

Prof. Dr. Bestami ÖZKAYA

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Professor, Department of Civil Engineering

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ACADEMIC VISION

> I bring more than a quarter century of work in environmental engineering and biotechnology to a single conviction: a university should be an engine of transformation in which scientific excellence, entrepreneurship and societal impact reinforce one another. My research turns waste into resources, pollution into energy and data into decisions. It runs from sanitary landfills and microbial fuel cells to biohydrometallurgy, green hydrogen and AI-driven environmental modelling, and aims to deliver local, workable answers to global challenges such as the climate crisis and the energy transition.

I have tested this vision in practice. For four years I served as Vice Rector for Research and Planning at Yıldız Technical University, one of Türkiye's long-established, large-scale research universities, and I now serve as Vice Rector for Research and Innovation at İstinye University. Across both institutions I have worked to build universities that commercialise research, run joint doctoral programmes with industry, place the technopark and the start-up ecosystem at their core, draw strength from international networks and base their decisions on data.

Pillars of the Vision

- **Impact-driven research:** 59% of SCI/SCI-E articles in Q1 journals; thematic programmes in green hydrogen, the circular economy and decarbonisation.
- **Entrepreneurial university and industry partnership:** Acting Chair of YTU Technopark; PI of four TÜBİTAK 2244 Industrial PhD Programmes, including those with Turkish Aerospace (TUSAŞ) and Hayat Kimya; Founder & CEO of CSI Information Technologies, developer of the Sustrack.ai carbon and CBAM reporting platform; Board Member of Bilişim Vadisi – İstinye Garage.
- **Internationalisation:** More than 15 years of continuous collaboration with Tampere, Finland (postdoctoral research, adjunct and visiting professorships, doctoral supervision); EU FP6/FP7 projects; UNDP disaster-waste projects; Starcamp (Silicon Valley); COP31 Steering Committee.
- **Digital transformation and data-driven governance:** Projects on campus digitalisation, a machine-learning-based big-data analytics and reporting ecosystem, and the restructuring of university journals.
- **Sustainable, net-zero campus:** The "Towards zero carbon emission at YTU Davutpaşa Campus" study and the Energy Efficiency Application Laboratory.
- **Talent and mentoring:** 22 M.Sc. and 10 Ph.D. theses completed (two of them in Finland); 2 Ph.D. theses in progress.

AT A GLANCE

122 SCI/SCI-E articles	**59%** in Q1 journals (72 articles)	**43** h-index (Google Scholar) Scopus 37 · WoS 33	**69** national & international projects (PI of 22)
32 graduate theses supervised (22 M.Sc., 10 Ph.D.)	**11** book editorship and chapters	**Top 2%** World's most influential scientists (Stanford–Elsevier, 5 years)	**25+** years in academia (since 2000)

RESEARCH AND EXPERTISE

- Environmental biotechnology and bioprocess engineering
- Solid waste management, sanitary landfilling and landfill gas
- Bioenergy, biohydrogen and green hydrogen technologies
- Microbial fuel and electrolysis cells (bioelectrochemical systems)
- Microalgae technologies and biorefinery
- Biohydrometallurgy and resource/metal recovery
- Circular economy, life cycle assessment and decarbonisation (CBAM)
- AI and machine learning for environmental modelling

EDUCATION

Postdoctoral Research · Environmental Engineering and Biotechnology — 2006–2008
Tampere University of Technology (Finland)

Ph.D. · Environmental Engineering — 2001–2004
Yıldız Technical University

M.Sc. · Environmental Engineering — 1999–2001
Yıldız Technical University

B.Sc. · Environmental Engineering — 1994–1998
Fırat University

ACADEMIC APPOINTMENTS

Professor — 2025–present
Department of Civil Engineering, İstinye University

Professor — 2013–2025
Department of Environmental Engineering, Faculty of Civil Engineering, YTU

Visiting Professor — 2012, 2013, 2017, 2018 (3 months each)
Tampere University of Technology (Finland), Faculty of Natural Sciences, Chemistry and Bioengineering

Adjunct Professor — 2010–2015
Tampere University of Technology, Faculty of Science and Environmental Engineering

Associate Professor — 2011–2013
Department of Environmental Engineering, Faculty of Civil Engineering, YTU

Docent — 2006–2008
Tampere University of Technology (Finland), Institute of Environmental Engineering and Biotechnology

