

In the name of Allah, Most Beneficent, Most Merciful

CURRICULUM VITAE

of

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1. PERSONAL BACKGROUND

1.1 PERSONAL

Date of Birth : April 5, 1961
Place of Birth : Hyderabad, India
Nationality : Indian
Linguistic skills: English, Urdu, Hindi, Arabic, and Telugu
Marital Status : Married
Children : Three

1.2 EDUCATION

1994 Ph.D. in Geotechnical Engineering, GPA 4.0/4.0, University of Oklahoma, Norman, OK, USA.

Dissertation Topic:

Constitutive Modeling and Numerical Simulation of Compacting Reservoir Rocks.

1985 Master of Engineering in Civil Engineering, Indian Institute of Science, Bangalore, India.

Thesis Topic:

Dynamic Analysis of Electric Circuit Breakers Subjected to Earthquake Ground Motions.

1983 Bachelor of Engineering in Civil Engineering, Osmania University, Hyderabad, India.

2.1 MAJOR COURSES

Advanced Rock Mechanics, Fracture Mechanics, Advanced Mechanics of Materials, Experimental Stress Analysis, Advanced Finite Element Method, Advanced Numerical Methods, Advanced Foundation Engineering, Structural Mechanics, Structural Dynamics.

1.3 PROFESSIONAL RECORD

2/11 till Prsnt: Associate Professor, Dept. of Petroleum Engineering, KFUPM, Saudi Arabia

8/01 to 2/11: Research Engineer-II, Center for Petroleum and Minerals, Research Institute, KFUPM, Saudi Arabia

1/94 to 8/01: Research Engineer-III, Center for Petroleum and Minerals, Research Institute, KFUPM, Saudi Arabia

8/90 to 1/94: Graduate Research Assistant: University of Oklahoma, Norman, OK, USA.

Responsibilities included:

- Laboratory testing on soil and rock samples (Preparation of specimens; Porosity and permeability measurements; Acoustic P-wave measurements; Tests along different stress paths on Cubical and Triaxial Cells).
- Analysis of laboratory and field data
- Development of new laboratory techniques
- Development of constitutive models
- Development of numerical simulators
- Report writing

8/89 to 5/90: Graduate Teaching Assistant: University of Oklahoma, Norman, OK, USA

Responsibilities included:

- **Conducting Tutorials** for "Mechanics of Materials"
- **Conducting Laboratory Sessions** for "Soil Mechanics"

8/87 to 8/89: **Lecturer**, Dept. of Civil Engineering, KFUPM, Dhahran, Saudi Arabia

Responsibilities included:

- **Taught a course** on "Engineering Graphics" for **seven semesters**.

8/85 to 8/87: Graduate Teaching Assistant: KFUPM

Responsibilities included:

- **Conducting Tutorial Sessions** on "Engineering Statics"
- **Conducting Tutorial Sessions** on "Mechanics of Materials"

2. R & D ACCOMPLISHMENTS

2.1 PAPERS IN REFEREED JOURNALS AND PROCEEDINGS

Journal Papers:

1. Faruque, M. O., M. Zaman, and **A. Abdulraheem** (1992). On Modeling Stress-Strain and Dilatant Behavior of Cohesionless Soil. *Indian Geotechnical Journal*, Vol. 22, No. 3, pp. 175-195.
2. **Abdulraheem, A.**, M. O. Faruque, and M. Zaman (1993). A Two Characteristic Model for Cohesionless Soil and Its Calibration Using Optimization, *International Journal of Plasticity*. Vol 10, No.3, pp. 309-326.
3. **Abdulraheem, A.**, M. Zaman, and J.-C. Roegiers (1993). A Finite Element Model for Ekofisk Field Subsidence, *Journal of Petroleum Science and Engineering*, Vol. 19, pp. 299-310.
4. Zaman, M., J.-C. Roegiers, **A. Abdulraheem**, and M. Azeemuddin (1994). Pore collapse in Weakly cemented and porous Rocks, *ASME Journal of Energy Resources Technology*, June, Vol. 116, pp. 97-103.
5. Hassan, H.M., Korvin, G., and **A. Abdulraheem** (2001). Fractal and Genetic Aspects of Khuff Reservoir Stylolites, Eastern Saudi Arabia. *Arabian Journal of Science and Engineering Journal*. **27**(2001): 29-56.
6. Korvin, G., Mohiuddin, M.A., **A. Abdulraheem** (2001). Experimental Investigation of the Fractal Dimension of the Pore Surface of Sedimentary Rocks under Pressure. *Geophysical Transactions*, **44** (2001): 3-19.
7. Mohiuddin, M.A., K. Khan, **A. Abdulraheem**, A. Al-Majed, and M.R. Awal (2007). Analysis of wellbore instability in vertical, directional, and horizontal wells using field data. *Journal of Petroleum Science and Engineering*. **55** (2007). pp. 83-92
8. Olatunji, S.O., A. Selamat, **A. Abdulraheem** (2011). Modeling the Permeability of Carbonate Reservoir Using Type-2 Fuzzy logic Systems, *Elsevier journal of Computer in Industry, Special Issue on: Fuzziness in Industry & Applications*. Volume 62, Issue 2, February 2011, Pages 147-163.
9. Anifowose F. and **A. Abdulraheem** (2011). Fuzzy Logic-Driven and SVM-Driven Hybrid Computational Intelligence Models Applied to Oil and Gas Reservoir Characterization. *Journal of Natural Gas Science and Engineering* **3**: pp. 505-517, July 2011.
10. Olatunji, S.O., A. Selamat, **A. Abdulraheem** (2011). Predicting correlations properties of crude oil systems using type-2 fuzzy logic systems. *Expert Systems with Applications*. Volume 38, Issue 9, September 2011, Pages 10911-10922.
11. Olatunji, S.O., Ali Selamat, **Abdulazeez Abdulraheem**, S. Omatu (2011). Modeling the correlations of crude oil properties based on sensitivity based linear learning method. *Eng. Appl. of AI* **24**(4): 686-696. Jun 2011.

