

## Prof. SERDAR KORKMAZ

### Personal Information

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### International Researcher IDs

ScholarID: Q16ztcMAAAAJ

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Publons / Web Of Science ResearcherID: AAG-8542-2021

ScopusID: 13604819900

Yoksis Researcher ID: 170990

### Education Information

Doctorate, Ecole Nationale Supérieure des Mines de Paris, ECOLE DOCTORALE GEOSCIENCES ET RESSOURCES NATURELLES PARIS , France 2005 - 2007

Doctorate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, İnşaat Mühendisliği (Dr), Turkey 2002 - 2007

Postgraduate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, İnşaat Mühendisliği (YI) (Tezli), Turkey 2000 - 2002

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey 1995 - 1999

### Foreign Languages

English, C1 Advanced

French, C1 Advanced

### Research Areas

Hydraulic, Surface Water Engineering, Hydrology, Pipeline Hydraulics, Open Channel Flow, Hydromechanics, Infrastructure Systems, Groundwater Engineering

### Academic Titles / Tasks

Professor, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, İNŞAAT MÜHENDİSLİĞİ, 2020 - Continues

Associate Professor, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, İNŞAAT MÜHENDİSLİĞİ, 2013 - 2020

Assistant Professor, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, İNŞAAT MÜHENDİSLİĞİ, 2010 - 2013

Lecturer PhD, Atilim University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2009 - 2010

Research Assistant, Ecole Nationale Supérieure des Mines de Paris, Centre De Géosciences, 2005 - 2007

Research Assistant, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, 2001 - 2007

## Academic and Administrative Experience

Head of Department, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, İNŞAAT MÜHENDİSLİĞİ, 2011 - Continues

Deputy Head of Department, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, İNŞAAT MÜHENDİSLİĞİ, 2011 - 2014

## Courses

INS4008 MESLEKİ YABANCI DİL IV, Undergraduate, 2017 - 2018

INS3003 Mesleki Yabancı Dil III, Undergraduate, 2017 - 2018

INS5051 Yeraltı Suyu Hidroliği, Postgraduate, 2017 - 2018

INS5053 Açık Kanal Hidroliği, Postgraduate, 2017 - 2018

INS5056 Hidrolikte İleri Bilgisayar Uygulamaları, Postgraduate, 2017 - 2018

INS4052 HİDROLİKTE BİLGİSAYAR UYGULAMALARI, Undergraduate, 2017 - 2018

INS5058 HİDROLOJİDE İLERİ CBS UYGULAMALARI, Postgraduate, 2017 - 2018

INS3053 Akışkanlar Mekaniği, Undergraduate, 2017 - 2018

## Advising Theses

Korkmaz S., The impact of river rehabilitation on flood mitigation: A case study of Ismetiye creek Bursa, Postgraduate, A.IQBAL(Student), 2022

Korkmaz S., Geçirgen betonun yapısal ve hidrolik tasarımı, Postgraduate, A.GÖKSU(Student), 2021

Korkmaz S., Assessment of groundwater vulnerability to contamination using gis-based drastic method in Mustafakemalpaşa and Karacabey plain, Bursa, Postgraduate, A.SULAIMAN(Student), 2021

KORKMAZ S., Numerical modelling of groundwater flow using modflow: A case study in Karacabey and Mustafakemalpaşa plain of Bursa province, Turkey, Postgraduate, M.Zakir(Student), 2019

KORKMAZ S., Numerical and experimental modeling of flow over a broad-crested weir, Postgraduate, N.Ahmad(Student), 2019

KORKMAZ S., Determination of the relationship between aquifer hydraulic parameters and geoelectric parameters, Doctorate, G.Eryılmaz(Student), 2018

KORKMAZ S., Determination of aquifer hydraulic conductivity using analytical and numerical methods based on well tests, Postgraduate, G.Eryılmaz(Student), 2013

