



## Assoc. Prof. İBRAHİM ETHEM KARADİREK

### Personal Information

**Office Phone:** [+90 242 310 6379](tel:+902423106379)

**Fax Phone:** [+90 242 310 6306](tel:+902423106306)

**Email:** [ethemkaradirek@akdeniz.edu.tr](mailto:ethemkaradirek@akdeniz.edu.tr)

**Web:** <https://avesis.akdeniz.edu.tr/ethemkaradirek>

**Address:** Akdeniz Üniversitesi Mühendislik Fakültesi Çevre Mühendisliği  
Bölümü 07058 Kampüs Antalya

### International Researcher IDs

ScholarID: kFQEKDMAAAAJ

ORCID: 0000-0003-3689-4125

Publons / Web Of Science ResearcherID: C-1609-2016

ScopusID: 36489817500

Yoksis Researcher ID: 207101



### Education Information

2008 - 2015	Doctorate, Akdeniz University, Institute of Science, Çevre Mühendisliği, Turkey
2005 - 2008	Postgraduate, Akdeniz University, Institute of Science, Çevre Mühendisliği, Turkey
2002 - 2005	Undergraduate, Akdeniz University, Faculty Of Engineering, Çevre Mühendisliği, Turkey

### Foreign Languages

German, A1 Beginner English, C1 Advanced

### Certificates, Courses and Trainings

2015	4th Exchange of Experience for Users of Biofilm Analysis to Control Indirect Discharges, Education Management and Planning, Almanya Bielefeld Belediyesi
2010	MATLAB Fundamentals, Education Management and Planning, FİGES A.Ş.
2009	LPG Otogaz İstasyonu/Dolum Tesisi Sorumlu Müdürlük Eğitimi, Education Management and Planning, TMMOB Çevre Mühendisleri Odası
2008	NETCAD 5.0 GIS 'nk001a-Coğrafi Bilgi Sistemleri Temel Eğitim Programı, Education Management and Planning, NETCAD
2008	Kamulaştırma ve Bilirkişilik Eğitimi, Education Management and Planning, TMMOB Çevre Mühendisleri Odası
2007	Planning and Operation of Wastewater Treatment Plants, Education Management and Planning, Akdeniz Üniversitesi Çevre Mühendisliği Bölümü
2005	Intensive Programme in European Integrated Coastal Zone Management (COZIP), Education Management and Planning, EU Socrates – Erasmus Intensive Programme, Akdeniz Üniversitesi
2005	Katı Atık Yönetim Kursu, Education Management and Planning, TMMOB Çevre Mühendisleri Odası

## Dissertations

2015	İçme Suyu Dağıtım Şebekelerinde Serbest Bakiye Klor Konsantrasyonlarının Deterministik ve Veriye Dayalı Modelleme Teknikleri Kullanarak Yönetimi, Akdeniz University, Institute of Science, Çevre Mühendisliği, Doctorate
2008	Bitkisel Atık Yağlardan Biyodizel Üretimi, Akdeniz University, Institute of Science, Çevre Mühendisliği, Postgraduate

## Research Areas

Environmental Engineering, Environmental Technology, Water Pollution and Control, Water Supply and Treatment, Water Resources Planning and Management, Pipeline Hydraulics, Infrastructure Systems, Engineering and Technology

## Academic Titles / Tasks

2020 - Continues	Associate Professor, Akdeniz University, Faculty of Engineering, Department of Environmental Engineering
2018 - 2020	Lecturer PhD, Akdeniz University, Faculty of Engineering, Department of Environmental Engineering
2014 - 2018	Expert, Akdeniz University, Faculty of Engineering, Department of Environmental Engineering
2013 - 2014	Research Assistant, Akdeniz University, Faculty of Engineering, Department of Environmental Engineering
2012 - 2013	Research Assistant, University of Cincinnati, College Of Engineering & Applied Science, Environmental Engineering
2006 - 2012	Research Assistant, Akdeniz University, Faculty of Engineering, Department of Environmental Engineering

## Academic and Administrative Experience

2023 - Continues	Manager of Research and Application Center, Akdeniz University, ÇEVRE SORUNLARI ARAŞTIRMA VE UYGULAMA MERKEZİ
2021 - Continues	Assistant Director of the Institute, Akdeniz University, Institute of Science
2021 - Continues	Board Member, Akdeniz University, Institute of Science
2020 - Continues	Board Member, Akdeniz University, Faculty of Engineering

## Courses

2022 - 2023	İklim Değişikliğinin Su Altyapı Sistemlerine Etkileri ve Yönetimi, Doctorate
2022 - 2023	Su Temin Sistemlerinde Dezenfeksiyon Yönetimi, Doctorate
2020 - 2021	Hidrolik, Undergraduate
2020 - 2021	Çevresel Sistemlerin Analizi, Postgraduate
2020 - 2021	Akışkanlar Mekaniği, Undergraduate
2020 - 2021	Kentsel Altyapı Sistemlerinin Yönetimi, Postgraduate
2020 - 2021	Su Kaynakları Teknolojisi, Undergraduate

## Advising Theses

Continues	Karadirek İ. E., Postgraduate, A.NUR(Student), Sayaç Yaşının Sayaç Ölçüm Hataları Üzerine Etkileri ve İdari Su Kayıpları Yönetimi Açısından Değerlendirilmesi
-----------	---

Continues	Karadirek İ. E., Postgraduate, M.Batuhan(Student), Su Basıncının Abone Su Sayaçlarının Ölçüm Hatalarından Kaynaklı İdari Su Kayıplarına Etkileri
2023	Civelekoğlu G., Karadirek İ. E., Postgraduate, R.Önen(Student), Kimya Endüstrisi Atıksularının Elektrokoagülasyon Prosesi ile Arıtımı ve Geri Kazanımı

