

## Assoc. Prof. MUSTAFA TUĞRUL YILMAZ

### Personal Information

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### Education Information

Doctorate, George Mason University, College of Science, Earth System Sciences, United States Of America 2006 - 2010

Postgraduate, Vrije Universiteit Amsterdam, Earth System Sciences, Earth System Sciences, Netherlands 2003 - 2005

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey 1998 - 2003

### Dissertations

Doctorate, improving land data assimilation performance with a water budget constraint, George Mason University, 2010

Postgraduate, vegetation water content estimation, Vrije Universiteit Amsterdam, 2005

### Research Areas

Surface Water Engineering, Hydrology, Water Resources Planning and Management, Groundwater Engineering

### Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, 2018 - Continues

Assistant Professor, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, 2018 - 2018

Assistant Professor, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, 2014 - 2018

Lecturer, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, 2013 - 2014

### Advising Theses

YILMAZ M. T. , Evaluating and merging model- and satellite-based precipitation products over varying climate and topography, Doctorate, M.Amjad(Student), 2020

YILMAZ M. T. , Investigation of added utility of nonlinear techniques in rescaling soil moisture datasets, Doctorate, M.HESAMI(Student), 2019

YILMAZ M. T. , Decadal variability analysis of extreme precipitation in Turkey and its relationship with teleconnection patterns, Postgraduate, E.DÜZENLİ(Student), 2017

YILMAZ M. T. , Predictability of monthly streamflow discharge using remotesensing precipitation data by data driven models, Postgraduate, M.ALİ(Student), 2017

YILMAZ M. T. , Evaluation of the consistency of station-based soil moisture measurements with hydrological model and remote sensing observations over Turkey, Postgraduate, B.BULUT(Student), 2015

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Global spatiotemporal consistency between meteorological and soil moisture drought indices**  
HESAMI AFSHAR M., Bulut B., DÜZENLİ E., Amjad M., YILMAZ M. T.  
Agricultural and Forest Meteorology, vol.316, 2022 (Journal Indexed in SCI Expanded)
- II. **Performance of hydraulic structures, lifelines and industrial structures during October 30, 2020 Samos-Aegean sea earthquake**  
Toprak S., Uçkan M. E. , YILMAZ M. T. , Cuceoglu F., GÜMÜŞAY M. Ü. , NACAROĞLU E., Kaya E. S. , Aksel M.  
BULLETIN OF EARTHQUAKE ENGINEERING, 2022 (Journal Indexed in SCI)
- III. **Sensitivity of WRF-derived hydrometeorological extremes to sea surface temperatures in regions with complex topography and diverse climate**  
Pilatin H., YÜCEL İ., DÜZENLİ E., YILMAZ M. T.  
Atmospheric Research, vol.264, 2021 (Journal Indexed in SCI)
- IV. **Improving WRF-Hydro runoff simulations of heavy floods through the sea surface temperature fields with higher spatio-temporal resolution**  
Kilicarslan B. M. , YÜCEL İ., Pilatin H., DÜZENLİ E., YILMAZ M. T.  
HYDROLOGICAL PROCESSES, vol.35, no.9, 2021 (Journal Indexed in SCI)
- V. **Intercomparison of the expected change in the temperature and the precipitation retrieved from CMIP6 and CMIP5 climate projections: A Mediterranean hot spot case, Turkey**  
Bağçacı S. Ç. , Yücel İ., Düzenli E., Yılmaz M. T.  
ATMOSPHERIC RESEARCH, vol.256, 2021 (Journal Indexed in SCI)
- VI. **Comparative Evaluation of Microwave L-Band VOD and Optical NDVI for Agriculture Drought Detection over Central Europe**  
Afshar M., Al-Yaari A., YILMAZ M. T.  
REMOTE SENSING, vol.13, no.7, 2021 (Journal Indexed in SCI)
- VII. **Evaluating the performance of a WRF initial and physics ensemble over Eastern Black Sea and Mediterranean regions in Turkey**  
Düzenli E., Yücel İ., Pilatin H., Yılmaz M. T.  
Atmospheric Research, vol.248, 2021 (Journal Indexed in SCI)
- VIII. **Climate change impact assessment on mild and extreme drought events using copulas over Ankara, Turkey**  
Afshar M., Sorman A. U. , Tosunoglu F., Bulut B., YILMAZ M. T. , MEHR A. D.  
THEORETICAL AND APPLIED CLIMATOLOGY, vol.141, no.3-4, pp.1045-1055, 2020 (Journal Indexed in SCI)
- IX. **Performance evaluation of satellite- and model-based precipitation products over varying climate and complex topography**  
Amjad M., YILMAZ M. T. , YÜCEL İ., YILMAZ K. K.  
JOURNAL OF HYDROLOGY, vol.584, 2020 (Journal Indexed in SCI)
- X. **Impact of Rescaling Approaches in Simple Fusion of Soil Moisture Products**  
Afshar M., YILMAZ M. T. , Crow W. T.  
WATER RESOURCES RESEARCH, vol.55, no.9, pp.7804-7825, 2019 (Journal Indexed in SCI)
- XI. **Evaluation of Remotely-Sensed and Model-Based Soil Moisture Products According to Different Soil Type, Vegetation Cover and Climate Regime Using Station-Based Observations over Turkey**  
Bulut B., YILMAZ M. T. , Afshar M., Sorman A. U. , YÜCEL İ., Cosh M. H. , Simsek O.  
REMOTE SENSING, vol.11, no.16, 2019 (Journal Indexed in SCI)
- XII. **Decadal variability analysis of extreme precipitation in Turkey and its relationship with teleconnection patterns**  
Duzenli E., Tabari H., Willems P., YILMAZ M. T.

