

Prof. Dr. Orhan GÜNDÜZ

PERSONAL DETAILS

Date of Birth : November 15, 1972
Place of Birth : Ankara - TURKEY
Office Address : Izmir Institute of Technology
Department of Environmental Engineering
Gülbahçe, Urla
İzmir, 35430
TURKEY
Office Telephone : +90-232-7506857
Office Fax : +90-232-7506801
Electronic Mail : orhangunduz@iyte.edu.tr
Web Page : <http://iyte.edu.tr/~orhangunduz>

SPECIALIZATION

- Surface and subsurface water quality
- Environmental modeling
- Numerical methods in environmental engineering
- Flow and contaminant transport in surface and subsurface waters
- Dynamic interactions of surface and subsurface systems
- Source/sink terms in environmental modeling
- Environmental impact assessment
- Geographic information systems

EDUCATIONAL BACKGROUND

2000 - 2004 Ph.D. in Civil and Environmental Engineering
School of Civil and Environmental Engineering
Georgia Institute of Technology
Atlanta, GA, USA

1998 - 2000 M.S. in Civil Engineering
School of Civil and Environmental Engineering
Georgia Institute of Technology
Atlanta, GA, USA

1994 - 1997 M.S. in Environmental Engineering
Department of Environmental Engineering
Middle East Technical University
Ankara, TURKEY

1990 - 1994 B.S. in Environmental Engineering
Department of Environmental Engineering
Middle East Technical University
Ankara, TURKEY

PROFESSIONAL BACKGROUND

- 2021 - Prof. Dr.
Department of Environmental Engineering
Izmir Institute of Technology
Izmir, TURKEY
- 2014 - 2021 Assoc. Prof. Dr.
Department of Environmental Engineering
Dokuz Eylul University
Izmir, TURKEY
- 2006 - 2014 Assist. Prof. Dr.
Department of Environmental Engineering
Dokuz Eylul University
Izmir, TURKEY
- 2004 - 2006 Researcher
Department of Environmental Engineering
Dokuz Eylul University
Izmir, TURKEY
- 1998 - 2004 Research and Teaching Assistant
School of Civil and Environmental Engineering
Georgia Institute of Technology
Atlanta, GA, USA
- 1997 - 1998 Project Coordinator
METU Prof. Dr. Mustafa Parlar Education and Research Foundation
Ankara, TURKEY
- 1994 - 1997 Research and Teaching Assistant
Department of Environmental Engineering
Middle East Technical University
Ankara, TURKEY
- 1994 - 1997 Computer Supervisor and Network Coordinator
Department of Environmental Engineering
Middle East Technical University
Ankara, TURKEY

THESIS

Gunduz, O. (2004) *Coupled Flow and Contaminant Transport Modeling in Large Watersheds*. Ph.D. Dissertation, School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, GA, USA, 467p.

Gunduz, O. (1997). *Development of Water Quality Management Strategies for the Proposed Isikli Reservoir of Ankara Water Supply System*. Master of Science Thesis, Department of Environmental Engineering, Middle East Technical University, Ankara, Turkey, 236p.

HONORS

Ph.D. Scholar (1998)
Higher Education Council of Turkey

AWARDS

Thesis of the Year (1997)
Prof. Dr. Mustafa N. Parlar Research and Education Foundation
Middle East Technical University

HORIZON2020 Project Above-Threshold Award (2016)
ARTEMAR Project
The Scientific and Technological Research Council of Turkey

HORIZON2020 Project Above-Threshold Award (2016)
RESILE-3D Project
The Scientific and Technological Research Council of Turkey

PUBLICATIONS

BOOKS

Velibeyoğlu, K., Özdemir, S., Baba, A., Durmuş Arsan, Z., Duran, E., Kaplan, A., Boyacı, M., Kurucu, Y., Erdoğan, N., Yıldız, Ö., Esetli, T., Gündüz, O. (2016). *Sustainable Development and Life Strategy in Küçük Menderes Basin*, İzmir Metropolitan Municipality, 396p.

EDITED BOOKS

Baba, A., Tayfur, G., Gunduz, O., Howard, K.W.F., Friedel, M.J. and Chambel, A. (2011). *Climate Change and Its Effects on Water Resources*. NATO Science for

Peace and Security Series C: Environmental Security, Springer, 334p. ISBN: 9789400711457.

Karpuzcu, M., Agiralioglu, N., Alpaslan, N., Engin, G., Gomann, H., Gunduz, O., Kocal, M., Oncel, S., Pekdeger, A., Voigt, H., Kuhr, P., Montzka, C., Tetzlaff, B., Vereecken, H. and Wendland, F. (2008). *Integrated Modeling of Nutrients in Selected River Basins of Turkey*. Forschungszentrum Julich GmbH, 183p, ISBN: 978-3-89336-541-8.

Baba, A., Howard, K.W.F. and Gunduz, O. (2006). *Groundwater and Ecosystems*. NATO Science Series: IV: Earth and Environmental Sciences, Springer, 310p. ISBN: 1402047363.

BOOK CHAPTERS:

Gunduz, O. and Aral, M.M. (2016). *Surface Water – Groundwater Interactions: Integrated Modeling of a Coupled System*, Chapter 54 in Handbook of Applied Hydrology edited by Vijay P. Singh, Mc Graw Hill Inc., pp. 54.1-54.14. ISBN: 978-0071835091.

Gunduz, O. and Aral, M.M. (2005). *Large Scale Hybrid Watershed Modeling*, Section 2: Large Scale Hybrid Models, in Watershed Models edited by V.P. Singh and D.K. Frevert, CRC Press, pp. 75-95. ISBN:0849336090.

JOURNAL PAPERS (SCI):

Khorrarni, B. and Gündüz, O. (2021). “An Enhanced Water Storage Deficit Index (EWSDI) for drought detection using GRACE gravity estimates” *Journal of Hydrology*, Vol:603, 126812

Bilgiç, E. and Gündüz, O. (2021). “Analysis of the impact of various vertical release patterns on the atmospheric dispersion and total deposition of 137Cs from Chernobyl Nuclear Power Plant accident.” *Environmental Science and Pollution Research*, pp. 1-24.

Gündüz, O. and Şimşek, C. (2021). “Assessment of River Alteration Using A New Hydromorphological Index.” *Environmental Monitoring and Assessment*, Vol: 193:226.

Khorrarni, B. and Gündüz, O. (2021). “Evaluation of the temporal variations of groundwater storage and its interactions with climatic variables using GRACE data and hydrological models: A study from Turkey.” *Hydrological Processes*, Vol:35, No:3, e14076.

Khorrarni, B. and Gündüz, O. (2020). “Spatio-Temporal Interactions of Surface Urban Heat Island and Its Spectral Indicators: A Case Study from Istanbul Metropolitan Area, Turkey” *Environmental Monitoring and Assessment*, Vol:192, No:6, 386.

Bilgiç, E. and Gündüz, O. (2020). “Dose and risk estimation of Cs-137 and I-131 released from a hypothetical accident in Akkuyu Nuclear Power Plant”, *Journal of Environmental Radioactivity*, Vol:211, No:1, 106082.

