

Assoc. Prof. UMUT SEZEN

Personal Information

Office Phone: [+90 312 297 7075](tel:+903122977075)

Fax Phone: [+90 312 299 2125](tel:+903122992125)

Email: usezen@hacettepe.edu.tr

Web: <http://www.ee.hacettepe.edu.tr/?link=400201&sublink=208>

Address: Elektrik ve Elektronik Mühendisliği Bölümü Beytepe

International Researcher IDs

ORCID: 0000-0003-0319-6873

ScopusID: 24451192100

Yoksis Researcher ID: 182404

Education Information

Doctorate, University of Warwick, Mühendislik Fakültesi (School Of Engineering), Elektronik Mühendisliği (Electronic Engineering), United Kingdom 1998 - 2003

Undergraduate, University of Warwick, Mühendislik Fakültesi (School Of Engineering), Elektronik Mühendisliği (Electronic Engineering), United Kingdom 1995 - 1998

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Anticausal Inverses for IIR Filter Banks, Quincunx Wavelets and Image Coding, University Of Warwick, Elektronik Mühendisliği, 2003

Research Areas

Electrical and Electronics Engineering, Electronic, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2010 - Continues

Lecturer PhD, Hacettepe University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2005 - 2010

Research Assistant, Hacettepe University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2004 - 2005

Research Assistant, University of Warwick, Mühendislik Fakültesi, Elektronik Mühendisliği, 2003 - 2003

PUBLISHED JOURNAL ARTICLES INDEXED BY SCI, SSCI, AND AHCI

- I. Comparison of IRI-2016 F2 Layer Model Parameters with Ionosonde Measurements
ARIKAN F., SEZEN U., Gulyaeva T. L.
JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS, vol.124, no.10, pp.8092-8109, 2019 (SCI-Expanded)
- II. Eight proxy indices of solar activity for the International Reference Ionosphere and Plasmasphere model
Gulyaeva T. L., ARIKAN F., SEZEN U., POUSTOVALOVA L. V.
JOURNAL OF ATMOSPHERIC AND SOLAR-TERRRESTRIAL PHYSICS, vol.172, pp.122-128, 2018 (SCI-Expanded)
- III. Performance of Solar Proxy Options of IRI-Plas Model for Equinox Seasons
SEZEN U., GULYAEVA T. L., ARIKAN F.
JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS, vol.123, no.2, pp.1441-1456, 2018 (SCI-Expanded)
- IV. Online, automatic, ionospheric maps: IRI-PLAS-MAP
ARIKAN F. G., SEZEN U., Gulyaeva T. L., CILIBAS O.
ADVANCES IN SPACE RESEARCH, vol.55, no.8, pp.2106-2113, 2015 (SCI-Expanded)
- V. Online user-friendly slant total electron content computation from IRI-Plas: IRI-Plas-STEC
Tuna H., Arikан O., ARIKAN F., GULYAEVA T. L., SEZEN U.
SPACE WEATHER-THE INTERNATIONAL JOURNAL OF RESEARCH AND APPLICATIONS, vol.12, no.1, pp.64-75, 2014 (SCI-Expanded)
- VI. Estimation of hmF2 and foF2 Communication Parameters of Ionosphere F2-Layer Using GPS Data and IRI-Plas Model
SEZEN U., Sahin O., ARIKAN F., Arikан O.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.61, no.10, pp.5264-5273, 2013 (SCI-Expanded)
- VII. Online, automatic, near-real time estimation of GPS-TEC: IONOLAB-TEC
SEZEN U., ARIKAN F., Arikан O., UGURLU O., SADEGHIMORAD A.
SPACE WEATHER-THE INTERNATIONAL JOURNAL OF RESEARCH AND APPLICATIONS, vol.11, no.5, pp.297-305, 2013 (SCI-Expanded)
- VIII. Observed Ionospheric Effects of 23 October 2011 Van, Turkey Earthquake
ARIKAN F., DEVIREN M. N., LENK O., SEZEN U., Arikан O.
GEOMATICS NATURAL HAZARDS & RISK, vol.3, no.1, pp.1-8, 2012 (SCI-Expanded)
- IX. Perfect Reconstruction IIR Digital Filter Banks Supporting Nonexpansive Linear Signal Extensions
Sezen U.
IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol.57, no.6, pp.2140-2150, 2009 (SCI-Expanded)
- X. Estimation of single station interfrequency receiver bias using GPS-TEC
ARIKAN F., NAYIR H., SEZEN U., Arikан O.
RADIO SCIENCE, vol.43, no.4, 2008 (SCI-Expanded)

