

## **Prof. MAHMUT PARLAKTUNA**

### **Personal Information**

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### **Education Information**

Doctorate, Middle East Technical University, Faculty Of Engineering, Department Of Petroleum And Natural Gas Engineering, Turkey 1983 - 1988

Post Graduate, Middle East Technical University, Faculty Of Engineering, Department Of Petroleum And Natural Gas Engineering, Turkey 1980 - 1983

Under Graduate, Middle East Technical University, Faculty Of Engineering, Department Of Petroleum And Natural Gas Engineering, Turkey 1975 - 1980

### **Foreign Languages**

English, C1 Advanced

### **Dissertations**

Doctorate, Effect of carbondioxide on PVT behavior of geothermal fluids and prevention of calcite deposition by inhibitor injection, Middle East Technical University, Faculty Of Engineering, Department Of Petroleum And Natural Gas Engineering, 1988

Post Graduate, Effect of Reinjection on the Behavior of a Hot Water Geothermal Reservoir - A Laboratory Model Approach, Middle East Technical University, Faculty Of Engineering, Department Of Petroleum And Natural Gas Engineering, 1983

### **Research Areas**

Reservoir, Gas Hydrates, Jeothermal Reservoir Engineering

### **Academic Titles / Tasks**

Professor, Middle East Technical University, Faculty of Engineering, Department of Petroleum and Natural Gas Engineering, 2001 - Continues

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Petroleum and Natural Gas Engineering, 1994 - 2001

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Petroleum and Natural Gas Engineering, 1988 - 1994

Lecturer, Middle East Technical University, Faculty of Engineering, Department of Petroleum and Natural Gas

Engineering, 1987 - 1988

Research Assistant, Middle East Technical University, Faculty of Engineering, Department of Petroleum and Natural Gas Engineering, 1980 - 1987

## Professional Experience

Head of Department, Middle East Technical University, Graduate School of Natural and Applied Sciences, İş Sağlığı Ve Güvenliği (YI) (Tezli), 2017 - Continues

Head of Department, Middle East Technical University, Faculty of Engineering, Department of Petroleum and Natural Gas Engineering, 2006 - 2015

Deputy Head of Department, Middle East Technical University, Faculty of Engineering, Department of Petroleum and Natural Gas Engineering, 2000 - 2003

## Advising Theses

PARLAKTUNA M., Investigation of natural gas hydrate potential of the south caspian sea, Post Graduate, Z.MUSTAFAYEVA(Student), 2018

İÇGEN B., PARLAKTUNA M., Investigation on indigenous bacteria for individual BTEX degradation potentials and relative pathways used, Post Graduate, A.Yavaş(Student), 2018

PARLAKTUNA M., Fracture effect limitation on residual oil saturation & visualization by computer tomography, Doctorate, S.CANBOLAT(Student), 2018

PARLAKTUNA M., YAMAN İ. Ö. , Evaluation of limestone incorporated cement compositions for cementing gas hydrate zones in deepwater environments, Post Graduate, İ.ALPTUĞ(Student), 2017

PARLAKTUNA M., Experimental investigation of cuttings transport in horizontal wells using aerated drilling fluids, Post Graduate, S.GÜL(Student), 2017

PARLAKTUNA M., A wellbore heat transfer model for steam injection as enhanced oil recovery method, Post Graduate, R.HOSAM(Student), 2015

PARLAKTUNA M., Smart water displacement - an alternative enhanced oil recovery technique, Doctorate, C.POLAT(Student), 2015

PARLAKTUNA M., A performance analysis of different types of liquid lubricants in weighted and unweighted water based drilling fluid by differential sticking tester parallel with lubricity tester, Post Graduate, M.UĞUR(Student), 2015

PARLAKTUNA M., A comparative study of cuttings transport performance of water versus polymer-based fluids in horizontal well drilling, Post Graduate, P.ALLAHVİRDİZADEH(Student), 2015

PARLAKTUNA M., Experimental verification of CH<sub>4</sub>-CO<sub>2</sub> swap in methane-propane-carbon dioxide mixture hydrates, Post Graduate, A.ABBASOV(Student), 2014

PARLAKTUNA M., An experimental study on steam distillation of heavy oils during thermal recovery, Post Graduate, Y.TAVAKKOLI(Student), 2013

PARLAKTUNA M., An experimental investigation of the shale inhibition properties of a quaternary amine compound, Post Graduate, B.TUĞRUL(Student), 2013

PARLAKTUNA M., Matrix fracture interaction in sandstone rocks during carbon dioxide, methane and nitrogen injection, Doctorate, S.BÜLBÜL(Student), 2012

