

## Prof. AHMET İRVEM

### Personal Information

**Email:** airvem@mku.edu.tr

**Other Email:** airvem@gmail.com

**Web:** <https://avesis.mku.edu.tr/airvem>

### International Researcher IDs

ScholarID: ohnulOEAAAAJ

ORCID: 0000-0002-3838-1924

Publons / Web Of Science ResearcherID: JAC-4348-2023

ScopusID: 6507739827

Yoksis Researcher ID: 40905

### Education Information

Doctorate, Cukurova University, Ziraat Fakültesi, Tarımsal Yapılar Ve Sulama, Turkey 1998 - 2003

Postgraduate, Ohio State University, College of Food, Agricultural, and Environmental Sciences, Food Agricultural and Biological Engineering, United States Of America 1994 - 1997

Undergraduate, Cukurova University, Ziraat Fakültesi, Tarımsal Yapılar Ve Sulama, Turkey 1986 - 1990

### Foreign Languages

English

### Dissertations

Doctorate, Coğrafi bilgi sistemi ile toprak kaybı ve sediment verimi tahmin modelinin (EST) oluşturulması ve Seyhan-Körkün alt havzasına uygulanması, Cukurova University, Fen Bilimleri Enstitüsü, 2003

### Research Areas

Agriculture, Geographic Information Systems, Land Information Systems, Remote sensing, Engineering and Technology

### Academic Titles / Tasks

Professor, Hatay Mustafa Kemal University, Ziraat Fakültesi, Biyosistem Mühendisliği, 2020 - Continues

Associate Professor, Hatay Mustafa Kemal University, Ziraat Fakültesi, Biyosistem Mühendisliği, 2014 - 2020

Assistant Professor, Hatay Mustafa Kemal University, Ziraat Fakültesi, Biyosistem Mühendisliği, 2004 - 2014

Research Assistant, Hatay Mustafa Kemal University, Ziraat Fakültesi, Biyosistem Mühendisliği, 1993 - 2004

### Academic and Administrative Experience

## Courses

Calculus-II, Undergraduate, 2024 - 2025, 2023 - 2024, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Agricultural structures, Undergraduate, 2024 - 2025

Hydrology, Undergraduate, 2024 - 2025

## Advising Theses

İrvem A., Hatay ilinde çok ölçütlü karar analizi yöntemini kullanarak yangın havuzları ve göletleri için uygun yerlerin belirlenmesi, Postgraduate, M.ÇEVİK(Student), 2024

İrvem A., Hatay ilinde muz serası yapımına uygun alanların çok ölçütlü mekansal değerlendirme yöntemi ile belirlenmesi, Postgraduate, H.SAĞLAM(Student), 2024

İRDEM A., İklim değişikliğinin Kırıkhan sulama sahasında bitkisel üretime etkisi, Doctorate, M.ÖZBULDU(Student), 2023

İRDEM A., Küçük Asi kanalının Amik ovası taşkınlarındaki etkinliğinin modellenerek incelenmesi, Postgraduate, M.ŞAH(Student), 2022

İRDEM A., Hatay ilindeki göletlerin hazne hacimlerinin coğrafi bilgi sistemleri ile belirlenmesi, Postgraduate, A.NİSA(Student), 2020

İRDEM A., Kurak koşullarda optimum ürün deseni modelinin geliştirilmesi ve Kırıkhan sulama sahasında uygulanması, Postgraduate, M.ERHAN(Student), 2020

İRDEM A., Antakya Altınçay deresinin hec-ras yazılımı ile taşkın analizi, Postgraduate, İ.DAĞ(Student), 2019

İRDEM A., Antakya'da taşkına neden olan yan derelerde hidrograf analizi ile taşkın tahmini, Postgraduate, İ.GEVREK(Student), 2016

İRDEM A., Doğu Akdeniz bölgesinde yağışların trend ve kurak dönem analizleri, Postgraduate, A.SAĞLAMOĞLU(Student), 2016