Assistant Professor — 2005–2011
Department of Environmental Engineering, Faculty of Civil Engineering, YTU

Research Assistant — 2000–2005
Department of Environmental Engineering, Faculty of Civil Engineering, YTU

ADMINISTRATIVE LEADERSHIP

Vice Rector for Research and Innovation · İstinye University — 2025–present
Board Member · Bilişim Vadisi (Türkiye's IT Valley) – İstinye Garage — 2025–present
Vice Rector for Research and Planning · Yıldız Technical University (YTU) — 2020–2024
Executive Board Member · YTU Graduate School of Science and Engineering — 2020–2024
Board Member · YTU Foundation — 2023–2024
Acting Dean · YTU Faculty of Arts and Sciences — 2022–2023
Faculty Council Member · YTU Faculty of Civil Engineering — 2014–2024
Vice Dean · YTU Faculty of Civil Engineering — 2010–2016

Faculty Executive Board Member · YTU Faculty of Civil Engineering 2011–2013
Vice Chair · YTU Department of Environmental Engineering 2008–2011

ENTREPRENEURSHIP, ECOSYSTEM AND BOARD ROLES

CSI Information Technologies Inc. – Sustrack.ai 2023–present
Founder & CEO · Developer of Sustrack, a cloud platform for CBAM, EUDR, corporate carbon footprint and product life cycle assessment (LCA) reporting (www.sustrack.ai)

YTU Technopark Inc. 2020–2024
Acting Chair of the Board

Starcamp Inc., Silicon Valley (USA) 2020–2024
Board Member

Startürk Inc. 2020–2024
Board Member

Hydrogen Technologies Association (Türkiye) 2019–present
Board Member

COP31 – Global High-Level Dialogue on Methane Emissions from the Waste Sector 2026
Steering Committee Member

AWARDS AND RECOGNITION

- Listed among the World's Top 2% Most Influential Scientists (Stanford University – Elsevier ranking) for the past five consecutive years.
- Awarded the title of Adjunct Professor by Tampere University of Technology for five years (2010–2015).
- Excellent Paper Award, The Society for Biotechnology, Japan, 2015.
- Best Poster Award, Indian Institute of Chemical Technology, 2017.

TEACHING

Undergraduate: Solid Wastes; Plant Design in Wastewater Treatment; Design Project

Graduate: Environmental Biotechnology; Biofuel Production Technologies; Life Cycle Assessment; Entrepreneurship and Innovation

GRADUATE THESIS SUPERVISION

Ph.D. Theses (10 completed, 2 in progress)

1. **Fatma Zehra ŞÜKÜR** (2026). *"ESG Disclosure and Hydrogen Decarbonisation as a Sectoral Framework for CBAM Compliance and Industrial Transition in Türkiye"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
2. **Elifnaz UNAY** (2025). *"Biogenic Sulfur Recovery from Paper Industry Wastewater for Energy Storage Applications: A Circular Economy Perspective"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
3. **Elvan Burcu KOŞMA** (2024). *"Evaluation of the Carbon Dioxide Capture Potential of Travertine Microbial Communities"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
4. **Doğukan TUNAY** (2023). *"In-Process Water and Sulfur Recovery in the Paper Industry with a Newly Developed Integrated System"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
5. **Öznur YILDIRIM** (2023). *"A Machine Learning-Assisted Model for Improving the Efficiency of Biogas Plants"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.

6. **Réka HAJDU-RAHKAMA** (2022). *"Potential of Biological Sulphur Recovery Under Haloalkaline Conditions"*, Tampere University (Finland).
7. **Afşin Yusuf ÇETİNKAYA** (2017). *"Treatment of Industrial Wastewaters and Electricity Generation with a Low-Cost, High-Efficiency Microbial Fuel Cell"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Technologies.
8. **Arda KARLUVALI** (2016). *"Electricity Generation from Biodegradable Wastes in a Microbial Fuel Cell with Composite Tubular Electrodes"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
9. **Ergin TAŞKAN** (2013). *"Electricity Generation Capacity and Microbial Community Shifts for Different Pollutants in Microbial Fuel Cells"*, Fırat University, Graduate School of Natural and Applied Sciences, Department of Environmental Engineering.
10. **Pauliina NURMI** (2009). *"Oxidation and Control of Iron in Bioleaching Solution"*, Tampere University of Technology (Finland), ISBN 978-952-15-2246-8.
11. **Fatih HOŞOĞLU**, Yıldız Technical University (in progress).
12. **Necdet Cem AYLA**, Yıldız Technical University (in progress).

