

## **Assoc. Prof. Filiz Bektaş Balçık**

### **Personal Information**

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**Address:** İTÜ İnşaat Fakültesi Geomatik Müh. Bölümü 34469 Maslak İstanbul

### **International Researcher IDs**

ORCID: 0000-0003-3039-6846

Publons / Web Of Science ResearcherID: ABB-1421-2020

ScopusID: 15062553600

Yoksis Researcher ID: 115334

### **Education Information**

Doctorate, İstanbul Technical University, İnşaat Fakültesi, Geomatik Mühendisliği Bölümü, Turkey 2003 - 2010

Postgraduate, İstanbul Technical University, İnşaat Fakültesi, Jeodezi Ve Fotogrametri Mühendisliği Bölümü, Turkey 2000 - 2003

Undergraduate, Yıldız Technical University, Faculty Of Civil Engineering, Jeodezi Ve Fotogrametri Mühendisliği Bölümü, Turkey 1995 - 2000

### **Foreign Languages**

English

### **Dissertations**

Doctorate, Mapping and monitoring wetland environment by analysis different satellite images and field spectroscopy, İstanbul Teknik Üniversitesi, İnşaat Fakültesi, Geomatik Mühendisliği Bölümü, 2010

Postgraduate, Uzaktan Algılama ve Coğrafi Bilgi Sistemi Entegrasyonu 'Gökçeada & Bozcaada Örneği', İstanbul Teknik Üniversitesi, İnşaat Fakültesi, Jeodezi Ve Fotogrametri Mühendisliği Bölümü, 2003

### **Research Areas**

Atmospheric Sciences and Meteorological Engineering, Climate, Geotechnical Engineering, Geographic Information Systems, Remote sensing, Image Processing, Engineering and Technology

### **Academic Titles / Tasks**

Associate Professor, İstanbul Technical University, İnşaat, Geomatik Mühendisliği, 2015 - Continues

Assistant Professor, İstanbul Technical University, İnşaat, Geomatik Mühendisliği, 2012 - 2022

Research Assistant, İstanbul Technical University, İnşaat, Geomatik Mühendisliği, 2002 - 2012

## **Academic and Administrative Experience**

Erasmus Program Institutional Coordinator, Istanbul Technical University, Geomatik Mühendisliği Bölümü, 2012 - 2022

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

- I. **Assessing Phenological Shifts of Deciduous Forests in Turkey under Climate Change: An Assessment for *Fagus orientalis* with Daily MODIS Data for 19 Years**  
Şenel T., Kanmaz O., Bektaş Balçık F., AVCI M., Dalfes H. N.  
Forests, vol.14, no.2, 2023 (SCI-Expanded)
- II. **Monitoring Drought Dynamics Using Remote Sensing Based Combined Drought Index in Ergene Basin, Türkiye**  
Gümüş K. A., Bektaş Balçık F., Esetlili M. T., Kahya C.  
OPEN GEOSCIENCES, vol.15, pp.1-15, 2023 (SCI-Expanded)
- III. **Assessment of Spatio-Temporal Changes in Water Surface Extents and Lake Surface Temperatures Using Google Earth Engine for Lakes Region, Türkiye**  
Albarqouni M. M. Y., Yağmur N., Bektaş Balçık F., Sekertekin A.  
ISPRS INTERNATIONAL JOURNAL OF GEO-INFORMATION, vol.11, no.7, 2022 (SCI-Expanded)
- IV. **Burned Area Detection Using Multi-Sensor SAR, Optical, and Thermal Data in Mediterranean Pine Forest**  
ABDİKAN S., BAYIK Ç., Sekertekin A., Bektaş Balçık F., Karimzadeh S., Matsuoka M., BALIK ŞANLI F.  
FORESTS, vol.13, no.2, 2022 (SCI-Expanded)
- V. **Validation of MODIS C6.1 and MERRA-2 AOD Using AERONET Observations: A Comparative Study over Turkey**  
Aldabash M., Bektaş Balçık F., Glantz P.  
ATMOSPHERE, vol.11, no.9, 2020 (SCI-Expanded)
- VI. **CAN REMOTE SENSING AND SEBAL FILL THE GAP ON EVAPOTRANSPIRATION? A CASE STUDY: KUNDUZ CATCHMENT, AFGHANISTAN**  
Frahmand A. S., Akyuz D. E., Sanlı F. B., Bektaş Balçık F.  
JOURNAL OF ENVIRONMENTAL PROTECTION AND ECOLOGY, vol.21, no.2, pp.423-432, 2020 (SCI-Expanded)
- VII. **Object-Based Classification of Greenhouses Using Sentinel-2 MSI and SPOT-7 Images: A Case Study from Anamur (Mersin), Turkey**  
Bektaş Balçık F., Senel G., Göksel Ç.  
IEEE JOURNAL OF SELECTED TOPICS IN APPLIED EARTH OBSERVATIONS AND REMOTE SENSING, vol.13, pp.2769-2777, 2020 (SCI-Expanded)
- VIII. **MAPPING ISTANBUL QUARRY MINING REGION USING LANDSAT 8 OLI&TIRS DATA**  
Bektaş Balçık F., Topaloğlu R. H., Göksel Ç.  
FRESENIUS ENVIRONMENTAL BULLETIN, vol.28, pp.999-1004, 2019 (SCI-Expanded)
- IX. **GEOGRAPHIC DISTRIBUTION AND EXPANSION OF HEPATITIS A AND A DYSENTERY CASES IN BLACK SEA CATCHMENT REGION IN TURKEY**  
Doğru A. Ö., Uluğtekin N. N., Göksel Ç., Bektaş Balçık F., Alkoy S., Sözen S.  
FRESENIUS ENVIRONMENTAL BULLETIN, vol.28, pp.554-560, 2019 (SCI-Expanded)
- X. **Evaluation of Land Surface Temperature Effect in Istanbul Using Thermal Remote Sensing**  
Bektaş Balçık F.  
Fresenius Environmental Bulletin, vol.23, 2014 (SCI-Expanded)
- XI. **Determining the impact of urban components on land surface temperature of Istanbul by using remote sensing indices**  
Balçık F.  
ENVIRONMENTAL MONITORING AND ASSESSMENT, vol.186, pp.859-872, 2014 (SCI-Expanded)
- XII. **Forage quality of savannas - Simultaneously mapping foliar protein and polyphenols for trees and grass using hyperspectral imagery**  
Skidmore A. K., FERWERDA J. G., MUTANGA O., VAN WIEREN S. E., PEEL M., GRANT R. C., PRINS H. H. T., BALCIK F.

