

# Prof. Emre Burcu Özkaraova

## Personal Information

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## Education Information

Doctorate, Bogazici University, Çevre Bilimleri Enstitüsü, Çevre Teknolojisi (Dr), Turkey 1996 - 2001

Postgraduate, Bogazici University, Çevre Bilimleri Enstitüsü, Çevre Teknolojisi (YI) (Tezli), Turkey 1993 - 1996

Undergraduate, Dokuz Eylul University, Mühendislik Fakültesi, Çevre Mühendisliği Bölümü, Turkey 1989 - 1993

## Dissertations

Doctorate, Soil Metal Interactions and Investigation of Extractive Removal Pathways, Bogazici University, Çevre Bilimleri Enstitüsü, Çevre Teknolojisi (Dr), 2001

Postgraduate, Effects of Nitrate and Chloride Ions on The Photocatalytic Degradation of Humic Acid, Bogazici University, Çevre Bilimleri Enstitüsü, Çevre Teknolojisi (YI) (Tezli), 1996

## Academic Titles / Tasks

Associate Professor, Ondokuz Mayıs University, Mühendislik Fakültesi, Çevre Mühendisliği Bölümü, 2015 - Continues

Assistant Professor, Ondokuz Mayıs University, Mühendislik Fakültesi, Çevre Mühendisliği Bölümü, 2002 - 2015

Research Assistant, Bogazici University, Çevre Bilimleri Enstitüsü, 1996 - 2002

## Academic and Administrative Experience

Ondokuz Mayıs University, 2015 - 2016

## Courses

ÇMB 209 Mühendislik Matematiği, Undergraduate, 2019 - 2020

ÇMB 403 Toprak Kirliliği ve Kontrolü, Undergraduate, 2019 - 2020

FÇM 616 Toprakta Hızlandırılmış Arıtım Sistemleri, Postgraduate, 2019 - 2020

ÇMB 406 Çevresel Etki Değerlendirmesi, Undergraduate, 2019 - 2020

FÇM Toprakta Hızlandırılmış Arıtım Sistemleri, Postgraduate, 2019 - 2020

EFCM 718 Ecological Risk Assessment for Contaminated Soils, Doctorate, 2019 - 2020

ENVE 611 Soil and Groundwater Pollution and Control, Postgraduate, 2019 - 2020

FÇM 614 Toprakta Kirlenici Dağılımı, Taşınımı ve Kontrolü, Postgraduate, 2019 - 2020

ÇMB 318 Yeraltı Suyu Kirliliği, Undergraduate, 2019 - 2020

ENVE 613 Scientific Research Technologies and Publication Ethics, Postgraduate, 2019 - 2020

Toplam Kalite Yönetimi, Undergraduate, 2015 - 2016, 2012 - 2013

Risk Bazlı Kirlenmiş Alanların Belirlenmesi, Postgraduate, 2015 - 2016, 2013 - 2014

Toprak Kirleticilerinin Taşınımı ve Kontrolü, Postgraduate, 2015 - 2016  
Toprak Kirliliği ve Kontrolü, Undergraduate, 2015 - 2016, 2013 - 2014, 2012 - 2013  
Mühendislik Matematiği, Undergraduate, 2015 - 2016  
Toksik ve Parçalanmayan Organik Kirleticilerin İleri Oksidasyon Prosesleri, Doctorate, 2015 - 2016  
Çevresel Etki Değerlendirme (Çed), Undergraduate, 2015 - 2016  
Soil and Groundwater Pollution, Postgraduate, 2015 - 2016  
Yeraltı Suyu Kirliliği, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013  
Diferansiyel Denklemler, Undergraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013  
Toprak Kirliliği ve Kirletici Dağılımı, Postgraduate, 2014 - 2015  
Çevresel Etki Değerlendirilmesi, Undergraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013  
Çevre Ekolojisi, Undergraduate, 2013 - 2014, 2012 - 2013  
Toprakta Hızlandırılmış Arıtım Sistemleri, Postgraduate, 2013 - 2014  
Doğal Materyallerin Çevre mühendisliğindeki Kullanım Alanları, Postgraduate, 2012 - 2013  
Toprak Kirleticilerinin Taşınımı ve Kontrolü, Postgraduate, 2012 - 2013

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

- I. **Artificial neural network modeling of Fenton-based advanced oxidation processes for recycling of textile wastewater**  
Kadioglu E. N., Ozturk H., Eroglu H., Akbal F., Kuleyin A., Özkaraova E. B.  
JOURNAL OF INDUSTRIAL AND ENGINEERING CHEMISTRY, vol.136, pp.542-553, 2024 (SCI-Expanded)

