

# Curriculum Vitae

## Dr. Mashhad Fahees

Texas A&M University at Qatar  
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Nationality: Lebanese  
DOB: 10 Dec 1981

## Education

Ph.D., Petroleum Engineering, Imperial College London, 2006  
B.Sc., Physics, Lebanese University, Beirut, 2002

## Work Experience

Assistant Professor      Jan 2007 – Present  
Petroleum Engineering, Texas A&M University at Qatar (TAMUQ)

Visiting Assistant Professor      May 2006 – Dec 2006  
Petroleum Engineering, Texas A&M University (TAMU)

## Awards

The Best Petroleum Engineering Professor Award, Student Engineering Council (SEC), Texas A&M University at Qatar, 2012  
Five Year Service Award, Texas A&M University at Qatar, 2012  
Student Organizations Advisor of the Year Award, Student Affairs, Texas A&M University at Qatar, 2010  
Dedicated Faculty Award, Student Body Government (SBG), Texas A&M University at Qatar, 2007

## Teaching Experience

### Undergraduate Courses

- Reservoir Petrophysics (6 times)
- Well Performance (2 times)
- Production Engineering (2 times)
- Transport Processes in Petroleum Engineering (3 times)
- Reservoir Fluids (1 time)
- Introduction to Engineering (4 times)
- Technical Presentation (1 time)

### Short Courses to Industry Professionals

- Special Core Analysis, 5 days, August 2013

## Professional Memberships

Member of the Society of Petroleum Engineers (SPE)  
Technical Editor, SPE Journals

## Service Experience

Designed and built an advanced rock petrophysics laboratories funded by research projects that I lead as a principal investigator after writing and winning competitive research proposals and industry funded projects.

Served as the academic advisor for petroleum engineering undergraduate students at Texas A&M University at Qatar, 2 years.

Served as the faculty advisor for the Society of Women Engineers (SWE) student organization at Texas A&M University at Qatar, 4 years.

Served as the Safety Officer and Chair of the HSE committee for the petroleum engineering program at Texas A&M University at Qatar and participated in offering safety training sessions for students, 5 years.

Served on several search committees for Chief Information Officer (CIO), Petroleum Engineering Program Chair (PC), and Petroleum Engineering Faculty.

Served on the Petroleum Engineering Teaching Laboratories Development Committee and the High Hazard Labs design team.

Served on several committees including the Qatar Diversity Operations, Communications Task Force, 10<sup>th</sup> Year Anniversary, Academic Convocations, Engineering Building Beautification and several award selection, space allocation and high school outreach committees.

Served as a technical reviewer for several papers submitted for publication to SPE journals.

Served on the committee for SPE Young Members Activities for MEOS 2011 in Bahrain, POCE 2012 in Doha and IPTC 2014 in Doha.

Coordinated many lectures and seminars by industry professionals to the campus community.

Participated in ABET accreditation preparations and activities.

Participated in planning the petroleum engineering Student Paper Contest and in training the students on research skills and technical presentations. Also coordinated and supervised several student trips to professional conferences to present papers and posters.

Lead several initiatives for female sports activities for students and staff at Texas A&M University at Qatar.

## Graduate Students

Ruth Fernandes, M.Sc., Wettability Alteration to Reduce Condensate Blocking in Sandstone Reservoirs, May 2011.

Mehrnoosh Saneifar, M.Sc., The Impact of Additives on Spent Acid Recovery, Aug 2011.

Bestramy Santoso, M.Sc., Analysis of Polymer Solubility and Compatibility with Reservoir Brines, Expected Aug 2014.

## Training and Workshops

Attended the “Community of Respect” workshop on cultural diversity, June 2013.

Attended the Basic Life Support Training (2-year certification) held at Hamad Training Center in Jan 2010 then in Feb 2013.

Attended a short course on Emotional Intelligence, Aug 2011.