M.Sc. Theses (22)

1. **Kadir AKGÜN** (2024). *"Energy Risk Assessment in the Hydrogen Production Sector: A Three-Approach Case Analysis"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
2. **Hatice Kübra ERDOĞAN** (2023). *"Assessing the Integration of a New-Trend Energy Generation System into Wastewater Treatment Plants Using Energy and Exergy Analysis"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
3. **Aleyna ÇEBİ** (2022). *"Treatment of Biodiesel Wastewater by Electro-Activated Persulfate Oxidation Following Acidification: Process Optimisation Using Box–Behnken Design"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
4. **Elifnaz UNAY** (2021). *"A Multicriteria Decision Analysis Based on TOPSIS Approach for Evaluation of Microalgal Growth and Harvesting"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
5. **Öznur YILDIRIM** (2020). *"Bioethanol Production from Lignocellulosic Biomass"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
6. **Rümeysa DÖLÜK** (2020). *"Biogas Production from Lignocellulosic Wastes with Rumen Pretreatment"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
7. **İlay SARILAR** (2019). *"Microalgae Cultivation in the Decanter Effluent of Advanced Biological Wastewater Treatment Plants"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
8. **Akif Emre DEMİR** (2019). *"Recovery of Waste Seaweeds and the Feasibility of Their Use as Liquid Fertiliser"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
9. **Ayşe İrem KARA** (2019). *"Characterisation and Potential Impact Assessment of Household Hazardous Wastes in Istanbul"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
10. **Fatma Zehra ŞÜKÜR** (2019). *"Assessment of Material and Land Recovery Potential at Solid Waste Landfills in Türkiye"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
11. **Doğukan TUNAY** (2018). *"Microalgae Cultivation in Source-Separated Human Urine"*, Istanbul Technical University, Graduate School of Science and Engineering, Environmental Sciences.
12. **Emre KORKMAZ** (2017). *"Biogas Production Potential of Waste Macroalgae Collected from the Sea of Marmara Co-Digested with Organic Wastes"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.

13. **Tuba GENÇ** (2016). *"Development of Microalgae Cultures in the Effluent of a Full-Scale Landfill Leachate Treatment Plant and Determination of Their Energy Potential"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
14. **Uzeyle ELCİK** (2016). *"Microalgae Cultivation in a Flat-Plate Photobioreactor Using Wastewater"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
15. **Fatih GÜRELİ** (2015). *"Investigation of H_2S Removal from Landfill Gas at a Full-Scale Landfill (Odayeri)"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
16. **Afşin Yusuf ÇETİNKAYA** (2013). *"Electricity Generation from Landfill Leachate Using Microbial Fuel Cell Technology"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
17. **Vasfiye Esra ÖLMEZ** (2013). *"Bacterial Profiling of the Fermentation Areas of the Istanbul Metropolitan Municipality Kemerburgaz Recovery and Composting Plant"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
18. **Emre Oğuz KÖROĞLU** (2013). *"Electricity Generation from Domestic Wastewater in Microbial Fuel Cells"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
19. **Marco Ayham CAMPAGNA** (2012). *"Molecular Weight Distribution of Pollutants in Leachate from Full Scale Landfill and an MBR Treatment Plant"*, Università degli Studi di Catania (Italy).
20. **Hamdi Murat ÇETİNDEMİR** (2012). *"Development of an Alternative to Landfill Gas Prediction Models for Sanitary Landfills"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
21. **İbrahim UYANIK** (2012). *"Effects of Meteorological Factors on Landfill Gas Generation at Solid Waste Landfills"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.
22. **Büşra AKOĞLU** (2011). *"Direct Electricity Generation Using Microbial Fuel Cell Technology"*, Yıldız Technical University, Graduate School of Science and Engineering, Department of Environmental Engineering.