## Books & Book Chapters

- I. **WATER QUALITY CRITERIA FOR THE EVALUATION OF TREATED WASTEWATER REUSE AS IRRIGATION WATER**  
AKBAL F., KULEYİN A., ÖZKARAOVA E. B.  
in: COOPERATION FOR CLIMATE AND GREEN DEAL BOOK, Prof. Dr. Yüksel ARDALI, Editor, Publications of Ondokuz Mayıs University, Samsun, pp.658-665, 2023
- II. **INTEGRATION OF STORMWATER CAPTURE AT FLOOD MANAGEMENT RESERVOIRS WITH MANAGED AQUIFER RECHARGE**  
ÖZKARAOVA E. B., Kalin R.  
in: Cooperation for Climate and Green Deal Book, Prof. Dr. Yüksel ARDALI, Editor, Publications of Ondokuz Mayıs University, Samsun, pp.822-833, 2023
- III. **Kenevir ve Çevre**  
ÖZKARAOVA E. B.  
in: HER YÖNÜYLE KENEVİR, Selim AYTAÇ, Ali Kemal AYAN,, Şahane Funda ARSLANOĞLU, Özge BALPINAR, Editor, OMÜ Yayınevi, Samsun, pp.365-384, 2023
- IV. **“Application of Advanced Oxidation Processes in Combined Systems for Wastewater Reuse,”**  
AKBAL F., ÖZKARAOVA E. B., KULEYİN A.  
in: An Innovative Approach of Advanced Oxidation Processes for Wastewater Treatment,, Maulin Shah, Editor, Taylor & Francis Group, LLC, Boca Raton, FL, U.S.A , 2022. doi:10.1201/9781003165958, Boca Raton, pp.145-165, 2022
- V. **SUSTAINABLE GROUNDWATER REMEDIATION WITH BIOBARRIERS USING AGRICULTURAL OR PLANT PRODUCTION RESIDUES**  
ÖZKARAOVA E. B.  
in: Academic Studies in ENGINEERING SCIENCES, Assoc. Prof. Dr. Halil İbrahim Kurt, Editor, Livre de Lyon, Lyon, pp.183-213, 2020
- VI. **Toprağa İlişkin Tehditler ve Toprak Kirliliği**

GÜNGÖR E. B.

in: Tarım Hayvancılık çevre Ekonomi Sağlık Kadın Öğretim Üyeleri Toplum Konferansları, Bakır T.B. ve Duran, H., Editor, Renk Vizyon Matbaacılık, Samsun, pp.321-334, 2015

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

- I. **Control Methods for the Prevention of Soil and Groundwater Pollution at Point Source Contaminated Sites**  
ÖZKARAOVA E. B.  
Proceedings of the 15th National 3rd International Environmental Engineering Congress (UCMK'23) of UCTEA Chamber of Environmental Engineers Ankara, Türkiye, Ankara, Turkey, 23 November 2023
- II. **Trends in Denitrifying Woodchip Bioreactor**  
İsmael F., ÖZKARAOVA E. B.  
9th International Erciyes Conference on Scientific Research, 17-18 July 2023, Kayseri, Turkey, Samsun, Turkey, 17 - 18 July 2023
- III. **Yapay Yeraltı Suyu Besleme ile Obruk Oluşumun Önlenmesi**  
ÖZKARAOVA E. B.  
3rd International Conference on Engineering and Applied Natural Sciences (ICEANS), 14-17 January 2023, Konya, Turkey, Samsun, Turkey, 14 - 17 January 2023
- IV. **Risk Assessment of Treated Urban Wastewater for Agricultural Irrigation**  
Gürel H. N., ÖZKARAOVA E. B.  
4. Uluslararası Bilimsel Araştırmalar ve İnnovasyon Kongresi (i-sarc) 24-25 Aralık 2022, İstanbul Türkiye, Samsun, Turkey, 24 December 2022
- V. **Water Quality Criteria for the Evaluation of Treated Wastewater Reuse as Irrigation Water**  
AKBAL F., ÖZKARAOVA E. B., KULEYİN A.  
Cooperation for Climate and Green Deal Symposium, 24-26 October 2022, Samsun Turkey, Samsun, Turkey, 24 October 2022
- VI. **Integration of Stormwater Capture at Flood Management Reservoirs with Managed Aquifer Recharge**  
ÖZKARAOVA E. B., Kalin R.  
Cooperation for Climate and Green Deal Symposium, 24-26 October 2022, Samsun Turkey., Samsun, Turkey, 24 October 2022
- VII. **Özkaraova, E.B. (2022). Bioreactor Integrated Systems for Nutrient Removal from Drainage Water, 1-20 Mayıs 2022, Samsun Turkey**  
ÖZKARAOVA E. B.  
7. Uluslararası 19 Mayıs Yenilikçi Bilimsel Yaklaşımlar Kongresi, Samsun, Turkey, 19 - 20 May 2022, vol.1, pp.166-167
- VIII. **Gülmüş, I., Özkaraova, E.B. (2022). The Investigation of Artificial Wetland Systems for the Treatment of Agricultural Drainage Waters, 10-13 May, 2022, Konya, Turkey**  
GÜLMÜŞ İ., ÖZKARAOVA E. B.  
1st International Conference on Engineering and Applied Natural Sciences, Konya, Turkey, 10 - 13 May 2022, vol.1, pp.1545
- IX. **Permeable Organic Bio-Wall System**  
Özdemir N., ÖZKARAOVA E. B.  
Al Farabi International Congress on Applied Sciences-II, 2-4 may 2021, Nakhchivan University Azerbaijan, 02 May 2021
- X. **Remediation At Point Source Contaminated Sites With Barrier Systems**  
Erişgin M., ÖZKARAOVA E. B.  
3 Rd INTERNATIONAL AFRICAN CONFERENCE On Current Studies Of Science, Technology E:J" Social Sciences 27-28 February, 2021 / Abomey-Calavi, Benin UNIVERSITY OF ABOMEY-CALAVI (UAC), 27 February 2021
- XI. **Cost-Effective Interventions At Abandoned Mining Sites For Groundwater Protection**

