



**Asst. Prof. Dr. Tuğrul
Yılmaz**
Dept. of Civil Engineering

Expertise areas:

- Wind time series error estimation
- Optimal merging of satellite-, model-, and station-based wind time series data
- Remote sensing

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Recent Projects:

“Improving Predictions of Vegetation Condition by Optimally Merging Satellite Remote Sensing-based Soil Moisture Products”, Grant No: 630110, Funding Agency: Marie Curie European Research Council.

“Evaluation of soil moisture observations using hydrological model simulations and remote sensing-based retrievals observations”, Grant No: 114Y676, Funding Agency: TUBITAK.

“Analysis of the added utility of remote sensing-based soil moisture products to drought predictions via data assimilation techniques”, Grant No: 113C007, Funding Agency: TUBITAK).

“Determination of Hydrological Cycle Parameters with a Conceptual Hydrological Models”, Grant No: 115Y041, Funding Agency: TUBITAK.

Recent Publications:

- Anderson, M.C.; C. Zolin; P. Sentelhas; C. R. Hain; K. Semmens; M. T. Yilmaz; F. Gao; J. Otkin; R. Tetrault (2016). The Evaporative Stress Index as an indicator of agricultural drought in Brazil: an assessment using multi-scale crop yield datasets. *Remote Sensing of Environment*, 174, 82–99.
- Crow, W.T. , C-H. Su, D. Ryu, and M.T. Yilmaz (2015). Optimal Averaging of Soil Moisture Predictions From Ensemble Land Surface Model Simulations. *Water Resources Research*, 51(11), 9273–9289.
- Anderson, M.C.; C. Zolin; C. R. Hain; K. Semmens; M. T. Yilmaz, F. Gao (2015). Comparison of satellite-derived LAI and precipitation anomalies over Brazil with a thermal infrared-based Evaporative Stress Index for 2003-2013. *Journal of Hydrology*, doi:10.1016/j.jhydrol.2015.01.005.
- Hain, C.; Crow, W. T.; Anderson, M.C.; M. T. Yilmaz, (2015). Diagnosing Neglected Soil Moisture Source/Sink Processes via a Thermal Infrared-based Two-Source Energy Balance Model. *Journal of Hydrometeorology*, doi: <http://dx.doi.org/10.1175/JHM-D-14-0017.1>.
- M. T. Yilmaz and W. T. Crow (2014). Evaluation of assumptions in soil moisture triple collocation studies. *Journal of Hydrometeorology*, 15, 1293–1302, doi:10.1175/JHM-D-13-0158.1
- Crow, W. T. and Yilmaz, M. T. (2014). A The Auto-Tuned Land Data Assimilation System (ATLAS). *Water Resources Research*, 50 (1), 371–385, doi:10.1002/2013WR014550.
- M. T. Yilmaz, M. C. Anderson; B. F. Zaitchik; W. T. Crow; C. Hain; M. Ozdogan; J. A. Chun, J. Evans (2014). Comparison of Prognostic and Diagnostic Energy Balance Modeling Approaches over Ground Data Limited Nile Basin. *Water Resources Research*, 50 (1), 386–408.