12. Khoukhi, A., M. Oloso, M. Elshafei, **A. Abdulraheem**, and A. Al-Majed (2011). Support Vector Regression and Functional networks for Viscosity and Gas/Oil Ratio Curves Estimation. *International Journal of Computational Intelligence and Applications*. Vol. 10, No. 3. Sep. 2011. Pp 269-293.
13. Olatunji, S.O., A. Selamat, **A. Abdulraheem** (2011). Predicting correlations properties of crude oil systems using type-2 fuzzy logic systems. *Expert Systems with Applications*. Volume 38, Issue 9, September 2011, Pages 10911-10922.
14. M.A. Al-Marhoun, S. Nizamuddin, **A.A. Abdul Raheem**, S. Shujath Ali, A.A. Muhammadain. (2012). Prediction of crude oil viscosity curve using artificial intelligence techniques. *Journal of Petroleum Science and Engineering* 86-87 (2012) 111–117.
15. Khokhar, Z.H., M.A., Al-Harhi, and **A. Abdurraheem** (2012). Investigations of Biosorption Capacity Histories with Temperature and Other Parameters in a Given Fuzzy Universe of Discourse,” *International Journal of Modeling and Optimization*, Vol. 2, No. 3, June 2012. Pp 222—226.
16. Emad A. El-Sebakhy E.A., O. Asparouhov, **A. Abdulraheem**, A. Al-Majed, D. Wu, K. Latinski, I Raharja. (2012). Functional networks as a new data mining predictive paradigm to predict permeability in a carbonate reservoir. *Expert Systems with Applications* 39 (2012) 10359–10375.
17. A. Selamat, S. O. Olatunji, and **A. Abdulraheem** (2012). A Hybrid Model through the Fusion of Type-2 Fuzzy Logic Systems and Sensitivity-Based Linear Learning Method for Modeling PVT Properties of Crude Oil Systems. *Advances in Fuzzy Systems*, vol. 2012, Article ID 359429, 19 pages, 2012. doi:10.1155/2012/359429.
18. Olatunji, S.O., A. Selamat, **A. Abdulraheem** (2013). Extreme Learning Machines Based Model for Predicting Permeability of Carbonate Reservoir. *International Journal of Digital Content Technology and its Applications(JDCTA)*. Volume7,Number 1, January 2013.
19. Helmy, T., S. M. Rahman, M. I. Hossain, **A. Abdelraheem**, Non-linear Heterogeneous Ensemble Model for Permeability Prediction of Oil Reservoirs. *Arab J Sci Eng* (2013) 38:1379–1395.
20. Anifowose F., J. Labadin, **A. Abdulraheem**, Ensemble Learning Model for Petroleum Reservoir Characterization: A Case of Feed-Forward Back-Propagation Neural Networks, In: *Trends and Applications in Knowledge Discovery and Data Mining*, Lecture Notes in Computer Science Volume 7867, 2013, pp 71-82.
21. G. Korvin, Oleschko, K., and **A. Abdulraheem** (2013). A simple geometric model of sedimentary rock to connect transfer and acoustic properties. *Arabian Journal of Geosciences*. February 2013.

Academic Year (Sep 2013- Aug 14)

22. Ali, S.S., S. Nizamuddin, **A. Abdulraheem**, M. R. Hassan, M. E. Hossain. (2013). Hydraulic unit prediction using support vector machine. *Journal of Petroleum Science and Engineering*. 110 (2013) pp 243–252.
23. F. Anifowose, J. Labadin and **A. Abdulazeez**. (2013). “A Least Square-driven Functional Networks Type-2 Fuzzy Logic Hybrid Model for Efficient Petroleum

Reservoir Properties Prediction”, *Neural Computing and Applications*, Vol. 23, Suppl 1. Pp. 179-180. DOI 10.1007/s00521-012-1298-2, 2013.

24. Ali, S.S., S. Nizamuddin, **A. Abdulraheem**, M. R. Hassan, M. E. Hossain. (2013). Hydraulic unit prediction using support vector machine, *Journal of Petroleum Science and Engineering* Volume 110, Pages 243-252.
25. Olatunji, S.O., A. Selamat, **A. Abdulraheem**. (2014). Improved sensitivity based linear learning method for permeability prediction of carbonate reservoir using interval type-2 fuzzy logic system. *Applied Soft Computing*. Volume 14, Part B, January 2014, Pages 144–155.
26. Olatunji, S.O., A. Selamat, **A. Abdulraheem**. (2014). A Hybrid Model through the Fusion of Type-2 Fuzzy Logic Systems and Extreme Learning Machines for Modeling Permeability Prediction. *Information Fusion: An International Journal on Multi-Sensor, Multi-Source Information Fusion*, An Elsevier Publication. Vol. 16. Pp. 29-45.
27. Al-Marhoun, M. A., S. S. Ali, **A. Abdulraheem**, S. Nizamuddin, A. Muhammadain (2014) Prediction of bubble point pressure from composition of black oils using artificial neural network, *Petroleum Science and Technology*, 32:14, 1720-1728.
28. Anifowose, F., J. Labadin and **A. Abdulraheem** (2014). Non-Linear Feature Selection-Based Hybrid Computational Intelligence Models for Improved Natural Gas Reservoir Characterization,” *Journal of Natural Gas Science and Engineering*, 21 (2014) pp. 397-410.
29. Nooruddin, H., F. Anifowose and **A. Abdulraheem** (2014), "Using Soft Computing Techniques to Predict Corrected Air Permeability using Thomeer Parameters, Air Porosity and Grain Density”, *Computers and Geosciences*, Volume 64, pp. 72-80 (2014).
30. F. Anifowose, S. Adeniyeye and **A. Abdulraheem** (2014), "Recent advances in the application of computational intelligence techniques in oil and gas reservoir characterization: a comparative study”, *Journal of Experimental & Theoretical Artificial Intelligence*, 2014. doi = 10.1080/0952813X.2014.924577.

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31. Anifowose, F., J. Labadin, **A. Abdulraheem** (2015). Improving the prediction of petroleum reservoir characterization with a stacked generalization ensemble model of support vector machines. *Applied Soft Computing*. Volume 26, January 2015, Pages 483–496.
32. Olatunji, S.O., A. Selamat, **A. Abdulraheem** (2015). Modeling Permeability And PVT Properties of Oil and Gas Reservoirs using Hybrid Model based on Type-2 Fuzzy Logic Systems. *Neurocomputing*. Accepted: Jan., 2015. (IF=2.005). <http://dx.doi.org/10.1016/j.neucom.2015.01.027>
33. Anifowose, F., J. Labadin, **A. Abdulraheem** (2015). Ensemble Model of Non-linear Feature Selection-Based Extreme Learning Machine for Improved Natural Gas Reservoir Characterization. *Journal of Natural Gas Science & Engineering*. doi:10.1016/j.jngse.2015.02.012.
34. Abdlmutalib, A., O. Abdullatif, G. Korvin, and **A. Abdulraheem** (2015). The relationship between lithological characteristics and geomechanical properties of

carbonate rocks. Case study: Arab-D Reservoir outcrop approach, Central Saudi Arabia. *Arabian Journal of Geosciences*. DOI 10.1007/s12517-015-1957-6.

