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Professional Work Experience

- | | |
|------------------|---|
| 03.2016- | Prof. Dr.
Geomatics Engineering Department, Istanbul Technical University |
| 05.2012- 01.2021 | Director
Application and Research Center for Satellite Communications and Remote Sensing (CSCRS), Istanbul Technical University |
| 02.2009-05.2012 | Vice-Director
CSCRS, Istanbul Technical University |
| 04.2010- 03.2016 | Associate Prof. Dr.
Geomatics Engineering Department, Istanbul Technical University |
| 07.2009-04.2010 | Assistant. Prof. Dr.
Geomatics Engineering Department, Istanbul Technical University |
| 02.2008-08.2008 | Post-doctoral Researcher
Department of Environmental Science, Rutgers University, USA |
| 08.2006- 02.2008 | Visiting Fulbright Researcher
Department of Environmental Science, Rutgers University, USA |
| 10.2002- 07.2009 | Research and Teaching Assistant
Geomatics Engineering Department, Istanbul Technical University |

Memberships

- ✓ IEEE Senior Member 2022-Ongoing
- ✓ IEEE GRS Society Member 2019- Ongoing
- ✓ IEEE Member 2019- 2022
- ✓ American Geophysical Union 2006-present
- ✓ American Meteorological Society 2007 – present.

Awards

1. **TUBITAK Incentive Award in Engineering, 2021**, Outstanding Young Scientist Award given by TUBITAK (The Scientific & Research Council of Turkey).
2. **TUBA Outstanding Young Scientist Award (TUBA-GEBİP), 2017**, given by Turkish Academy of Sciences (TUBA).
3. **Fulbright PhD Scholarship** (2006-2008)
4. **TUBITAK National Ph.D. Scholarship** (2005-2008)
5. **Ranked as the first student** among the 2002 Geodesy and Photogrammetry Engineering graduates, June 2002 (award by Istanbul Technical University Rectorate).

Recognitions within the ITU (ITU has started to give these recognitions in 2022 and two periods were covered)

- Academic Performance Award for the period of 2020-2022, Given by Istanbul Technical University Rectorate
- 2022 Publication Award, Top publishing academician of the Geomatics Engineering department, Given by Istanbul Technical University Rectorate
- Academic Performance Award for the period of 2016-2020, Given by Istanbul Technical University Rectorate
- 2021 Publication Award, Top publishing academician of the Geomatics Engineering department, Given by Istanbul Technical University Rectorate

Volunteer Work

- Value Adder for Disaster Charter, The International Charter Space and Major Disasters, Earthquake in Turkey, International Charter Disaster Activation 797,
<https://disasterscharter.org/web/guest/activations/-/article/earthquake-in-turkey-activation797->

Editorial and Advisory Board Experience

- Editorial Board Member, International Journal of Applied Earth Observation and Geoinformation, Elsevier, 02.2023-Ongoing.
- Editorial Board Member, GIScience and Remote Sensing, 02.2023-Ongoing.
- Associate Editor, ASCE OPEN: Multidisciplinary Journal of Civil Engineering, 01.2023Ongoing.
- Executive Board Member, Representative of Geomatics Engineering Field, TUBITAK Environment, Atmosphere and Earth Sciences Group, TUBITAK (The Scientific & Research Council of Turkey), 07.11.2022-Ongoing.
- Advisory Board Member, Representative of Geomatics Engineering Field, TUBITAK Environment, Atmosphere and Earth Sciences Group, TUBITAK (The Scientific & Research Council of Turkey), 01.07.2022-Ongoing.
- Member, Task Force on Deep Vision in Space, in IEEE Computational Intelligence Society (CIS) Neural Networks Technical Committee (NNTC), 08.2022-Ongoing.
- Editorial Board Member, International Journal of Digital Earth, Taylor and Francis, 06.2022-Ongoing.
- Editorial Board Member, Geocarto International, Taylor and Francis, 04.2022-Ongoing.
- Guest Editor, Remote Sensing, Special Issue: “New Trends of GEOBIA in Remote Sensing”, 1.11.2022-31.08.2023.
- Guest Editor, International Journal of Applied Earth Observation and Special Issue: “Advances in Large-Scale Computer Vision for Earth Observation Data Analytics”, 20222023.
- Guest Editor, Remote Sensing, Special Issue: "Artificial Intelligence, Big Data and Computer Vision in Remote Sensing for Natural Disaster Impact Assessment", 2022.

Research and Application Projects:

1. Land use/Land cover segmentation from historical aerial photographs using deep learning methods, ITU Scientific Foundation, FHD-2023-44797, **Principal Investigator**, 2023-ongoing.
2. GeoAI_Seg_LULC, “A GeoAI-based Land Use Land Cover segmentation process to analyze and predict rural depopulation, agricultural land abandonment, and deforestation in Bulgaria and Turkey, 1940-2040”, European Research Council, Grant Agreement No. 101100837, **Collaborating Partner**, 10. 2022-ongoing.

3. ForestMap – The next generation of forest maps – adapting a Nordic success story across the globe, ERA-NET COFUND ForestValue Joint Call 2021, Project No: 221N393, TUBITAK UPAG, **Partner**, 2022-Ongoing.
4. Design and development of a field level cultivation detection system based on the use of SAR and multispectral satellite imagery, TUBITAK Technology and Innovation Support Program to enhance University-Industry Relationship, **Scientific Advisor**, 2022-2023.
5. Developing a mobile application for drought monitoring using satellite data, (PEDAP) Project, ITU Scientific Foundation, PMA-2022-44088, **Principal Investigator**, 2022-2003.
6. UrbanOccupationsOETR "Industrialisation and urban growth from the mid-nineteenth century Ottoman Empire to contemporary Turkey in a comparative perspective 1850-2000, European Research Council, Grant Agreement No. 679097, **Collaborating Partner**, 02. 2021-09.2022.
7. Development of a pilot web service to monitor urban growth in Istanbul city using remote sensing techniques and geospatial technologies, **Co-PI**, Ministry of Urban and Environment, 2020-2021.
8. Automatic building extraction by using deep learning approaches, Post-Doctoral Researcher (DOSAP) Project, ITU Scientific Foundation, MAB-2020-42332, **Principal Investigator**, 2020-2021.
9. Investigation the impact of satellite image resolution on landscape metrics, ITU Scientific Research Foundation, MGA-2017-40936, **Principal Investigator**, 2017-2019.
10. Production of urban maps and determination of temporal changes in urban areas using multiresolution remotely sensed data, Turkish Academy of Science, **Principal Investigator**, 20172020.
11. Satellite ground receiving station renewal project, Ministry of Development, 2016K120790, **Principal Investigator**, 2016-2021. (**Budget: 3,000,000 Euro**)
12. Satellite image archiving and analysis system, University-Industry Cooperation project, **Principal Investigator**, 2016-2019.
13. National land cover database (CORINE Turkey 2012), Ministry of Forest and Water Affairs, 2012K100160, **Principal Investigator**, 2013-2015. (**Budget: 2,000,000 Euro**)
14. National agricultural yield monitoring and prediction system using remote sensing, GIS and insitu measurements, Ministry of Development, **Remote Sensing and GIS WP Leader**, 20112017. (**Budget: 8,000,000 Euro**)
15. Investigating the impacts of hydrological, climatic and land cover/use changes in Konya closed basin area on the Salt Lake and determining protective management strategies, TUBITAK-The Scientific and Research Council of Turkey Project, 110Y303, **Researcher**, 2011-2014.
16. Environmental monitoring of the Black Sea basin - Monitoring and Information Systems for Reducing Oil Pollution (MONINFO), European Union Project, **Scientific Advisor**, 2011.
17. Usage of remote sensing and GIS to identify grape diversity and spatial distribution of vineyard areas using SPOT-5, Worldview-2 and Ikonos data, The Scientific and Technological Research Council of Turkey (TUBITAK) Project, ÇAYDAG-109Y277, **Principal Investigator**, 20102012.
18. Investigation of the accuracy of Digital Elevation Models derived from optic and radar data, ITU Scientific Research Foundation Project, **Co-Principal Investigator**, 2010-2012.

