

## Asst. Prof. OSMAN TUĞRUL BAKI

### Personal Information

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### International Researcher IDs

ScholarID: erTLFCUAAAAJ

ORCID: 0000-0001-8694-0543

Publons / Web Of Science ResearcherID: AAR-4256-2020

ScopusID: 57204842622

Yoksis Researcher ID: 240443

### Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, -, Turkey 2017 - 2023

Postgraduate, Karadeniz Technical University, -, İnşaat Mühendisliği, Turkey 2014 - 2017

Undergraduate, Karadeniz Technical University, Mühendislik Fakültesi, İnşaat Mühendisliği, Turkey 2010 - 2014

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

Education Management and Planning, Enerji Kimlik Belgesi (EKB) Uzmanı, İnşaat Mühendisleri Odası, 2018

Education Management and Planning, Temel İş Sağlığı ve Güvenliği, KTÜ İşyeri Sağlık ve Güvenlik Birimi, 2017

Education Management and Planning, FLO 2D ile 2 Boyutlu Taşkın Modelleme ve Baraj Yıkılma Analizi, TMMOB İnşaat Mühendisleri Odası Trabzon Şubesi, 2017

Education Management and Planning, Bilimsel Araştırma Yaz Seminerleri, KTÜ/ İktisadi ve İdari Bilimler Fakültesi, 2015

Education Management and Planning, NetCAD Yol Projelendirme Eğitim Programı, NetCAD, 2013

### Dissertations

Doctorate, Investigation and Modeling of Spatial and Temporal Variations of Total Suspended Solids Concentration in Trabzon Streams, Karadeniz Technical University, Fen Bilimleri Enstitüsü, -, 2023

Postgraduate, Atıksu Arıtma Tesislerinde Biyokimyasal Oksijen İhtiyacının Farklı Yapay Zeka Teknikleri ile Modellenmesi: Antalya Hurma Atıksu Arıtma Tesisi Örneği, Karadeniz Technical University, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği/Hidrolik, 2016

### Research Areas

## Academic Titles / Tasks

Assistant Professor, Karadeniz Technical University, Of Teknoloji Fakültesi, İnşaat Mühendisliği, 2024 - Continues  
Research Assistant PhD, Karadeniz Technical University, Of Teknoloji Fakültesi, İnşaat Mühendisliği, 2023 - 2024  
Research Assistant, Karadeniz Technical University, Of Teknoloji Fakültesi, İnşaat Mühendisliği, 2015 - 2024

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

- I. **Deep learning-based total suspended solids concentration classification of stream water surface images captured by mobile phone**  
Haciefendioğlu K., Baki O. T., Başağa H. B., Mete B.  
ENVIRONMENTAL MONITORING AND ASSESSMENT, vol.195, no.12, 2023 (SCI-Expanded)
- II. **Deep learning-driven automatic detection of mucilage event in the Sea of Marmara, Turkey**  
Haciefendioğlu K., Başağa H. B., Baki O. T., Bayram A.  
NEURAL COMPUTING & APPLICATIONS, vol.35, no.9, pp.7063-7079, 2023 (SCI-Expanded)
- III. **Spatial Forecasting of Dissolved Oxygen Concentration in the Eastern Black Sea Basin, Turkey**  
Nacar S., Bayram A., Baki O. T., Kankal M., Aras E.  
WATER, vol.12, no.4, 2020 (SCI-Expanded)
- IV. **Biochemical oxygen demand prediction in wastewater treatment plant by using different regression analysis models**  
Baki O. T., Aras E., Özel Akdemir Ü., Yılmaz B.  
DESALINATION AND WATER TREATMENT, vol.157, pp.79-89, 2019 (SCI-Expanded)
- V. **Estimation of BOD in wastewater treatment plant by using different ANN algorithms**  
Baki O. T., Aras E.  
MEMBRANE WATER TREATMENT, vol.9, no.6, pp.455-462, 2018 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Estimation of Total Suspended Solids Concentration in Streams Using Regression and Artificial Neural Networks Methods**  
Mete B., Nacar S., Bayram A., Baki O. T.  
JOURNAL OF NATURAL HAZARDS AND ENVIRONMENT, vol.9, no.1, pp.125-135, 2023 (Peer-Reviewed Journal)
- II. **Monitoring and Assessing the Transport of Total Suspended Solids in The Sera Stream Watershed (Trabzon, Turkey)**  
Mete B., Baki O. T., Bayram A.  
Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, vol.27, no.1, pp.419-436, 2022 (Peer-Reviewed Journal)
- III. **Modeling Dissolved Oxygen Concentration using Regression-based Methods: A Case Study from the Harşit Stream, Turkey**  
Nacar S., Baki O. T., Bayram A.  
Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, vol.27, no.1, pp.309-324, 2022 (Peer-Reviewed Journal)
- IV. **Monitoring and assessing of total suspended solids transport in the Değirmendere, Yomra, and Galanima stream watersheds (Trabzon Province, NE Turkey)**  
METE B., BAKI O. T., BAYRAM A.  
Gümüşhane Üniversitesi Fen Bilimleri Dergisi, vol.12, pp.803-817, 2022 (Peer-Reviewed Journal)
- V. **Atıksu Arıtma Tesislerinde Biyokimyasal Oksijen İhtiyacının Farklı Regresyon Modelleriyle Tahmin Edilmesi**

