

## Prof. Zehra Şapcı Ayas

### Personal Information

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### Education Information

Post Doctorate, Dept. Of Mathematical Sciences And Technology, Dept. Of Mathematical Sciences And Technology, Norway 2009 - 2012

Doctorate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Çevre Mühendisliği, Turkey 2002 - 2008

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Çevre Mühendisliği, Turkey 1999 - 2002

Undergraduate, Trakya University, Fen Edebiyat, Biyoloji, Turkey 1994 - 1999

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

Other, Management Committee and WGs meeting, COST Meeting, 2016

Education Management and Planning, Biological Treatment According to the C-TECH technology, CYCLIC ACTIVATED SLUDGE TECHNOLOGY, 2016

Education Management and Planning, Türkiye'de Çevre Yönetimi için Kurumsal Kapasitenin Geliştirilmesi Projesi, Sürdürülebilir Şehirler Konferansı, REC Türkiye, 2016

Education Management and Planning, Su ve atıksu yönetimi eğitimi, TBB, 2016

Education Management and Planning, Türkiye'deki İçme Suyu Kaynaklarının ve Arıtma Tesislerinin Değerlendirilmesi, DSİ, 2016

### Dissertations

Doctorate, SUCUL ORTAMLARDA DOĞAL GİDERİM YÖNTEMLERİ İLE METALLERDEKİ DEĞİŞİKLİĞİN ARAŞTIRILMASI, Yildiz Technical University, Fen Bilimleri Enstitüsü, Çevre Mühendisliği, 2008

Postgraduate, TEKSTİL ATIKSULARININ ANAEROBİK ARITILABİLİRLİĞİNİN İNCELENMESİ, Yildiz Technical University, Fen Bilimleri Enstitüsü, Çevre Mühendisliği, 2002

### Research Areas

Environmental Engineering, Environmental Sciences, Engineering and Technology

## Academic Titles / Tasks

Research Assistant PhD, Norges Landbrukshoegskole; Nlh (Agricultural University Of Norway), Department Of Mathematical Sciences And Technology, Dept. Of Mathematical Sciences And Technology, 2009 - 2012  
Research Assistant, Yildiz Technical University, Mühendislik Fakültesi, Çevre Mühendisliği, 1999 - 2008

## Academic and Administrative Experience

Van Yüzüncü Yil University, Çevre Mühendisliği, 2018 - Continues  
Van Yüzüncü Yil University, Mühendislik, Çevre Mühendisliği, 2016 - Continues

## Jury Memberships

Post Graduate, Tez Savunma Jürisi,, Van Yüzüncü Yil, December, 2020  
Post Graduate, Tez Savunma Jürisi,, Bitlis Eren Üniversitesi, December, 2019  
Post Graduate, Tez Savunma Jürisi, Bitlis Eren Üniversitesi, December, 2019  
Post Graduate, Tez Savunma Jürisi,, Bitlis Eren Üniversitesi, December, 2019  
Post Graduate, Tez Savunma Jürisi,, van yüzüncü yıl üniversitesi, December, 2019  
Post Graduate, Tez Savunma Jürisi,, Bitlis Eren Üniversitesi, September, 2019  
Post Graduate, Tez Savunma Jürisi,, van yüzüncü yıl, August, 2019  
Doctorate, Tez Savunma Jürisi,, Atatürk Üniveristesi, May, 2019  
Appointment to Academic Staff-Assistant Professorship, Araştırma Görevlisi Snavı, Muş Alparslan Üniv. Müh. Mim. fak., November, 2017

