influence of Maleic Acid Copolymers on the Growth and Microstructure of Calcite Scale", SPE Oilfield Scale Conference 2010. SPE-131132-PP