19. Disaster information system and meteorological early warning system of Rize city, TUBITAK Project, KAMAG, 106G029, **Researcher**, 2006-2008.
20. Impact of dynamic water table on land surface-atmosphere coupling and regional hydroclimatic variability using a fully coupled RAMS-Hydro modeling system, NSF Project, **Post-Doctoral Researcher**, 2007-2008.
21. Investigation of the geometric accuracy and engineering applications of Orbview-3 satellite images, TUBITAK Project, ÇAYDAG-105Y124, **Researcher**, 2006-2008.
22. Investigation of general characteristics of Filyos River Basin using remotely sensed data and digital elevation model, TUBITAK Project, ÇAYDAG-104Y296, **Researcher**, 2005-2007
23. Determination of earthquake-induced heavy damages in urban areas by means of remotely sensed data, ITU Research Foundation Project, Project No:30793, **Researcher**, 2004-2007.
24. Accuracy assessment for the geometric transformation of satellite sensor images, ZKU Research Foundation Project, 2004-45-05-07, **Researcher**, 2004-2005.
25. Monitoring the state-owned lands of Istanbul using satellite sensor images and GIS, TUBITAK Project, İÇTAG-103I011, **Researcher**, 2003-2004.
26. Rectification accuracy analysis of multi-sensor remote sensing data, ITU Research Foundation Project, Proje No:00_03_128, **Researcher** , 2003-2004.

International Journal Articles

- A1. Wang, P. and **Sertel, E.** (2023). Multi-Frame Super-resolution of Remote Sensing Images using attention-based GAN models, 110387, *Knowledge-Based Systems*, <https://doi.org/10.1016/j.knosys.2023.110387>.
- A2. Varol, B., Szabo , S., Topaloğlu, R. H., Aksu , A. G., & **Sertel, E.**, (2023). Analysis of the association between image resolution and landscape metrics using multi-sensor LULC maps. *Journal Of Environmental Planning & Management* , vol.1, 1-22.
- A3. Bahsi, K., Ustaoglu, B., Aksoy, S. & **Sertel, E.** (2023). Estimation of emissions from crop residue burning in Türkiye using remotely sensed data and the Google Earth Engine platform, *Geocarto International*, vol. 38, no. 1, 2157052, <https://doi.org/10.1080/10106049.2022.2157052>.
- A4. Özcihan, B. , Özlü, L. D. , Karakap, M. İ. , Sürmeli, H. , Algancı, U. & **Sertel, E.** (2023). A comprehensive analysis of different geometric correction methods for the Pleiades -1A and Spot-6 satellite images. *International Journal of Engineering and Geosciences*, vol. 8, no. 2 , 146-153, <https://doi.org/10.26833/ijeg.1086861>.
- A5. Wang, P., Bayram, B. & **Sertel, E.**, (2022). A comprehensive review on Deep Learning based Remote Sensing Image Super-Resolution Methods, *Earth-Science Reviews*, Invited Review Article, vol.232, 104110, <https://doi.org/10.1016/j.earscirev.2022.104110>.
- A6. Osgouei, P. E., **Sertel, E.** & Kabadayi, M.E., (2022). Integrated Usage of Historical Geospatial Data And Modern Satellite Images Reveal Long-Term Land Use/Cover Changes in Bursa/Turkey, 1858-2020, *Nature Scientific Reports*, vol. 12, 9907, <https://doi.org/10.1038/s41598-022-11396-1>.

- A7.** Bakirman, T., Komurcu, I. & **Sertel, E.**, (2022) Comparative Analysis of Deep LearningBased Building Extraction Methods with the New VHR Istanbul Dataset, *Experts Systems with Applications*, vol. 202, 117346, <https://doi.org/10.1016/j.eswa.2022.117346>.
- A8.** **Sertel, E.**, Ekim, B., Osgouei, P. E., & Kabadayi, M.E., (2022). Land Use and Land Cover Mapping Using Deep Learning Based Segmentation Approaches and VHR Worldview-3 Images, *Remote Sensing*, 2022, 14, 4558, <https://doi.org/10.3390/rs14184558>.
- A9.** Kabadayi, M.E., Ettehadi, Osgouei P., & **Sertel, E.**, (2022). Agricultural Land Abandonment in Bulgaria: A Long-Term Remote Sensing Perspective, 1950–1980. *Land*, 2022, vol.11, no.10, 1855, <https://doi.org/10.3390/land11101855>.
- A10.** Avci, C., **Sertel, E.** & Kabadayi, M.E., (2022). Deep Learning Based Road Extraction from Historical Maps”, *IEEE Geoscience and Remote Sensing Letters*, vol. 19, pp. 1-5, 2022, Art no. 3513605, <https://doi.org/10.1109/LGRS.2022.3204817>.
- A11.** Osgouei, P. E., Roberts, G., Kaya, S., Bilal, M., Dash, J., **Sertel, E.**, (2022). Evaluation and comparison of MODIS and VIIRS aerosol optical depth (AOD) products over regions in the Eastern Mediterranean and the Black Sea, *Atmospheric Environment*, 118784, <https://doi.org/10.1016/j.atmosenv.2021.118784>.
- A12.** Aksoy, S., Yildirim, A., Gorji, T., Hamzehpour, N., Tanik, A. G., & **Sertel, E.**, (2022). Assessing the performance of machine learning algorithms for soil salinity mapping in Google Earth Engine Platform using Sentinel-2A and Landsat-8 OLI data, *Advances in Space Research*, vol. 69, no. 2, 1072-1086, <https://doi.org/10.1016/j.asr.2021.10.024>.
- A13.** Kızılkaya S, Alganci U, **Sertel E.**, (2022). VHRShips: An Extensive Benchmark Dataset for Scalable Deep Learning-Based Ship Detection Applications. *ISPRS International Journal of GeoInformation*. vol. 11, no. 8. <https://doi.org/10.3390/ijgi11080445>.
- A14.** Topaloglu, R. H., Aksu, G. A., Govarchin Ghale, Y. A., & **Sertel, E.** (2022) High-Resolution Land Use and Land Cover Change Analysis Using GEOBIA and Landscape Metrics: A Case of Istanbul, Turkey, *Geocarto International*, vol. 37, no. 25, 9071-9097, <https://doi.org/10.1080/10106049.2021.2012273>.
- A15.** Ekim, B. and **Sertel, E.** (2021). Deep Neural Network Ensembles for Remote Sensing Land Cover and Land Use Classification, *International Journal of Digital Earth*, vol. 14, no. 12, 18681881, doi.org/10.1080/17538947.2021.1980125.
- A16.** Wang, P. and **Sertel, E.** (2021). Channel-spatial Attention-based Pan-sharpening of Very High-resolution Satellite Images, *Knowledge-Based Systems*, vol. 229, 107324, <https://doi.org/10.1016/j.knosys.2021.107324>.
- A17.** Ekim, B, **Sertel, E.**, Karadayi, M. E. (2021). Automatic Road Extraction from Historical Maps using Deep Learning Techniques: A Regional Case Study of Turkey in a German World War II Map, *ISPRS International Journal of Geo-Information*, vol. 10, no.8, 492; <https://doi.org/10.3390/ijgi10080492>.
- A18.** Wang, P., Bayram, B. & **Sertel, E.** (2021). Super-Resolution of Remotely Sensed Data Using Channel Attention Based Deep Learning Approach. *International Journal of Remote Sensing*, vol.42, no.16, 6050-6067. <https://doi.org/10.1080/01431161.2021.1934598>.

