

## Asst. Prof. MEHMET BÜLENT ERCAN

### Personal Information

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

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### International Researcher IDs

ScholarID: 8o\_NSgIAAAAJ

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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 Mühendisliği, 2017 - 2017  
Research Assistant, University of South Carolina, Molinaroli College of Engineering and Computing, İnşaat ve Çevre Mühendisliği, 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  
Coğrafi 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. **Yapay Zeka ile Atıksu Toplama Sistemlerinde Grafik Okunarak Katı Madde Birikiminin Belirlenmesi**  
Ercan M. B.  
XII. Ulusal Hidroloji Kongresi, Samsun, Turkey, 16 - 19 October 2024, vol.2, no.12, pp.173-179
- 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. **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
- IV. **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
- V. **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
- VI. **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
- VII. **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
- VIII. **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
- IX. **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
- X. **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

- XI. **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
- XII. **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
- XIII. **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: 22  
Citation (WoS): 120  
Citation (Scopus): 152  
H-Index (WoS): 5  
H-Index (Scopus): 6