MEHMET DEVRİM AKÇA

PROFESSOR

E-Mail Address	:	devrim.akca@isikun.edu.tr
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Address	:	Bilgisayar Müh. Bölümü Işık Üniversitesi 34980 Şile, İstanbul

Education

Doctoral 2003 2007	Eidgenössische Technische Hochschule, ETHZ (The Federal Institute of Technology, Zürich)/Institute of Geodesy and Photogrametry Thesis name: Lest squares 3D surface matching (2007) Thesis Advisor:(Armin Gruen)
Master (Thesis) 1997 1/2000	KARADENIZ TECHNICAL UNIVERSITY/INSTITUTE OF SCIENCE// Thesis name: Coğrafi bilgi sistemi ile çevresel verilerin modellenmesi: Trabzon Değirmendere Vadisi örneği (2000) Thesis Advisor:(TAHSİN YOMRALIOĞLU)
Bachelor's Degree 1993 1997	KARADENIZ TECHNICAL UNIVERSITY/FACULTY OF ENGINEERING///

Academic Title

PROFESSOR 01.11.2023	ISIK UNIVERSITY/MÜHENDİSLİK VE DOĞA BİLİMLERİ FAKÜLTESİ/BİLGİSAYAR MÜHENDİSLİĞİ BÖLÜMÜ/YAZILIM MÜHENDİSLİĞİ PR. (İNGİLİZCE) (TAM BURSLU)
PROFESSOR 26.12.2019	ISIK UNIVERSITY/MÜHENDİSLİK FAKÜLTESİ/İNŞAAT MÜHENDİSLİĞİ BÖLÜMÜ/İNŞAAT MÜHENDİSLİĞİ PR. (İNGİLİZCE) (TAM BURSLU)
ASSOCIATE PROFESSOR 2014	ISIK UNIVERSITY/MÜHENDİSLİK FAKÜLTESİ/İNŞAAT MÜHENDİSLİĞİ BÖLÜMÜ
ASSISTANT PROFESSOR 2011	ISIK UNIVERSITY/MÜHENDİSLİK FAKÜLTESİ/İNŞAAT MÜHENDİSLİĞİ BÖLÜMÜ
ASSISTANT PROFESSOR 2009	ISIK UNIVERSITY/FEN-EDEBİYAT FAKÜLTESİ/ENFORMASYON TEKNOLOJİLERİ BÖLÜMÜ/FOTOGRAMETRİ ANABİLİM DALI

Supervised Theses:

Doktora

2018

1. ÖZENDİ MUSTAFA, (2018). Stochastic surface mesh reconstruction, Zonguldak Bülent Ecevit Üniversitesi->Fen Bilimleri Enstitüsü->Geomatik Mühendisliği Ana Bilim Dalı (Tamamlandı)

Yönetilen Tezler: * Theses supervised at national/international universities or other institutions

1. Matthias Flühler, (2004). , An E-learning software for digital monoplotting, ,, Eidgenössische Technische Hochschule Zürich/Institute of Geodesy and Photogrammetry/Chair of Photogrammetry
2. David Novak, (2006). , 3D object modeling by use of a close range active sensor, ,, Eidgenössische Technische Hochschule Zürich/Institute of Geodesy and Photogrammetry/Chair of Photogrammetry
3. Thomas Pfarrwaller, (2006). , Untersuchung verschiedener Methoden zur Registrierung von Punktwolken, ,, Eidgenössische Technische Hochschule Zürich/Institute of Geodesy and Photogrammetry/Chair of Photogrammetry

Positions in Projects:

1. Üç Boyutlu Nokta Bulutu Verileri İçin Anizotropik Örgü (Mesh) Entegrasyonu Metodu ve Nokta Hata Modelinin Geliştirilmesi, TUBITAK Project (1001), Araştırmacı:AKÇA MEHMET DEVRİM,Bursiyer:ÖZENDİ MUSTAFA,Yürütücü:TOPAN HÜSEYİN,Araştırmacı:AVŞAR EMİN ÖZGÜR,Bursiyer:BAYIK ÇAĞLAR, , 01/01/2016 - 01/01/2018 (NATIONAL)
2. Cep Telefonu Kameralarıyla Üç Boyutlu Mobil Modelleme Sistemi Tasarımı, Scientific Research Project Supported by Higher Education Institutions, Yürütücü:AKÇA MEHMET DEVRİM,Araştırmacı:PERDAHÇI NAZIM ZİYA, , 01/10/2011 - 01/10/2013 (NATIONAL)