İRDEM A., Hatay ili yüzey akış potansiyelinin coğrafi bilgi sistemleri ile belirlenmesi, Postgraduate, M.AKİF(Student), 2015

İRDEM A., Coğrafi bilgi sistemleri ile havza morfolojik özelliklerinin belirlenmesi ve havza sediment verimi tahmininde kullanımı, Postgraduate, E.VAROL(Student), 2012

İRDEM A., Mustafa Kemal Üniversitesi çevresinde uygun gölet yerlerinin coğrafi bilgi sistemi ile belirlenmesi, Postgraduate, M.TAŞKIN(Student), 2009

## Jury Memberships

Appointment to Academic Staff - Associate Professorship, Appointment to Academic Staff - Associate Professorship, Hatay Mustafa Kemal Üniversitesi, December, 2023

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

- Projecting and Downscaling Future Temperature and Precipitation Based on CMIP6 Models Using Machine Learning in Hatay Province, Türkiye**  
Ozbuldu M., İrvem A.  
PURE AND APPLIED GEOPHYSICS, vol.1, no.1, pp.1-18, 2025 (SCI-Expanded)
- Evaluation of Climate Change Impacts on Maize and Cotton Yields Under Different Climate Scenarios in Kırıkhan District, Türkiye**  
Ozbuldu M., İrvem A.  
INTERNATIONAL JOURNAL OF PLANT PRODUCTION, vol.1, no.1, pp.1-17, 2024 (SCI-Expanded)

- III. **Assessment of seven different global climate models for historical temperature and precipitation in Hatay, Türkiye**  
Özbuldu M., İrvem A.  
International Journal of Environmental Science and Technology, 2024 (SCI-Expanded)
- IV. **Downscaling of the Land Surface Temperature Data Obtained at four Different Dates in a Year Using the GWR Model: A Case Study in Antakya, Turkey**  
İRDEM A., ÖZBULDU M.  
Journal of the Indian Society of Remote Sensing, vol.51, no.6, pp.1241-1252, 2023 (SCI-Expanded)
- V. **Evaluation of the performance of CFSR reanalysis data set for estimating reference evapotranspiration (ET<sub>0</sub>) in Turkey**  
İRDEM A., ÖZBULDU M.  
Italian Journal of Agrometeorology, vol.2022, no.2, pp.49-61, 2022 (SCI-Expanded)
- VI. **Evaluating the effect of the statistical downscaling method on monthly precipitation estimates of global climate models**  
ÖZBULDU M., İRVEM A.  
Global Nest Journal, vol.23, no.2, pp.232-240, 2021 (SCI-Expanded)
- VII. **Pixel size effects on dam water storage capacity estimation using GIS: Case study of büyük karacay dam, Turkey**  
İRDEM A.  
Fresenius Environmental Bulletin, vol.29, no.7, pp.6338-6343, 2020 (SCI-Expanded)
- VIII. **Evaluation of flood simulation for zeyzoun dam-break in Syria using hec-ras model**  
İRDEM A., ÖZBULDU M.  
Fresenius Environmental Bulletin, vol.29, no.2, pp.1250-1255, 2020 (SCI-Expanded)
- IX. **Regional drought analysis for the eastern mediterranean region of Turkey using run and spi method**  
Saglamoglu A., İRVEM A.  
Fresenius Environmental Bulletin, vol.29, no.2, pp.1256-1262, 2020 (SCI-Expanded)
- X. **Potential of kernel and tree-based machine-learning models for estimating missing data of rainfall**  
Sattari M. T., Falsafian K., İRVEM A., S S., Qasem S. N.  
Engineering Applications of Computational Fluid Mechanics, vol.14, no.1, pp.1078-1094, 2020 (SCI-Expanded)
- XI. **Evaluation of Satellite and Reanalysis Precipitation Products Using GIS for All Basins in Turkey**  
İRDEM A., ÖZBULDU M.  
Advances in Meteorology, vol.2019, 2019 (SCI-Expanded)
- XII. **Evaluating the impact of land use uncertainty on the simulated streamflow and sediment yield of the Seyhan River basin using the SWAT model**  
El-Sadek A., İRVEM A.  
Turkish Journal of Agriculture and Forestry, vol.38, no.4, pp.515-530, 2014 (SCI-Expanded)
- XIII. **Re-evaluation of trends in annual streamflows of Turkish rivers for the period 1968-2007**  
TOPALOĞLU F., İRVEM A., Özfıdaner M.  
Fresenius Environmental Bulletin, vol.21, no.8, pp.2043-2050, 2012 (SCI-Expanded)
- XIV. **Trends in Turkish monthly mean streamflow**  
İRDEM A., TOPALOĞLU F., Özfıdaner M.  
Journal of Food, Agriculture and Environment, vol.10, no.3-4, pp.900-904, 2012 (SCI-Expanded)
- XV. **Identification of flood risk area in the Orontes river basin, Turkey, using multi-criteria decision analyses**  
İRDEM A., TOPALOĞLU F.  
Journal of Food, Agriculture and Environment, vol.10, no.3-4, pp.895-899, 2012 (SCI-Expanded)
- XVI. **Mapping of total nitrogen, available phosphorous and potassium in Amik plain, Turkey**  
Uygur V., İRVEM A., KARANLIK S., AKIŞ R.  
Environmental Earth Sciences, vol.59, no.5, pp.1129-1138, 2010 (SCI-Expanded)
- XVII. **Estimating spatial distribution of soil loss over Seyhan River Basin in Turkey**  
İRDEM A., TOPALOĞLU F., Uygur V.