Hydrological Processes, vol.32, no.23, pp.3513-3528, 2018 (Journal Indexed in SCI Expanded)

- XIII. **The added utility of nonlinear methods compared to linear methods in rescaling soil moisture products**  
Afshar M., YILMAZ M. T.  
REMOTE SENSING OF ENVIRONMENT, vol.196, pp.224-237, 2017 (Journal Indexed in SCI)
- XIV. **Uydu Kaynaklı Yağmur Verilerinin Hata Oranlarının Deniz Kıyılarına Olan Uzaklığına Bağlı Analizi**  
Yılmaz m., Amjad m., Bulut b., YILMAZ M. T.  
Teknik Dergi, vol.484, pp.7993-8005, 2017 (Journal Indexed in SCI Expanded)
- XV. **Monthly flooded area classification using low resolution SAR imagery in the Sudd wetland from 2007 to 2011**  
Wilusz D. C. , Zaitchik B. F. , Anderson M. C. , Hain C. R. , YILMAZ M. T. , Mladenova I. E.  
REMOTE SENSING OF ENVIRONMENT, vol.194, pp.205-218, 2017 (Journal Indexed in SCI)
- XVI. **Investigation of the dependence of satellite-based precipitation estimate errors to distance from the coastline Uydu Kaynaklı Yağmur Verilerinin Hata Oranlarının Deniz Kıyılarına Olan Uzaklığına Bağlı Analizi**  
YILMAZ M., Amjad M., Bulut B., YILMAZ M. T.  
Teknik Dergi/Technical Journal of Turkish Chamber of Civil Engineers, vol.28, no.3, pp.7993-8005, 2017 (Journal Indexed in SCI)
- XVII. **Analysis of the 2007 and 2013 Droughts in Turkey by NOAH Hydrological Model**  
Bulut B., YILMAZ M. T.  
TEKNIK DERGI, vol.27, no.4, pp.7619-7634, 2016 (Journal Indexed in SCI)
- XVIII. **Türkiye deki 2007 ve 2013 Yılı Kuraklıklarının NOAH Hidrolojik Modeli ile İncelenmesi**  
bulut b., YILMAZ M. T.  
Teknik Dergi, vol.27, no.4, pp.7619-7634, 2016 (Journal Indexed in SCI Expanded)
- XIX. **Conditional Copula-Based Spatial-Temporal Drought Characteristics Analysis-A Case Study over Turkey**  
Afshar M., Sorman A. U. , YILMAZ M. T.  
WATER, vol.8, no.10, 2016 (Journal Indexed in SCI)
- XX. **Impact of Model Relative Accuracy in Framework of Resealing Observations in Hydrological Data Assimilation Studies**  
YILMAZ M. T. , Crow W. T. , Ryu D.  
JOURNAL OF HYDROMETEOROLOGY, vol.17, no.8, pp.2245-2257, 2016 (Journal Indexed in SCI)
- XXI. **The Evaporative Stress Index as an indicator of agricultural drought in Brazil: An assessment based on crop yield impacts**  
Anderson M. C. , Zolin C. A. , Sentelhas P. C. , Hain C. R. , Semmens K., YILMAZ M. T. , Gao F., Otkin J. A. , Tetrault R.  
REMOTE SENSING OF ENVIRONMENT, vol.174, pp.82-99, 2016 (Journal Indexed in SCI)
- XXII. **Optimal averaging of soil moisture predictions from ensemble land surface model simulations**  
Crow W. T. , Su C. -, Ryu D., YILMAZ M. T.  
WATER RESOURCES RESEARCH, vol.51, no.11, pp.9273-9289, 2015 (Journal Indexed in SCI)
- XXIII. **Comparison of satellite-derived LAI and precipitation anomalies over Brazil with a thermal infrared-based Evaporative Stress Index for 2003-2013**  
Anderson M. C. , Zolin C. A. , Hain C. R. , Semmens K., YILMAZ M. T. , Gao F.  
JOURNAL OF HYDROLOGY, vol.526, pp.287-302, 2015 (Journal Indexed in SCI)
- XXIV. **Diagnosing Neglected Soil Moisture Source-Sink Processes via a Thermal Infrared-Based Two-Source Energy Balance Model**  
Hain C. R. , Crow W. T. , Anderson M. C. , YILMAZ M. T.  
JOURNAL OF HYDROMETEOROLOGY, vol.16, no.3, pp.1070-1086, 2015 (Journal Indexed in SCI)
- XXV. **An intercomparison of remotely sensed soil moisture products at various spatial scales over the Iberian Peninsula**  
Parinussa R., Yilmaz M. T. , Anderson M., Hain C., de Jeu R.  
Hydrological Processes, vol.28, no.18, pp.4865-4876, 2014 (Journal Indexed in SCI)