- A19.** Özçelik, F., Algancı, U., **Sertel, E.**, & Ünal, G., (2021). Rethinking CNN-Based Pansharpening: Guided Colorization of Panchromatic Images via GANs. *IEEE Transactions on Geoscience And Remote Sensing*, vol.59, no.4, 3486-3501. <https://doi.org/10.1109/TGRS.2020.3010441>.
- A20.** Wang, P., Algancı, U. & **Sertel, E.**, (2021). Comparative Analysis on Deep Learning based Pansharpening of Very High-Resolution Satellite Images. *International Journal of Environment and Geoinformatics*, vol. 8, no. 2, 150-165. <https://doi.org/10.30897/ijegeo.834760>.
- A21.** Gorji, T., Yildirim, A., Hamzehpour, N., Tanık, A. G. , & **Sertel, E.**, (2020). Soil salinity analysis of Urmia Lake Basin using Landsat-8 OLI and Sentinel-2A based spectral indices and electrical conductivity measurements. *Ecological Indicators*, vol.112, no. 106173. <https://doi.org/10.1016/j.ecolind.2020.106173>.
- A22.** Algancı, U., Soydas, M., & **Sertel, E.**, (2020). Comparative Research on Deep Learning Approaches for Airplane Detection from Very High-Resolution Satellite Images. *Remote Sensing*, vol.12, no.3. <https://doi.org/10.3390/rs12030458>.
- A23.** Algancı, U., Kuru, G. N., Yay Algan, I., & **Sertel, E.**, (2019). Vineyard Site Suitability Analysis by use of Multicriteria Approach Applied on Geo-spatial data. *Geocarto International*, vol.34, 1286-1299. <https://doi.org/10.1080/10106049.2018.1493156>.
- A24.** **Sertel, E.**, Imamoglu, M. Z. , Cüceloğlu, G., & Erturk, A., (2019). Impacts of Land Cover/Use Changes on Hydrological Processes in a Rapidly Urbanizing Mid-latitude Water Supply Catchment. *Water*, vol.11, no.5, 1075. <https://doi.org/10.3390/w11051075>.
- A25.** Osgouei, P. E., Kaya, Ş., **Sertel, E.**, & Algancı, U., (2019). Separating Built-Up Areas from Bare Land in Mediterranean Cities Using Sentinel-2A Imagery. *Remote Sensing*, vol.11. no.3, 345; <https://doi.org/10.3390/rs11030345>.
- A26.** Gorji, T., Algancı, U., **Sertel, E.**, & Tanık, A. G. , (2019). Comparing Two Different Spatial Interpolation Approaches To Characterize Spatial Variability Of Soil Properties in Tuz Lake Basin - Turkey. *Fresenius Environmental Bulletin*, vol.28, no.2, 986-992.
- A27.** Bahsi, K., Salli, B., Kılıç, D., & **Sertel, E.**, (2019). Estimation of Emissions from Crop Residue Burning Using Remote Sensing Data. *International Journal of Global Warming*, vol.19, no. 2, 94-105. [10.1504/ijgw.2019.101774](https://doi.org/10.1504/ijgw.2019.101774).
- A28.** Gorji, T, Yıldırım, A, **Sertel, E**, Tanık, A . (2019). Remote Sensing Approaches and Mapping Methods for Monitoring Soil Salinity Under Different Climate Regimes. *International Journal of Environment and Geoinformatics*, vol. 6, no. 1, 33-49. [10.30897/ijegeo.500452](https://doi.org/10.30897/ijegeo.500452).
- A29.** Simsek, D., & **Sertel, E.**, (2018). Spatial Analysis of Two Different Urban Landscapes Using Satellite Images and Landscape Metrics. *Photogrammetric Engineering and Remote Sensing*, vol.84, no.11, 711-721. <https://doi.org/10.14358/PERS.84.11.711>.
- A30.** **Sertel, E.**, Topaloğlu, R. H., Şallı, B., Algan, I. Y. , & Aksu, G. A. , (2018). Comparison of Landscape Metrics for Three Different Level Land Cover/Land Use Maps. *ISPRS International Journal of Geo-Information*, vol.7, no.10. 408. <https://doi.org/10.3390/ijgi7100408>.
- A31.** Kartal, H., Algancı, U., & **Sertel, E.**, (2018). Automated Orthorectification of VHR Satellite Images by SIFT-Based RPC Refinement. *ISPRS International Journal of Geo-Information* , vol.7, no.6. 229. <https://doi.org/10.3390/ijgi7060229>.

- A32.** Alganci, U., Besol, B., & **Sertel, E.**, (2018). Accuracy Assessment of Different Digital Surface Models. *ISPRS International Journal of Geo-Information*, vol.7, no.3. 114. <https://doi.org/10.3390/ijgi7030114>.
- A33.** Alganci, U, **Sertel, E**, Kaya, S. (2018). Determination of the Olive Trees with Object Based Classification of Pleiades Satellite Image. *International Journal of Environment and Geoinformatics*, vol. 5, no. 2, 132-139 . [10.30897/ijegeo.396713](https://doi.org/10.30897/ijegeo.396713).
- A34.** Tuna, C., Ünal, G., & **Sertel, E.**, (2018). Single-Frame Super Resolution of Remote-Sensing Images by Convolutional Neural Networks. *International Journal of Remote Sensing*, vol.39, no.8, 2463-2479. <https://doi.org/10.1080/01431161.2018.1425561>.
- A35.** Gorji, T., **Sertel, E.**, & Tanik, A. G., (2017). Recent Satellite Technologies for Soil Salinity Assessment with Special Focus on Mediterranean Countries. *Fresenius Environmental Bulletin*, vol.26, no.1, 196-203.
- A36.** Gorji, T., **Sertel, E.**, & Tanik, A. G., (2017). Monitoring Soil Salinity via Remote Sensing Technology Under Data Scarce Conditions: A Case Study from Turkey. *Ecological Indicators*, vol.74, 384-391. <https://doi.org/10.1016/j.ecolind.2016.11.043>.
- A37.** İmamoğlu, M, **Sertel, E.** (2016). Analysis of Different Interpolation Methods for Soil Moisture Mapping Using Field Measurements and Remotely Sensed Data. *International Journal of Environment and Geoinformatics*, vol. 3, no. 3, 11-25 . [10.30897/ijegeo.306477](https://doi.org/10.30897/ijegeo.306477).
- A38.** **Sertel, E.**, Tanik, A. G., & Gorji, T., (2015). Soil Salinity Prediction, Monitoring and Mapping Using Modern Technologies. *Procedia Earth and Planetary Science*, vol.15, 507-512. <https://doi.org/10.1016/j.proeps.2015.08.062>.
- A39.** **Sertel, E** , Akay, S . (2015). High resolution Mapping of Urban Areas Using SPOT-5 Images and Ancillary Data . *International Journal of Environment and Geoinformatics*, vol. 2, no. 2 , 6376 . [10.30897/ijegeo.303545](https://doi.org/10.30897/ijegeo.303545).
- A40.** **Sertel, E.**, & Alganci, U., (2016). Comparison of Pixel and Object-Based Classification for Burned Area Mapping Using SPOT-6 Images. *Geomatics Natural Hazards & Risk* , vol.7, no.4, 1198-1206. <https://doi.org/10.1080/19475705.2015.1050608>.
- A41.** **Sertel, E.**, & Yay, I., (2014). Vineyard Parcel Identification from Worldview-2 Images Using Object-Based Classification Model. *Journal of Applied Remote Sensing*, vol.8. no.1, 083535. <https://doi.org/10.1117/1.JRS.8.083535>.
- A42.** Alganci, U., Ozdogan, M., **Sertel, E.**, & Ormeci, C., (2014). Estimating Maize and Cotton Yield in Southeastern Turkey with Integrated Use Of Satellite Images, Meteorological Data And Digital Photographs. *Field Crops Research*, vol.157, 8-19. <https://doi.org/10.1016/j.fcr.2013.12.006>.
- A43.** Alganci, U., **Sertel, E.**, Ozdogan, M., & ORMECI, C., (2013). Parcel-Level Identification of Crop Types Using Different Classification Algorithms and Multi-Resolution Imagery in Southeastern Turkey. *Photogrammetric Engineering and Remote Sensing*, vol.79, no.11, 10531065. <https://doi.org/10.14358/PERS.79.11.1053>.
- A44.** **Sertel, E.**, Cigizoglu, H. K. , & Sanli, D. U. , (2011). Reply to: Akyilmaz, O., 2010. Discussion of: Sertel, E.; Cigizoglu, H.K., and Sanli, D.U., 2008. Estimating Daily Mean Sea Level Heights Using Artificial Neural Networks. *Journal of Coastal Research*, 24(3), 727-734; *Journal of Coastal Research*, 26(6), 1184-1184. *Journal of Coastal Research*, vol.27, no.4, 791-792.