Attended a Leadership workshop organized at TAMUQ, June 2011.

Participated in the Fire Warden and other safety training at Texas A&M University at Qatar.

Attended several workshops on teaching effectiveness and teaching technologies.

## Funded Research Projects as Lead Principal Investigator, Sum of \$3,407,782

Fahes, M. (L-PI): **“The Effect of Oil Recovery Methods on Asphaltene Deposition in Carbonate Formations,”** QNRF 14<sup>th</sup> cycle UREP. **\$30,000.** Jul 2013 – Jun 2014.

Fahes, M. (L-PI), Nasrabadi, H., Salama, G., Winn, R., Al-Sammarraie, M., Haouche, M. and Cheneviere, P. (Co-PI): **“A Collaborative Research Study on Well Stimulation and Productivity Analysis for Qatar Wells,”** QNRF 11<sup>th</sup> UREP cycle. **\$120,000.** Jan 2012 – Jan 2013.

Fahes, M. (L-PI) and Nasrabadi, H. (Co-PI): **“Enhancing Gas-Condensate Well Productivity by Wettability Alteration,”** QNRF 3<sup>rd</sup> cycle NPRP. **\$1,049,256.** Dec 2010 – Nov 2013.

Fahes, M. (L-PI) and Dubrule, O. (Co-PI): **“A Study to Improve Spent Acid Recovery from Carbonate Formation,”** QNRF 7<sup>th</sup> cycle UREP. **\$60,000.** Jan 2010 – Nov 2013.

Fahes, M. (L-PI) and Hill, D. (Co-PI): **“The Effect of Spent Acid on Rock Wettability in Carbonate Acidizing,”** QNRF 2<sup>nd</sup> cycle NPRP. **\$1,049,996.** Sep 2009 – Sep 2013.

Fahes, M. (L-PI), Nasrabadi, H. (Co-PI) and Mohammed, S. (Co-PI): **“Enhancing gas-Condensate Well Productivity using Wettability Alteration,”** QNRF 6<sup>th</sup> cycle UREP. **\$80,000.** Jul 2009 – Jun 2010.

Fahes, M. (L-PI): **“Wettability Alteration Study to Improve Gas-Condensate Well Deliverability in Carbonate Rocks,”** RasGas. **\$658,530.** Feb 2009 – Feb 2012.

Fahes, M. (L-PI), Nasrabadi, H. (Co-PI), Barrufet, M. (Co-PI) and Economides, C. (Co-PI): **“Wettability Alteration in Sandstone Reservoirs to Gas-Wetting.”** Schlumberger. **\$300,000.** Jan 2008 – Jun 2012.

Fahes, M. (L-PI): **“Wettability Alteration in Carbonate Reservoirs for Improved Condensate Recovery and Water Injectivity.”** QNRF 3<sup>rd</sup> cycle UREP. **\$30,000.** Jan 2008 – Dec 2008.

Fahes, M. (L-PI): **“The Effect of Wettability Changes on Spent Acid Recovery.”** QNRF 3<sup>rd</sup> cycle UREP. **\$30,000.** Jan 2008 – Dec 2008.

### **Funded Research Projects as Co- PI Investigator, Sum of \$3,629,978**

**“Investigating the role of Ultrasonic Waves on Increasing Oil and Gas Production by Removing Skin from Near Wellbore Region in Carbonate Formations,”** QNRF 5<sup>th</sup> NPRP cycle. PI: Mahmoud Amani, Co-PI: Mashhad Fahes and Salem Aljuhani. **\$1,047,000.** Dec 2012 – Nov 2015.

**“Gas Tracers for Interwell Exploring Petroleum Reservoir Structure”** QNRF 5<sup>th</sup> NPRP cycle. PI: Hans Schuessler, Co-PI: Mashhad Fahes. **\$1,040,000.** Dec 2012 – Nov 2015.