## Articles Published in Other Journals

- I. **Flood analysis using the HEC-RAS software for Antakya Altınçay Creek**  
İrvem A., Dağ İ., Özbuldu M.  
MUSTAFA KEMAL UNIVERSITY JOURNAL OF AGRICULTURAL SCIENCES (MKUJAS), vol.29, no.3, pp.912-924, 2024  
(Peer-Reviewed Journal)
- II. **Coğrafi Bilgi Sistemleri ile havza morfolojik özelliklerinin belirlenmesi ve havza sediment verimi tahmininde kullanımı**  
VAROL E., İRVEM A.  
MUSTAFA KEMAL UNIVERSITY JOURNAL OF AGRICULTURAL SCIENCES (MKUJAS), vol.28, no.1, pp.1-10, 2023  
(Peer-Reviewed Journal)
- III. **Determining surface run-off potential using Geographic Information Systems for Hatay province, Turkey**  
Keskinkılıç M. A., IRVEM A.  
Mustafa Kemal Üniversitesi tarım bilimleri dergisi (online), vol.27, no.3, pp.457-468, 2022 (Peer-Reviewed Journal)
- IV. **Estimation of flood using hydrograph analysis of creeks causing of floods in Antakya**  
GEVREK I., IRVEM A.  
Mustafa Kemal Üniversitesi tarım bilimleri dergisi (online), vol.26, no.3, pp.533-542, 2021 (Peer-Reviewed Journal)
- V. **Determining reservoir water volume of ponds in Hatay province using Geographic Information Systems**  
Toper A. N., IRVEM A.  
Mustafa Kemal Üniversitesi tarım bilimleri dergisi (online), vol.26, no.2, pp.452-460, 2021 (Peer-Reviewed Journal)
- VI. **Türkiye'nin Muğla İli için SYİ Yöntemi ile Kurak Dönem Analizi**  
İRVEM A., ÖZBULDU M.  
MUSTAFA KEMAL UNIVERSITY JOURNAL OF AGRICULTURAL SCIENCES (MKUJAS), vol.1, no.24, pp.142-148, 2019  
(Peer-Reviewed Journal)
- VII. **Estimation of monthly precipitation based on machine learning methods by using meteorological variables**  
Shaker sureh f., SATTARI M. T., IRVEM A.  
Mustafa Kemal Üniversitesi tarım bilimleri dergisi (online), vol.24, no.1, pp.149-154, 2019 (Peer-Reviewed Journal)
- VIII. **Seyhan Göksu-Himmetli Alt-Havzasının Akım Verileri ile Kuraklık Analizi**  
İRVEM A., ÖZBULDU M., ÇIPLAK C.  
MUSTAFA KEMAL UNIVERSITY JOURNAL OF AGRICULTURAL SCIENCES (MKUJAS), vol.23, no.2, pp.148-157, 2018  
(Peer-Reviewed Journal)
- IX. **Kırıkhan İlçesindeki Taban Suyu Derinliğindeki Değişimin CBS ile Analizi**  