KARAHANOĞLU N., PARLAKTUNA M., An investigation of the leak-off tests conducted in oil and natural gas wells drilled in Thrace basin, Post Graduate, B.KAYAEL(Student), 2012

PARLAKTUNA M., Economical impact of a dual gradient drilling system, Post Graduate, M.PEKER(Student), 2012

PARLAKTUNA M., Wellbore temperature assessment for generic deepwater well in Blacksea and mitigation of hydrate dissociation risk, Post Graduate, M.TARIK(Student), 2011

Güleç N. T. , Parlaktuna M., Geochemical evaluation and conceptual modeling of Edremit geothermal field, Doctorate, Ö.AVŞAR(Student), 2011

AKIN S., PARLAKTUNA M., Integration of real-time and dynamic surveillance data in managing Azeri-Chirag-Guneshli

field, Post Graduate, S.SADİKHOV(Student), 2010

PARLAKTUNA M., Extra korolev producers: Their impact on production, Post Graduate, A.YSKAK(Student), 2010

AKIN S., PARLAKTUNA M., Numerical modeling of Balçova geothermal field, Post Graduate, C.POLAT(Student), 2010

BİLGİN H. A. , PARLAKTUNA M., Resource assessment in Aydın-Pamukören geothermal field, Post Graduate, İ.ATMACA(Student), 2010

PARLAKTUNA M., Laboratory investigation on gelation behavior of xanthan crosslinked with borate intended to combat lost circulation, Post Graduate, M.MOKHTARİ(Student), 2010

AYDIN İ., PARLAKTUNA M., Modeling of Newtonian fluids and cuttings transport analysis in high inclination wellbores with pipe rotation, Doctorate, M.SORGUN(Student), 2010

AKIN S., PARLAKTUNA M., Assessment of reservoir rock and fluid data for black oil simulation?A case study, Post Graduate, O.SUSUZ(Student), 2009

AKIN S., PARLAKTUNA M., Numerical simulation of Germencik geothermal field, Post Graduate, A.HAMENDİ(Student), 2009

PARLAKTUNA M., PERFORMANCE PREDICTION ANALYSIS IN AZERI OIL FIELD, AZERBAIJAN, Post Graduate, A.MAJİDOVA(Student), 2009

PARLAKTUNA M., Estimation of water alternating gas (wag) injection performance of an offshore field (Azeri Field,Azerbaijan) using a sector simulation model, Post Graduate, F.BABAYEV(Student), 2008

PARLAKTUNA M., Determination of hydrate formation conditions of drilling fluid, Post Graduate, A.KUPEYEVA(Student), 2007

PARLAKTUNA M., Review of natural gas discovery and production from conventional resources in Turkey, Post Graduate, H.KESKİN(Student), 2007

PARLAKTUNA M., Hydrate formation conditions of methane hydrogen sulfide mixtures, Post Graduate, S.BÜLBÜL(Student), 2007

PARLAKTUNA M., Gas production from hydrate reservoirs, Post Graduate, D.ALP(Student), 2005

PARLAKTUNA M., Effect of polyglycols on hydrate formation during drilling operations, Post Graduate, A.TAHİR(Student), 2005

AKIN S., PARLAKTUNA M., Characterization of Kızılcahamam geothermal field by tracer testing, Post Graduate, T.KAYA(Student), 2005

PARLAKTUNA M., A technical feasibility study on the use of Çavundur geothermal field for greenhouse heating, Post Graduate, H.KASAPOĞLU(Student), 2003

PARLAKTUNA M., Assesment of low temperature geothermal resources, Post Graduate, S.ARKAN(Student), 2003

PARLAKTUNA M., An Experimental investigation of gas hydrate inhibition during deepwater drilling operations, Post Graduate, H.SAVAŞ(Student), 2002

PARLAKTUNA M., Reservoir simulation modeling of a natural gas field for reservoir evaluation, Post Graduate, S.YILMAZ(Student), 2002

PARLAKTUNA M., Fractionation properties of natural gas hydrates, Post Graduate, G.FATİH(Student), 2001

PARLAKTUNA M., Characterization of modelling of Kızıldere geothermal field, Post Graduate, K.YELTEKİN(Student), 2001

PARLAKTUNA M., Kinetic inhibition of hydrate formation through polymers and surfactants, Doctorate, U.KARAASLAN(Student), 2001

PARLAKTUNA M., Effect of surfactant on hydrate formation, Post Graduate, U.KARAASLAN(Student), 1998

PARLAKTUNA M., Estimation of silica scaling potential of Kızıldere field effluent, Post Graduate, S.ARITÜRK(Student), 1997

PARLAKTUNA M., Steam injection model for gas production from a hydrate reservoir, Post Graduate, N.CEYHAN(Student), 1996

