

CURRICULUM VITAE السيرة الذاتية

PERSONAL INFORMATION

- Full Name: Musaed Nasser J. AlAwad أ.د. مساعد ناصر العواد
- Academic Title: Professor
- Affiliation: King Saud University, Riyadh, KSA
- Specialization: Petroleum and Natural Gas Engineering
- Nationality: Saudi



CURRENT POSITION

- Adjunct Professor, College of Engineering, King Saud University, Riyadh. Saudi Arabia.

PERMANENT ADDRESS

- Petroleum and Natural Gas Engineering Department, College of Engineering, King Saud University, P.O. Box 800, Riyadh 11421, Saudi Arabia.
- E-mail: malawwad@ksu.edu.sa or mnj.alawwad@gmail.com
- Website: <https://faculty.ksu.edu.sa/en/malawwad>

EDUCATION HISTORY

- **Ph.D. (1990-1994)**
Heriot-Watt University, College of Engineering, Petroleum Engineering Department, Edinburgh, Scotland, United Kingdom, October 1994. Ph.D. Thesis: "Physico-Chemical Analysis of Shale-Drilling Fluid Interaction and Its Application in Borehole Stability Studies".
- **M.Sc. (1987-1990)**
King Saud University, College of Engineering, Petroleum Engineering Department, Riyadh, Kingdom of Saudi Arabia, June 1990. M.Sc. Thesis: "Rheology, Thermal Stability and Corrosivity of Saudi Clays from Central Province".
- **B.Sc. (1982-1987)**
King Saud University, College of Engineering, Petroleum Engineering Department, Riyadh, Kingdom of Saudi Arabia, June 1987. B.Sc. Graduation Project: "Effect of Environment, Temperature and Water Content on Compressive Strength of Selected Saudi Cements".

ADMINISTRATIVE POSITIONS

- **Dean**, College of Engineering, King Saud University, Riyadh, Saudi Arabia, October 18/10/2020 – 27/11/2022.
- **Vice Dean for Development and Quality**, College of Engineering, King Saud University, Riyadh, Saudi Arabia, 1/11/2016 – 18/10/2020.
- **Chairman** (Second Time), Department of Petroleum and Natural Gas Engineering, College of Engineering, King Saud University, Riyadh, Saudi Arabia, 4/9/1996 – 29/6/2002.
- **Chairman** (First Time), Department of Petroleum and Natural Gas Engineering, College of Engineering, King Saud University, Riyadh, Saudi Arabia, 28/4/2008 – 1/1/2016.

ACADEMIC PROMOTIONS

- Professor, King Saud University, College of Engineering, Petroleum and Natural Gas Engineering Department, Riyadh, Kingdom of Saudi Arabia, 14/8/1424 – Now, 10/10/2003 – Now.

- Associate Professor, King Saud University, College of Engineering, Petroleum and Natural Gas Engineering Department, Riyadh, Kingdom of Saudi Arabia, 23/9/1419 – 13/8/1424, 10/1/1999 – 9/10/2003.
- Assistant Professor, King Saud University, College of Engineering, Petroleum and Natural Gas Engineering Department, Riyadh, Kingdom of Saudi Arabia, 2/8/1415 – 22/9/1419, 3/1/1995 – 10/1/1999.
- Lecturer, King Saud University, College of Engineering, Petroleum and Natural Gas Engineering Department, Riyadh, Kingdom of Saudi Arabia, 3/4/1411 – 1/8/1415, 21/10/1990 – 2/1/1995.
- Teaching Assistant, King Saud University, College of Engineering, Petroleum and Natural Gas Engineering Department, Riyadh, Kingdom of Saudi Arabia, 21/4/1408 – 3/4/1411, 12/12/1987 – 21/10/1990.

PROFESSIONAL SOCIETIES

- Society of Petroleum Engineers International (SPE).
- Saudi Society of Petroleum Engineers (SPE-SAS).
- International Society for Rock Mechanics (ISRM).
- Middle East National Group for Rock Mechanics (MERM).
- Saudi Society for Geosciences (SSGS).

