John J. Qu, PhD

Professor, Geography and GeoInformation Science; Director, GENRI and ESTC

Faculty Fellow: Clean Energy, Decarbonization, & Climate Change, Institute for a Sustainable Earth

Education

PhD, Remote Sensing, Colorado State University

Key Interests

Food Security | Water Security | Energy Security | Remote Sensing Applications | Climate | Wildland Fires | Soil | Carban | Natural Resource | Ecosystem

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SELECT PUBLICATIONS

- Xu, C., *et al*, (2018). Downscaling of surface soil moisture retrieval by combining MODIS/Landsat and in situ measurements. *Remote Sensing*, 10(2), 210.
- Qu, J.J., *et al*. (2015). Satellite-based applications on climate change. Springer.
- Qu, J.J. (2006). Earth science satellite remote sensing: vol. 1: science and instruments. Tsinghua University Press, Beijing and Springer-Verlag GmbH Berlin Heidelberg.
- Qu, J.J., *et al.* (2006). Asian dust storm monitoring combining terra and aqua MODIS SRB measurements. *IEEE Geoscience and Remote Sensing Letters.*

Research Focus

My research projects include land, water and atmosphere environmental remote sensing, and will involve collaborations with international partners. My major research focus is already underway to develop integrated early warning and decision-support systems for sustainable Water-Energy-Food-Health (WEFH) Nexus.

Current Projects

- An Investigation of Soil Moisture Impacting on Carbon Sequestration by Integrating Satellite Remote Sensing and In Situ Measurements, USGS.
- Supporting the NOAA Atmospheric Temperature Climate Data Record from POES Microwave Sounders to JPSS/ATMS, NOAA.
- Africa Soil Moisture Monitoring and Applications, WMO.
- Impacts of Large Wildland Fires, USDA/FS.
- Supporting World AgroMeteorological Information Service (WAMIS), WMO.
- JPSS Life-Cycle Data Reprocessing, NOAA/UMD.