

# Prof. HASAN YAZICIGİL

## Personal Information

**Office Phone:** [+90 312 210 2692](tel:+903122102692)

**Fax Phone:** [+90 312 210 5750](tel:+903122105750)

**Email:** hyazici@metu.edu.tr

**Web:** <https://avesis.metu.edu.tr/hyazici>

**Address:** Orta Doğu Teknik Üniversitesi Jeoloji Mühendisliği Bölümü 06800 Çankaya Ankara Turkey

## International Researcher IDs

ScholarID: g\_ICjdMAAAAJ

ORCID: 0000-0003-3808-6981

Publons / Web Of Science ResearcherID: AAT-2055-2021

ScopusID: 7003835060

Yoksis Researcher ID: 118141

## Education Information

Doctorate, Purdue University, Su Kaynakları Sistem Mühendisliği, United States Of America 1977 - 1980

Postgraduate, Iowa State University of Science and Technology, Su Kaynakları, United States Of America 1975 - 1977

Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Geological Engineering, Turkey 1969 - 1974

## Academic Titles / Tasks

Professor, Middle East Technical University, Graduate School of Natural and Applied Sciences, Graduate School of Natural and Applied Sciences, 2019 - Continues

Professor, Middle East Technical University, Faculty of Engineering, Department of Geological Engineering, 1992 - 2019

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Geological Engineering, 1990 - 1992

Assistant Professor, Southern Illinois University Carbondale, Department Of Geology, 1981 - 1982

Expert, Southern Illinois University at Carbondale, Coal Extraction And Utilization Research Center, 1980 - 1981

Lecturer, Purdue University, School Of Engineering, 1977 - 1980

## Advising Theses

YAZICIGİL H., Assessment of performance of horizontal drains andpit lake formation for çöpler gold mine, Erzincan-Turkey, Doctorate, Ç.ARUNKHAN(Student), 2021

YAZICIGİL H., Hydrogeological characterization of a mine site in Eastern Anatolia, Postgraduate, D.Tayyar(Student), 2020

YAZICIGİL H., Assessment of dewatering / depressurization requirements for the Çeltikci Coal Basin, Ankara - Turkey, Doctorate, A.Peksezer(Student), 2019

YAZICIGİL H., Hydrogeological investigation and characterization of Alpu sector-a coal field in Eskisehir-Turkey, Postgraduate, T.KAAN(Student), 2018

YAZICIGİL H., Hydrogeological characterization of the alpu coal mine exploration site in Eskisehir-Turkey, Postgraduate, M.ONURSAL(Student), 2016

