FACULTY CURRICULUM VITAE

Name: Dr. Seyed Mehdi Seyed Alizadeh
Rank: Assistant Professor - Petroleum Engineering

Personal Information

Nationality:	Australian
AU Joining Date:	28 Aug 2016
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Professional Information

Education:	Qualification: Doctorate Major: petroleum engineering College/University: University of New South Wales Year: 2015 Qualification: Masters Major: petroleum engineering College/University: University of Calgary Year: 2007
Specialization:	- Reservoir Modeling and simulation - Reservoir Characterization & Digital Rock Physics - Mechanical Properties of Porous Materials - Economics of Energy Resources
Current Academic Position:	Assistant Professor
Current Professional Positions:	• Member, Activities Committee • Member, Curriculum Committee
Previous Administrative Position Held:	• Member, Lab Committee • Member, Validation Committee
Previous Academic Positions Held	**Lecturer** AU Aug 2016 – Aug 2017

	Research Assistant
	UNSW. Sep 2014 – Aug 2016
Fellowships And Honors:	- Hugh Crocker scholarship winner from FESAus, Perth, 2011 - Engineers Australia Professional Engineer, 2009
Teaching Experience:	**AU - Kuwait** - Reservoir Engineering - Reservoir Rock and Fluid Properties - Drilling Engineering - Engineering Geology - Engineering Economics - Materials and Equipment in Petroleum Industry **Islamic Azad University** - Reservoir Rock and Fluid Properties - Fluid Flow in Porous Media - Reservoir Engineering
Industrial And Technical Experience:	- Researcher – Petroleum Research Centre (Aug. 2006 – Jan. 2007) - Petrophysics – NISOC (Feb. 2007 – Jun. 2008)
Research Interest:	- Reservoir Engineering - Reservoir Characterization - Digital Rock Physics - Petrophysics - Chemical and Thermal EOR - Energy Resource Economics - Geomechanics
Research Grants:	In Preparation
Research and Publications including Journal and Books:	- Alizadeh, S.M. and Iraji, A. "Application of soft computing and statistical methods to predict rock mass permeability", Soft Computing - Mayet, A., Alizadeh, S.M., Kakarash, Z., Alqahtani, A., Alanazi, A., Alhashimi, H., Eftekhari-zadeh, E. and Nazemi, E. "Introducing a Precise System for Determining Volume Percentages Independent of Scale Thickness and Type of Flow Regime", Mathematics - Mayet, A., Alizadeh, S.M., Kakarash, Z., Alqahtani, A., Alanazi, A., Guerrero, J., Alhashimi, H. and Eftekhari-zadeh, E. "Increasing the efficiency of a control system for detecting the type and amount of oil product passing through pipelines based on gamma-ray attenuation and artificial neural network", Polymers - Chen, T.C., Taylan, O., Alizadeh, S.M., Yilmaz, M., Nazemi, E., Balubaid, M., Roshani, G.H. and Karaboga, D. "Investigation of time-domain feature selection and GMDH neural network application for determination of volume percentages in X-ray-based two-phase flow meters", Journal of Metrology Society of India

- Alizadeh, S.M., Parhizi, Z., Alibak, A.H., Vaferi, B. and Hosseini, S. "Predicting the hydrogen uptake ability of a wide range of zeolites utilizing supervised machine learning methods", International Journal of Hydrogen Energy

- Memarian Sorkhabi, O., Alizadeh, S.M., Shahdost, F. and Heravi, H. "Deep learning of GPS geodetic velocity" Journal of Asian Earth Sciences: X

- Cao, Y., Dhahad, H.A., Khandakar, A., Chowdury, M.E.H., Ayari, M.A., Alizadeh, S.M. and Vaferi, B "Employing computational fluid dynamics technique for analyzing the PACK-1300XY with methanol and isopropanol mixture", Scientific Reports

- Mayet, A., Alizadeh, S.M., Nurgalieva, K., Hanus, R., Nazemi, E. and Narozhnyy, I. "Extraction of time-domain characteristics and selection of effective features using correlation analysis to increase the accuracy of petroleum fluid monitoring systems", Eenergies

- Khosravi, M., Tabasi, S., Hossam Eldien H., Motahari, M. and Alizadeh, S.M. "Evaluation and prediction of the rock static and dynamic parameters", Journal of Applied Geophysics

- Mayet, A., Salama, A., Alizadeh, S.M., Nesic, S., Nesic, S., Guerrero, J., Eftekhari-zadeh, E., Nazemi, E. and Iliyasu, A. "Applying data mining and artificial intelligence techniques for high precision measuring of the two-phase flow's characteristics independent of the pipe's scale layer", Electronics