- Khorrami, B. and Gunduz, O. (2019). "Analyses of meteorological drought and its impacts on groundwater fluctuations, a case study: Marand Plain (Iran)", *Pamukkale University Journal of Engineering Sciences*, Vol:25, No:6, 711-717.
- Can-Terzi, B., Gunduz, O. and Sofuoglu, S. (2019). "A deterministic and stochastic assessment for exposure and risk of arsenic via ingestion of edible crops", *Environmental Science and Pollution Research*, Vol:26, No:26, 26855-26868.
- Khorrami, B., Gunduz, O., Patel, N., Ghouzlane, S. and Najar, M. (2019). "Land surface temperature anomalies in response to changes in forest cover." *International Journal of Engineering and Geosciences*, Vol:4, No:3, pp. 149-156.
- Baba, A., Gündüz, O., Bakar, C., Sülün, S. and Save D. (2019). "The relation of geogenic and anthropogenic factors with blood and hair lead and arsenic levels in women living in Çan and Bayramiç Districts of Çanakkale Province", *Nobel Medicus*, 15(2): 25-34.
- Bayram, A., Yalcin, E., Demic, S., Gunduz, O. and Solmaz, M.E. (2018). "Development and application of a low cost smartphone-based turbidimeter using scattered light", *Applied Optics*, Vol: 57, No:21, pp. 5935-5940.
- Mansour, A.Y.S., Baba, A., Gunduz, O., Şimşek, C., Elçi, A., Murathan, Al., Sözbilir, H. (2017). "Modeling of seawater intrusion in a coastal aquifer of Karaburun Peninsula, western Turkey", *Environmental Earth Sciences*, Vol:76, No:11, 775.
- Gunduz, O., Bakar, C., Simsek, C., Baba, A., Elci, A., Gurleyuk, H. Mutlu, M. and Cakir, A. (2017). "The health risk associated with chronic diseases in villages with high arsenic levels in drinking water supplies", *Exposure and Health*, Vol:9, No:4, pp. 261-273.
- Tulger Kara, G., Kara, M., Bayram, A. and Gunduz, O. (2017). "Assessment of Seasonal and Spatial Variations of Physicochemical Parameters and Trace Elements along a Heavily-Polluted Effluent-Dominated Stream", *Environmental Monitoring and Assessment*, Vol:189, No:11, 585.
- Baba, A and Gunduz, O. (2017). "Effect of geogenic factors on water quality and its relation to human health around Mount Ida, Turkey", *Water*, Vol:9, No:1, p. 66.
- Fistikoglu, O., Gunduz, O. and Simsek, C. (2016). "The Correlation between Statistically Downscaled Precipitation Data and Groundwater Level Records in north-western Turkey." *Water Resources Management*, Vol. 30, No:15, pp. 5625-5635.
- Baysal, R.T. and Gunduz O. (2016). "The impacts of geothermal fluid discharge on surface water quality with emphasis on arsenic." *Water, Air and Soil Pollution*, Vol:227, No:5, 165.
- Gunduz, O. (2015). "Water quality perspectives in a changing world." *Water Quality, Exposure and Health*, Vol.7, pp. 1-3.
- Gunduz, O., Bakar, C., Simsek, C., Baba, A., Elci, A., Gurleyuk, H. Mutlu, M. and Cakir, A. (2015). "Statistical analysis of death causes during 2005-2010 period in villages with high arsenic levels in drinking water supplies of Simav Plain, Turkey." *Archives of Environmental and Occupational Health*, Vol:70, pp. 35-46.
- Simsek, C., Elci, A., Gunduz, O. and Taskin, N. (2014). "An improved landfill site screening procedure under NIMBY syndrome constraints". *Landscape and Urban Planning*, Vol. 132, pp. 1-15.
- Ak, M. and Gunduz, O. (2014). "Fate of nutrients in secondary treated municipal wastewater during percolation through the soil media." *CLEAN – Soil, Air, Water*, Vol:42(8), pp. 1036-1043.

- Bundschuh, J., Maity, J.P., Nath, B., Baba, A., Gunduz, O., Kulp, T.R., Jean, J.S., Kar, S., Tseng, Y.J., Bhattacharya, P. and Chen, C.Y. (2013). Naturally occurring arsenic in terrestrial geothermal systems of western Anatolia, Turkey: Potential role in contamination of freshwater resources. *Journal of Hazardous Materials*, Vol:262, pp. 951-959.
- Gunduz, O., Gurleyuk, H., Cakir, A., Elci, A., Baba, A. and Simsek, C. (2013). "Sample collection into sterile vacuum tubes to preserve arsenic speciation in natural water samples." *Journal of Environmental Engineering*, Vol:139, No:8, pp. 1080-1088.
- Okumusoglu, D. and Gunduz, O. (2013). "Hydrochemical status of an acidic mining lake in Çan-Çanakale, Turkey." *Water Environment Research*, Vol:85, No:7, pp. 604-620.
- Ak, M. and Gunduz, O. (2013). "Comparison of organic matter removal from synthetic and real wastewater in a laboratory scale soil aquifer treatment system." *Water, Air and Soil Pollution*, Vol:224, No:3, 1467.
- Simsek, C., Yavuz, A.B., Elci, H., Elci, A. and Gunduz, O. (2011). "Waste disposal on karstic terrain: a case study from the ancient marble quarries in Iznik (Nicaea), Turkey." *Geosciences Journal*, Vol: 15(3), pp. 339-348.
- Baba, A. and Gunduz, O. (2010). "Effect of alteration zones on water quality: A case study from Biga Peninsula, Turkey." *Archives of Environmental Contamination and Toxicology*, Vol: 58, No:3, pp. 499-513.
- Gunduz, O., Simsek, C. and Hasozbek, A. (2010). "Arsenic pollution in the groundwater of Simav Plain, Turkey: Its impact on water quality and human health". *Water, Air and Soil Pollution*, Vol:205, pp. 43-62.
- Aksoy, N., Simsek, C. and Gunduz, O. (2009). "Groundwater contamination mechanisms in a geothermal field: A case study of Balçova, Turkey". *Journal of Contaminant Hydrology*, Vol.103, No.1-2, pp. 13-28.
- Simsek, C., Elci, A., Gunduz, O. and Erdogan, B. (2008). "Hydrogeological and hydrogeochemical characterization of a karstic mountain region." *Environmental Geology*, Vol. 54, No. 2, pp. 291-308.
- Gunduz, O. (2007). "The influence of streambed hydraulic conductivity on sustaining baseflow in rivers." *Water Science and Technology*, Vol:56, No:1, pp. 259-266.
- Simsek, C. and Gunduz, O. (2007). "IWQ index: A GIS-integrated technique to assess irrigation water quality." *Environmental Monitoring and Assessment*, Vol:128, No:1-3, pp. 277-300.
- Simsek, C., Kincal, C. and Gunduz, O. (2006). "A solid waste disposal site selection procedure based on groundwater vulnerability mapping." *Environmental Geology*, Vol. 49, No. 4, pp. 620-633.
- Simsek, C., Karaca, Z., Gemici, U. and Gunduz, O. (2005). "The assessment of the impacts of a marble waste site on the water and sediment quality in a river system." *Fresenius Environmental Bulletin*, Vol. 14, No:11, pp. 1013-1023.
- Gunduz, O. and Aral, M.M. (2005b). "A Dirac-delta function notation for source/sink terms in groundwater flow." *Journal of Hydrologic Engineering*, Vol.10, No.5, pp. 420-427.
- Gunduz, O. and Aral, M.M. (2005a). "River networks and groundwater flow: a simultaneous solution of a coupled system." *Journal of Hydrology*, Vol. 301, No.1-4, pp. 216-234.

Gunduz, O., Soyupak, S. and Yurteri, C. (1998). "Development of water quality management strategies for the proposed Isikli Reservoir." *Water Science and Technology*, Vol. 37, No.2 pp. 369-376.

JOURNAL PAPERS (non-SCI):

Bilgic, E. and Gunduz, O. (2019). "Atmospheric dispersion patterns of radionuclides originating from nuclear power plant accidents under various release types", *International Journal of Energy Production and Management*, Vol:4, No:2, pp. 75-85.

Tulger Kara, G., Kara, M. ve Gündüz, O. (2017). "Investigation of Küçük Menderes River pollution for persistent organic pollutants and trace elements." *Çevre_Bilim ve Teknoloji Teknik Dergi*, Vol: 2, No: 2, 62-75. (in Turkish)

Eskicioğlu, F. ve Gündüz, O. (2017). "İzmir içme suyu sistemi için "CARVER" yöntemi ile risk analizi", *Türk Hijyen ve Deneysel Biyoloji Dergisi*, Vol. 74, No. EK-1, 105-112. (in Turkish)

Bilgiç, E., Tulger Kara, G. and Gündüz, O. (2017). "Assessment of risks for drinking water infrastructures by CARVER Method: Case Study – İzmir". *SIGMA Journal of Engineering and Natural Sciences*, Vol. 8, No. 3, 199-208.

