

## **Doç.Dr. Fazıl Emre Artun**

### **Kişisel Bilgiler**

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### **Uluslararası Araştırmacı ID'leri**

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Publons / Web Of Science ResearcherID: P-6893-2014

ScopusID: 14061907000

Yoksis Araştırmacı ID: 225508

### **Eğitim Bilgileri**

Doktora, Pennsylvania State University, Yer ve Mineral Bilimleri Fakültesi, Petrol ve Doğalgaz Mühendisliği Bölümü, Amerika Birleşik Devletleri 2005 - 2008

Yüksek Lisans, West Virginia University, Mühendislik ve Mineral Kaynaklar Fakültesi, Petrol ve Doğalgaz Mühendisliği Bölümü, Amerika Birleşik Devletleri 2003 - 2005

Lisans, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Petrol Ve Doğal Gaz Mühendisliği Bölümü, Türkiye 1999 - 2003

### **Yabancı Diller**

İngilizce, C1 İleri

### **Araştırma Alanları**

Mühendislik ve Teknoloji

### **Akademik Unvanlar / Görevler**

Doç.Dr., İstanbul Teknik Üniversitesi, Maden, Petrol Ve Doğalgaz Mühendisliği, 2020 - Devam Ediyor

Doç.Dr., Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Petrol Ve Doğal Gaz Mühendisliği Bölümü, 2018 - 2020

Dr.Öğr.Üyesi, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Petrol Ve Doğal Gaz Mühendisliği Bölümü, 2013 - 2018

Öğretim Görevlisi Dr., Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Petrol Ve Doğal Gaz Mühendisliği Bölümü, 2012 - 2013

### **Akademik İdari Deneyim**

Program Koordinatörü, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Petrol Ve Doğal Gaz Mühendisliği Bölümü, 2017 - 2020

## **Yönetilen Tezler**

Kök M. V., Artun F. E., Development of a screening model for the cyclic steam injection (CSI) process, Yüksek Lisans, G.YALGIN(Öğrenci), 2018

Durgut İ., Artun F. E., Development of a screening model for polymer flooding in multi-layer reservoirs, Yüksek Lisans, N.ZAREPAKZAD(Öğrenci), 2018

## **Jüri Üyelikleri**

Ödül, SPE Uluslararası Formasyon Değerlendirme Ödülü Komitesi Başkanlığı, 2019, Petrol Mühendisleri Topluluğu (SPE), Ekim, 2019

Ödül, SPE Uluslararası Formasyon Değerlendirme Ödülü Komitesi Jüri Üyeliği, 2016-2019, Petrol Mühendisleri Topluluğu (SPE), Ekim, 2016

## **SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler**

- I. **Understanding the Controlling Factors for CO<sub>2</sub> Sequestration in Depleted Shale Reservoirs Using Data Analytics and Machine Learning**  
Baabbad H. K. H., Artun F. E., Kulga B.  
ACS OMEGA, cilt.7, sa.24, ss.20845-20859, 2022 (SCI-Expanded)
- II. **Machine-Learning Approach for Forecasting Steam-Assisted Gravity-Drainage Performance in the Presence of Noncondensable Gases**  
Canbolat S., Artun F. E.  
ACS OMEGA, cilt.7, ss.21119-21130, 2022 (SCI-Expanded)
- III. **Analytical modeling of flow regimes during cyclic CO<sub>2</sub> injection in hydraulically fractured tight reservoirs for enhanced oil recovery**  
Mugisha J., Al-Rbeawi S., Artun F. E.  
JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING, cilt.201, 2021 (SCI-Expanded)
- IV. **A comparative analysis and rapid performance prediction of polymer flooding process by coupling reservoir simulation with neural networks**  
Zarepakhad N., Artun F. E., DURGUT İ.  
INTERNATIONAL JOURNAL OF OIL GAS AND COAL TECHNOLOGY, cilt.27, sa.3, ss.227-246, 2021 (SCI-Expanded)
- V. **Performance assessment and forecasting of cyclic gas injection into a hydraulically fractured well using data analytics and machine learning**  
Artun E.  
Journal of Petroleum Science and Engineering, cilt.195, 2020 (SCI-Expanded)
- VI. **Selection of candidate wells for re-fracturing in tight gas sand reservoirs using fuzzy inference**  
Artun E., Kulga B.  
PETROLEUM EXPLORATION AND DEVELOPMENT, cilt.47, sa.2, ss.413-420, 2020 (SCI-Expanded)
- VII. **Improving Oil-Rate Estimate in Capacitance/Resistance Modeling Using the Y-Function Method for Reservoirs Under Waterflood**  
Temizel C., Artun F. E., Yang Z.  
SPE RESERVOIR EVALUATION & ENGINEERING, cilt.22, sa.3, ss.1161-1171, 2019 (SCI-Expanded)
- VIII. **Fishbone type horizontal wellbore completion: A study for pressure behavior, flow regimes, and productivity index**  
Al-Rbeawi S., Artun F. E.  
JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING, cilt.176, ss.172-202, 2019 (SCI-Expanded)
- IX. **Characterization of tight-gas sand reservoirs from horizontal-well performance data using an inverse neural network**