- Alanazi, A., Alizadeh, S.M., Nurgalieva, K., Nesic, S., Guerrero, J., Abdo-dief, H., Eftekhari-zadeh, E., Nazemi, E. and Narozhnyy, I. "Application of neural network and time-domain feature extraction techniques for determining volumetric percentages and the type of two-phase flow regimes independent of scale layer thickness", Applied Sciences

- Alizadeh, S.M., Iraji, A., Tabasi, S., Ahmed, A. and Motahari, M. "Estimation of dynamic properties of sandstones based on index properties using artificial neural network and multivariate linear regression methods", Acta Geophysica

- Alanazi, A., Alizadeh, S.M., Nurgalieva, K., Guerrero, J., Abdodief, H., Eftekhari-zadeh, E., Nazemi, E. and Narozhnyy, I. "Optimization of X-ray tube voltage to improve the precision of two-phase flow meters used in petroleum industry", Sustainability

- Ramdan, D., Najmi, M., Rajabzadeh, H., Elveny, M., Alizadeh, S.M. and Shahriari, R. "Prediction of CO2 solubility in electrolyte solutions using the e-PHSC equation of state", The Journal of Supercritical Fluids

- Syah, R., Alizadeh, S.M., Darvishzadeh, L., Elveny, M., Abedi, M. and Ramdan, D. "Simultaneous Injection of Chemical Agents and Carbon Dioxide to

Enhance the Sweep Efficiency from Fractured Tight Core Samples", Energy Reports

- Mirzaasadi, M., Zarei, V., Elveny, M., Alizadeh, S.M., Valizadeh, V. and Khan, A. "Improving the rheological properties and thermal stability of water-based drilling fluid using biogenic silica nanoparticles", Energy Reports

- Memarian Sorkhabi, O. and Alizadeh, S.M. "Coseismic displacement of Ahar-Varzengan earthquakes based on GPS observations and deep learning", Arabian Journal of Geosciences

- Alizadeh, S.M., Bagherzadeh, A., Bahmani, S., Nikzad, A., Aminzadeh Sarikhanbeglou, E. and Yu, S.T. "Retrograde gas condensate reservoirs: reliable estimation of dew point pressure by the hybrid neuro-fuzzy connectionist paradigm", Journal of Energy Resources Technology

- Syah, R., Alizadeh, S.M., Nasution, M.K.M, Ilani Kashkouli, M.N., Elveny, M. and Hosseini, M. "Carbon Dioxide-Based Enhanced Oil Recovery Methods to Evaluate Tight Oil Reservoirs Productivity: A Laboratory Perspective Coupled with Geo-Sequestration Feature", Energy Reports

- Xu, B., Chen, T.C., Ahangari, D., Alizadeh, S.M., Elveny, M. and Makhdoumi, J. "Application of a Supervised Learning Machine for Accurate Prognostication of Hydrogen Contents of Bio-Oil", International Journal of Chemical Engineering

- Syah, R., Ahmadian, N., Elveny, M., Alizadeh, S.M., Hosseini, M. and Khan, A. "Implementation of artificial intelligence and support vector machine learning to estimate the drilling fluid density in high-pressure high-temperature wells", Energy Reports

- Nabavi, M., Nazarpour, V., Alibak, A.H., Bagherzadeh, A. and Alizadeh, S.M. "Smart tracking of the influence of alumina nanoparticles on the thermal coefficient of nanosuspensions: application of LS-SVM methodology", Applied Nanoscience

- Mousazadeh, M., Naghdali, Z., AlQodah, Z., Alizadeh, S.M., Karamati, E., Malekmohammadi, S., Nidheesh, P.V., Roberts, E.P.L., Sillanpää, M. and Emamjomeh, M.M. "A systematic diagnosis of state of the art in the use of electrocoagulation as a sustainable technology for pollutant treatment: An updated review", Sustainable Energy Technologies and Assessments

- Alizadeh, S.M., Khodabakhshi, A., Hassani, P. and Vaferi, B. "Smart-identification of petroleum reservoir well testing models using deep convolutional neural networks (GoogleNet)", Journal of Energy Resources Technology

- Alizadeh, S.M., Alruyemi, I., Daneshfar, R., Mohammadi, M. and Naseri, M. "An insight into the estimation of drilling fluid density at HPHT condition using PSO-, ICA-, and GA-LSSVM strategies", Scientific Reports

- Guo, Q., Ahmadi, M.H., Lahafdoozian, M., Lekomtsev, A., Kuzichkin, O.R., Alizadeh, S.M. and Nassabeh, S.M.M. "A laboratory approach on the improvement of oil recovery and carbon dioxide storage capacity improvement by cyclic carbon dioxide injection", Energy Reports

- Cao, Y., Alizadeh, S.M., Fouladvand, M.T., Khan, A., Taghvaie, A., Heidari, Z., Pelalak, R., Kurniawan, T. and Albadarin, A.B. "Mathematical modeling and numerical simulation of CO2 capture using MDEA-based nanofluids in nanostructure membranes", Process Safety and Environmental Protection