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Electrochemical mineralization of abattoir wastewater with continuous system**  
Öztürk D., Yılmaz A. B., Şapcı Ayas Z.  
INTERNATIONAL JOURNAL OF ENVIRONMENTAL SCIENCE AND TECHNOLOGY, vol.18, no.12, pp.3761-3776, 2021 (SCI-Expanded)
- II. **Novel gas measurement based on pressure triggered release cycles for biochemical methane potential tests**  
BEKMEZCİ O. K., Şapcı Ayas Z., Ucar D.  
INTERNATIONAL JOURNAL OF CHEMICAL REACTOR ENGINEERING, vol.19, no.6, pp.585-596, 2021 (SCI-Expanded)
- III. **Investigation of Direct Applicability of Modified Agricultural Waste for Contaminant Removal from Real Textile Wastewater**  
Şapcı Ayas Z.  
WATER, vol.13, no.10, 2021 (SCI-Expanded)
- IV. **Examination of the problems experienced in urban and industrial wastewater treatment facilities and constructed wetlands and the identification of circumstances: the case of Yozgat province of Turkey**  
Şapcı Ayas Z., Fidan A., Avşar E.  
Fresenius Environmental Bulletin, vol.30, pp.4307-4316, 2021 (SCI-Expanded)
- V. **Heavy Metal Uptakes by Myriophyllum verticillatum from Two Environmental Matrices: The Water and the Sediment**  
Şapcı Z., Ustun E. B.  
International Journal of Phytoremediation, vol.17, no.3, pp.290-297, 2015 (SCI-Expanded)
- VI. **Incorporation of fish by-product into the semi-continuous anaerobic co-digestion of pre-treated lignocellulose and cow manure, with recovery of digestate's nutrients**

- ESTEVEZ M. M., Sapci Z., LINJORDET R., MORKEN J.  
RENEWABLE ENERGY, vol.66, pp.550-558, 2014 (SCI-Expanded)
- VII. **Semi-continuous anaerobic co-digestion of cow manure and steam-exploded Salix with recirculation of liquid digestate**  
ESTEVEZ M. M., Sapci Z., LINJORDET R., SCHNURER A., MORKEN J.  
JOURNAL OF ENVIRONMENTAL MANAGEMENT, vol.136, pp.9-15, 2014 (SCI-Expanded)
- VIII. **The effect of algae species on biodiesel and biogas production observed by using a data model combines algae cultivation with an anaerobic digestion (ACAD) and a biodiesel process**  
Sapci Z., MORKEN J.  
ENERGY CONVERSION AND MANAGEMENT, vol.79, pp.519-524, 2014 (SCI-Expanded)
- IX. **Modeling of biodiesel production in algae cultivation with anaerobic digestion (ACAD)**  
MORKEN J., Sapci Z., STROMME J. E. T.  
ENERGY POLICY, vol.60, pp.98-105, 2013 (SCI-Expanded)
- X. **An Investigation of the Enhancement of Biogas Yields from Lignocellulosic Material using Two Pretreatment Methods: Microwave Irradiation and Steam Explosion**  
Sapci Z., MORKEN J., LINJORDET R.  
BIORESOURCES, vol.8, no.2, pp.1976-1985, 2013 (SCI-Expanded)
- XI. **The effect of microwave pretreatment on biogas production from agricultural straws**  
Sapci Z.  
BIORESOURTECHNOLOGY, vol.128, pp.487-494, 2013 (SCI-Expanded)
- XII. **Interactions between contaminated aquatic environments and element uptake by Echinodorus amazinocus and Cryptocoryne undulata**  
Sapci Z., Ustun E. B.  
ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY, vol.76, pp.114-125, 2012 (SCI-Expanded)
- XIII. **Recovery of ammonium nitrogen from the effluent of UASB treating poultry manure wastewater by MAP precipitation as a slow release fertilizer**  
YETİLMEZSOY K., Sapci-Zengin Z.  
JOURNAL OF HAZARDOUS MATERIALS, vol.166, no.1, pp.260-269, 2009 (SCI-Expanded)
- XIV. **Ameliorative effect of different doses of MgNH<sub>4</sub>PO<sub>4</sub> center dot 6H(2)O precipitate recovered from the effluent of UASB treating poultry manure wastewater: Growth of Lolium perenne**  
YETİLMEZSOY K., Sertyesilisik B., Kocak E., Sapci-Zengin Z.  
JOURNAL OF FOOD AGRICULTURE & ENVIRONMENT, vol.7, pp.823-831, 2009 (SCI-Expanded)
- XV. **Decolorization and COD reduction of UASB pretreated poultry manure wastewater by electrocoagulation process: A post-treatment study**  
YETİLMEZSOY K., İLHAN F., Sapci-Zengin Z., ŞAKAR S., GÖNÜLLÜ M. T.  
JOURNAL OF HAZARDOUS MATERIALS, vol.162, no.1, pp.120-132, 2009 (SCI-Expanded)
- XVI. **Stochastic modeling applications for the prediction of COD removal efficiency of UASB reactors treating diluted real cotton textile wastewater**  
YETİLMEZSOY K., Sapci-Zengin Z.  
STOCHASTIC ENVIRONMENTAL RESEARCH AND RISK ASSESSMENT, vol.23, no.1, pp.13-26, 2009 (SCI-Expanded)
- XVII. **Treatment of textile industry wastewater in anaerobic conditions; subcategory: Cotton industry**  
Zengin Z., Aydinol F. I. T.  
Fresenius Environmental Bulletin, vol.16, pp.1593-1599, 2007 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Challenges and suggestions for municipal solid waste management during the global COVID-19 outbreak**  
BEKMEZCİ H. D., SAPCI AYAS Z.  
Niğde Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, vol.12, no.1, pp.72-81, 2023 (Peer-Reviewed)