- YAZICIGİL H., Numerical modeling of groundwater flow at a coal exploration site in Eskişehir – Turkey, Postgraduate, H.KILIÇ(Student), 2016
- YAZICIGİL H., Optimum cover design for waste rock storage areas, Postgraduate, Ç.ARĞUNHAN(Student), 2014
- YAZICIGİL H., Hydrogeological characterization and investigation of the Çeltikçi coal basin in Central Anatolia /, Postgraduate, C.Kahraman(Student), 2014
- YAZICIGİL H., Hydrogeological characterization and investigation of the Çeltikçi Coal Basin in Central Turkey, Postgraduate, C.KAHRAMAN(Student), 2014
- YAZICIGİL H., Hydrogeological characterization of the northern part of the Kışladağ gold mine area, Postgraduate, E.Firat(Student), 2013
- YAZICIGİL H., Assessment of open pit dewatering requirements and pit lake formation for Kışladağ Gold Mine, Uşak-Turkey, Doctorate, B.ÜNSAL(Student), 2013
- YAZICIGİL H., Hydrogeological characterization of the northern part of the Kışladağ Gold-Mine, Uşak, Turkey, Postgraduate, E.FIRAT(Student), 2013
- YAZICIGİL H., Assessment of dewatering requirements for Çaldağ nickel mine in Western Turkey, Postgraduate, Ç.CANKARA(Student), 2011
- YAZICIGİL H., Artificial recharge of groundwater in Küçük Menderes river basin, Turkey, Postgraduate, A.PEKSEZER(Student), 2010
- YAZICIGİL H., Assessment of water supply impacts for a mine site in Western Turkey, Postgraduate, EAĞARTAN(Student), 2010
- YAZICIGİL H., Investigation of the recharge and discharge mechanisms of a complex aquifer system by using environmental isotopes and noble gases, Doctorate, Ş.ARSLAN(Student), 2008
- YAZICIGİL H., Modeling and development of a groundwater management plan for Ulubey aquifer system, Uşak-Turkey, Postgraduate, B.ÜNSAL(Student), 2008
- YAZICIGİL H., Modeling of Mogan and Eymir lakes aquifer system, Doctorate, Ö.YAĞBASAN(Student), 2007
- YAZICIGİL H., Optimal storage of freshwater in saline aquifers, Postgraduate, D.KÜSTÜ(Student), 2005
- YAZICIGİL H., Investigation of the safe and sustainable yields for the sandy complex aquifer system in Ergene river basin, Postgraduate, Ş.ÖKTEN(Student), 2004
- YAZICIGİL H., Dewatering plan and prediction for pit lake flooding for a quarry site, Postgraduate, U.DURU(Student), 2004
- YAZICIGİL H., Groundwater management policy development for the Küçük Menderes river basin, Postgraduate, J.ŞAKIYAN(Student), 2001
- YAZICIGİL H., Groundwater management policy development for the Küçük Menderes River Basin aquifer system, Postgraduate, J.Şakıyan(Student), 2001
- YAZICIGİL H., Groundwater recharge estimation for Küçük Menderes river basin aquifer system, Postgraduate, A.GÜNDÖĞDU(Student), 2000
- YAZICIGİL H., Characterization of the Küçük Menderes River basin aquifer system, Postgraduate, K.KAMIL(Student), 1999
- YAZICIGİL H., Optimal dewatering of the collector line in Aksaray organized industrial district Aksaray-Turkey, Postgraduate, M.Tokgöz(Student), 1999
- YAZICIGİL H., Geostatistical characterization of Erzin plain aquifer system Hatay-Turkey, Postgraduate, Ö.Eroğlu(Student), 1997
- YAZICIGİL H., Geostatistical characrtization of Erzin Plain aquifer system, Hatay-Turkey, Postgraduate, Ö.EROĞLU(Student), 1997
- YAZICIGİL H., Optimal waste containment strategies in groundwater pollution studies, Postgraduate, F.MISIRLI(Student), 1994
- YAZICIGİL H., Optimal management of Erzin plain aquifer system Hatay-Turkey, Postgraduate, K.HALLAJİ(Student), 1994
- YAZICIGİL H., Optimal expansion of capacity in multi-aquifer systems, Postgraduate, H.BAŞAĞAOĞLU(Student), 1993
- YAZICIGİL H., Optimal expansion of capacity in multi-aquifer system., Postgraduate, H.Başağaoğlu(Student), 1993