- XXVI. **Evaluation of Assumptions in Soil Moisture Triple Collocation Analysis**  
YILMAZ M. T. , Crow W. T.  
JOURNAL OF HYDROMETEOROLOGY, vol.15, no.3, pp.1293-1302, 2014 (Journal Indexed in SCI)
- XXVII. **The Auto-Tuned Land Data Assimilation System ( ATLAS)**  
Crow W. T. , YILMAZ M. T.  
WATER RESOURCES RESEARCH, vol.50, no.1, pp.371-385, 2014 (Journal Indexed in SCI)
- XXVIII. **Comparison of prognostic and diagnostic surface flux modeling approaches over the Nile River basin**  
YILMAZ M. T. , Anderson M. C. , Zaitchik B., Hain C. R. , Crow W. T. , Ozdogan M., Chun J. A. , Evans J.  
WATER RESOURCES RESEARCH, vol.50, no.1, pp.386-408, 2014 (Journal Indexed in SCI)
- XXIX. **The optimality of potential rescaling approaches in land data assimilation**  
Tugrul Yilmaz M. T. , Crow W. T.  
Journal of Hydrometeorology, vol.14, no.2, pp.650-660, 2013 (Journal Indexed in SCI)
- XXX. **An objective methodology for merging satellite- and model-based soil moisture products**  
Yilmaz M. T. , Crow W., Anderson M., Hain C.  
Water Resources Research, vol.48, no.11, 2012 (Journal Indexed in SCI)
- XXXI. **Towards an integrated soil moisture drought monitor for East Africa**  
Anderson W., Zaitchik B., Hain C., Anderson M., Yilmaz M. T. , Mecikalski J., Schultz L.  
Hydrology and Earth System Sciences, vol.16, no.8, pp.2893-2913, 2012 (Journal Indexed in SCI)
- XXXII. **Reducing water imbalance in land data assimilation: Ensemble filtering without perturbed observations**  
Yilmaz M. T. , Delsole T., Yilmaz M. T.  
Journal of Hydrometeorology, vol.13, no.1, pp.413-420, 2012 (Journal Indexed in SCI)
- XXXIII. **The impact of land surface temperature on soil moisture anomaly detection from passive microwave observations**  
Parinussa R., Holmes T., Yilmaz M. T. , Crow W.  
Hydrology and Earth System Sciences, vol.15, no.10, pp.3135-3151, 2011 (Journal Indexed in SCI)
- XXXIV. **Improving land data assimilation performance with a water budget constraint**  
Yilmaz M. T. , Delsole T., Houser P. R.  
Journal of Hydrometeorology, vol.12, no.5, pp.1040-1055, 2011 (Journal Indexed in SCI)
- XXXV. **Comparison of vegetation water contents derived from shortwave-infrared and passive-microwave sensors over central Iowa**  
Hunt E. R. , Li L., Yilmaz M. T. , Jackson T. J.  
Remote Sensing of Environment, vol.115, no.9, pp.2376-2383, 2011 (Journal Indexed in SCI)
- XXXVI. **Predictability of seasonal precipitation using joint probabilities**  
Yilmaz M. T. , DelSole T.  
Journal of Hydrometeorology, vol.11, no.2, pp.533-541, 2010 (Journal Indexed in SCI)
- XXXVII. **Optimally merging precipitation to minimize land surface modeling errors**  
Tugrul Yilmaz M. T. , Houser P., Shrestha R., Anantharaj V. G.  
Journal of Applied Meteorology and Climatology, vol.49, no.3, pp.415-423, 2010 (Journal Indexed in SCI)
- XXXVIII. **Remote sensing of vegetation water content from equivalent water thickness using satellite imagery**  
Yilmaz M. T. , Hunt Jr. E. R. , Jackson T. J.  
Remote Sensing of Environment, vol.112, no.5, pp.2514-2522, 2008 (Journal Indexed in SCI)
- XXXIX. **Vegetation water content during SMEX04 from ground data and Landsat 5 Thematic Mapper imagery**  
Yilmaz M. T. , Hunt Jr. E. R. , Goins L. D. , Ustin S. L. , Vanderbilt V. C. , Jackson T. J.  
Remote Sensing of Environment, vol.112, no.2, pp.350-362, 2008 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. Türkiye deki 2000 2015 yılları arasındaki evapotranspirasyonun Noah hidrolojik modeli ile

## **incelenmesi**

YILMAZ M. T. , Bulut B.

Dicle Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi, vol.7, pp.225-236, 2016 (Other Refereed National Journals)

## **II. Üçlü Eşleştirme Yöntemi ile Uydu ve Hidrolojik Model Kaynaklı Toprak Nemi Değerlerinin Hata Oranlarının Bulunması**

YILMAZ M. T.

Çukurova Üniversitesi Mühendislik Mimarlık Fakültesi Dergisi, vol.31, pp.231-240, 2016 (Other Refereed National Journals)

## **III. Enhancing model-based land surface temperature estimates using multiplatform microwave observations**

Holmes T. R. H. , Crow W. T. , Yilmaz M. T. , Jackson T. J. , Basara J. B.