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

- I. **Relationship between hydraulic and geoelectrical parameters for alluvial aquifers in Bursa, Turkey-a case study**  
Turkkan G. E., KORKMAZ S.  
ARABIAN JOURNAL OF GEOSCIENCES, vol.14, no.21, 2021 (SCI-Expanded)
- II. **Steady-State Analytical and Numerical Solutions of Confined and Unconfined Flows in Aquifers with Discontinuous Aquiclude**  
KORKMAZ S.  
WATER RESOURCES MANAGEMENT, vol.33, no.4, pp.1335-1348, 2019 (SCI-Expanded)
- III. **Determination of the relationship between hydraulic conductivity and formation factor for different formations: A case study of Bursa**  
Turkkan G. E., KORKMAZ S.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.33, no.3, pp.967-977, 2018 (SCI-Expanded)
- IV. **Transient Analysis with MODFLOW for Developing Water-Diversion Function**

KORKMAZ S., PEKKAN E., GÜNEY Y.

JOURNAL OF HYDROLOGIC ENGINEERING, vol.21, no.6, 2016 (SCI-Expanded)

- V. **Determination of Hydraulic Conductivity Using Analytical and Numerical Methods Applied to Well and Aquifer Tests**  
Turkkan Eryilmaz G., KORKMAZ S.  
TEKNIK DERGI, vol.26, no.1, pp.6969-6991, 2015 (SCI-Expanded)
- VI. **Transient Solutions to Groundwater Mounding in Bounded and Unbounded Aquifers**  
Korkmaz S.  
GROUND WATER, vol.51, no.3, pp.432-441, 2013 (SCI-Expanded)
- VII. **Multi-model comparison of a major flood in the groundwater-fed basin of the Somme River (France)**  
Habets F., Gascoin S., Korkmaz S., Thiery D., Zribi M., Amraoui N., Carli M., Ducharne A., Leblois E., Ledoux E., et al.  
HYDROLOGY AND EARTH SYSTEM SCIENCES, vol.14, no.1, pp.99-117, 2010 (SCI-Expanded)
- VIII. **Application of the coupled model to the Somme river basin**  
Korkmaz S., Ledoux E., Onder H.  
JOURNAL OF HYDROLOGY, vol.366, pp.21-34, 2009 (SCI-Expanded)
- IX. **Groundwater mound due to constant recharge from a strip basin**  
Onder H., Korkmaz S.  
JOURNAL OF HYDROLOGIC ENGINEERING, vol.12, no.3, pp.237-245, 2007 (SCI-Expanded)
- X. **Seepage from a rectangular ditch to the groundwater table**  
Korkmaz S., Onder H.  
JOURNAL OF IRRIGATION AND DRAINAGE ENGINEERING, vol.132, no.3, pp.263-271, 2006 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Numerical and Experimental Modeling of Flow over a Broad-Crested Weir**  
KORKMAZ S., Ghaznawi N. A.  
Sakarya University Journal of Science, vol.23, no.2, pp.252-258, 2019 (Peer-Reviewed Journal)
- II. **Water Distribution Network Design by using a Computer Program: Application to Bursa, Görükle District**  
Majidi A., KORKMAZ S., Marrouchi Y.  
Su Kaynakları, vol.3, no.1, pp.24-33, 2018 (Peer-Reviewed Journal)
- III. **Investigation of the Variation in Well Performance over Time Using Step Drawdown Tests**  
ERYILMAZ TÜRKKAN G., KORKMAZ S.  
Uludağ University Journal of The Faculty of Engineering, vol.23, no.2, 2018 (Peer-Reviewed Journal)
- IV. **Investigation of Bursa, Eskikaraağaç Using Vertical Electrical Sounding Method**  
ERYILMAZ TÜRKKAN G., KORKMAZ S.  
TOJSAT, vol.8, no.3, 2018 (Peer-Reviewed Journal)
- V. **Analytical solutions to groundwater flow around wells using discharge potential**  
KORKMAZ S.  
European Water, vol.57, pp.375-382, 2017 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **CBS'de Yeraltısuyu Haritalaması**  
KORKMAZ S.  
in: Coğrafi Bilgi Sistemlerinde Proje Tasarımı ve Yönetimi-I, Pekkan, Emrah, Editor, Anadolu Üniversitesi, Eskişehir, pp.164-181, 2017
- II. **Coğrafi Bilgi Sistemlerinde Yeraltısuyu Haritalaması**  
KORKMAZ S.