BAKİ O. T., ARAS E.

ENGINEERING SCIENCE, vol.13, no.2, pp.96-105, 2018 (Peer-Reviewed Journal)

## Books

- I. **Analysis of the Influencing Factors of Variation in Sediment Concentration in the Lower Değirmendere Basin, Trabzon, Türkiye**  
BAKİ O. T., METE B., YÜKSEK Ö.  
in: Lecture Notes in Civil Engineering, TÜRKER UMUT, EREN ÖZGÜR, UYGAR ERİŞ, Editor, Springer, pp.195-205, 2024

## Papers Published in Refereed Scientific Meetings

- I. **Development of the Sediment Rating Curve in Galanima Basin, Trabzon, Türkiye**  
Baki O. T., Mete B., Yüksek Ö.  
International Civil Engineering and Architecture Congress , Trabzon, Turkey, 12 - 14 October 2023, vol.1, no.953, pp.621-628
- II. **Analysis of the Influencing Factors of Variation in Sediment Concentration in the Lower Değirmendere Basin, Trabzon, Türkiye**  
Baki O. T., Mete B., Yüksek Ö.  
15th International Congress On Advances In Civil Engineering, Gazimagusa, Cyprus (Kktc), 6 - 08 September 2023, vol.1, no.70, pp.39
- III. **Sera Deresi Havzasında (Trabzon) Askıda Katı Madde Tahmini**  
METE B., NACAR S., BAYRAM A., BAKİ O. T.  
11. Ulusal Hidroloji Kongresi, Trabzon, Turkey, 13 October 2022
- IV. **Estimation of Manganese(II) Ion Concentration from Turbidity Measurements from a Dam Reservoir: A Case Study from the Erfelek Dam (Sinop), Northeastern Turkey**  
BAKİ O. T., KARADENİZ G. E., BAYRAM A.  
Innovation, Sustainability, Technology and Education in Civil Engineering Conference, Hatay, Turkey, 13 - 15 June 2019, vol.-, pp.630-639
- V. **Estimation of Suspended Sediment Concentration Using Regression Analysis and Artificial Neural Networks: A Case Study from the Eastern Black Sea Basin, Turkey**  
BAKİ O. T., ERDOĞAN İ., BAYRAM A.  
International Civil Engineering and Architecture Conference (ICEARC'19)-2019, Trabzon, Turkey, 17 April 2019
- VI. **Atıksu Arıtma Tesislerinde Biyokimyasal Oksijen İhtiyacının Farklı Regresyon Analizi Yöntemleri ile Tahmini**  
BAKİ O. T., ARAS E., YILMAZ B.  
International Symposium on Urban Water and Wastewater Management, Denizli, Turkey, 25 - 27 October 2018, vol.1, pp.1001-1007
- VII. **Estimation of Biochemical Oxygen Demand with Multivariable Adaptive Regression Splines (MARS)**  
BAKİ O. T., ARAS E., NACAR S.  
13th INTERNATIONAL CONGRESS ON ADVANCES IN CIVIL ENGINEERING, İzmir, Turkey, 12 - 14 September 2018, pp.1-6
- VIII. **Comparison of Performances of Teaching Learning-Based Optimization and Classical Regression for Suspended Sediment Prediction**  
YILMAZ B., ARAS E., BAKİ O. T.  
13th INTERNATIONAL CONGRESS ON ADVANCES IN CIVIL ENGINEERING, İzmir, Turkey, 12 - 14 September 2018
- IX. **Atıksu Arıtma Tesislerinde Biyokimyasal Oksijen İhtiyacının Farklı Regresyon Modelleriyle Tahmin Edilmesi**