RESEARCH PROJECTS (69)

International Projects (9)

1. **Report on Assessment of Debris Dumpsites for Adıyaman Province**. UNDP – United Nations Development Programme · 2026.
2. **Operational and Supervision Plan of Debris Dumpsites for Hatay and Kahramanmaraş Provinces**. UNDP – United Nations Development Programme · 2024.
3. **Report on Assessment of Debris Dumpsites for Hatay and Kahramanmaraş Provinces**. UNDP – United Nations Development Programme · 2023.
4. **Bio-e-MAT: Low-Cost and Efficient MFC Materials for Bioelectricity Production from Waste Materials (TÜBİTAK 114M119)**. EU FP7 – New Indigo Programme · **Principal Investigator** · 2014–2017.
5. **BioMinE: Biotechnologies for Metal Bearing Materials in Europe (contract no. 500329), Tampere University of Technology, Finland**. EU Sixth Framework Programme (FP6) · **Researcher** · 2006–2008.
6. **Investigation of Biofilm Characteristics of Exoelectrogenic Bacteria Formed on the Surface of a Newly Developed Electrode for Microbial Fuel Cell**. TÜBİTAK – Morocco Bilateral Cooperation Project · **Researcher** · 2015–2017.
7. **Symbiotic Cultivation of Oily Microalgae and Yeast for Biodiesel Production Using Blackwater**. TÜBİTAK – Portugal Bilateral Cooperation Project · **Researcher** · 2017–2019.
8. **Bioleaching of Sulfidic Minerals Using Extremophilic Microorganisms, Tampere University of Technology, Finland**. TÜBİTAK Postdoctoral Research Abroad Project · **Principal Investigator** · 2006.

9. **Biotechnical Process for Arsenic and Iron Control, Tampere University of Technology, Finland**. EU Project • **Researcher** · 2012–2013.

Externally Funded Projects (TÜBİTAK, SAN-TEZ) (14)

10. **Contaminant Transport through Impermeable Liner Systems of Solid Waste Landfills and Rehabilitation of Liner Systems**. TÜBİTAK ÇAYDAG-105Y334 • **Researcher** · 2006–2008.
11. **Dehalogenation of Chlorinated Organic Compounds in a Hydrogen-Based Membrane Biofilm Reactor**. TÜBİTAK ÇAYDAG-108Y136 • **Researcher** · 2008–2011.
12. **Electricity Generation from Acidogenic- and Methanogenic-Phase Landfill Leachates Using Microbial Fuel Cells**. TÜBİTAK ÇAYDAG-109Y269 • **Principal Investigator** · 2010–2012.
13. **Heterotrophic, Sulfur-Based Autotrophic and Mixotrophic Denitrification for Simultaneous Removal of Nitrate and Cr(VI) from Drinking Water**. TÜBİTAK ÇAYDAG-112Y008 • **Researcher** · 2013.
14. **Electricity Generation from Domestic Wastewater with a Newly Developed Cross-Flow Multi-Tube Microbial Fuel Cell**. TÜBİTAK ÇAYDAG-111Y252 • **Principal Investigator** · 2012–2014.
15. **Recovery Applications for Waste Seaweeds and Development of a Sustainable Waste Management Model**. TÜBİTAK TEYDEB, Project No. 3160227 • **Advisor** · 2016–2018.
16. **Yıldız Technical University – Hayat Kimya Industrial PhD Programme**. TÜBİTAK BİDEB-2244, 118C075 • **Principal Investigator** · 2020–2024.
17. **Interdisciplinary Training of PhD-Level Personnel in Polymer-Matrix Advanced Composite Materials and Manufacturing Technologies**. TÜBİTAK BİDEB-2244, 118C073 • **Principal Investigator** · 2020–2024.
18. **Turkish Aerospace (TUSAŞ) – Yıldız Technical University Industrial PhD Programme**. TÜBİTAK BİDEB-2244, 118C071 • **Principal Investigator** · 2020–2024.
19. **Preparation and Characterisation of Biocomposite Packaging**. TÜBİTAK BİDEB-2244, 118C076 • **Principal Investigator** · 2020–2024.
20. **Use of Microalgae Cultures for Sustainable Energy Production and Greenhouse Gas Mitigation**. Ministry of Industry and Technology of Türkiye, SAN-TEZ • **Principal Investigator** · 2013–2015.
21. **Treatment of Landfill Leachate by Membrane Distillation and Evaporation: Use of Waste Heat**. Ministry of Industry and Technology of Türkiye, SAN-TEZ • **Researcher** · 2014–2016.
22. **Material Recovery under Haloalkaline Conditions of the Kraft Process in a Novel MBR/EDI-Integrated System**. TÜBİTAK 1001, 120Y349 • **Principal Investigator** · 2021–2023.
23. **Improving the Efficiency and Stability of Perovskite Solar Cells Using Microalgae**. TÜBİTAK 1001 • **Advisor** · 2022–2024.

