

## Asst. Prof. Muhammed Enes Atik

### Personal Information

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### International Researcher IDs

ORCID: 0000-0003-2273-7751

Publons / Web Of Science ResearcherID: AAN-9020-2020

ScopusID: 57210920982

Yoksis Researcher ID: 265164

### Education Information

Doctorate, Istanbul Technical University, Lisansüstü Eğitim Enstitüsü, Geomatics Engineering, Turkey 2018 - 2022

Postgraduate, Istanbul Technical University, Lisansüstü Eğitim Enstitüsü, Geomatik Mühendisliği, Turkey 2016 - 2018

Undergraduate, Istanbul Technical University, İnşaat Fakültesi, Geomatik Mühendisliği, Turkey 2011 - 2016

### Foreign Languages

English, B1 Intermediate

### Research Areas

Technical Sciences, Geotechnical Engineering, Photogrammetry

### Academic Titles / Tasks

Assistant Professor, Istanbul Technical University, İnşaat, Geomatik Mühendisliği, 2023 - Continues

Research Assistant, Istanbul Technical University, İnşaat, Geomatik Mühendisliği, 2017 - 2023

### Advising Theses

Atik M. E., Analysis of safe roads and production of risk maps within the scope of integrated disaster management with geographical information systems, Postgraduate, O.SAFI(Student), 2023

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

- A Semi-Automated Two-Step Building Stock Monitoring Methodology for Supporting Immediate Solutions in Urban Issues**

Isiler M., Yanalak M., Atik M. E., Atik Ş. Ö., Duran Z.

- Sustainability (Switzerland), vol.15, no.11, 2023 (SCI-Expanded)
- II. **Selection of Relevant Geometric Features Using Filter-Based Algorithms for Point Cloud Semantic Segmentation**  
Atik M. E., Duran Z.  
ELECTRONICS, vol.11, no.20, 2022 (SCI-Expanded)
  - III. **An Efficient Ensemble Deep Learning Approach for Semantic Point Cloud Segmentation Based on 3D Geometric Features and Range Images**  
Atik M. E., Duran Z.  
SENSORS, vol.22, no.16, 2022 (SCI-Expanded)
  - IV. **Comparative research on different backbone architectures of DeepLabV3+ for building segmentation**  
Atik Ş. Ö., Atik M. E., Ipbuker C.  
JOURNAL OF APPLIED REMOTE SENSING, vol.16, no.02, pp.24510, 2022 (SCI-Expanded)
  - V. **Classification of Photogrammetric and Airborne LiDAR Point Clouds Using Machine Learning Algorithms**  
Duran Z., Ozcan K., Atik M. E.  
DRONES, vol.5, no.4, 2021 (SCI-Expanded)
  - VI. **Machine Learning-Based Supervised Classification of Point Clouds Using Multiscale Geometric Features**  
Atik M. E., Duran Z., Şeker D. Z.  
ISPRS INTERNATIONAL JOURNAL OF GEO-INFORMATION, vol.10, no.3, 2021 (SCI-Expanded)
  - VII. **3D facial recognition using local feature-based methods and accuracy assessment**  
Atik M. E., Duran Z.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.36, no.1, pp.359-371, 2021 (SCI-Expanded)
  - VIII. **CLASSIFICATION OF AERIAL PHOTOGRAMMETRIC POINT CLOUD USING RECURRENT NEURAL NETWORKS**  
Atik M. E., Duran Z.  
FRESENIUS ENVIRONMENTAL BULLETIN, vol.30, no.4A, pp.4270-4275, 2021 (SCI-Expanded)
  - IX. **An automatic image matching algorithm based on thin plate splines**  
Atik M. E., Öztürk O., Duran Z., Şeker D. Z.  
EARTH SCIENCE INFORMATICS, vol.13, pp.869-882, 2020 (SCI-Expanded)