- B., VENUS V.  
 REMOTE SENSING OF ENVIRONMENT, vol.114, no.1, pp.64-72, 2010 (SCI-Expanded)
- XIII. A CHANGE DETECTION ANALYSIS IN THE IZMIR BIRD PARADISE: INTEGRATION OF REMOTE SENSING AND GEOGRAPHIC INFORMATION SYSTEM  
 Doğru A. Ö., Bektaş Balçık F., BALIK ŞANLI F., Göksel Ç., Uluğtekin N.  
 FRESENIUS ENVIRONMENTAL BULLETIN, vol.18, no.1, pp.51-56, 2009 (SCI-Expanded)
- XIV. Defining temporal spatial patterns of mega city Istanbul to see the impacts of increasing population  
 Sanlı F. B., BALCIK F., Göksel Ç.  
 ENVIRONMENTAL MONITORING AND ASSESSMENT, vol.146, pp.267-275, 2008 (SCI-Expanded)
- XV. Monitoring coastal dunes by using remote sensing and GIS integration in northwest Turkey: A case study of Kilyos dunes  
 Dogru O. A., BALCIK F., Goksel C., ULUGTEKIN N.  
 FRESENIUS ENVIRONMENTAL BULLETIN, vol.15, pp.1216-1220, 2006 (SCI-Expanded)
- XVI. Remote sensing and GIS integration for land cover analysis, a case study: Bozcaada Island  
 Bektas F., Goksel C.  
 WATER SCIENCE AND TECHNOLOGY, vol.51, no.11, pp.239-244, 2005 (SCI-Expanded)
- XVII. Definition of sensitive areas in a lakeshore by using remote sensing and GIS  
 Goksel C., MERCAN D., Kabdasli S., Bektas F., Seker D. Z.  
 FRESENIUS ENVIRONMENTAL BULLETIN, vol.13, no.9, pp.860-864, 2004 (SCI-Expanded)