İRVEM A., ASİL H., ÖZBULDU M.  
MUSTAFA KEMAL UNIVERSITY JOURNAL OF AGRICULTURAL SCIENCES (MKUJAS), vol.23, no.2, pp.158-164, 2018  
(Peer-Reviewed Journal)
- X. **Coğrafi Bilgi Sistemlerini Kullanarak Küçük Havzalarda Hidroelektrik Potansiyelinin Belirlenmesi: Türkiye'xxde Tahtaköprü Çayı Örneği**  
İRVEM A., ÖZBULDU M.  
Çukurova Tarım ve Gıda bilimleri dergisi (Online), vol.33, no.2, pp.147-156, 2018 (Peer-Reviewed Journal)
- XI. **Evaluation of Streamflow Simulation By SWAT Model for The Seyhan River Basin**  
İRVEM A., ELSADEK A.  
Çukurova Tarım ve Gıda bilimleri dergisi (Online), vol.33, no.2, pp.99-110, 2018 (Peer-Reviewed Journal)
- XII. **Accuracy of Satellite-Based Solar Data to Estimate Solar Energy Potential for Hatay Province, Turkey**  
İRVEM A., ÖZBULDU M.  
Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, vol.7, no.2, pp.361-369, 2018 (Peer-Reviewed Journal)

- XIII. **Ekmeklik Buğday Genotiplerinin Değişik Fizyolojik Dönemlerde Oluşturulan Tuz Stresine Tepkilerinin Belirlenmesi**  
ATAK M., ATIŞ İ., UYGUR V., ERAYMAN M., İRVEM A.  
MUSTAFA KEMAL UNIVERSITY JOURNAL OF AGRICULTURAL SCIENCES (MKUJAS), vol.20, no.1, pp.31-42, 2015  
(Peer-Reviewed Journal)
- XIV. **Application of GIS to Determine Storage Volume and Surface Area of Reservoirs: The Case Study of Buyuk Karacay Dam**  
İRVEM A.  
International Journal of Natural and Engineering Sciences, vol.5, no.1, pp.39-43, 2010 (Peer-Reviewed Journal)
- XV. **Determinig flood quantiles by flood frepency analysis: A case study in the Seyhan watershed**  
TOPALOĞLU F., İRVEM A., YÜCEL A., TÜLÜCÜ K.  
Mustafa Kemal Üniversitesi Ziraat Fakültesi Dergisi, vol.8, no.1-2, pp.73-82, 2003 (Peer-Reviewed Journal)
- XVI. **Transpiration of container-grown Acer Rubrum under conditions of high evaporative demand**  
Short T., İRVEM A., Hansen R.  
Applied Engineering in Agriculture, vol.15, no.5, pp.553-557, 1999 (Scopus)
- XVII. **Transpiration of container-grown *Acer rubrum* under conditions of high evaporative demand**  
Short T., İRVEM A., Hansen R.  
APPLIED ENGINEERING IN AGRICULTURE, vol.15, no.5, pp.553-557, 1999 (Scopus)