Baba, A., Şimşek, C., Solak, O., Gündüz, O., Elçi, A., Murathan, A. ve Sözbilir, H. (2016). "Physical and isotopic characteristics of groundwater in Karaburun Peninsula." *DSİ Teknik Bülteni*, Vol.120, pp. 14-25. (in Turkish)

Gunduz, O., Mutlu, M., Elci, A., Simsek, C. and Baba, A. (2012). "The influence of the discharge of geothermal fluid on surface water quality: Case study Simav plain (Kütahya)." *Çevre Bilim ve Teknoloji Teknik Dergi*, Vol. 3, No:4, pp. 231-246. (in Turkish)

Simsek, C., Gündüz, O. and Elci, A. (2011). "Assessment of environmental quality effects of heavy metal and natural radioactivity from abandoned Balya (Balıkesir) Pb-Zn mine waste." *Süleyman Demirel University Journal of Engineering Science and Design*, Vol. 2, No. 1, pp. 43-55. (in Turkish)

Elci, A., Karadas, D. and Gunduz, O. (2009). "Assessment of watershed protection zones with regards to the transport of groundwater pollutants." *Su Kaynakları Dergisi*, Vol. 1, No. 2, pp. 69-81.

Simsek, C., Demirkiran, Z., Cetiner, L., Gunduz, O. and Ocal, G. (2009). "Three dimensional interactive hydrogeological model of Kemalpaşa Plain." *DEÜ Fen ve Mühendislik Dergisi*, Vol: 11, No: 31, pp. 10-21.

Gunduz, O. and Simsek, C. (2008). "Mechanisms of arsenic contamination of a surficial aquifer in Turkey." *Groundwater Quality: Securing Groundwater Quality in Urban and Industrial Environments*, IAHS Publ. Vol. 324, pp. 170–177.

Gunduz, O., Karahan, Ç. and Arıkan, Y. (1995). "Large Dams and Their Environmental Impacts." *Environment and Engineer*, Vol. 3, No. 8, pp.10-14.

PEER REVIEWED CONFERENCE PAPERS:

Khorrami, B. and Gündüz, O. (2019). "The Application of Remote Sensing and GIS in the Determination and Analysis of Surface Temperature and Urban Heat Island",

- 4th Meteorological Remote Sensing Symposium (UZALMET2019). Antalya, Türkiye . 11-15 November 2019. (In Turkish)
- Khorrami, B. and Gündüz, O. (2019). “Enhanced Spatial Variation Pattern of Monthly Precipitation Data Based on Geostatistical Interpolation Techniques. A Case Study from Izmir Province, Turkey”, 10th National Hydrology Congress, 9-12 Ekim, 2019, Muğla, Proceedings Book, pp. 1-13. (in Turkish)
- Bilgiç, B. and Gündüz, O. (2019). “Analysis of the Influence of Different Vertical Release Patterns on the Atmospheric Dispersion of Cs-137 Originating from a Nuclear Power Plant Accident”, 9th International Symposium on Atmospheric Sciences ATMOS 2019, 23-26 October 2019, İstanbul, Turkey, Proceedings CD-ROM.
- Bilgiç, E. and Gündüz, O. (2019). “Assessment of the Impacts of Chernobyl Nuclear Power Plant Accident on Turkey Using Mathematical Modelling Method”, 5th International Conference on Environmental Radioactivity, 8-13 September 2019, Prag-Czech Republic, Proceedings CDROM.
- Bilgiç, E., Tuna Tuygun, G. and Gündüz, O. (2019). “An Integrated Analysis of Dust Transport over Turkey”, 18th World Clean Air Congress, 23-27 Eylül 2019, İstanbul, Turkey, Proceedings Book.
- Bilgiç, E. and Gündüz, O. (2019). “Dose and risk estimation of Cs-137 and I-131 released from an hypothetical accident in Akkuyu Nuclear Power Plant.” INSINUME 2019: IN Situ Nuclear METrology as a tool for radioecology Symposium, 23-26 April 2019, Kuşadası, Proceedings CD-ROM.
- Gündüz, O. and Şimşek, C. (2019). “Geothermal application and environmental problems in Western Anatolia”, TESKON 2019 14th National Mechanical Engineering Congress – Geothermal Energy Symposium, 18-19-20 April 2019, İzmir, Proceedings Book, pp.142-151. (in Turkish)
- Bilgiç, E. and Gündüz, O. (2018). “The potential of nuclear energy in minimizing greenhouse gas emissions: A case study from Turkey.” 13th SDEWES Conference on Sustainable Development of Energy, Water and Environment Systems, September 30 – October 4 2018, Palermo, Italy.
- Gündüz, O ve Şimşek C. (2018). From Aquifer to Waterbody: Studies on the Determination of Groundwater Body within Water Framework Directive and the Associated Difficulties. HİDRO’2018: National Hydrogeology and Water Resources Symposium, September 27-29, 2018, HÜ-UKAM, Ankara, Proceedings Book, pp. 300-309. (in Turkish)
- Polat, N, Bilgiç, E ve Gündüz, O. (2018). “Investigation of the temporal variations of demand and system characteristics in water distribution systems with EPANET.” *International Symposium on Urban Water and Wastewater Management Proceedings Book*, 25-27 October 2018, Denizli (in Turkish).
- Bilgiç, E. and Gündüz, O. (2018). “Can nuclear energy be considered as a viable alternative within the context of global warming?” 7th Global Conference on Global Warming (GCGW-2018), Proceedings Book, June 24-28, 2018, Izmir, Turkey, pp. 237-241.
- Can, B., Gündüz, O. and Sofuoğlu, S. (2018). “Assessment of chronic toxic risks for consumption of edible crops on naturally arsenic contaminated soils.” International Agriculture, Environment and Health Congress, 26-28 October 2018 , Aydın, Proceedings Book, pp. 457-464.

- Eskicioğlu, F. and Gündüz, O. (2017). "Risk assessment of İzmir Drinking Water System with VSAT Software." *Proceedings of the 4th International Water Congress*, 2-4 November 2017, İzmir, Turkey, pp. 587-598 (in Turkish).
- Polat, N., Bilgiç, E. and Gündüz, O. (2017). "Water management in smart cities", *Proceedings of the 4th International Water Congress*, 2-4 November 2017, İzmir, Turkey, pp. 365-375 (in Turkish).
- Tulger Kara, G., Kara, M. and Gündüz, O. (2017). "Investigation of Küçük Menderes River pollution for persistent organic pollutants and trace elements." *Proceedings of 12th National Environmental Engineering Conference*, 5-7 October 2017, Ankara, Turkey pp. 345-360 (in Turkish).
- Bilgiç, E. and Gündüz, O. (2017). "Atmospheric dispersion and dose/risk estimation of 137Cs released from a potential accident in Akkuyu Nuclear Power Plant, Turkey." *Proceedings of ATMOS2017 – 8th International Atmospheric Sciences Symposium*, 1-4 November 2017, İstanbul, Turkey, pp. 154-157.
- Kentel, E., Gündüz, O., Bayar, M. and Aral, M.M. (2017). "Critical infrastructure management: risk, resilience and extent concepts." *Proceedings of the 12th Conference on Sustainable Development of Energy, Water and Environment Systems*, October 4-8, 2017, Dubrovnik, Croatia, pp. 1-11.
- Baba, A. Gündüz, O. Simsek, C., Elci, A., Murathan, A. and Sozibilir, H. (2017). "Investigation of sea water intrusion in the Ildırı Region (Çeşme-Turkey) coastal aquifer." *Proceedings of the ICOCEE Cappadocia 2017 2nd International Conference on Civil and Environmental Engineering*, Nevşehir, Turkey, 8-10 May 2017, p. 2557.
- Simsek, C. and Gündüz, O. (2017). "Measures to reduce environmental impacts of geothermal waters." *Proceedings of TESKON2017 Congress*, pp. 53-61, 19-21 April 2017, İzmir, Turkey, (in Turkish)
- Baba, A. Gündüz, O. Simsek, C., Elci, A., Murathan, A. and Sozibilir, H. (2017). "Evidence for sea water intrusion in karstic aquifer of Karaburun Peninsula, Turkey." *Proceedings of the 2nd IWA Regional Symposium on World's Water Resources: Past, Present and Future*, Cesme-Izmir, Turkey, 22-24 March 2017.
- Eskicioğlu, F., Bilgiç, E. and Gündüz, O. (2017). "Risk analysis for İzmir drinking water system with CARVER methodology." *Proceedings of the 2nd International Water and Health Congress*, Antalya, Turkey, 13-17 February 2017, pp. 443-449 (in Turkish).
- Bilgiç, E., Tulger Kara, G., and Gündüz, O. (2016). "Assessment of risks for drinking water infrastructures by CARVER method: Case Study - İzmir", *Proceedings of the International Symposium on Water and Wastewater Management – UKSAY2016*, pp. 897-905, 26-28 October 2016, Malatya, Turkey.
- Ak, M. and Gündüz, O. (2016). "The Role of Soil Aquifer Treatment Systems in Reuse of Treated Wastewater", *Proceedings of the International Symposium on Water and Wastewater Management – UKSAY2016*, pp. 487-494, 26-28 October 2016, Malatya, Turkey.
- Gündüz, O. Baba, A., Şimşek, C., Elçi, A. and Gürleyük, H. (2016). "Tracing the relative distribution of arsenic species in groundwater and its association with soil arsenic levels in the Simav Graben area, Turkey", *Proceedings of Arsenic in the Environment: As2016 Arsenic Research and Global Sustainability*, pp. 37-38, 19-23 June 2016, Stockholm, Sweden.

