



BİLGE ÖZDOĞAN CUMALI

EDUCATION

Doctor of Philosophy (PhD)

Istanbul University-Cerrahpasa

Institute of Graduate Studies, Department of Environmental Engineering

Dissertation Title: Investigation of Climate Change Effect Mitigation of Thermal Wastewater Jets Discharged into the Sea by Visual Plumes Model

Dissertation Advisor(s): Prof. Dr. Semih Nemliođlu

2019-2024

Turkiye

Master of Science (MSc)

Suleyman Demirel University

Institute of Sciences, Department of Environmental Engineering

Dissertation Title: Definition of Environmental Sustainability Index for University Campus

Dissertation Advisor(s): Prof. Dr. Gökhan Civelekođlu

2015-2018

Turkiye

Kaunas University of Technology

Erasmus Exchange Program, One Semester

2016-2017

Lithuanian

Bachelor of Science (BSc)

Pamukkale University

Faculty of Engineering

Major: Environmental Engineering

2010-2015

Turkiye

RESEARCH INTERESTS

- Life cycle-based environmental sustainability assessment and zero-waste approaches for urban and industrial systems.

- Environmental sustainability index development and application for university campuses.
- Environmental impacts of marine outfalls, thermal water discharges, dilution performance, and potential climate change effects.
- Management of construction and demolition wastes in disaster scenarios, waste quantification.
- Natural radioactivity and radiological hazard assessment in soil

WORK EXPERIENCE AND SELECTED RESPONSIBILITIES

Visiting Lecturer

Istanbul University-Cerrahpasa Technical Sciences Vocational School
Water and Waste Management Technician

2026 -
Turkiye

TEACHING EXPERIENCE

Associate Degree Courses, Istanbul University-Cerrahpasa, Technical Sciences Vocational School

SAYT1022 - Water Quality and Microbiology

SAYT1014 - Environmental Legislation and Applications

JOURNAL PUBLICATIONS

- Hacıyusufoglu, B., Ciliz., N., **Ozdogan Cumali, B.**, (2025), “Comparative Life Cycle Assessment of Different Cement Concretes and Their Impacts on LEED Certificated Buildings” (*In press*).
- Temelli, U.E., Sezgin, N., **Ozdogan Cumali, B.**, Nemlioglu, S., (2025), “Analysis of Construction and Demolition Waste Prediction Post-Earthquake Disasters”, *Engineering Science and Technology, an International Journal*, 67, 102078.
- Temelli, U.E., Sezgin, N., **Ozdogan Cumali, B.**, (2023), “Determination and Assessment of Construction and Demolition Wastes in Disaster Times: A Case Study of the Kahramanmaraş Earthquake”, *Journal of Anatolian Environmental and Animal Sciences*, 8(2), 218-224.
- Yilmaz, D., Oksuz, B.S., Aras, E., **Ozdogan Cumali, B.**, Nemlioglu S., (2023), “Experimental Investigation of Parametric Changes in Seepage Time and Length into the Subsoil of Hydraulic Structures”, *International Journal of Agriculture, Environment and Food Sciences*, 7 (2), 458-467.
- Temelli, U.E. Sezgin, N., **Ozdogan Cumali, B.**, Nemlioglu, S., (2023), “Investigation of Impact Point Dilution of Horizontally Discharged Singular Cold Water Jets from Marine Outfall Using by US EPA Visual Plumes-UM3 Model”, *Journal of Anatolian Environmental and Animal Sciences*, 8(3), 415-420.
- **Ozdogan Cumali, B.**, Nemlioglu, S., (2022), “Initial Dilution Improvement of thermal Wastewater Outfall Singular Jets by Nozzle Inclination for Decrement of Sea Water Evaporation”, *International Journal of Global Warming*, 28, 2.
- Sezgin, N., **Ozdogan Cumali, B.**, Aysal, N., Kajjumba, G.W., Nemlioglu, S., (2022), “Radiological Hazard Assessment of Natural Radioactivity in Avcilar Region, Turkey: A

Case of Istanbul University-Cerrahpasa Avcilar Campus”, International Journal of Environmental Health Research, 33(12), 1443-1455.

- **Ozdogan, B.**, Civelekoglu, G., (2019), “Development Of National Environmental Sustainability Index for University Campuses”, Journal of Engineering Sciences and Design, 7(1), 65-80.
- **Ozdogan, B.**, Civelekoglu, G., (2018), “Investigation of Environmental Sustainability Index Systems Developed for University Campuses”, Bilge International Journal of Science and Technology Research, 2(2), 167-173.

BOOK CHAPTER

- Nemlioglu, S., Sezgin, N., **Ozdogan Cumali, B.**, (2022), “Natural Radioactivity in Cement”. In F., Pacheco-Torgal, J.O., Falkinham, J., Galaj (Eds.), *In Advances in the Toxicity of Construction and Building Materials*, Woodhead Publishing, Elsevier Science, Oxford/Amsterdam. ISBN: 978-0-323-85291-3.