Public Sector and Industry Projects (22)

24. **Inspection Guide for Industrial Facilities**. Istanbul Metropolitan Municipality, Department of Environmental Protection and Development • **Researcher** · 2000.
25. **Leachate and Landfill Gas Generation at the Odayeri Solid Waste Landfill**. Istanbul Metropolitan Municipality – İSTAÇ Inc. • **Researcher** · 2001.
26. **Audit Report on the Trial-Operation Capacity and Efficiency of the Istanbul Solid Waste Processing (Recovery and Composting) Plant**. Istanbul Metropolitan Municipality – İSTAÇ Inc. • **Researcher** · 2001.
27. **Operating the Recovery and Composting Plant under Optimum Conditions**. Istanbul Metropolitan Municipality – İSTAÇ Inc. • **Researcher** · 2002.
28. **Environmental Impact Assessment Report for the Istanbul Metro Golden Horn Crossing Bridge**. Istanbul Metropolitan Municipality • **Researcher** · 2010.
29. **Istanbul Integrated Waste Management Plan**. Istanbul Metropolitan Municipality, Department of Environmental Protection and Control • **Researcher** · 2011.
30. **Research, Evaluation and Model Development for the Spatial Implementation of the Istanbul Environmental Plan in Coastal Areas**. Istanbul Metropolitan Municipality • **Researcher** · 2013.
31. **Execution and Steering of Environmental Engineering R&D Projects at Ortadoğu Enerji Facilities**. Ortadoğu Enerji • **Researcher** · 2014.

32. **Feasibility of Reusing Treated Wastewater for Irrigation in the Ergene Basin**. Ministry of Forestry of Türkiye • **Researcher** · 2014.
33. **Updating the National Wastewater Treatment Action Plan for 2014–2023**. Ministry of Environment and Urbanisation of Türkiye • **Researcher** · 2014.
34. **Sectoral Guide to Environmental Inspection of Industrial Facilities**. Ministry of Environment and Urbanisation of Türkiye, General Directorate of EIA, Permits and Inspection • **Researcher** · 2015.
35. **Procedures and Principles for the Construction of Infrastructure Facilities**. Ministry of Environment and Urbanisation of Türkiye, General Directorate of Infrastructure and Urban Transformation • **Researcher** · 2016.
36. **Recovery Applications for Waste Seaweeds and Development of a Sustainable Waste Management Model**. İSTAÇ Inc. • **Researcher** · 2018.
37. **Urban Infrastructure Impact Analysis Model for Plan Amendments and Urban Transformation (R&D)**. Ministry of Environment and Urbanisation of Türkiye, General Directorate of Infrastructure and Urban Transformation • **Researcher** · 2018.
38. **Interaction between the Kuruçeşme Integrated Solid Waste Recovery and Disposal Facility and Mining Activities**. Bursa Metropolitan Municipality • **Principal Investigator** · 2019.
39. **Economic and Technical Feasibility of Biomethane Injection into the Natural Gas Distribution Grid**. GAZBİR – GAZMER (Natural Gas Distributors Association of Türkiye) • **Principal Investigator** · 2021.
40. **Süleymanpaşa Ecological Logistics and Industrial Zone (SELEB) Consultancy**. Thrace Development Agency • **Principal Investigator** · 2021.
41. **Sustainable Retail Chain Model**. ÇATOM Inc. • **Principal Investigator** · 2022.
42. **Istanbul's Future Solar Radiation Potential Assessed with a Regional Climate Model**. İstanbul Enerji Inc. • **Principal Investigator** · 2023.
43. **Development of the Sustainable and Smart Mobility Strategy and Action Plan**. Ministry of Transport and Infrastructure of Türkiye • **Researcher** · 2023.
44. **Hydrogen Technologies and Applications**. Energy Exchange Istanbul (EPİAŞ) • **Researcher** · 2024.
45. **South Marmara Hydrogen Roadmap and Business Model Development**. RS Planlama • **Researcher** · 2025.