## Articles Published in Other Journals

- I. **3D modeling of historical measurement instruments using photogrammetric and laser scanning techniques**  
Atik M. E., Duran Z., Yanalak M., Şeker D. Z., Ak A.  
Digital Applications in Archaeology and Cultural Heritage, vol.30, 2023 (Scopus)
- II. **Deep learning-based vehicle detection from orthophoto and spatial accuracy analysis**  
Bıyık M. Y., Atik M. E., Duran Z.  
International Journal of Engineering and Geosciences, vol.8, no.2, pp.138-145, 2023 (ESCI)
- III. **Fotogrametrik nokta bulutu verisinin makine öğrenmesi ile sınıflandırılması**  
Atik M. E., Güngör Ö., Keskin E., Duran Z.  
Jeodezi ve jeoinformasyon dergisi (Online), vol.9, no.2, pp.137-149, 2022 (Peer-Reviewed Journal)
- IV. **3D modeling of historical theodolite with photogrammetric techniques and accuracy analysis**  
Atik M. E., Duran Z., Yanalak M., Şeker D. Z.  
Cultural Heritage and Science, vol.3, no.1, pp.25-29, 2022 (Peer-Reviewed Journal)
- V. **Comparison of YOLO Versions for Object Detection from Aerial Images**  
Atik M. E., Duran Z., Özgünlük R.

- International Journal of Environment and Geoinformatics, vol.9, no.2, pp.87-93, 2022 (Peer-Reviewed Journal)
- VI. **Accuracy comparison of interior orientation parameters from different photogrammetric software and direct linear transformation method**  
Duran Z., Atik M. E.  
INTERNATIONAL JOURNAL OF ENGINEERING AND GEOSCIENCES, vol.6, pp.74-80, 2021 (ESCI)
- VII. **Vehicle Detection Using Different Deep Learning Algorithms from Image Sequence**  
Çepni S., ATİK M. E., DURAN Z.  
Baltic Journal of Modern Computing, vol.8, no.2, pp.347-358, 2020 (ESCI)
- VIII. **Extraction of Roof Planes from Different Point Clouds Using RANSAC Algorithm**  
Gönültaş F., ATİK M. E., DURAN Z.  
International Journal of Environment and Geoinformatics, vol.7, no.2, pp.165-171, 2020 (Peer-Reviewed Journal)
- IX. **3D Object Recognition with Keypoint Based Algorithms**  
ATİK M. E., İNCEKARA A. H., SARITÜRK B., ÖZTÜRK O., DURAN Z., ŞEKER D. Z.  
International Journal of Environment and Geoinformatics, vol.6, no.1, pp.139-142, 2019 (Peer-Reviewed Journal)
- X. **Yersel Fotogrametrik Yöntem İle Yersel Lazer Taramanın Karşılaştırılması ve Doğruluk Analizi**  
DURAN Z., ATİK M. E., ÇELİK M. F.  
Harita Dergisi, no.158, pp.20-25, 2017 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Smart Recognition Systems and Multimedia Processing**  
ATİK M. E., DURAN Z.  
in: Innovations in Smart Cities Applications Volume 4, Ahmed Mohamed Ben, Karaş İsmail Rakıp, Santos Domingos, Sergeyeva Olga, Boudhir Anouar Abdelhakim, Editor, Springer, Cham, pp.797-808, 2021

## Refereed Congress / Symposium Publications in Proceedings

- I. **Analyzing optimal routes to safe areas using OpenStreetMap and very high-resolution remote sensing imagery**  
Safi O., ATİK M. E.  
6th Intercontinental Geoinformation Days (IGD), Baku, Azerbaijan, 13 June 2023
- II. **Comparative analysis of semantic segmentation of terrestrial images using DeepLabv3+**  
Verani A., Atik M. E., Duran Z.  
6th Intercontinental Geoinformation Days (IGD) - 13-14 June 2023 - Baku, Azerbaijan, Baku, Azerbaijan, 13 - 14 June 2023, pp.324-326
- III. **Point Cloud Classification Using Machine Learning Algorithms and Selection of Relevant Features**  
ATİK M. E., DURAN Z.  
The 5th Intercontinental Geoinformation Days, New Delhi, India, 14 December 2022
- IV. **A Projection-based Point Cloud Semantic Segmentation Approach Using Deep Learning and 3D Geometric Features**  
ATİK M. E., DURAN Z.  
The 43rd Asian Conference on Remote Sensing, Ulaanbaatar, Mongolia, 03 October 2022
- V. **Mobile Point Cloud Semantic Segmentation Using Artificial Neural Network and Appropriate Parameter Determination**  
ATİK M. E., DURAN Z.  
The 43rd Asian Conference on Remote Sensing, Ulaanbaatar, Mongolia, 03 October 2022
- VI. **Comparison of Open-Source and Commercial Software for 3D Modeling with Terrestrial Photogrammetry**  
Atik M. E., Duran Z.

