

## Assoc. Prof. HATİCE ŞENGÜL

### Personal Information

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### Education Information

Post Graduate, Tulane University, İnşaat Ve Çevre Mühendisliği, Çevre Mühendisliği, United States Of America 2003 - 2015

Doctorate, University Of Illinois At Chicago, İnşaat Ve Malzeme Mühendisliği, United States Of America 2006 - 2009

Under Graduate, Orta Doğu Teknik Üniversitesi, Çevre Mühendisliği, Turkey 1999 - 2003

### Foreign Languages

English, C1 Advanced

### Research Areas

Environmental Engineering, Environmental Technology, Environmental Impact Assessment, Environmental Risk Assessment, Environmental Management, Engineering and Technology

### Professional Experience

Deputy Head of Department, Hacettepe Üniversitesi, Mühendislik Fakültesi, Çevre Mühendisliği Bölümü, 2015 - 2017

### Advising Theses

ŞENGÜL H., Ankara'nın kentsel metabolizması: Eryaman bölgesinde 3B CBS ile stoğa net katkı (SNK) indikatörü tahmini, Post Graduate, N.Reçber(Student), 2018

ŞENGÜL H., Ankara ilindeki konutlarda aydınlatma teknolojisi tercihleri, Post Graduate, M.Yükselen(Student), 2018

ŞENGÜL H., Bor minerali kritikliğinin dinamik değerlendirmesi, Post Graduate, C.Mermer(Student), 2018

ŞENGÜL H., InP/ZnS, CuInS kuantum partikülleri ile CdSe/ZnS kuantum partiküllerinin faz transferinin farklı çevresel koşullarda karşılaştırılmalı değerlendirilmesi, Post Graduate, D.Marşan(Student), 2018

ŞENGÜL H., Etken maddesi klorheksidin glukonat ve benzdamin hidroklorür olan likit farmasötik ürünün yaşam döngüsü değerlendirmesi, Post Graduate, Ç.Emre(Student), 2018

ŞENGÜL H., Enerji verimli araç kullanımının geri sekme etkisinin (rebound effect) gelir gruplarına göre karşılaştırılması, Post Graduate, M.Kutucu(Student), 2018

ŞENGÜL H., Aşağı Gediz Havzası nehir sularının kalitesinin değerlendirilmesi ve fizikokimyasal parametrelerin makroomurgasız üzerine etkilerinin incelenmesi, Post Graduate, G.Kıymaz(Student), 2018

ŞENGÜL H., Linyit yakıtlı pilot termik santral için baca gazı emisyon azaltma seçeneklerinin yaşam döngüsü değerlendirmesi, Post Graduate, E.Taşkın(Student), 2018

ŞENGÜL H., Fotovoltaik, tüketim geri bildirim ve enerji verimli sistemlerin adaptasyonu ile konutlarda azami elektrik

tasarrufunun tahmini, Post Graduate, T.OLGU(Student), 2016

ŞENGÜL H., Elektrik üretiminde kullanılan linyitin madencilik aşamasına ait yaşam döngüsü değerlendirmesi, Post Graduate, F.BAYRAK(Student), 2014