CAREER SUMMARY

- Dean, College of Engineering, King Saud University, Riyadh, Saudi Arabia, October 18th 2020 – 27/11/2022.
- Vice Dean for Development and Quality, College of Engineering, King Saud University, Riyadh, Saudi Arabia, 1/11/2016 – 18/10/2020.
- Chairman, Department of Petroleum and Natural Gas Engineering, College of Engineering, King Saud University, Riyadh, Saudi Arabia, 4/9/1996 – 29/6/2002.
- Chairman, Department of Petroleum and Natural Gas Engineering, College of Engineering, King Saud University, Riyadh, Saudi Arabia, 28/4/2008 – 1/1/2016.

AREAS OF FOCUS (RESEARCH)

- **Petroleum Related Rock Mechanics Research**
 - Sand Control Issues.
 - Wellbore Strengthening Techniques.
 - Wellbore Instability Analysis.
 - Permeability-Stress Relationship.
 - Basic Rock Properties.
 - Mechanical Properties of Reservoir Rocks.
 - Shale Characterization.
 - Underbalanced Drilling.
- **Oil Well Drilling Engineering Research**
 - Drilling Fluids.
 - Hard Set Cement Properties.
 - High Angle and Horizontal Well Orientation Analysis.
- **Groundwater Resources Engineering Research**
 - Management of groundwater aquifers.
 - Water injection in oil reservoirs.

TEACHING EXPERIENCE

- **Undergraduate Courses**
 - PGE 491: Petroleum Economics and Legislations.
 - PGE 471: Oil Well Drilling Engineering I.
 - PGE 472: Oil Well Drilling Engineering II.
 - PGE 476: Oil Well Drilling Laboratory.
 - PGE 490: Exploration Techniques for Oil and Gas.
 - PGE 455: Transportation of Petroleum and natural Gas.
 - PGE 498 & PGE 499: B.Sc. Capstone Graduation Project - Parts I & II.
- **Postgraduate Courses**
 - PGE 544: Rock Mechanics.
 - PGE 520: Advanced Drilling Engineering.
 - PGE 552: Special Topics in Drilling Engineering.
 - PGE 544: Petroleum Economics and Legislations.
 - SFE 531: Safety in Oil and Gas Operations.
 - PGE 600: Master Theses.

UNIVERSITY AND COMMUNITY SERVICES

- **Dean**, College of Engineering, King Saud University, Riyadh, Saudi Arabia, October 18/10/2020 – 27/11/2022.
- **Vice Dean for Development and Quality**, College of Engineering, King Saud University, Riyadh, Saudi Arabia, 1/11/2016 – 18/10/2020.
- **Chairman (Second Time)**, Department of Petroleum and Natural Gas Engineering, College of Engineering, King Saud University, Riyadh, Saudi Arabia, 4/9/1996 – 29/6/2002.
- **Chairman (First Time)**, Department of Petroleum and Natural Gas Engineering, College of Engineering, King Saud University, Riyadh, Saudi Arabia, 28/4/2008 – 1/1/2016.
- Member of the Council of College of Engineering, King Saudi University, Riyadh, Saudi Arabia, September 4th 1996 – June 29th 2002, and from June 17th 2003 – now.
- Part-time Consultant, King Saud University, Vice Rector for Educational and academic Affairs Office, Academic Plans for Scientific Colleges, 2010-2012.
- Member of the Saudi Society for Geosciences.
- Member of King Saud University Scientific Council November 2014 - September 2017.
- Member of the Saudi National Committee for the World Petroleum Congress (WPC), 2010 - Now.
- Member of King Saud University Standing Committee for Occupational Safety, July 2019-Now.
- Consultant for KSU Vice Rector for Scientific and Academic Affairs, 2010 - 2013.
- Member of the Council of KSU Colleges in Al-Mzahmiya, Saudi Arabia, 2016 - Now.
- Member of the Standing National Committee for Combating Marine Disasters in the Water of the Kingdom of Saudi Arabia, 2018, Now.
- Member of the Directing Board of the Research Center – College of Engineering- King Saud University.
- Member of King Saud U. Standing Committee for Occupational Safety, July 2019-Now.
- M.Sc. Thesis Advisor and/or Examiner for Several Postgraduate Students in the Department of Petroleum and Natural Gas Engineering.
- Reviewing Research Proposals, Patents for the Benefit of King Abdul-Aziz City for Science and Technology Under the Annual Grant Research Projects Programme.
- Reviewing Several Research Articles for Journals and Conferences.