- Mousazadeh, M., Alizadeh, S.M., Frontistis, Z., Kabdasli, I., Karamati, E., AlQodah, Z., Naghdali, Z., Mahmoud, A., Sandoval, M., Butler, E. and Emamjomeh, M.M. "Electrocoagulation as a promising defluoridation technology from water: A review of state of the art of removal mechanisms and performance trends", Water

- Valizadeh, J., Hafezalkotob, A., Alizadeh, S.M. and Mozafari, P. "Hazardous Infectious waste Collection and Government Aid Distribution during COVID-19: A Robust Mathematical Leader-Follower Model Approach", Sustainable Cities and Society

- Ahmadi, M.H., Alizadeh, S.M., Tananykhin, D., Karbalaei, S., Iliushin, P. and Lekomtsev, A. "Laboratory Evaluation of Hybrid Chemical Enhanced Oil Recovery Methods Coupled with Carbon Dioxide", Energy Reports

- Hassanpour, A., Fatahi, M. and Alizadeh, S.M., "Interactional Effect of the Influential Parameters on Seismic Behaviour of the Concrete Surface Tanks", Shock and Vibration

- Emamjomeh, M.M., Kakavand, S., Jamali, H.A., Alizadeh, S.M., Safdari, M., Mousavi, S.E., Hashim, K.S. and Mousazadeh, M., "The treatment of printing and packaging wastewater by electrocoagulation– flotation: the simultaneous efficacy of critical parameters and economics", Desalination and Water Treatment

- Ghoreishi, B., Esfahani, M.K., Alizadeh, N., Amini, O., Aghamolaie, I., Hashim, N.A. and Alizadeh, S.M., "Assessment of geotechnical properties and determination of shear strength parameters", Geotechnical and Geological Engineering

- Alizadeh, S.M., Ghazanfari, A., Ehyaei, M.A., Ahmadi, A., Jamali, D.H., Nedaei, N. and Davarpanah, A. "Investigation the integration of heliostat solar receiver to gas and combined cycles by energy, exergy and economic point of views", Applied Sciences

- Rastergarnia, A., Alizadeh, S.M., Esfahani, M.K., Amini, O. and Utyuzh, A.S. "The effect of hydrated lime on the petrography and strength characteristics of illite clay", Geomechanics and Engineering

	- Alizadeh, S.M., Latham, S., Middleton, J., Limaye, A., Senden, T. and Arns, C.H "Regional analysis techniques for integrating experimental and numerical measurements of transport properties of reservoir rocks", Advances in Water Resources
Paper Presentations at Professional Conferences:	- Seyed Alizadeh S.M., Latham S.J., Middleton J.P., Senden T. and Arns C.H. "An Analysis of Sleeve Effects for Petrophysical Measurements Using Digital Core Analysis": paper IPTC 18378-MS (presented at International Petroleum Technology Conference, Doha, Qatar, DEC. 2015) - Seyed Alizadeh S.M., Francois N., Latham S.J., Senden T., Middleton J.P., Limaye A. and Arns C.H. "Towards Integrating Conventional and Digital Rock Physics", 3rd International Workshop on Rock Physics, Perth, Australia, 2015 - Seyed Alizadeh S.M., Francois N., Middleton J., Latham S., Limaye A., Senden T. and Arns C.H. "Small Scale Permeability Measurements at Elevated Pressures: Analysis and Correction of Experimental Error Using Micro XRay-CT", paper SCA2013-32, Presented at the International Symposium of the Society of Core Analysts, Napa Valley, California, USA, 16-19 September, 2013 - Saadatfar M., Francois N., Arad A., Cruikshank R., Seyed Alizadeh S.M., Sheppard A., Kingston, A., Limay A., Senden T., Knackstedt M. and Madadi M. "3D Mapping of Deformation in an Unconsolidated Sand: A Micro-Mechanical Study", presented in SEG Annual Meeting, 4-9 Nov. 2012, Las Vegas, U.S.A. - Masoumi H., Douglas K. J. and Seyed Alizadeh S.M., 2010, "Yielding in Intact Rock at Different Scales": Rock Stress and Earthquakes, 2010 Taylor and Francis Group, London, ISBN 978-0-415-60165-8 (pp. 769-776) - Seyed Alizadeh S.M., Alizadeh N. and Maini B., 2007, "A Full-Field Simulation Study of the Effect of Foam Injection on Recovery Factor of an Iranian Oil Reservoir": paper IPTC 11181 (presented at International Petroleum Technology Conference, Dubai, UAE, DEC. 2007)
University Service including committee Membership:	- 8th Student Graduation Project – Event Coordinator - Research Committee, Auditing Committee, Lab Committee
National Service:	NA
University Committees:	Department Council Curriculum Committee Research & Faculty Development Committee Appointment and Promotion Committee