35. Bageri, B.S., M. Mahmoud, S.H. Al-Mutairi, and **A. Abdulraheem** (2015). Effect of Sand Content on the Filter Cake Properties and Removal during Drilling MRC wells in Sandstone. *Journal of Energy Resources Technology*. doi:10.1115/1.4032121
36. Abdmutalib, A, O. Abdullatif, G. Korvin, and **A. Abdulraheem**. (2015). The relationship between lithological and geomechanical properties of tight carbonate rocks from Upper Jubaila and Arab-D Member outcrop analog, Central Saudi Arabia. *Arabian Journal of Geosciences*. May 2015. DOI 10.1007/s12517-015-1957-6

Academic Year 2015-16

37. Adebayo, A. R., A. Abdulraheem, S.O. Olatunji. (2015). Artificial Intelligence Based Estimation of Water Saturation in Complex Reservoir Systems. *Journal of Porous Media*. DOI: 10.1615/JPorMedia.v18.i9.60. pp. 893-906. November 2015.
38. W.A. Al-Ameri, A. Abdulraheem, M. Mahmoud. Long-Term Effects of CO₂ Sequestration on Rock Mechanical Properties. *Journal of Energy Resources Technology*. *J. Energy Resour. Technol* 138(1), 012201 (Dec 01, 2015). Paper No: JERT-15-1186; doi: 10.1115/1.4032011.
39. Akande, K., T. O. Owolabi, S.O. Olatunji and A Abdulraheem (2016). A Novel Homogenous Hybridization Scheme for Performance Improvement of Support Vector Machines Regression in Reservoir Characterization," *Applied Computational Intelligence and Soft Computing*, Article ID 2580169, 10 pages, 2016. doi:10.1155/2016/2580169. Apr. 2016.
40. Anifowose, F., A. Khoukhi, and A. Abdulraheem (2016). "Investigating the Effect of Training-Testing Data Stratification on the Performance of Soft Computing Techniques: An Experimental Study. *Journal of Experimental & Theoretical Artificial Intelligence*. June 2016.
41. Mahmoud, M., S. Elkatatny, E. Ramadan, A. Abdulraheem (2016). Development of Lithology-Based Static Young's Modulus Correlations from Log Data Based on Data Clustering Technique. doi:10.1016/J.petrol.2016.04.011. *Journal of Petroleum Science and Engineering* 146 · April 2016.
42. Anifowose, F.A., J. Labadin, A. Abdulraheem (2016). Hybrid intelligent systems in petroleum reservoir characterization and modeling: the journey so far and the challenges ahead. *Journal of Petroleum Exploration and Production Technology*. doi:10.1007/s13202-016-0257-3. Jun. 2016.
43. Mahmoud, M.A., Ba Geri, B.S., Elkatatny, S., and Al-Mutairi, S.H., 2016. Modeling of Filter Cake Composition in Maximum Reservoir Contact and Extended Reach Horizontal Wells. Accepted, *Journal of Energy Resources Technology*, JERT-16-1117, Transaction of ASME. (Impact factor 2.0, Q2 ranked journal).
44. Ba Geri, B.S., Mahmoud, M.A., Shawabkeh, R.A., and Abdulraheem, A., 2016. Evaluation of Barium Sulfate (Barite) Solubility Using Different Chelating Agents –

Different Bases - at High Temperature. Accepted, Petroleum Science and Technology, PST-1509-1292. (Impact factor 0.9, Q3 ranked journal).

45. Ba Geri, B.S., Mahmoud, M.A., Abdurraheem, A, Al-Mutairi, S.H. and Shawabkeh, R.A., 2016. Single Stage Filter Cake Removal of Barite Weighted Water Based Drilling Fluid. Accepted, Journal of Petroleum Science and Engineering, PETROL 7690. (Impact factor 1.7, Q2 ranked journal).
46. Ba Geri, B. S., Mahmoud, M. A., and Elkatatny, S., 2016. Impact of Sand Content on Filter Cake and Invert Emulsion Drilling Fluid Properties in Extended Reach Horizontal Wells. Accepted, International Journal of Oil, Gas, and Coal Technology, IIOGCT 132764. (Impact factor 0.7, Q2 ranked journal).
47. Rammay, M.H., A. Abdurraheem (2016). PVT Correlations for Pakistani crude oils Using Artificial Neural Network. Journal of Petroleum Production Technology. Feb. 2016. DOI 10.1007/s13202-016-0232-z.
- 48. Academic Year 2016-17**
49. Anifowose, F. S. Adeniye, A. Abdurraheem, A. Al-Shuhail (2016). Integrating seismic and log data for improved petroleum reservoir properties estimation using non-linear feature-selection based hybrid computational intelligence models. Journal of Petroleum Science and Engineering 145. Sep. 2016. pp 230–237.
50. Akande, K. O., T. O. Owolabi, S. O. Olatunji, and A. AbdulRaheem. (2016). A hybrid particle swarm optimization and support vector regression model for modelling permeability prediction of hydrocarbon reservoir. Journal of Petroleum Science and Engineering. <http://dx.doi.org/10.1016/j.petrol.2016.11.033>. Nov. 2016.
51. Anifowose, F.A., J. Labadin, and A. Abdurraheem (2017). Ensemble machine learning: An untapped modeling paradigm for petroleum reservoir characterization. Journal of Petroleum Science and Engineering. 151 (2017); pp. 480-487. <http://dx.doi.org/10.1016/j.petrol.2017.01.024>.
52. Elkatatny, S., M. Mahmoud, I. Mohamed, A. Abdurraheem (2017). Development of a new correlan to determine the static Young's modulus. Journal of Petroleum Exploration and Production Technology. doi:10.1007/s13202-017-0316-4
53. Elkatatny, S., Mahmoud, M., Z. Tariq, A. Abdurraheem.(2017) New insights into the prediction of heterogeneous carbonate reservoir permeability from well logs using artificial intelligence network. Neural Computing & Applications (2017). doi:10.1007/s00521-017-2850-x.
54. Bageri, B.S., M.A. Mahmoud, R.A. Shawabkeh, S. H. Al-Mutairi, A. Abdurraheem. (2017). Toward a Complete Removal of Barite (Barium Sulfate BaSO₄BaSO₄) Scale Using Chelating Agents and Catalysts. Arabian Journal of Science and Engineering. 2017) 42: 1667. doi:10.1007/s13369-017-2417-2
55. **Elkatatny, S.M.**, Mahmoud, M.A., Moahmed, I., and Abdurraheem, A. **2017**. Development of A New Correlation to Determine the Static Young's Modulus", *Journal of Petroleum Exploration and Production Technology*, In Press.
56. Bageri, B., Mahmoud, M.A., Abdurraheem, A., Al-Mutairi, S.H., **Elkatatny, S.M.**, Shawabkeh, R.A. **2017**. Single Stage Filter Cake Removal of Barite Weighted Water

