MUHAMMAD ALRUMAH
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EDUCATION

PhD, Petroleum and Natural Gas Engineering, The Pennsylvania State University, University Park, USA 2011.

MSc, Petroleum Engineering, Texas A&M University, College Station, USA 2003.

BSc, Petroleum Engineering, Kuwait University, Kuwait 1998.

COURSES TAUGHT

- General Physics
- Introduction to Petroleum Engineering
- Petroleum Geology Fundamentals
- Well Performance
- Reservoir Fluids' Properties
- Reservoir Rock Properties
- Petroleum Engineering Calculations
- Drilling and Well Completion
- Reservoir Engineering
- Well Test Technology
- Crude Oil Production Process
- Equipment Design & Operating Principles
- Computer Applications in Petroleum Engineering

Short Course

- Crude Oil Analysis (short course, September 2005)

EMPLOYMENT

Production Engineer: Field Development Department, Kuwait Oil Company, 1999-2001

Assistant Lecturer: Petroleum Engineering Technology Department, College of Technological Studies, Public Authority for Applied Education and Training, Kuwait, 2004-2006

Assistant Professor: Petroleum Engineering Technology Department, College of Technological Studies, Public Authority for Applied Education and Training, Kuwait, 2011-present

Assistant Professor - Acting head department: Petroleum Engineering Technology Department, College of Technological Studies, Public Authority for Applied Education and Training, Kuwait, 20-29, May, 2013

Deputy head department: Petroleum Engineering Technology Department, College of Technological Studies, Public Authority for Applied Education and Training, Kuwait, 2017 - 2020

Head department: Petroleum Engineering Technology Department, College of Technological Studies, Public Authority for Applied Education and Training, Kuwait, January 2020 - January 2024

Sabbatical leave : Nanotechnology Research Center, Sultan Qaboos University, Muscat, Sultanate of Oman, February 2024 - January 2025

EXPERIENCE

Has an ICDL certificate and experience in Microsoft Excel, where during my work in the oil company most of the work was arranging tables and data bases.

During the Master studies, part of the work was arranging tables and creating macros in Visual Basic to arrange data, and filter to produce the desired plots. Also, dealing with functions to calculate complicated variables.

During the PhD studies, part of the work was to collect data from another software and process it in order to produce a desired results.

Giving teaching sessions for students on how to input data and plot using Excel.

Creating an Excel file - macro-enabled that will produce the schedule of a faculty member, and shows the conflict for any class for petroleum engineering technology department in CTS.

Creating an Excel file - macro-enabled that will produce the schedule of the classrooms, and shows the conflict for any class in any room for petroleum engineering technology department in CTS.

COMMITTEES

Head of the accreditation committee of Petroleum Engineering Technology Department, 2016-2017 and 2017-2018.

Member in employment committee of the College of Technological Studies (calendar year 2013-214).

Member in the Advisory Committee between Public Authority for Applied Education and Training (PAAET) and Kuwait Oil Company (KOC), October 2015.

Member in the College Investigation Committee for Students, College of Technological Studies (2017-2018 Calendar year).

Member in the College Sport Committee, College of Technological Studies (2018-2019 Calendar year).

Member in the College Sport Committee, College of Technological Studies (2022-2023 Calendar year).

Member in the College Students' Advising Committee, College of Technological Studies (2022-2023 Calendar year).

Member in the College Discipline Committee (October-December 2020).

Member in the College Discipline Committee (Academic year 2020-2021).

ORGANIZATION EXPERIENCE & COMMUNITY SERVICES

Active SPE member since 2001.

Participated in international and national technical meetings.

Student faculty advisor for the science society of the students for the department 2011-2012, 2015-2016, and 2017-2018 academic calendar.

Member in the Faculty Association of Public Authority for Applied Education and Training 2004-present.

Member in the training and development committee of Faculty Association of Public Authority for Applied Education and Training 2017-2018.