- Baba, A., Gündüz, O., Şimşek, C., Elçi, A., Murathan, A. and Sözbilir, H. (2016). “High arsenic levels in groundwater resources of Gediz Graben, Western Turkey”, *Proceedings of Arsenic in the Environment: As2016 Arsenic Research and Global Sustainability*, pp. 35-36, 19-23 June 2016, Stockholm, Sweden.
- Gündüz, O. (2015). “Monitoring Water Resources: Difficulties and Opportunities”. *Proceedings of National Water and Health Congress*, pp. 34-43, Antalya, Turkey, 26-30 October 2015 (in Turkish).
- Tulger, G. and Gündüz O. (2015). “The influence of climate change on critical urban infrastructure: A case study on Çiğli Wastewater Treatment Plant”. *3rd International Water Congress: Sustainable Water Management*, E-Proceedings, 08-10 October 2015, İzmir, Turkey, (in Turkish)
- Tulger, G., Bilgic, E. and Gündüz O. (2015). “An inundation analysis for Gediz Delta under sea level rise conditions”. *Proceedings of the 8th National Hydrology Congress*, Şanlıurfa, Turkey, 8-10 October 2015, pp.40-51. (in Turkish)
- Baba, A., Şimşek, C., Solak, O., Gündüz, O., Elçi, A., Murathan, A. and Sözbilir, H. (2015). “Physical and isotopic properties of water resources in Karaburun Peninsula”. E-Proceedings CD-ROM *4th National Symposium on Isotope Techniques in Hydrology*, İstanbul, 05-09 Ekim 2015. (in Turkish)
- Baba, A., Simsek, C., Gunduz, O., Elci, A., Murathan, A. and Sozbilir, H. (2015). “Investigation of Sea Water Intrusion in Coastal Aquifers: A Case Study from Karaburun Peninsula, Turkey”. *E-Proceedings of the 36th IAHR World Congress* The Hague, The Netherlands, 28 June-3 July 2015.
- Tulger, G. and Gunduz O. (2015). “Influence of DEM Resolution on GIS-based Inundation Analysis”. *Proceedings of the 9th World Congress of Water Resources Management in a Changing World: Challenges and Opportunities EWRA2015*, İstanbul, Turkey, 10-13 June 2015.
- Fistikoglu, O. Gunduz O. and Simsek C. (2015). “The Correlation between Statistically Downscaled Precipitation Data and Groundwater Level Records in northwestern Turkey”. *Proceedings of the 9th World Congress of Water Resources Management in a Changing World: Challenges and Opportunities EWRA2015*, İstanbul, Turkey, 10-13 June 2015.
- Elci, A., Simsek, C. Gunduz O., Baba, A., Acinan, S., Yildizer, N. and Murathan, A. (2015). “Simulation of Groundwater Flow in the Gediz River Basin”. *Proceedings of the 9th World Congress of Water Resources Management in a Changing World: Challenges and Opportunities EWRA2015*, İstanbul, Turkey, 10-13 June 2015.
- Baba, A., Simsek, C., Gunduz, O., Elci, A and Murathan, A. (2015). “Hydrogeochemical Properties of Geothermal Fluid and Its Effect on the Environment in Gediz Graben”, Western Turkey. *Proceedings World Geothermal Congress 2015* Melbourne, Australia, 19-25 April 2015.
- Gündüz, O., Bakar, C., Şimşek, C., Baba, A., Elçi, A., Mutlu, M., Çakır, A. (2013). “Chronic Disease and Primary Cause of Death in Villages (Simav-Kütahya) With Arsenic Exposure From Drinking Water.” *2nd Workshop on Medical Geology – Geology and Medical Sciences for a Healthy Environment Proceedings Book*, pp.43-55. (in Turkish)
- Şimşek, C., Baba, A., Gündüz, O., Elçi, A., Yılmaz, N. (2013). “Are Drinking Water Supplying Groundwater Wells Safe for Human Health?” *2nd Workshop on Medical Geology – Geology and Medical Sciences for a Healthy Environment Proceedings Book*, pp.147-152. (in Turkish)

- Baba, A., Bakar, C., Gündüz, O., Save, D., Özışın Karaman, H.I. (2013). "Effects of Heavy Metals in Water Resources on Human Health: Case Study: Biga Peninsula." *2nd Workshop on Medical Geology – Geology and Medical Sciences for a Healthy Environment Proceedings Book*, pp.25-34. (in Turkish)
- Baysal, R.T. and Gündüz, O. (2013). "Mathematical modeling of the impacts of geothermal fluid discharge on surface water quality." In *Proceedings of the 10th National Environmental Engineering Congress*, pp. 383-388. (in Turkish)
- Alsancak, H.U., Sayılğan, E., Kitiş, M. and Gündüz, O. (2013). "Removal of β -lactam antibiotics from water using fenton reagent." In *Proceedings of the 10th National Environmental Engineering Congress*, pp. 395-400. (in Turkish)
- Okumuşoğlu, D., Alsancak, H.U. and Gündüz, O. (2013). "Water quality on acidic mining lakes: Case study – Hayirtepe Lake (Can-Canakkale)." In *Proceedings of the 10th National Environmental Engineering Congress*, pp. 357-362. (in Turkish)
- Gunduz, O., Cakir, A., Gurleyuk, H., Elci, A., Simsek, C. ve Baba, A. (2013). "Speciation of arsenic in surface and subsurface water resources of Simav Plain, Turkey." In *Proceedings of the 6th International Perspective on Water Resources and the Environment*. Proceedings CD-ROM.
- Ak, M. and Gunduz, G. (2013). "Comparison of organic matter removal from synthetic and real wastewater in a laboratory scale soil aquifer treatment system." In *Proceedings of the 6th International Perspective on Water Resources and the Environment*. Proceedings CD-ROM.
- Chen, C.Y., Maity, J.P., Bundschuh, J., Bhattacharya, P., Baba, A., Gunduz, O. (2012). Occurrence of arsenic and related microbial signature of hydrothermal systems in Western Turkey. In *Proceedings of the 4th International Congress on Arsenic in the Environment (As2012)*, Edited by Jack C. Ng, Barry N. Noller, Ravi Naidu, Jochen Bundschuh, Prosun Bhattacharya, pp. 486-488.
- Gunduz, O., Simsek, C., Elci, A., Baba, A., Bakar, C., Gurleyuk, H. Cakir, A. and Mutlu, M. (2012). "An integrated assessment of water quality in an arsenic containing aquifer: milestones from hydrogeology to public health." In *Proceedings of the 5th International Perspective on Water Resources and the Environment*. Proceedings CD-ROM.
- Gunduz, O., Elci, A., Simsek, C. and Baba, A. (2012). "The use of cokriging algorithm for arsenic mapping in groundwater systems." In *Proceedings of the 5th International Perspective on Water Resources and the Environment*. Proceedings CD-ROM.
- Gunduz, O., Mutlu, M., Elci, A., Simsek, C. ve Baba, A. (2011). "The influence of the discharge of geothermal fluid on surface water quality: Case study Simav plain (Kütahya)." In *Proceedings of the 9th National Environmental Engineering Congress*, pp. 60-67. (in Turkish)
- Kara, M., Dumanoglu, Y., Bozlaker, A., Gunduz, O., Sofuoglu, A., Sofuoglu, S., Bayram, A., Elbir, T., Odabasi, M. (2011). "Determination of the spatial and seasonal changes of trace elements in ground and surface waters of Aliaga industrialized zone." In *Proceedings of the 9th National Environmental Engineering Congress*, pp. 389-395. (in Turkish)
- Baba, A. and Gunduz, O. (2011). "Sustainability of groundwater and its effects on ecosystems." *Proceedings of the Association of the Academies of Sciences in Asia Regional Workshop on The Roles of Academies of Sciences in Water and Energy Problems in Central Asia and Ways for their Solution*, pp. 122-132.