YTU Scientific Research Projects (BAP) (24)

46. **Humic Substance and Chlorophenol Concentrations in Landfill Leachates**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2005.
47. **Operating Parameters of Membrane Systems in Leachate Treatment**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2007.
48. **Treatment of Landfill Leachate with Submerged Membrane Systems**. YTU Scientific Research Projects Coordination Unit • **Principal Investigator** · 2010–2012.
49. **Molecular Weight Distribution of Organic Matter in Textile Process Wastewaters**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2011.
50. **Treatability of Sanitary Landfill Leachates by Membrane Processes**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2011.
51. **Biological Treatability of Textile Wastewaters**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2012.
52. **Electricity Generation from Brewery Wastewater with Microbial Fuel Cell Technology**. YTU Scientific Research Projects Coordination Unit • **Principal Investigator** · 2012–2014.
53. **Identification of Microbial Species in Organic Waste Composting by PCR-DGGE-Sequencing-Based Molecular Techniques**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2013.
54. **Energy Production from Food Industry Wastewater by a Combined Fluidised-Bed Bioreactor and Microbial Fuel Cell**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2013–2014.

55. **Electricity Generation from Biodegradable Wastes in a Microbial Fuel Cell**. YTU Scientific Research Projects Coordination Unit • **Principal Investigator** · 2015.
56. **Arsenic Removal from Drinking Water with Low-Pressure Membranes**. YTU Scientific Research Projects Coordination Unit • **Principal Investigator** · 2014.
57. **Low-Temperature Treatment of Food Industry Wastewater in Anaerobic Biofilm Bioreactors**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2014–2016.
58. **Ethanol and Butanol Production from Lignocellulosic Wastes via ABE Fermentation**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2019–2021.
59. **Effects of Zero-Valent Iron Nanoparticles on Methane Potential in Anaerobic Sludge Digestion**. YTU Scientific Research Projects Coordination Unit • **Principal Investigator** · 2020–2021.
60. **Electro-Fenton vs. Electro-Persulfate Treatment of Biodiesel Production Wastewater: Optimisation of Process Parameters**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2020–2021.
61. **Analysis of the Digitalisation Process of University Campuses**. YTU Scientific Research Projects Coordination Unit • **Principal Investigator** · 2021.
62. **Increasing the Impact of YTU-Published Academic Journals and the University's Visibility through an Improved, Sustainable Editorial Structure**. YTU Scientific Research Projects Coordination Unit • **Principal Investigator** · 2021–2022.
63. **Energy Efficiency Application Laboratory**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2021–2022.
64. **Effect of Phase Change Material in a Solar Distillation System**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2022–2023.
65. **Bacteria-Based Self-Healing of Cement- and Lime-Based Mortars**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2023–2025.
66. **YTU Internationalisation Road Map: STARLINK**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2023–2024.
67. **Regional Impacts of the February 2023 Earthquakes and AI-Based Disaster Management Planning**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2023–2024.
68. **A Machine Learning-Based Big Data Analytics and Reporting Ecosystem for Research, Education, Societal Impact and Digital Transformation Data**. YTU Scientific Research Projects Coordination Unit • **Researcher** · 2023–2024.
69. **Effect of Electrode Materials on Biohydrogen Production in Microbial Electrolysis Cells (MECs)**. YTU Scientific Research Projects Coordination Unit • **Advisor** · 2026–ongoing.

PUBLICATIONS

Articles in SCI / SCI-Expanded Journals (122)

