

# CURRICULUM VITAE OF SUBRAMANIA (SRI) I. SRITHARAN Ph.D., P.E.

## PERSONAL DATA

Present Occupation: Professor and Chair /Director of Water Resources Management  
Department of Water Resources Management  
International Center for Water Resources Management  
Central State University  
Wilberforce, OH 45384. USA.

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Citizenship: US

## EDUCATION

Ph. D, Hydraulics Program, Department of Civil Engineering, College of Engineering, Colorado State University, Fort Collins, 1984.

M.S., Hydraulics Program, Department of Civil Engineering, College of Engineering, Colorado State University, Fort Collins, 1981.

B.S., Civil Engineering, Faculty of Engineering, University of Ceylon, 1971 with Honors.

## PROFESSIONAL BACKGROUND

### **Expertise:**

*Water Quality and Environmental Engineering-* Wetland water quality kinetics and wetland design, water treatment and supply, wastewater treatment

*Irrigation and Drainage* – Hydraulic applications in irrigation and drainage; System design, operation and management; Design of optimal links for on-farm and main system operation and management; Computer aided design and management (CAD) and management of irrigation systems; Rehabilitation planning and design of irrigation systems; Interdisciplinary agricultural systems studies; Environmental impacts of irrigation and drainage; Irrigated Agricultural Development; Soil and Water Conservation.

*Surface Hydraulics* - Physical and computer modeling of steady and unsteady flow in channels and pipes; control of hydraulic transients in open channels; applications of transient control for irrigation canal systems; erosion and sedimentation, vortex flow at hydraulic intakes ; convection and diffusion of contaminants; hydraulic structures; wetland hydraulics; application of hydraulics to irrigation

*Sub-surface Hydraulics* - Flow interaction between surface and subsurface flows under saturated and unsaturated conditions, field scale studies of convection and diffusion parameters under saturated and unsaturated conditions; applications of subsurface hydraulics to irrigation and drainage.

*Water Resources Systems Analysis-* Optimal design of water resources system design, operation and management, Computer Aided Decision Making in Water Resources Systems Analysis, Remote Sensing Applications in water and environmental systems.

*Hydrology* (deterministic and stochastic) - Evaporation processes, rainfall-runoff correlation in watersheds, wetland hydrology.

**Professional Activities:**

Actively engaged in numerous areas of water resources research and education. Associate Editor Journal of Irrigation and Drainage Engineering (Through January, 1997), Member of Technical Oversight Committees of Water Resources Engineering Division of ASCE on Publications, On-farm Irrigation and Design, Operation and Maintenance of Irrigation Systems. Active participation in numerous university committees.

**HONORS**

America's Registry of Outstanding Professionals 2002-2003  
Who's Who Among America's Teachers and Who's Who in Science and Engineering  
Sigma -Xi, The Scientific Honor Society

**RESEARCH ACTIVITIES**

Remote sensing applications in water and environmental management.  
Water Resources Systems Analysis of Large Scale Irrigation Systems  
Integrated modeling of soil evaporation.  
Canal controls in the framework of implicit methods as alternatives to method of characteristics approach for gate stroking in open channel flow.  
Biospheric-atmospheric interactions for General Circulation Models.  
Global changes in Rainfall-Runoff processes.  
Renewable energy technology applications in water resources systems.  
Drainage systems design under stochastic recharge in agricultural areas.  
Environmental Technology Transfer.  
Applied probabilistic modeling.

**COURSES TAUGHT**

Undergraduate level - Fluid mechanics and hydraulics, hydrology, soil and water conservation, groundwater, irrigation system design, drainage systems design, water supply, wastewater treatment, urban water problems.  
Advanced/graduate level- Hydraulics of surface irrigation, Environmental hydraulics, Applications of Optimization in Water System Rehabilitation

**A FEW RECENT PUBLICATIONS**

"Enhancement of Higher Order Thinking Skills in Web-Assisted Education: A Case Study in the Water Resources Field", Nedunuri K.V. and Sritharan S. I. (To be submitted, 2008).

*"Use of the Geographic Information System for Geospatial Monitoring of Sewage Sludge Application", Smith, B., Nedunuri K.V. and Sritharan S. I., National HBCU-UP Research Conference held by American Association for the Advancement of Science (AAAS) in Washington, D.C. October 4-7, 2007*

“Estimating Evapotranspiration at The Palo Verde Irrigation District (California) From Statistical Models Using Remotely Sensed And Meteorological Data”, Sumantra Chatterjee, Doyle Watts, **Subramania Sritharan**, Thaddeus Tarpey, East Lakes Division of the Association of American Geographers (ELDAAG) Conference , University of Toledo, October 21, 2006.

“A General Purpose Rock and Mineral Hyperspectral Reflectance Library for Earth Science Education and Research (350 to 2500 nanometers)”, Geological Society of America, North Central Section, Minneapolis, May, 2005, accepted; Kito, Youkoy, Izeh, B., Okunade, S.A., Beck, R.A., Laki, S.L., Nedunuri, K.V., and Sritharan, S.I.,

“Correlation of land use with nutrient loading in the Upper Little Miami River Watershed using remote sensing,” K.V. Nedunuri, **Subramania I. Sritharan**, M. Smart, D.R. Watts, 2004 Annual Scientific Symposium and 20<sup>th</sup> Anniversary, Ohio River basin consortium for research and education, Walter Hall, Ohio University, Athens, Ohio, August 18-20, 2004.

### **SELECTED LIST OF GRANTS**

At Central State University, Wilberforce, OH.

- 1 Establishment of a Remote Sensing/ Geographic Information System (GIS) Capability at Central State University – Funded by Ohio Aerospace Institute, Cleveland. Total amount \$95,000. Period. (2002-2005)
- 2 Water Quality Database Management System for the Upper Little Miami River Basins” funded by Greene County through Water and Wastewater Training Research Center at University of Dayton. Period: June 2003 – June 2004. Principal Investigators (PI): Krishnakumar V. Nedunuri and Subramania I. Sritharan. Funding amount: \$ 40, 000
- 3 Quality Enhancement in Science, Mathematics, Engineering, and Technology (QUEST), National Science Foundation, Period: 2002-2007, Co-Principal Investigator, Funding amount: \$ 2.2 million.
- 4 Applied Remote Sensing of ET, Cooperative Agreement with the United States Bureau of Reclamation (USBR), Period: 2003-2006, Principal Investigator, Funding Amount \$3.0 million,
- 5 Thematic Enhancements For The Summer Transportation Institute, Ohio Transportation Center, Principal Investigator, Period: October 1, 2007 – June 30, 2008. Principal Investigator, Funding Amount - \$20,000**
- 6 Modeling The Effects Of Nutrient Loading From The Contributing Streams On The Growth Of Cyanobacteria In Lake Erie May 2006 – June 2009. Co-Principal Investigator, Funding Amount \$45,000,
- 7 Hyperspectral Image Analysis (HSIA) Center, Principal Investigator, Under the National Nuclear Security Administration (NNSA) STEM –UPOUT Program. HSIA Component \$200,000