**“Theoretical and experimental study of asphaltene deposition during CO<sub>2</sub> injection in Qatar’s oil reservoirs,”** QNRF 3<sup>rd</sup> NPRP cycle, PI: Hadi Nasrabadi. Co-PI: Mashhad Fahes, Maria Barrufet, Abbas Firoozabadi. **\$1,029,978.** Dec 2010 – Nov 2013.

**“Fast and Accurate Estimation of Fluid Flow in Porous Media using Lattice Boltzmann Simulation,”** QNRF 8<sup>th</sup> cycle UREP. PI: Hadi Nasrabadi. Co-PI: Mashhad Fahes. 4 undergraduate students. **\$40,000.** Aug 2010 – Jul 2011.

**“Building an Experimental Setup for CO<sub>2</sub> MMP Measurement in Qatar,”** QNRF 4<sup>th</sup> UREP cycle. PI: Hadi Nasrabadi. Co-PI: Mashhad Fahes and Søren Frank. 6 undergraduate students. **\$60,000.** Aug 2008 – Jul 2009.

**“CO<sub>2</sub> Injection in Oil Reservoirs and Saline Aquifers in Qatar for Carbonate Sequestration and Improved Oil Recovery.”** QNRF 1<sup>st</sup> NPRP 29-6-7-30. PI: Hadi Nasrabadi, Co-PI: Mashhad Fahes and Abbas Firoozabadi. **\$413,000.** Jan 2008 – Dec 2009.

### **Book Chapter**

Fahes, M. 2013. A Review of the Latest Research on Condensate Blocking. In *Excellence and Impact of Research at Texas A&M at Qatar*, ed. M. Weichold, K. Hall, E. Masad and C. Leonard, chap 7. Under preparation for publishing by QScience.

## Peer Reviewed Publications

Fahes, M. and Firoozabadi, A.: Wettability Alteration to intermediate Gas-Wetting in Gas-Condensate reservoirs at High Temperatures, SPE Journal (December 2007) 397-407.

## Conference Proceedings

El Cheikh Ali\*\*, N., Abouseada\*\*, M., Zoghbi\*\*, B. and Fahes, M.: "Modeling the Effect of Reduced Liquid-Wetting on Spontaneous Imbibition for Condensate Blocking Applications," OMAE2012-84090 paper presented at the 31<sup>st</sup> International Conference on Ocean, Offshore and Arctic Engineering, Rio de Janeiro, Brazil, 10-15 June 2012.

Zoghbi\*\*, B. and Fahes, M.: "3D Visualization to Study the Effect of Wettability Alteration on Fluid Distribution at the Pore Scale," accepted for presentation at the SPWLA 52<sup>nd</sup> Annual Symposium to be held in Colorado Springs, USA, 15-18 May 2011.

Saneifar\*, M., Azmynasralla, R., Nasreldin, H. and Fahes, M.: "Effect of Spent Acids on the Wettability of Sandstones and Carbonates at High Temperature and Pressure," SPE 144132 accepted for presentation at the 9th SPE European Formation Damage Conference that will be held in Noordwijk, The Netherlands, 7-10 June 2011.

Fernandez\*, R., Fahes, M., Zoghbi\*\*, B., and El Cheikh Ali\*\*, N.: "Wettability Alteration at Optimum Fluorinated Polymer Concentration for Improvement in Gas Mobility," SPE 143040 accepted for presentation at the SPE EUROPEC/EAGE Annual Conference and Exhibition to be held in Vienna, Austria, 23-26 May 2011.

Saneifar\*, M., Fahes, M., El Cheikh Ali\*\*, N., and Zoghbi\*\*, B.: "An Experimental Investigation of Carbonate Rock Wettability after Stimulation Fluids Invasion," SPE 142948 accepted for presentation at the SPE EUROPEC/EAGE Annual Conference and Exhibition to be held in Vienna, Austria, 23-26 May 2011.