Journal)

- II. **Atıksulardaki Ağır Metallerin Su Mercimeği ile Giderimi Üzerine Güncel Çalışmaların İncelenmesi**  
Şapcı Ayas Z., Bahtiyar F., Yakan ., Dağdaş .  
Yüzüncü Yıl Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.24, no.1, pp.109-117, 2019 (Peer-Reviewed Journal)
- III. **Atıksuların Yeniden Kazanımında, Yapay Sulak Alanların Önemi ve İşletme Problemleri**  
Şapcı Ayas Z., Türkmenoğlu M., Aşan A.  
Yüzüncü Yıl Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.24, no.1, pp.102-108, 2019 (Peer-Reviewed Journal)
- IV. **Evaluation of Environmental Public Attitudes in Tatvan County / Bitlis Province, A Case Studies: Secondary School Students**  
DURMAZ BEKMEZCİ H., Şapcı Ayas Z.  
. Middle East Journal of Education (MEJE), no.2, pp.19-32, 2016 (Peer-Reviewed Journal)
- V. **Evaluating biogas in Norway - bioenergy and greenhouse gas reduction potentials**  
Morken J., Sapci Z.  
Agricultural Engineering International: CIGR Journal, vol.15, no.2, pp.148-160, 2013 (Scopus)

## Books & Book Chapters

- I. **Ortaokul Öğrencilerinde Çevresel Bilinci; Bitlis Örneği**  
DURMAZ BEKMEZCİ H., Şapcı Ayas Z.  
Erman Basım Yayın Dağıtım, İstanbul, 2019
- II. **Evaluation of Anaerobic Treatability of Between Cotton and Polyester Textile Industry Wastewater**  
Şapcı Ayas Z., Turkdogan F. I.  
in: Waste Water - Treatment and Reutilization, Einschlag F. S. G., Editor, Intech, Rijeka, pp.49-64, 2011

