



Enhanced Oil Recovery Methods

Instructor

Dr. Maghsood Abbaszadeh is a reservoir engineer and professor. He received a B.Sc. degree in Chemical Engineering in 1978, M.Sc. in Petroleum Engineering in 1979 and Ph.D. in Petroleum Engineering in 1982 from Stanford University, USA.

Dr. Abbaszadeh is currently the president and technology director of Innovative Petrotech Solutions, Inc.(IPS) and an Adjunct Professor at the University of Texas at Austin, where he teaches their advanced reservoir engineering graduate course. He has over twenty five years of theoretical and field experience in all aspects of reservoir engineering, reservoir characterization, reservoir simulation and EOR technologies. He has provided advanced consulting and technology development to the petroleum industry throughout the world in the areas of multidisciplinary integrated reservoir management, stochastic reservoir characterization and uncertainty analysis, tracer flow and well test analysis, reservoir simulation for field development, IOR/EOR methods and applications with emphasis on CO₂ injections and chemical floods. He has participated in multiple in-house training programs and has taught industry short courses for over fifteen years on a variety topics including fundamentals of EOR methods, general EOR concepts, EOR field applications, PVT, applied and advanced reservoir engineering, integrated reservoir characterization and well test analysis.



Previously Dr. Abbaszadeh was a consulting technical advisor to Schlumberger Reservoir Technologies in Houston, an invited research advisor for the Technology Research Center at Japan Oil, Gas and Metals National Corporation (JOGMEC) in Japan, a principal research engineer at Arco Oil & Gas Co. in Plano Texas (Now part of BP), and section manager in the Well Test Interpretation Department at Schlumberger Well Services in Houston, Texas.

He was Review Chairman for SPE Formation Evaluation Journal, Committee member of well testing and a member of SPE Reservoir Evaluation and Engineering award committee. He has published extensively in recognized petroleum industry professional journals. He is the 2007 SPE distinguished member award recipient.



Maghsood Abbaszadeh, PhD

SUMMARY

Maghsood Abbaszadeh is a reservoir engineering professional with over twenty-five years of variety research, technology development, industry teaching and advanced consulting. He has solid expertise in both fundamental research and practical applications of technology for solving complex reservoir problems to meet the challenging needs. Abbaszadeh has extensive publications of high quality articles in refereed journals, mainly SPE, several of which are outstanding classical work and have been widely cited. He is experienced in collaborating with universities and centers of technical excellence, interacting with multiple oil company clients, establishing technical programs for corporations to advance reservoir technologies. His major technical strengths are: various aspects of flow through porous media; mathematical modeling and reservoir simulation; reservoir characterization and geostatistics; integrated reservoir studies with IOR/EOR applications; CO₂ injections; gas and gas condensate reservoir engineering; pressure transient analysis and tracer flow technologies.

Abbaszadeh is currently the CEO and the director of technology for Innovative Petrotech Solutions, Inc. (IPS), a research-oriented consulting company that he founded in late 90's. He is also an adjunct professor at the Department of Petroleum Engineering at University of Texas at Austin, teaching their graduate level course on advanced reservoir engineering. At IPS, he provides leading edge consulting and professional training to the petroleum industry in the areas of integrated reservoir characterization, geostatistics and uncertainty analysis, reservoir engineering, reservoir simulation and modeling, IOR/EOR applications with emphasis on CO₂ injections, pressure transient testing technology and tracer flow studies. He has worked on CO₂ injection, chemical floods and thermal recovery projects in various parts of the world.

Prior to IPS, he was an invited research advisor in the technology research center of Japan Oil, Gas and Metals National Corporation (JOGMEC) in Japan, where he organized a multidisciplinary geostatistical reservoir characterization team for R&D and worldwide field applications of technologies to address the needs of different geological settings and oil recovery mechanisms. He also worked at the research center of Arco Oil and Gas Company in Plano, Texas mainly in the development and applications of advanced reservoir characterization and pilot injection studies of Alaskan fields. Before joining Arco, he was a well testing section manager with Schlumberger well services.

Abbaszadeh has made several major contributions to the petroleum literature and advancement of petroleum technology in the areas of interwell tracer flow for reservoir description, variety of pressure transient analysis solutions and interpretation models, Voronoi gridding and upscaling technology of heterogeneity for reservoir simulations, permeability prediction method by hydraulic flow unit classification, phenomenological network modeling for gas condensate critical saturation modeling, development of methodologies for geostatistical reservoir characterization, EOR-CO₂ injection studies and a variety of integrated multidisciplinary field development applications. He received SPE 2007 distinguished member award.



EDUCATION

- 1982 PhD. Petroleum Engineering, Stanford University, Stanford, California, USA
- 1979 MSc Petroleum Engineering, Stanford University, Stanford, California, USA
- 1978 BSc. Chemical Engineering, Abadan Institute of Technology, Abadan, Iran

QUALIFICATIONS

Over twenty-five years of petroleum engineering industry experience including:

- Reservoir engineering, research, technology development, and training
- Integrated multidisciplinary reservoir characterization, flow simulation, and field studies
- Modeling of flow through heterogeneous reservoirs and scale-up for reservoir simulation
- Theory and field applications of geostatistics for reservoir evaluation, recognizing values/limits
- IOR/EOR technologies of waterflooding, gas, WAG, CO₂ injection, chemical flood and thermal SAGD
- Theoretical and practical pressure transient analysis and tracer flow studies
- Reservoir engineering and research of gas, gas condensate, tight gas sands, coal-bed methane
- Well completions, stimulation technologies, and production system analysis
- Commercial software skills in reservoir modeling, simulation, engineering; both PC and UNIX
- Track record in distinguished SPE activities and establishing technology streak
- Technical leadership, team playing, advising, mentoring, directing projects
- Successful interaction with business clients, oil company managers, scholars, associates and staff
- Record of generating fundable research themes and advising graduate students at universities
- Classroom teaching experience and numerous industry short courses
- Excellent oral and written communication skills
- Worldwide network and name recognition, useful for marketing and fund raising