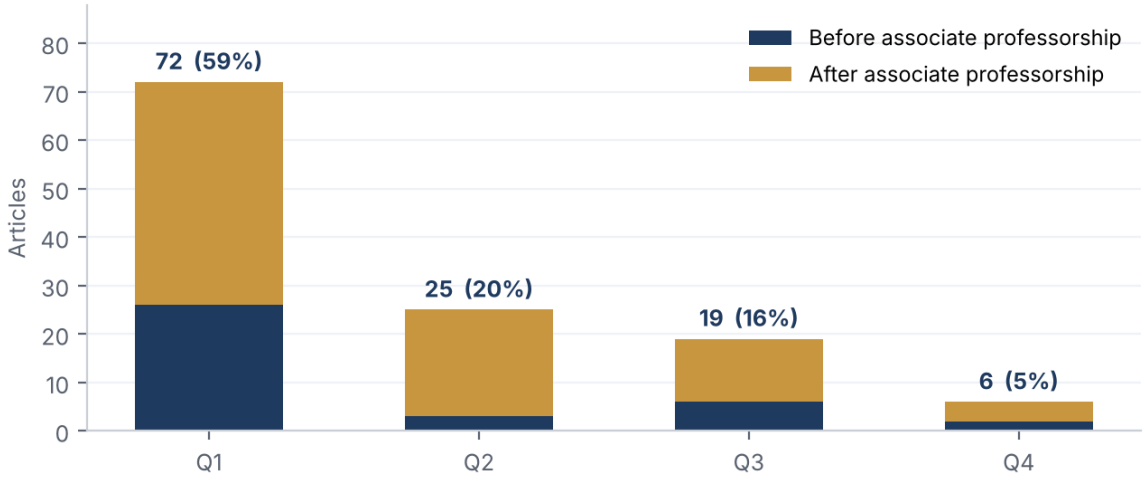


Figure 1. Scopus quartile distribution of the journals publishing the SCI/SCI-E articles (2026). h-index: 43 (Google Scholar), 37 (Scopus), 33 (Web of Science).

Before associate professorship (37)

1. **Özkaya, B.**, Demir, A., Basturk, A., Bilgili, M.S. "Investigation of Leachate Recirculation Effects in Istanbul Odayeri Sanitary Landfill", Journal of Environmental Science and Health Part-A, A39(4), 869-879 (2004). Q2
2. **Özkaya, B.**, Demir, A., Bilgili, M.S. "Enhanced stabilization and methane potential of MSWs in a field-scale landfill with leachate recirculation", International Journal of Environment and Pollution, 21(3), 277-292 (2004). Q4
3. Demir, A., Bilgili, M.S., **Özkaya, B.**, "Effect of leachate recirculation on refuse decomposition rates at landfill site: A case study", International Journal of Environment and Pollution, 21(2), 175-187, (2004). Q4
4. Demir, A., **Özkaya, B.**, Bilgili, M.S., "Effect of Leachate Recirculation on Methane Production and Storage Capacity in Landfill", Fresenius Environmental Bulletin, 12(1), 29-38 (2003). Q3
5. Demir, A., **Özkaya, B.**, Bilgili, M.S., The Effects on Waste stabilization of Leachate Recirculation in Landfills, Fresenius Environmental Bulletin, 13(10), 918-922, (2004). Q3
6. Bilgili, M.S., Demir, A., **Özkaya, B.**, Effects of Recirculation on Leachate Characteristics At Landfills, Fresenius Environmental Bulletin, 13(10) 1000-1005 (2004). Q3
7. Kanat, G., Demir, A., **Özkaya, B.**, Bilgili, M.S., "Optimization of Operation in a Waste Recycling and Composting Plant", Fresenius Environmental Bulletin, 13(10), 956-958 (2004). Q3
8. Varank, G., Demir, A., Akkaya, E., Bilgili, M.S., **Özkaya, B.**, "Product quality of municipal solid waste compost from pilot and real scale plants", Fresenius Environmental Bulletin, 18 (6), 904-910 (2009). Q3
9. **Özkaya, B.**, "Chlorophenols in Leachates Originating From Different Landfills and Aerobic Composting Plant", Journal of Hazardous Materials, 124(1-3), 107-112 (2005). Q1
10. Kanat, G., Demir, A., **Özkaya, B.**, Bilgili, M.S., "Addressing The Operational Problems in a Composting and Recycling Plant", Waste Management, 26(12), 1384-1391 (2006). Q1
11. Karaca, F., **Özkaya, B.**, "NN-LEAP: A Neural Network-based Model for Controlling Leachate Flow-rate in a Municipal Solid Waste Landfill Site", Environmental Modelling & Software, 21 (8), 1190-1197 (2006). Q1
12. Bilgili, M.S., Demir, A., **Özkaya, B.**, "Quality and Quantity of Leachate in Aerobic Pilot Scale Landfills", Environmental Management, 38 (2), 189-196 (2006). Q1
13. **Özkaya, B.**, Demir, A., Bilgili, M.S., "Soluble Substrate Concentrations in Leachate from Field Scale MSW Test Cells", Journal of Hazardous Materials, 134 (1-3) (2006). Q1
14. **Özkaya, B.**, Demir, A., Bilgili, M.S., "Mathematical Simulation and Long Term Monitoring of Leachate Components from Two Different Landfill Cells", Journal of Hazardous Materials, 135(1-3), 32-39 (2006). Q1

15. **Özkaya, B.**, "Adsorption and Desorption of Phenol on Activated Carbon and a Comparison of Isotherm Models", Journal of Hazardous Materials, 129(1-3), 158-163, (2006). Q1
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