## Refereed Congress / Symposium Publications in Proceedings

- I. **Numerical modeling of a phreatic aquifer flow in western Bursa**  
KORKMAZ S., Keskin M. Z.  
International Science and Technology Conference, Prag, Czech Republic, 3 - 05 July 2019
- II. **Numerical model of groundwater flow using MODFLOW: Application to western Bursa, Turkey**  
KORKMAZ S., Keskin M. Z.  
11th World Congress on Water Resources and Environment (EWRA 2019), Madrid, Spain, 25 - 29 June 2019
- III. **A Ground Investigation Using Geoelectrical Methods**  
ERYILMAZ TÜRKKAN G., KORKMAZ S.  
ICOLES 2018, 2 - 06 September 2018
- IV. **Well Tests in Confined and Unconfined Aquifers**  
ERYILMAZ TÜRKKAN G., KORKMAZ S.  
ICOLES 2018, 2 - 06 September 2018
- V. **MODFLOW ile Yeraltı Suyu Akımının Sayısal Modeli: Bursa İli, Karacabey ve Mustafakemalpaşa Ovası Uygulaması**  
Keskin M. Z., KORKMAZ S.  
Ulusal Hidrojeoloji ve Su Kaynakları Sempozyumu, Turkey, 27 - 29 September 2018
- VI. **Water Surface Profiles over a Broad-Crested Weir**  
Ghaznawi N. A., KORKMAZ S.  
13th International Congress on Advances in Civil Engineering, 12 September 2018
- VII. **Contaminant Transport in Multilayered Discontinuous Aquifers using MODFLOW**  
KORKMAZ S.  
13th International Congress on Advances in Civil Engineering, 12 - 14 September 2018
- VIII. **Su Dağıtım Şebekesinin Bilgisayar Tabanlı Analizi: Bursa, Nilüfer İlçesi, Balkan Ve Kurtuluş Mahalleleri**  
Marrouchi Y., KORKMAZ S., Majidi A.  
Uluslararası Su ve Çevre Kongresi, 22 - 24 March 2018
- IX. **EPANET Programıyla İçmesuyu Şebekesi Tasarımı: Bursa, Nilüfer İlçesi, Görükle Mahallesi**  
Majidi A., KORKMAZ S., Marrouchi Y.  
Uluslararası Su ve Çevre Kongresi, 22 - 24 March 2018
- X. **Olympos Antik Kenti'nde Yeraltısu Akım Modelinin Oluşturulması**  
BİNGÜL B., PEKKAN E., KORKMAZ S., ÖZTAŞKIN G. K., UÇKAN B. Y.  
Türk Coğrafya Kurumu 75. Yıl Uluslararası Kongresi, 8 - 10 November 2017
- XI. **Bursa İli, Karacabey İlçesi, Hamidiye Köyü Formasyonunun Su Sondajı Öncesi Jeoelektriksel Yöntemlerle Değerlendirilmesi**  
ERYILMAZ TÜRKKAN G., KORKMAZ S.  
ICADET2017, 21 - 23 September 2017
- XII. **Bursa İli, İznik İlçesi, Müşküle Köyü Formasyonunun Wenner Yöntemiyle İncelenmesi**  
ERYILMAZ TÜRKKAN G., KORKMAZ S.  
ICADET2017, 21 - 23 September 2017
- XIII. **MODFLOW-USG Versiyonu Kullanılarak Olympos Antik Kenti Yeraltısu Modelleme Çalışması**  
BİNGÜL B., PEKKAN E., KORKMAZ S., ÖZTAŞKIN G. K., UÇKAN B. Y.  
9. Hidroloji Kongresi, Turkey, 4 - 06 October 2017
- XIV. **Investigation of Bursa, Eskikaraağaç Using Vertical Electrical Sounding Method**  
ERYILMAZ TÜRKKAN G., KORKMAZ S.  
ISTEC2017, 16 - 18 August 2017