- Reviewing Several Promotion Applications for Saudi Universities.
- Part-time Consultant, King Abdul-Aziz City for Science and Technology (KACST), Petroleum and Petrochemical Industries Institute.
- Supervising Senior B.Sc. Graduation projects.
- Member of the College's Academic Accreditation Board, 2009, Now.
- Member of scientific committees of several conferences.
- Member of the College and University Quality Assurance and Accreditation Boards.
- Accreditation Consultant for College of Computer Science and Information Technology, King Saud University, Riyadh, Saudi Arabia, 2010 Cycle.
- Participating in TV program on Oil and Gas Issues (CNBC), July 2016.
- Teaching Safety in Oil and Gas Operations Course for Civil Defense in Saudi Arabia.

AWARDS AND CERTIFICATES OF APPRECIATION

- King Saud University Scholarship for Postgraduate Studies, 1990.
- College of Engineering Award for Leaders in ABET Accreditation, 2010.
- College of Engineering Award for Leaders in ABET Accreditation, 2015.
- College of Engineering Award for Leaders in NCAAA Accreditation, 2015.
- Journal of Petroleum Science and Engineering Award for Reviewing, Elsevier, Amsterdam, The Netherlands, March 2016.

TRAINING COURSES

Delivered Training Courses:

- Delivering Several Training Courses for COE Faculty Members on How to use OBE Software for Outcome Based Education developed at COE-King Saud University.
- Delivering a 3 days Training Course: "Sand Control and Mitigation.", Kuala Lumpur, Malaysia, UNI Training Courses, 26-28 July 2010.

Attended Training Courses:

- Institutional Quality Assurance, National Commission for Academic Accreditation & Assessment, Riyadh, Saudi Arabia, 2006.
- Applied Rock Mechanics, Petroskills, London, 2009.
- Outcome Base Education, King Saud University, 2010.
- Recruiting, Developing, and Retaining a Faculty for the 21st Century, By the Academic Leadership Development Workshop, Ministry of Higher Education, Riyadh, KSA, 2011.
- Global Sand Management and Control Interactive Workshop, Praxis Global Research, Istanbul, Turkey 2011.
- Essentials for Blackboard Education System, King Saud U., Riyadh, Saudi Arabia, 2013.
- In-house development and training workshops and short courses.

LIST OF PUBLICATIONS

REFEREED SPECIALIZED JOURNALS

47. **Musaed N. J. AlAwad:** "Remarks on the World's Current Energy Supply and Demand.", Journal of King Saud University - Engineering Sciences, Volume 34, Issue 7, Page 351, ISSN 1018-3639, <https://doi.org/10.1016/j.jksues.2022.09.001>, November 2022.
46. **Musaed N. J. AlAwad:** "A New Approach for Understanding the Mechanism of Wellbore Strengthening Theory." Journal of King Saud University, Engineering Sciences, Volume 34, pp. 67 to 76, 2022.
45. **Musaed N. J. AlAwad:** "Modification of the Brazilian Indirect Tensile Strength Formula for Better Estimation of the Tensile Strength of Rocks & Rock Like Geomaterials.", Journal of King Saud Univ., Engineering Sciences, Volume 34, pp. 147-154, 2022.