- Ak, M. and Gunduz, O. (2011). "Behaviour of organic matter in secondary treated wastewaters during percolation through soil media." In *Proceedings of the 8th International Symposium on Waste Management Problems in Agro-Industries (AGRO2011)*, edited by D. Orhon, I. Kabdaslı, A. Filibeli, I. Arslan-Alaton, T. Olmez-Hanci, S. Dogruel, G.E. Balci, T.Yazan and O.Y. Ozcan, pp. 183-190.
- Gunduz, O and Simsek C. (2011). "Influence of climate change on shallow groundwater resources: The link between precipitation and groundwater levels in alluvial systems." In *Proceedings of the NATO Advanced Research Workshop (ARW) on Climate Change and its Effects on Water Resources*, edited by A. Baba, G. Tayfur, O. Gunduz, K.W.F. Howard , M.J. Friedel and A. Chambel, pp. 225-234.
- Gunduz, O., Baba, A. and Elpit, H. (2010). "Arsenic in groundwater in Western Anatolia: a review." In *Proceedings of the XXXVIII IAH Congress (IAH2010)*, Edited by A. Zuber, J. Kania and E. Kmiecik, pp. 183-191.
- Gunduz, O. and Simsek, C. (2010). "Risk-based selection of drinking water well location in an arsenic containing aquifer." In *Proceedings of the 3rd International Congress on Arsenic in the Environment (As2010)*, Edited by J.S. Jean, J. Bundschuh and P. Bhattacharya, pp. 157-158.
- Gunduz, O. (2009). "Arsenic problem in Kutahya-Simav Plain: current status and new research." In *Proceedings of the 1st Workshop on Medical Geology*. Edited by Y. Orgun and G. Yalcin, pp.127-137. (in Turkish)
- Baba, A. and Gunduz, O. (2009). "Coal mining, energy production and environment: Local aspects of a global dilemma." In *Proceedings of the AASA Workshop on Environment and Resources*. Edited by A. Baba, C. Helvacı and G. Tayfur, pp. 56-64.
- Gunduz, O and Baba, A. (2009). "Acidic mining lakes and their environmental impacts." In *Proceedings of the 3rd Conference on Mining and Environment*. Edited by M. Karadeniz, pp.95-105. (in Turkish)
- Gunduz, O. and Baba, A. (2008). "Fate of acidic mining lakes in Can Lignite District, Turkey." In *Proceedings of the XXXVI IAH Congress Integrating Groundwater Science and Human Well-being*, pp. 49-55.
- Gunduz, O. and Simsek, C. (2007). "Mechanisms of arsenic contamination of a surficial aquifer in Turkey." In *Proceedings of the 6th Groundwater Quality Conference (GW07: Securing Groundwater Quality in Urban and Industrial Environments)*, edited by M.G. Trefry, Proceedings CD-ROM, ISBN 978-0-643-09551-9.
- Gunduz, O., Okumusoglu, D. and Baba, A. (2007). "Acidic mining lakes and their influence on water quality: A case study from Can (Canakkale) – Turkey." In *Proceedings of the 6th Groundwater Quality Conference (GW07: Securing Groundwater Quality in Urban and Industrial Environments)*, edited by M.G. Trefry, Proceedings CD-ROM, ISBN 978-0-643-09551-9.
- Ileri, B., Gunduz, O., Elci, A., Simsek, C. and Alpaslan, M.N. (2007). "GIS integrated assessment of groundwater quality in Tahtali basin." In *Proceedings of the 7th National Environmental Engineering Congress*, pp. 880-888. (in Turkish)
- Karadas, D., Elci, A., Simsek, C., Gunduz, O. and Kazanasmaz, E. (2007). "Determination of seasonal groundwater decline for the Izmir-Tahtali stream basin using mathematical modeling." In *Proceedings of the 7th National Environmental Engineering Congress*, pp. 41-49. (in Turkish)
- Baris, N., Simsek, C., Gunduz, O. and Elci, A. (2007). "Evaluation of surface water quality in Cumaovasi plain by Analytical Hierarchy Process (AHP)." In

- Proceedings of the 7th National Environmental Engineering Congress*, pp. 229-237. (in Turkish)
- Polat, R., Elci, A, Simsek, C. and Gunduz, O. (2007). “Seasonal assessment of the scale of nitrate pollution in the groundwater of Izmir Nif Mountain and environs.” In *Proceedings of the 7th National Environmental Engineering Congress*, pp. 482-489. (in Turkish)
- Elci, A., Gunduz, O. and Simsek, C. (2007). “Spatial and temporal assessment of groundwater quality indicators and hydrogeological characterization of a karstic aquifer in Western Turkey.” In *Proceedings of the XXXV IAH Congress Groundwater and Ecosystems*, Proceedings CD-ROM.
- Simsek, C., Gunduz, O. and Elci, A. (2007). “Importance of aquifer vulnerability maps for environmental geology.” In *Proceedings of Erdogan Yuzer Engineering Geology Symposium*, pp. 342-350. (in Turkish)
- Simsek, C., Elci, A. and Gunduz, O. (2007). “Determination of hydrogeological features of Nif mountain springs.” In *Proceedings of Erdogan Yuzer Engineering Geology Symposium*, pp. 386-396. (in Turkish)
- Silay, A. and Gunduz, O. (2007). “Demirköprü reservoir water budget and irrigation performance assessment.” In *Proceedings of the 5th National Hydrology Congress*, pp. 103-112. (in Turkish)
- Elci, A., Gunduz, O. and Simsek, C. (2007). “Determination of unconfined groundwater flow at the Torbalı Plain using mathematical modeling.” In *Proceedings of the 5th National Hydrology Congress*, pp. 509-518. (in Turkish)
- Gunduz, O. and Simsek, C. (2007). “Assessment of three wastewater treatment plants in Turkey.” In *Proceedings of the NATO Advanced Research Workshop (ARW) on Wastewater Reuse, Risk Assessment, Decision Making and Environmental Security*, edited by M. K. Zaidi, pp. 159-167.
- Gunduz, O. (2006). “The influence of streambed hydraulic conductivity on sustaining baseflow in rivers.” In *Proceedings of the 10th International Specialized Conference on Diffuse Pollution and Sustainable Basin Management*, edited by A. Tanik, I. Ozturk, M. Gurel, M.S. Yazgan and E. Pehlivanoglu-Mantas, Proceedings CD-ROM, ISBN 975-561-284-X.
- Gunduz, O. and Simsek C. (2006). “A GIS-integrated technique to assess irrigation water quality: A case study from Torbali Plain.” In *Proceedings of the 7th International Congress on Advances in Civil Engineering*, edited by S. Atabay, C. Aydemir, T. Bostan, A. Cosar, H. Kilic, A. Kocak, O. Koksall, I. Sahin, Y. Yuksel, N. Yuzer, Proceedings CD-ROM, ISBN 975-461-416-4.
- Gunduz, O. (2006). “Surface/subsurface interactions: Coupling mechanisms and numerical solution procedures.” In *Proceedings of the NATO Advanced Research Workshop (ARW) on Groundwater and Ecosystems*, edited by A. Baba, K.W.F. Howard and O. Gunduz, pp. 121-130.
- Gunduz, O., Turkman, A. and Doganlar, D.U. (2005). “Alternative formulations for the reuse of treated wastewater in Menemen Plain irrigation scheme.” In *Proceedings of the NATO Advanced Research Workshop (ARW) Integrated Urban Water Resources Management*, edited by P. Hlavinek, T. Kukharchyk, J. Marsalek and I. Mahrikova, pp. 259-268.
- Sarptas, H., Gunduz, O., Dolgen, D. and Alpaslan, N.A. (2005). “Rehabilitation of solid waste disposal sites: Kuşadası example.” In *Proceedings of the 3rd National Congress on Solid Waste (UKAK-2005)*, pp. 201-208. (in Turkish)

