**Dr.AFTAB AHMED MAHESAR**

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

# Education

May 2015 – December 2020

University Project

2011 - 2014

University Master Courses

Bachelor of Engineering

1999-2003

# Experience

2014 – Till to date Assistant Professor

2004 – 2014

Lecturer



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)

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 SAPHIRE,KAPPA ETC.

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.



Institute of Petroleum and Natural gas engineering Mehran University Jamshoro, Pakistan

One year placement at Australia in Edith Cowan University, Western Austalia,Perth during PhD.

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

2006

2001

2000

2002



2nd position in Computers im Alle Pakistan Digitale Ausstellung Chair-Society of Petroleum Engineers - SPE, Richardson Texas Best Student Award

Debate competition award Essay writing competition Award

# Additional charges

2008-2014

2007

2009

2012

Member Board of Studies

Class Advisor for 3rd year student

Chair-Society of Petroleum Engineers - SPE, Richardson Texas Department Master Co-ordinator

## Project supervision

### Programming

Software Petroleum industry

Standard

CAD EDV

## Language skills

**Professional Affiliation**

**INTERESTS**

**Research Publications**

* + 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.

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

English, Urdu

Sindhi



Member Pakistan Engineering Council

Member Society of Petroleum Engineers Int

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

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 (Acepted) 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 (Acepted 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 Hulio 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 transmibility,International Conference on Industrial Engineering and Management application(EMA2017)MUET Jamshoro by **Aftab Ahmed Mahesar**,Khaliq Wazir Phull,and Khalil Rehman.