

## Asst. Prof. MEHMET BÜLENT ERCAN

### Personal Information

**Email:** bulentercan@inonu.edu.tr

**Web:** <http://www.mehmetbercan.com>

### International Researcher IDs

ScholarID: 8o\_NSgIAAAAJ

ORCID: 0000-0002-6799-8990

Publons / Web Of Science ResearcherID: ABG-8062-2020

ScopusID: 55062201900

Yoksis Researcher ID: 262974

### Biography

Mehmet Ercan holds his Master of Science and Doctor of Philosophy degrees from the University of South Carolina where his research interests were in water resources, focusing particularly on building hydrologic and hydraulic models to implement effective best management practices. During his study he prepared model calibration algorithms and developed a technique for combining gauge and radar precipitations. He also studied current and future water resources of a large river basin in NC using Soil and Water Assessment Tool (SWAT).

### Education Information

Doctorate, University of South Carolina, Üretim Yönetimi Ve Pazarlama Anabilim Dalı, İnşaat/Hidrolik, United States Of America 2011 - 2015

Postgraduate, University of South Carolina, Üretim Yönetimi Ve Pazarlama Anabilim Dalı, İnşaat/Hidrolik, United States Of America 2009 - 2011

Undergraduate, Inonu University, Mühendislik Fakültesi, İnşaat, Turkey 2001 - 2005

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Soil and Water Assessment Tool (SWAT) Kalibrasyonu için Programlama Yöntemleri Geliştirilmesi: Kuzey Carolina Yukarı Neuse Havzası Su Kaynakları Üzerindeki İklim Değişikliği Etkileri Çalışması, University of South Carolina, Mühendislik Fakültesi, İnşaat/Hidrolik, 2015

Postgraduate, Arazi Ölçümü ve Radardan Gözlemlerinin Birleştirilerek Havza Yağmur Verisinin Tahmini, University of South Carolina, Mühendislik Fakültesi, İnşaat/Hidrolik, 2011

### Research Areas

Civil Engineering, Hydraulic, Surface Water Engineering, Hydrology, Engineering and Technology

## Academic Titles / Tasks

Assistant Professor, Inonu University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2018 - Continues

Assistant Professor, Inonu University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2017 - 2018

Research Assistant PhD, Inonu University, Mühendislik Fakültesi, İnşaat, 2017 - 2017

Research Assistant, University of South Carolina, Üretim Yönetimi Ve Pazarlama Anabilim Dalı, İnşaat, 2009 - 2015

## Courses

Computer Supported Hydraulic Design (Sewer), Undergraduate, 2022 - 2023

Hidroloji, Undergraduate, 2018-2019

Su Yapıları, Undergraduate, 2018-2019

Tasarım İ.Ö., Undergraduate, 2018-2019

Hidroloji İ.Ö., Undergraduate, 2018-2019

Laboratuvar, Undergraduate, 2018-2019

İstatistik ve Olasılık N.Ö., Undergraduate, 2017 - 2018

İstatistik ve Olasılık İ.Ö., Undergraduate, 2017 - 2018

Cografi Bilgi Sistemlerine Giriş, Undergraduate Double Major, 2018-2019

Tasarım, Undergraduate, 2018-2019

Laboratuvar İ.Ö., Undergraduate, 2018-2019

Laboratuvar N.Ö., Undergraduate, 2017 - 2018

Hidroloji N.Ö., Undergraduate, 2017 - 2018

Hidroloji İ.Ö., Undergraduate, 2017 - 2018

Tasarım N.Ö., Undergraduate, 2017 - 2018

Laboratuvar İ.Ö., Undergraduate, 2017 - 2018

Su Yapıları İ.Ö., Undergraduate, 2018-2019

Tasarım İ.Ö., Undergraduate, 2017 - 2018

Laboratuvar, Undergraduate, 2017-2018

İstatistik ve Olasılık N.Ö., Undergraduate, 2017-2018

Hidroloji İ.Ö., Undergraduate, 2017-2018

Hidroloji, Undergraduate, 2017-2018

Tasarım, Undergraduate, 2017-2018

Laboratuvar İ.Ö., Undergraduate, 2017-2018

Tasarım İ.Ö., Undergraduate, 2017-2018

İstatistik ve Olasılık İ.Ö., Undergraduate, 2017-2018

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

- I. **Estimating Potential Climate Change Effects on the Upper Neuse Watershed Water Balance Using the SWAT Model**  
Ercan M. B., Maghami I., Bowes B., Morsy M. M., Goodall J. L.  
JOURNAL OF THE AMERICAN WATER RESOURCES ASSOCIATION, vol.56, no.1, pp.53-67, 2020 (SCI-Expanded)
- II. **Using Geospatial Analysis and Hydrologic Modeling to Estimate Climate Change Impacts on Nitrogen Export: Case Study for a Forest and Pasture Dominated Watershed in North Carolina**  
Alam M. J., Ercan M. B., Zahura F. T., Goodall J. L.  
ISPRS INTERNATIONAL JOURNAL OF GEO-INFORMATION, vol.7, no.7, 2018 (SCI-Expanded)
- III. **Design and implementation of a general software library for using NSGA-II with SWAT for multi-objective model calibration**  
Ercan M. B., Goodall J. L.