Administrative Position

Faculty Executive Board Membership 01.11.2023	ISIK UNIVERSITY/MÜHENDİSLİK VE DOĞA BİLİMLERİ FAKÜLTESİ/BİLGİSAYAR MÜHENDİSLİĞİ BÖLÜMÜ/YAZILIM MÜHENDİSLİĞİ PR. (İNGİLİZCE) (TAM BURSLU)
Faculty Executive Board Membership 01.09.2020	ISIK UNIVERSITY/MÜHENDİSLİK FAKÜLTESİ/İNŞAAT MÜHENDİSLİĞİ BÖLÜMÜ/İNŞAAT MÜHENDİSLİĞİ PR. (İNGİLİZCE) (TAM BURSLU)
Faculty Board Membership 01.09.2019	ISIK UNIVERSITY/MÜHENDİSLİK FAKÜLTESİ/İNŞAAT MÜHENDİSLİĞİ BÖLÜMÜ/İNŞAAT MÜHENDİSLİĞİ PR. (İNGİLİZCE) (TAM BURSLU)

Awards

1. Publons Peer Review Awards - Top 1 % of peer reviewers in Geosciences, PUBLONS, UNITED STATES OF AMERICA, 2018
2. Publons Peer Review Awards - Top 1 % of peer reviewers in Earth and Planetary Sciences, PUBLONS, UNITED STATES OF AMERICA, 2017
3. Carl Pulfrich Award, ISPRS & Intergraph Corporation, null, 2009
4. The Silver Medal of ETH Zurich - Distinction of the Doctoral Thesis, ETH ZURICH, SWITZERLAND, 2008
5. The ISPRS Prize for Best Papers by Young Authors, ISPRS - International Society for Photogrammetry and Remote Sensing, null, 2004

Courses *

	Öğrenim Dili	Course Hour
2023-2024		
Bachelor's Degree Programme		
Introduction to Computer Vision	English	3
Applied Probability and Statistics for Engineers	English	4
Master Programme		
Remote Sensing	English	3
2022-2023		
Bachelor's Degree Programme		

Applied Probability and Statistics for Engineers	English	4
Computer Aided Technical Drawing	English	4
Surveying	English	4
Mühendisler için Uygulamalı Olasılık ve İstatistik	Turkish	4

2021-2022

Bachelor's Degree Programme

Computer Aided Technical Drawing	English	4
Mühendisler için Uygulamalı Olasılık ve İstatistik	Turkish	4
Surveying	English	4
Applied Probability and Statistics for Engineers	English	4

Patents

1. **Yersel lazer tarayicilarin ürettigi nokta bulutlarina yönelik genel bir hata modeli yöntemi (A generic point error model for the points clouds produced by the Terrestrial Laser Scanners (TLS)** (2023)
   Applicants : Mustafa Özendi,Devrim Akca,Hüseyin Topan, Patentee : Mustafa Özendi,Devrim Akca,Hüseyin Topan
2. **Yersel Lazer Tarayicilarin (YLT) Ürettigi Nokta Bulutlarindan Yüzey Agi Olusturma Yöntemi** (2022), Patent No: TR 2019 00068 B
   Applicants : Mustafa ÖZENDI, Devrim AKCA, Hüseyin TOPAN, Patentee : Mustafa ÖZENDI, Devrim AKCA, Hüseyin TOPAN

Works

Articles published in international refereed journals:

1. ÖZENDİ MUSTAFA,AKÇA MEHMET DEVRİM,TOPAN HÜSEYİN (2023). A point cloud filtering method based on anisotropic error model. The Photogrammetric Record, 38, Doi: 10.1111/phor.12460 (Publication No: 9049850)
2. Devrim Akca (2013). Photogrammetric monitoring of an artificially generated shallow landslide. The Photogrammetric Record, 28(142), 178-195. (Publication No: 163880)
3. Devrim Akca (2012). 3D modeling of cultural heritage objects with a structured light system. Mediterranean Archaeology and Archaeometry, 12(1), 139-152. (Publication No: 163854)
4. Devrim Akca, Mark Freeman, Isabel Sargent, Armin Gruen (2012). Quality assessment of 3D building data. The Photogrammetric Record, 25(132), 339-355. (Publication No: 163823)
5. Devrim Akca (2010). Co registration of surfaces by 3D Least Squares matching. Photogrammetric Engineering and Remote Sensing, 76(3), 307-318. (Publication No: 163699)
6. H J Seybold, P Molnar, Devrim Akca, M Doumni, M Cavalcanti Tavares, T Shinbrot, J S Andrade, W Kinzelbach, H J Herrmann (2010). Topography of inland deltas Observations modeling and experiments. Geophysical Research Letters, 37(8), 8402-8407. (Publication No: 163800)
7. Devrim Akca, Armin Gruen (2009). Radiometric performance analysis of mobile phone cameras. Asian Journal of Geoinformatics, 9(1), 1-6. (Publication No: 163629)
8. Devrim Akca, Armni Gruen (2009). Comparative geometric and radiometric evaluation of mobile phone and still video cameras. The Photogrammetric Record, 24(127), 217-245. (Publication No: 163665)
9. Devrim Akca (2007). Matching of 3D surfaces and their intensities. ISPRS Journal of Photogrammetry and Remote Sensing, 62(2), 112-121. (Publication No: 163540)
10. Armin Gruen, Devrim Akca (2005). Least squares 3D surface and curve matching. ISPRS Journal of Photogrammetry and Remote Sensing, 59(3), 151-174. (Publication No: 163492)

B. Papers presented at international scientific meetings and published in proceedings :

1. Askarinejad Amin, Springman Sarah M., AKÇA MEHMET DEVRİM, Gruen Armin (2010). Subsurface deformation measurements during a fast shallow landslide triggered by rainfall. EGU General

Assembly (EGU 2010), 12, 15104 (Full Text Publication/Oral Presentation) (Publication No: 8337261)