- Gunduz, O. and Aral, M.M. (2004). "A dynamically coupled contaminant transport model for river-aquifer systems." In *6th International Congress on Advances in Civil Engineering*, edited by T. Ozturan, C. Yalcin, Y. Tokmak and C. Gungor, pp. 2013-2022.
- Boyacioglu, H., Boyacioglu, H and Gunduz, O. (2004). "Application of factor analysis in the assessment of surface water quality in Büyük Menderes River Basin." In *Water Resources Management: Risks and Challenges for the 21th Century*, edited by N.B. Harmancioglu, O. Fistikoglu, Y. Dalkilic and A. Gul, Dokuz Eylul Publishers, pp. 971-980.
- Aral, M.M. and Gunduz, O. (2003). "Scale effects in large scale watershed modeling." In *Advances in Hydrology - Proceedings of the International Conference on Water and Environment: WE-2003*, edited by V.P. Singh and R.N. Yadava, Allied Publishers Pvt. Limited, pp. 37-51.
- Gunduz, O. and Aral, M.M. (2003a). "Simultaneous solution of coupled surface water/groundwater flow systems." In *River Basin Management II*, edited by C.A. Brebbia, pp. 25-33.
- Gunduz, O. and Aral, M.M. (2003b). "An integrated model of surface and subsurface flows." In *Water Resources Management II*, edited by C.A. Brebbia, pp. 367-376.
- Gunduz, O. and Aral, M.M. (2003c). "Hydrologic modeling of the lower Altamaha river basin." In *Proceedings of the 2003 Georgia Water Resources Conference*, edited by K.J. Hatcher, Athens, Georgia, USA.
- Hamzaoglu, A., Kaya, E., Gunduz, O. and Yurteri, C. (1998). "A Modeling Approach for Particulate Matter: Case Study: Küçükdere Gold Mine Project." In *Proceedings of the 2nd International Symposium on Mine Environmental Engineering*, pp. 124-133.
- Gunduz, O., Muhammed, A., Soyupak, S. and Yurteri, C. (1997a). "Application of a Two Dimensional Hydrodynamic and Water Quality Model to a Highly Eutrophic Lake." In *Proceedings of CSCE/ASCE Environmental Engineering Conference*, Vol. 2, pp. 1213-1223, Alberta, Canada.
- Gunduz, O., Soyupak, S. and Yurteri, C. (1997b). "Development of Water Quality Management Strategies for the Proposed Isikli Reservoir." In *Proceedings of IWSA-IAWQ Joint Specialists Conference on Reservoir Management and Water Supply: An Integrated System*, Vol. 2, pp. 243-250, Prag, Czech Republic.
- Gunduz, O., Eliyakut, F., Basmaci, E., Soyupak, S. and Yurteri, C. (1997c). "EIA Studies for the Gereede Alternative of the Ankara Water Supply Project." *Proceedings of International Conference on Municipal and Rural Water Supply and Water Quality*, Vol. 2, pp 117-131, Poznan, Poland.

CONFERENCE PRESENTATIONS

- Can, B., Gündüz, O and Sofuoğlu, S. (2018). "Exposure-Risk assessment for arsenic in crops grown in Simav Plain." 71th Geological Congress of Turkey with International Participation. Abstract Book, pp. 861-862, 23-27 April 2018, Ankara. (in Turkish)
- Baba, A., Gündüz, O., Şimşek, C., Elçi, A., Murathan, A. and Sözbilir, H. (2017). "Investigation of seawater intrusion in the Ildırı Region (Çeşme-Turkey) coastal

- aquifer.” Proceedings of the 2nd International Conference on Civil and Environmental Engineering, 8-10 May 2017 Cappadocia, Turkey, p. 2557.
- Gunduz, O., Baba, A., Simsek, C. and Elci, A. (2012). Hydrogeochemical properties of Simav (Kütahya) geothermal site, Turkey. International Earth Science Colloquium on the Aegean Region (IESCA-2012) Proceedings Book, 1-5 October 2012, Izmir, Turkey, p.217.
- Gündüz, O., Şimşek, C., Elçi, A., Baba, A. and Bakar, C. (2012). “An integrated assessment of water quality in an arsenic containing aquifer: case study Simav Plain, Kütahya” 65th Geological Congress of Turkey, 02-06 April 2012, Ankara Proceedings Book, pp 250-251. (in Turkish)
- Şimşek, C., Elci, A., Gündüz, O., Taşkın, N., Akdağ, C.T. and Elçi, H. (2012). “Landfill site selection using GIS integrated multi-criteria parameters for Izmir Metropolis”, 65th Geological Congress of Turkey, 02-06 April 2012, Ankara Proceedings Book, pp 148-149. (in Turkish)
- Gündüz, O., Bakar, C., Şimşek, C., Baba, A., Elçi, A., Gürleyük, H., Mutlu, M. and Çakır, A. (2012). “The analysis of death causes during 2005-2010 period in five villages with high arsenic levels in drinking water supplies, Simav Plain”, 65th Geological Congress of Turkey, 02-06 April 2012, Ankara Proceedings Book, pp 136-137. (in Turkish)
- Kara, M., Dumanoglu, Y., Bozlaker, A., Gündüz, O. Sofuoğlu, A., Sofuoğlu, S., Bayram, A., Elbir, T. and Odabaşı, M. (2010). Assessment of the spatial variations of trace elements in surface and subsurface waters of Aliğa Industrialized Region. 1st Workshop on Trace Analysis, 22-25 April 2010, Denizli, Abstracts CD-ROM (in Turkish).
- Baba, A. and Gündüz, O. (2009). “Effect of water source on human health: A case study from Biga Peninsula, Turkey.” Proceedings of International Symposium on Environmental Science and Technology (ISEST), June 2-5, 2009, Shanghai, China, pp. 620-622.
- Save, D., Kose, O.O., Sulun, S., Sengunalp, F., Gunduz, O. and Baba, A. (2009). “The blood and hair heavy metal levels in two districts with different ground water concentrations.” 12th World Congress on Public Health, April 27-May 1 2009, Istanbul-TURKEY, Abstracts CDROM.
- Baba, A., Gunduz, O. Save, D., Gurdal, G., Sulun, S., Bozcu, M. and Ozcan, H. (2009). “Assessment of mining activities from medical geology perspective: Biga Peninsula (Çan-Çanakkale).” 62nd Geological Congress of Turkey, 13-17 April 2009, Ankara Proceedings Book, pp.144-145. (in Turkish)
- Baba, A. and Gunduz, O. (2009). “Environmental factors that influence the water resources of northwestern Ida Mountains (Çanakkale-Turkey).” 62nd Geological Congress of Turkey, 13-17 April 2009, Ankara, Proceedings Book, pp. 514-515.
- Simsek, C., Yavuz, B., Elci, H., Elci, A. and Gunduz, O. (2009). “Impacts of Disposal of Sewage in Ancient Marble Quarries on Groundwater Quality.” 62nd Geological Congress of Turkey, 13-17 April 2009, Ankara, Proceedings Book, pp.154-155. (in Turkish)
- Simsek, C., Aksoy, N. and Gunduz, O. (2008). “Investigation of Groundwater Pollution in Balçova (Izmir) Geothermal Field.” Eroskay Applied Geology Colloquium, 17 October 2008, Istanbul Technical University, Istanbul, Proceedings Book.
- Gunduz, O. (2008). “Use of watersheds”. Presented at *The Environment in EU Context Symposium* organized by BASIFED on March 28, 2008, Izmir. (in Turkish)