Saneifar\*, M., Azmynasralla, R., Nasreldin, H. and Fahes, M.: "Surface Tension of Spent Acids at High Temperature and Pressure," accepted for presentation at the SPE SAS/DGS ATS&E to be held in AlKhobar, Saudi Arabia, 15-18 May, 2011.

Zoghbi\*\*, B., Fahes, M., and Nasrabadi, H.: "Identifying the Optimum Wettability Conditions for the Near-Wellbore Region in Gas-Condensate Reservoirs," paper SPE 134966, proceedings of the SPE Tight Gas Completions Conference held in San Antonio, Texas, USA, 2-3 November 2010.

Bryant, J., Salama, G., and Fahes, M.,: "Benefits of Freshmen Engineering Projects for Petroleum Engineering Students," paper SPE 134124, proceedings of the SPE ATCE meeting held in Florence, Italy, 19-22 September 2010.

Salama, G., and Fahes, M.: "Teaching Effectiveness: Teaching and Learning Styles in a Highly Diverse Setting," London Science Publishing , CHED (Conference on Higher Education Development) 2010 Proceedings, Beijing, China, 25-26 July 2010.

Saneifar\*, M., Fahes, M., Hosein\*\*, R. L., Bashar H., and Hill, D.: "The Effect of Spent Acid on Carbonate Rock Wettability," paper SPE 133166, proceedings of the Trinidad and Tobago Energy Resources Conference held in Port of Spain, Trinidad, 27-30 June 2010.

Nava, R., Schuessler, H., Fahes, M., and Nasrabadi, H.: "Tracer Detection by Laser Spectroscopy for Applications in Oil and Gas Industry," SPE 124689, paper presented at the ATCE meeting, New Orleans, Louisiana, USA, 4-7 October, 2009.

Kaviani, D., Jensen, J. L., Lake, L. W., and Fahes, M.: "Estimation of Interwell Connectivity in the case of Fluctuating Bottomhole Pressures," SPE 117856, paper presented at the Abu Dhabi International Petroleum Exhibition and Conference, Abu Dhabi, UAE, 3-6 November, 2008.

Platt, F., and Fahes, M.: "The Design, Construction, Implementation and Integration of a New Petroleum Engineering Campus in the Middle East," SPE 109778, paper presented at the ATCE meeting, Anaheim, California, USA, 11-14 November, 2007.

Fahes, M., and Firoozabadi, A.: "Wettability Alteration to Intermediate Gas-Wetting in Gas-Condensate Reservoirs at High Temperatures," SPE 96184, paper presented at the ATCE meeting, Dallas, Texas, USA, 9-12 October, 2005.

Fahes, M., and A. Firoozabadi.: "Wettability Alteration to Intermediate Gas-Wetting for Gas-Water Systems at Reservoir Conditions," Proceedings of the 8th International Symposium on Reservoir Wettability, Houston, Texas, United States, 16-18 May, 2004.

\*indicates one of my M.Sc. students

\*\* indicates a researcher working under my supervision

## **Posters and Presentations**

### *Invited Presentations*

Salama, G. and Fahes, M.: "Research in Engineering" presented at the 1<sup>st</sup> Conference for the Ali Bin Soud Center for Scientific Research held in Doha, Qatar, 16 January 2011.

### *Posters Presentations*

Sarieddine, M. Salama, G. Nasrabadi, N., Fahes, M., Haouche, M., Manson, S. and Cheneviere, P.: "An Experimental Investigation of the Flow of Water-in-Oil Emulsions in Horizontal Pipes," poster presented at the Research Showcase organized by Texas A&M University at Qatar, 22 April 2013.