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

- I. **Assessment of Dewatering Requirements and Dewatering Well Design for an Open Pit Coal Mine in Central Anatolia**  
PEKSEZER SAYIT A., YAZICIGİL H.  
MINE WATER AND THE ENVIRONMENT, vol.41, no.3, pp.748-763, 2022 (SCI-Expanded)
- II. **Assessment of performance of horizontal drains in an open pit mine in eastern Turkey**  
ARGUNHAN ATALAY Ç., Yazicigil H., EKMEKÇİ M.  
Environmental Earth Sciences, vol.80, no.3, 2021 (SCI-Expanded)
- III. **Trend Analyses of Meteorological Variables and Lake Levels for Two Shallow Lakes in Central Turkey**  
YAĞBASAN Ö., Demir V., YAZICIGİL H.  
WATER, vol.12, no.2, 2020 (SCI-Expanded)
- IV. **Groundwater**  
YAZICIGİL H., EKMEKÇİ M.  
WATER RESOURCES OF TURKEY, vol.2, pp.159-201, 2020 (SCI-Expanded)
- V. **Modeling and Performance Assessment of Alternative Cover Systems on a Waste Rock Storage Area**  
Argunhan-Atalay Ç., YAZICIGİL H.  
MINE WATER AND THE ENVIRONMENT, vol.37, no.1, pp.106-118, 2018 (SCI-Expanded)
- VI. **Impacts of climatic variables on water-level variations in two shallow Eastern Mediterranean lakes**  
Yagbasan O., YAZICIGİL H., Demir V.  
ENVIRONMENTAL EARTH SCIENCES, vol.76, no.16, 2017 (SCI-Expanded)
- VII. **Assessment of Open Pit Dewatering Requirements and Pit Lake Formation for the KA +/- AYladag Gold Mine, UAYak, Turkey**  
UNSLA B., YAZICIGİL H.  
MINE WATER AND THE ENVIRONMENT, vol.35, no.2, pp.180-198, 2016 (SCI-Expanded)
- VIII. **Assessment of Dewatering Requirements and their Anticipated Effects on Groundwater Resources: A Case Study from the Caldag Nickel Mine, Western Turkey**  
Peksezer-Sayit A., Cankara-Kadioglu C., YAZICIGİL H.  
MINE WATER AND THE ENVIRONMENT, vol.34, no.2, pp.122-135, 2015 (SCI-Expanded)
- IX. **Analysis of groundwater dynamics in the complex aquifer system of Kazan Trona, Turkey, using environmental tracers and noble gases**  
ARSLAN S., Yazicigil H., Stute M., Schlosser P., Smethie W. M.  
HYDROGEOLOGY JOURNAL, vol.23, no.1, pp.175-194, 2015 (SCI-Expanded)
- X. **Assessing the impacts of climate change on sustainable management of coastal aquifers**  
UNSLA B., Yagbasan O., Yazicigil H.  
ENVIRONMENTAL EARTH SCIENCES, vol.72, no.6, pp.2183-2193, 2014 (SCI-Expanded)
- XI. **Environmental isotopes and noble gases in the deep aquifer system of Kazan Trona Ore Field, Ankara, central Turkey and links to paleoclimate**  
ARSLAN S., YAZICIGİL H., Stute M., Schlosser P.  
QUATERNARY RESEARCH, vol.79, no.2, pp.292-303, 2013 (SCI-Expanded)
- XII. **Environmental isotopic evaluation of the springs located in Kazan Trona basin in Central Turkey**  
ARSLAN S., YAZICIGİL H.  
JOURNAL OF THE GEOLOGICAL SOCIETY OF INDIA, vol.80, no.5, pp.707-714, 2012 (SCI-Expanded)
- XIII. **Assessment of Water Supply Impacts for a Mine Site in Western Turkey**  
AGARTAN E., YAZICIGİL H.  
MINE WATER AND THE ENVIRONMENT, vol.31, no.2, pp.112-128, 2012 (SCI-Expanded)
- XIV. **Assessment of artificial aquifer recharge potential in the Kucuk Menderes River Basin, Turkey**  
Sayit A. P., YAZICIGİL H.  
HYDROGEOLOGY JOURNAL, vol.20, no.4, pp.755-766, 2012 (SCI-Expanded)
- XV. **Assessing the impact of climate change on Mogan and Eymir Lakes' levels in Central Turkey**