- A45.** Yanalak, M., **Sertel, E.**, Musaoglu, N., İpbüker, C., & Kaya, Ş., (2011). Comparison of Planimetric and Thematic Accuracy of OrbView-3 and IKONOS Images. *Journal of the Indian Society of Remote Sensing*, vol.39, no.2, 135-146. [10.1007/s12524-011-0084-4](https://doi.org/10.1007/s12524-011-0084-4).
- A46.** Yanalak, M., İpbüker, C., Musaoglu, N., **Sertel, E.**, & Kaya, Ş., (2012). DEM Accuracy of High Resolution Satellite Images. *Lecture Notes in Computer Science*. vol 7335. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-31137-6_36.
- A47.** **Sertel, E.**, Ormeci, C., & Robock, A., (2011). Modelling Land Cover Change Impact on the Summer Climate of the Marmara Region, Turkey. *International Journal of Global Warming*, vol.3, no. 1, 194-202. [10.1504/ijgw.2011.038379](https://doi.org/10.1504/ijgw.2011.038379).
- A48.** **Sertel, E.**, Robock, A., & Ormeci, C., (2010). Impacts of Land Cover Data Quality on Regional Climate Simulations. *International Journal Of Climatology*, vol.30, no.13, 1942-1953. <https://doi.org/10.1002/joc.2036>.
- A49.** Mahmood, R., Pielke, R. A. , Hubbard, K. G. , Niyogi, D., Bonan, G., Lawrence, P., ... Mender, R.(2010). Impacts Of Land Use/Land Cover Change On Climate And Future Research Priorities. *Bulletin Of The American Meteorological Society*, Vol.91, No.1, 37-46. <https://doi.org/10.1175/2009BAMS2769.1>.
- A50.** **Sertel, E.**, (2009). Identification of Earthquake Induced Damage Areas Using Fourier Transform and SPOT HRVIR Pan Images. *Sensors*, vol.9, no.3, 1471-1484. <https://doi.org/10.3390/s90301471>.
- A51.** Ormeci, C., **Sertel, E.**, & Sarikaya, O., (2009). Determination of Chlorophyll-A Amount in Golden Horn, Istanbul, Turkey Using IKONOS and In-Situ Data. *Environmental Monitoring And Assessment*, vol.155, 83-90. <https://doi.org/10.1007/s10661-008-0419-y>.
- A52.** Şeker, D. Z., Kaya, Ş., Alkan, R. M. , Tanik, A., & **Saroglu, E.**, (2008). 3D Coastal Erosion Analysis of Kilyos - Karaburun Region Using Multi-Temporal Satellite Image Data. *Fresenius Environmental Bulletin*, vol.17, 1977-1982.
- A53.** Kaya, S., **Sertel, E.**, Seker, D. Z., & Tanik, A. G., (2008). Multi-Temporal Analysis and Mapping of Coastal Erosion Caused By Open-Mining Areas. *Environmental Forensics*, vol.9, 271-276. <https://doi.org/10.1080/15275920802123963>.
- A54.** **Sertel, E.**, Findik, N., Kaya, Ş., Şeker, D. Z., & Samsunlu, A., (2008). Assessment of Landscape Changes İn The Kizilirmak Delta, Turkey, Using Remotely Sensed Data and GIS. *Environmental Engineering Science*, vol.25, no.3, 353-361. <https://doi.org/10.1089/ees.2006.0149>.
- A55.** Demirel, H., **Sertel, E.**, Kaya, Ş., & Seker, D. Z., (2008). Exploring Impacts of Road Transportation on Environment: A Spatial Approach. *Desalination*, vol.226, 279-288. <https://doi.org/10.1016/j.desal.2007.02.111>.
- A56.** **Sertel, E.**, Cığızoğlu, H. K. , & Sanli, D. U. , (2008). Estimating Daily Mean Sea Level Heights Using Artificial Neural Networks. *Journal of Coastal Research*, vol.24, no.3, 727-734. <https://doi.org/10.2112/06-742.1>.
- A57.** **Sertel, E.**, Kutoglu, S. H. , & Kaya, S., (2007). Geometric Correction Accuracy of Different Satellite Sensor Images: Application Of Figure Condition. *International Journal of Remote Sensing*, Vol.28, No.20, 4685-4692. <https://doi.org/10.1080/01431160701592452>.

A58. Sertel, E., Kaya, S., & Curran, P. J., (2007). Use of Semi-variograms to Identify Earthquake Damage in An Urban Area. *IEEE Transactions on Geoscience and Remote Sensing*, Vol.45, No.6, 1590-1594. <https://doi.org/10.1109/TGRS.2007.894019>.

Book Chapters

B1. Sertel, E., Topaloğlu, R. H. , Bahşi, K., Varol, B., & Musaoğlu, N., (2021). Production of a Land Cover/Land Use (LC/LU) Map of Izmir Metropolitan City by Using High-Resolution Images. *Recent Advances in Environmental Science from the Euro-Mediterranean and Surrounding Regions (2nd Edition)* (pp.1837-1846), London: Springer, London/Berlin.

B2. Papila, I., Sertel, E., Kaya, Ş., Gazioğlu, C. Oil Spill Detection Using Remote Sensing Technologies-Synthetic Aperture Radar (Sar), (2018) Edts: Selma Ünlü, Bedri Alpar, Bayram Öztürk. Oil Spill Along the Turkish Straits Sea Area; Accidents, Environmental Pollution, SocioEconomic Impacts and Protection, 2018, Turkish Marine Research Foundation (TUDAV), 140-156.

B3. Molavizadeh, N., Sertel, E., & Demirel, H., (2016). Drought Conditions in Turkey Between 2004 and 2013 Via Drought Indices Derived from Remotely Sensed Data. *Energy Transportation and Global Warming* (pp.113-121), Berlin: Springer Verlag.

B4. Sertel, E., & Şeker, D. Z., (2012). Determination of Human Induced Coastal Changes Using RS, GIS and Geostatistics. *Coastal Hazards* (pp.85-97), New York: Springer-Verlag.

B5. Şeker, D. Z., Kaya, Ş., Musaoğlu, N., Demirel, H., Tanık, A. G. , & Sertel, E., (2011). Spatial Analyses for Environmental Impacts of Landfill Areas. *Survival and Sustainability, Environmental Earth Sciences* (pp.691-697), Berlin: Springer-Verlag.

B6. Ekercin S., Sertel E., Dadaser-Celik F., Durduran S. (2013) Investigating the Climate Change Impacts on the Water Resources of the Konya Closed Basin Area (Turkey) Using Satellite Remote Sensing Data. In: Dincer I., Colpan C., Kadioglu F. (eds) Causes, Impacts and Solutions to Global Warming. Springer, New York, NY. https://doi.org/10.1007/978-1-4614-7588-0_9.

International Conference Papers

C1. Alp, G. and Sertel, E., 2022. Deep Learning Based Patch-Wise Land Cover Land Use Classification: A New Small Benchmark Sentinel-2 Image Dataset, International Geoscience and Remote Sensing Symposium (IGARSS-2022), 17-22 July, Kuala Lumpur, Malaysia.

C2. Aksoy, S. and Sertel, E., 2021. Comparison of Drought Monitoring Indices Derived from MODIS and CHIRPS Data Using Google Earth Engine, 9th Global Conference on Global Warming (GCGW-2021), 1-4 August, Zagreb, Hungary.

C3. Ekim, B. and Sertel, E., 2021. A Multi-Task Deep Learning Framework for Building Footprint Segmentation, International Geoscience and Remote Sensing Symposium (IGARSS2021), 11-16 July, Brussels, Belgium.