Based Drilling Fluid”, *Journal of Petroleum Science and Engineering*. [149\(20\): 476–484.](#)

Journal Papers under Review:

1. Olatunji, S.O., A. Selamat, A. Abdulraheem. Applying Type-2 Fuzzy Logic Systems And Sentivity Based Linear Learning Method To Model PVT Properties of crude oil systems, Elsevier Journal of Natural Gas Science and Engineering (Under 2nd Revision as of Mar 2015).
2. S.O. Olatunji, A. Selamat, **A. Abdulraheem**. Prediction Model of Permeability from Oil Well Logs Using Type-2 Fuzzy Inference Systems (Under review by Information Sciences Journal – Mar 2015; no reply from the reviewer yet)
3. S.O. Olatunji, A. Selamat, **A. Abdulraheem**. Modeling PVT Properties of Crude Oil Systems Based on Type-2 Fuzzy Logic Systems and Sensitivity Based Linear Learning Method (Submitted to Elsevier journal of applied soft computing)
4. F. Adosonai, A. Khoukhi, **A. Abdulraheem**, “Effect Of Dataset Division On Soft Computing Techniques: A Case Study of Porosity And Permeability Prediction, Submitted, Computers and Geo-Sciences.
5. "A Novel Homogenous Hybridization Scheme for Performance Improvement of Support Vector Machines Regression in Reservoir Characterization" by Kabiru Akande, Taoreed Owolabi, Sunday Olusanya Olatunji and A Abdulraheem. Applied Computational Intelligence and Soft Computing. Apr 2016.

Conference Proceedings / Presentations:

1. Faruque, M. O., M. Zaman, and **A. Abdulraheem** (1991). Constitutive Model for Cohesionless Soil. Proc., Third International Conference for Constitutive Laws for Engineering Materials: Theory and Application, Tucson, AZ, pp. 123-127, Jan. 7-12.
2. Roegiers, J.-C., M. Azeemuddin, M.M. Zaman, and **A. Abdulraheem** (1991). A Constitutive Model for Characterizing Dilatancy in Rocks. Rock Mechanics as a Multidisciplinary Science, J.-C. Roegiers, ed., Proc., 32nd US Symposium on Rock Mechanics, pp. 531-538, July 10-12.
3. Zaman, M., J.-C. Roegiers, **A. Abdulraheem**, and M. Azeemuddin (1992). Pore collapse in Weakly cemented and porous Rocks. Presented at the Energy Technology Conference and Exposition held in Houston, TX, Composite Material Technology, ASME 1992, PD-Vol. 45, Editors: Hui, D., Kozik, T.J., Ochoa, O.O., pp. 123-132.
4. **Abdulraheem, A.**, J.-C. Roegiers, and M. Zaman (1992). Mechanics of Pore Collapse and Compaction in Weak Porous Rocks. Presented at the 33rd US Symposium on Rock Mechanics, Santa Fe, NM, USA.

5. **Abdulraheem, A.**, M. Zaman, and J.-C. Roegiers (1993). A FE Model for Ekofisk Field Subsidence. Presented at the Energy Technology Conference and Exposition held in Houston, TX, Composite Material Technology 1993, PD-Vol. 45, Editors: Hui, D., Kozik, T.J., Ochoa, O.O., pp. 103-110.
6. **Abdulraheem, A.**, M. Zaman, and J.-C. Roegiers (1993). Numerical Simulation of a Compacting Reservoir. Presented at the 34th US Symposium on Rock Mechanics, held in Madison, Wisconsin, June 1993.
7. Zaman, M., M.O. Faruque, and **A. Abdulraheem** (1993). Characterization of Volumetric Response in Sands. Presented in the Fourth International Symposium on Plasticity and Its Current Applications.
8. Harouaka, A.S., B. Mtawaa, A. Al-Majed, **A. Abdulraheem**, and T. Klimentos (1995). Multistage triaxial testing of actual reservoir cores under simulated reservoir conditions, International Symposium of the Society of Core Analysis, September, San Francisco, CA.
9. **Abdulraheem, A.**, M. Zaman, and J.-C. Roegiers (1995). End effects and Dilatancy in Rock Compression Testing. Proc., The Fourth Saudi Engineering Conference, Nov. 5-8, Vol. 2, pp. 263-269.
10. **Abdulraheem, A.**, M.R. Awal, and S. Taher (1997). A New Numerical Simulation Model and Upscaling Technique for Scaled Model Sand Production. Proc., 10th Middle East Oil Show & Conference, 15-18th March, Bahrain, Vol. 2, pp. 99-109.
12. Korvin, G., H.M. Hassan, N.I. Khondakar and **A. Abdulraheem** (1998). Stylolites. 5th Meeting of the Saudi Society for Earth Sciences, Dhahran, KSA.
13. **Abdulraheem, A.**, M. A. Mohiuddin, G. Korvin, M. R. Awal, K. Khan, M. S. Khan, and A. Al-Ghamdi (1999). Parametric Study of Ultrasonic Velocity Using Reservoir Cores for Enhancing Seismic Signatures For Improved Reserves Definition. 1999 SPE Technical Symposium. Saudi Aramco, Dhahran, KSA.
14. Awal, M.R., **A. Abdulraheem**, M. S. Khan, B. Mtawaa, and A. Al-Majed (1999). On the Importance Rock Mechanics Properties and In-situ Stress Field in the Khuff Formations for Gas Field Development. SPE Technical Symposium. Saudi Aramco, Dhahran, KSA.
15. Mohiuddin, M.A., G. Korvin, **A. Abdulraheem**, M.R.Awal, K. Khan, and M.S. Khan (2000). From Rock Physics to Rock Texture: A case study of Saudi Arabian reservoir rocks. Paper presented at GEO 2000: 4th Middle Geosciences Conference and Exhibition, March 27-29, Bahrain.
16. Mohiuddin, M. A., G. Korvin, **A. Abdulraheem**, M. R. Awal, K. Khan, M. S. Khan, and H. M. Hassan (2000). Stress-Dependent Porosity and Permeability of a Suit of Samples from Saudi Arabian Sandstone and Limestone Reservoirs. Paper accepted for International Symposium of the Society of Core Analysts, October 18-22, Dubai.