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

- I. **Addressing potential resource scarcity for boron mineral: A system dynamics perspective**  
Mermer C., ŞENGÜL H.  
JOURNAL OF CLEANER PRODUCTION, vol.270, 2020 (Journal Indexed in SCI)
- II. **Survey assessment of organizational resiliency potential of a group of Seveso organizations in Turkey**  
ŞENGÜL H., Marsan D., Gun T.  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART O-JOURNAL OF RISK AND RELIABILITY, vol.233, pp.470-486, 2019 (Journal Indexed in SCI)
- III. **Comparative assessment of the phase transfer behaviour of InP/ZnS and CuInS/ZnS quantum dots and CdSe/ZnS quantum dots under varying environmental conditions**  
MARŞAN D., ŞENGÜL H., Ozdil A. M. A.  
ENVIRONMENTAL SCIENCE-NANO, vol.6, pp.879-891, 2019 (Journal Indexed in SCI)
- IV. **Transport of TiO<sub>2</sub> nanoparticles and their effects on the mobility of Cu in soil media**  
KHAN S., ŞENGÜL H., Dan Z.  
DESALINATION AND WATER TREATMENT, vol.131, pp.230-237, 2018 (Journal Indexed in SCI)
- V. **Basic quantitative risk assessment of light sources: Comparison of light exposure assessment and endpoint life cycle impact assessment**  
ŞENGÜL H.  
HUMAN AND ECOLOGICAL RISK ASSESSMENT, vol.23, pp.1683-1702, 2017 (Journal Indexed in SCI)
- VI. **Experimental investigation of stability and transport of TiO<sub>2</sub> nanoparticles in real soil columns**  
KHAN S., ŞENGÜL H.  
DESALINATION AND WATER TREATMENT, vol.57, pp.26196-26203, 2016 (Journal Indexed in SCI)
- VII. **A cradle to gate life cycle assessment of Turkish lignite used for electricity generation with site-specific data**  
ŞENGÜL H., BAYRAK F., Koksal M. A. , ÜNVER B.  
JOURNAL OF CLEANER PRODUCTION, vol.129, pp.478-490, 2016 (Journal Indexed in SCI)
- VIII. **Analysis of hazardous material releases due to natural hazards in the United States**  
ŞENGÜL H., Santella N., Steinberg L. J. , Cruz A. M.  
DISASTERS, vol.36, pp.723-743, 2012 (Journal Indexed in SSCI)
- IX. **An environmental impact assessment of quantum dot photovoltaics (QDPV) from raw material acquisition through use**  
ŞENGÜL H., Theis T. L.  
JOURNAL OF CLEANER PRODUCTION, vol.19, pp.21-31, 2011 (Journal Indexed in SCI)
- X. **Accidental Hazardous Material Releases With Human Impacts in the United States: Exploration of Geographical Distribution and Temporal Trends**  
ŞENGÜL H., Santella N., Steinberg L. J. , Chermak C.  
JOURNAL OF OCCUPATIONAL AND ENVIRONMENTAL MEDICINE, vol.52, pp.920-925, 2010 (Journal Indexed in SCI)
- XI. **Petroleum and Hazardous Material Releases from Industrial Facilities Associated with Hurricane Katrina**  
Santella N., Steinberg L. J. , Sengul H.  
RISK ANALYSIS, vol.30, pp.635-649, 2010 (Journal Indexed in SCI)
- XII. **Nanotechnology: Environmental Implications and Solutions by Louis Theodore and Robert G. Kunz**  
ŞENGÜL H., THOMAS L T.

- Journal Of Industrial Ecology, vol.12, pp.490-491, 2008 (Journal Indexed in SCI Expanded)
- XIII. **Natech risk and management: an assessment of the state of the art**  
STEINBERG L. J. , ŞENGÜL H., CRUZ A. M.  
NATURAL HAZARDS, vol.46, pp.143-152, 2008 (Journal Indexed in SCI)
- XIV. **Toward sustainable nanoproducts: An overview of nanomanufacturing methods**  
Sengul H., Theis T. L. , Ghosh S.  
JOURNAL OF INDUSTRIAL ECOLOGY, vol.12, pp.329-359, 2008 (Journal Indexed in SCI)

### Articles Published in Other Journals

- I. **Türkiye’de Hızlı Kentleşen 10 İlin Kentleşme Seviyesi Tespiti Çalışması**  
REÇBER N., ŞENGÜL H.  
SOSYOEKONOMİ, vol.26, pp.49-63, 2018 (Other Refereed National Journals)
- II. **Development of Generalized Additive Models (GAMs) for Salmo rizeensis Endemic to North-Eastern Streams of Turkey**  
REZAEİ R., ŞENGÜL H.  
Turkish Journal Of Fisheries And Aquatic Sciences, 2018 (Other Refereed National Journals)
- III. **Doğu Karadeniz’de İşletmeye Açılan Bazı Nehir Tipi Hidroelektrik Santrallerinin Sucul Ekosistem ve Karadeniz Alabalığı (Salmo labrax) Populasyonları Üzerine Etkileri**  
ZENGİN M., KURDOĞLU O., ŞENGÜL H., ÇAKMAK E.  
Turkish Journal of Aquatic Science, vol.32, pp.189-207, 2017 (Other Refereed National Journals)

### Books & Book Chapters

- I. **QUANTUM DOT FATE AND TRANSPORT IN THE AQUEOUS MEDIUM: A LITERATURE REVIEW**  
MARŞAN D., ŞENGÜL H.  
in: Advances in Environmental Technology, ANDAÇ MÜGE, Editor, Hacettepe Üniversitesi, 2018
- II. **Chapter 41 – Life Cycle Inventory of Semiconductor Cadmium Selenide Quantum Dots for Environmental Applications**  
ŞENGÜL H., THEIS T. L.  
in: Nanotechnology Applications for Clean Water (Second Edition)Solutions for Improving Water Quality, Anita Street, Richard Sustich, Jeremiah Duncan, Nora Savage,, Editor, Elsevier, 2014
- III. **Impacts of Emerging Technologies from a Life Cycle Perspective Life Cycle Implications of Quantum Dot Semiconductor Materials**  
ŞENGÜL H.  
LAP Lambert Academic Publishing, 2010