- C4.** Papila, I., Alganci, U., **Sertel, E.**, 2020. Sentinel-1 Based Flood Mapping Using Interferometric Coherence and Intensity Change Detection Approach, In Proc. of XXIVth ISPRS Congress, 14-20 July, Nice, France, pp. 1-7.
- C5.** Alganci, U., **Sertel, E.**, Kaya, S., Besol, B. “Comparative Analysis of Digital Surface Model Extraction Approaches for Tri-Stereo Satellite Images”, International Symposium on Applied Geoinformatics, 7-9 November 2019, Istanbul.
- C6.** Yildirim, T. Gorji , Hamzehpour, N., **Sertel, E.**, Tanik, A. “Comparison of Different Soil Salinity Indices Derived from SENTINEL-2A Images”, International Symposium on Applied Geoinformatics, 7-9 November 2019, Istanbul.
- C7.** Osgouei,P. E., Kaya, S., **Sertel, E.** “Evaluation Of Satellite AOD Observations for Monitoring Air Quality”, International Symposium on Applied Geoinformatics, 7-9 November 2019, Istanbul.
- C8.** Osgouei,P. E., Kaya, S., **Sertel, E.** , Alganci, U. “Improved Urban Land Cover/Use Mapping Using SENTINEL-2A Imagery”, International Symposium on Applied Geoinformatics, 7-9 November 2019, Istanbul.
- C9.** Akçay, H. M., Kaya, S., **Sertel, E.**, Alganci, U. “Seperating Olive Trees From Agricultural Areas and Bare Lands by Using Spectral Indices with Multi-Temporal SENTINEL-2 Images”, International Symposium on Applied Geoinformatics, 7-9 November 2019, Istanbul.
- C10.** Gorji, T., Yildirim, A., Hamzehpour, N, **Sertel, E.**, Tanik, A. “Mapping Soil Salinity by Using Landsat-8 OLI Imagery and Regression Analysis over Bonab County Of East Azerbaijan Province in Iran”, International Symposium on Applied Geoinformatics, 7-9 November 2019, Istanbul.
- C11.** Varol, B., Topaloglu, R. H., **Sertel, E.** “Investigation of Open Source Geo-Information Integration Impact on Object-Based Classification Accuracy: A Case Study in Istanbul With Sentinel-2 Images”, International Symposium on Applied Geoinformatics, 7-9 November 2019, Istanbul.
- C12.** Nasirzadehdizaji, R., Sanli, F. B., Cakir, Z. and **Sertel, E.** “Crop Mapping Improvement by Combination of Optical and SAR datasets”, Eighth International Conference on AgroGeoinformatics (Agro-Geoinformatics 2019), Istanbul, Turkey on July 16-19, 2019, DOI: 10.1109/Agro-Geoinformatics.2019.8820604.
- C13.** Gorji, T., Yildirim, A., Hamzehpour, N., **Sertel, E.** and Tanik, A.” Characterizing the spatial variability of soil salinity in Lake Urmia Basin by applying geo-statistical approaches”, Eighth International Conference on Agro-Geoinformatics (Agro-Geoinformatics 2019), Istanbul, Turkey on July 16-19, 2019, DOI: 10.1109/Agro-Geoinformatics.2019.8820609.
- C14.** Alganci, U., **Sertel, E.** and Kaya, S. “Determination of the Flooded Agricultural Lands with Spot 6 High Resolution Satellite Images: A case study of Menderes Plain, Turkey”, Eighth International Conference on Agro-Geoinformatics (Agro-Geoinformatics 2019), Istanbul, Turkey on July 16-19, 2019.
- C15.** Aksoy, S., Gorucu, O. and **Sertel, E.** “Drought Monitoring using MODIS derived indices and Google Earth Engine Platform”, Eighth International Conference on Agro-Geoinformatics (Agro-Geoinformatics 2019), Istanbul, Turkey on July 16-19, 2019, DOI: 10.1109/AgroGeoinformatics.2019.8820209.

- C16.** Akçay, H., Kaya, S., **Sertel, E.** and Algancı, U. “Determination of Olive Trees with Multisensor Data Fusion”, Eighth International Conference on Agro-Geoinformatics (AgroGeoinformatics 2019), Istanbul, Turkey on July 16-19, 2019, DOI: 10.1109/AgroGeoinformatics.2019.8820712.
- C17.** R.H. Topaloglu and **E. Sertel**, “Investigation Of Changes Using Landscape Metrics: The Case Of Izmir Gaziemir” X. TUFUAB Teknik Sempozyumu, 25-27 Nisan 2019, Aksaray. **C18.** Kartal, H, Alganci, U. and **Sertel, E.** “Histogram Matching Based Mosaicking of SPOT 6/7 Satellite Images”, 9th International Conference on Recent Advances in Space Technologies (RAST),11-14 June 2019, Istanbul, 451-455, DOI: 10.1109/RAST.2019.8767868.
- C19.** Yılmaz, E.Ö., Varol, B, Topaloglu, R. H. and **Sertel, E.** “Object-based Classification of Izmir Metropolitan City by Using Sentinel-2 Images” , 9th International Conference on Recent Advances in Space Technologies (RAST),11-14 June 2019, Istanbul 407-412, DOI: 10.1109/RAST.2019.8767781.
- C20.** Ottaviano, M., **Sertel, E.**, Marchetti, M. “Turkish Satellite Göktürk-1 at Work: Applications for Artificial, Natural and Semi-Natural Resources, Mapping and Inventory” , 9th International Conference on Recent Advances in Space Technologies (RAST),11-14 June 2019, Istanbul, 833 – 838, DOI: 10.1109/RAST.2019.8767465.
- C21.** Kaya, S., Celik, B., Bayram, B., and **Sertel, E.** “Impacts of Forest Cover Changes on Land Surface Temperatures: A Remote Sensing Study of Istanbul Northern Forests”, Intenational Conference on Agriculture, Forest, Food Sciences And Technologies, ICAFOF 2018 Çeşme-İzmir/ Turkey, 2-5 Nisan 2018.
- C22.** **Sertel, E.**, Topaloğlu, R.H., Salli, B., Algan, I. Y. and Aksu, A. G. “ Comparison of Landscape Metrics for Three Different Level Land Cover/Land Use Maps Generated from Spot6/7 Images and Object Based Classification Approach”, 7th GEOBIA Conference, 18-22 June 2018, Montpellier, France
- C23.** Bahsi, K., Salli, B., Kılıç, D., and **Sertel, E.**, “Estimation of Emissions from Crop Residue Burning Using Remote Sensing Data”, 7th Global Conference on Global Warming (GCGW 2018), 24-28 June 2018, İzmir, Turkey.
- C24.** Salli, B., Bahsi, K., and **Sertel, E.**, “Determination of Burned Areas Using Multi-Sensor Satellite Images and Spectral Indices: Bayindir Forest Fire Case”, 38th Annual EARSeL Symposium & 3rd Joint EARSeL LULC and NASA LCLUC Workshop, 9-12 July 2018, Chania, Crete, Greece
- C25.** **Sertel, E.**, Alp, G., Algan, I. Y., Musaoğlu, N. and Kaya, S. “Development of 4th Level CORINE Land Cover/Land Use Nomenclature for Turkey”, 38th Annual EARSeL Symposium & 3rd Joint EARSeL LULC and NASA LCLUC Workshop, 9-12 July 2018, Chania, Crete, Greece
- C26.** Gorji, T., Tanık, A., and **Sertel, E.**, “Interpolation Approaches for Characterizing Spatial Variability of Soil Properties in Tuz Lake Basin of Turkey”, IOP Conference Series: Earth and Environmental Science, 95, (2017) 062010, doi :10.1088/1755-1315/95/6/062010
- C27.** Kartal, H., Alganci, U., and **Sertel, E.**, “Comparison of PCA and NLPCA Methods for Band Reduction of Hyperspectral Images” International Symposium on GIS Applications in Geography and Geosciences (ISGGG), 18-21 October 2017, Çanakkale.