- Kulga B., Artun F. E., Ertekin T.  
 JOURNAL OF NATURAL GAS SCIENCE AND ENGINEERING, cilt.59, ss.35-46, 2018 (SCI-Expanded)
- X. Characterizing interwell connectivity in waterflooded reservoirs using data-driven and reduced-physics models: a comparative study  
 Artun F. E.  
 NEURAL COMPUTING & APPLICATIONS, cilt.28, sa.7, ss.1729-1743, 2017 (SCI-Expanded)
- XI. Development of a data-driven forecasting tool for hydraulically fractured, horizontal wells in tight-gas sands  
 Kulga B., Artun F. E., Ertekin T.  
 COMPUTERS & GEOSCIENCES, cilt.103, ss.99-110, 2017 (SCI-Expanded)
- XII. Modeling, analysis, and screening of cyclic pressure pulsing with nitrogen in hydraulically fractured wells  
 Artun F. E., Khoei A. A., Kose K.  
 PETROLEUM SCIENCE, cilt.13, sa.3, ss.532-549, 2016 (SCI-Expanded)
- XIII. A pattern-based approach to waterflood performance prediction using knowledge management tools and classical reservoir engineering forecasting methods  
 Artun F. E., Vanderhaeghen M., Murray P.  
 INTERNATIONAL JOURNAL OF OIL GAS AND COAL TECHNOLOGY, cilt.13, sa.1, ss.19-40, 2016 (SCI-Expanded)
- XIV. Designing cyclic pressure pulsing in naturally fractured reservoirs using an inverse looking recurrent neural network  
 Artun F. E., Ertekin T., Watson R., Miller B.  
 COMPUTERS & GEOSCIENCES, cilt.38, sa.1, ss.68-79, 2012 (SCI-Expanded)
- XV. Development of universal proxy models for screening and optimization of cyclic pressure pulsing in naturally fractured reservoirs  
 Artun F. E., Ertekin T., Watson R., Al-Wadhah M.  
 JOURNAL OF NATURAL GAS SCIENCE AND ENGINEERING, cilt.3, sa.6, ss.667-686, 2011 (SCI-Expanded)
- XVI. Performance and Economic Evaluation of Cyclic-Pressure Pulsing in Naturally Fractured Reservoirs  
 Artun F. E., Ertekin T., Watson R., Al-Wadhahit M., Miller B.  
 JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY, cilt.50, ss.24-36, 2011 (SCI-Expanded)
- XVII. Intelligent seismic inversion workflow for high-resolution reservoir characterization  
 Artun F. E., Mohaghegh S.  
 COMPUTERS & GEOSCIENCES, cilt.37, sa.2, ss.143-157, 2011 (SCI-Expanded)
- XVIII. Performance Evaluation of Cyclic Pressure Pulsing in a Depleted, Naturally Fractured Reservoir with Stripper-Well Production  
 Artun F. E., Ertekin T., Watson R., Miller B.  
 PETROLEUM SCIENCE AND TECHNOLOGY, cilt.29, sa.9, ss.953-965, 2011 (SCI-Expanded)
- XIX. Development and testing of proxy models for screening cyclic pressure pulsing process in a depleted, naturally fractured reservoir  
 Artun F. E., Ertekin T., Watson R., Miller B.  
 JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING, cilt.73, ss.73-85, 2010 (SCI-Expanded)
- XX. A Parametric Study on the Benefits of Drilling Horizontal and Multilateral Wells in Coalbed Methane Reservoirs  
 Maricic N., Mohaghegh S. D., Artun F. E.  
 SPE RESERVOIR EVALUATION & ENGINEERING, cilt.11, sa.6, ss.976-983, 2008 (SCI-Expanded)