### Refereed Congress / Symposium Publications in Proceedings

- I. **Application of Existing IBM (Individual-Based Model) Model Instream for Trout Population Modeling of Salmo labrax in Solaklı River**  
REZAEİ R., ŞENGÜL H., AKBULUT A., ZENGİN M., ÖZCAN AKPINAR İ.  
13th International Symposium on Fisheries and Aquatic Sciences, 21 - 23 November 2018
- II. **Comparative assessment of phase transfer rates of three types of core-shell CdSe/ZnS, InP/ZnS, CuInSe/ZnS quantum dots from organic-to-water phase**  
MARŞAN D., ŞENGÜL H., ANDAÇ ÖZDİL A. M.  
1.ULUSLARARASI İÇMESUYU ve ATIKSU SEMPOZYUMU, 6 - 07 December 2018
- III. **Assessment of Net Additions to Stock and Embodied Energy for Eryaman District, Turkey via 3D GIS**

REÇBER N., ŞENGÜL H.

4th International Conference on Recycling and Reuse, İstanbul, Turkey, 24 - 26 October 2018

**IV. LIFE CYCLE ASSESSMENT OF FLUE GAS EMISSION REDUCTION OPTIONS FOR LIGNITE-BASED PILOT THERMAL POWER PLANT**

TAŞKIN E., ŞENGÜL H.

SETAC EUROPE 24th LCA SYMPOSIUM, 24 - 26 September 2018

**V. Ardışık Nehir Tipi Hidroelektrik Santrallerin Uzun-Dönemli, Kümülatif Etkilerinin Aktör Temelli Modelleme ile Araştırılması - Solaklı Havzası Durum Çalışması Arkaplanı**

ŞENGÜL H.

International EIA Conference, Turkey, 9 - 11 June 2013

**VI. Scenario analysis of environmental implications of adoption of QLEDs (Quantum dot based Light Emitting Diodes) in the United States in the next decade (2012-2022)**

ŞENGÜL H.

INTERNATIONAL CONFERENCE ON ENVIRONMENTAL SCIENCE AND TECHNOLOGY, 18 - 21 June 2013

**VII. Environmental aspects of applications of quantum dot based nanosensors**

ŞENGÜL H., THEIS T. L.

International Perspectives on Environmental Nanotechnology Conference, 07 August 2009 - 09 October 2008

## Supported Projects

ŞENGÜL H., TUBITAK Project, Inp/Zns, Cuins/Zns Kuantum Partikülleri İle Cdse/Zns Kuantum Partiküllerinin Farklı Ortam Koşullarında Taşınım Süreçlerinin Karşılaştırılmalı Değerlendirmesi, 2017 - Continues

ŞENGÜL H., REÇBER N., Project Supported by Higher Education Institutions, Çankaya ve Etimesgut Pilot Kentsel Bölgelerinin 3D GIS ile NAS İndikatörü Tahmini, 2017 - 2018

ŞENGÜL H., ZENGİN M., AKBULUT A., REZAEİ R., ÖZCAN AKPINAR İ., Project Supported by Higher Education Institutions, Solaklı Havzasında Ekosisteme UzunDönemli Kümülatif Etkilerin inSTREAM Etmen Tabanlı Model ile Araştırılması, 2015 - 2018

ŞENGÜL H., Project Supported by Other Official Institutions, AFADSİM Teknolojik Afetler için İşletmelerin ve Halkın Dayanıklılığına Bağlı Etmen Tabanlı Simülasyon Modelinin Geliştirilmesi ve En Kötü Durum Senaryolarında Olası En Yüksek Sosyal ve Ekonomik Kayıp Tahmini, 2014 - 2018

ŞENGÜL H., BENLİ T. O. , Project Supported by Higher Education Institutions, Fotovoltaik, tüketim geri bildirim ve enerji verimli sistemlerin adaptasyonu ile konutlarda azami elektrik tasarrufunun tahmini, 2015 - 2016

ŞENGÜL H., KHAN S., Project Supported by Higher Education Institutions, Toprak özelliklerinin TiO2 nanopartiküllerinin ve metal kirleticilerin toprakta taşınımına etkisinin incelenmesi, 2015 - 2015

## Citations

Total Citations (WOS):246

h-index (WOS):7