- Yagbasan O., YAZICIGİL H.  
ENVIRONMENTAL EARTH SCIENCES, vol.66, no.1, pp.83-96, 2012 (SCI-Expanded)
- XVI. Effects of solution mining on groundwater quality in the Kazan trona field, Ankara-Turkey: model predictions  
Yazıcıgil H., Er C., Ates J. S., Çamur M. Z.  
ENVIRONMENTAL GEOLOGY, vol.57, pp.157-172, 2009 (SCI-Expanded)
- XVII. Sustainable management of Mogan and Eymir Lakes in Central Turkey  
Yagbasan O., Yazicigil H.  
ENVIRONMENTAL GEOLOGY, vol.56, no.6, pp.1029-1040, 2009 (SCI-Expanded)
- XVIII. Susceptibility indexing method for irrigation water management planning: Applications to K. Menderes river basin, Turkey  
Pusatlı O. T., Camur M. Z., Yazicigil H.  
JOURNAL OF ENVIRONMENTAL MANAGEMENT, vol.90, no.1, pp.341-347, 2009 (SCI-Expanded)
- XIX. Modeling of lithology induced chemical anomalies in the aquifer systems of the Kazan Trona deposit area, Ankara, Turkey  
Çamur M. Z., Er C., Yazicigil H.  
ENVIRONMENTAL GEOLOGY, vol.54, pp.777-789, 2008 (SCI-Expanded)
- XX. Effects of compaction parameters on heavy metal mass transport in Ankara clay liner: Experimental approach  
Çamur M. Z., Canpolat F., Yazicigil H.  
TURKISH JOURNAL OF EARTH SCIENCES, vol.16, pp.97-107, 2007 (SCI-Expanded)
- XXI. Effects of the planned ephesus recreational canal on freshwater-seawater interface in the Selcuk sub-basin, Izmir-Turkey  
Camur M. Z., Yazicigil H.  
ENVIRONMENTAL GEOLOGY, vol.48, pp.229-237, 2005 (SCI-Expanded)
- XXII. Investigation of safe and sustainable yields for the Sandy Complex aquifer system in the Ergene River basin, Thrace Region, Turkey  
OKTEN S., Yazicigil H.  
TURKISH JOURNAL OF EARTH SCIENCES, vol.14, no.2, pp.209-226, 2005 (SCI-Expanded)
- XXIII. Laboratory determination of multicomponent effective diffusion coefficients for heavy metals in a compacted clay  
Çamur M. Z., Yazicigil H.  
TURKISH JOURNAL OF EARTH SCIENCES, vol.14, pp.91-103, 2005 (SCI-Expanded)
- XXIV. Sustainable development and management of an aquifer system in western Turkey  
SAKIYAN J., Yazicigil H.  
HYDROGEOLOGY JOURNAL, vol.12, no.1, pp.66-80, 2004 (SCI-Expanded)
- XXV. Perspectives on Turkish ground water resources  
Yazicigil H., EKMEKÇİ M.  
GROUND WATER, vol.41, no.3, pp.290-291, 2003 (SCI-Expanded)
- XXVI. Optimal aquifer dewatering schemes for excavation of collector line  
TOKGOZ M., Yilmaz K. K., YAZICIGIL H.  
JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT-ASCE, vol.128, no.4, pp.248-261, 2002 (SCI-Expanded)
- XXVII. Hydrogeochemical evaluation of heavy metal loadings to waters and sediments by leachate: A case study from Gölbaşı waste disposal site, Ankara, Turkey  
Canpolat F., Çamur M. Z., Yazicigil H.  
International Geology Review, vol.43, pp.930-944, 2001 (SCI-Expanded)
- XXVIII. Hydrogeochemical modeling of waters in Mogan and Eymir lakes special environmental protection area, Ankara, Turkey  
Camur M. Z., Yazicigil H., ALTINBİLEK D.  
WATER ENVIRONMENT RESEARCH, vol.69, no.6, pp.1144-1153, 1997 (SCI-Expanded)