4th Intercontinental Geoinformation Days , Tabriz, Iran, 20 - 21 June 2022, pp.131-135

**VII. DEEP LEARNING-BASED DOOR AND WINDOW DETECTION FROM BUILDING FAÇADE**

Sezen G., Çakır M. A., Atik M. E., Duran Z.

2022 24th ISPRS Congress on Imaging Today, Foreseeing Tomorrow, Commission IV, Nice, France, 6 - 11 June 2022, vol.43, pp.315-320

**VIII. 3D OBJECT DETECTION FROM MOBILE LIDAR POINT CLOUD WITH DEEP LEARNING**

ATİK M. E., DURAN Z.

The 42nd Asian Conference on Remote Sensing (ACRS2021), Can Tho city, Vietnam, 22 - 24 November 2021

**IX. Deep Learning-Based 3D Face Recognition Using Derived Features from Point Cloud**

Atik M. E., Duran Z.

5th International Conference on Smart City Applications, SCA 2020, Karabük, Turkey, 7 - 09 October 2020, vol.183, pp.797-808

**X. Vehicle Detection with Different Deep Learning Methods from Video**

Çepni S., Atik M. E., Duran Z.

International Symposium on Applied Geoinformatics, İstanbul, Turkey, 7 - 09 November 2019, pp.234-238

**XI. Evaluation of Deep Learning Algorithms for 3D Semantic Segmentation in Outdoor Scenes**

ATİK M. E., DURAN Z.

International Symposium on Applied Geoinformatics, İstanbul, Turkey, 7 - 09 November 2019, pp.381-384

**XII. The Effect of Different Calibration Methods on the Accuracy of Three Dimensional Models,**

ATİK M. E., DURAN Z.

Türkiye Ulusal Fotogrametri ve Uzaktan Algılama Birliği X. Teknik Sempozyumu, Aksaray, Turkey, 25 - 27 April 2019, pp.245-249

**XIII. Roof Plane Detection and Comparison of Point Clouds Acquired by Different Data Sources Using RANSAC Algorithm**

Gönültaş F., DURAN Z., ATİK M. E.

Türkiye Ulusal Fotogrametri ve Uzaktan Algılama Birliği X. Teknik Sempozyumu, Aksaray, Turkey, 25 - 27 April 2019, pp.152-155

**XIV. Comparison and Usage of Local Feature Based Algorithms for 3D Face Recognition**

ATİK M. E., DURAN Z., BAYRAM B.

39th Asian Conference on Remote Sensing (ACRS 2018), Kuala-Lumpur, Malaysia, 15 - 19 October 2018, vol.4, pp.2387-2392

**XV. 3B YÜZ TANIMADA KİLİT NOKTA TEMELLİ ALGORİTMALARIN KULLANIM OLANAKLARININ ARAŞTIRILMASI VE DOĞRULUK ANALİZİ**

ATİK M. E., DURAN Z., BAYRAM B.

VII. UZAKTAN ALGILAMA-CBS SEMPOZYUMU (UZAL-CBS 2018), Eskişehir, Turkey, 18 - 21 September 2018

**XVI. Dsm Production With Thin Plate Splines Algorithm And Accuracy Analysis**

Atik M. E., Sarıtürk B., Duran Z., Şeker D. Z., Öztürk O.

EurasianGIS2018, Baku, Azerbaijan, 4 - 07 September 2018, pp.36

**XVII. Combination of UAV Based Digital Surface Model With 3D Model of ITU Bicycle House Produced by Close-Range Photogrammetry**

ALBENİ Y., SARITÜRK B., ATİK M. E., ÖZTÜRK O., DURAN Z., ŞEKER D. Z., BAYRAM B., İncekara A. H., ÇELİK M. F.

ICOMOS Inter-ISC Meeting and Colloquium, Kastamonu, Turkey, 10 - 13 July 2018

**XVIII. Estimation of Potential Stream Beds Using Dem: Case Study Kahramanmaraş City**

ATİK M. E., DÖNMEZ Ş. Ö., DURAN Z., İPBÜKER C., ÜNLÜER A. T.