- XV. **Akım Potansiyeli Tanımı ile Yeraltı Suyu Problemlerine Örnek Çözümler**  
KORKMAZ S.  
XX. Ulusal Mekanik Kongresi, Turkey, 5 - 09 September 2017
- XVI. **Analytical Solutions to Groundwater Flow around Wells using Discharge Potential**  
KORKMAZ S.  
EWRA 10th World Congress on Water Resources and Environment, 5 - 09 July 2017
- XVII. **Renewable energy and energy recovery solutions in the developing city of Bursa, Turkey.**  
KORKMAZ S.  
Embrace the Water - a Cities of the Future Conference, 12 - 14 June 2017
- XVIII. **Investigation of Bursa, İnayet Village's Formation with Schlumberger Array**  
ERYILMAZ TÜRKKAN G., KORKMAZ S.  
ICOCEE2017, 8 - 10 May 2017
- XIX. **A Ground Investigation Study at Sakarya Çamlıca Using Geoelectrical Methods**  
ERYILMAZ G., KORKMAZ S.  
1ST INTERNATIONAL BLACK SEA CONGRESS ON ENVIRONMENTAL SCIENCES, 31 August - 03 September 2016
- XX. **A numerical groundwater flow model of Bursa Basköy aquifer**  
KORKMAZ S., ERYILMAZ G.  
4th IAHR Europe Congress, 27 - 29 July 2016
- XXI. **Application of Aquifer Tests to Determine Hydraulic Conductivity of Aquifers in Bursa Turkey**  
KORKMAZ S., ERYILMAZ G.  
International Conference on Engineering and Natural Sciences, 24 - 28 May 2016
- XXII. **Bursa İli İnegöl İlçesi İnayet Köyü Formasyonunun Jeoelektriksel Yöntemlerle İncelenmesi**  
ERYILMAZ G., KORKMAZ S.  
1st International Conference on Engineering Technology and Applied Sciences, 21 - 22 April 2016
- XXIII. **EVALUATION OF PUMPING TEST DATA USING ANALYTICAL AND NUMERICAL METHODS**  
KORKMAZ S., Eryilmaz G. T.  
36th IAHR World Congress, Delft, Netherlands, 28 June - 03 July 2015, pp.2753-2761
- XXIV. **Simulations of Groundwater Flows to Determine Flood-Prone Locations in Eskişehir Basin.**  
KORKMAZ S., PEKKAN E., GÜNEY Y.  
International Perspective on Water Resources the Environment (IPWE 2013), İzmir, Turkey, 7 - 09 January 2013
- XXV. **GIS-Based Data Preparation and Surface Flow Simulations of the Nilüfer River Basin in Turkey.**  
KORKMAZ S.  
2nd IAHR Europe Conference, Munich, Germany, 27 - 29 June 2012
- XXVI. **Formation of Unsteady Groundwater Mounds under Constant Recharge: Application to a Stormwater Dispersion Trench.**  
KORKMAZ S.  
BALWOIS 2012-5th Conference on Water, Climate and Environment, Ohrid, Macedonia, 28 May - 02 June 2012

## Metrics

Publication: 43

Citation (WoS): 60

Citation (Scopus): 65

H-Index (WoS): 4

H-Index (Scopus): 4

## Non Academic Experience

Governorship, Ankara İl Özel İdaresi, Su ve Kanalizasyon Müdürlüğü

Ankara İl Özel İdaresi

Atılım Üniversitesi

Company, Türkerler Enerji, Barajlar Birimi

Ecole des Mines de Paris

ODTÜ

Company, Durmaz İnşaat, Şantiye

Company, Baget Mühendislik, Tasarım Birimi