## Refereed Congress / Symposium Publications in Proceedings

- I. **Yozgat İli'nde Bulunan Kentsel-Endüstriyel Atıksu Aritma Tesisleri Ve Yapay Sulak Alanların Durumlarının İncelenmesi, Yaşanan Problemlerin Tespiti Ve Çözüm Önerileri**  
fidan a., Şapcı Ayas Z.  
5. Uluslararası Ispec Mühendislik Ve Fen Bilimleri Kongresi, Van, Turkey, 20 - 22 December 2019, pp.226-233
- II. **Effect Of Adsorbent Pretreatment On Cod Removal In The Adsorption Of Textile Industry Wastewater With Potato Husk**  
Şapcı Ayas Z., Öztürk D., DURMAZ BEKMEZCİ H.  
5. Uluslararası Ispec Mühendislik Ve Fen Bilimleri Kongresi, Van, Turkey, 20 - 22 December 2019, pp.417-422
- III. **Avrupa'da, Dünya'da, ve Türkiye'de Biyogaz Üretimi**  
YAMAÇ A., Şapcı Ayas Z.  
5. Uluslararası Ispec Mühendislik Ve Fen Bilimleri Kongresi, Van, Turkey, 20 - 22 December 2019, pp.646-663
- IV. **The Cost of Building an Ecolodge in Duhok Governorate, Northern Iraq**  
Şapcı Ayas Z., Türkmenoğlu M., Araz BAHJAT ABDULLAH A.  
Uluslararası Ispec Mühendislik Ve Fen Bilimleri Kongresi, Van, Turkey, 20 - 22 December 2019, pp.363-370
- V. **Environmental Impact of Freshwater Aquaculture on A Nature Based Tourism Site in North of Iraq, Duhok Governorate**  
BAHJAT ABDULLAH A., Şapcı Ayas Z., Mohammed N. I.  
4th International Engineering and Natural Sciences Conference (IENSC 2019), Diyarbakır, Turkey, 6 - 08 November 2019, pp.1038-1047
- VI. **Evaluation of Environmental Management of Small Size Wastewater Treatment Plants**  
Hussein Mustafa N., Şapcı Ayas Z.  
4th International Engineering and Natural Sciences Conference (IENSC 2019), Diyarbakır, Turkey, 6 - 08 November 2019, pp.1031-1037

- VII. **Evaluation of Suitability of Van Lake Water in Alkaline Hydrolysis of Wheat Straw in Biogas Production**  
PİRO E., DURMAZ BEKMEZCİ H., Şapcı Ayas Z., Bekmezci o. K.  
4th International Engineering and Natural Sciences Conference (IENSC 2019), Diyarbakır, Turkey, 6 - 08 November 2019, pp.9-12
- VIII. **Sürekli Sistemde Kesimhane Atıksuyunun Elektro-oksidasyon Yöntemi ile Arıtımında Akım Yoğunluğunun Renk Giderimine ve Enerji Tüketimine Etkisi**  
ÖZTÜRK D., ŞAPCI AYAS Z., YILMAZ A. E.  
4. Uluslararası Bilimsel Araştırmalar Kongresi (UBAK), Yalova, Turkey, 14 - 17 February 2019, pp.76-81
- IX. **The Effect of Current Density On Color Removal and Energy Consumption in the Treatment of Slaughterhouse Wastewater by Electro-Oxidation Method in a Continuous System**  
Şapcı Ayas Z., Öztürk D.  
4th international Scientific Research Congress, Yalova, Turkey, 14 - 17 February 2019, pp.246-252
- X. **ATIK SULARIN YENİDEN KAZANIMINDA YAPAY SULAK ALANLARIN ÖNEMİ VE İŞLETME PROBLEMLERİ**  
Şapcı Ayas Z., Türkmenoğlu M., Aşan A.  
13. Ulusal Kimya Kongresi, Van, Turkey, 3 - 06 September 2018, pp.7491-7499
- XI. **ATIKSULARDAKİ AĞIR METALLERİN SU MERCİMEĞİ İLE GİDERİMİ ÜZERİNE GÜNCEL ÇALIŞMALARIN İNCELENMESİ**  
Bahtiyar F., Yakan ., Dağdaş ., Şapcı Ayas Z.  
13. Ulusal Kimya kongresi, Van, Turkey, 3 - 06 September 2018, pp.7198-7207
- XII. **Atık Suların Yeniden Kazanımında Yapay Sulak Alanların Önemi ve İşletme Problemleri**  
Şapcı Ayas Z., Türkmenoğlu M., Aşan A.  
13. Ulusal Kimya Mühendisliği Kongresi, Van, Turkey, 3 - 06 September 2018, pp.7491-7498
- XIII. **Investigation of Environmental Attitude of Secondary School Students in Bitlis (TURKEY)**  
Şapcı Ayas Z., DURMAZ BEKMEZCİ H., ÇİNKİLİÇ Y. E.  
The 3rd International Congress on Education Sciences and Learning Technology (ICESLT), Atina, Greece, 15 - 19 November 2017, pp.33
- XIV. **Applications of phytoremediation in the World**  
Şapcı Ayas Z.  
International Conference on Multidisciplinary, Engineering, Science, Education and Technology (IMESET'17 Bitlis), Bitlis, Turkey, 27 - 29 October 2017, pp.135-140
- XV. **Greenhouse Gas Emissions from Cattle and Small Ruminant Breeding in Turkey and Biogas Proposal for this Emission Reduction**  
Şapcı Ayas Z.  
International Conference on Multidisciplinary, Engineering, Science, Education and Technology (IMESET'17 Bitlis), Bitlis, Turkey, 27 - 29 October 2017, pp.141-145
- XVI. **EVALUATION OF ENVIRONMENTAL PUBLIC ATTITUDES IN TATVAN COUNTY / BİTLİS PROVINCE, A CASE STUDIES: SECONDARY SCHOOL STUDENTS**  
DURMAZ BEKMEZCİ H., Şapcı Ayas Z.  
International Engineering, Science and Education Conference ISBN:978-975-7635-97-0, Diyarbakır, Turkey, 1 - 03 December 2016, pp.213-221