Member in the technical committee of Faculty Association of Public Authority for Applied Education and Training 2018-2019.

Member in the committee organizing the Sport Day of the College of Technological Studies on Saturday 7-Apr-2018

Member in the committee organizing the Sport Day of the College of Technological Studies on Saturday 13-Feb-2019

Member in the DAWAH committee of the Society of the Revival of Islamic Heritage 2014-2015

Article in Future Makers Magazine of PAAET in title of "The Responsibility of a Student... to Ask", December 2017.

Article in Almuallem Magazine of Kuwait Teachers Society in title of "You will love the Science, Student", September 2019.

Presenter in one day course. The title of the course is "The fivefold of Excellence", 2-Oct-2018.

Co-chair in one of the technical committees in the 4th Kuwait Oil and Gas show and Conference, 13-16 October 2019.

Article in Future Makers Magazine of PAAET in title of "Your Failure Comes Before Your Success", September 2023.

Article in Future Makers Magazine of PAAET in title of "Are There Rules of Good Manners for Classroom?", June 2025.

RESEARCH INTEREST

1. Inflow performance relationship for black oil
2. Choke performance for two-phase flow
3. Artificial neural networks' applications in petroleum engineering
4. Pressure transient testing for black oil
5. Wettability effect on oil recovery
6. Water coning

RESEARCH PROJECTS

Funded project No. TS-14-16, title "Gross Heating Value Correlation for Kuwaiti Gases" by Public Authority for Applied Education and Training, 2016.

PUBLICATIONS

1. Shamsadeen, S., Alkandari, K., and **Alrumah, M.** 2020. The Use of Social Media Applications in Courses for the Students of College of Technological Studies. *Journal of College of Education of University of Alexandria*, Vol. 30, No. 3, pp.

2. **Alrumah, M.**, Aladwani, F., and Alatefi, S. 2020. Toward the Development of a Universal Choke Correlation - Global Optimization and Rigorous Computational Techniques. *Journal of Engineering Research*, Vol. 8, No. 3, pp. 240-254.

3. Mohamed Bizanti and **Muhammad Alrumah**. 2020. Kuwait Oil and Gas Industry Workforce Source and Supply Analysis. *Journal of Petroleum and Mining Engineering*, 22(1), pp. 47-52.

4. **Alrumah, M.** and Ertekin, T. 2019. Prediction of the Water Saturation around Wells with Bottom Water Drive using Artificial Neural Networks. *Journal of Petroleum and Gas Engineering*, 10(2), pp. 14-22.

5. **Alrumah M.** and Alenezi R. 2019. New Universal Two-Phase Choke Correlations Developed using Non-Linear Multivariable Optimization Technique. *Journal of Engineering Research*, 3(7), pp. 320-329.

6. Almarri S., **Alrumah, M.**, and Bizanti, M. 2018. Gross Heating Value Correlations for Kuwaiti Gases. Presented at the 9th Mediterranean Offshore Conference and Exhibition, Alexandria, Egypt, April.

7. **Alrumah, M.** and Ertekin, T. 2016. Estimating Distance to Water Front for Edge Water using Derivative of Pressure Transient Data, *International Journal of Oil, Gas and Coal Technology*, Vol. 11, No. 1, pp. 1-17. doi = 10.1504/IJOGCT.2016.073782

8. **Alrumah, M.** and Ertekin, T. 2014. A New Technique for Monitoring Water Front in Lateral Drive Reservoir. ePoster at the IPTC, Doha, 20-22 January.

9. **M. Alrumah** and M. Bizanti. 2007. New Multiphase Choke Correlations for Kuwait Fields, SPE Middle East Oil and Gas Show and Conference, Kingdom of Bahrain, March.

10. **M. Alrumah**, R. Starzman, D. Schechter, and M. Ibrahim. 2005. Predicting Well Inflow Performance in Solution Gas Drive Reservoir by Neural Network, Canadian International Petroleum Conference, Calgary, Alberta, June.