- C28.** Salli, B., Karadal, G., Topalođlu, R. H., and **Sertel, E.**, Nebiye Musaođlu. Comparison Of Different Spectral Indices To Identify Vegetation Cover Using Landsat-8 OLI And Sentinel 2a MSI Data, International Symposium on GIS Applications in Geography and Geosciences (ISGGG), 18-21 October 2017, Çanakkale. (Özet)
- C29.** Karadal, G., Salli, B., Topaloglu, R. H., and **Sertel, E.**, Nebiye Musaođlu. “Spatio-Temporal Evaluation Of Built Up Areas In Mediterranean Coastline Using Satellite Images”, 19th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, 4-6 October, Rome, Italy. (Özet)
- C30.** Topaloglu, R. H., Bilgiliođlu, B.B., and **Sertel, E.**. “High Resolution Urban Mapping Using object Based Classification Approach: A Case Study in Izmir City”, 19th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, 4-6 October, Rome, Italy. (Özet)
- C31.** Kartal, H., **Sertel, E.**, and Alganci, U. “Comparative Analysis of Different Geometric Correction Methods for Very High Resolution Pleiades Images”, 8th International Conference on Recent Advances in Space Technologies-RAST 2017, Istanbul, 19-22 June 2017.
- C32.** Rahimzadeganasl, A. and **Sertel, E.** “Automatic Building Detection Based on CIE LUV Color Space Using Very High Resolution Pleiades Images”, 25. IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı, 15-18 Mayıs 2017, Antalya.
- C33.** Beşol, B., Alganci, U., and **Sertel, E.**, “Nesne Tabanlı Sınıflandırma ile Bina Tespitinin Doğruluđunu Nsym ile Artırılması”, 25. IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı, 15-18 Mayıs 2017, Antalya.
- C34.** Tuna, C., Akoguz, A., Unal, G., and **Sertel, E.** “Resolution enhancement of tri-stereo remote sensing images by super resolution methods”. SPIE Remote Sensing Conference, 26-29 September 2016, Edinburgh, UK.
- C35.** **Sertel, E.** and Alganci, U. “Object Based Analysis of Forest Fires using Very HighResolution Satellite Images”. 37th Asian Conference on Remote Sensing (ACRS), 17-21 October 2016, Colombo, Srilanka.
- C36.** Bostan, S., Ortak, M. A., Tuna, C., Akoguz, A., and **Sertel, E.** and Burak Berk Ustundag, “Comparison Of Classification Accuracy Of Co-Located Hyperspectral And Multispectral Images For Agricultural Purposes”, The Fifth International Conference on Agro-Geoinformatics, 18-20 July 2016, Tianjin China.
- C37.** Topaloglu, R., Ekercin, s., and **Sertel, E.**” Monitoring Land Use/ Land Cover Changes in Konya Closed Basin Area with the Integration of Geographic Information Systems and Remote Sensing”, 36th EARSeL Symposium 20-24 June 2016 University of Bonn (Abstract).
- C38.** Akoguz , A., Sacihan, G., Ortak, M.A., Ozsahin, I., and **Sertel, E.**, “Automated Province Assignment for SPOT Satellite Images Based on Hybrid kNN and PiP Algorithm: A Case Study of Turkey”, 36th EARSeL Symposium 20-24 June 2016 University of Bonn (Abstract).
- C39.** Kuru, G. N., Alganci, U., Yay, I., and **Sertel, E.**, “Spatial Data Based Multicriteria Analysis for Vineyard Site Selection”, 36th EARSeL Symposium 20-24 June 2016 University of Bonn (Abstract).

- C40.** Akay, S. S. and **Sertel, E.** “Urban Land Cover/Use Change Detection Using High Resolution Spot 5 and Spot 6 Images And Urban Atlas Nomenclature”, *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLI-B8, 789-796, <https://doi.org/10.5194/isprs-archives-XLI-B8-789-2016>, 2016.
- C41.** Topaloğlu, R. H., **Sertel, E.**, and Musaoğlu, N. “Assessment of Classification Accuracies Of Sentinel-2 And Landsat-8 Data For Land Cover / Use Mapping”, *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLI-B8, 1055-1059, <https://doi.org/10.5194/isprs-archives-XLI-B8-10552016>, 2016.
- C42.** Kaya, S., Alganci, U, **Sertel, E.** and Ustundag, B.B. “Determination of the Impact of Urbanization on Agricultural Lands using Multi-temporal Satellite Sensor Images”, AGU Fall Meeting, 14–18 December 2015, San Francisco, CA, USA (Abstract).
- C43.** Celik, Y. B, **Sertel, E.** and Ustundag, B.B. “Identification of Corn and Cotton Fields Using Multitemporal Spot6 NDVI Data”. Fourth International Conference on Agro-Geoinformatics, Istanbul, Turkey, 20-24 July 2015.
- C44.** Alp, G., Algan, Y.I and **Sertel, E.** “Determination Of Agricultural Land Changes In Mugla, Turkey Using Remotely Sensed Data And Corine Methodology”. Fourth International Conference on Agro-Geoinformatics, Istanbul, Turkey, 20-24 July 2015.
- C45.** Alganci, U., **Sertel, E.**, Kaya, S. and Ustundag, B.B, “Object Based Classification of Perennial Crops with Pleiades Satellite Image”. Fourth International Conference on AgroGeoinformatics, Istanbul, Turkey, 20-24 July 2015.
- C46.** Kaya, S., **Sertel, E.** and Seker, D.Z., “Modeling Spatial Changes in Suburban Areas of Istanbul Using Landsat 5 TM Data”, FIG Congress 2014, Engaging the Challenges – Enhancing the Relevance Kuala Lumpur, Malaysia 16-21 June 2014
- C47.** Simsek, D., Kaya, S., Ipbuker, C. and **Sertel, E.** “Determination of Characteristic Properties of Rural Residential Areas For Planning Issues Using Remote Sensing”. ISBN: 978-1-62993-910-0, 34th Asian Conference on Remote Sensing 2013, Bali, Indonesia, 20-24 October 2013.
- C48.** Alganci, U., Kaya, S., **Sertel, E.**, and Ustundag, B. B. “A comparative accuracy analysis of classification methods in determination of cultivated lands with SPOT-5 satellite imagery”, AGU Fall Meeting, 9–13 December 2013, San Francisco, CA, USA (Abstract).
- C49.** Alganci, U., **Sertel, E.**, Kaya, S., and Ustundag, B. “A research on agricultural mapping capabilities of the SPOT 6 satellite images”. Second International Conference on AgroGeoinformatics (Agro-Geoinformatics), At Fairfax, VA, USA, August 2013, pp.93-96.
- C50.** Senturk, S., Tasdemir, K., Kaya, S., and **Sertel, E.** “Unsupervised classification of vineyard parcels using SPOT5 images by utilizing spectral and textural features”. Second International Conference on Agro-Geoinformatics (Agro-Geoinformatics), At Fairfax, VA, USA, August 2013, pp.61-65.
- C51.** Senturk, S., **Sertel, E.**, and Kaya, S. “Vineyards mapping using object based analysis”. Second International Conference on Agro-Geoinformatics (Agro-Geoinformatics), At Fairfax, VA, USA, August 2013, pp.66-70.
- C52.** Alganci, U., Seker, D.Z., **Sertel, E.** and Kaya, S. “Spatio-temporal analysis of urbanization related land use/cover dynamics using satellite imagery: Case study antalya, Turkey”, 33rd Asian Conference on Remote Sensing 2012, ACRS 2012, 2, pp. 1111-1116.