ARTICLES PUBLISHED IN OTHER JOURNALS

- I. NVIS HF signal propagation in ionosphere using calculus of variations
SEZEN U., ARIKAN F., ARIKAN O.
GEODESY AND GEODYNAMICS, vol.10, no.1, pp.72-76, 2019 (ESCI)
- II. Dynamo equation solution using Finite Volume Method for midlatitude ionosphere
ARIKAN F., SEZEN U., ARIKAN O.
GEODESY AND GEODYNAMICS, vol.9, no.6, pp.425-431, 2018 (ESCI)
- III. Online computation of International Reference Ionosphere Extended to Plasmasphere (IRI-Plas) model for space weather
SEZEN U., Gulyaeva T. L., ARIKAN F.
GEODESY AND GEODYNAMICS, vol.9, no.5, pp.347-357, 2018 (ESCI)
- IV. TEC Proxy Index of Solar Activity for the International Reference Ionosphere and its Extension to Plasmasphere IRI-Plas Model
GULYAEVA T., ARIKAN F., L P., SEZEN U.

International Journal of Scientific Engineering and Applied Science (IJSEAS), vol.3, pp.144-150, 2017 (Non Peer-Reviewed Journal)

V. **Collaboration of Turkish Scholars Local or Global**

Al U., Soydal İ., Taşkin Z., Doğan G., Sezen U.

COLLNET JOURNAL OF SCIENTOMETRICS AND INFORMATION MANAGEMENT, vol.6, pp.145-159, 2012 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

I. **First Stage of an Automated Content-Based Citation Analysis Study: Detection of Citation Sentences**

TAŞKIN Z., AL U., SEZEN U.

STI 2017, Paris, France, 6 - 08 September 2017

II. **Online International Reference Ionosphere Extended to Plasmasphere (IRI-Plas) Model**

SEZEN U., Gulyaeva T. L., ARIKAN F.

32nd General Assembly and Scientific Symposium of the International-Union-of-Radio-Science (URSI GASS), Montreal, Canada, 19 - 26 August 2017

III. **Modelling the Spatial-Temporal Variability of the Ionosphere over Turkey using a GPS Network**

Yenen S. D., SEZEN U., ARIKAN F.

32nd General Assembly and Scientific Symposium of the International-Union-of-Radio-Science (URSI GASS), Montreal, Canada, 19 - 26 August 2017

IV. **SPACE WEATHER STUDIES OF IONOLAB GROUP**

ARIKAN F., SEZEN U., TOKER C., ARTUNER H., BULU G., DEMİR U., ERDEM E., ARIKAN O., TUNA H., KARATAY S., et al. URSI Asia-Pacific Radio Science Conference (URSI AP-RASC), Seoul, South Korea, 21 - 25 August 2016, pp.1136-1139

V. **Online IRI Plas Interface Service by IONOLAB**

ARIKAN F., TL G., TOKER C., SEZEN U., ARTUNER H.
IRI 2015 Workshop KMITL, 9 - 13 November 2015

VI. **Improved IONOLAB TEC Space Weather Service**

ARIKAN F., SEZEN U., TOKER C., BULU G., ARTUNER H., KARATAY S.
IRI 2015 Workshop KMITL, 9 - 13 November 2015

VII. **The Impact of Turkey in the Library and Information Science**

AL U., SOYDAL İ., SEZEN U., MADRAN R. O.