44. **Musaed N. J. AlAwad**: "A Rock Mechanical Model for Overbalanced, Managed Pressure, and Underbalanced Drilling Applications", 13th EURO Conference on Rock Physics and Geomechanics, Potsdam, Germany, 2 to 6 September 2019.
43. **Musaed N. J. AlAwad** and K. A. Fattah: "Superior Fracture Seal Material Using Crushed Date Palm Seeds for Oil and Gas Well Drilling Operations.", Journal of King Saud University / Engineering Sciences, JKSES229, Volume No. 31, p. 97 to 103, 2019.
42. **Musaed N. J. AlAwad** and Fattah, K. A.: "Utilization of Shredded Waste Car Tyres as a Fracture Seal Material (FSM) in Oil and Gas Drilling Operations", Journal of Petroleum and Gas Engineering, DOI: 10.5897/JPGE2017.0267, Vol. 8, no. 3, pp.21/28, 2017.
41. **Musaed N. J. AlAwad**: "A Rock Mechanical Model for Overbalanced, Managed Pressure, and Underbalanced Drilling Applications", International Journal of Rock Mechanics and Geomechanics for Gas, Petroleum and Water, Vol. 1, no. 2, February 2016.
40. **Musaed N. J. AlAwad** and Hawwas A. Mohammed: "Engineering Management and Inspection Schedule of Petroleum Well Integrity", Journal of Emerging Technologies in Engineering and Applied Sciences (JETEAS), Volume 7, No. 3, 109/117, June 2016.
39. **Musaed N. J. AlAwad**: "New Frontiers in Petroleum Engineering", Journal of King Saud University, Engineering Sciences, Journal of KSU, Engineering Sciences Volume 28, p.121 to 122, July 2016.
38. Omar Almisned, A. AlQuraishi, and **M. AlAwad**: "Effect of Triaxial In Situ Stresses and Heterogeneities on Absolute Permeability of Laminated Rocks.", Journal of Petroleum Exploration and Production Technology, DOI: 10.1007/s13202/016/0263/5, June 2016.
37. Essa Shokir, **Musaed AlAwad**, AbdulRahman AlQuraishi, and O. ElMahdy: "Compressibility Factor Model of Sweet, Sour, and Condensate Gases using Genetic Programming.", Chemical Engineering Research and Design, Volume 90, Issue 6, p.785 to 792, June 2012.
36. AbdulRahman AlQuraishi, O. AlMisned, and **Musaed AlAwad**: "Relative Permabilities of Homogenous and Heterogeneous Laminated Rock Samples Under Hydrostatic and Triaxial Stresses.", Journal of KSU, Engineering Sciences, Vol. 22, No. 2m p.101 to 110, 2010.
35. Mohammed Amro, AbdelAlim Elsayed, E. AlHomadhi, M. AlSaddique and **Musaed N. AlAwad**: "Investigation of Polymer Adsorption on Rock Surface of High Saline Reservoirs.", The Chemical Engineering & Technology Journal, WILY VCH, Vol. 27, No. 7, 2002.
34. AlSaddique, M. A., Hamada, G. M. and **AlAwad, M. N. J.**: "Engineering Coring and Core Data Analysis.", Emirates Journal for Engineering Research, Vol. 6, No. 1, pp. 39 to 49, 2001.
33. **Musaed N. J. AlAwad**: "Relationship Between Reservoir Productivity and Pore Pressure Drop.", Journal of King Saud University, Engineering Sciences, Vol. 13, No. 1, pp. 137 to 152, 2001.
32. M. Khairy, **M. AlAwad**, M. AlSaddigui, E. AlHomadhi, A. AlSoughayier and M. Shebl: "Molasses Affects Surface and Interfacial Forces, pH and Phase Behavior of Crude Oil/Brine.", Oil and Gas European Magazine Vol. 4, pp. 10 to 11, 2001.
31. **Musaed N. J. AlAwad**: "The Mechanism of Sand Production Caused by Pore Pressure Fluctuation." Oil & Gas Science and Technology Journal – Revue de l'IFP, pp. 339 to 345 , Vol. 56, No. 4, 2001.
30. AbdelAlim ElSayed, **Musaed AlAwad**, Emad AlHomadhi and M. AlSaddique: "Potential Use of Blast Furnace Slag and Steel Making Slag for Consolidation of Friable Sandstone Reservoirs.", Journal of KSU, Engineering Sci., Vol. 13, No. 2, pp. 271 to 28, 2001.
29. AbdelAlim H. ElSayed, **M. N. AlAwad**, M. S. AlBlehed and M. A. AlSaddiqui: "Productivity and Economical Feasibility of Multilateral Wells in Comparison of A Horizontal Well.", Engineering Journal of the University of Qatar, Vol. 13, pp. 53 to 78, 2000.
28. **Musaed N. J. AlAwad** and Mohammed Amro: "Prediction of Pressure Drop Required for Safe Underbalanced Drilling.", Journal of Engineering, Vol. 10, No. 3, pp. 111 to 118, 2000.
27. A. M. Hemeida and **Musaed N. J. AlAwad**: "Using Local Gravel to Control Sand Production in a Saudi Oil Field.", Journal of Engineering and Applied Science, Faculty of Engineering, Cairo University, Vol. 48, No. 5, pp. 1009 to 1020, October, 2001.
26. **Musaed N. J. AlAwad**: "Effect of Production Induced Stresses on Reservoir Productivity.", The Engineering Journal of the University of Qatar, Vol. 14, No. 3, pp.23 to 43, 2001.