Arman M., ÖZKARAOVA E. B.

3 Rd INTERNATIONAL AFRICAN CONFERENCE On Current Studies Of Science, Technology E;J'" Social Sciences 27-28 February, 2021 / Abomey-Calavi, Benin UNIVERSITY OF ABOMEY-CALAVI (UAC), 27 February 2021

- XII. **Key Issues to Consider in Groundwater Well Construction in Africa: Human Health and the Environment**  
ÖZKARAOVA E. B., Tuğrul G.  
ISPEC6 th INTERNATIONAL CONFERENCE ON ENGINEERING NATURAL SCIENCES, Turkey, 24 - 26 January 2020
- XIII. **Developing a Conceptual Site Model for a Suspected Contaminated Site**  
ÖZKARAOVA E. B., Tuğrul G.  
ISPEC6 th INTERNATIONAL CONFERENCE ON ENGINEERING NATURAL SCIENCES, Turkey, 24 - 26 January 2020
- XIV. **Treatment of Textile Wastewater with Heterogeneous Fenton Oxidation**  
ATALAY EROĞLU H., Kadioğlu E. N., AKBAL F., ÖZKARAOVA E. B.  
11th Eastern European Young Water Professionals Conference, Prag, Czech Republic, 1 - 05 October 2019
- XV. **Industrial and Agricultural Wastes as a Potential Biofilter Media for Groundwater Nitrate Remediation**  
ÖZKARAOVA E. B., Kalin R., Gkiouzevas S., Knapp C.  
RECYCLING AND REUSE, 2018, İstanbul, Turkey, 24 - 26 October 2018
- XVI. **Potential Permeable Reactive Barrier Materials for the Treatment of Landfill Leachate**  
ÖZKARAOVA E. B., Güven Oral E.  
Recycling and Reuse 2018, 24 - 26 October 2018
- XVII. **TEKSTİL ATIKSULARININ ARITIMINDA FOTO-FENTON PROSESİNİN OPTİMİZASYONU**  
Öztürk H., Kadioğlu N., ATALAY H., Peker M., KULEYİN A., ÖZKARAOVA E. B., AKBAL F.  
Uluslararası Su ve Çevre Kongresi SUÇEV, Bursa, Turkey, 22 - 24 March 2018, pp.592-597
- XVIII. **Peroksimonosülfat Oksidasyonu İle Tekstil Atıksuyundan Renk Ve Koi Gideriminin İncelenmesi**  
Peker M., Gök A., Kadioğlu N., Öztürk H., ATALAY H., KULEYİN A., ÖZKARAOVA E. B., AKBAL F.  
Uluslararası Su ve Çevre Kongresi SUÇEV, Bursa, Turkey, 22 - 24 March 2018, pp.2062
- XIX. **GRAFİT-KARBON ELEKTRODLAR KULLANILARAK ELEKTRO-FENTON YÖNTEMİYLE TEKSTİL ATIKSU ARITIMININ DEĞERLENDİRİLMESİ**  
Gök A., Peker M., ATALAY H., KULEYİN A., ÖZKARAOVA E. B., AKBAL F.  
Uluslararası Su ve Çevre Kongresi SUÇEV, Bursa, Turkey, 22 - 24 March 2018, pp.598-603
- XX. **TEKSTİL ATIKSUYUNUN FENTON PROSESİ İLE ARITIMINDA OPTİMUM KOŞULLARIN ARAŞTIRILMASI**  
Kadioğlu N., Öztürk H., ATALAY H., Gök A., KULEYİN A., ÖZKARAOVA E. B., AKBAL F.  
Uluslararası Su ve Çevre Kongresi SUÇEV, Bursa, Turkey, 22 - 24 March 2018, pp.586-591
- XXI. **Evaluation Of Two Organic Materials (Peanut Shell And Luffa) For The Removal Of Nitrate From Groundwater In Agricultural Areas**  
Gemechu A. U., ÖZKARAOVA E. B.  
International Congress of Agriculture and Environment, Turkey, 16 - 18 November 2017
- XXII. **Attenuation of Landfill Leachate Constituents by Potential Reactive Materials**  
ÖZKARAOVA E. B., Güven Oral E., Kaya E.  
REMTECH International Conference Europe, 20 - 22 September 2017
- XXIII. **TREATMENT OF REAL TEXTILE WASTEWATER BY USING DIATOMITE**  
ÖZKARAOVA E. B., KULEYİN A., AKBAL F., CEYLAN A., ÇORUHLU S.  
2nd IWA Regional Symposium on Water, Wastewater and Environment, 22 - 24 March 2017
- XXIV. **Attenuation of Landfill leachate Constituents by Volcanic Slag**  
Güven Oral E., ÖZKARAOVA E. B.  
EuroSoil 2016, 16 - 21 October 2016
- XXV. **Bio Waste Practices and Problems in MSW Management in Turkey**  
GÜNGÖR E. B., SARPTAŞ H., Erdin E.  
Recy & DepoTech 2016, 8 - 11 November 2016
- XXVI. **Risk reduction with cost efficient interventions at the abandoned mining site Kruvashan Paper ID**

