

Amirhossein Mardan

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RESEARCH INTEREST

- Seismic data interpretation
- Machine learning
- Numerical modeling
- Geomechanics

EDUCATION

INRS (Quebec, Canada) *Sep./2018-Now*
Ph.D. Geoscience
GPA: 4/4

Amirkabir University of Technology (Tehran, Iran) *Sep./2014-Sep./2016*
M.Sc. Petroleum engineering (Exploration seismology)
GPA: 3.83/4

Science and Research Branch of Islamic Azad University (Tehran, Iran) *Sep./2009-Sep./2013*
B.Sc. Petroleum engineering (Exploration)
GPA: 3.75/4

RESEARCH EXPERIENCE

Application of pattern recognition in detecting buried channels in seismic data
(M.Sc. Thesis) *July/2015-Sep./2016*
Petroleum Engineering Department
Amirkabir University of Technology
Supervisor: *Dr. Abdolrahim Javaherian*
Grade: 20/20

Porosity measurement using NMR well logging
(B.Sc. Thesis) *July/2012-July/2013*
Petroleum Engineering Department
Science and Research Branch of Islamic Azad University of Tehran
Supervisor: *Dr. Kamyar Ahmadi*
Grade: 19.25/20

TEACHING EXPERIENCE

- *Autumn 2017, "Vista (Seismic Data Processing) and MATLAB and its application in seismology "*
MSc. students, Amirkabir University of Technology
- *Autumn 2017, "Reservoir Engineering, Well logging, Geomechanics, and Drilling Engineering "*
BSc. students, Islamic Azad University
- *Autumn 2016, "Evaluation and estimation of petroleum reservoirs "*
BSc. students, Islamic Azad University
- *Autumn 2015, "MATLAB and its application in seismology "*
MSc. students, Amirkabir University of Technology

WORK EXPERIENCE

- **Lecturer at University**
Islamic Azad University, Tehran South and Meymeh Branches Sep/2016 - Jan/2018
- **Representative of European Association of Geoscience and Engineering (EAGE)**
4th YES Congress, Tehran Aug/2017
- **Representative of Iranian Geophysical Society (IGS)**
79th EAGE Conference and Exhibition, Paris June/2017

MAJOR GRADUATE COURSES

- *Advanced Petroleum Organic Geochemistry*
- *Digital Filters*
- *Interpretation of Seismic Reflection Data*
- *Sedimentary Basin Analysis*
- *Seismic Data Acquisition*
- *Seismic Signature in Anisotropic Media*
- *Seismic Data Processing*
- *Subsurface Geology*
- *Finite Element*
- *Advanced Petrophysics*
- *Exploration Seismology*
- *Machine Learning (Online Course)*
- *Seismic Attributes*
- *Seismic Inversion for Acoustic Impedance Recovery*
- *Seismic Rock Physics*
- *Application of Advanced Rock Mechanics in Petroleum Engineering*

SOFTWARES

- **MATLAB (Advanced)**
- **Petrel (Intermediate)**
- **Python (Intermediate)**
- **HampsonRussell (Elementary)**
- **OpendText (Advanced)**
- **L^AT_EX (Intermediate)**
- **Vista (Intermediate)**

PUBLICATIONS

- **Mardan, A. H., Javaherian, A., and Mirzakhani, M., 2018, Channel detection using unsupervised learning techniques, 80th EAGE Conference and Exhibition 2018, Copenhagen.**
- **Mardan, A. H., Javaherian, A., and Mirzakhani, M., 2017, The use of self-organizing maps to identify channel facies in one of the Iranian oilfields, Journal of Exploration and Production, 146, 46-51.**
- **Mardan, A. H., Javaherian, A., and Mirzakhani, M., 2017, Channel characterization using support vector machine, 79th EAGE Conference and Exhibition 2017, Paris.**
- **Mardan, A. H., Javaherian, A., and Mirzakhani, M., 2017, Principal and independent components analysis for channel detecting, 3rd Seminar of Petroleum Geophysical Exploration, Tehran.**
- **Mardan, A. H., Javaherian, A., and Mirzakhani, M., 2016, Channel detection using unsupervised learning algorithms, The 17th Iranian Geophysical Conference, Tehran.**
- **Mardan, A. H., Javaherian, A., and Mirzakhani, M., 2015, A comparison of unsupervised learning techniques for channel detection in 3D seismic data acquired over the Strait of Hormuz, Journal of Research on Applied Geophysics, 1, 2, 90-102.**
- **Mardan, A. H., and Javaherian, A., 2015, Improvement of k-means clustering algorithm for fault detection in seismic data, The 3rd National Iranian Petroleum Conference, University of Kerman.**

LANGUAGES

- **Farsi**
- **English**
- **French**

AWARD AND HONOR

- *Ranked 4th in MSc Entrance Exam 2014 of Petroleum Exploration Engineering in Iran.*