25. **Musaed N. J. AlAwad** and AbdelAlim H. ElSayed: "Experimental and Modeling of Friable Sandstone Oil Reservoir Consolidation Using Steel Making Slag.", The Engineering Journal of the University of Qatar, Vol. 14, No. 3, pp.1 to 22, 2001.
24. AbdelAlim H. ElSayed, **Musaed N. J. AlAwad**, AlBlehed M. S. and AlSaddique, M. A.: "An Economical Model for Assessing the Feasibility of Multilateral Wells.", Journal of King Saud University, Engineering Sciences, Vol. 13, No. 1, pp. 153 to 177, 2001
23. **Musaed N. J. AlAwad**: "Simple Correlation to Evaluate Mohr Coulomb Failure Criterion Using Uniaxial Compressive Strength.", Journal of King Saud University, Engineering Sciences, Vol. 14, No. 1, pp. 137 to 145, 2001.
22. **Musaed N. AlAwad** and Ahmed O. AlQasabi: "Characterization and Testing of Saudi Barite for Potential Use in Drilling Operations." Journal of King Saud University, Engineering Sciences, Vol. 13, No. 2, pp. 287 to 299, 2000.
21. M. AlSaddiqui, G. Hamada, and **Musaed N. J. AlAwad**: "State of the Art: Review of Coring and Core Analysis Technology.", Journal of King Saud University, Engineering Sciences, Vol. 12, No. 1, pp. 117 to 138, 2000.
20. AlBlehed, M. S., Hamada, G. M., **AlAwad, M. N. J.** and AlSaddique, M. A.: "Horizontal Wells Find Varied Applications in Saudi Arabia.", Oil & Gas Journal, pp. 47 to 52, May 8, 2000.
19. Hamada, G. M., M. S. AlBlehed, and **Musaed N. J. AlAwad**: "NMR Logs Find Reservoirs By passed by Conventional Analysis.", Oil and Gas Journal, Vol. 97, No. 39, pp.75 to 80, September 27, 1999.
18. Adel M. H. and **Musaed N. J. AlAwad**: "Rheological Properties of High Viscosity Saudi Crude Oil.", Journal of Engineering, India, Vol. 9, No. 3, pp. 51 to 60, Dec., 1999.
17. **Musaed N. J. AlAwad**: "Prediction of Critical Pipe Running Speed During Tripping in Drilling Operations.", Journal of King Saud University, Engineering Sciences, Vol. 11, No. 1, pp. 131 to 149, 1999.
16. AbdelAlim H. ElSayed, **Musaed N. J. AlAwad**, AlSaddique M. A. and AlBlehed, M. S.: "Effect of Drilling Fluids Contamination on Saudi Reservoir Rocks Wettability.", Engineering Journal of Qatar University, Vol. 11, pp. 49 to 64, 1999.
15. **Musaed N. J. AlAwad**, AbdelAlim H. ElSayed and Saad ElDin M. Desouky: "Factors Affecting Sand Production from Unconsolidated Sandstone Saudi Oil and Gas Reservoir.", Journal of KSU, Engineering Sciences, Vol. 11, No. 1, pp. 151 to 174, 1999.
14. AbdelAlim H. ElSayed, **Musaed N. J. AlAwad** and AlSaddiqui M. A.: "Alteration of Saudi Reservoir Rocks Wettability Due to Drilling Fluids Contamination.", Journal of King Saud University, Engineering Sciences, Vol. 11, No. 2, pp. 263 to 277, 1999.
13. Hamada, G. M. and **Musaed N. J. AlAwad**: "TDT Monitors Gas Saturation in Heterogeneous Reservoir.", Oil and Gas Journal, pp. 55 to 60, May 25, 1998.
12. Hamada, G. and M. AlBlehed, **M. AlAwad**, and M. AlSaddiqui: "Petrophysical Evaluation of Low Resistivity Sandstone Reservoirs with Nuclear Magnetic Resonance Log.", Journal of Petroleum Science & Engineering, pp. 129 to 138, Vol. 2, No. 2, April 2001.
11. **Musaed N. J. AlAwad**: "Rheology and Corrosivity of Drilling Fluids Formulated from AlGhatt Saudi Clays.", Technical Note, Journal of King Saud University, Engineering Sciences, Vol. 10, No. 2, pp. 285 to 299, 1998.
10. **Musaed N. J. AlAwad**: "Rock Mechanics Applications In Petroleum Engineering Practices.", Oil and Gas European Magazine (International Edition of ERDOIL ERDGAS KOHIL), Germany, Vol. 4, No.1 , pp. 18 to 20, December 1998.
9. Saad ElDin M. Desouky, and **Musaed N. J. AlAwad**: "A New Laminar Transition Criterion for Yield Pseduoplastic Fluids.", The Journal of Petroleum and Science & Engineering, Vol. 19, No. 3&4, pp. 171 to 176, March 1998.
8. **Musaed N. J. AlAwad**, and Omar A. Almisned: "Rock Failure Criteria A Key for Predicting Sandfree Production Rates.", Journal of Egyptian Engineers, Vol. 36, No. 2, pp.53 to 58, 1997.
7. **Musaed N. J. AlAwad**: "Rheological Properties and Corrosion of Drilling Fluids Formulated from AlGhatt Clays.", Journal of Engineering and Applied Sciences, Cairo University, Egypt, Vol. 44, No. 6, pp. 1173 to 1188, December 1997.

