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International Researcher IDs

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Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Çevre Bilimleri Ve Mühendisliği (Dr), Turkey 2012 - 2018

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Çevre Bilimleri Ve Mühendisliği (YI) (Tezli), Turkey 2010 - 2012

Undergraduate, Istanbul Technical University, Çevre Mühendisliği Bölümü, Turkey 2005 - 2010

Foreign Languages

English

Dissertations

Postgraduate, Farklı atık yönetim senaryolarının sera gazı salımına etkilerinin araştırılması, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Çevre Bilimleri Ve Mühendisliği (YI) (Tezli), 2012

Research Areas

Environmental Engineering

Academic Titles / Tasks

Research Assistant, Istanbul Technical University, İnşaat Fakültesi, Çevre Mühendisliği Bölümü, 2011 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- The application of Life Cycle Assessment (LCA) to anaerobic technologies for the treatment of municipal wastewater: A review**

Yilmaz M., Güven H., Ozgun H., Erşahin M. E., Koyuncu İ.

Process Safety and Environmental Protection, vol.182, pp.357-370, 2024 (SCI-Expanded)

- II. **Environmental impact of sewage sludge co-digestion with food waste and fat-oil-grease: Integrating plant-wide modeling with life cycle assessment approach**
Daskiran F., Gülhan H., Kara E., Güven H., Ozgun H., Erşahin M. E.
Bioresource Technology, vol.394, 2024 (SCI-Expanded)
- III. **Use of water treatment plant sludge in high-rate activated sludge systems: A techno-economic investigation**
Gülhan H., Dizaji R. F., Hamidi M. N., Abdelrahman A. M., Basa S., Kurt E. S., Koyuncu İ., Güven H., Ozgun H., Erşahin M. E., et al.
Science of the Total Environment, vol.901, 2023 (SCI-Expanded)
- IV. **Coupling ozonation with hydrogen peroxide and chemically enhanced primary treatment for advanced treatment of grey water**
Karahan B. D., Akdağ Y., Fakioglu M., Korkut S., Güven H., Erşahin M. E., Ozgun H.
Journal of Environmental Chemical Engineering, vol.11, no.3, 2023 (SCI-Expanded)
- V. **Impact of primary treatment methods on sludge characteristics and digestibility, and wastewater treatment plant-wide economics**
Abdelrahman A. M., Kosar S., Gülhan H., Çiçekalan B., Ucas G., Atli E., Güven H., Ozgun H., Öztürk İ., Koyuncu İ., et al.
Water Research, vol.235, 2023 (SCI-Expanded)
- VI. **Energy and material refineries of future: Wastewater treatment plants**
Güven H., Erşahin M. E., Ozgun H., Öztürk İ., Koyuncu İ.
Journal of Environmental Management, vol.329, 2023 (SCI-Expanded)
- VII. **Effects of Ozone Dose and Contact Time on Ozonation Process Performance for Treatment of High Rate Activated Sludge Process Effluent**
Toroz E. R., Akdağ Y., Fakioglu M., Korkut S., Sagir Kurt E., Atli E., Güven H., Ozgun H., Öztürk İ., Erşahin M. E.
Ozone: Science and Engineering, vol.45, no.5, pp.431-445, 2023 (SCI-Expanded)
- VIII. **Long term experiences in a pilot-scale high-rate activated sludge system with lamella clarifier: Effluent quality and carbon capture**
Gülhan H., Hamidi M. N., Abdelrahman A. M., Fakioğlu Kutlu M., Mese B., Yoruk M., Kurt E. S., Koyuncu İ., Güven H., Özgün Erşahin H., et al.
JOURNAL OF WATER PROCESS ENGINEERING, vol.49, 2022 (SCI-Expanded)
- IX. **Primary and A-sludge treatment by anaerobic membrane bioreactors in view of energy-positive wastewater treatment plants**
Mustafa Abdelrahman A., Furkan Aras M. F., Çiçekalan B., Fakioglu M., Cingoz S., Basa S., Güven H., Ozgun H., Öztürk İ., Koyuncu İ., et al.
Bioresource Technology, vol.351, 2022 (SCI-Expanded)
- X. **Comparative evaluation of different operation scenarios for a full-scale wastewater treatment plant: Modeling coupled with life cycle assessment**
Daskiran F., Gülhan H., Güven H., Özgün Erşahin H., Erşahin M. E.
JOURNAL OF CLEANER PRODUCTION, vol.341, 2022 (SCI-Expanded)
- XI. **Retrofitting of Five Preliminary Wastewater Treatment Plants in Istanbul (Turkey) to High-Rate Activated Sludge System and/or Post Oxidation**
Güven H., Fakioğlu M., Sinop I., Öztürk İ.
OZONE-SCIENCE & ENGINEERING, vol.42, no.3, pp.255-266, 2020 (SCI-Expanded)
- XII. **Evaluation of future food waste management alternatives in Istanbul from the life cycle assessment perspective**
Güven H., Wang Z., Eriksson O.
JOURNAL OF CLEANER PRODUCTION, vol.239, 2019 (SCI-Expanded)
- XIII. **Energy recovery potential of anaerobic digestion of excess sludge from high-rate activated sludge systems co-treating municipal wastewater and food waste**
Güven H., Erşahin M. E., Dereli R. K., Ozgun H., Isik I., Öztürk İ.
ENERGY, vol.172, pp.1027-1036, 2019 (SCI-Expanded)
- XIV. **High-rate activated sludge processes for municipal wastewater treatment: the effect of food waste**

