

**Suresh-Kumar Santhana-Vannan**  
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## Education

Master of Science in Meteorology, 2003, University of Maryland, USA  
Bachelor of Engineering in Geoinformatics, 2001, Anna University, India

## Professional Experience

**Oak Ridge National Laboratory (2006 – present)** **Oak Ridge, TN**  
Research staff, Environmental Sciences Division (ESD) and Climate Change Science Institute (CCSI)

### Job functions

- GIS and informatics specialist
- Lead Developer for NASA sponsored data archive, ORNL DAAC (<http://daac.ornl.gov>)
- Leadership Team member, ORNL DAAC

### Major achievements

- Lead for research, development and deployment of tools for MODIS satellite data (<http://daac.ornl.gov/MODIS>)
- Lead for Web based GIS systems for access, visualization, and download of data
- U.S Department of Interior, State of Birds Report, data contributor
- ORNL lead on 'SAR subsets for terrestrial ecology' collaborative project with Alaska Satellite Facility (ASF), Fairbanks, AK, and National Snow and Ice Data Center (NSIDC), Boulder, CO

**Oak Ridge Associated Universities (2005 –2006)** **Oak Ridge, TN**  
Postmasters research associate, Oak Ridge National Laboratory

### Major achievements

- Release of two geospatial data tools for data access, visualization, and download
- Participated and presented on data management considerations at IndoFlux, a Indo-US bilateral workshop, sponsored by Government of India, Chennai, India.
- Contributing author on data management best practices

**University of Maryland (2003 –2005)** **College Park, MD**  
Faculty Research Assistant, Department of Geography

### Major achievements

- Installed a WebGIS system at CSIR, Satellite Application Centre (SAC), South Africa
- Development of e-mail based warning system for monitoring active fires

## Research Interests

- Engineering data tools to address science problems
- Data stewardship and long term data preservation
- Collaborative tools to address climate change and earth science questions

## **Selected Presentations**

American Geophysical Union (AGU) Fall Meeting, San Francisco, California. Increasing the availability and usability of terrestrial ecology data through geospatial Web services and visualization tools. **Invited Speaker**, December 2010

Ecological Society of America (ESA) annual meeting, 2010,2011. **Speaker, Co-organizer** for several workshops on data tools and best practices.

American Geophysical Union (AGU) Fall Meeting, San Francisco, California. Demonstration on various ORNL DAAC tools. NASA booth, December 2006,2009,2010

The American Museum of Science and Energy, Oak Ridge, TN. Introduction to Remote Sensing concepts to public audience. July 2007

Workshop on establishing the IndoFlux network, Chennai, India. Data Management Considerations for IndoFlux. July 2006

India-United States Conference on Space Science, Applications and Commerce, Bangalore, India. Near-Real Time Satellite Data for Fire Management in India: MODIS Rapid Response System & Web Fire Mapper. July 2004

## **Selected Publications**

**S.K. Santhana Vannan**, R.B. Cook, J.Y. Pan, B.E. Wilson. A SOAP Web Service for accessing MODIS land product subsets (2011). *Earth Science Informatics*. DOI:10.1007/s12145-011-0079-2

**S.K. Santhana Vannan**, R.B. Cook, S.K. Holladay, L.M. Olsen, U. Dadi, B.E. Wilson. A Web-Based Subsetting Service for Regional Scale MODIS Land Products (2010). *IEEE JSTARS*, 2(4): 319–328

Yaxing Wei, **S.K. Santhana Vannan**, R.B. Cook, Discover, visualize, and deliver geospatial data through OGC standards-based WebGIS system (2009), *Geoinformatics*, doi: 10.1109/GEOINFORMATICS.2009.5293520

P.V Sundareshwar, R. Murtugudde, G. Srinivasan, S. Singh, K. J. Ramesh, R. Ramesh, S. B. Verma, D. Agarwal, D. Baldocchi, C. K. Baru, K. K. Baruah, G. R. Chowdhury, V. K. Dadhwal, C. B. S. Dutt, J. Fuentes, Prabhat K. Gupta, W. W. Hargrove, M. Howard, C. S. Jha, S. Lal, W. K. Michener, A. P. Mitra, J. T. Morris, R. R. Myneni, M. Naja, R. Nemani, R. Purvaja, S. Raha, **S. K. Santhana Vannan**, M. Sharma, A. Subramaniam, R. Sukumar, R. R. Twilley, and P. R. Zimmerman. Environmental Monitoring Network for India (2007). *Science*, 316(5822): 204-205

D. Roy, P. Frost, C. Justice, T. Landmann, J. Le Roux, K. Gumbo, S. Makungwa, K. Dunham, R. Du Toit, K. Mhwandagara, A. Zacarias, B. Tacheba, O. Dube, J. Pereira, P. Mushove, J. Morisette, **S. K. Santhana Vannan**, and D. Davies. The Southern Africa Fire Network (SAFNet) regional burned area product validation protocol (2006). *International Journal of Remote Sensing*, 26(19): 4265–4292