

## SURESH KUMAR SANTHANA VANNAN

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Oak Ridge National Laboratory (ORNL)  
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### PROFILE

- Research Staff, Environmental Sciences Division (ESD), Climate Change Science Institute (CCSI), Oak Ridge National Laboratory (ORNL)
- Geographical Information Systems (GIS) analyst and Informatics specialist
- Leadership team member, NASA sponsored online data archive, ORNL DAAC
- GIS Facility Manager, Environmental Sciences Division, ORNL
- Advisory board Member, NASA Earth Data Coherent Web Project

### EDUCATION

- Master of Science - Meteorology**, University of Maryland, USA 2001 - 2003
- Graduate Research Assistant at the Goddard Space Flight Center, MD
- Bachelor of Engineering - Geoinformatics**, Anna University, India 1997 - 2001

### PROFESSIONAL EXPERIENCE

**Research staff, Oak Ridge National Laboratory (ORNL)** 2006 - Present  
**Oak Ridge, TN, USA**

#### Job Functions

- Manage online data-distribution tools for a \$4 million/year NASA funded terrestrial ecology data center (ORNL DAAC <http://daac.ornl.gov>)
- Participate in project planning, strategy, and implementation as leadership team member for the ORNL DAAC data center
- Administer mapping tools for web based visualization of renewable energy assets for US Department of Energy sponsored projects
- Research and develop technologies for improved data dissemination
- Analyze scientific data related to environmental, climate, and renewable energy science

#### Key Accomplishments

- ORNL lead on a \$110,000 NASA technology infusion research project in collaboration with two other NASA data centers
- Successfully took over the ESD GIS facility operations. Established new procedures for managing licenses and GIS technology support for over 25 researchers
- Contributed towards successfully obtaining additional funding from NASA over the last 5 years for data distribution activities
- Distinguished contributor (top 10% of 4600 staff) in 2006
- Created tools and methodologies for long-term data preservation

**Post Masters Research Associate, ORNL** 2005 - 2006  
**Oak Ridge, TN, USA**

- Performed GIS data quality checks

- Developed web mapping solutions for distribution of environmental and ecological data
- Participated as an invited US scientist to an India-US bilateral workshop aimed to develop a blueprint for a long-term environmental and climate monitoring network in India

**Faculty Research Assistant, University of Maryland  
College Park, MD, USA**

2003 - 2005

- Administered web mapping solutions for visualization and dissemination of forest fire data derived from remote sensing satellites
- Installed a satellite based forest fire monitoring system onsite at Pretoria, South Africa
- Participated in several international scientific activities (e.g. deforestation studies in Africa, environmental impact of oil exploration in Gabon)

## AWARDS AND HONORS

- ORNL Significant Event Award for a data archive redesign project (2008)
- NASA award for outstanding customer service ratings for the ORNL DAAC (2005)

## TECHNICAL SKILLS

- Advanced knowledge of several Geographical Information Systems (GIS) software
- Well versed in programming languages such as Perl, JavaScript, HTML, PHP, Perl, C and database administration tools such as MySQL, PostgreSQL
- Experience with project management tools such as Agile development, Redmine

## SELECTED PRESENTATIONS

EuroSpec, Data management practices, **Invited Keynote Speaker**, June 2012 (future)

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, **Speaker, Co-organizer** for several workshops on data tools and data management best practices. August 2010, 2011

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. **Invited Speaker**, July 2006

## 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

P.V Sundareshwar et al., **S. K. Santhana Vannan**, Environmental Monitoring Network for India (2007). **Science**, 316(5822): 204-205