addition and hydraulic limits of the system

Guven H., Ozgun H., Erşahin M. E., Dereli R. K., SINOP I., Öztürk İ.

Environmental Science and Pollution Research, vol.26, no.2, pp.1770-1780, 2019 (SCI-Expanded)

XV. Towards sustainable and energy efficient municipal wastewater treatment by up-concentration of organics

Güven H., Dereli R. K., Özgün Erşahin H., Erşahin M. E., Öztürk İ.

PROGRESS IN ENERGY AND COMBUSTION SCIENCE, vol.70, pp.145-168, 2019 (SCI-Expanded)

XVI. Life cycle assessment of upgrading options of a preliminary wastewater treatment plant including food waste addition

Guven H., ERIKSSON O., WANG Z., Öztürk İ.

WATER RESEARCH, vol.145, pp.518-530, 2018 (SCI-Expanded)

XVII. Co-digestion performance of organic fraction of municipal solid waste with leachate: Preliminary studies

GÜVEN H., AKÇA M. S., İREN E., KELEŞ F., ÖZTÜRK İ., ALTINBAŞ M.

Waste Management, 2018 (SCI-Expanded)

XVIII. Effect of Hydraulic Retention Time on the Performance of High-Rate Activated Sludge System: a Pilot-Scale Study

Guven H., Erşahin M. E., Dereli R. K., OZGUN H., SANCAR D., Öztürk İ.

WATER AIR AND SOIL POLLUTION, vol.228, no.11, 2017 (SCI-Expanded)

XIX. Effect of sludge management strategies on minimizing global warming potential at a municipal wastewater treatment plant of a metropolitan city

GÖMEÇ Ç., GÜVEN H., Özdemir Ö., ÖZTÜRK İ.

Fresenius Environmental Bulletin, vol.23, no.12, pp.3153-3160, 2014 (SCI-Expanded)

Articles Published in Other Journals

I. Kitchen waste management at source by yard composting systems

Guven H.

Niğde Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, vol.12, no.3, pp.663-671, 2023 (Peer-Reviewed Journal)

II. Factors Affecting Per Capita Expenditure of Water and Sewerage Administrations in Türkiye

CENGİZ A. İ., Guven H., ersahin m. e., Ozgun H., Tuna M., Kınacı C.

Turkish Journal of Water Science and Management, vol.7, no.1, pp.2-19, 2023 (Peer-Reviewed Journal)

III. Arıtılmış Atıksuların Yeniden Kullanımı: Bilimsel Gerçekler, Psikolojik ve Dini Tereddütler

FAKIOĞLU M., GÜVEN H., ÖZTÜRK İ.

Helal ve Etik Araştırmalar Dergisi, vol.2, no.2, pp.1-20, 2020 (Peer-Reviewed Journal)

IV. Water Energy Nexus: Sustainable Water Management and Energy Recovery from Wastewater in Eco-cities

Güven H., Tanık A. G.