Journal of Geophysical Research Atmospheres, vol.118, no.2, pp.577-591, 2013 (Refereed Journals of Other Institutions)

## **Refereed Congress / Symposium Publications in Proceedings**

- I. Evaluation of a Hydro-Meteorological Model System for Flood Forecasting of a Mediterranean Basin in Turkey**  
Kılıçarslan B., Duzenli E., Pilatin H., YÜCEL İ., YILMAZ M. T.  
EGU General Assembly 2020, 4 - 08 May 2020
- II. Estimation of Wheat Yield using Remotely Sensed and Modeled Data over Turkey**  
bulut b., YILMAZ M. T. , Afshar M.  
EGU General Assembly 2020, 4 - 08 May 2020
- III. Evaluation of the performance of WRF model in extreme precipitation estimation concerning the changing model configuration and the spatial and temporal variations**  
Duzenli E., Pilatin H., YÜCEL İ., Kılıçarslan B., YILMAZ M. T.  
EGU General Assembly 2020, 4 - 08 May 2020
- IV. Production of a High-Resolution Improved Radar Precipitation Estimation Map Using Gauge Adjustment Bias Correction Methods**  
Yousefi K. P. , YILMAZ M. T. , Ozturk K., YÜCEL İ., YILMAZ K. K.  
EGU General Assembly 2020, 4 - 08 May 2020
- V. Evaluation of gauge adjustment methods in improving radar precipitation estimation quality over Antalya radar in Turkey.**  
Yousufi K. P. , YILMAZ M. T. , Ozturk K., YÜCEL İ., YILMAZ K. K.  
IV. Meteorolojik Uzaktan Algılama Sempozyumu, Turkey, 11 - 15 November 2019
- VI. Validation of TMPA and ECMWF Precipitation Estimates Using Gauge Based Observations over West Azarbayjan province of Iran**  
Afshar M., amjad m., bulut b., Duzenli E., Yousufi K. P. , YILMAZ M. T.  
The 1st International and 4th National Congress on Iranian Irrigation and Drainage, 13 - 14 November 2019
- VII. Validation of TMPA and ECMWF Precipitation Estimates Using Gauge Based Observations over West Azarbayjan province of Iran**  
Hesamı Afshar M., Amjad M., Bulut B., Düzenli E., Patakchi Yousufi K., Yilmaz M. T.  
The 1st International and 4th National Congress on Iranian Irrigation and Drainage, Urmia, Iran, 13 - 14 November 2019
- VIII. İklim Değişikliğinin Kuzey Ege Havzası Su Potansiyeline Olan Etkisinin Araştırılması**  
YILMAZ M. T. , bulut b., Afshar M., YÜCEL İ., Aras M., Ozaltın A. M. , Dogan N., Barkis N., Tanir T., Ozcam B.  
10. Ulusal Hidroloji Kongresi, Turkey, 9 - 12 October 2019
- IX. TMPA VE ECMWF yağış verilerinin yer gözlem verileriyle doğrulanması**  
amjad m., Duzenli E., Afshar M., bulut b., Senocak A. U. G. , YILMAZ K. K. , YILMAZ M. T. , YÜCEL İ.

10. Ulusal Hidroloji Kongresi., Turkey, 9 - 12 October 2019

- X. **Mahsul Büyüme Durumunun İzlenmesi İçin İha Görüntülerinden Elde Edilen Farklı Bitki Örtüsü İndekslerinin Değerlendirilmesi**  
Feizolahpour F., Afshar M., Duzenli E., Besharat S., YILMAZ M. T.  
X. Türkiye Ulusal Fotogrametri ve Uzaktan Algılama Birliği (TUFUAB) Teknik Sempozyumu, Turkey, 25 - 27 April 2019
- XI. **Uncertainty Assessment of Satellite- and Model-based Precipitation Products over Complex Terrain of Turkey**  
amjad m., YILMAZ M. T. , YÜCEL İ., YILMAZ K. K.  
EGU General Assembly 2019, 7 - 12 April 2019
- XII. **The Evaluation of Remotely-Sensed and Model-Based Soil Moisture Products According to Different Soil Type, Vegetation Cover and Climate Regime Using Station-Based Observations over Turkey**  
Bulut B., Hesamı Afshar M., Yılmaz M. T.  
EGU General Assembly 2019, Vienna, Austria, 7 - 12 April 2019
- XIII. **Linear and Nonlinear Responses of Turkish Extreme Rainfall Oscillations to Large-Scale Atmospheric Circulations**  
Duzenli E., tabari H., willems p., YILMAZ M. T.  
EGU General Assembly 2019, 7 - 12 April 2019
- XIV. **The Evaluation of Remotely-Sensed and Model-Based Soil Moisture Products According to Different Soil Type, Vegetation Cover and Climate Regime Using Station-Based Observations over Turkey**  
bulut b., Afshar M., YILMAZ M. T.  
EGU General Assembly 2019, 7 - 12 April 2019
- XV. **Comparison of rescaling techniques in the framework of merging soil moisture time series**  
Afshar M., bulut b., YILMAZ M. T.  
ESA CCI Soil Moisture user workshop, 15 November 2018
- XVI. **Validation of Remote Sensing- and Model-Based Soil Moisture Products Using Station-Based Observations Over Turkey**  
bulut b., Afshar M., YILMAZ M. T.  
ESA CCI Soil Moisture user workshop, 15 November 2018 - 15 November 2019
- XVII. **ANALYSIS OF TERRESTRIAL WATER STORAGE CHANGE USING GRACE-BASED OBSERVATIONS OVER EUPHRATES-TIGRIS BASIN**  
YILMAZ M. T. , Karasu İ., YILMAZ K. K. , Tüfekçi Avşar N., Selek B., Aras M., Özaltın A. M. , Duygu M. B. , Kirmencioğlu B.  
Türkiye Ulusal Jeodezi ve Jeofizik Birliği Bilimsel Kongresi, İzmir, Turkey, 30 May - 02 June 2018, pp.47-50
- XVIII. **Inter-comparison and Accuracy Assessment of Satellite and Model Precipitation Products**  
amjad m., YILMAZ M. T. , YÜCEL İ., YILMAZ K. K.  
EGU General Assembly 2018, 8 - 13 April 2018
- XIX. **Evaluation of Relations among Drought Indices and Remotely Sensed Soil**  
bulut b., Afshar M., YILMAZ M. T.  
EGU General Assembly 2018, 8 - 13 April 2018
- XX. **Assessing Drought Using Cordex Ensemble Climate Models In Mediterranean Climate Region Of Turkey**  
poyraz a., YÜCEL İ., aziz r., YILMAZ M. T.  
European Geophysical Union Congress (EGU) 2018, 8 - 13 April 2018
- XXI. **Evaluation of Satellite and Model Precipitation Products Over Turkey**  
amjad m., YILMAZ M. T.  
American Geophysical Union Fall Meeting, 11 - 15 December 2017
- XXII. **Assessment of Environmental Flows under Human Intervention and Climate Change Conditions in a Mediterranean Watershed**  
YILMAZ M. T. , ALP E., Aras M., Özaltın A. M. , Sarıcan Y., Afsar M., Bulut B., Ersoy E. N. , Karasu İ. G. , Önen A.  
AGU Fall Meeting 2017, 11 - 15 December 2017