6. AbdelAlim H. ElSayed, and **Musaed N. J. AlAwad**: “Effect of Partially Hydrolyzed Polyacrylamide (PHPA) Mud Contamination on Reservoir Rocks Wettability.”, Oil and Gas European Magazine, Vol. 2, pp. 10 to 11, June 1997.
5. **Musaed N. J. AlAwad**, and Saad Eldin M. Desouky: “Prediction of Sand Production from A Saudi Sandstone Reservoir.”, Oil & Gas Science Technology Journal Revue De L’ Institute Francias Du Petrole, Vol. 52, No. 4, pp. 1 to 8, July&August, 1997.
4. **Musaed N. J. AlAwad**, AlSaddiqui, M. A., and AlGassier, M. M.: “Synthetic (Man made) Sandstone Suitable for Petroleum Engineering Studies.”, Journal of Egyptian Engineers, Vol. 36, No. 3, pp. 26 to 29, 1997.
3. **Musaed N. J. AlAwad**: “A Laboratory Study of Factors Affecting Primary Cement Sheath Strength.”, Journal of King Saud University, Engineering Sciences, Volume 9, No.1, pp.113 to 128, 1417H. 1997.
2. **Musaed N. J. AlAwad**: “Effect of Mud Filter Cake Efficiency on Wellbore Stability During Drilling Operations.”, Journal of Engineering and Applied Sciences, Faculty of Engineering, Cairo University, Vol. 43, No. 5, pp. 1065 to 1076, October, 1996.
1. **Musaed N. J. AlAwad** and B.G.D. Smart: “Characterization of Shale Drilling Fluid Interaction Mechanisms Related to Wellbore Instability.”, Journal of King Saud University, Volume 8, Engineering Sciences No. (2), pp. 187 to 215, 1996.