- XXIX. **Gölbaşı atık sahası yeraltısalarının hidrojeokimyası: İlk bulgular**  
 Canpolat F., Çamur M. Z., Yazıcıgil H.  
 Agenda, vol.50, pp.47-51, 1997 (AHCI)
- XXX. **Optimal Ground Water Pollution Plume Containment with Fixed Charges**  
 MISIRLI F., YAZICIGİL H.  
 Journal Of Water Resources Planning And Management-Asce, vol.123, pp.2-14, 1997 (SCI-Expanded)
- XXXI. **Numerical simulation of saltwater intrusion in a groundwater basin**  
 EMEKLI N., Karahanoglu N., Yazicigil H., DOYURAN V.  
 WATER ENVIRONMENT RESEARCH, vol.68, no.5, pp.855-866, 1996 (SCI-Expanded)
- XXXII. **Optimal management of a coastal aquifer in southern Turkey**  
 HALLAJI K., YAZICIGİL H.  
 Journal of Water Resources Planning and Management, vol.122, no.4, pp.233-244, 1996 (SCI-Expanded)
- XXXIII. **OPTIMAL CAPACITY-EXPANSION PLANNING IN MULTIAQUIFER SYSTEMS**  
 BASAGAOGLU H., YAZICIGIL H.  
 JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT-ASCE, vol.120, no.6, pp.836-856, 1994 (SCI-Expanded)
- XXXIV. **Optimal Planning and Operation of Multiaquifer System**  
 YAZICIGİL H.  
 Journal Of Water Resources Planning And Management-Asce, vol.116, pp.435-454, 1990 (SCI-Expanded)
- XXXV. **Numerical Modeling of a Multi Aquifer System in Eastern Saudi Arabia**  
 RASHEEDUDDIN M., YAZICIGİL H., ALLAYLA R. I.  
 Journal Of Hydrology, vol.107, pp.193-222, 1989 (SCI-Expanded)
- XXXVI. **Scenario Planning for Water Resources A Saudi Arabian Case Study**  
 DEJONG R. L., YAZICIGİL H., ALLAYLA R. I.  
 Water International, vol.14, pp.6-12, 1989 (SCI-Expanded)
- XXXVII. **Optimization Model for Groundwater Management in Multi Aquifer Systems**  
 YAZICIGİL H., RASHEEDUDDIN M.  
 Journal Of Water Resources Planning And Management-Asce, vol.113, pp.257-273, 1987 (SCI-Expanded)
- XXXVIII. **DAILY OPERATION OF A MULTIPURPOSE RESERVOIR SYSTEM**  
 YAZICIGİL H., HOUCK M. H., TOEBES G. H.  
 WATER RESOURCES RESEARCH, vol.19, no.1, pp.1-13, 1983 (SCI-Expanded)

## Books & Book Chapters

- I. **Surface Mining Environmental Monitoring and Reclamation Handbook**  
 SENDLEIN L. V., YAZICIGİL H., CARLSON C. C.  
 Elsevier Science Publishing Co, 1983
- II. **Geology**  
 YAZICIGİL H., SENDLEIN L. V.  
 in: In Surface Mining Environmental Monitoring and Reclamation Handbook, , Editor, Elsevier Science Publishing Co, 1983

## Refereed Congress / Symposium Publications in Proceedings

- I. **Application of Soil and water Assessment Tool (SWAT) Model to Estimate Water Budget in a Mine Area in Western Turkey**  
 ARGUNHAN Ç., YAZICIGİL H., YILMAZ K. K.  
 European Geosciences Union General Assembly (EGU), 9 - 13 April 2018
- II. **Temporary Dewatering of Groundwater at İzmir-Çigli Waste Water Treatment Plant Construction**