- C53.** Ekercin, S., **Sertel, E.**, Celik, FD, Durduran, S. and Agca M. “Investigating the climate change impacts on the water resources of the Konya Closed Basin area (Turkey) using satellite remote sensing data”. Proceedings of global Conference on Global Warming, 8-12 July 2012, Istanbul, Turkey. pp. 684-692
- C54.** Colak, TI, Cicek, BO, Can, S. **Sertel, E.** and Kececi, T. “Remote sensing techniques for monitoring oil pollution”. Proceedings of global Conference on Global Warming, 8-12 July 2012, Istanbul, Turkey. pp.1424-1428
- C55.** **Sertel, E.**, Seker, D.Z., Yay, I., Ozelkan, E., Saglam, M., Boz, Y., Gunduz, A. “Vineyard mapping using remote sensing technologies”. FIG Working Week 2012. Knowing to manage the territory, protect the environment, evaluate the cultural heritage Rome, Italy, 6-10 May 2012.
- C56.** **Sertel, E.**, E. Ozelkan, I. Yay, D. Z. Seker and Ormeci, C. “Mapping Vineyard Areas Using Worldview-2 Satellite Images”, AGU Fall Meeting, 5–9 December 2011, San Francisco, CA, USA (Özet).
- C57.** Alganci, U., Erturk, A., Seker, D. Z., Tanik, A. and **Sertel, E.** “Monitoring and Modeling Land Use Dynamics in a Watershed Using Spatial Techniques”, AGU Fall Meeting, 5–9 December 2011, San Francisco, CA, USA (Abstract).
- C58.** Celikoyan, T. M., **Sertel, E.**, Seker, D. Z., Kaya, S. and Alganci, U.. “Investigation Land Use Changes In Megacity Istanbul Between The Years 1903-2010 By Using Different Types Of Spatial Data”, FIG Congress, Bridging the Gap between Cultures, 18-22 May 2011, Marrakech, Morocco.
- C59.** **Sertel, E.** “Accuracy Assessment of Aster Global Dem over Turkey”, ASPRS/CaGIS 2010 Fall Specialty Conference, Geospatial Data and Geovisualization: Environment, Security, and Society 15-19 November, 2010 Orlando, Florida
- C60.** Demir, M. A., **Sertel, E.**, Musaoglu, N. and Ormeci, C. “Accuracy Assessment Of Radargrammetric DEMs Derived From Radarsat-2 Ultrafine Mode”, ISPRS Istanbul Workshop 2010 WG I/4, Modeling of optical airborne and spaceborne sensors, Istanbul, Turkey, October 1113, 2010.
- C61.** Alganci, U., **Sertel, E.** and Ormeci, C., “Forest Fire Damage Estimation Using Remote Sensing and GIS”, 30th EARSeL Symposium, 31 May-3 June 2010, Paris, France.
- C62.** Ormeci, C., Alganci, U and **Sertel, E.**.. “Identification of Crop Areas Using SPOT – 5 Data”, FIG Congress 2010, Facing the Challenges – Building the Capacity, Sydney, Australia, 11-16 April 2010.
- C63.** **Sertel, E.**, Demirel, H., Kaya, S. and Demir, I. “Spatial Prediction of Transport Related Urban Air Quality, *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Science*, Vol. XXXVII, Part B2, 805-809, Beijing, 2008.
- C64.** **Sertel, E.** and Robock, A. “Regional Climate Modeling over the Marmara Region, Turkey, with Improved Land Cover Data”, AGU Fall Meeting, 10–14 December 2007, San Francisco, CA, USA (Özet).
- C65.** **Sertel, E.**, Demirel, H. and Kaya, S. “Predictive Mapping of Air Pollutants: A GIS framework,” *Proceedings of the fifth International Symposium on Spatial Data Quality*, Enschede, The Netherlands, 1-5, 2007.

- C66. Sertel, E.,** Kaya, S. and Curran, P.J. “The Use of Geostatistical Methods to Identify Severe Earthquake Damage in an Urban Area,” *Urban Remote Sensing Joint Event*, Paris, 1 – 5, DOI:10.1109/URS.2007.37186, 2007.
- C67. Bektas Balcik, F. and Sertel, E.** “Wavelet-based Image Fusion of Landsat ETM Images: A Case Study for Different Landscape Categories of İstanbul,” *Conference on Information Extraction from SAR and Optical Data, with Emphasis on Developing Countries*, İstanbul, Turkey, 16-18 Mayıs, 2007.
- C68. Saroglu, E,** Kaya, S and Ormeci, C. “Analysis of Geometric Accuracy of Landsat 5 TM and IRS 1D Data by means of DGPS and Map Data,” *Global Developments in Environmental Earth Observation from Space*, 581-584, Millpress, Rotterdam, 2006.
- C69. Musaoglu, N., Saroglu, E.,** Bektas, F., Goksel, C. and Kaya, S. “Assesment of Forest Degradation by means of Remotely Sensed Data,” *Global Developments in Environmental Earth Observation from Space*, 413-418, Millpress, Rotterdam, 2006.
- C70. Bektas Balcik, F., Saroglu, E.,** Goksel, C. and Musaoglu, N. “High Resolution Mapping Land Cover Classification of the Elmali Water Basin,” *Global Developments in Environmental Earth Observation from Space*, 437-441, Millpress, Rotterdam, 2006.
- C71. Kaya, S., Saroglu, E. and** Musaoglu, N. “Analyses of earthquake induced damage in urban areas by means of remotely sensed data”, *Global Developments in Environmental Earth Observation from Space*, 207-213, Millpress, Rotterdam, 2006.
- C72. Saroglu, E.,** Bektas, F., Dogru, A.O., Ormeci, C., Musaoglu N., and Kaya, S. “Environmental Impact Analyses of Quarries Located on the Asian Side of Istanbul Using Remotely Sensed Data,” *XXIInd International Cartographic Conference*, Coruna, Spain (CD ROM), 2005.
- C73. Saroglu, E.,** F.Bektas, N. Musaoglu ve C. Göksel, “Fusion of Multisensor Remote Sensing Data: Assessing the Quality of Resulting Images”, *International Society for Photogrammetry and Remote Sensing XX. Congress*, Istanbul, 575-579, 2004.
- C74. Kaya, S., F. Bektas, C. Goksel and Saroglu, E.** ”Analyses of Izmit Earthquake by Means of Remotely Sensed Data: A Case Study, Yalova City,” *ECPPM 2004, e-work and ebusiness in Architecture, Engineering and Construction*, 603-608, Taylor and Francis, Netherlands, 2004.
- C75. Musaoglu, N., Bektas, F., Saroglu, E.,** Kaya, S. ve C. Goksel, “Use of Corona, Landsat TM, Spot 5 images to assess 40 years of land use/cover changes in Cavusbasi,” *New Strategies for European Remote Sensing*, Millpress, 161-165, 2004.
- C76. Saroglu, E.,** F. Yasa, O. Akcay, H. Abali ve N. Musaoglu, “Coastal and erosion risk analysis using remote sensing and GIS: A case study in Sile and Agva towns,” *Remote Sensing in Transition*, Millpress, 349-352, 2004.

Invited Talks

1. **Sertel, E.** “LULC Mapping Using Machine Learning and Deep Learning Methods”. 1st Lecture on the Digital Earth Youth Innovation, The International Society for Digital Earth - Young Scientist Innovation Network (ISDE-YSIN), Invited Talk, 26 May 2023.
2. **Sertel, E.** “Drought monitoring with Earth Observation Data and Machine Learning methods”, ECMWF–ESA Workshop on Machine Learning for Earth Observation and Prediction, Invited Talk, 17 November 2022.
3. **Sertel, E.** “Deep Learning based Super Resolution in Remote Sensing for Agriculture”, International Association of Geoinformatics, Seminar, Invited Talk, 14 November 2022.
4. **Sertel, E.** “Earth Observation Data for Geospatial Artificial Intelligence (GeoAI)”, 26th International Conference On Pattern Recognition (ICPR 2022), Pattern Recognition in Remote Sensing Workshop (PRRS 2022), Keynote Speaker, 21 August 2022.
5. **Sertel, E.** “Geospatial Artificial Intelligence (GeoAI) Methods for Remote Sensing Applications”, International Workshop on Earth Observation solutions for sustainable development: Hands-on e-shape climate services Workshop, Invited Talk, 7 June 2022.
6. **Sertel, E.** “Earth Observation Satellites and Remote Sensing”, TUBITAK (The Scientific and Technological Research Council of Turkey) Science Talks, International Day of Women and Girls in Science Event, Invited Talk, 11 February 2022.
7. **Sertel, E.,** “Deep Learning for Remote Sensing Applications”, ESA Phi Week, AI for Space and Earth Observation - Special Session of the School of AI Netherlands, Invited Talk, 15 October 2021.
8. **Sertel, E.,** “Deep Learning in Remote Sensing”, GlobalAI Webinar, June 2020.
9. **Sertel., E.,** Alp., G., Yay, I., Musaoglu, N., Kaya, S. “Development of a new national land use/land cover nomenclature for Turkey”, Keynote Speaker, National Photogrammetry and Remote Sensing Conference, April 2017.
10. **Sertel., E.,** “Role of Satellite Direct Receiving Stations in Advanced Space/Satellite Technologies”, Invited Speaker, Moderator of the Advanced Space/Satellite Technologies Session, Turkish Aerospace Industry Space/Satellite Technologies Workshop 11-12 November 2015.
11. **Sertel, E.** and Robock, A.. “Introducing land cover data into a climate model”, Detecting the Atmospheric Response to the Changing Face of the Earth: A Focus on Human-Caused Regional Climate Forcings, Land-Cover/Land-Use Change, and Data Monitoring, 27-29 August 2007, Boulder, CO, USA.
12. **Sertel, E.,** Kaya, S., and Curran, P. J.. “The use of geostatistical methods to identify severe earthquake damage in an urban area”, Urban Remote Sensing Joint Event 2007, Keynote Speaker, 11-13 April 2007, Paris, France.