PARLAKTUNA M., Modelling unsteady state flow to natural gas pipeline systems, Post Graduate, A.MURAT(Student), 1994

PARLAKTUNA M., Geochemical survey of Dutlu-Beypazarı geothermal field and geothermometry applications, Post Graduate, M.ŞUMNU(Student), 1989

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- **Real-time gas monitoring at the Tekke Hamam geothermal field (Western Anatolia, Turkey): an assessment in relation to local seismicity**  
SÜER S., Wiersberg T., Gulec N., Erzinger J., PARLAKTUNA M.  
NATURAL HAZARDS, 2020 (Journal Indexed in SCI)
- **Polymer gel conformance on oil recovery in fractured medium: Visualization and verification**  
Canbolat S., PARLAKTUNA M.  
JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING, vol.182, 2019 (Journal Indexed in SCI)
- **Analytical and visual assessment of fluid flow in fractured medium**  
Canbolat S., PARLAKTUNA M.  
JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING, vol.173, pp.77-94, 2019 (Journal Indexed in SCI)
- **Effects of minerals on steam distillation during thermal heavy-oil recovery: An experimental investigation**  
Osgouei Y. T. , PARLAKTUNA M.  
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, vol.40, pp.662-672, 2018 (Journal Indexed in SCI)
- **A study on the effect of the chemical composition of brine to improve oil recovery from carbonates**  
Polat C., PARLAKTUNA M.  
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, vol.39, pp.2151-2156, 2017 (Journal Indexed in SCI)
- **Experimental investigation of solids transport in horizontal concentric annuli using water and drag reducing polymer-based fluids**  
Allahvirdizadeh P., Kuru E., Parlaktuna M.  
JOURNAL OF NATURAL GAS SCIENCE AND ENGINEERING, vol.35, pp.1070-1078, 2016 (Journal Indexed in SCI)
- **Experimental investigation of carbon dioxide injection effects on methane-propane-carbon dioxide mixture hydrates**  
Abbasov A., Merey S., PARLAKTUNA M.  
JOURNAL OF NATURAL GAS SCIENCE AND ENGINEERING, vol.34, pp.1148-1158, 2016 (Journal Indexed in SCI)
- **Hydrate Inhibition with PEO (Poly 2-ethyl-2-oxazoline)**  
Bulbul S., Kadoura A. S. , Merey S., PARLAKTUNA M.  
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, vol.36, pp.2613-2620, 2014 (Journal Indexed in SCI)
- **Hydrate Formation Conditions of Methane Hydrogen Sulfide Mixtures**  
Bulbul S., PARLAKTUNA M., Mehmetoglu T., Karabakal U.  
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, vol.36, pp.2527-2535, 2014 (Journal Indexed in SCI)
- **Black Sea Hydrate Formation Conditions of Methane Hydrogen Sulfide Mixtures**  
Bulbul S., PARLAKTUNA M., Mehmetoglu T., Karabakal U.  
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, vol.36, pp.1738-1748, 2014 (Journal Indexed in SCI)
- **Hydrogeochemical characterization and conceptual modeling of the Edremit geothermal field (NW Turkey)**  
Avşar Ö., Güleç N. T. , Parlaktuna M.  
JOURNAL OF VOLCANOLOGY AND GEOTHERMAL RESEARCH, vol.262, pp.68-79, 2013 (Journal Indexed in SCI)
- **Noble gas isotopes and the chemical composition of geothermal gases from the eastern part of the Büyük Menderes Graben (Turkey)**  
Wiersberg T., Süer S., Güleç N. T. , Erzinger J., Parlaktuna M.  
JOURNAL OF VOLCANOLOGY AND GEOTHERMAL RESEARCH, vol.208, pp.112-121, 2011 (Journal Indexed in SCI)
- **Recovery of amino acids from reverse micellar solution by gas hydrate**  
Bayraktar E., Kocapicak O., Mehmetoglu U., PARLAKTUNA M., Mehmetoglu T.