### **Articles Published in Other Journals**

- I. Determination of hazelnut cropped areas by random forest algorithm and Sentinel-2 MSI: A case study of Piraziz  
 TERZİ S., BEKTAŞ BALÇIK F.  
 Geomatik, vol.8, no.2, pp.91-98, 2023 (Peer-Reviewed Journal)
- II. Comparison between random forest and support vector machine algorithms for LULC classification  
 Avci C., Budak M., Yağmur N., Bektaş Balçık F.  
 International Journal of Engineering and Geosciences, vol.8, no.1, pp.1-10, 2023 (ESCI)
- III. LAND USE AND LAND COVER CHANGES USING SPOT 5 PANSHARPEN IMAGES A CASE STUDY IN AKDENİZ DISTRICT, MERSİN-TURKEY  
 GÖKSEL Ç., BEKTAŞ BALÇIK F.  
 Turkish Journal of Engineering, vol.3, no.1, pp.32-38, 2019 (Peer-Reviewed Journal)
- IV. EVALUATION OF SENTINEL-2 MSI DATA FOR LAND USE / LAND COVER CLASSIFICATION USING DIFFERENT VEGETATION INDICES  
 BEKTAŞ BALÇIK F.  
 Selcuk Univ. J. Eng. Sci. Tech, pp.839-846, 2018 (Peer-Reviewed Journal)
- V. Comparison of Object and Pixel-Based Classifications For Mapping Crops Using Rapideye Imagery: A Case Study Of Menemen Plain, Turkey  
 ESETLİLİ M. T., BEKTAŞ BALÇIK F., BALIK ŞANLI F., KALKAN K., ÜSTÜNER M., GÖKSEL Ç., GAZİOĞLU C., KURUCU Y.  
 International Journal of Environment and Geoinformatics, vol.5, no.2, pp.231-243, 2018 (Peer-Reviewed Journal)
- VI. Satellite-Based Multitemporal Change Detection In Igneada Flooded Forests  
 Bozkaya G., Bektaş Balçık F., Göksel Ç., Doğru A. Ö., Uluğtekin N. N., Sözen S.  
 Rev. Roum. Géogr./Rom. Journ. Geogr., vol.58, no.2, pp.161-168, 2014 (Peer-Reviewed Journal)
- VII. İğneada Arazi Örtüsü ve Kullanımı Değişiminin Uzaktan Algılama ve Coğrafi Bilgi Sistemleri ile Belirlenmesi  
 Bektaş Balçık F., Bozkaya G. A., Göksel Ç., Doğru A. Ö., Uluğtekin N. N., Sözen S.  
 hkm Jeodezi, Jeoinformasyon ve Arazi Yönetimi Dergisi, vol.2011, no.3, pp.70-74, 2011 (Peer-Reviewed Journal)
- VIII. Farklı Disiplinlerle Mekansal İletişim Epidemiyolojik Haritalar  
 Doğru A. Ö., Uluğtekin N. N., Gökalp R., Alkoy S., Bektaş Balçık F., Göksel Ç., Sözen S.

## Books & Book Chapters

- I. Comparing Spatial Interpolation Methods For Mapping Meteorological Data In Turkey  
Keskin M., Doğru A. Ö., Bektaş Balçık F., Göksel Ç., Uluğtekin N. N., Sözen S.  
in: Energy Systems and Management, Bilge A.N., Toy A.Ö., Günay M.E., Editor, Springer International Publishing,  
Zürich, pp.33-42, 2015

## Refereed Congress / Symposium Publications in Proceedings

- I. DETERMINATION OF HAZELNUT CULTIVATED AREAS USING SENTINEL-2 MSI: PERFORMANCE ANALYSIS OF MACHINE LEARNING ALGORITHMS  
TERZİ TÜRK S., BEKTAŞ BALÇIK F.  
6. INTERNATIONAL FOOD, AGRICULTURE AND VETERINARY SCIENCES CONGRESS, Ganja, Azerbaijan, 22 - 23 September 2023, pp.258-267
- II. Comparison of the effect of different vegetation indices on land surface temperature values  
Mammadli G., Bektaş Balçık F.  
IGD , 20 - 21 June 2022, pp.28-31
- III. SMART CITY SERVICES AND RELATIONS WITH GIS  
Atalay H., Uluğtekin N. N., Bektaş Balçık F.  
8th International Conference on Cartography and GIS, Nessebar, Bulgaria, 14 - 19 June 2021, pp.155-163
- IV. Analysing Flood Affected Region in Meriç River Basin Using Sentinel-1 and Sentinel-2 Data  
ŞENEL G., Eroğlu M., BEKTAŞ BALÇIK F., GÖKSEL Ç.  
8th International Conference on Cartography and GIS, At: Nessebar, Bulgaria, 15 - 20 June 2020
- V. Flood Extent Determination in Agricultural Fields Using Sentinel-2 Data and Random Forest Classification  
ŞENEL G., Eroğlu M., BEKTAŞ BALÇIK F., GÖKSEL Ç.  
Conference: 8th International Conference on Cartography and GIS, At: Nessebar, Bulgaria, 15 - 20 June 2020
- VI. INVESTIGATING THE RELATIONSHIP BETWEEN MODIS AOD AND AERONET DATA: A CASE STUDY FROM TURKEY  
Aldabash M., BEKTAŞ BALÇIK F.  
ATMOS, 23 - 26 November 2019

## Supported Projects

- Bektaş Balçık F., Project Supported by Higher Education Institutions, Coastal Zone Detection İn İstanbul Using Landsat 8 OLI Image, 2015 - 2018
- Bektaş Balçık F., Project Supported by Higher Education Institutions, İğneada Alüvyal Longoz Orman Eksistemi Arazi Ortüsü ve Kullanımı Değişiminin Belirlenmesi, 2012 - 2018

## Metrics

- Publication: 85  
Citation (WoS): 211  
Citation (Scopus): 311  
H-Index (WoS): 8  
H-Index (Scopus): 8

## **Non Academic Experience**

The Faculty of International Institute for Geo-Information Science and Earth Observation, Department of Natural Resources