





Dr.AFTAB AHMED MAHESAR



 Banglow No# 50 Gulshan-e-Mustafa Colonies
Near Bhitai Town Qasimabad Hyderabad, Sindh, Pakistan
 +92-300-3055274
 aftab.mehesar@faculty.muett.edu.pk, engr.aftabmahesar@gmail.com
 Driving license: LTV

Gender Male | DOB 20/03/1982 | Citizenship Pakistani

Education

May 2015 – December 2020
University Project
Doctor of Philosophy (PhD) in **Petroleum Engineering**
Mehran University of Engineering and Technology Jamshoro, Pakistan
Petrophysical considerations in evaluating and producing Tight Gas Resources Kirthar Fold Belt, Pakistan
Unconventional Resources (Tight and Shale Gas)

2011 - 2014
University Master Courses
Master of Engineering (M.E) In **Petroleum Engineering**
Mehran University Jamshoro, Pakistan
Petrophysics and Well logging Courses, Drilling Engineering, Formation Evaluation, Reservoir Engineering, Production Engineering, Enhanced Oil Recovery Techniques (EOR), Fluid Properties measurements and analysis through laboratory, Natural Gas Engineering, Petroleum Geology, Good Knowledge of Industry Standard softwares SAPPHIRE, KAPPA ETC.

Bachelor of Engineering
1999-2003
Bachelor of Engineering (B.E) in **Petroleum and Natural Gas Engineering**
Mehran University Jamshoro, Pakistan
Reservoir Engineering, Production Engineering, Enhanced Oil Recovery Techniques (EOR), Fluid Properties measurements and analysis through laboratory etc.

Experience

2014 – Till to date
Assistant Professor
Institute of Petroleum and Natural gas engineering
Mehran University Jamshoro, Pakistan
One year placement at Australia in Edith Cowan University, Western Australia, Perth during PhD.

2004 – 2014
Lecturer
Teaching and Research
Teaching and Lab Supervision

Field Experience

Six week internship with Oil & Gas Development Company Ltd at Tando Alam Oil Complex near Hyderabad Sindh Pakistan.
Six week attachment with Oil & Gas Development Company Ltd (Head office Islamabad EP&SD).
Six week attachment with Oil & Gas Development Company Ltd (Head office Islamabad Exploration and reservoir engineering department E&RE).

Achievements

2006 2nd position in Computers im Alle Pakistan Digitale Ausstellung
2006 Chair-Society of Petroleum Engineers - SPE, Richardson Texas
2001 Best Student Award
2000 Debate competition award
2002 Essay writing competition Award

Additional charges

2008-2014 Member Board of Studies
2007 Class Advisor for 3rd year student
2009 Chair-Society of Petroleum Engineers - SPE, Richardson Texas
2012 Department Master Co-ordinator

Project supervision

1. Transportation of heavy crude oil through mix alcoholic, Completed in year, 2016
2. Formation evaluation of u unconventional reservoir at lower Indus basin of Sindh, completed in year 2015.
3. The comparative study and performance analysis of diesel oil base mud with vegetable oil base mud, completed in year 2015.
4. Investigate Rheological properties of heavy crude at atmospheric condition, completed in year 2015.

Programming

Software Petroleum industry
Standard
CAD
EDV

Matlab, C++ Eclipse
simulation PETEX
suite of IPM MS
Office, Windows,

Language skills

English,
Urdu
Sindhi

Professional Affiliation

Member Pakistan Engineering Council
Member Society of Petroleum Engineers Int

INTERESTS

Sport (Cricket, Football, Table tennis/Hiking) Lesen (Badminton / Magazine, watching movies).

Research Publications

JOURNAL PAPERS

1. Shar, A. M., **Mahesar, A. A.**, Chandio, A. D., & Memon, K. R. (2017). Impact of confining stress on permeability of tight gas sands: an experimental study. *Journal of Petroleum Exploration and Production Technology*, 7(3), 717-726.
2. Memon, K. R., **Mahesar, A. A.**, Ali, M., Tunio, A. H., Mohanty, U. S., Akhondzadeh, H., ... & Keshavarz, A. (2020). Influence of Cryogenic Liquid Nitrogen on Petro-Physical Characteristics of Mancos Shale: An Experimental Investigation. *Energy & Fuels*, 34(2), 2160-2168.
3. **Mahesar, A. A.**, Ali, M., Shar, A. M., Memon, K. R., Mohanty, U. S., Akhondzadeh, H., ... & Keshavarz, A. (2020). Effect of Cryogenic Liquid Nitrogen on the Morphological and Petrophysical Characteristics of Tight Gas Sandstone Rocks from Kirthar Fold Belt, Indus Basin, Pakistan. *Energy & Fuels*, 34(11), 14548-14559.
4. Shar, A. M., **Mahesar, A. A.**, & Memon, K. R. (2018). Could shale gas meet energy deficit: its current status and future prospects. *Journal of Petroleum Exploration and Production Technology*, 8(4), 957-967.
5. **Mahesar, A. A.**, Shar, A. M., Ali, M., Tunio, A. H., Uqailli, M. A., Mohanty, U. S., ... & Keshavarz, A. (2020). Morphological and petro physical estimation of eocene tight carbonate formation cracking by cryogenic liquid nitrogen; a case study of Lower Indus basin, Pakistan. *Journal of Petroleum Science and Engineering*, 107318.