## Düger Dergilerde Yayınlanan Makaleler

- I. Probabilistic assessment of geothermal resources and their development in Dikili-İzmir region  
 Turan A., Artun F. E., Saner S.  
 SN Applied Sciences, cilt.3, sa.6, 2021 (ESCI)

**II. Assessment of Carbon Footprint of a Campus with Sustainability Initiatives**

Artun E.

GAZI UNIVERSITY JOURNAL OF SCIENCE, cilt.34, sa.3, ss.652-663, 2021 (ESCI)

**Kitap & Kitap Bölümleri**

**I. Oilfield data mining**

Mohaghegh S., Artun F. E.

Exploration and Production of Petroleum and Natural Gas, M.R. Riazi, Editör, ASTM : American Society for Testing and Materials , Pennsylvania, ss.177-196, 2016

**Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar**

**I. Analytical Modeling of Flow Regimes During Cyclic CO<sub>2</sub> Injection in Hydraulically Fractured Tight Reservoirs for EOR**

MUGISHA J., AL RBEAWI S., ARTUN F. E.

82nd EAGE Annual Conference Exhibition, 8 - 11 Aralık 2020

**II. Comparison of machine learning algorithms for the development of a forecasting tool for cyclic gas injection in hydraulically-Fractured wells**

Seilkhanov A., Otynshin D., Novopokrovskiy G., Artun E.

SPE Annual Caspian Technical Conference 2020, CTC 2020, Virtual, Online, 21 - 22 Ekim 2020

**III. Candidate well selection for re-fracturing in tight-gas sand reservoirs using artificial intelligence**

ARTUN F. E., KULGA İ. B.

AAPG/SPE Eastern Section Joint Meeting, Pittsburgh, Amerika Birleşik Devletleri, 7 - 11 Ekim 2018

**IV. Development of a data-driven operational design tool for CO<sub>2</sub> sequestration in shale gas reservoirs**

KULGA İ. B., ARTUN F. E., Ertekin T.

AAPG/SPE Eastern Section Joint Meeting, Pittsburgh, Amerika Birleşik Devletleri, 7 - 11 Ekim 2018

**V. Design and Development of Data-Driven Screening Tools for Enhanced Oil Recovery Processes**

Yalgin G., Zarepakzad N., ARTUN F. E., DURGUT İ., KÖK M. V.

SPE Western Regional Meeting, 22 - 26 Nisan 2018

**VI. Probabilistic assessment of tight-gas sands using a data-driven modeling approach**

ARTUN F. E., KULGA İ. B., Ertekin T.

AAPG Eastern Section Meeting, Morgan Town, Amerika Birleşik Devletleri, 24 - 27 Ekim 2017

**VII. Time-dependent performance evaluation of cyclic injection of gas mixtures into hydraulically-fractured wells in Appalachian sandstones**

ARTUN F. E.

AAPG Eastern Section Meeting, 24 - 27 Eylül 2017

**VIII. Cyclic pressure pulsing A promising method to improve recovery from hydraulically fractured stripper wells of Appalachian Basin**

ARTUN F. E., Irgav O., Khairzhanov N.

AAPG Eastern Section Meeting, Lexington, Kentucky, Amerika Birleşik Devletleri, 25 - 27 Eylül 2016

**IX. Characterizing Reservoir Connectivity and Forecasting Waterflood Performance Using Data Driven and Reduced Physics Models**

ARTUN F. E.

SPE Western Regional Meeting, Anchorage, Alaska, Amerika Birleşik Devletleri, 23 - 26 Mayıs 2016

**X. Intersecting fracture geometries in control of geothermal spring occurrences in circumferences of the madra mountain, aegean region of Turkey**

Turan A., Saner S., Artun E.