## Supported Projects

Şapcı Ayas Z., Project Supported by Higher Education Institutions, Gerçek tekstil atıksuyunu arıtılabilirliğinin incelenmesi, 2019 - 2020

Şapcı Ayas Z., Onay M., DURMAZ BEKMEZCİ H., Project Supported by Higher Education Institutions, Atıksudaki ağır metalin işlem yapılmış ve yapılmamış patates kabuğu ile gideriminin araştırılması, 2017 - 2020

Onay M., Şapcı Ayas Z., Project Supported by Higher Education Institutions, Mikroalglerin yağ miktarlarının belirlenmesi

için uygun florasan metodun geliştirilmesi ve bunun biyodizel üretiminde kullanılması, 2017 - 2019

Şapıcı Ayas Z., Project Supported by Higher Education Institutions, Çevre mühendisliği laboratuvar altyapısının geliştirilmesi, 2018 - 2018

Şapıcı Ayas Z., Project Supported by Higher Education Institutions, Çevre mühendisliği katı atık laboratuvarı altyapısının geliştirilmesi, 2017 - 2018

## **Memberships / Tasks in Scientific Organizations**

Society of Environmental Engineers, Member, 2018 - Continues

## **Scientific Refereeing**

Kentsel Katı Atıklar ve Geri Kazanımlarının Faydaları; Eskişehir Örneği, National Scientific Refreed Journal, December 2019

TUBITAK Project, August 2019

RSC ADVANCES, SCI Journal, May 2018

Sigma Journal of Engineering and Natural Sciences, National Scientific Refreed Journal, October 2017

Project Supported by Higher Education Institutions, March 2017

## **Scientific Research / Working Group Memberships**

VAN YÜZÜNCÜ YIL ÜNİVERSİTESİ FEN BİLİMLERİ ENSTİTÜSÜ DERGİSİ, VAN YÜZÜNCÜ YIL ÜNİVERSİTESİ, Turkey, <http://dergipark.gov.tr/yyufbed>, 2018 - 2019

## **Metrics**

Publication: 40

Citation (WoS): 575

Citation (Scopus): 536

H-Index (WoS): 11

H-Index (Scopus): 10

## **Congress and Symposium Activities**

ISPEC 5. ULUSLARARASI MÜHENDİSLİK ve FEN BİLİMLERİ KONGRESİ, Session Moderator, Van, Turkey, 2019

4. Uluslararası Bilimsel Araştırma Kongresi, Session Moderator, Yalova, Turkey, 2019

International Conference on Multidisciplinary, Engineering, Science, Education and Technology (IMESET'17 Bitlis), Session Moderator, Bitlis, Turkey, 2017

Global Conference of Environmental Studies, Moderator, Antalya, Turkey, 2013

International Conference of Agricultural Engineering, Moderator, Valencia, Spain, 2012

international conference of agricultural engineering, Moderator, Valencia, Spain, 2012

## **Awards**

Şapıcı Ayas Z., Teşvik yönergesinin 5/6 maddesi gereği ile TAKDİR BELGESİ, Bitlis Eren Üniversitesi, September 2014

## **Non Academic Experience**

Other Public Institution, Tekirdađ Su Ve Kanalizasyon İdaresi