6. **Mahesar, A.**, Memon, K. R., & Tunio, A. (2017). Comparison of Klinkenberg-Corrected Gas and Liquid Permeability in Kirthar Fold Belt Tight Gas Sands.
7. **Mahesar, A. A.**, Shar, A. M., Memon, K. R., & Baladi, S. A. (2017). Experimental Study on Gas Slippage of Tight Gas Sands in Kirthar Fold Belt Sindh, Pakistan. *Mehran University Research Journal of Engineering and Technology*, 36(3), 719-732.
8. Majeed, A., & **Mahesar, A. A.** (2016). Pakistan's Kirthar fold belt tight gas reservoirs show development potential. *Oil Gas J.*
9. Shar, A. M., Abro, W. A., **Mahesar, A. A.**, & Lee, K. S. (2020). Simulation Study to Evaluate the Impact of Fracture Parameters on Shale Gas Productivity. *Mehran University Research Journal of Engineering and Technology*, 39(2), 432-442.
10. Memon, K. R., **Mahesar, A. A.**, Baladi, S. A., & Sukar, M. T. (2020). Analyzing cement rheological properties using different additive schemes at high pressure and high temperature conditions. *Mehran University Research Journal Of Engineering & Technology*, 39(3), 466.
11. Memon, K. R., Tunio, A., **Mahesar, A.**, & Baladi, S. A. (2018). Laboratory Investigation to Assess the Impact of Pore Pressure Decline and Confining Stress on Shale Gas Reservoirs.
12. Shar, A. M, **Mahesar, A. A.**, M.A KALHORO, and KA KALHORO. "Experimental Investigations to Study the impact of Pore Fluid Chemistry on Tight Sands Permeability." *Sindh University Research Journal*-
13. Natural Gas Potential of Pakistan an important Parameter in mitigating Greenhouse Gas Emission by Abdul Majeed Shar and **Aftab Ahmed Mahesar**,pak.j. *Anal. Environ. Chem.*vol.21no 2(2020).
14. Tight Gas Potential,Status,Obstacles and the Way Forward in Meeting Future Energy Needs of Pakistan by **Aftab Ahmed Mahesar**,Abdul Majeed Shar and Abdul Haque Tunio, *Mehran University Research Journal* (2020).
15. Evaluation of Mineralogical Characteristics and Reservoir Potential Of Nari Sandstone in Lower Indus Basin,Sindh, Pakistan by Abdul Majeed Shar,**Aftab Ahmed Mahesar**,Asad Ali Narejo and Noor Fatima (Accepted) *Mehran University Research Journal* 2019.
16. The Crystal disorder into ZnO with addition of bromine and its Outperform role in the photo degradation of methylene blue,in *Journal of Cluster Science*, by Zafar Ahmed Ujjan,Aneela

Tahra,**Aftab Ahmed Mahesar**,Akhtar Hussain Markhand,Adeel Liaquat Bhatti,Abdul Qayoom Mugheri,Muhammad Ali Bhatti,Nek Muhammad Shaikh,Riaz Hussain Mari,Ayman Nafady, Zafar Hussain Ibupoto (Accepted 2020).

17. Sensitivity Study to Evaluate the Impact of Critical Parameters for Feasibility of Air-Injection in Light Oil Reservoir,by Abdul Haque Tunio,Abdul Majeed Shar,**Aftab Ahmed Mahesar** and Furqan Ahmed Qureshi,volume11,pages31,2018,Indian Journal of Science and Technology.
18. Investigating the Behavior of Low permeable Lean and Rich Condensate Reservoirs by Sohail Nawab, Abdul Haque Tunio, **Aftab Ahmed Mahesar** and Imran Hulo in ESTRJ 2018.
19. Experimental Based Investigation for Rheological Characteristics of Vegetable Oil Based Mud,by Sunder Sham,**Aftab Ahmed Mahesar**,Khalil Rehman Memon and Abdul Haque Tunio ESTRJ 2018

CONFERENCE PAPER

1. **Mahesar.A.A**,M. A.Shar, Memon Hafeez ur Rehman and Jokhio Sarfaraz Petrophysical properties of Kirthar Fold Belt area Tight Gas Sands implications for Resource Development.Ist International Conference held on Unconventional hydrocarbon resources,Islamabad,Pkistan,May 30 and 31 2016 at Serena Hotel ,Islamabad.
2. Comparative Study of Rheology of AV and Light crude oil for ipe line transmissibility,International Conference on Industrial Engineering and Management application(EMA2017)MUET Jamshoro by **Aftab Ahmed Mahesar**,Khaliq Wazir Phull,and Khalil Rehman.