Geothermal Resources Council 2016 Annual Meeting - Geothermal Energy Here and Now: Sustainable, Clean,

- Flexible, GRC 2016, California, Amerika Birleşik Devletleri, 23 - 26 Ekim 2016, cilt.40, ss.611-619
- XI. **Modeling and analysis of cyclic pressure pulsing in hydraulically fractured wells**  
ARTUN F. E., Aghazadeh Khoei A., Kose K.  
20th International Petroleum and Natural Gas Congress and Exhibition of Turkey (IPETGAS), Ankara, Türkiye, 27 - 29 Mayıs 2015
- XII. **A Pattern Based Approach to Waterflood Performance Prediction Using Knowledge Management Tools and Classical Reservoir Engineering Forecasting Methods**  
ARTUN F. E., Vanderhaeghen M., Murray P.  
SPE Western North American and Rocky Mountain Joint Meeting, Denver, Colorado, Amerika Birleşik Devletleri, 14 - 16 Nisan 2014
- XIII. **A case study for understanding waterflood performance using analytical tools**  
Fernandes B., Cabral Y., ARTUN F. E.  
19th International Petroleum and Natural Gas Congress and Exhibition of Turkey (IPETGAS), Ankara, Türkiye, 15 - 17 Mayıs 2013
- XIV. **Performance and Economic Evaluation of Cyclic Pressure Pulsing in Naturally Fractured Reservoirs**  
ARTUN F. E., Ertekin T., Watson R., AlWadhahi M., Miller B.  
SPE EOR Conference at Oil & Gas West Asia, Muscat, UMMAN, 11 - 13 Nisan 2010
- XV. **Development of Universal Proxy Models for Screening and Optimization of Cyclic Pressure Pulsing in Naturally Fractured Reservoirs**  
ARTUN F. E., Ertekin T., Watson R., AlWadhahi M.  
International Petroleum Technology Conference, Doha, Qatar, 7 - 09 Aralık 2009
- XVI. **Optimized Design of Cyclic Pressure Pulsing in a Depleted Naturally Fractured Reservoir**  
ARTUN F. E., Ertekin T., Watson R., Miller B.  
SPE Eastern Regional/AAPG Eastern Section Joint Meeting, Pittsburgh, Pennsylvania, USA, Amerika Birleşik Devletleri, 11 - 15 Ekim 2008
- XVII. **A Parametric Study on the Benefits of Drilling Horizontal and Multilateral Wells in Coalbed Methane Reservoirs**  
Maricic N., Mohaghegh S., ARTUN F. E.  
SPE Annual Technical Conference and Exhibition, Dallas, Texas, Amerika Birleşik Devletleri, 9 - 12 Ekim 2005
- XVIII. **Intelligent seismic inversion From surface seismic to well logs via VSP**  
ARTUN F. E., Mohaghegh S., Toro J., Wilson T., Sanchez A.  
AAPG Eastern Section Meeting, Morgantown, WV, Amerika Birleşik Devletleri, 18 - 20 Eylül 2005
- XIX. **Reservoir Characterization Using Intelligent Seismic Inversion**  
ARTUN F. E., Mohaghegh S., Toro J., Wilson T., Sanchez A.  
SPE Eastern Regional Meeting, Morgantown, West Virginia, Amerika Birleşik Devletleri, 14 - 16 Eylül 2005

## Bilimsel Dergilerdeki Faaliyetler

Journal of Natural Gas Science and Engineering, Yardımcı Editör/Bölüm Editörü, 2015 - Devam Ediyor  
International Journal of Oil Gas and Coal Technology, Yayın Kurul Üyesi, 2012 - 2020

## Metrikler

Yayın: 44  
Atıf (WoS): 151  
Atıf (Scopus): 252  
H-İndeks (WoS): 9  
H-İndeks (Scopus): 10

## **Akademi Dışı Deneyim**

Quantum Reservoir Impact

Quantum Reservoir Impact

Chevron Energy Technology Company

Chevron Energy Technology Company

EQT Corporation