17. Awal, M.R., G. Korbin, M.A. Mohiuddin, **A. Abdulraheem**, K. Khan, and M. S. Khan (2000). Ultrasonic wave attenuation in cores: A new approach to enhance accuracy, reproducibility, and data processing. Paper accepted for International Symposium of the Society of Core Analysts, October 18-22, Dubai.
18. Mohiuddin, M.A., M.R.Awal, **A.Abdulraheem**, and K.Khan (2001). A New Diagnostic Approach to Identify the Causes of Borehole Instability Problems in an Offshore Arabian Field. Paper SPE 68095 to be presented at 2001 SPE Middle East Oil Show held in Bahrain,17–20 March 2001.
19. Awal, M.R., M.S. Khan, M.A.Mohiuddin, **A.Abdulraheem** and M.Azeemuddin (2001). A New Approach to Borehole Trajectory Optimisation for Increased Hole Stability. Paper SPE 68092 to be presented at 2001 SPE Middle East Oil Show held in Bahrain,17–20 March 2001.
20. Awal, M.R., M.Azeemuddin, M.S.Khan, **A.Abdulraheem**, and M.A.Mohiuddin (2001). A More Realistic Sand Production Prediction Using Pore Collapse Theory. Paper to be presented at the US Rock Mechanics Symposium 'DC Rocks 2001' to be held in Washington DC. July 7-10, 2001.
21. Al-Shayea, N.A., K. Khan, and **A. Abdulraheem** (2001). Fracture Toughness vs. Tensile Strength for Reservoir Rocks from Saudi Arabia. The 2001 ISRM sponsored international symposium - 2nd Asian rock mechanics symposium Sept 11-14, 2001, Beijing, China.
22. Korvin, G., Mohiuddin, M.A., **A. Abdulraheem** (2001). Changes in the Fractal Dimension of the Pore Surface of Sedimentary Rocks under Pressure. Presented at the First Saudi Science Conference, April 2000 at KFUPM, Dhahran, Saudi Arabia.
23. Mohiuddin, M. A., G. Korvin, **A. Abdulraheem** and K. Khan (2001). Attenuation Characteristics of Saudi Arabian Reservoir Sandstone and Limestone Cores. Presented at the *International Symposium of the Society of Core Analysts*, September 17 – 19, Edinburgh, U. K.
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23. M. He. Destabilization and Treatment of Produced Oil-Water Emulsions from EOR Application in Oilfield Using Dissolved Air Flotation. May. 2015. PETE Dept. **Member**
24. W.A. Khan. Effect of Carbon Nano Tubes on Oil Well Cement for High Pressure High Temperature Applications. May. 2015. PETE Dept. **Member**
25. A. M. Ali. Log Porosity and Lithology Prediction from Seismic Data: Frontier and Tensleep Formations, Wyoming. Mar. 2015. ESc Dept. **Member**
26. Ahmed Sahaf. Prediction of Flow Zone Indicators in Carbonate Reservoirs using Hybrid Modeling. May 2015. **Main Advisor.**
27. Adnan Saleh Alghannam. Geological and Geomechanical Characterization of a Permo-Triassic Carbonate Reservoir in Eastern Saudi Arabia. E.Sc. Department. Dec. 2015. **Member.**

1. Zeeshan Tariq. Estimation of Acoustic Velocities and Rock Mechanical Parameters using Artificial Intelligence Tools. Petroleum Engineering Dept. Dec. 2105. **Main Advisor.**
2. Mohammed Dhafer Alajmi. Risk Based Approach To Predict Casing Leaks Using Electromagnetic Corrosion Logs. Petroleum Engineering Dept. Dec. 2105. **Member.**
3. Abdaseed Kubur Bokhari Kubur. 3D Geostatistical Modeling of Facies and Petrophysical Properties of the Upper Khartam Outcrop of Khuff Formation, Central Saudi Arabia. Earth Science Dept. Dec. 2105. **Member.**
4. Mohamed Abdalsalam Hanfi. Formation damage quantification by nuclear magnetic resonance. Petroleum Engineering Dept. Dec. 2105. **Member.**
5. Waleed Ejaz. Integration of electrofacies and geomechanical characteristics of Sarah formation (potential tight gas reservoir), Rub Al-Khali Basin, Saudi Arabia. Earth Science Dept. Dec. 2105. **Member.**
- 6.

PhD. Dissertation

1. Optimization of Drilling Parameters Using Specific Energy in Real-Time. M.A. Khamis. **PhD Dissertation.** Department of Petroleum Engineering, KFUPM. Mar. 2012- May 2013. **Member.**
2. Mohammad H. Alqam. PhD Dissertation. Department of Petroleum Engineering, Apr. 2012.- continued. An Experimental and Numerical Investigation of Temperature Profile for Monitoring and Diagnosing of Fracture Stimulation Treatments. **Main Advisor (Student has discontinued?)**
3. Ba Geri, Badr. PhD Dissertation. Filter Cake Removal of Barite Water-Based Mud. **Main Advisor.** November, 2016.
4. Mohammed K. Al-Arfaj. A Theoretical and Experimental Investigation of Shale-Fluid Interactions for Optimized Drilling Practices. **Under progress. Main Advisor.**
5. Khalid Zidan. **Co-Advisor**
6. Ammar Mohammed Adam. High-Resolution Stratigraphy, Biostratigraphy, and Diagenesis of Upper Khartam Member, Khuff Formation: Implication on Reservoir Quality and Architecture. Outcrop Analog from Central Saudi Arabia. Earth Science Department. Jan 2017. **Member**

2.5 LIST OF RESEARCH PROJECTS AT KFUPM/RI - Completed or in progress

1. PN: 21111 - Rock Compressibility and Formation Strength Indices in Sandstone Reservoirs (1994-95) – **Member** (SR 4 millions)
2. PN: 21148 - Rock Mechanics of Ghawar Khuff Reservoirs (1995-97) (SR. 3.7 million) - **Project Manager**
3. PN: 21140 - Rock Mechanics Consulting Services for Berri Field (1996)
- **Member**
4. PN: 21153 - In-situ Sand Consolidation by Low Temperature Oxidation (1995-1998) - **Member**
5. PN: 21171 - Ultrasonic Velocity and Wave Attenuation Measurements (1997-2000) (SR. 3.14 million) - **Project Manager**
 - Phase I: Measurement of physical, transport, and acoustic properties of rocks (1997-98)
 - Phase II: Calculation and analysis of attenuation data in rocks (1998)
 - Phase III: Prediction of Fluid Saturation Around the Borehole from Repeated Full Waveform Sonic Logs: A Feasibility Study (1999)
 - Phase IV: Measurement of acoustic properties of Khuff carbonate rocks (2000 - 2001)
6. CPM2205 - Wellbore Instability - Khafji Reservoir, Zuluf Field – Phase I (2000 - 2001) (SR 0.8 million) - **Project Manager**
7. CPM2204 - Prediction of Sanding Tendency in Pre-Khuff Gas Wells (2000 - 2001) – **Member**
8. CPM2203 - Stress Sensitivity and Response to Water Injection in Fractured Arab-D Reservoir (2000 - 2001) - **Member**
9. CPM2211 - Calibration of Sonic Logs (Nov 1, 2000 – Nov. 30, 2001) (SR 0.6 millions) - **Project Manager**
10. CPM2227 - Wellbore Instability - Khafji Reservoir, Zuluf Field – Phase II (Jun 2002 – Sep 2003) (SR 1.6 million) - **Project Manager**
11. CPM2228 - Artificial Neural Network Models for Rock Mechanical Properties (Aug 2002 – Dec. 2004) - **Member**
12. CPM2236 – Saturation Estimation from Sonic and Saturation Logs (Sep 2003 – Jan 2004) (SR 0.6 million) – **Project Manager**
13. CPM2248 – Critical assessment of key analytical methods for sanding prediction (Apr 2005 – Feb 2006) – **Member and Liason**