## Jury Memberships

March 2022	Award, Kente Önem Katanlar, Akdeniz University
June 2021	Doctoral Examination, Doktora Yeterlik Sınavı, Akdeniz Üniversitesi
March 2021	Award, Kente Önem Katanlar, Antalya Ticaret ve Sanayi Odası
September 2020	Award, ATSO Kente Önem Katanlar "KÖK" Ödülleri, Antalya Ticaret ve Sanayi Odası

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

- I. **Fate and transport of chlorine dioxide: Modeling chlorine dioxide in water distribution systems**  
Karadirek İ. E., Rızvanoğlu A. N., Okumuş M. B., Cansu Aldemir Ö., Akdeniz T.  
WATER ENVIRONMENT RESEARCH, vol.98, no.8, pp.1-13, 2024 (SCI-Expanded)
- II. **A study on pipe failure analysis in water distribution systems using logistic regression**  
Karadirek E., Kaya-Basar E., Akdeniz T.  
WATER SUPPLY, vol.24, pp.176-186, 2024 (SCI-Expanded)
- III. **An experimental analysis on accuracy of customer water meters under various flow rates and water pressures**  
Karadirek İ. E.  
JOURNAL OF WATER SUPPLY RESEARCH AND TECHNOLOGY-AQUA, vol.69, no.1, pp.18-27, 2020 (SCI-Expanded)
- IV. **NON REVENUE WATER MANAGEMENT: CURRENT TRENDS AND FUTURE PROSPECTS**  
KARADİREK İ. E.  
FRESENIUS ENVIRONMENTAL BULLETIN, vol.28, no.7, pp.5226-5233, 2019 (SCI-Expanded)
- V. **ENVIRONMENTAL POLLUTION OF THE MEDITERRANEAN SEA: EVALUATION OF RESEARCH ACTIVITIES IN THE MEDITERRANEAN SEA COUNTRIES**  
KARADİREK İ. E., AKTAŞ K., Topkaya B.  
FRESENIUS ENVIRONMENTAL BULLETIN, vol.28, no.2, pp.867-872, 2019 (SCI-Expanded)
- VI. **Evaluation of performance and environmental benefits of a full-scale pump as turbine system in Antalya water distribution network**  
MUHAMMETOĞLU A., Nursen C., KARADİREK İ. E., MUHAMMETOĞLU H.  
WATER SCIENCE AND TECHNOLOGY-WATER SUPPLY, vol.18, no.1, pp.130-141, 2018 (SCI-Expanded)
- VII. **Implementation of hydraulic modelling for site selection of pump as turbines for pressure reduction and power production in water distribution networks**  
Ozen O., Gulaydin O., KARADİREK İ. E., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
DESALINATION AND WATER TREATMENT, vol.86, pp.311-319, 2017 (SCI-Expanded)
- VIII. **Full-Scale PAT Application for Energy Production and Pressure Reduction in a Water Distribution Network**  
MUHAMMETOĞLU A., KARADİREK İ. E., Ozen O., MUHAMMETOĞLU H.  
JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT, vol.143, no.8, 2017 (SCI-Expanded)
- IX. **Management of chlorine dosing rates in urban water distribution networks using online continuous monitoring and modeling**  
KARADİREK İ. E., Kara S., Muhammetoglu A., Muhammetoglu H., Soyupak S.  
URBAN WATER JOURNAL, vol.13, no.4, pp.345-359, 2016 (SCI-Expanded)
- X. **Real time monitoring and control in water distribution systems for improving operational efficiency**  
Kara S., KARADİREK İ. E., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
DESALINATION AND WATER TREATMENT, vol.57, no.25, pp.11506-11519, 2016 (SCI-Expanded)

- XI. **Chlorine modeling in water distribution networks using ARX and ARMAX model structures**  
KARADİREK İ. E., Soyupak S., MUHAMMETOĞLU H.  
DESALINATION AND WATER TREATMENT, vol.57, no.25, pp.11592-11598, 2016 (SCI-Expanded)
- XII. **A review on formation and decay kinetics of trihalomethanes in water of different qualities**  
Al-Omari A., MUHAMMETOĞLU A., Karadirek E., Jiries A., Batarseh M., Topkaya B., Soyupak S.  
Clean - Soil, Air, Water, vol.42, no.12, pp.1687-1700, 2014 (SCI-Expanded)
- XIII. **Implementation of Hydraulic Modelling for Water-Loss Reduction Through Pressure Management**  
KARADİREK İ. E., Kara S., YILMAZ G., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
WATER RESOURCES MANAGEMENT, vol.26, no.9, pp.2555-2568, 2012 (SCI-Expanded)
- XIV. **On the usage of artificial neural networks in chlorine control applications for water distribution networks with high quality water**  
Soyupak S., Kilic H., KARADİREK İ. E., MUHAMMETOĞLU H.  
JOURNAL OF WATER SUPPLY RESEARCH AND TECHNOLOGY-AQUA, vol.60, no.1, pp.51-60, 2011 (SCI-Expanded)
- XV. **Occurrence of Trihalomethanes in Chlorinated Groundwaters with Very Low Natural Organic Matter and Bromide Concentrations**  
KİTİŞ M., Yigita N. O., Harmana B. I., MUHAMMETOĞLU H., MUHAMMETOĞLU A., KARADİREK İ. E., Demirel İ., Ozdenc T., Palancic I.  
ENVIRONMENTAL FORENSICS, vol.11, no.3, pp.264-274, 2010 (SCI-Expanded)