Smart and Sustainable Built Environment, vol.9, no.1, pp.54-70, 2020 (ESCI)

V. Follow-up on Assessment of Student Outcomes by Senior-Year Design Project and Continuing to Improve by Performance Indicator Breakdown-Based Assessment

Dulekgurgen E., Yangin-Gomec C., Ozgun O. K., Aydın B., Guven H.

INTERNATIONAL JOURNAL OF ENGINEERING PEDAGOGY, vol.8, pp.19-28, 2018 (ESCI)

VI. Ekolojik Yerleşme Planlaması ve Tasarımı: Eskişehir Kocakır Rezerv Yapı Alanı Örneği

Terzi F., Ocakçı M., Yılmaz A. Z., Türkoğlu H., Okumuş G., Erbaş Gürler E., Onuk Madanoğlu T., Tanık A. G., Güven H., Böke Y. E., et al.

Kentli, vol.24, pp.79-82, 2016 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Endüstriyel Biyoreaktörlerde Model-Prototip İlişkileri ve Rejim Analizi**
ÖZTÜRK İ., GÜVEN H., DENERİ E. Z.
in: Mühendislikte Fiziksel Modelleme, İzzet Öztürk, Hale Özgün, Mustafa Evren Erşahin, Editor, Türkiye Su Enstitüsü (SUEN), İstanbul, pp.245-288, 2020
- II. **Çevre Mühendisleri için İstatistik ve Deneysel Tasarım**
Öztürk İ., Yetilmezsoy K., Ekdal A., Cüceloğlu G., Güven H.
İstaç İstanbul Büyükşehir Belediyesi Kültür A.S., İstanbul, 2016
- III. **Katı Atık Geri Dönüşüm ve Arıtma Teknolojileri**
ÖZTÜRK İ., ARIKAN O. A., ALTINBAŞ M., ALP K., GÜVEN H.
Türkiye Belediyeler Birliği, 2016
- IV. **5.Atık Yakma ve Gazlaştırma**
ÖZTÜRK İ., ARIKAN O. A., ALTINBAŞ M., ALP K., GÜVEN H.
in: Katı Atık Geri dönüşüm ve Arıtma Teknolojileri El Kitabı Güven 2 Baskı Türkiye Belediyeler Birliği ISBN 978 605 9186 15 5 X 281 sayfa Ankara Nisan 2016, İzzet Öztürk, Osman Arıkan, Mahmut Altınbaş, Kadir Alp, Hüseyin Güven, Editor, Türkiye Belediyeler Birliği, Ankara, pp.191-244, 2016
- V. **Katı Atık Miktar ve Karakterizasyonu**
ÖZTÜRK İ., ALTINBAŞ M., TÜYLÜOĞLU B. S., GÜVEN H.
in: Katı Atık Yönetimi ve AB Uyumlu Uygulamaları, , Editor, İSTAÇ A.Ş., İstanbul, pp.35-76, 2015

Refereed Congress / Symposium Publications in Proceedings

- I. **Characterization And Digestibility Of Waste Activated Sludge: Modelling Kinetics.**
Abdelrahman A. M., Kosar S., Cicekalan B., Basa S., Atli E., GÜVEN H., ÖZTÜRK İ., KOYUNCU İ., van Lier J., ERŞAHİN M. E.
17th IWA World Conference on Anaerobic Digestion, United States Of America, 17 June 2022
- II. **Anaerobic Membrane Bioreactors For Sludge Digestion Improvement: Mesophilic Versus Thermophilic Conditions**
Abdelrahman A. M., Aghdam Tabar S., Cicekalan B., Eyit N., Ucas G., GÜVEN H., ÖZGÜN ERŞAHİN H., ÖZTÜRK İ., KOYUNCU İ., van Lier J., et al.
17th IWA World Conference on Anaerobic Digestion, United States Of America, 17 - 22 June 2022
- III. **Effect Of Wastewater Treatment Configuration On Sludge Digestion: An Economic Analysis**
Abdelrahman A. M., Kosar S., Cicekalan B., GÜLHAN H., Cingoz S., Buyukbuberoglu, F., GÜVEN H., ÖZGÜN ERŞAHİN H., ÖZTÜRK İ., KOYUNCU İ., et al.
17th IWA World Conference on Anaerobic Digestion, United States Of America, 17 June 2022
- IV. **Impact of Co-treatment of Food Waste and Municipal Wastewater in the Performance of Aerobic Granular Sludge System.**
Cicekalan B., Berenji N., Aras F., GÜVEN H., KOYUNCU İ., ERŞAHİN M. E., ÖZGÜN ERŞAHİN H.
International Graduate Research Symposium, Turkey, 1 July - 03 June 2022
- V. **Impact of Food Waste Addition To Municipal Wastewater On Environmental Infrastructure**
GÜVEN H., ÖZTÜRK İ.
6th European Conference on Renewable Energy Systems, 25 - 27 June 2018
- VI. **Efficient Management of Water and Wastewater in Smart Cities: a Case Study for Izmir**
TANIK A. G., GÜVEN H.
4th International Water Congress, Water Management in Smart Cities, İzmir, Turkey, 2 - 04 November 2017, pp.97-106
- VII. **Anaerobic digestion of excess sludge produced from high rate activated sludge systems**
GÜVEN H., ERŞAHİN M. E., ÖZGÜN ERŞAHİN H., DERELİ R. K., IŞIK İ., ÖZTÜRK İ.
15th World Conference on Anaerobic Digestion (AD-15), 17 - 20 October 2017