CONFERENCES, SYMPOSIA AND WORKSHOPS

49. **Musaed N. J. AlAwad**, K. A. Fattah and Ahmed AlGobany: “Superior Fracture Seal Material Using Crushed Date Palm Seeds for Oil and Gas Well Drilling Operations.”, 3rd World Conference on Byproducts of Palms (ByPalma-2023), 5-8 Dec. 2023, Riyadh, KSA.
48. **Musaed N. J. AlAwad**: “Modification of the Brazilian Indirect Tensile Strength Formula for Better Estimation of the Tensile Strength.”, IFEDC20219814 Online Presentation at the Intl. Field Exploration & Development Conf., Chengdu, China, Oct. 20 to 22, 2021.
47. **Musaed N. J. AlAwad**: “Oil Wellbore Strengthening: New Experimental and Theoretical Approaches.”, Paper No. IFEDC-20206371 Online Presentation at the International Field Exploration & Development Conference 2020, September 23 to 25, 2020, Chengdu, China.
46. **Musaed N. J. AlAwad**: **Musaed N. J. AlAwad**: “A Rock Mechanical Model for Overbalanced, Managed Pressure, and Underbalanced Drilling Applications”, 13th EURO Conference on Rock Physics and Geomechanics, Potsdam, Germany, 2 to 6 September 2019.
45. **Musaed N. J. AlAwad**: “Artificial Recharge (AR) of Groundwater Aquifers in Saudi Arabia”, The International Conference on Energy, Water & Environmental Sciences (ICEWES-2018), The American University of Ras Al Khaimah, UAE, November 13 to 15, 2018.
44. **Musaed N. J. AlAwad**, K. A. Fattah, and A. A. AlGobany: “Innovative Wellbore Strengthening Using Crushed Date Palm Seeds and Shredded Waste Car Tyres” The 10th ISRM International Asian Rock Mechanics Symposium, Oct. 29 to Nov. 03, 2018, Singapore.
43. **Musaed N. J. AlAwad**, K. A. Fattah, Ahmed A. AlGobany: “Wellbore Fractures Sealing: Innovative Experimental Setup and Superb Seal Material”, SPE Kingdom of Saudi Arabia Annual Tech. Symposium and Exhibition (ATS&E) held in Dammam, KSA, 23–26 April, 2018.
42. **Musaed N. J. AlAwad** and Hawwas A. Mohammed: “Engineering Management and Inspection Schedule of Petroleum Well Integrity”, Poster, the 22nd World Petroleum Congress (WPC22), Istanbul, Turkey, July 9 to 13, 2017.
41. **Musaed N. J. AlAwad**: “Preventing Reservoir Sand Movement into the Wellbore Using Locally Developed Filter.”, 2011 Global Sand Management and Control Praxis Interactive Technology Workshop, Istanbul, Turkey, 14 – 17 March, 2011.
40. **Musaed N. J. AlAwad**: “A Rock Mechanical Model for Overbalanced, Managed Pressure, and Underbalanced Drilling Applications.”, 9th Asian Rock Mechanics Symposium (ARSM9), Bali, Indonesia, 18 to 20 October 2016.
39. Imtiaz AbdulJaleel and **Musaed N. J. AlAwad**: “Application of Rock Scratching Tests in Borehole Instability.”, The 48th US Rock Mechanics / Geomechanics Symposium held in Minneapolis, MN, USA, 1 to 4 June 2014.