## Articles Published in Other Journals

- I. **How does ageing of customer water meters effect the accuracy?**  
Karadirek İ. E.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.41, no.2, pp.408-414, 2023 (ESCI)
- II. **ARSENIC REMOVAL TECHNOLOGIES: MAPPING GLOBAL RESEARCH ACTIVITIES (1970-2019)**  
Aktaş K., Karadirek İ. E., Göktepe D. H., Asiltürk Ersoy M., Erdem Ünşar A.  
Kocaeli Journal of Science and Engineering, vol.5, no.1, pp.42-53, 2022 (Peer-Reviewed Journal)
- III. **Hydraulic Modeling of a Water Distribution Network in a Tourism Area with Highly Varying Characteristics**  
KARA S., KARADİREK İ. E., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
Procedia Engineering, vol.162, pp.521-529, 2016 (Peer-Reviewed Journal)
- IV. **Urban Water Losses Management in Turkey: The Legislation and Challenges**  
KARADİREK İ. E.  
ANADOLU UNIVERSITY JOURNAL OF SCIENCE AND TECHNOLOGY - A APPLIED SCIENCES AND ENGINEERING, vol.17, no.3, pp.572-584, 2016 (Peer-Reviewed Journal)
- V. **Energy Recovery Potential from Excess Pressure in Water Supply and Distribution Systems**  
KARADİREK İ. E., KARA S., Özen Ö., Gülaydın O., Beştaş E., Boyacılar M., MUHAMMETOĞLU A., GÜNGÖR A., MUHAMMETOĞLU H.  
Muğla Journal of Science and Technology, vol.2, pp.70-76, 2016 (Peer-Reviewed Journal)
- VI. **Antalya Konyaaltı Bölgesi İçme Suyu Kalitesinin İzlenmesi ve Yönetimi**  
KARADİREK İ. E., KARA S., Yılmaz G., Altındal T., MUHAMMETOĞLU H., MUHAMMETOĞLU A., Kitiş M., Soyupak S., Yiğit N. Ö., Harman B. İ., et al.  
Çevre Bilim & Teknoloji Dergisi, vol.4, no.1, pp.35-40, 2012 (Peer-Reviewed Journal)
- VII. **Antalya ve Isparta Bölgelerinde Uygulanan Tıbbi Atık Yönetimi**  
KARADİREK İ. E., Kaplan Ş. Ş., Ece M., Köseoğlu H.  
Kati Atık ve Çevre, no.64, pp.22-29, 2006 (Peer-Reviewed Journal)
- VIII. **TEKSTİL ENDÜSTRİSİNDE GERİ DÖNÜŞÜM,TEKRAR KULLANIM, GERİ KAZANIM UYGULAMALARI**  
KARADİREK İ. E., Uçaroğlu S.  
Kati Atık ve Çevre, no.63, pp.28-34, 2006 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **A Case Study on Controlling Real Losses in Large-Scale Water Distribution Systems**  
Akdeniz T., Çakmak C., Karadirek İ. E.  
in: Hydrology and Urban Water Supply, Ali Müfit Bahadır, Andreas Haarstrick, I. Ethem Karadirek, Mehmet Emin Aydın, Serife Yurdağül Kumcu, Amitava Bandyopadhyay, Editor, Springer Nature, Zug, pp.217-226, 2024
- II. **Water Losses Management in Urban Water Distribution Systems**  
KARADİREK İ. E., AYDIN M. E.  
in: Water and Wastewater Management: Global Problems and Measures, Bahadır Müfit, Haarstrick Andreas, Editor, Springer, pp.53-65, 2022
- III. **Drought Management**  
KARADİREK İ. E.  
in: Water and Wastewater Management: Global Problems and Measures, Bahadır Müfit, Haarstrick Andreas, Editor, Springer, pp.27-34, 2022

## Refereed Congress / Symposium Publications in Proceedings

- I. **RESILIENCE IN WATER SUPPLY SYSTEMS: TOWARDS A WATER-WISE CITY**  
Akdeniz T., Karadirek İ. E.  
IWA 4th Regional Conference on Diffuse Pollution & Eutrophication, İstanbul, Turkey, 24 - 28 October 2022, pp.37-42
- II. **Effects of Water Meter Accuracy on Apparent Losses in Water Distribution Systems**  
KARADİREK İ. E.  
THE 5th INTERNATIONAL SYMPOSIUM ON THE ENVIRONMENT AND MORALS (ISEM 2020), İstanbul, Turkey, 24 - 25 September 2020, pp.342-348
- III. **Agricultural Production and Food Security in Mena Countries under Changing Climate and Water Scarcity**  
KARADİREK İ. E., Ertepe E., TOPKAYA M. B.  
Regional Expert Workshop on Water Resources and Climate Change: Impacts, Mitigation and Adaptation, Amman, Jordan, 3 - 07 November 2019, pp.201-208
- IV. **Ageing Effects on Performance of Domestic Water Meters**  
KARADİREK İ. E.  
"1st International Conference on Environment, Technology and Management (ICETEM), Niğde, Turkey, 27 - 29 June 2019, pp.1
- V. **Evaluation of Research Activities Dealing with Solid Waste Management in Mediterranean Sea Basin Countries**  
KARADİREK İ. E., Ertepe E., TOPKAYA M. B.  
1st International Conference on Environment, Technology and Management (ICETEM), Niğde, Turkey, 27 - 29 June 2019, pp.255-256
- VI. **Evaluation of Apparent Losses Resulting from Domestic Water Meter Inaccuracies**  
KARADİREK İ. E.  
4th International Conference on Civil Environmental, Geology and Mining Engineering, Trabzon, Turkey, 20 - 22 April 2019, pp.1
- VII. **Smart Management of Urban Water Systems under Changing Climate**  
KARADİREK İ. E.  
Water Security and Climate Change Conference, Nairobi, Kenya, 3 - 05 December 2018, pp.97
- VIII. **A REVIEW ON SMART CITY CONCEPT AND SMART WATER MANAGEMENT**  
KARADİREK İ. E., TOPKAYA M. B.  
Regional Workshop on Water - Energy - Food - NEXUS in MENA Region, Asvan, Egypt, 11 - 17 November 2018, pp.1-8
- IX. **Impacts of Climate Change on Water&Food Security in Turkey- Antalya&Konya Basins**  
TOPKAYA M. B., KARADİREK İ. E.