- Hijab, M. and Fahes, M.: "Enhancing the Accuracy of Contact Angle Measurements for Modeling Purposes," poster presented at the Research Showcase organized by Texas A&M University at Qatar, 22 April 2013.
- Elharaki, S., Zoghbi, B. and Fahes, M.: "Modeling the Effect of Fluid Composition and Wettability on Condensate Blocking," poster presented at the Research Showcase organized by Texas A&M University at Qatar, 22 April 2013.
- Ramadhan, H., Umar, Z. Saredine, M. Salama, G., Nasrabadi, H., Fahes, M., Haouche, M. and Cheneviere, P.: "An Experimental and Simulation Study to Characterize Oil and Water Flow in Horizontal Production Pipes" poster presented at the Annual QNRF Research Forum, 21-23 Oct 2012.
- Waheed, M., Al-Heidous, A., Al-Sulaiti, H., El Cheikh Ali, N., Zoghbi, B, Winn, R., Fahes, M., Alsamaraei, M. and Cheneviere, P.: "Studying the Effect of Mineralogy on Wormhole Propagation in Carbonate Acidizing" poster presented at the Annual QNRF Research Forum, 21-23 Oct 2012.
- Salama, G., Bryant, B., and Fahes, M.: "As Diverse As It Gets: Experiences from Five Years at a Branch of an American University in the Arabian Gulf" poster presentation at the ACE Conference held in Osaka, Japan, 27-30 October 2011.
- Abraham, J.: "Wettability Alteration to Enhance Gas Condensate Well Productivity," student poster presented at the SPE EUROPEC/EAGE Conference and Exhibition, Vienna, Austria, 23-26 May 2011.
- Ahmed, M.: "Studying the Effect of Rock Length on Flooding Test Results," accepted for a student poster presentation at the 5<sup>th</sup> North African Mediterranean Petroleum and Geosciences Conference & Exhibition that was supposed to be held in Libya, 28-30 March 2011.
- Saneifar, M., Fahes, M. and Lewis-Hosein, R.: "The Effect of Spent Acid on Carbonate Rock Wettability," poster presented at the SPE EUROPEC/EAGE Conference and Exhibition, Amsterdam, The Netherlands, 8-11 June 2009.
- Sinno, B., Fahes, M., and Lewis-Hosein, R.: "An Experimental Study to Improve Gas-Condensate Well Productivity," poster presented at the SPE EUROPEC/EAGE Conference and Exhibition, Amsterdam, The Netherlands, 8-11 June 2009.
- Al-Ansi, N., Nasrabadi, H., and Fahes, M.: "A Numerical Simulation Study on Improving Gas-Condensate Well Productivity," poster presented at the SPE EUROPEC/EAGE Conference and Exhibition, Amsterdam, The Netherlands, 8-11 June 2009.

### *Oral Presentations*

Abouseada, M., El Cheikh Ali, N. and Fahes, M.: "Modeling the Effect of Capillary Pressure on 3D Spontaneous Imbibition," presented at the Research Showcase organized by Texas A&M University at Qatar, 22 April 2013.

Fahes, M., Saredidine, M, Saneifar, M., El Cheikh Ali, N., and Zoghbi, B.: "Spent Acid Recovery after Matrix Acidizing in Carbonate Rocks," presented at the Research Showcase organized by Texas A&M University at Qatar, 21 May 2012.

Al-Jubouri, M., Alsammarraie, M., Fahes, M., Hill, A.D. and Cheneviere, P.: "Evaluation of Acid Stimulation Performance in Oil Wells in Qatar Using Skin Characterization," QFARF-D-11-00177 presented at the QNRF Annual Research Forum held in Doha, Qatar, 20-22 November 2011.

Mehrnoosh, M., Fahes, M. and Lewis-Hosein, R.: "Experimental Study on the Effect of Spent Acid on Carbonate Rock Wettability in Gas Reservoirs," Student paper presented at the international student paper contest at the ATCE meeting, New Orleans, Louisiana, USA, 4-7 October 2009. (Student placed 1<sup>st</sup> in the regional and 4<sup>th</sup> in the international competition)

## **References**

### **Dr. Kenneth R. Hall**

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