## Refereed Congress / Symposium Publications in Proceedings

- I. **The effect of minimum drainage length for calculation of stream order and bifurcation ratio for sub-basins in the upper Seyhan River Basin in Turkey**  
İRVEM A., GÜMÜŞ Z., ÖZBULDU M.  
1.International, 14. Natioanl Congress on Agricultural and Irrigation, Antalya, Turkey, 26 - 28 September 2018, pp.30-38
- II. **Accuracy of satellite-based monthly CFSR precipitation and temperature data for the East Mediterranean Region, Turkey**  
İRVEM A., ÖZBULDU M.  
1. International , 14. National congress on Agricultural structures and Irrigation, 26 - 28 September 2018
- III. **Dynamic transpiration of highly-stressed container-grown Acer Rubrum**  
Short T. H., İRVEM A., Hansen R. C.  
Proceedings of the 1997 ASAE Annual International Meeting. Part 1 (of 3), Minneapolis, MN, USA, 10 - 14 August 1997, vol.3

## Supported Projects

- İRVEM A., Project Supported by Higher Education Institutions, MKÜ çevresinde uygun gölet yerlerinin CBS ile belirlenmesi, 2007 - Continues
- İRVEM A., ÖZBULDU M., Project Supported by Higher Education Institutions, İklim Değişikliğinin Kırıkhan Sulama Sahasında Bitkisel Üretime Etkisinin Belirlenmesi, 2020 - 2022
- İRVEM A., KAHYA M. E., Project Supported by Higher Education Institutions, Kurak Koşullarda Optimum Ürün Deseni Modelinin Geliştirilmesi ve Kırıkhan Sulama Sahasında Uygulanması, 2018 - 2019
- İRVEM A., Project Supported by Higher Education Institutions, Antakya Altınçay Deresinin HEC-RAS Yazılımı İle Taşkın Analizi, 2018 - 2019
- İRVEM A., KONUSKAN Ö., GÖZÜBENLİ H., Project Supported by Higher Education Institutions, Hatay Koşullarında II Ürün Mısır Tarımında Su Üretim Fonksiyonunun Belirlenmesi, 2007 - 2009
- ŞENER O., ÜNLÜ İ., SOYLU S., İRVEM A., ERAYMAN M., UYGUR V., KILINÇ M., TUBITAK Project, Bazı ekmeklik

genotiplerinin su baskınına tolerans derecelerinin belirlenmesi ve su baskını stresine dayanıklılık mekanizmalarının belirlenmesi, 2004 - 2007

İRDEM A., DONMA S., ATILLA Ö., GÜRKAN D., YALÇINKAYA O., NAMKHAI O., SOYLU M. E., AKYATAN A., PELEN N., TOPALOĞLU F., et al., Assessment of climate change impacts on water resources of Seyhan River Basin. The Research Project on the Impact of Climate Changes on Agricultural Production System in Arid Areas, 2002 - 2007

## **Activities in Scientific Journals**

MUSTAFA KEMAL UNIVERSITY JOURNAL OF AGRICULTURAL SCIENCES (MKUJAS), Editor, 2024 - Continues

## **Scientific Refereeing**

HYDROLOGICAL SCIENCES JOURNAL, Other journals, July 2024

ARID LAND RESEARCH AND MANAGEMENT, Other journals, July 2024

TURKISH JOURNAL OF AGRICULTURE AND FORESTRY, Other journals, July 2024

Other journals, July 2024

JOURNAL OF HYDROLOGY, Other journals, July 2024

NATURAL HAZARDS, Other journals, January 2017

WATER RESOURCES MANAGEMENT, Other journals, January 2017

TARIM BİLİMLERİ DERGİSİ, Other journals, January 2017

TARIM BİLİMLERİ DERGİSİ, Other journals, January 2015

## **Metrics**

Publication: 38

Citation (Scopus): 215

H-Index (Scopus): 4