POSTER PRESENTATIONS

- Temelli, U.E., Sezgin, N., **Ozdogan Cumali, B.**, Kilci, R.E., Nemlioglu, S., “Sustainable Management Strategies of Disaster Demolition Waste Recycling: Computational Waste Prediction Approach”, 5th International Conference on Recycling and Reuse (R&R2024), Istanbul, Turkiye, July 2024.
- Sezgin, N., Aysal, N., **Ozdogan Cumali, B.**, Nemlioglu, S., “Evaluation of Natural Radioactivity Levels for Sustainable Settlement Selection in Central Anatolia Region in Turkiye”, 5th International Conference on Recycling and Reuse (R&R2024), Istanbul, Turkiye, July 2024.
- **Ozdogan Cumali, B.**, “Evaluation of the Natural Radioactivity Level and Their Radiological Parameters of Denizli Province”, 5th International Conference on Recycling and Reuse (R&R2024), Istanbul, Turkiye, July 2024.
- Nemlioglu, S., **Ozdogan Cumali, B.**, “Thermal Wastewater Outfall Initial Dilution Improvement by Nozzle Downward Inclination”, 5th International Conference on Recycling and Reuse (R&R2024), Istanbul, Turkiye, July 2024.
- **Ozdogan Cumali, B.**, Sezgin, N., “Analysis of the Progress for Turkiye in Achieving Sustainable Development Goal 7. 5th International Conference on Recycling and Reuse (R&R2024), Istanbul, Turkiye, July 2024.

ORAL PRESENTATIONS

- Nemlioglu, S., Djamaa, F., **Ozdogan Cumali, B.**, Sezgin, N., “Thermal Pollution Reduction

Using 45° Upward Inclined Thermal Outfall”, 5th International Conference on Recycling and Reuse (R&R2024), 2024, Istanbul, Turkiye, July 5-6.

- **Ozdogan Cumali, B.**, Cobanoglu Kayikci, C.B., Nemlioglu, S., “A New Approach to Increasing the Performance of Initial Dilution in Thermal Wastewater Outfalls: Nozzle Downward Inclination Method”, 5th International Congress on Life, Social, And Health Sciences in a Changing World, 2022, March 26-27.
- **Ozdogan Cumali, B.**, Nemlioglu, S., “Impact Point Dilution Performance Improvement by Applying the Discharge Nozzle Downward Inclination Angle in Circular Single-Port Thermal Wastewater Marine Outfalls”, IV. International Turkic World Congress on Science and Engineering, 2022, June 23-24.
- Cobanoglu Kayikci, C.B., Nemlioglu, S. & **Ozdogan, B.**, “A New Approach on the Use of Duckbill Check Valve Technology in Marine Outfalls Performance Improvement: Hybrid Application”, 3rd International Congress on Engineering and Technology Management, 2020, Istanbul, Turkiye, 16-17 April.

PARTICIPATED RESEARCH PROJECTS

- Researcher, “Integrated Pollution Prevention and Control (IPPC) – Sector Specialist Project”, supported by Ministry of Environment, Urbanization and Climate Change, 2025-
- Researcher, “Development of Sustainable Consumption and Production (SCP) National Action Plan”, supported by Ministry of Environment, Urbanization and Climate Change, 2023-2025
- Researcher, “Dissemination of Türkiye Environmental Label System (TCES) Project”, supported by Ministry of Environment, Urbanization and Climate Change, 2024-2025.
- Researcher, “An Investigation on Conversion of Sharped-Edged Ports to Bell-Mouth Type on Diffuser Internal Hydraulics and Initial Dilution of Marine Outfalls Performance Improvement”, supported by Karadeniz Technical University Scientific Research Projects, 2025.

ACTIVITIES

- Scientific Committee Member, National Green R&D and Sustainability Ecosystem Congress, Etkin Project, June 2025.
- Organizing Committee Member, 5th International Conference on Recycling and Reuse (R&R2024), Istanbul University-Cerrahpasa, Department of Environmental Engineering, July 2024.

TECHNICAL REPORTS

- Kiran-Ciliz, N., Uzun, M., **Ozdogan Cumali, B.**, Çalışkan, N., et. al, “Current Situation Assessment for Sustainable Consumption and Production of Selected Production Industries

and Service Industry”, project supported by National Ministry of Environment, Urbanization and Climate Change, April 2023.

HONORS & AWARDS

- Council of Higher Education 100/2000 Doctoral Fellowship, Climate Change
- Doctoral Thesis Grant, Union of Marmara Municipalities.

CERTIFICATION

- Quality Management System, TSE EN ISO 9001:2015, BKB Training and Consultancy Certification Co., 2022
- Wastewater Treatment Plant Responsible Manager Certificate (Municipal, Class D), Ministry of Environment, Urbanization and Climate Change, 2022
- Wastewater Treatment Plant Responsible Manager Certificate (Industrial, Class D), Ministry of Environment, Urbanization and Climate Change, 2022
- Netcad Drinking Water Network Design Training, 2012

VOLUNTEER EXPERIENCE

- Deputy Coordinator, Climate Ambassadors – Kadıköy Municipality