10th International Conference on Webometrics, Informetrics and Scientometrics, Germany, 3 - 05 September 2014

VIII. **REMOTE SENSING AND 2-D IMAGING OF IONOSPHERE BY IONOLAB GROUP**

ARIKAN F., TOKER C., SEZEN U., Deviren M. N., Cilibas O., ARIKAN O.
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.1520-1523

IX. **Neden Açık Ders Malzemeleri**

MADRAN R. O., SEZEN U.
3. Ulusal Açık Erişim Çalıştayı, İzmir, Turkey, 21 - 22 October 2013

X. **Global Mapping of Hourly TEC and Ionospheric Critical Parameters by Using IRI-Plas Optimization**

Cilibas O., SEZEN U., ARIKAN F., Gulyaeva T.
6th International Conference on Recent Advances in Space Technologies (RAST), İstanbul, Turkey, 12 - 14 June 2013, pp.735-738

XI. **IRI-Plas Optimization Based Ionospheric Tomography**

Cilibas O., SEZEN U., ARIKAN F., Gulyaeva T.
16th International Conference on Information Fusion (FUSION), İstanbul, Turkey, 9 - 12 July 2013, pp.1645-1649

XII. **National PQ monitoring network for Turkish electricity transmission system**

Demirci T., Kalaycioglu A., Salor O., Pakhuylu S., Dagli M., Kara T., Aksueyek H. S., Topcu C., Polat B., Bilgen S., et al. 24th IEEE Instrumentation and Measurement Technology Conference, Warszawa, Poland, 1 - 03 May 2007, pp.2199-2200

XIII. Web based automated total electron content computation

Ugurlu O., SEZEN U., ALKAR A. Z.

3rd International Conference on Recent Advances in Space Technologies, İstanbul, Turkey, 14 - 16 June 2007,
pp.35-36

XIV. Web based IONOLAB TEC Estimation

Ugurlu O., SEZEN U., SAYIN I.

IEEE 15th Signal Processing and Communications Applications Conference, Eskişehir, Turkey, 11 - 13 June 2007,
pp.1224-1225

Supported Projects

SEZEN U., TUBITAK Project, Türkçe Atıflar İçin İçerik Tabanlı Atıf Analizi Modeli Tasarımı, 2015 - Continues

SEZEN U., Project Supported by Higher Education Institutions, Online Plazmaküreye Genişletilmiş Uluslararası İyonküre Referans (IRI-Plas) Modeli Bildirisi ile URSI GASS 2017 Konferansına Katılım Desteği, 2017 - 2020

SEZEN U., Project Supported by Higher Education Institutions, IUGG 2015 Konferansına Katılım Desteği, 2015 - 2017

SEZEN U., Project Supported by Higher Education Institutions, Elektrik ve Elektronik Mühendisliği Eğitim Laboratuar Altyapısını Geliştirme Projesi, 2013 - 2017

SEZEN U., TUBITAK Project, Uzay Havası ve Uzay İkliminin İyonküre ve Plazmaküre Fırtınaları Üzerindeki Etkileri Prj No 112E568, 2013 - 2015

SEZEN U., TUBITAK Project, Bölgesel Otomatik TEİ Haritalaması ve Sürekli Gözlenmesi Prj no 109E055, 2009 - 2012

SEZEN U., TUBITAK Project, Türkiye Elektrik Sistemi nde Güç Kalitesine Etki Eden Değişkenleri ve Güç Akışını İzleme Problemelerin Tespiti Değerlendirilmesi ve Karşı Önlemlerin Hayata Geçirilmesi 105G129 no lu ana projenin 106G010 no lu alt projesi, 2006 - 2010

SEZEN U., TUBITAK Project, Elektron Dağılımının GPS Ölçümleriyle Bilgisayarlı Tomografik Görüntülenmesi Prj No 105E171, 2006 - 2008

Metrics

Publication: 29

Citation (WoS): 265

Citation (Scopus): 195

H-Index (WoS): 9

H-Index (Scopus): 8