Supervised Masters and PhD Students

Student Name	Level	Program	Thesis Title	Status
Serdar Kizilkaya	PhD	Satellite Communications and Remote Sensing	Ship identification using deep learning approaches	Completed in January 2023
Peijuan Wang	PhD	Satellite Communications and Remote Sensing	Super-resolution of RS images using DL approaches	completed in July 2022
Raziye Hale Topaloglu	PhD	Geomatics Engineering	Investigation of city areas using highresolution satellite data	completed in February 2022
M. Zeki İmamoğlu	PhD	Geomatics Engineering	Investigation of Buyukcekmece water basin by using active remote sensing data and GIS-supported hydrologic model	completed in 2017
Emre Ozelkan	PhD	Satellite Communications and Remote Sensing	Investigation of the Trakya (Thrace) region vineyard areas by using remote sensing and geographic information systems	completed in 2014
Berkay Yaban	MSc Candidate	Satellite Communications and Remote Sensing	Airplane type identification using various YOLO architectures	will be completed in June2022
Fatma Elik	MSc Candidate	Satellite Communications and Remote Sensing	Determination of collapsed and damaged buildings using Deep Learning Methods: A case study in February 2023 Kahramanmaraş Earthquake, Turkey	will be completed in June2022
Samet Aksoy	MSc	Geomatics Engineering	Monitoring and mapping of long-term drought conditions using GoogleEarthEngine Platform	Completed in January 2023
Bursu Süslü	MSc	Geomatics Engineering	Determination of Tea Planted areas using Machine learning based classification approaches	Completed in January 2023
Emine Dilsad Unsal	MSc	Satellite Communications and Remote Sensing	Airplane detection from very high resolution satellite images using CNN models	completed in 2021
Aylin Yildirim	MSc	Geographic Information Technologies	High-resolution soil salinity mapping using machine learning based regression and classification methods	completed in 2021
Esra Ozaydin	MSc	Geomatics Engineering	Building detection from very high resolution satellite images with deep learning approach	completed in 2021
Burak Ekim	MSc	Satellite Communications and Remote Sensing	Land cover and land use classification of multi-modal high-resolution satellite images using multi-task deep learning approach	completed in 2021
Sevval Durmazbilek	MSc	Geomatics Engineering	Land cover classification using cloudbased machine learning techniques: A case study from Istanbul Metropolitan City	completed in 2021

Bakary Traore	MSc	Satellite Communications and Remote Sensing	Automatic airplane detection using deep learning techniques and very high-resolution satellite images	completed in 2020
Kubra Gulcek	MSc	Geomatics Engineering	Estimation emission from crop residue burning based on crop type using remote sensing data: A case study from GAP region	completed in 2020
Berk Guney	MSc	Satellite Communications and Remote Sensing	Semantic land cover and land use classification using deep convolutional neural networks	completed in 2019
Mehmet Soydas	MSc	Satellite Communications and Remote Sensing	Aircraft detection from large scale remote sensing images with deep learning techniques	completed in 2019
Caglayan Tuna	MSc	Satellite Communications and Remote Sensing	Super resolution methods for remote sensing images	completed in 2017
Duygu Simsek	MSc	Geomatics Engineering	Comparison of city structures by using satellite data and landscape metrics: Karabuk city center and Safranbolu district samples	completed in 2016
Deniz Bilge Kilincoglu	MSc	Geomatics Engineering	Examination of images obtained from different unmanned air vehicles via automatic photogrammetric methods and accuracy analysis	completed in 2016
Saziye Ozge Donmez	MSc	Geomatics Engineering	Determination of level 3 national land cover and land use by using object based classification approach	completed in 2015
Gulsah Alp	MSc	Satellite Communications and Remote Sensing	Generation of current land cover/use maps using direct and indirect approaches	completed in 2015
Yaren Basak Celik	MSc	Geomatics Engineering	Identification of cotton and corn fields by object based classification using multitemporal satellite images	completed in 2015
Semih Sami Akay	MSc	Geomatics Engineering	A case study for Urban Atlas project: Gaziantep city	completed in 2014
Nazila Molavizadeh	MSc	Satellite Communications and Remote Sensing	Determination of drought conditions in Turkey between 2004 and 2013 using indices derived from remotely sensed data	completed in 2014
Yusuf Alizade Govarchin Ghale	MSc	Geomatics Engineering	Multitemporal change detection on Urmia lake and its catchment area using remote sensing and geographical information systems	completed in 2014
Semra Kocaarslan	MSc	Satellite Communications and Remote Sensing	Drought assessment by means of MODIS data	completed in 2013

Courses Taught

I have taught undergraduate-level courses in the Geomatics Engineering department (ABETaccredited) and graduate-level courses in Geomatics Engineering, Geographic Information Technology (GIT), and Satellite Communications and Remote Sensing (SCRS) programs of Istanbul Technical University (ITU) since July 2009.

Undergraduate Level

- ✓ Introduction to Scientific and Engineering Computing with Matlab
- ✓ Numerical Methods
- ✓ Databases in Engineering
- ✓ Surveying
- ✓ Special Topics in Remote Sensing
- ✓ Advanced Remote Sensing

Graduate Level

- ✓ Quantitative Remote Sensing (PhD)
- ✓ Data Acquisition Systems in Remote Sensing (MSc)
- ✓ Principles of Remote Sensing (MSc)
- ✓ GPS and Integration into Remote Sensing (MSc)
- ✓ Geostatistics (PhD)
- ✓ Geostatistical Analysis of Spatial Data (MSc)

Activities-Reviewer Experience

Expert to evaluate EU FP7 and HORIZON2020 Projects, January 2010-ongoing

- ✓ SPACE 2010, 2011, 2012, 2013 calls
- ✓ REGPOT 2012 calls
- ✓ WIDESPREAD 2014, 2017 calls
- ✓ SECSOC 2015, 2016 calls
- ✓ TWINNING 2015, 2016, 2018 calls
- ✓ Scienceforsociety 2017 calls
- ✓ EASME 2019 calls
- ✓ WIDENING 2020 calls
- ✓ HORIZON-CL6-2021 calls
- ✓ HORIZON-CL2-2022 calls
- ✓ HE-INFRA-2022 calls
- ✓ ERACHAIR 2022 calls
- ✓ HERITAGE-CL2 2022 calls

Reviewer for the following SCI journals;

- ✓ IEEE Transactions on Geoscience and Remote Sensing (TGRS),
- ✓ IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing,
- ✓ Remote Sensing of Environment,
- ✓ IEEE Geoscience and Remote Sensing Letters (GRSL),
- ✓ ISPRS Journal of Photogrammetry and Remote Sensing,
- ✓ International Journal of Remote Sensing,
- ✓ Geo-spatial Information Science,
- ✓ Photogrammetric Engineering & Remote Sensing,
- ✓ Precision Agriculture,
- ✓ GIScience and Remote Sensing,
- ✓ Knowledge-Based Systems,
- ✓ Science of the Total Environment,
- ✓ Geocarto International,
- ✓ Climate Research,
- ✓ Climatic Change,
- ✓ Ecological Indicators,
- ✓ Environmental Engineering Science,
- ✓ European Journal of Remote Sensing,
- ✓ International Journal of Climatology,
- ✓ Journal of Geophysical Research,
- ✓ Journal of Coastal Research,
- ✓ Turkish Journal of Electrical Engineering & Computer Sciences,
- ✓ Journal of Sea Research,
- ✓ Journal of the Indian Society of Remote Sensing,
- ✓ PlosONE,
- ✓ Sustainability,
- ✓ Remote Sensing Applications: Society and Environment

Attended Trainings

- ✓ European Union Proposal Preparation Workshop, Istanbul Technical University, Süleyman Demirel Convention Center, 2009, Istanbul-Turkey.
- ✓ Workshop on Project Management Basics, Rutgers University, New Jersey, 23 February 2007. Training session on “How to prepare a competitive proposal for environmental research projects in the 6th Framework Programme for Research, Technological Development and Demonstration”, Istanbul Technical University, Süleyman Demirel Convention Center, 2005, Istanbul-TURKEY.
- ✓ International Disaster Management Course, Bournemouth University, United Kingdom, 14-20 March 2010.