BAKİ O. T., ARAS E.

International Conference on Advanced Engineering Technologies ICADET, Bayburt, Turkey, 21 - 23 September 2017, vol.1, no.1, pp.1

X. **Modelling of Suspended Sediment Loads with Artificial Bee Colony Algorithm**

YILMAZ B., ARAS E., BAKİ O. T.

2nd International Conference on Civil and Environmental Engineering (ICOCEE), Nevşehir, Turkey, 8 - 10 May 2017, pp.2440-2450

XI. **Modelling of Biochemical Oxygen Demand on Wastewater Treatment Plant by Using Artificial Neural Networks: Antalya Hurma Wastewater Treatment Plant Example**

BAKİ O. T., ARAS E., YILMAZ B.

ICOCEE, Nevşehir, Turkey, 8 - 10 May 2017, vol.1, no.1, pp.3632-3642

XII. **EVALUATION OF LAND LOSS FOR ENVIRONMENTAL FACTS:THE ATASU DAM EXAMPLE**

BAKİ O. T., ARAS E., YILMAZ B.

INTERNATIONAL BLACK SEA CONGRESS ON ENVIRONMENTAL SCIENCES (IBCESS), Giresun, Turkey, 31 August - 03 September 2016, vol.1, pp.31-42

XIII. **The Surface Water Quality Monitoring and Assessment of the Eastern Black Sea Basin (Trabzon Province) Streams, Turkey**

NACAR S., BAYRAM A., SATILMIŞ U., BAKİ O. T.

12th International Congress on Advances in Civil Engineering, İstanbul, Turkey, 21 - 23 September 2016, pp.111

XIV. **Evaluation Of Land Loss For Environmental Facts: The Atasu Dam Example**

BAKİ O. T., ARAS E., YILMAZ B.

1st International Black Sea Congress on Environmental Sciences (IBCESS), Giresun, Turkey, 31 August - 03 September 2016

## Peer Reviews in Scientific Publications

WATER RESOURCES MANAGEMENT, SCI Journal, June 2024

Sürdürülebilir Mühendislik Uygulamaları ve Teknolojik Gelişmeler, National Scientific Refreed Journal, June 2024

JOURNAL OF HYDROLOGY, SCI Journal, February 2024

Journal of Investigations on Engineering and Technology, National Scientific Refreed Journal, July 2020

Mühendislik Bilimleri ve Tasarım Dergisi, National Scientific Refreed Journal, July 2020

## Metrics

Publication: 29

Citation (WoS): 39

Citation (Scopus): 38

H-Index (WoS): 3

H-Index (Scopus): 3

## Non Academic Experience

Business Establishment Private, Denge-Demir Yapı Denetim Ltd. Şti

Denge Demir Yapı Denetim Ltd. Şti., Kontrol Mühendisi