- CHEMICAL ENGINEERING RESEARCH & DESIGN, vol.86, pp.209-213, 2008 (Journal Indexed in SCI)  
**Gas production by depressurization from hypothetical Class 1G and Class 1W hydrate reservoirs**  
Alp D., Parlaktuna M., Moridis G. J.
- ENERGY CONVERSION AND MANAGEMENT, vol.48, pp.1864-1879, 2007 (Journal Indexed in SCI)  
**Production of L-aspartic acid by biotransformation and recovery using reverse micelle and gas hydrate methods**  
Aydogan O., Bayraktar E., Parlaktuna M., Mehmetoglu T., Mehmetoglu U.
- BIOCATALYSIS AND BIOTRANSFORMATION, vol.25, pp.365-372, 2007 (Journal Indexed in SCI)  
**Promotion effect of polymers and surfactants on hydrate formation rate**  
Karaaslan U., Parlaktuna M.
- ENERGY & FUELS, vol.16, pp.1413-1416, 2002 (Journal Indexed in SCI)  
**PEO - A new hydrate inhibitor polymer**  
Karaaslan U., Parlaktuna M.
- ENERGY & FUELS, vol.16, pp.1387-1391, 2002 (Journal Indexed in SCI)  
**Effect of an anionic surfactant on different type of hydrate structures**  
Karaaslan U., Uluneye E., Parlaktuna M.
- JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING, vol.35, pp.49-57, 2002 (Journal Indexed in SCI)  
**Estimation of silica scaling temperatures of Kizildere geothermal field effluent, Turkey**  
Ariturk S., Parlaktuna M.
- ENERGY SOURCES, vol.23, pp.529-539, 2001 (Journal Indexed in SCI)  
**A cyclic steam injection model for gas production from a hydrate reservoir**  
Ceyhan N., Parlaktuna M.
- ENERGY SOURCES, vol.23, pp.437-447, 2001 (Journal Indexed in SCI)  
**Natural gas hydrate potential of the Black Sea**  
Parlaktuna M., Erdogmus T.
- ENERGY SOURCES, vol.23, pp.203-211, 2001 (Journal Indexed in SCI)  
**On the dissociation of natural gas hydrates from surfactant solutions**  
Karaaslan U., Parlaktuna M.
- ENERGY & FUELS, vol.15, pp.241-246, 2001 (Journal Indexed in SCI)  
**Surfactants as hydrate promoters?**  
Karaaslan U., Parlaktuna M.
- ENERGY & FUELS, vol.14, pp.1103-1107, 2000 (Journal Indexed in SCI)  
**Effect of surfactants on hydrate formation rate**  
Karaaslan U., Parlaktuna M.
- GAS HYDRATES: CHALLENGES FOR THE FUTURE, vol.912, pp.735-743, 2000 (Journal Indexed in SCI)  
**STORING NATURAL-GAS AS FROZEN HYDRATE**  
GUDMUNDSSON J., PARLAKTUNA M., KHOKHAR A.  
SPE PRODUCTION & FACILITIES, vol.9, pp.69-73, 1994 (Journal Indexed in SCI)

### **Refereed Congress / Symposium Publications in Proceedings**

- **Geothermal Potential Assessment of Edremit Geothermal Field NW Turkey**  
AVŞAR Ö., GÜLEÇ N. T. , PARLAKTUNA M.
- WORLD GEOTHERMAL CONGRESS 2105 (WGC 2015), Melbourne, Australia, 19 - 25 April 2015  
**Assessment of CO2 Storage Potential in Turkey, Modeling and a Prefeasibility Study for Injection into an Oil Field**  
Okandan E., Karakece Y., Cetin H., Topkaya I., PARLAKTUNA M., AKIN S., Bulbul S., Dalha C., Anbar S., Cetinkaya C., et al.  
10th International Conference on Greenhouse Gas Control Technologies, Amsterdam, Netherlands, 19 - 23 September 2010, vol.4, pp.4849-4856

- **Forward extraction of L-aspartic acid from fermentation broths by reverse micelles and backward extraction by gas hydrate method**  
Aydogan O., Bayraktar E., Mehmetoglu U., Parlaktuna M., Mehmetoglu T.  
12th European Congress on Biotechnology (ECB 12), Copenhagen, Denmark, 21 - 24 August 2005, vol.118
- **Natural gas hydrates as a cause of underwater landslides: A review**  
Parlaktuna M.  
NATO Advanced Research Workshop on Underwater Ground Failures on Tsunami Generation, Modeling, Risk and Mitigation, İstanbul, Turkey, 23 - 26 May 2001, vol.21, pp.163-169
- **A numerical method for the gas production process in gas hydrate reservoirs**  
Durgut I., Parlaktuna M.  
2nd International Conference on Natural Gas Hydrates (NGH 96), Toulouse, France, 2 - 06 June 1996, pp.549-556
- **EFFECT OF CARBON-DIOXIDE ON PVT BEHAVIOR OF WATER BELOW 150-DEGREES-C**  
PARLAKTUNA M., OKANDAN E.  
1988 ANNUAL MEETING OF THE GEOTHERMAL RESOURCES COUNCIL : NEW HORIZONS, California, United States Of America, 9 - 12 October 1988, vol.12, pp.131-136

## Citations

Total Citations (WOS):506

h-index (WOS):9