- XXIII. **Assessment of Environmental Flows under Human Intervention and Climate Change Conditions in a Mediterranean Watershed**  
YILMAZ M. T. , alp e., aras m., özaltın a. m. , sarıcan y., Afshar M., bulut b., ersoy n. e. , karasu g. i. , onen a.  
American Geophysical Union Fall Meeting, 11 - 15 December 2017
- XXIV. **The Added Utility of Hydrological Model and Satellite Based Datasets in Agricultural Drought Analysis over Turkey**  
bulut b., Afshar M., YILMAZ M. T.  
American Geophysical Union Fall Meeting, 11 - 15 December 2017
- XXV. **TRMM VE GPM UZAKTAN ALGILAMA VE ECMWF NUMERİK MODEL KAYNAKLI YAĞIŞ VERİLERİNİN DOĞRULANMASI**  
YILMAZ M. T. , amjad m., YÜCEL İ., bulut b.  
UZALMET III. Meteorolojik Uzaktan Algılama Sempozyumu, Turkey, 16 - 19 October 2017
- XXVI. **Establishing a Critical Zone Observatory site in Turkey**  
DEMİR G., AKYÜREK S. Z. , BİNLEY A., YÜCEL İ., KENTEL ERDOĞAN E., MERZİ N., YILMAZ M. T. , YANMAZ A. M.  
European Geosciences Union General Assembly 2017, 23 - 28 April 2017
- XXVII. **Investigation of the impact of the nonlinear relations among soil moisture products over data fusion process**  
Afshar M., bulut b., YILMAZ M. T.  
EGU General Assembly 2017, 23 - 28 April 2017
- XXVIII. **Analysis of Agricultural Drought Using NOAA Root Zone Soil Moisture Estimates and MODIS Based NDVI Values over Turkey**  
bulut b., Afshar M., YILMAZ M. T.  
EGU General Assembly 2017, 23 - 28 April 2017
- XXIX. **Effect of Temporal Downscaling of Wind Data on Hindcasting Extreme Wave Events and Wind Power Density Studies over the Black Sea**  
BAYKAL C., GÜLER H. G. , ÖZYURT G., ak g. h. , kirezci ç., YILMAZ M. T.  
American Geophysical Union Fall Meeting 2016, 12 - 16 December 2016
- XXX. **Evaluation of GRACE based groundwater storage change information at Konya Closed Basin Turkey using remote sensing and in situ measurements**  
YILMAZ K. K. , Saber M., YILMAZ M. T.  
American Geophysical Union Fall Meeting 2016, 12 - 16 December 2016
- XXXI. **Effect Of Temporal Downscaling Methods of Long Term Wind Data on The Design Wave Parameters in the Black Sea**  
ÖZYURT G., BAYKAL C., GÜLER H. G. , YILMAZ M. T. , AK H.  
35TH International Conference on Coastal Engineering, 17 - 20 November 2016
- XXXII. **Estimation of Radar Based High Resolution Precipitation Product over Turkey**  
YILMAZ M. T. , Öztürk K., YÜCEL İ., YILMAZ K. K.  
The 9th European Conference on Radar in Meteorology and Hydrology, 10 - 14 October 2016
- XXXIII. **Evaluating the utility obtained by using radar based precipitation for prediction of flood events in western Black Sea basins of Turkey**  
YÜCEL İ., onen a., YILMAZ M. T. , erdem e.  
The 9th European Conference on Radar in Meteorology and Hydrology, 10 - 14 October 2016
- XXXIV. **Inter comparison and accuracy assessment of TRMM 3B42 products over Turkey**  
amjad m., YILMAZ M. T.  
EGU General Assembly 2016, 17 - 22 April 2016
- XXXV. **Evaluation of Groundwater Storage changes at Konya Closed Basin Turkey using GRACE based and in situ measurements**  
YILMAZ K. K. , saber m., YILMAZ M. T.  
EGU General Assembly 2016, 17 - 22 April 2016
- XXXVI. **Initial assessment of in situ based soil moisture observations over Turkey**  
bulut b., cosh m., mladenova i., YILMAZ M. T.