14. CPM2252 – Developing Fuzzy Logic Modeling Capability (Jun 2005 – May 2006) (SR 0.6 million) – **Project Manager**
15. CPM2266 - Analysis of core, drill cutting and formation fluid samples. (Apr 2006 – Apr 2009). – **Member** (SR 40 millions).
16. CPM2275 – Developing Fuzzy Logic Modeling Capability-Phase II (Apr 2007 – Jun 2008) (SR 0.5 million) – **Project Manager**
17. CPM2276 – Permeability Modeling for HRDH/Khuff, Using Fuzzy Logic Approach (Apr 2007 – Feb 2008) (SR 0.5 million) – **Project Manager**
18. CPM2286 – Development of an Artificial Intelligence (AI) Model to Determine Permeability and Hydraulic Units for Carbonate Reservoirs in Saudi Arabia (Mar 2010 – Mar 2011) (SR 0.5 million) – **Project Manager**
19. CPM2289 – Prediction of Permeability Profiles Using 3D Seismic Data and Openhole Logs (Feb 2010 – Feb 2011) (SR 0.5 million) – **Project Manager**
20. 1.KACST-NSTIP - 08-OIL82-4 - Prediction of Permeability and Rock Mechanical Properties, and Identification of Lithofacies Using Latest Artificial Intelligence Techniques (Sep 2010 – Aug 2012). (SR 1.0 million) – **Project Manager**
21. CPM2255 – Development of an ANN model for reservoir fluid properties (PVT) (Sep 2005-ongoing) **Member** (SR 0.75 millions).
22. CPM2262 - Core, drill cuttings and formation fluids/gas analysis in the area of Block “A”, Rub-Al-Khali. Luksar Saudi Arabia. (4th Feb 2006 – 4th May 2013). – **Member** (SR 15.5 millions)
23. CPM22295 - Effect of Saturation and pore structure on acoustics of carbonates. (Nov. 1, 2011 - Dec 31, 2013) - Member. Budget: SR 2.2 Millions. **Member.**
24. KACST-TIC-CSS-6: Impact of CO₂ sequestration on petrophysical and mineralogical characteristics of potential formations and cap-rock. Mar 2013-Mar2015. – **Member.**
25. KACST AR30-258. A Decision Support System For Improving Directional Steering. 2012-14. – **Member**
26. NSTIP 11-OIL2144-04. Prediction of permeability in carbonates based on 3D seismic and openhole log data using a triple-porosity model, Artificial Intelligence tools and Geostatistics. Project No. Aug. 2013-Jul. 2015. SR 745,000. – **Project Manager**
27. CPM02303. Derivation of Geomechanical parameters to determine in situ stress in Arab-D, Hanifa, and KHUFF reservoirs of the Abqaiq field. Total Budget: SR. 3 millions. Jul 2014 –Oct 2017. – **Member**
28. CPM02306. Modeling of Dynamic Array Saturations (MIDAS)”. funded by Saudi Aramco through Research Institute at KFUPM. Total Budget: SR. 1106,360.59. Mar 2014 – May 2015. – **Project Manager**

29. NSTIP 14-OIL468-04. Facies, Diagenesis, and Reservoir Qualities of Late Ordovician Sarah Formation, Subsurface Rub' Al-Khali Basin, Saudi Arabia. Member. March 1, 2015-Feb 28, 2017. SR 1,966,660. **Member.**

30. DSR Reservoir Characterization Group Project. Qusaiba Member: outcrop Analog from Northwest Saudi Arabia. Sep 2015 - Jun. 2017.

Plus several service projects involving rock mechanics service work.

2.6 LIST OF RESEARCH PROJECT PROPOSALS, PRE-PROPOSALS, OR CONCEPTS – Completed or in progress

Proposals:

- 1995 *Rock Mechanics Study of Ghawar Khuff Reservoirs*
Submitted to S. Aramco - FUNDED (2 year project)
- 1996 *An Investigation into the Fracture Toughness and Tensile Strength of Indigenous Rocks (PW, E)* - Submitted to KACST 1996.
- 1997 *Ultrasonic Velocity and Wave Attenuation Measurements*
Submitted to S. Aramco - FUNDED (3 year project)
- 2000 *Wellbore Instability - Khafji Reservoir, Zuluf Field – Phase I*
Submitted to S. Aramco - FUNDED (approx. 1 year project)
- 2000 *Prediction of Sanding Tendency in Pre-Khuff Gas Wells.* Submitted to S. Aramco - FUNDED (approx. 1 year project)
- 2000 *Stress Sensitivity and Response to Water Injection in Fractured Arab-D Reservoir -*
Submitted to S. Aramco - FUNDED (approx. 1 year project)
- 2001 *Calibration of Sonic Logs - Submitted to S. Aramco - FUNDED* (approx. 1 year project)
- 2002 *Wellbore Instability - Khafji Reservoir, Zuluf Field – Phase II.*
Submitted to S. Aramco - FUNDED (approx. 1 year project)
- 2002 *Artificial Neural Network Models for Rock Mechanical Properties - Submitted to S. Aramco - FUNDED* (approx. 1 year project)
- 2003 *Saturation Estimation from Sonic and Saturation Logs - Submitted to S. Aramco - FUNDED* (approx. 1 year project)
- 2005 *Critical assessment of key analytical methods for sanding prediction - Submitted to S. Aramco - FUNDED* (approx. 1 year project)