Regional Workshop on Water - Energy - Food - NEXUS in MENA Region, Asvan, Egypt, 11 - 17 November 2018, pp.1-10

- X. **Maintaining Agricultural Water Security in Mena Region**  
Şahin H., KARADİREK İ. E., TOPKAYA M. B.  
Water Perspectives in Emerging Countries, Sousse, Tunisia, 22 - 28 April 2018, pp.12-23
- XI. **Managing Water Losses in Urban Water Distribution Systems**  
KARADİREK İ. E.  
Regional Workshop on Water Efficient Cities, Marakeş, Morocco, 3 - 08 November 2017, pp.1-8
- XII. **Environmental Degradation of Mediterranean Sea - Responses of the academic World: A bibliometric analysis**  
KARADİREK İ. E., TOPKAYA M. B.  
19th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, Roma, Italy, 4 - 06 October 2017, pp.368
- XIII. **Non-Revenue Water Management in Turkey: Problems and Measures**  
KARADİREK İ. E.  
19th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, Roma, Italy, 4 - 06 October 2017, pp.139
- XIV. **A Case Study on Evaluation of Household Water Security in MENA Countries**  
KARADİREK İ. E.  
Regional Workshop on Solutions to water challenges in MENA-Region, Kahire, Egypt, 25 - 30 April 2017, pp.72-82
- XV. **Application of a Full Scale PAT System to Antalya Water Distribution Network for Pressure Reduction and Energy Production**  
MUHAMMETOĞLU A., KARADİREK İ. E., MUHAMMETOĞLU H.  
IWA Water IDEAS 2016 (Intelligent Distribution for Efficient and Affordable Supplies), Bologna, Italy, 19 - 21 October 2016, pp.1
- XVI. **Excess Pressure in Municipal Water Supply Systems as a Renewable Energy Source Antalya Case Study**  
MUHAMMETOĞLU A., KARADİREK İ. E., MUHAMMETOĞLU H.  
3rd International Conference of Recycling and Reuse, 28 - 30 September 2016
- XVII. **Improving efficiency of a water distribution network by implementing a Pump as Turbine system: Antalya Case Study**  
KARADİREK İ. E., Gülaydın O., Özen Ö., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
13th International Conference on Protection and Restoration of the Environment, Mykonos, Greece, 3 - 08 July 2016, pp.1-8
- XVIII. **Su Temin Sistemlerinde Pompa-Türbin Kullanılarak Enerji Üretimi ve Çevresel Kazanımlar**  
KARADİREK İ. E., MUHAMMETOĞLU A., Beştaş E. H., Nurşen C., Taşdelen S., Uzun Ü.  
9. Pompa Vana Kompresör Kongresi, İstanbul, Turkey, 5 - 07 May 2016, pp.62-67
- XIX. **Hydraulic Efficiency of Water Distribution Networks: Case Study of Antalya City-Turkey**  
KARADİREK İ. E., KARA S., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
International Water Conference 2016 on Water Resource in Arid areas: The Way Forward, Muscat, Oman, 13 - 16 March 2016, pp.27
- XX. **Implementation of Pump as Turbine for Water Loss Reduction and Energy Recover in Water Distribution Networks**  
KARADİREK İ. E., Özen Ö., KARA S., Beştaş E., Boyacılar M., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
AWWA Sustainable Water Management, Providence, RI, United States Of America, 7 - 10 March 2016
- XXI. **Modeling Urban Water Pressure Variations in a Coastal Tourism Area**  
KARA S., KARADİREK İ. E., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
AWWA Sustainable Water Management, Providence, RI, United States Of America, 7 - 10 March 2016
- XXII. **Hydraulic modeling of a water distribution network in a tourism area with highly varying characteristics**  
Kara S., KARADİREK İ. E., MUHAMMETOĞLU A., MUHAMMETOĞLU H.

2nd International Conference on Efficient and Sustainable Water Systems Management toward Worth Living Development (EWaS), Platania, Greece, 1 - 04 June 2016, vol.162, pp.521-529