2. AKÇA MEHMET DEVRİM, Gruen Armin, Askarinejad Amin, Springman Sarah M. (2011). Photogrammetric monitoring of an artificially generated landslide. The International Conference on GeoInformation For Disaster Management (Gi4DM'11) (Full Text Publication/Oral Presentation) (Publication No: 8337259)
3. AVŞAR EMİN ÖZGÜR, ALTAN MEHMET ORHAN, DOĞAN ÜNAL ANIL, AKÇA MEHMET DEVRİM (2012). Determining pull-out deformations of bonded metal anchors embedded in concrete by means of photogrammetry. The 22th ISPRS Congress, 5-8. (Full Text Publication/Poster) (Publication No: 8337257)
4. AKÇA MEHMET DEVRİM, SEYBOLD Hansjörg (2012). Laboratory flume experiment with a coded structured light system. The 22th ISPRS Congress, 399-404. (Full Text Publication/Oral Presentation) (Publication No: 8337254)
5. AYDAR UMUT, ALTAN MEHMET ORHAN, AKYILMAZ ORHAN, AKÇA MEHMET DEVRİM (2012). Co-registration of 3D point clouds by using an error-in-variables model. The 22th ISPRS Congress, 151-155. (Full Text Publication/Oral Presentation) (Publication No: 8337256)
6. AYDAR UMUT, AKÇA MEHMET DEVRİM, ALTAN MEHMET ORHAN (2013). Total Least Squares Registration of 3D Surfaces. ISPRS Workshop Laser Scanning 2013, 25-30., Doi: 10.5194/isprsannals-II-5-W2-25-2013 (Full Text Publication/Poster) (Publication No: 8337247)
7. AVŞAR EMİN ÖZGÜR, AKÇA MEHMET DEVRİM, ALTAN MEHMET ORHAN (2014). Photogrammetric Deformation Monitoring of the Second Bosphorus Bridge in Istanbul. ISPRS Technical Commission V Symposium(5), 71-76., Doi: 10.5194/isprsarchives-XL-5-71-2014 (Full Text Publication/Oral Presentation) (Publication No: 8337243)
8. Poli Daniela, AKÇA MEHMET DEVRİM, Stylianidis Efstratios, Hofer Martin (2014). Forsat: 3D forest monitoring with optical satellite images. In proceedings of ForestSAT 2014 (Full Text Publication/Oral Presentation) (Publication No: 8337240)
9. ÖZENDİ MUSTAFA, AKÇA MEHMET DEVRİM, TOPAN HÜSEYİN (2016). AN EMPRICAL POINT ERROR MODEL FOR TLS DERIVED POINT CLOUDS. The 23th ISPRS Congress, 557-563., Doi: 10.5194/isprs-archives-XLI-B5-557-2016 (Full Text Publication/Oral Presentation) (Publication No: 8337237)
10. AKÇA MEHMET DEVRİM, Stylianidis Efstratios, Hofer Martin, Poli Daniela, Gruen Armin, ALTAN MEHMET ORHAN (2016). VOLUMETRIC FOREST CHANGE DETECTION THROUGH VHR SATELLITE IMAGERY. The 23th ISPRS Congress, 1213-1220., Doi: 10.5194/isprs-archives-XLI-B8-1213-2016 (Full Text Publication/Oral Presentation) (Publication No: 8337238)
11. AKÇA MEHMET DEVRİM, Stylianidis Efstratios, Poli Daniela, Gruen Armin, Hofer Martin (2018). 3-DIMENSIONAL PRE- AND POST-FIRE COMPARISON OF FOREST AREAS. GeoInformation For Disaster Management (Gi4DM), 9-16., Doi: 10.5194/isprs-archives-XLII-3-W4-9-2018 (Full Text Publication/Oral Presentation) (Publication No: 8318622)
12. AKÇA MEHMET DEVRİM, Askarinejad Amin, Poli Daniela, Gruen Armin, ALTAN MEHMET ORHAN, Hofer Martin (2019). A Precision Estimation Method for Volumetric Changes. The 9th Int. IEEE Conference on Recent Advances in Space Technologies (RAST), 245-251., Doi: 10.1109/RAST.2019.8767874 (Full Text Publication/Oral Presentation) (Publication No: 8318626)
13. ÖZENDİ MUSTAFA, AKÇA MEHMET DEVRİM, TOPAN HÜSEYİN (2018). Stochastic Surface Mesh Reconstruction. ISPRS TC II Mid-term Symposium Towards Photogrammetry 2020, Doi: 10.5194/isprs-archives-XLII-2-805-2018 (Full Text Publication/Oral Presentation) (Publication No: 4738172)
14. ÖZENDİ MUSTAFA,AKÇA MEHMET DEVRİM,TOPAN HÜSEYİN (2017). A generic point error model for TLS derived point clouds. SPIE Optical Metrology, Doi: 10.1117/12.2269373 (Full Text Publication/Oral Presentation) (Publication No: 3968579)

C. Authored national/international books or chapters in books:
C1. Authored national/international books:

1. 3D/4D City Modelling: From Sensors to Applications (2023)., AKÇA MEHMET DEVRİM, Whittles, Editor:Kocaman, S., Akca, D., Poli, D., Remondino, F., Edition No:1, Pages 500, ISBN:ISBN 978-184995-475-4, English
(Scientific Book) (Publication No: 8318616)
2. Least Squares 3D surface matching (2007)., AKÇA MEHMET DEVRİM, Institute of Geodesy and Photogrammetry, ETH Zurich, Edition No:1, Pages 78, ISBN:3-906467-63-5, English
(Scientific Book) (Publication No: 50181)