- EGU General Assembly 2016, 17 - 22 April 2016
- XXXVII. **Analysis of long term trends of precipitation estimates acquired using radar network in Turkey**  
YILMAZ M. T. , YÜCEL İ., YILMAZ K. K.  
EGU General Assembly 2016, 17 - 22 April 2016
- XXXVIII. **Assessment of linear and nonlinear Techniques in soil moisture time series rescaling**  
mehdi husami a., YILMAZ M. T.  
EGU General Assembly 2016, 17 - 22 April 2016
- XXXIX. **Investigation of the relation between the return periods of major drought characteristics using copula functions**  
afsar m. h. , ŞORMAN A. Ü. , YILMAZ M. T.  
EGU General Assembly 2016, 17 - 22 April 2016
- XL. **The Added Utility Of Nonlinear Techniques In Rescaling Soil Moisture Time Series**  
madhi a., YILMAZ M. T.  
American Geophysical Union Fall Meeting 2015, 14 - 18 December 2015
- XLI. **Quality control of station based soil moisture observations retrieved over Turkey**  
bulut b., YILMAZ M. T. , micheal c., iliana m.  
American Geophysical Union Fall Meeting 2015, 14 - 18 December 2015
- XLII. **Accuracy assessment of TRMM 3B42 V6 and V7 products using station data over various topographical regions in Turkey**  
muhammad a., YILMAZ M. T.  
American Geophysical Union Fall Meeting 2015, 14 - 18 December 2015
- XLIII. **Tropical Rainfall Measuring Mission Uydu Kaynaklı Yağmur Verilerinin Yer Gözlemleri ile Karşılaştırılması**  
YILMAZ M. T. , muhammad a., meriç s.  
II. Meteorolojik Uzaktan Algılama Sempozyumu, Antalya, 3-5 Kasım 2015, Turkey, 3 - 05 November 2015
- XLIV. **Model accuracy impact through rescaled observations in hydrological data assimilation studies**  
YILMAZ M. T. , wade c., dongryeol r.  
EGU General Assembly 2015, 12 - 17 April 2015
- XLV. **Optimal averaging of soil moisture predictions from ensemble land surface model simulations**  
wade c., ChunHsu S., dongryeol r., YILMAZ M. T.  
EGU General Assembly 2015, 12 - 17 April 2015, vol.0
- XLVI. **Quality control of station based soil moisture observations over Turkey**  
YILMAZ M. T. , bulut b., micheal c., iliana m.  
EGU General Assembly 2015, 12 - 17 April 2015
- XLVII. **Diagnosing Neglected Soil Moisture Source Sink Processes via a Thermal Infrared based Two Source Energy Balance Model**  
Hain C., Crow W., Anderson M., YILMAZ M. T.  
American Geophysical Union Fall Meeting 2014, 15 - 19 December 2014
- XLVIII. **Impact of the difference between observation and model seasonality and anomaly components on hydrological data assimilation studies**  
YILMAZ M. T. , crow w., ryu d.  
American Geophysical Union Fall Meeting 2014, 15 - 19 December 2014
- XLIX. **Türkiye deki Toprak Neminin NOAA Hidrolojik Yeryüzü Modeli İle İncelenmesi**  
bulut b., YILMAZ M. T. , SÖNMEZ İ., ŞORMAN A. Ü.  
Second International Drought and Desertification Symposium, Konya, 16-18 September 2014, 16 - 18 September 2014
- L. **Towards continuous remote estimates of flooded area in the Sudd Wetland**  
Wilusz D. C. , Zaitchik B., Anderson M. C. , Hain C. R. , YILMAZ M. T.  
2014 UCOWR / NIWR/ CUAHSI ANNUAL CONFERENCE, 18 - 20 June 2014
- LI. **Gravity Recovery and Climate Experiment**  
YILMAZ M. T.