- ENVIRONMENTAL MODELLING & SOFTWARE, vol.84, pp.112-120, 2016 (SCI-Expanded)
- IV. **Calibration of SWAT models using the cloud**  
 Ercan M. B., Goodall J. L., CASTRONOVA A. M., Humphrey M., Beekwilder N.  
 ENVIRONMENTAL MODELLING & SOFTWARE, vol.62, pp.188-196, 2014 (SCI-Expanded)
- V. **Estimating Watershed-Scale Precipitation by Combining Gauge- and Radar-Derived Observations**  
 Ercan M. B., Goodall J. L.  
 JOURNAL OF HYDROLOGIC ENGINEERING, vol.18, no.8, pp.983-994, 2013 (SCI-Expanded)
- VI. **Coupling climate and hydrological models: Interoperability through Web Services**  
 Goodall J. L., SAINT K. D., Ercan M. B., BRILEY L. J., MURPHY S., YOU H., DELUCA C., ROOD R. B.  
 ENVIRONMENTAL MODELLING & SOFTWARE, vol.46, pp.250-259, 2013 (SCI-Expanded)
- VII. **Integrated modeling within a Hydrologic Information System: An OpenMI based approach**  
 Castronova A. M., Goodall J. L., Ercan M. B.  
 ENVIRONMENTAL MODELLING & SOFTWARE, vol.39, pp.263-273, 2013 (SCI-Expanded)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Use of ArcPy Library for Validating GIS Networks**  
 ERCAN M. B., Kaatz J., Sutton D., Elliott D.  
 ESRI User Conference, San Diego, Ca, United States Of America, 27 June - 01 July 2016, pp.1
- II. **An ArcGIS Tool for Geographic Address Verification**  
 ERCAN M. B., Meunier B.  
 ESRI User Conference, San Diego, Ca, United States Of America, 27 June - 01 July 2016, pp.1
- III. **An ArcGIS tool for validating GIS Networks**  
 ERCAN M. B., Kaatz J., Wolf T., Rubchinskaya E., Sutton D.  
 108th Indiana Section AWWA Annual Conference, Indianapolis, In, United States Of America, 25 - 28 January 2016, pp.1
- IV. **Use of TRMM and GPM multisatellite precipitation data for hydrological modeling**  
 Lakshmi V., ERCAN M. B.  
 JAXA Workshop on the Precipitation Measurement Mission, Tokyo, Japan, 18 - 22 January 2016, pp.1
- V. **Use of TRMM and GPM multi-satellite precipitation data for hydrological modeling**  
 ERCAN M. B., Lakshmi V., Jackson G. S., Huffman G. J.  
 2015 Fall Meeting, AGU, San Francisco, Ca, United States Of America, 14 - 18 December 2015, pp.1
- VI. **A Python Tool for Multi-Gage Calibration of SWAT Models using the NSGA-II Algorithm**  
 Ercan M., Goodall J.  
 International Environmental Modelling and Software Society, San Diego, Ca, United States Of America, 15 - 19 June 2014, vol.4, pp.2325-2331
- VII. **Using the cloud to speed-up calibration of watershed-scale hydrologic models**  
 Goodall J. L., ERCAN M. B., Castronova A., Humphrey M., Beekwilder N., Steele J., Kim I.  
 2013 Fall Meeting, AGU, San Francisco, Ca, United States Of America, 3 - 07 December 2013, pp.1
- VIII. **An approach to coupled climatehydrologic interactions that preserves disciplinary communities, infrastructure, and information delivery systems**  
 Saint K. D., Goodall J. L., ERCAN M. B., Rood R. B., Briley L., Murphy S., You H., DeLuca C.  
 2013 Fall Meeting, AGU, San Francisco, Ca, United States Of America, 3 - 07 December 2013, pp.1
- IX. **Service-oriented approach to coupling Earth System Models and modeling frameworks**  
 ERCAN M. B., Goodall J. L., Saint K. D., Briley L. J., Murphy S., You H., DeLuca C., Rood R. B.  
 2012 Fall Meeting, AGU, San Francisco, Ca, United States Of America, 3 - 07 December 2012, pp.1
- X. **Calibration of Watershed Models using Cloud Computing**  
 Humphrey M., Beekwilder N., Goodall J. L., Ercan M. B.  
 IEEE 8th International Conference on E-Science (e-Science), Illinois, United States Of America, 8 - 12 October 2012
- XI. **Estimating precipitation input to a watershed by combining gauge and radar derived observations**

ERCAN M. B., Goodall J. L.

2011 Fall Meeting, San Francisco, Ca, United States Of America, 5 - 07 December 2011, pp.1

**XII. An integrated modeling environment within the CUAHSI Hydrologic Information System**

Goodall J. L., Castronova A. M., Elag M., ERCAN M. B.

2010 Fall Meeting, AGU, San Francisco, Ca, United States Of America, 13 - 17 December 2010, pp.1

## **Memberships / Tasks in Scientific Organizations**

The International Environmental Modelling & Software Society, Member, 2014 - Continues

Environmental & Water Resources Institute, Member, 2014 - Continues

American Geophysical Union, Member, 2010 - Continues

American Society of Civil Engineers, Member, 2010 - Continues

İnşaat Mühendisleri Odası, Member, 2005 - Continues

## **Scientific Refereeing**

Environmental Earth Sciences, SCI Journal, May 2017

Environmental Earth Sciences, SCI Journal, November 2016

Journal of Hydrology, SCI Journal, December 2015

Environmental Science and Pollution Research, SCI Journal, June 2015

Water Research, SCI Journal, June 2015

Journal of Hydrology, SCI Journal, April 2015

Environmental Modelling & Software, SCI Journal, November 2014

## **Metrics**

Publication: 21

Citation (WoS): 120

Citation (Scopus): 152

H-Index (WoS): 5

H-Index (Scopus): 6