

# Observing the Earth from Interdisciplinary Perspectives

The need for launching a scholarly publication addressing multidisciplinary aspects of earth systems science, utilizing satellite remote sensing, aerial reconnaissance and/or *in situ* monitoring, became apparent to the editors as a result of their own interdisciplinary careers and association with Purdue University's Laboratory for Applications of Remote Sensing (LARS) and *ab initio* affiliation with the Purdue Terrestrial Observatory. Consequently, with support and encouragement of Information Technology at Purdue (ITaP), the Rosen Center for Advanced Computing, faculty from the Colleges of Agriculture, Engineering, Management and Science at Purdue, the distinguished colleagues worldwide who serve on the Editorial Board and most of all, from Purdue University Press, the Journal of Terrestrial Observation (JTO) was conceptualized. The complexity and interconnectedness of earth systems frequently mandates a broader trans-disciplinary perspective and concomitant collaboration among physical and social sciences. JTO seeks to serve as a focus for exploration of terrestrial phenomena from an array of disciplinary lenses; thereby facilitating serendipitous mapping across categories or discovery of functions that might enable enlightened problem resolution.

The Journal will accept both solicited and unsolicited manuscripts. In this first issue, we are privileged to include a *Foreword* by National Academy of Engineering member, IEEE Fellow and Pecora Award winner, Dr. David Landgrebe, whose career contributions to multispectral and hyperspectral analysis have been substantial. Articles in this inaugural issue examine diverse topics, including the characterization of soil properties, using high resolution remotely sensed data (Morris, et al.), development of a crop anomaly classification system (Carter, et al.), improving the accuracy of archival satellite data classification (Getman, et al.), developing a simulation system for the Aral-Caspian water regime (Krapivin, et al.) and a study of the economics of using remote sensing in agriculture (Tenkorang and Lowenberg-DeBoer).

Previewing the upcoming following issue of JTO, there will be, *inter alia*, articles addressing NEXRAD Level II (Huber & Trapp), geo-informatics and biodiversity within South East Asia (Trisurat), high performance computing and visualization of geographic information (Arangarasan et al.), a review of early warning systems (Quansah et al.), remote sensing and GIS in the United Arab Emirates (Yagoub and Engel) and a community-based IT services determination of GIS user information needs (Caldwell, et al.).

JTO is a peer reviewed journal; the second issue of JTO will be published soon after the inaugural issue. Special issues, focusing on specific topics, will also be published periodically.

For future issues, the scientific community is cordially invited to submit manuscripts for double blind review at: <http://docs.lib.purdue.edu/jto/>.

*The Editors*