National Hydrology Committee Steering Group Meeting and Workshop, 10 - 11 February 2014

- LII. **Data fusion techniques for mapping daily water use and vegetation stress at field scales**  
Anderson M. C. , Cammalleri C., Gao F., Wang P., Hain C., YILMAZ M. T. , Kustas W.  
94th American Meteorological Society Annual Meeting, 2 - 06 February 2014
- LIII. **Satellite based water balance of the Nile River basin a multisensor approach**  
Zaitchik B. F. , Anderson M. C. , Ozdogan M., YILMAZ M. T.  
American Geophysical Union Fall Meeting 2013, 9 - 13 December 2013
- LIV. **Evaluation Of Assumptions In Soil Moisture Triple Collocation Studies**  
YILMAZ M. T. , Crow W.  
American Geophysical Union Fall Meeting 2013, 9 - 13 December 2013
- LV. **Application of the Auto Tuned Land Assimilation System ATLAS to ASCAT and SMOS soil moisture retrieval products**  
crow w., YILMAZ M. T.  
IGARSS 2013, 21 - 26 July 2013
- LVI. **Modellenen ve istasyonlarda ölçülen toprak neminin karşılaştırılması**  
YILMAZ M. T. , ŞORMAN A. Ü. , SÖNMEZ İ.  
III. TÜRKİYE İKLİM DEĞİŞİKLİĞİ KONGRESİ, TİKDEK (III. Climate Change in Turkey Meeting) 3 - 5 Haziran 2013, İstanbul, Turkey, 3 - 05 June 2013
- LVII. **Monitoring evapotranspiration and water resources with thermal infrared geostationary sensors An intercomparison with model based ET predictions and tower observations**  
Hain C., Anderson M., Zhan X., YILMAZ M. T.  
93rd American Meteorological Society Annual Meeting, 6 - 09 January 2013
- LVIII. **The Optimality of Potential Rescaling Approaches in Land Data Assimilation**  
YILMAZ M. T. , Crow W.  
93rd American Meteorological Society Annual Meeting, 6 - 09 January 2013
- LIX. **Treatment of systematic errors in land data assimilation systems**  
Crow W., YILMAZ M. T.  
American Geophysical Union Fall Meeting 2012, 3 - 07 December 2012
- LX. **Reducing Water Imbalance in Land Data Assimilation Ensemble Filtering without Perturbed Observations**  
DelSole T. M. , YILMAZ M. T. , Houser P. R.  
American Geophysical Union Fall Meeting 2012, 3 - 07 December 2012
- LXI. **Comparison of Prognostic and Diagnostic Approaches to Modeling Evapotranspiration in the Nile River Basin**  
YILMAZ M. T. , Anderson M. C. , Zaitchik B. F. , Crow W., Hain C., Ozdogan M., Chun J. A.  
American Geophysical Union Fall Meeting 2012, 3 - 07 December 2012
- LXII. **ALEXI evapotranspiration estimate analysis over the Nile Basin**  
Anderson M., Kustas W., YILMAZ M. T. , Hain C., Zhan X.  
African Climate Conference Workshop, Earth and Planetary Sciences Department, Johns Hopkins University, Baltimore, 15 November 2012
- LXIII. **0 10 degree soil moisture retrievals from passive microwave observations**  
Parinussa R., Richard de J., YILMAZ M. T. , Anderson M., Hain C.  
EGU General Assembly 2012, 22 - 27 April 2012
- LXIV. **An Objective Methodology For Merging Satellite And Model Based Soil Moisture Products**  
YILMAZ M. T. , Crow W., Anderson M., Hain C.  
23th Annual Beltsville Area USDA BARC Poster-Day, 19 April 2012
- LXV. **An Objective Methodology to Merge Satellite and Model Based Soil Moisture Products**  
YILMAZ M. T. , Crow W., Anderson M. C. , Hain C.  
92nd American Meteorological Society Annual Meeting, 22 - 26 January 2012
- LXVI. **An Objective Methodology to Optimally Merge Satellite and Model Based Soil Moisture Products for Obtaining a New Drought Product**