- XXIII. **İçme-Kullanma Suları için Farklı Dezenfeksiyon Şartlarında Bakteriyel İnaktivasyon Sürecinin İndikatör Organizmalar için İncelenmesi**  
KARADİREK İ. E., KARA S., ÖZEN Ö., GÜLAYDIN O., MUHAMMETOĞLU A.  
Ulusal Su ve Sağlık Kongresi, Antalya, Turkey, 26 - 30 October 2015, pp.359-361
- XXIV. **Abone Su Kullanımlarının Hidrolik Modelleme Hassasiyeti Üzerindeki Etkisi**  
KARA S., KARADİREK İ. E., GÜLAYDIN O., ÖZEN Ö., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
3. Uluslararası Sürdürülebilir Su Yönetimi Sempozyumu, İzmir, Turkey, 8 - 10 October 2015
- XXV. **İçmesuyu Dağıtım Şebekelerinde Enerji Kazanımı ve Su Kayıplarının Azaltılması için Türbin Pompa Kullanımının İncelenmesi**  
KARADİREK İ. E., Özen Ö., KARA S., Gülaydın O., Beştaş E., Boyacılar M., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
Uluslararası Sürdürülebilir Su Yönetimi Kongresi, İzmir, Turkey, 8 - 10 October 2015, pp.81
- XXVI. **İçmesuyu İletim Ve Dağıtım Sistemlerinde Fazla Basınçtan Enerji Üretim Potansiyeli**  
KARADİREK İ. E., KARA S., ÖZEN Ö., GÜLAYDIN O., BEŞTAŞ E., BOYACILAR M., MUHAMMETOĞLU A., GÜNGÖR A., MUHAMMETOĞLU H.  
3.ANADOLU ENERJİ SEMPOZYUMU (AES2015), Muğla, Turkey, 1 - 03 October 2015, pp.414-423
- XXVII. **Water quality and quantity management practices in urban water supply systems: case study of Antalya City, Turkey**  
KARADİREK İ. E., KARA S., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
World Multidisciplinary Earth Sciences, Prag, Czech Republic, 7 - 11 September 2015, pp.482
- XXVIII. **Improving the Energy Efficiency of Urban Water Distribution System**  
MUHAMMETOĞLU A., KARADİREK İ. E., KARA S., Şahin B., MUHAMMETOĞLU H.  
The ICORES 2015 : XIII International Conference on Operations Research and Enterprise Systems, Dubai, United Arab Emirates, 30 - 31 January 2015, pp.262
- XXIX. **Management of Non-Revenue Municipal Water**  
MUHAMMETOĞLU H., KARADİREK İ. E., KARA S., MUHAMMETOĞLU A.  
The ICORES 2015 : XIII International Conference on Operations Research and Enterprise Systems, Dubai, United Arab Emirates, 30 - 31 January 2015, pp.263
- XXX. **Use of EPANET model for leakage modeling in urban water distribution networks: Antalya Case Study**  
KARA S., KARADİREK İ. E., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
12th International Conference on Protection and Restoration of the Environment, Skiathos, Greece, 29 June - 03 July 2014, pp.97
- XXXI. **Urban Water Losses Management Practices in Turkey**  
MUHAMMETOĞLU H., KARADİREK İ. E.  
12th International Conference on Protection and Restoration of the Environment, Skiathos, Greece, 29 June - 03 July 2014, pp.23
- XXXII. **Towards the Implementation of the European Union Water Framework Directive in Turkey**  
KARA S., KARADİREK İ. E., MUHAMMETOĞLU A.  
3rd International Conference on Water Resources and Environmental Management (ICWRE 2014) « Role of Governance in the Management of Water Resources and Environment, Antalya, Turkey, 13 - 15 May 2014, pp.13
- XXXIII. **Real Time Monitoring of Water Distribution Networks for Safe and Sufficient Water to the Consumers in Antalya City**  
KARA S., KARADİREK İ. E., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
3rd International Conference on Water Resources and Environmental Management (ICWRE 2014) « Role of Governance in the Management of Water Resources and Environment, Antalya, Turkey, 13 - 15 May 2014, pp.48
- XXXIV. **Some System Identification Based Dynamic Models for Predicting Chlorine Concentrations in Water Distribution Networks**  
KARADİREK İ. E., MUHAMMETOĞLU H., Soyupak S.  
3rd International Conference on Water Resources and Environmental Management (ICWRE 2014) « Role of

- Governance in the Management of Water Resources and Environment, Antalya, Turkey, 13 - 15 May 2014, pp.49
- XXXV. **İçme Suyu Dağıtım Şebekelerinde Bakiye Klor Konsantrasyonunun Tahmini İçin Kullanılan Su Kalite Modelleri Ve Antalya'dan Örnek Bir Uygulama**  
KARA S., KARADİREK İ. E., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
10. Ulusal Çevre Mühendisliği Kongresi, Ankara, Turkey, 1 - 04 September 2013, pp.60-70
- XXXVI. **Su Dağıtım Şebekelerinde Basınç Kontrol Teknikleri Ve Su Kayıplarının Yönetimi**  
KARA S., KARADİREK İ. E., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
10. Ulusal Çevre Mühendisliği Kongresi, Ankara, Turkey, 1 - 04 September 2013, pp.50-60
- XXXVII. **Chlorine Dosage Determination At The Feeding Stations Using GIS, SCADA and Modeling**  
KARADİREK İ. E., KARA S., Altındal T., MUHAMMETOĞLU H., MUHAMMETOĞLU A., Cengiz K.  
8th International Conference Of EWRA, "Water Resources Management in an Interdisciplinary and Changing Context, Porto, Portugal, 26 - 29 June 2013
- XXXVIII. **Water Losses Management Using DMA, SCADA and Modelling**  
MUHAMMETOĞLU H., KARADİREK İ. E., KARA S., Yılmaz G., MUHAMMETOĞLU A., Cengiz K.  
8th International Conference Of EWRA; Water Resources Management in an Interdisciplinary and Changing Context, Portugal, 1 - 04 June 2013
- XXXIX. **Management of chlorine levels in drinking water distribution Networks using SCADA, GIS and modeling**  
MUHAMMETOĞLU H., KARADİREK İ. E., MUHAMMETOĞLU A., Soyupak S., Kitiş M., KARA S., Cengiz K.  
6th International Perspective on Water Resources & The Environment, Turkey
- XL. **Management of water losses from water distribution systems using SCADA, DMA, GIS, and modeling: Case Study of Antalya City**  
MUHAMMETOĞLU H., KARADİREK İ. E., MUHAMMETOĞLU A., KARA S.  
6th International Perspective on Water Resources & The Environment, Turkey
- XLI. **Single Input Single Output Time Series Artificial Neural Network Models for Free Residual Chlorine Forecasting in Water Distribution Networks**  
Soyupak S., Kılıç H., KARADİREK İ. E., MUHAMMETOĞLU H.  
NCTA 2012- International Conference on Neural Computation Theory and Applications, Barselona, Spain, 5 - 07 October 2012, no.66
- XLII. **Management of contamination in urban drinking water distribution systems using SCADA and modelling: Case study of Antalya City – Turkey**  
MUHAMMETOĞLU H., KARADİREK İ. E., MUHAMMETOĞLU A., Soyupak S., Kitiş M., Cengiz K.  
Urban Environmental Pollution, Amsterdam, Netherlands, 17 - 20 June 2012
- XLIII. **Prediction Of Water Saving Through Pressure Reduction**  
KARA S., KARADİREK İ. E., MUHAMMETOĞLU A., MUHAMMETOĞLU H.  
Water Loss Europe 2012, Italy
- XLIV. **Antalya Konyaaltı Bölgesi İçme Suyu Kalitesinin İzlenmesi Ve Yönetimi**  
MUHAMMETOĞLU H., MUHAMMETOĞLU A., KARADİREK İ. E., Altındal T., KARA S., Yılmaz G., Kitiş M., Yiğit N. Ö., Harman B. İ., Palancı İ., et al.  
1. Kıyı Bölgelerinde Çevre Kirliliği Ve Kontrolü Sempozyumu, Tekirdağ, Turkey, 17 - 20 November 2011, pp.403-411
- XLV. **Antalya-Konyaaltı Bölgesi İçme Suyu Dağıtım Şebekesinde Scada, Alt Bölge, Basınç Yönetimi Ve Akustik Yöntemler Kullanılarak Su Kayıplarının Azaltılması**  
MUHAMMETOĞLU H., Palancı İ., Özden T., Demirbaş E., Cengiz K., KARADİREK İ. E., MUHAMMETOĞLU A., Soyupak S., Kitiş M.  
6. Kentsel Altyapı Sempozyumu, Antalya, Turkey, 14 - 15 October 2011
- XLVI. **Su Dağıtım Şebekelerinde Modelleme Teknikleri Kullanılarak Serbest Bakiye Klor Konsantrasyonlarının Yönetimi: Antalya-Konyaaltı Bölgesi Örneği**  
KARADİREK İ. E., KARA S., Altındal T., MUHAMMETOĞLU H., MUHAMMETOĞLU A., Soyupak S., Kitiş M., Özden T., Palancı İ., Demirbaş E., et al.  
6.kentsel altyapı sempozyumu, Antalya, Turkey, 1 - 04 October 2011



