



2019 Applied Geoscience Conference

March 5-6, 2019

Oral Presentations – Tuesday, March 5, 2019

7:00	Registration and Coffee	
8:30 am - 10:30 am	Short Course- Analytics: How to Trigger Enlightenment and Avoid Hype	Andrew Silver , <i>Adret LLC</i>
Session 1: Automation - Reliability and Productivity Chairs: Steve Geetan and Sachin Ghorpade		
10:30 am - 11:00 am	Coffee Break, Posters	
11:00 am - 11:30 am	Automated Geosteering using a Bayesian Network	Hugh Winkler , <i>Factor Technology</i>
11:30 am-12:00 pm	Combined Automation of Geologic Log Correlation and Directional Drilling	Bill Chmela
12:00 pm - 1:00 pm	Lunch, Posters	
1:00 pm - 1:30 pm	Transforming Well Path Planning: You Can Plan the Most Productive Well and Drill it, too	David Cotrell , <i>Baker Hughes, a GE company</i>
1:30 pm - 2:00 pm	Automated Log Editing Using Machine Learning	Fred Jensen, <i>CGG</i>
2:00 pm - 2:30 pm	Coffee Break, Posters	
Session 2: Leveraging Cloud and Machine Learning to Transform How Geoscientists Work Data Chairs: Barbara Hill and Ana Ramirez		
2:30 pm - 3:00 pm	Transforming Seismic and Geoscience Data Workflows Utilizing Cloud and Machine Learning Technology	John Adamick , <i>Staurolite Consulting, LLC.</i>
3:00 pm - 3:30 pm	Using Multi-Attribute Seismic Neural Analysis from Interpretation Through Reservoir Estimation – A Full-Cycle Workflow	Deborah K. Sacrey , <i>Auburn Energy</i>
3:30 pm - 4:00 pm	Bootstrapping Lithology Classification	Tobias Hoeink , Marco van der Linden, Wendy Yang; <i>Baker Hughes, a GE company</i>
4:00 pm - 4:30 pm	Machine-Learned Mapping of Basin-wide Salt: Old Data – New Methods	Scott Morris , Tony Dupont, John Grace; <i>Earth Science Associates</i>
4:30 pm - 7:00 pm	Networking Reception	

Poster Session

Invited Presentations from Graduate Students
Open during Coffee and Lunch Breaks



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Oral Presentations – Wednesday, March 6, 2019

7:00	Registration and Coffee	
	Session 3: Digital Transformation of the Geosciences – Hype or Hope Chairs: Lisa Neelen and Mark Herkommer	
8:00 am - 9:00 am	Key Note How We Get From Bytes to Barrels in the Delaware Basin	David O'Brien, Anadarko
9:00 am - 9:30 am	Evolution of Drilling Data and Geological Data Utilization in Drilling Optimization	Ernest Onyia, GPRESS Energy, LLC
9:30 am - 10:00 am	(Artificially) Intelligent Methods to Maximize Value from Piston Core Geochemistry: An Example from Offshore Nigeria	Benjamin Kirklan, Fieldwood Energy, LLC
10:00 am - 10:30 am	Coffee Break, Posters	
10:30 am - 11:00 am	Spatial Seismic Waveform Analysis using Enhanced Similarity Algorithm	Daniel De Lilla, Anadarko, Olga Brusova
11:00 am - 11:30 am	Generative Adversarial Networks in Seismic Data Processing	Stephen Alwon, Schlumberger
11:30 am - 12:30 pm	Lunch, Posters	
	Session 4: Machine Learning and Data Analytics in Exploration and Production Chairs: John Adamick and Jessica Raines	
12:30 pm - 1:00 pm	Identifying New Drilling Areas in Midland Basin Integrating Geological Mapping, Predictive Analytics and GIS Technology	Camilo Rodriguez, IHS Markit
1:00 pm - 1:30 pm	The Use of Machine Learning to Enhance Faults and Fractures Detection in Seismic Data	Hesham Refayee, dGB Earth Sciences
1:30 pm - 2:00pm	Machine Learning-Based Approach to Assistive Well Log Correlation	Seth Brazell, Anadarko
2:00 pm - 2:30 pm	Coffee Break, Posters	
2:30 pm - 2:45 pm	Poster Session Awards	
2:45 pm - 3:15 pm	Applying Artificial Intelligence to Seismic Data for Enhanced Earth Modeling	Richard Koseluk, Quantico Energy Solutions
3:15 pm - 3:45 pm	Digital Transformation and Deep Learning in E&P	Bode Omoboya, Bluware
3:45 pm - 4:15 pm	Using Machine Learning for Fault Detection in Unconventional Reservoir Development	Cody Comiskey, Anadarko (AAEP)



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Posters – March 5–6, 2019

Poster Session Chair: Mike Effler

University	Student Name	Poster Topic
Colorado School of Mines	Deep Joshi	Applying Petroleum Industry Heritage to Characterize Water-Ice on Moon
Stanford University	Anshuman Pradhan	Creating Large Volumes of Labeled Training Data for Geophysical Estimation with Machine Learning: A Bayesian Approach
Texas A&M University	See Yoon Lee	Hierarchical Bayesian Modeling: Application Towards Production Results in the Eagle Ford Shale of South Texas
Texas A&M University	Cuiting Qi	The Application of Discriminant Analysis in Well Logging Evaluation of Low Permeability Reservoirs in Block Zhuang 62-66 of Wuhaozhuang Oilfield, Jiyang Depression
The University of Alabama	Hao Wu	From Learning Noise to Denoise Using Deep Convolution Neural Network: An Application of Seismic Noise Attenuation
The University of Oklahoma	Rafael Pires de Lima	Convolutional Neural Networks: If They Can Identify an Oncoming Car, Can They Identify Lithofacies in Core
The University of Oklahoma	Saurabh Sinha	Statistical Controls on Induced Seismicity
The University of Oklahoma	Jing Zhang	Azimuthal Anisotropy Analysis Application in Unconventional Reservoir Natural Fracture Network Interpretation: Using the Barnett Shale as an Example
The University of Texas Permian Basin	Ashton Faulkner	Paleoenvironment and Hydrocarbon Potential of the Cretaceous Mancos Shale in Rio Arriba County, New Mexico
University of Calgary	Sochi Iwuoha	Leveraging Big Data for Field-Scale Reservoir Analysis: A New Well-Log and Artificial Neural Network Technique for Recognizing Natural Fracture Zones in Tight Reservoirs
University of Houston	Lian Jiang	Influence of Data Quality and Distribution on Facies Classification with Machine Learning
University of Houston	Wenyuan Zhang	Characterizing Reservoir Anomalies Through FWI and Deep Learning of Crosswell Seismic Data

Participating Schools

Colorado School of Mines • Stanford University • Texas A&M University
 The University of Alabama • The University of Oklahoma • The University of Texas Permian Basin
 University of Calgary • University of Houston

Open During Coffee and Lunch Breaks