- YILMAZ M. T. , Crow W., Anderson M. C. , Hain C.  
American Geophysical Union Fall Meeting 2011, 5 - 09 December 2011
- LXVII. **Remotely Sensed Terrestrial Water Balance of the Nile Basin**  
Smith T., Zaitchik B., Anderson M., YILMAZ M. T. , Alo C., Rodell M.  
American Geophysical Union Fall Meeting 2011, 5 - 09 December 2011
- LXVIII. **Towards an Integrated Soil Moisture Drought Monitor for East Africa**  
Anderson W. B. , Hain C., Zaitchik B. F. , Anderson M. C. , Aga Alo C., YILMAZ M. T.  
American Geophysical Union Fall Meeting 2011, 5 - 09 December 2011
- LXIX. **ALEXI analysis of water consumption in the Nile Basin**  
Anderson M., YILMAZ M. T.  
Meeting of Managing Water under Climate Change in Blue Nile Headwaters, 7 - 10 July 2011
- LXX. **ALEXI evapotranspiration estimate analysis over the Nile basin**  
YILMAZ M. T. , Anderson M.  
Managing Water under Climate Change in the Blue Nile Headwaters Workshop, 7 - 10 July 2011
- LXXI. **Introducing Water Budget Constraint To Improve Land Data Assimilation Performance**  
YILMAZ M. T. , DelSole T., Houser P.  
JCSDA 9th Workshop on Satellite Data Assimilation, 24 - 25 May 2011
- LXXII. **Using USDA ALEXI Evapotranspiration Product to Obtain Skillful Water Budget Estimations Over Nile River Basin**  
YILMAZ M. T. , Crow W., Anderson M.  
22nd Annual Beltsville Area USDA BARC Poster-Day, 17 April 2011
- LXXIII. **Comparison of vegetation water content estimates from WindSat and MODIS**  
Hunt Jr. E. R. , Li L., Yilmaz M. T. , Jackson T. J.  
2010 30th IEEE International Geoscience and Remote Sensing Symposium, IGARSS 2010, Honolulu, HI, United States Of America, 25 - 30 July 2010, pp.3879-3881
- LXXIV. **Square Root Filters in Land Data Assimilation Studies**  
YILMAZ M. T. , Houser P., DelSole T.  
Remote Sensing and Hydrology Symposium, 27 - 30 September 2010
- LXXV. **Predictability of Seasonal Precipitation Using Joint Probabilities**  
YILMAZ M. T. , DelSole T.  
90th American Meteorological Society Annual Meeting, 17 - 21 January 2010
- LXXVI. **Precipitation uncertainty How well do we know this critical hydrological variable**  
Houser P., Feng X., Shrestha R., YILMAZ M. T.  
EGU General Assembly 2009, 19 - 24 April 2009
- LXXVII. **Land surface modeling using optimally merged Precipitation data from multiple sources**  
YILMAZ M. T. , Shrestha R., Houser P. R. , Anantharaj V.  
American Geophysical Union Fall Meeting 2008, 15 - 19 December 2008
- LXXVIII. **Remote sensing of canopy water content during SMEX'04 and SMEX'05 using shortwave-infrared reflectances**  
Hunt Jr. E. R. , Yilmaz M. T. , Jackson T. J.  
2008 IEEE International Geoscience and Remote Sensing Symposium - Proceedings, Boston, MA, United States Of America, 6 - 11 July 2008, vol.2
- LXXIX. **Remote sensing of leaf equivalent water thickness and vegetation water content using shortwave infrared reflectances**  
Hunt E., YILMAZ M. T. , Jackson T.  
ASPRS 2008 Annual Conference, 28 April - 02 May 2008
- LXXX. **Effect of land cover classification map resolution in land surface modeling studies**  
YILMAZ M. T. , Houser P., Shrestha R.  
American Geophysical Union Fall Meeting 2007, 10 - 14 December 2007
- LXXXI. **Remote sensing of vegetation water content using shortwave infrared reflectances**  
Hunt Jr. E. R. , Yilmaz M. T.

Remote Sensing and Modeling of Ecosystems for Sustainability IV, San Diego, CA, United States Of America, 28 - 29 August 2007, vol.6679

- LXXXII. **Scaling vegetation water content from thematic mapper to MODIS during SMEX04**  
Hunt Jr. E. R. , Yilmaz M. T. , Jackson T. J.  
2006 IEEE International Geoscience and Remote Sensing Symposium, IGARSS, Denver, CO, United States Of America, 31 July - 04 August 2006, pp.1945-1948
- LXXXIII. **Vegetation water content from Landsat 5 thematic mapper during the Soil Moisture Experiment 2004 in Arizona and Sonora**  
Hunt E., YILMAZ M. T. , Jackson T.  
ASPRS 2006 Annual Conference, 1 - 05 May 2006
- LXXXIV. **Vegetation water content data product validation using SMEX04 and SMEX05 data**  
Hunt E., YILMAZ M. T. , Ustin S., Vanderbilt V.  
MODIS Science Team Meeting, 4 - 06 January 2006

## Supported Projects

Yilmaz M. T. , FP7 Project, Improving Predictions of Vegetation Condition by Optimally Merging Satellite Remote Sensing based Soil Moisture Products, 2014 - 2019  
Yücel İ., Yilmaz M. T. , Yilmaz K. K. , Alp E., Technopark, Havza Su Projesi, 2017 - 2018  
YILMAZ M. T. , TUBITAK Project, İstasyonlarda Ölçülen Toprak Nemi Değerlerinin Hidrolojik Model ve Uydu Verileri Yardımıyla Değerlendirilmesi, 2015 - 2018  
YILMAZ M. T. , H2020 Project, Improving Predictions of Vegetation Condition by Optimally Merging Satellite Remote Sensing-based Soil Moisture Products, 2014 - 2018  
YILMAZ M. T. , Project Supported by Higher Education Institutions, İSTASYONLARDAN ELDE EDİLEN TOPRAK NEMİ DEĞERLERİNİN KALİBRASYONU, 2015 - 2016

## Citations

Total Citations (WOS):1306  
h-index (WOS):18

## Scholarships

Marie Curie FP7 Career Integration Grant, European Commission, 2014 - 2018  
NASA Earth and Space Science Fellowship (NESSF) , Other International Organizations, 2009 - 2012

## Awards

Yilmaz M. T. , Üstün Başarılı Genç Bilim İnsanı , Türkiye Bilimler Akademisi, December 2018  
Yilmaz M. T. , Genç Araştırmacı Başarı Ödülü, Odtü Geliştirme Vakfı, December 2017  
Yilmaz M. T. , Genç Araştırmacı Başarı Ödülü, Odtü Geliştirme Vakfı, December 2016  
Yilmaz M. T. , Genç Araştırmacı Başarı Ödülü, Odtü Geliştirme Vakfı, December 2015