- GÜNGÖR E. B.  
EuroSoil 2016, 17 - 22 October 2016
- XXVII. **Developing Countries Perspective Towards Sustainability in Site Cleanup**  
GÜNGÖR E. B.  
Contaminated Sites 2016, 12 - 13 September 2016
- XXVIII. **The Investigation of Fluorene Removal with Chemical Oxidation After Soil Washing**  
Orkun M. O., GÜNGÖR E. B.  
3rd International Conference of Recycling and Reuse 2016, 28 - 30 September 2016
- XXIX. **Landfill Leachate Treatment by Possible Permeable Reactive Barrier Materials Paper ID 155**  
Güven Oral E., GÜNGÖR E. B.  
EurAsia Waste Management Symposium, 2 - 04 May 2016
- XXX. **Potential Residues Wastes for the Remediation of Landfill Leachate Contaminated Sites**  
GÜNGÖR E. B., Güven Oral E.  
13th AquaConSoil 2015, 8 - 12 June 2015
- XXXI. **Kentsel Dönüşüm Alanında Geri Dönüşüm Uygulaması Örneği**  
GÜNGÖR E. B., Çilesiz E. B.  
7. Ulusal Katı Atık Yönetimi Kongresi UKAY 2015, Turkey, 14 - 17 October 2015, pp.134-145
- XXXII. **Noniyonik bir Sürfaktan Bileşigi Kullanılarak Yıkama Yöntemi ile Toprakten Organik Kirletici Giderimi**  
Orkun M. O., GÜNGÖR E. B.  
11. Ulusal Çevre Mühendisliđi Kongresi, Turkey, 14 - 16 October 2015
- XXXIII. **Fenton Process for The Purification of Polluted Waters**  
GÜNGÖR E. B., KULEYİN A., AKBAL F., orkun m. o., GÜMÜŞ D.  
AquaConSoil 2015, 2 - 12 June 2015
- XXXIV. **An Overview of Real Life Applications of Remediation Technologies**  
Atay Ş., Özkaraova E. B.  
8th International Soil Science Congress on Land Degradation and Challenges in Sustainable Soil Management, İzmir, Turkey, 15 - 17 May 2012, vol.1, pp.436-441
- XXXV. **Toprak Kirliliđi Kontrolünde Yıkama Teknolojilerinin Yeri ve Uygulanabilirliđi**  
Atay Ş., Özkaraova E. B., Özkoç H. S.  
7. Ulusal Çevre Mühendisliđi Kongresi, İzmir, Turkey, 24 - 27 October 2007, pp.889-895

## Supported Projects

Özkaraova E. B., Project Supported by Higher Education Institutions, Organik Artıklar Ve Kükürt Kullanılarak Yeraltı Suyundan Nitrat Giderimlerinin İncelenmesi, 2021 - 2022

Özkaraova E. B., Project Supported by Higher Education Institutions, Reaktif bariyer sistemiyle yeraltı suyundan ardışık nitrat giderimi için denitrifikasyon ve adsorpsiyon süreçlerinin beraber değerlendirilmesi, 2019 - 2021

Özkaraova E. B., Project Supported by Higher Education Institutions, \*RISK Modeli ile Kirlenmiş Sahaların Değerlendirilmesi, 2015 - 2018

Özkaraova E. B., Project Supported by Higher Education Institutions, 13th AquaConSoil 2015, 2015 - 2015