- XLVII. **Monitoring of drinking water distribution system by SCADA in Antalya –Turkey**  
MUHAMMETOĞLU H., Demirel İ., Özden T., Palancı İ., MUHAMMETOĞLU A., KARADİREK İ. E., Kitiş M., Soyupak S.  
35th WEDC International Conference, Loughborough, United Kingdom, 6 - 08 July 2011
- XLVIII. **Water Loss Reduction by Integrating Pressure Management with Hydraulic Modelling**  
MUHAMMETOĞLU H., KARADİREK İ. E., KARA S., MUHAMMETOĞLU A., Soyupak S., Kitiş M., Demirel İ., Palancı İ., Özden T.  
Efficient 2011, Jordan, 1 - 04 March 2011
- XLIX. **Management of Water Losses in Water Distribution Networks: Antalya Case Study**  
MUHAMMETOĞLU H., Palancı İ., Özden T., Demirel İ., Demirbaş E., KARADİREK İ. E., MUHAMMETOĞLU A., Soyupak S., Kitiş M.  
International Water and Wastewater Management Symposium, Konya, Turkey, 26 - 29 October 2010
- L. **Management of Water Losses in Water Distribution Networks: Antalya Case Study**  
MUHAMMETOĞLU H., Palancı İ., Özden T., Demirel İ., Demirbaş E., KARADİREK İ. E., MUHAMMETOĞLU A., Soyupak S., Kitiş M.  
International Water and Wastewater Management Symposium, Konya, Turkey, 26 - 29 October 2010
- LI. **Online Water Quality&Quantity Monitoring for Drinking Water Utility in Antalya City-Turkey**  
MUHAMMETOĞLU H., Demirel İ., Özden T., Palancı İ., MUHAMMETOĞLU A., KARADİREK İ. E., Kitiş M.  
14th International Conference, IWA Diffuse Pollution, Quebec, Canada, 12 - 17 September 2010
- LII. **Integration of Hydraulic and Water Quality Modeling with Water Losses Management : Case Study of Antalya City-Turkey**  
MUHAMMETOĞLU H., KARADİREK İ. E., Özden T., Demirel İ., Palancı İ.  
Water Loss 2010, Sao Paulo, Brazil, 6 - 09 June 2010
- LIII. **Alt Bölge ve Basınç Yönetim Teknikleri Kullanılarak İçme Suyu Dağıtım Şebekelerinde Su Kayıpları Yönetimi**  
Demirel İ., Özden T., Demirbaş E., Palancı İ., KARADİREK İ. E., MUHAMMETOĞLU H.  
2. Bursa Su Sempozyumu, Bursa, Turkey, 22 - 24 March 2010
- LIV. **İçme Suyu Dağıtım Şebekelerinde SCADA, CBS ve Modelleme Teknikleri Kullanılarak Klor Yönetimi**  
KARADİREK İ. E., Altındal T., Özden T., Demirbaş E., Demirel İ., Palancı İ., MUHAMMETOĞLU H.  
2. Bursa Su Sempozyumu, Bursa, Turkey, 22 - 24 March 2010
- LV. **District Metered Areas (DMAs) for the Management of Water Losses in Antalya City-Turkey**  
Palancı İ., Özden T., Demirel İ., KARADİREK İ. E., MUHAMMETOĞLU H.  
2nd Regional Workshop on Water Loss Reduction in Water & Sanitation Utilities, Sofya, Bulgaria, 16 - 18 November 2009
- LVI. **Monitoring and Management of Water Distribution Network in Antalya City, using the SCADA System**  
Demirel İ., Özden T., Palancı İ., KARADİREK İ. E., MUHAMMETOĞLU H.  
2nd Regional Workshop on Water Loss Reduction in Water & Sanitation Utilities, Sofya, Bulgaria, 16 - 18 November 2009
- LVII. **Chlorine Decay in Water Distribution Systems: Antalya Case Study**  
Altındal T., KARADİREK İ. E., MUHAMMETOĞLU H.  
International Workshop on Urbanization, Land Use, Land Degradation and Environment, Denizli, Turkey, 28 September - 01 October 2009
- LVIII. **Supervisory Control And Data Acquisition (SCADA) System For The Monitoring And Management Of Distribution Networks: Case Study Of Antalya City-Turkey**  
Demirel İ., Palancı İ., Özden T., KARADİREK İ. E., MUHAMMETOĞLU H.  
Water Loss 2009, Cape Town, South Africa, 26 - 29 April 2009
- LIX. **Management Of Water Losses Using SCADA And District Metered Areas (Dmas) : Case Study Of Antalya City-Turkey**  
Özden T., Palancı İ., Demirel İ., KARADİREK İ. E., MUHAMMETOĞLU H.  
Water Loss 2009, Cape Town, South Africa, 26 - 29 April 2009
- LX. **Management of Chlorine Levels in Water Distribution Systems Using SCADA, GIS & Modeling: Antalya City Case Study**