- VIII. **Follow-up on rubric-based assessment of student outcomes by senior-year graduation design project and continuing to improve by performance indicator breakdown-based assessment**
Dülekürgen E., Yangin-Gomec C., Karahan Özgün Ö., Aydın B., Guven H.
20th International Conference on Interactive Collaborative Learning, ICL 2017, Budapest, Hungary, 27 - 29 September 2017, vol.716, pp.184-190
- IX. **Home composting of vegetable and fruit scraps**
GÜVEN H.
7th International Symposium MBT, MRF Recycling, 16 - 18 May 2017
- X. **Co Digestion of Organic Fraction of Municipal Solid Waste OFMSW and Landfill Leachate**
GÜVEN H., Akça M. S., İren E., Keleş F., ALTINBAŞ M., ÖZTÜRK İ.
Sixth International Symposium on Energy from Biomass and Waste, 14 - 17 November 2016
- XI. **Sustainable water management in eco cities wastewater reuse and rainwater recycling**
TANIK A. G., GÜVEN H.
3rd International Conference on Recycling and Reuse, 28 - 30 September 2016
- XII. **Towards Efficient Use of Municipal Wastes and Wastewater for Energy Recovery in Eco cities**
GÜVEN H., TANIK A. G.
3rd International Conference on Recycling and Reuse 2016, İstanbul, Turkey, 28 - 30 September 2016, pp.101-107
- XIII. **Sustainable Water Management in Eco cities Wastewater Reuse and Rainwater Harvesting**
TANIK A. G., GÜVEN H.
3rd International Conference on Recycling and Reuse 2016, İstanbul, Turkey, 28 - 30 September 2016, pp.108-113
- XIV. **Investigation of Different Waste Management Scenarios on Effects of Greenhouse Gas Emissions**
Güven H., Öztürk İ.
3W Symposium, İstanbul, Turkey, 22 - 24 May 2013

Supported Projects

Erşahin M. E., Özgün Erşahin H., Güven H., Gülhan H., Abdelrahman A. M., Işık O., Fakioğlu Kutlu M., Çiçekalan B., Project Supported by Other Official Institutions, Enerji Verimli Atıksu Arıtımı İçin Yüksek Yüklemeli Aktif Çamur Prosesi ve Anaerobik Membran Biyoreaktör Entegrasyonu (Maksimum Enerji Geri Kazanımı), 2019 - 2022
Güven H., Project Supported by Higher Education Institutions, Nötron Aktivasyon Analizi İle NM Mertebesinde Filmlerin Kalınlık Tayini, 1997 - 1998

Metrics

Publication: 52
Citation (WoS): 96
Citation (Scopus): 321
H-Index (WoS): 5
H-Index (Scopus): 8

Awards

Güven H., Production and use of renewable energies for wastewater treatment plants, German Water Partnership, September 2019
Güven H., Çevre Alanında En Başarılı Doktora Tezi Ödülü Yarışması, Çevre Vakfı, June 2019