- Gunduz, O. and Simsek, C. (2008). "Human health risk assessment of arsenic pollution in Simav Plain, Kutahya." *Proceedings of the Medical Geology Symposium with International Participation*, p.162 (in Turkish).
- Gunduz, O. (2006). "Groundwater overexploitation in Torbali plain surficial aquifer." Presented at NATO Advanced Study Institute on *Overexploitation And Contamination Of Shared Groundwater Resources: Management, (Bio)Technological, And Political Approaches To Avoid Conflicts* held between 1-12 October 2006 in Varna, Bulgaria.
- Demirkiran, Z., Cetiner, L., Simsek, C., Gunduz, O. and Ocal G. (2006). "Three Dimensional Interactive Hydrogeological Modeling And Aquifer Characterization In Kemalpaşa Plain." Presented at *30. Yıl Fikret Kurtman Geology Symposium*, held between 20-23 September 2006 in Selçuk University, Konya.

RESEARCH REPORTS:

- Alpaslan, N.A., Dolgen, D., Sarptas, H., Gunduz, O. ve Elci, A. (2008). *Manisa Municipality Solid Waste Disposal Site Selection Study – Final Project Report*. Dokuz Eylül University Faculty of Engineering Department of Environmental Engineering, Izmir, Turkey, 59p.
- Alpaslan, N.A., Dolgen, D., Gunduz, O. and Sarptas, H. (2005). *Preliminary Assessment Report for the Rehabilitation Project of the Existing Kusadasi Solid Waste Dump Area*. Technical Report. Dokuz Eylül University, Center for Environmental Research and Development, Izmir, Turkey, 30p.
- Gunduz, O. and Aral, M.M. (2003). *A simultaneous solution approach for coupled surface and subsurface flow modeling*. Report no: MESL-02-03, Multimedia Environmental Simulations Laboratory Report, School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, Georgia, USA, 98p.
- Gunduz, O. and Aral, M.M. (2004). *Surface and Subsurface Flow and Contaminant Transport Modeling in Lower Altamaha Watershed*. Report no: MESL-01-04, Multimedia Environmental Simulations Laboratory Report, School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, Georgia, USA, 245p.

OTHERS:

- Gunduz, O. (2015). "A General Overview of Problems Related to Water Supply in Aliğa Industrial Region", News Bulletin of the Izmir Branch of the Chamber of Electric Engineers, No:300, pp. 22-24.
- Soyupak, S. and Gunduz, O. (1998). "EIA Approach in Water Resources Planning and A Case Study." *Seminar by State Hydraulic Works*, Fethiye, Turkey.

PROFESSIONAL EXPERIENCE

Evaluation of the Environmental Impacts of Balya (Balıkesir) Abandoned Pb-Zn Mine Wastes and Investigation of Rehabilitation Possibilities, Ministry of Environment and Urbanization, 2019-2020.

Kuzey Ege River Basin Management Plan Project, Çınar Engineering Company, 2017-2019.

Characterization and Assessment of the Quantity and Quality of Groundwater in Burdur and Western Mediterranean River Basins Project, FUGRO Earth Science Consulting and Engineering Company, 2017-2019.

Characterization and Assessment of the Quantity and Quality of Groundwater in Yeşilirmak River Basins Project, FUGRO Earth Science Consulting and Engineering Company, 2017-2019.

Küçük Menderes River Basin Management Plan Project, i/o Environmental Solutions Research and Development Company, 2017-2019.

Gediz River Basin Management Plan Project, The Scientific and Technological Research Council of Turkey (TÜBİTAK) – Marmara Research Center (MAM), 2016-2018.

Sustainable Development and Life Strategy in Küçük Menderes Basin, Metropolitan Municipality of İzmir, 2016-2017.

Sustainable Groundwater Management in Coastal Aquifers: Demre Plain (Antalya, Turkey) Pilot Study, The Scientific and Technological Research Council of Turkey (TÜBİTAK), Project No: 113Y072, 2013-2015.

The Investigation of Seawater Intrusion and Marine Discharge of Groundwater in Karaburun Peninsula Using Hydrogeological Studies and Mathematical Modeling, The Scientific and Technological Research Council of Turkey (TÜBİTAK), Project No: 113Y042, 2013-2016.

Hydrogeological Investigation of Golpazarı Plain (Bilecik), Dokuz Eylül University Project, İzmir, 2013-2015.

Hydrogeological Investigation of Gediz Basin, Dokuz Eylül University Project, İzmir, 2012-2014.

Investigation of Arsenic Pollution in the Groundwater of Simav Plain (Kütahya) and Assessment of Human Health Risks, The Scientific and Technological Research Council of Turkey (TÜBİTAK), Project No: 109Y029, 2009-2012.

Acidic Mining Lakes and their Influence on Surface and Subsurface Water Quality, Scientific Research Project (BAP) of Dokuz Eylül University, Project No: 2007.KB.FEN.031, 2008-2009.

Manisa Municipality Solid Waste Disposal Site Selection Project. Dokuz Eylul University Project. İzmir, 2008.

Integrated Modeling of Nutrient Loads and Eutrophication in the Catchment Areas of the Izmit Bay and Tahtalı and Porsuk River Basins, Turkey, International Project Based on the Bilateral Agreement between The Scientific and Technological Research Council of Turkey (TÜBİTAK), Turkey and Julich Research Center, Germany, Project No: 104I071, 2005 - 2008.

The Evaluation of Nif Mountain Karstic Aquifer from an Hydrogeological and Environmental Perspective, The Scientific and Technological Research Council of Turkey (TÜBİTAK), Project No: 104Y290, 2005 - 2007.

The Assessment of the Mining Activities in Çan Coal Basin from a Medical Geology Perspective, The Scientific and Technological Research Council of Turkey (TÜBİTAK), Project No: 106Y041, 2006-2008.

Development of a GIS-Integrated Decision Support System for Solid Waste Disposal Site Selection, Republic of Turkey State Planning Organization (DPT) Advanced Research Project, Project No: 2003K/120360, 2006-2008.

Numerical Modeling of Groundwater Flow and Contaminant Transport in Torbalı Plain Unconfined Aquifer, Scientific Research Project (BAP) of Dokuz Eylul University, Project No: 2005.KB.FEN.037, 2005-2007.

GIS-Integrated Groundwater Quality Management in Tahtalı Basin, Scientific Research Project (BAP) of Dokuz Eylul University, Project No: 2006.KB.FEN.030, 2007-2008.

Kuşadası Municipality Solid Waste Landfill Site Rehabilitation Project Preliminary Assessment Study, Dokuz Eylul University Project, İzmir, 2005.

Surface and Subsurface Flow and Contaminant Transport Modeling in Lower Altamaha Watershed, Georgia Sea Grant College Program of National Sea Grant Program, Atlanta, Georgia, 2000-2004.

Environmental Impact Assessment Study for the Of-Solaklı Hydroelectric Power Plant MAPA Construction and Trade Company, Ankara, 1998.

Izmir Port Development Project, Special Assistance for Project Formation (SAPROF) Team, The Overseas Economic Cooperation Fund (OECF) of Japan, Ankara-Izmir, 1998.