C. Authored national/international books or chapters in books:
C2. Chapters written in national/international books:

1. Intelligent Systems for Crisis Management, Chapter name:(Pre- and Post-Fire Comparison of Forest Areas in 3D) (2019)., AKÇA MEHMET DEVRİM, Stylianidis Efstratios, Poli Daniela, Gruen Armin, ALTAN MEHMET ORHAN, Hofer Martin, Springer, Editor:Altan O., Chandra M., Sunar F., Tanzi T., Edition no:1, Pages 300, ISBN:ISBN 978-3-030-05330-7, English (Scientific Book) (Publication No: 8318613)

2. Methoden eines Ad-hoc-Inventars. Das Künstleratelier Payer & Wipplinger in Einsiedeln. , Chapter name:(Photogrammetric Documentation of Alois Payer s Art Studio) (2008)., AKÇA MEHMET DEVRİM, Gruen Armin, vdf Hochschulverlag AG, Editor:Institut für Denkmalpflege und Bauforschung der ETH Zürich (Ed.), Edition no:1, Pages 10, ISBN:978-3-7281-3244-4, German (Scientific Book) (Publication No: 50180)

D. Articles published in national refereed journals :

1. Stylianidis Efstratios, AKÇA MEHMET DEVRİM, Poli Daniela, Hofer Martin, Gruen Armin (2019). FORSAT: a 3D forest monitoring system for cover mapping and volumetric 3D change detection. INTERNATIONAL JOURNAL OF DIGITAL EARTH, 13, Doi: 10.1080/17538947.2019.1585975 (Control No: 8318610)
2. Askarinejad Amin, AKÇA MEHMET DEVRİM, Springman Sarah M. (2018). Precursors of instability in a natural slope due to rainfall: a full-scale experiment. Landslides, 15, Doi: 10.1007/s10346-018-0994-0 (Control No: 8318607)
3. AKÇA MEHMET DEVRİM, SEYBOLD Hansjörg (2016). Monitoring of a Laboratory-Scale Inland-Delta Formation using a Structured-Light System. The Photogrammetric Record, 31, Doi: 10.1111/phor.12149 (Control No: 8318602)
4. AVŞAR EMİN ÖZGÜR, ALTAN MEHMET ORHAN, DOĞAN ÜNAL ANIL, AKÇA MEHMET DEVRİM (2015). Determining Pull-Out Deformations by Means of an Online Photogrammetry Monitoring System. International Journal of Environment and Geoinformatics, 2, Doi: 10.30897/ijegeo.302758 (Control No: 8318600)
5. AKÇA MEHMET DEVRİM (2002). Sayısal görüntülerde Ana Bileşenler Dönüşümü. Harita Dergisi(129), 1-15. (Control No: 9051711)

E. Papers presented at national scientific meetings and published in

1. AKÇA MEHMET DEVRİM (2010). 3B Kent modellerinin kalite kontrolü. III. Uzaktan Algılama ve Coğrafi Bilgi Sistemleri Sempozyumu, 88-96. (Full Text Publication/Oral Presentation) (Publication No: 8337262)

Non-academic Experience

2014	**Doçent**	Işık Üniversitesi - İnşaat Müh. Böl., (Other)
2011-2014	**Yardımcı Doçent**	
2009-2011	**Yardımcı Doçent**	Işık Üniversitesi - Enformasyon Teknolojileri Böl., , (Other)
2007-2009	**Doktora Sonrası Araştırmacı**	ETH Zurich (İsviçre), , (Other)
2003-2007	**Araştırma Görevlisi**	
2002-2003	**Akademik Misafir**	
2001-2002	**Araştırma Görevlisi**	İstanbul Teknik Üniversitesi - Jeodezi ve Fot. Müh. Böl., , (Other)
2000-2001	**Araştırma Görevlisi**	Ondokuz Mayıs Üniversitesi - Jeodezi ve Fot. Müh. Böl., , (Other)

1997-2000	**Harita Mühendisi**	Maçka (Trabzon) Kadastro Müdürlüğü, , (Other)
01.06.1993	**Kadastro Teknisyeni**	TAPU VE KADASTRO GENEL MÜDÜRLÜĞÜ, , (Public)