- 2005 *Developing Fuzzy Logic Modeling Capability - Submitted to S. Aramco - FUNDED (approx. 1 year project)*
- 2006 *Development of Monitoring System for Upstream Activities for the Ministry of Petroleum AND Mineral resources - Submitted to The Ministry of Petroleum and Mineral Resources.*
- 2007 *Developing Fuzzy Logic Modeling Capability- Phase II - FUNDED by S. Aramco.*
- 2007 *Permeability Modeling for HRDH/Khuff, Using Fuzzy Logic Approach - FUNDED by S. Aramco.*
- 2007 *Data Mining and Artificial Intelligence in Enhancing Exploration and Production - Submitted to the committee on Strategic Plan for Localization and Development of Oil and Gas Exploration and Production Technologies.*
- 2008 *Prediction of Permeability and Rock Mechanical Properties, and Identification of Lithofacies Using Latest Artificial Intelligence Techniques*
- 2009 *Development of an Artificial Intelligence (AI) Model to Determine Permeability and Hydraulic Units for Carbonate Reservoirs in Saudi Arabia*
- 2009 *Prediction of Permeability Profiles Using 3D Seismic Data and Openhole Logs*

Concepts / Ideas:

- 1997 *Development of "ROCKBASE," A Database for Mechanical Properties and Stress Map For Saudi Arabian Petroleum Reservoirs - Submitted to S. Aramco.*
- 1999 *Increasing production from the depleting and 'uneconomic' fields susceptible to severe sand production – Phase I - Submitted to S. Aramco.*

2.7 LIST OF RESEARCH REPORTS

- 1994 Annual Task Report for PN-21111 (Mathematical modeling, numerical simulation and software development).
- 1994 Second Annual Report for PN-21111.
- 1995 Draft and Final Reports for PN-21111.
- 1996 Annual Report for PN-21148.
- 1996 Project Report for PN-21140.
- 1997 Final Report for PN-21148.
- 1997 Final Report for Service Project: Rock Mech. Consulting Services for Berri Field.

- 1999 First Annual Report for PN-21171.
- 1999 Report for Phase - II of PN-21171.
- 1999 Report for Phase - III of PN-21171.
- 2000 Final Report for Project on Wellbore Instability.
- 2001 Final Report for Project on Calibration of Sonic Logs.
- 2003 Final Report - Wellbore Instability - Khafji Reservoir, Zuluf Field – Phase II. Submitted to S. Aramco.
- 2004 Final Report – Saturation Estimation from Sonic and Saturation Logs Submitted to S. Aramco.
- 2006 Progress Report - Critical assessment of key analytical methods for sanding prediction.
- 2006 Final Report - Critical assessment of key analytical methods for sanding prediction.
- 2006 Final Report - Developing Fuzzy Logic Modeling Capability Submitted to S. Aramco.
- 2008 Final Report - Permeability Modeling for HRDH/Khuff, using Fuzzy Logic Approach
- 2008 Final Report - Developing Fuzzy Logic Modeling Capability – Phase II. Submitted to S. Aramco.
- 2009 Final Report – Development of artificial neural network models for reservoir fluid properties. Submitted to S. Aramco.
- 2010 Final Report - Developing Fuzzy Logic Modeling Capability – Phase II. Submitted to S. Aramco.

Plus several small reports related to service work on rock mechanics.

Technical Reports (Before Joining The Research Institute, King Fahd University of Petroleum and Minerals):

- 1991 Numerical Simulation of Pore Collapse, Reservoir Compaction and Surface Subsidence, A Critical Review, Submitted to the Rock Mechanics Consortium Members, May 1991. .
- 1991 Annual Research Report for the Oklahoma Center for Advancement of Science and Technology (OCAST), June, 1991. .
- 1991 Mechanics of Reservoir Rocks, Submitted to the Rock Mechanics Consortium Members, October 1991..
- 1992 Annual Research Report for the Oklahoma Center for Advancement of Science and

- Technology (OCAST), June, 1992..
- 1993 Numerical Simulation of a Compacting Reservoir, Submitted to the Rock Mechanics Research Center, March 1993..
- 1993 Pore Collapse Mechanisms in Reservoir Rocks, Final Report to the Oklahoma Center for Advancement of Science and Technology (OCAST), with M. Azeemuddin and S. Mowar, July, 1993. .

3. PROFESSIONAL PERFORMANCE AND LEADERSHIP

3.1 RESEARCH GROUPS LED OR COORDINATED

Has coordinated the research in the area of **Petroleum Related Rock Mechanics** and **Rock Physics** at the Research Institute, KFUPM.

For the last several years, he is coordinating the research in the area of **Artificial Intelligence application in Oil and Gas Industry**.

3.2 RESEARCH COMMITTEES PARTICIPATION

1997-9 Member, KFUPM/Saudi Aramco Technology Meetings, (Exploration & Petroleum Engineering). In these meetings, potential projects that are of interest to Saudi Aramco and can be executed at KFUPM-RI are discussed. *I have actively participated in these meetings and gave necessary input especially for research in the new and emerging area of petroleum related rock mechanics.*

3.3 LABORATORY DEVELOPMENT RESPONSIBILITIES

*Surveyed for the instruments for the different project works and bought equipment worth almost SR 1.5 million. Items 2, 3, and 4 below were purchased under my supervision and recommendations after I personally visited the rock mechanics laboratories at Imperial college, London; French Petroleum Institute at Paris, Rock Mechanics Laboratory at SINTEF, Trondheim, Norway, and different rock mechanics laboratories in the U.S. The equipment were purchased to suit the requirements of our projects after consultation and input with the team members of the respective projects. This has led to a completion of the existing setup of **Petroleum Related Rock Mechanics** facilities at the Research Institute. The new equipment include:*

1. Wellbore simulation laboratory: Took part in the design of the laboratory. The equipment is designed to simulate the phenomenon of sand production in the laboratory.
2. Anelastic Strain Recovery (ASR): Field Equipment for estimation of in-situ stresses in the hydrocarbon reservoirs.
3. Differential Strain Curve Analysis (DSCA): Laboratory equipment for estimation of in-situ stresses in the hydrocarbon reservoirs.
4. Ultrasonic Test System for Rocks: For measuring compressional and shear wave velocities of reservoir rock samples at reservoir conditions of temperature and pressure.
5. Fracture toughness testing setup and sample preparation: Took part in the design of fracture toughness setup design and also in buying relevant equipment for creating straight and curved notches in the rock specimens, especially the Rotating Disk Saw and the Wire Saw.
6. Tensile Strength Determination setup using Brazilian Disk approach: Took a leading part in designing the experimental setup for this test.
7. Steady State Permeability Measurement Setup for highly permeable samples: Took a leading part in a team to prepare a setup for measurement of permeability at extremely high confining pressures of 10,000 psi. The whole setup was built using the available accessories in the institute and buying some spare parts.
8. Pulse Decay Permeability Measurement Setup for tight samples: Took part in a team to prepare a setup for measurement of permeability at extremely high confining pressures of 10,000 psi. The whole setup was built using the available accessories in the institute and buying some spare parts.
9. Porosity Measurement Setup (in parallel to the Steady State and Pulse Decay Permeability Measurement Setup): Took part in a team to prepare a setup for measurement of permeability at extremely high confining pressures of 12,000 psi. The whole setup was built using the available accessories in the institute and buying some spare parts. **Items 5, 6, 7, 8, and 9 have led to significant cost savings as no new equipment or accessories were ordered for these setups.**

3.4 PROFESSIONAL DEVELOPMENT (IN PARALLEL TO OTHER ASSIGNMENTS)

Attended conferences on the topics of petroleum engineering and geology in different countries including US, Norway, Dubai, KSA, Bahrain etc.