Özden T., Palancı İ., Demirel İ., KARADİREK İ. E., MUHAMMETOĞLU H.  
2nd MIKE by DHI European Conference,, Dubrovnik, Croatia, 13 - 15 October 2008, pp.21

LXI. **Bitkisel Atık Yağların Biyodizel Olarak Değerlendirilmesi**

DEMİRCAN N., KARADİREK İ. E.

Blacksea International Environmental Symposium, Giresun, Turkey, 25 - 29 August 2008

LXII. **Biyodizel ve Çevre**

KARADİREK İ. E., DEMİRCAN N., Yalçındağ S.

Enerji Bitkileri Ve Yeşil Yakıtlar Sempozyumu, İzmir, Turkey, 14 - 15 December 2006

LXIII. **Integrated Coastal Zone Management in South Antalya – Turkey**

MUHAMMETOĞLU A., OĞUZ H., Karakoç E., KARADİREK İ. E.

The Seventh International Conference on the Mediterranean Coastal Environment, MEDCOAST 05, Aydın, Turkey, 25 - 29 October 2005

## Other Publications

- I. **İçme Suyu Dağıtım Şebekelerinde Optimum Klorlama Uygulamalarının Matematiksel Modeller Kullanılarak Gerçekleştirilmesi ve Dezenfeksiyon Sistemlerinin Yönetimi: TÜBİTAK KAMAG 107G088 Nolu Proje El Kitabı**  
MUHAMMETOĞLU H., Soyupak S., KARADİREK İ. E.  
Technical Report, pp.49, 2011

## Supported Projects

2023 - Continues	Su Basıncının Abone Su Sayaçlarının Ölçüm Hatalarına Etkilerinin Değerlendirilmesi, Project Supported by Higher Education Institutions
2023 - 2026	Su Dağıtım Sistemlerinde İdari Su Kayıplarının Yönetimi İçin En Uygun Sayaç Değişimi Periyodunun Belirlenmesi, TUBITAK Project
2020 - 2024	EVSEL VE KENTSEL ATIKSU ARITMA TESİSLERİNDE PASİF ÖRNEKLEYİCİLER KULLANILARAK POLİAROMATİK HİDROKARBONLARIN İZLENMESİ, Project Supported by Higher Education Institutions
2020 - 2024	KENTSEL VE EVSEL ATIKSU ARITMA TESİSLERİNDE BAZI POLİKLORLU BİFENİLLERİN PASİF ÖRNEKLEYİCİLER İLE İZLENMESİ, Project Supported by Higher Education Institutions
2021 - 2022	Diyaliz Merkezi Su Arıtma Sistemlerinin Eko-Diyaliz Yaklaşımı Çerçevesinde Değerlendirilmesi, Project Supported by Higher Education Institutions
2018 - 2021	Kıyı Akifer Yönetiminde Stratejik Gelisim Hedeflerinin Uygulanması (Implementing Strategic Development Goals in Coastal Aquifer Management-Go-CAM), Other International Funding Programs
2018 - 2020	Abone Su Sayaçlarının İdari Su Kayıpları Üzerine Etkilerinin Araştırılması, Project Supported by Higher Education Institutions
2018 - 2019	Abone Su Sayaçlarının İdari Su Kayıpları Üzerine Etkilerinin Araştırılması, TUBITAK Project
2017 - 2019	Sürdürülebilir Kentsel Su Yönetiminde Abone Su Tüketimlerinin Değerlendirilmesi ve Modellenmesi, Project Supported by Higher Education Institutions
2015 - 2018	Turistik Bölgelerde Otomatik Okuma Sayaçları Kullanarak Fiziki Su Kayıplarının Yüksek Hassasiyetle Belirlenmesi ve Yönetimi AntalyaKaleiçi Uygulaması, Project Supported by Higher Education Institutions
2015 - 2018	Sürdürülebilir İçmesuyu Temini Sistemleri için Yenilenebilir Enerji Kazanımı Potansiyelinin Araştırılması, Project Supported by Higher Education Institutions
2008 - 2011	İçme Suyu Dağıtım Şebekelerinde Optimum Klorlama Uygulamalarının Matematiksel Modeller Kullanılarak Gerçekleştirilmesi ve Dezenfeksiyon Sistemlerinin Yönetimi, TUBITAK Project