38. **Musaed N. J. AlAwad** and Imtiaz AbdulJaleel: "Development of Simple Rock Scratching Cell for UCS Estimation.", The Eighth Asian Rock Mechanics Symposium (ARMS8) – Sapporo, Japan October 14 to 16, 2014.
37. AbdulRahman AlQuraishi, M. AlQarni, Hamdan AlYami, Mufarreh Tale, and **Musaed AlAwad**: "Investigation of Fluids Properties, Grain Size, and Drag Forces Effects on Sand Production." Marrakech Oil and Gas Conference and Exhibition, 1 to 3 October, 2013.
36. **Musaed N. J. AlAwad** and Imtiaz AbdulJaleel: "Development of a Scratching Cell for Predicting Near Wellbore Rock Strength.", SPE Paper No. 169649, SPE/PAPG Annual Technical Conference, Islamabad, Pakistan, November 26 to 27, 2013.
35. **Musaed N. J. AlAwad**: "Evaluation of Mohr Coulomb Failure Criterion Using Unconfined Compressive Strength", The Seventh Asian Rock Mechanics Symposium, Seoul, Korea, 15 to 19 October 2012.
34. **Musaed N. J. AlAwad** and Brian G. D. Smart: "Modified Failure Criteria for Shales.", The Eighth Asian Rock Mechanics Symposium (ARMS8) in Conjunction with the Seventh Sino Rock Symposium, Shanghai, China, June 18 to 20, 2013.
33. **Musaed AlAwad**, Adel Hemeida, Emad AlHomadhi, AbdulBari Arefi, M. Amro, and M. BinZaquota: "A Case Study on ABET Accreditation Requirements and Preparation", Symposium on Engineering Education 2009, UAE University, AlAin, United Arab E., May 2009.
32. **Musaed N. J. AlAwad**: "Evaluation of Mohr Coulomb Failure Criterion Using Unconfined Compressive Strength." The First Southern Hemisphere International Rock Mechanics Conference, Perth, Australia, September 16 to 19, 2008.
31. **Musaed AlAwad**, AbdulRahman AlQuraishi, Omar Almisned and Kamal Haroon: "Potential Standard Saudi Sandstone for Applied Studies of Petroleum and Natural Gas Engineering." SPEKSA 08048, SPE Saudi Arabia Technical Symposium, KSA, May 10 to 12, 2008.
30. **Musaed N. J. AlAwad**: "View Point Analysis of the Importance of the Middle East Oil and Natural Gas (in Arabic)." The 12th Symposium of Faculty of Law in Mansoura University, Mansoura, Egypt, April 2 to 3, 2008.
29. A. AlQuraishi, O. Almisned and **M. AlAwad**: "Effect of Combined In Situ Stresses and Heterogeneities on Relative Permeability of Reservoir Rocks." The Saudi Meeting on Oil and Natural Gas Exploration and Production Technologies, KSA, 2008.
28. **Musaed N. J. AlAwad**: "Evaluation of Mohr Coulomb Failure Criterion Using Uniaxial Compressive Strength." The Saudi Meeting on Oil and Natural Gas Exploration and Production Technologies (OGEP2008), Riyadh Saudi Arabia, 6 to 8 2008.
27. **Musaed AlAwad**, A. AlQuraishi, O. Almisned and K. Haroon: "Evaluation of Some Sandstone Outcrops in Saudi Arabia for Potential Use in Applied Studies of Petroleum and Natural Gas Engg.", The 3rd Saudi Science Conf.: College of Science, KSU, March 2007.
26. **Musaed N. J. AlAwad**: "Relationship between Excessive Production Rate and Produced Groundwater Quality.", WSTA Seventh Gulf Water Conference, 19 to 23 November 2005, State of Kuwait.
25. **Musaed N. J. AlAwad** and Talal Y. AlAhaidib: "Estimating the Amount of free Sand in the Yielded Zone around Vertical and Horizontal Oil Wells.", SPESA0526, The 2005 SPE Technical Symposium of Saudi Arabia Section held in Dhahran, KSA, 14 to 16 May 2005.
24. **Musaed N. AlAwad**: "Relationship between Excessive Pressure Drawdown and Groundwater Quality.", The International Conference on Water Resources and Arid Environment, Prince Sultan Research Center for Environment, Water & Desert, KSU, Dec. 5 to 8, 2004.
23. **Musaed N. J. AlAwad** and Talal Y. AlAhaidib: "Prediction of Sand Free Oil Production from a Saudi Oil Reservoir.", The 7th Offshore Mediterranean Conference and Exhibition (OMC2005), Ravenna, Italy, March 16 to 18, 2005.
22. Talal Y. AlAhaidib and **Musaed N.J. AlAwad**: "Prediction of Sand Free Oil Production from a Saudi Oil Reservoir." The First forum of the World Petroleum Congress, Beijing, China, October 17 to 20, 2004.

21. **Musaed N. AlAwad**, Omar Almisned and AbdulRahman AlQuraishi: "Application of Horizontal Drilling Technology in Groundwater Projects", WSTA Sixth Gulf Water Conference, pp. 147 to 153, Riyadh, Saudi Arabia, 8 to 12 March, 2003.
20. **Musaed N. J. AlAwad**: "Anisotropy Factor for Swelling Rocks.", The 2nd International Conference on Geotechnical and Geoenvironmental Engineering in Arid Lands (GEO2002), King Saud University, pp.239 to 243, Riyadh, Saudi Arabia, 6 to 9 October 2002.
19. Mohammed M. Amro and **Musaed N. J. AlAwad**: "Removal Techniques of Oil from Marine and Soil Environments.", Symposium on Maritime Disaster Management, King Fahd University for Petroleum and Minerals (KFUPM), pp. 67 to 79, January 19 to 21, 2002.
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