- Site**  
**YAZICIGİL H., DURU B.**  
IV. International Water Congress, Turkey, 2 - 04 November 2017, pp.543-554
- III. Dewatering Design for an Open Pit Coal Mine and Assessment of Anticipated Impacts on the Groundwater Resources**  
**YAZICIGİL H., PEKSEZER SAYIT A.**  
44th IAH Congress: Groundwater Heritage and Sustainability, 25 - 29 September 2017, pp.200
- IV. Water Resources Management for Water Security in the Future**  
**YAZICIGİL H.**  
2nd IWA Regional Symposium on Water, Wastewater and Environment, 22 - 24 March 2017
- V. Analyses of Lakes Mogan and Eymir Water Level Variations: Causes and Consequences**  
**YAĞBASAN Ö., YAZICIGİL H.**  
IWA 2nd Regional Symposium on Water, Wastewater and Environment, İzmir, Turkey, 22 - 24 March 2017, pp.765-773
- VI. Progressive Sinkhole Occurrence Induced by Dewatering Activities in a Large Lignite Mine SE Turkey**  
**EKMEKÇİ M., YAZICIGİL H.**  
International Mine Water Association 2016 -Mining Meets Water - Conflicts and Solutions, Leipzig, Germany, 11 - 15 July 2016, pp.486-493
- VII. Assessment of Performance for Alternative Cover Systems on a Waste Rock Storage Area**  
**ARGUNHAN Ç., YAZICIGİL H.**  
AGU Fall Meeting 2015, 14 - 18 December 2015
- VIII. Groundwater Impact assessment of Tailings Storage Facility Western Turkey**  
**PEKSEZER SAYIT A., YAZICIGİL H.**  
AGU Fall Meeting 2015, 14 - 18 December 2015
- IX. Kazan Trona Sahası sıg akifer sistemi yeraltısu dinamiğinin çevresel izotoplar ve asal gazlar ile incelenmesi**  
**ARSLAN Ş., YAZICIGİL H., STUTE M., SCHLOSSER P.**  
4. Ulusal Hidrolojide İzotop Teknikleri Sempozyumu, Turkey, 5 - 09 October 2015, pp.57-62
- X. Leakage of Mantle Helium into Groundwater of Kazan Trona Basin Ankara Turkey**  
**ARSLAN Ş., YAZICIGİL H., STUTE M., SCHLOSSER P., SMETHIE W. M.**  
42nd International Association of Hydrogeologists (IAH) Congress, 13 - 18 September 2015
- XI. Investigation of recharge and discharge mechanisms of a multi aquifer system using environmental isotopes**  
**ARSLAN Ş., YAZICIGİL H., SCHLOSSER P., STUTE M.**  
4th annual G@GPS International Workshop, Paleogroundwater from past and present glaciated areas, 5 - 09 July 2015
- XII. Feasibility Assessment of İçyenice Subsurface Dam Çankırı Using Mathematical Model**  
**APAYDIN A., DURU B., KAYA S., YAZICIGİL H.**  
68th Geological Congress of Turkey, Turkey, 6 - 10 April 2015, pp.196-197
- XIII. Potential Impacts of Climate Change on Turkish Water Resources: A Review**  
**YILMAZ K. K., YAZICIGİL H.**  
NATO Advanced Research Workshop on Effect of Climate Change on Water Resources - Issues of National and Global Security, İzmir, Turkey, 1 - 04 September 2010, pp.105-114
- XIV. Impacts of Decreasing Recharge Rates on Sustainable Groundwater Management**  
**YAZICIGİL H., YILMAZ K. K., ERDEMELİ B. U., Yagbasan O.**  
NATO Advanced Research Workshop on Effect of Climate Change on Water Resources - Issues of National and Global Security, İzmir, Turkey, 1 - 04 September 2010, pp.43-44
- XV. Geological and Geotechnical Evaluation of the Yenişehir Settlement Area Bursa Turkey**  
**DOYURAN V., TOPAL T., YAZICIGİL H., KARAHANOĞLU N., TOPRAK V., SÜZEN M. L., YESİLNAÇAR E.**  
Int. Symposium of the IAEG on "Engineering geological problems of urban areas, 30 July - 02 August 2001
- XVI. Experimental determination of hydrodynamic dispersion coefficients of heavy metals using**

### **compacted clay**

Çamur M. Z., Yazıcıgil H.

International Association of Hydrological Sciences Symposium, Maastricht, Netherlands, 18 - 27 July 2001, no.269, pp.283-286

XVII. **Contamination risk assessment for the aquifer in the K. Menderes River Basin, İzmir, Turkey**

Pusatlı Ö. T., Çamur M. Z., Yazıcıgil H.

International Association of Hydrological Sciences Symposium, California, United States Of America, 18 - 27 April 2000, no.272, pp.425-430

XVIII. **Leachate hydrogeochemistry at Gölbaşı municipal waste disposal area, Ankara, Turkey**

Canpolat F., Çamur M. Z., Yazıcıgil H.

International Symposium on Geology and Environment, İstanbul, Turkey, 1 - 05 September 1997, pp.38

### **Expert Reports**

I. **Keçelipınar Mevkii'ndeki kaynak suyunun Mengen Belediyesi'ne içme suyu olarak kullanılmak üzere tahsisisi**

YAZICIGİL H., ÇAMUR M. Z., Kurtulmuş İ.

Danıştay 8. Daire, pp.10, Ankara, 2007

### **Metrics**

Publication: 64

Citation (WoS): 340

Citation (Scopus): 343

H-Index (WoS): 10

H-Index (Scopus): 10

### **Non Academic Experience**

PURDUE UNIVERSITY

Iowa State University Engineering Research Institute

General Directorate of Highway