Graduate Courses Attended: Production Engineering (1996); Drilling Engineering (1997); Well Logging (1998); Subsurface Production Engineering (1998).

Short Courses attended: Waterflooding (1995); Modern Well test analysis (1995); Geology of Arabian Peninsula (1998)

3.5 MEMBERSHIP OF PROFESSIONAL SOCIETIES

Founder Member of American Rock Mechanics Association (ARMA)

Member of International Society of Rock Mechanics (ISRM)

Member of the Society of Petroleum Engineers (Saudi Arabia Section).

Member of Dhahran Geological Society

4. PROFESSIONAL AND COMMUNITY SERVICE

4.1 COURSE TEACHING ASSIGNMENTS AT KFUPM

Course teaching Assignments at KFUPM

2013-14 Reservoir Rock Mechanics (PETE 670) for Graduate and Post Graduate Students (Fall Semester).

2011, 2012 Artificial Intelligence for Petroleum Engineers (PETE 685) for Graduate and Post Graduate Students (Spring Semester).

2010 (fall), 2010 (spring), 2009 (fall), 2009 (fall), 2007 (fall), 2006 (fall), 2005 (fall)
Petroleum Related Rock Mechanics (PETE 400) for Senior Undergraduate Students (Fall Semester 0102).

1987-1989 Taught a course on "Engineering Graphics" for several semesters (During the time when I was Lecturer-B at the Civil Engineering Department, KFUPM)

Senior Project Supervision

2002-3 Mechanical Engineering Student (Mr. Mohammed Al-Harbi) – Co-supervisor

1998-9 Petroleum Engineering Student (Mr. Mazen Bernawi)

1999-0 Petroleum Engineering Student (Mr. Saad A. Al-Dauwas).

4.2 PARTICIPATION IN SHORT COURSES

1. Coordinated and taught the short course, "Rock Mechanics for Petroleum Engineers." May, 2006.
2. Coordinated and taught the short course "Rock Mechanics for Petroleum Engineers." Phase-I in Apr, 2003 and Phase-II in Oct, 2004.
3. Coordinated and taught the short course, "Wellbore Instability." Apr, 2003.
4. Coordinated and taught the short course, "Rock Mechanics for Petroleum Engineers." Apr, 2002.
5. Gave lectures on "Rock Stabilization," in a short course, "**Stabilization of Indigenous Soils for Constructional Purposes**," held in March, 1997.

Training Students or Junior Personnel

- 1997 Co-supervisor for a 5-week training program for Undergraduate Student (Mr. Ali M. Ramady)
- 1996-8 Training two engineers (Mr. Safdar Khan & Mr. Bechir Al-Mtawaa) in the Petroleum Engineering section on different aspects of Petroleum Related Rock Mechanics related experimental and theoretical work.

4.3 COMMITTEE WORK

- 2009 Organizing Committee Member, Society of Petroleum Engineers Technical Workshop at Khobar, Saudi Arabia.
- 2009 KFUPM Housing Committee
- 2005 The Research Institute Personnel Committee and Personnel Sub-committee
- 2004 Organizing Committee Member, KFUPM-Saudi Aramco Petroleum Engineering Research Review – Second Annual Workshop
- 2003 Organizing Committee Member, Workshop on Petroleum Engineering Research at the Center for Petroleum and Minerals
- 2002 Marketing and Industry Relations Committee of the Center for Petroleum and Minerals
- 2002 Conference and Publication Committee of The Research Institute
- 1999 Member, Technical Editing Board of The Research Institute
- 1999 Member, Equipment Selection Committee**
- 1998 Member, Technical Editing Board of The Research Institute
- 1997 Member, Promotion Committee for an Engineer (Adhoc), Division I, RI
- 1997 Member, Equipment Acceptance Committee (Adhoc) on Ultrasonic Wave Velocity Equipment

- 1996 Member, Equipment Acceptance Committee (Adhoc) on ASR equipment
1994 Member , Division I Adhoc Committee (Adhoc) on RI Awards

4.4 OTHER CONTRIBUTIONS

Software Development

Developed a Finite Element based software for simulating the stress-state and onset of sand production in reservoir samples.

Evaluation at The Research Institute and at the Department of Petroleum Engineering:

Evaluation for the years 2009-2015: **Excellent**

Evaluation for the year 1997-2008: **Outstanding**

Evaluation for the year 1997-1995: **Excellent**

5. AWARDS

Special Recognition / Honors and Awards:

- 2003** Project Manager of the team awarded for *Best Research Team Award* of the Research Institute, **KFUPM** for the project, "Wellbore Instability – Khafji Reservoir (Phase II)"
- 2002** *Best Research Project Manager Award* of the Research Institute, **KFUPM** for the project, "Wellbore Instability – Khafji Reservoir (Phase I)"
- 1999** Project Manager of the team awarded for *Best Research Team Award* of the Research Institute, **KFUPM** for the project, "Rock Mechanics Study of Ghawar Khuff Reservoirs" (PN 21148).
- 1999** Appreciation from the Project Coordinator from Saudi Aramco for "**excellent execution and reporting**" and "**one of the best technically study I have been personally associated with**" for the project, "Rock Mechanics Study of Ghawar Khuff Reservoirs" (PN 21148).
- 1999** Member of the team for *Best Short Course Award* by **KFUPM**.
- 1999** Appreciation plaque by **SPE Student Chapter**, KFUPM for involvement in the local SPE chapter.
- 1996** Member of the team awarded for *Best Research Team Award* of the Research Institute, **KFUPM** for the project, "Rock Compressibility and Formation Strength Indices in Sandstone Reservoirs" (PN 21111).
- 1993** Best paper award by "Indian Geotechnical Journal"
- 1992** Nominated in "**Who's Who Among Students in American Universities and Colleges**".
- 1992** Granted **Honorary Citizenship of the State of Oklahoma** by the Governor of Oklahoma for "**reposing special trust and confidence in the ability and integrity**".
- 1992** Honored as one of the "**Outstanding Student of the University of Oklahoma,**" Norman, Oklahoma
- 1991** **International Leadership Class Scholarship**, Univ. of Oklahoma, Norman,
- 1991** **Cleo Cross International Student Scholarship** for **academic accomplishments**, University of Oklahoma, Norman, Oklahoma.