Feasibility Study for Baku-Ceyhan Crude Oil Pipeline PLE International and BOTAS Inc., Ankara, 1997.

Environmental Impact Assessment Study for Liquefied Natural Gas Terminals in Turkey Tractebel Industrie Inc and BOTAS Inc, Ankara, 1997.

Environmental Impact Assessment Study for the Afsin-Elbistan B Thermal Power Plant Turkish Electricity Authority, Ankara, 1997.

A Stream Water Quality Modeling Study for Köroglu Creek - Gerede River System: Impacts of a Tourism Complex on a Water Supply Reservoir, Köroglu Tourism Inc. and SU/YAPI Engineering and Consulting Inc., Ankara, 1997.

Assessment of Irrigation Water Quality for the Antalya-Belek Resort Hotel and Golf Club, Özaltın Construction, Trade and Industry Inc., Ankara, 1996.

Environmental Impact Assessment Study for the Dilek-Güroluk Hydroelectric Power Plant, BME Energy Investments and Trade Co. Inc., Ankara, 1995.

Environmental Impact Assessment Study for the Gerede Alternative of Ankara Water Supply Project General Directorate of State Hydraulic Works and SU/YAPI Engineering and Consulting Inc., Ankara, 1995.

Environmental Impact Assessment Study for the Sinanhoca Dam and Hydroelectric Power Plant, TIMAT Ltd., Ankara, 1994.

Environmental Impact Assessment Study for the Marmara Ereğlisi Natural Gas-fired Combined Cycle Power Plant, ENSR Consulting and Engineering Inc., Ankara, 1994.

Environmental Impact Assessment Study for the Bursa Natural Gas-fired Combined Cycle Power Plant, Turkish Electricity Authority, Ankara, 1994.

Wastewater and Stormwater Collection System Design for the Tekel Tobacco Collection Plant located at Kula, Isitman Engineering Inc., Ankara, 1994.

Ankara Sewerage Project, Babbie-Shaw-Morton Int. Ltd., SU/YAPI Engineering and Consulting Inc. and Kentkur Consulting Inc., Ankara, 1993.

SHORT COURSES AND WORKSHOPS

Short Course on Environmental Modeling and Health Risk Analysis, Prof. Dr. Mustafa Aral, 26-28 December 2011, İzmir - Turkey

NATO Advanced Research Workshop (ARW) on Wastewater Resue – Risk Assessment – Decision Making and Environmental Security, 12-16 October 2006, İstanbul - Turkey.

NATO Advanced Study Institute (ASI) on Overexploitation and Contamination of Shared Groundwater Resources: Management, (Bio)Technological and Political Approaches to Avoid Conflicts, 1-12 October 2006, Varna – Bulgaria.

NATO Advanced Research Workshop (ARW) on Groundwater and Ecosystems, 5-7 September 2005, Çanakkale - Turkey.

Workshop on the Use of Treated Domestic Wastewater in Irrigation - MEDAWARE Project, Middle East Technical University, 9-10 June 2005, Ankara - Turkey.

Integrated Urban Environmental Management Project Case Study - LAKE SAPANCA, Institute for Housing and Urban Development Studies in association with General Directorate of Bank of Provinces, May 1997, Ankara - Turkey.

Computing and Internetworking, by Orhan Gunduz, Middle East Technical University, February 1995 and February 1996, Ankara - Turkey.

Seminar on Solid Waste Management and Landfill Design, by Middle East Technical University Department of Environmental Engineering and The Scientific and Technological Council of Turkey, 13-17 May 1996, Ankara - Turkey.

Environmental Impact Assessment Seminar, by General Directorate of State Hydraulic Works, 9-13 October 1995, Aydin - Turkey.

Second National Congress on Ecology and Environment, by the Association of Biologists, 13-11 September 1995, Ankara - Turkey.

Seminar on General Informatics, by MED Campus Program of European Union, June 29 - July 2 1995, Ankara - Turkey.

EVENTS ORGANIZED

Short Course on “Environmental Modeling and Health Risk Analysis” given by Prof. Dr. Mustafa Aral of the School of Civil and Environmental Engineering, Georgia Institute of Technology, USA on 26-28 December 2011 Izmir-Turkey

ASSOCIATE EDITOR IN

Water Quality Exposure and Health
Turkish Journal of Earth Sciences

INVITED AS A REVIEWER IN

Journal of Hydrology
Journal of Hydrologic Engineering ASCE
Advances in Water Resources
Journal of Irrigation and Drainage Engineering ASCE
Environmental Geology
Environmental Monitoring and Assessment
Water Quality Exposure and Health

THESIS SUPERVISED

Ph. D.

4. Behnam KHORRAMI (2017 -)
Assessment of the Fluctuations of Groundwater Storage through GIS and Remote Sensing Methods
3. Narin POLAT (2016 -)
Development of an early warning system for pollution detection in drinking water distribution network in a smart city
2. Efem BİLGİÇ (2016 -)
Mathematical modeling of atmospheric dispersion and risk assessment of radionuclides released from nuclear power plant accidents under hypothetical and/or extreme meteorological conditions
1. Mesut AK (2008 - 2014)
Determination of quality changes in treated wastewater during percolation through soil media

M.Sc.

8. Saide BATTAL (2019-)
Application of SWAT Model to Bakırçay Watershed for Evaluating Agricultural Pollution Loads on Water Quality
7. Efem BİLGİÇ (2013 - 2016)
Atmospheric dispersion of radiation originating from nuclear power plant accidents
6. Fulden ESKİCİOĞLU (2014 - 2019)
Artificial Recharge For Sustaining Groundwater In Semi Arid Climates
5. Reyhan Tuğba BAYSAL (2011 - 2016)
Mathematical modeling of the impacts of geothermal fluid discharge on surface water quality
4. Ayse ÇAKIR (2010 - 2014)
Speciation of arsenic in surface and subsurface water resources
3. Nurbol KOKISHEV (2009 - 2010)
General assessment of surface and subsurface water quality in southern Kazakhstan region
2. Merdiye MUTLU (2007 – 2010)

Arsenic pollution and health risk assessment in the groundwater of Simav Plain, Turkey

1. Deniz OKUMUSOGLU (2006 – 2009)
The investigation of the influence of mining activities on surface and subsurface water quality

B.Sc.

25. Irmak SERTÇELİK (2020)
24. Arzu Yaren ŞEN (2020)
23. Kaan SARIGÜL (2020)
22. Gizem İDAL (2019)
21. Saide BATTAL (2019)
20. Burak ÖZTAŞ (2019)
19. Aysel ATAY (2018)
18. Cennet Çağnur SAKTAŞ (2017)
17. Yiğithan KAZANCI (2017)
16. Ecem KURTULMUŞ (2017)
15. Dilara KARINCA (2014)
14. Fulden Eskicioğlu (2014)
13. Hülya SERBEST (2013)
12. Efem BİLGİÇ (2012)
11. Hakan NUR (2012)
10. Ege YALÇINKAYA (2011)
9. İmran SEVİM (2011)
8. Feray YOLOĞLU (2011)
7. Handan ELPİT (2011)
6. Gülgün ACAR (2010)
5. Melis TOPRAK (2010)
4. Gökçe PEHLİVANER (2010)
3. Duygu ARDENİZ (2009)
2. Aysel ATAY (2008)
1. Sema SOYSAL (2007)

OTHERS

Language Spoken : Turkish (mother tongue)
English (fluent)
German (poor)

Computer Background:

1. Operating Systems
WINDOWS XP, 2000, NT, 98, 95, DOS, UNIX
2. Programming Languages

Basic, Fortran 77, C, C++, C#, Visual Studio

3. Water Quality Modeling Software
CE-QUAL-W2, QUAL2EU, MODFLOW, SAINTS
4. Miscellaneous
MS Office2000, Surfer, Grapher, AutoCAD, ArcGIS, MathLab

Extra Curricular Activities

Skiing, Mountaineering, Camping, Trekking, Gardening