## Scientific Refereeing

April 2023	BIOMASS CONVERSION AND BIOREFINERY, National Scientific Refreed Journal
January 2023	Horizon Europe Project, Horizon Europe Project, Akdeniz University, Turkey
January 2023	Horizon Europe Project, Horizon Europe Project, Akdeniz University, Turkey
January 2023	Horizon Europe Project, Horizon Europe Project, Akdeniz University, Turkey
December 2022	WATER SCIENCE AND TECHNOLOGY: WATER SUPPLY, SCI Journal
December 2022	TÜBİTAK - AB COST Project, Akdeniz University, Turkey
November 2022	BIOMASS CONVERSION AND BIOREFINERY, SCI Journal
October 2022	TÜBİTAK - AB COST Project, Akdeniz University, Turkey
September 2022	WATER SCIENCE AND TECHNOLOGY: WATER SUPPLY, SCI Journal
September 2022	TÜBİTAK International Bilateral Joint Cooperation Program Project, Italian National Research Council, CNR Bilateral Joint Cooperation Program, Akdeniz University, Turkey
May 2022	WATER SCIENCE AND TECHNOLOGY: WATER SUPPLY, SCI Journal
April 2022	Niğde Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, National Scientific Refreed Journal
April 2022	TUBİTAK Project, 1002 - Quick Support Program, Akdeniz University, Turkey
March 2022	TUBİTAK Project, 1002 - Quick Support Program, Akdeniz University, Turkey
January 2022	WATER SCIENCE AND TECHNOLOGY-WATER SUPPLY, SCI Journal
January 2022	ULUDAĞ ÜNİVERSİTESİ MÜHENDİSLİK FAKÜLTESİ DERGİSİ, National Scientific Refreed Journal
November 2021	AQUA-WATER INFRASTRUCTURE ECOSYSTEMS AND SOCIETY, SCI Journal
October 2021	AQUA-WATER INFRASTRUCTURE ECOSYSTEMS AND SOCIETY, SCI Journal
August 2021	WATER SCIENCE AND TECHNOLOGY-WATER SUPPLY, SCI Journal
July 2021	Water Science and Technology, SCI Journal
May 2021	Urban Water Journal, SCI Journal
May 2021	AQUA - Water Infrastructure, Ecosystems and Society, SCI Journal
April 2021	Sigma Journal of Engineering and Natural Sciences, Other Indexed Journal
March 2021	Water Supply, SCI Journal
January 2021	Journal of Water Supply: Research and Technology - AQUA, SCI Journal
January 2021	Firat Üniversitesi Müh. Bil. Dergisi, National Scientific Refreed Journal
January 2021	AQUA - Water Infrastructure, Ecosystems and Society, SCI Journal
January 2021	AQUA - Water Infrastructure, Ecosystems and Society, SCI Journal
November 2020	Journal of Water Supply: Research and Technology - AQUA, SCI Journal
November 2020	Gümüşhane Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal
November 2020	Water Supply, SCI Journal
October 2020	Journal of Water Resources Planning and Management, SCI Journal
September 2020	Journal of Water Supply: Research and Technology - AQUA, SCI Journal
September 2020	Firat Üniversitesi Mühendislik Bilimleri Dergisi, National Scientific Refreed Journal
August 2020	Journal of Water Resources Planning and Management, SCI Journal
August 2020	Water Supply, SCI Journal
July 2020	Journal of Water Supply: Research and Technology - AQUA, SCI Journal
July 2020	Turkish Journal of Water Science and Management, Other Indexed Journal
July 2020	Water Supply, SCI Journal
June 2020	Water Supply, SCI Journal
June 2020	Desalination and Water Treatment, SCI Journal
May 2020	Water and Environment Journal, SCI Journal
May 2020	Water Supply, SCI Journal
March 2020	Water Science and Technology: Water Supply, SCI Journal
February 2020	Water Science and Technology: Water Supply, SCI Journal

February 2020	Water Science and Technology, SCI Journal
November 2019	Water Science and Technology: Water Supply, SCI Journal
September 2019	Journal of Water Supply: Research and Technology - AQUA, SCI Journal
September 2019	Environmental Research & Technology, Other journals
August 2019	Water Science and Technology: Water Supply, SCI Journal
July 2019	Journal of Water Supply: Research and Technology - AQUA, SCI Journal
July 2019	Water Science and Technology: Water Supply, SCI Journal
April 2019	Water Science and Technology: Water Supply, SCI Journal
January 2019	Water Science and Technology: Water Supply, SCI Journal
December 2018	Water Science and Technology: Water Supply, SCI Journal
October 2018	Water Science and Technology: Water Supply, SCI Journal
May 2018	Water Science and Technology: Water Supply, SCI Journal
March 2018	Water Science and Technology: Water Supply, SCI Journal
February 2018	Water Science and Technology: Water Supply, SCI Journal
October 2017	Water Science and Technology:Water Supply, SCI Journal
August 2017	Hittite Journal of Science & Engineering, Other Indexed Journal
August 2017	Indian Journal of Science and Technology, Other Indexed Journal
June 2017	Water Science and Technology:Water Supply, SCI Journal
May 2017	Journal of Water Supply: Research and Technology - AQUA, SCI Journal
April 2017	Water Science and Technology:Water Supply, SCI Journal
March 2017	Journal of Water Supply: Research and Technology - AQUA, SCI Journal
February 2017	Water Science and Technology: Water Supply, SCI Journal
November 2016	Journal of Water Supply: Research and Technology - AQUA, SCI Journal
September 2016	Water Science and Technology:Water Supply, SCI Journal
May 2016	Water Science and Technology, SCI Journal
December 2015	CLEAN - Soil, Air, Water, SCI Journal
November 2015	Water Science and Technology, SCI Journal
April 2014	CLEAN-Soil,Air, Water, SCI Journal
August 2013	Water Quality, Exposure & Health , Other Indexed Journal

## Metrics

Publication: 91  
Citation (WoS): 242  
Citation (Scopus): 261  
H-Index (WoS): 9  
H-Index (Scopus): 9

## Scholarships

2012 - 2013	TÜBİTAK Bilim İnsanı Destekleme Başkanlığı, Doktora Yurt Dışı Araştırma Bursu 2012, 1. Dönem, TUBITAK
-------------	---

## Visual Activities

2022 - 2022	Karadirek İ. E., 22 Mart Dünya Su Günü, Radio Program
2021 - 2021	Karadirek İ. E., 22 Mart Dünya Su Günü, TV Show

**Non Academic Experience**

2012 - 2013

University of Cincinnati