7th International Conference on Cartography and GIS ICCGIS2018, Sozopol, Bulgaria, 18 - 23 June 2018, vol.1, pp.801-806

**XIX. ANALYSIS OF NATURAL LAND COVER CHANGE USING TIME SERIES: A CASE STUDY OF ISTANBUL**

SARITÜRK B., ATİK M. E., ALGANCI U., ÖZTÜRK O., DURAN Z., ŞEKER D. Z.

4th International Water and Environment Fair and Congress, Bursa, Turkey, 22 - 24 April 2018

**XX. COMPARISON OF AUTOMATIC FEATURE EXTRACTION METHODS FOR BUILDING ROOF PLANES BY USING AIRBORNE LIDAR DATA AND HIGH RESOLUTION SATELLITE IMAGE**

Atik M. E., Donmez S. O., Duran Z., Ipbuker C.

7th International Conference on Cartography and GIS, Sozopol, Bulgaria, 18 - 23 June 2018, pp.857-863

**XXI. COMPARISON OF TERRESTRIAL PHOTOGRAMMETRY AND TERRESTRIAL LASER SCANNING AND ACCURACY ANALYSIS**

Atik M. E., Ünlüer S., Duran Z., Çelik M. F.

6. UZAKTAN ALGILAMA-CBS SEMPOZYUMU, Adana, Turkey, 5 - 07 October 2016, pp.222-227

## Supported Projects

Atik M. E., ÇAKIR B. G., SEZER H. İ., ZİREK A. B., AĞACANOĞLU F., KIRIK H. N., AY M. S., ATMACA O., ÖZKUL E., OKUTAN Y. T., et al., Project Supported by Higher Education Institutions, Gökbörü Dikey İnişli Roket Projesi, 2024 - Continues

Atik M. E., Project Supported by Higher Education Institutions, İnsansız Hava Aracından Elde Edilen Hava Görüntülerinden Derin Öğrenme Tabanlı Eşitsizlik Haritası Tahmini ve Sayısal Yükseklik Modeli Üretimi, 2023 - Continues

Duran Z., Atik M. E., Yanalak M., Şeker D. Z., Project Supported by Higher Education Institutions, Tarihi Ölçme Aletlerinin Fotogrametrik Yöntemlerle 3 Boyutlu Modellenmesi ve Web Tabanlı Sanal Müze Oluşturulması, 2021 - 2023

Duran Z., Atik M. E., Project Supported by Higher Education Institutions, Yapay Zeka Tabanlı Nokta Bulutu Semantik Bölümlendirilmesinin İncelenmesi, 2021 - 2023

Duran Z., İpbükler C., Şeker D. Z., Atik M. E., Öztürk O., Project Supported by Higher Education Institutions, İnsansız Hava Aracı ile Elde Edilen Görüntüler için Görüntü Eşleştirme Algoritması Geliştirilmesi ve Test Edilmesi, 2017 - 2020

Kırca V. Ş. Ö., Duran Z., Atik M. E., Koşucu M. M., Eruçar S., Project Supported by Other Official Institutions, Ormara Deniz Üssü Dalga, Akım ve Stabilitate Fiziksel Model Projesi, 2019 - 2019

Duran Z., Atik M. E., Project Supported by Higher Education Institutions, 3 Boyutlu Yüz Tanımlamada Lokal Özellik Temelli Yöntemlerin Kullanımı ve Karşılaştırılması, 2018 - 2019

## Scientific Refereeing

REMOTE SENSING, SCI Journal, January 2024

IEEE/CAA JOURNAL OF AUTOMATICA SINICA, SCI Journal, September 2022

NEUROCOMPUTING, SCI Journal, September 2022

IEEE-CAA JOURNAL OF AUTOMATICA SINICA, SCI Journal, November 2021

## Metrics

Publication: 46

Citation (WoS): 44

Citation (Scopus): 120

H-Index (WoS): 5

H-Index (Scopus): 6

## Awards

Atik M. E., IEEE GRSS Türkiye 2022 Tez Yarışması Doktora Tezi Üçüncülük Ödülü, Ieee Grss Türkiye Bölümü, December 2022

Atik M. E., Student Award, Can Tho University (Acrs 2021), November 2021