MARUTHI SRIDHAR B. BHASKAR
Department of Environmental and Interdisciplinary Sciences, Texas Southern University,
403Y New Science Center | 3100 Cleburne Street | Houston, Texas 77004
Tel: (713)-313-1388, Fax: (713)-313-1853, Email: bhaskarm@tsu.edu

SYNOPSIS

- Fifteen years of research experience in the areas of crop production, soil science, environmental chemistry, and geospatial technology.
- Experience in growing plants in green house and field conditions, measuring the physical and chemical characteristics of plant, soil, water and application of remote sensing and GIS for precision agriculture and for solving environmental problems.
- Multi disciplinary back ground with good understanding and experience to identify the problems, analyze and communicate the results.
- Motivated self-starter, proactive team player with excellent written and oral communication skills.

EDUCATION

Aug 2004	**Ph.D. (Forest Resources)** Mississippi State University, Mississippi State, MS Dissertation Title: *Monitoring spectral reflectance and internal structure of plants during phytoremediation processes of selected heavy metals.*
Oct 2000	**MSc (Soil Science & Agricultural Chemistry)** Acharya N.G. Ranga Agricultural University, Hyderabad, India Thesis Tile: *Characterization and classification of soils of karimnagar district for land use planning using GIS techniques.*
Sep 1997	**BSc (Agriculture)** Acharya N.G. Ranga Agricultural University, Hyderabad, India

PROFESSIONAL EXPERIENCE:

Sept 2011 to Present	**Assistant Professor,** Department of Environmental and Interdisciplinary Sciences, Texas Southern University, Houston, TX.
June 2013 to Present	**Visiting Summer Faculty,** Oak Ridge National Lab (ORNL), Oak Ridge, TN.
Sept 2014 to Present	**Director,** Environmental Toxicology Program, Department of Environmental and Interdisciplinary Sciences, Texas Southern University, Houston, TX.
July 2009 to Sept 2011	**Research Scientist**, Department of Geology, Bowling Green State University, Bowling Green, OH.
July 2004 to June 2009	**Postdoctoral faculty**, Department of Geology, Bowling Green State University, Bowling Green, OH.

Research accomplishments:

- Quantify and monitor the landscape level changes on the mercury concentrations at watershed scale.
- Develop geospatial database to map mercury concentration in soil, sediment, water and fish in Tennessee watersheds.
- Quantify the physical and chemical changes of soils in the Lake Erie drainage basin as a result of sewage sludge, dairy and poultry manure applications.
- Monitoring the chemical concentrations in soils and plants through traditional chemical analysis and to map the areas of high chemical concentrations using the satellite imagery.
- Mapping and measuring the algal blooms and other water quality parameters in Lake Erie through traditional analytical methods and also through remote sensing and GIS techniques.
- Mapping the distribution and effects of the Salt cedar (*Tamarix ramosissima*) an invasive plant species along the riparian areas of the Lower Colorado region.

Jan 2001to July 2004 **Graduate Research Associate**, Diagnostic Instrumentation and Analysis Laboratory, Mississippi State University, MS.

Research accomplishments:

- Conducted green house studies using mustard, barley and fern plants for phytoremediation and restoration of the toxic metal contaminated soils.
- Application of remote sensing and spectral reflectance to monitor the heavy metal stress in plants
- Analyzed the As, Cd, Cr, Cs, Sr and Zn accumulation in soils and plants through traditional chemical analysis and microscopy.

July 1999 to Oct 2000 **Seed Production Officer**, Monsanto, India.

Responsibilities:

- To provide leadership for corn and soybean seed production.
- Supervise, evaluate and develop technical ability of field assistants.
- Manage the production research in green house and field environments, conducting the field trials for method and result demonstrations.

Sep 1997 to July 1999 **Graduate Research Associate**, College of Agriculture, Rajendranagar, Hyderabad, India.

RESEARCH EXPERTISE

- Agricultural and Environmental monitoring using Remote Sensing.
- Land Use and Land Cover change, Global Environmental change detection.
- Imaging Spectrometer and Hyperspectral data acquisition and analysis.
- Monitoring the effects of Heavy metal and Nutrient Pollution on Soil, Plant and Atmosphere.
- Soil Contamination, Remediation and Restoration.

TEACHING EXPERIENCE

Courses taught at Department of Environmental and Interdisciplinary Sciences, Texas Southern University, Houston, TX.

GEOL 141: Introduction to Earth- Undergraduate level

ES 919: Environmental Remote Sensing - Graduate level

ES 906: Environmental Geology - Graduate level

ES 704: Aquatic Resources and Pollution - Graduate level

ES 703: Environmental Science- Graduate level

ES 718: Remote Sensing and Image Interpretation - Graduate level

ES 903: General Ecology- Graduate level

Courses taught at Department of Geology, Bowling Green State University, Bowling Green, OH.

GEOL 680: Biological Remote Sensing-Graduate level

GEOL 440/540: Geological Remote Sensing-Undergraduate/Graduate level

PATENTS

Maruthi Sridhar BB, Vincent RK. 2015. Methods and apparatus for determining evapotranspiration from multispectral reflected light. (In Review)

Maruthi Sridhar BB, Vincent RK. 2014. Method and system for detecting phosphorus in soil from reflected light reflected light. US Patent No. 8,655,601

Maruthi Sridhar BB, Vincent RK. 2013. Method and system for detecting copper in soil from reflected light. US Patent No. 8,426,211.

Maruthi Sridhar BB, Vincent RK. 2013. Method and system for detecting sulfur in soil from reflected light. US Patent No. 8,367,420.

Vincent RK, **Maruthi Sridhar BB.** 2011. Methods and apparatus for detecting organic materials and objects from multispectral reflected light. US Patent No. 0024,632 / US Patent No. 8,030,615 / US Patent No. 8,058,617

Vincent RK, **Maruthi Sridhar BB.** 2010. Methods and apparatus for detecting organic materials and objects from multispectral reflected light. US Patent No. 7,767,966.

RESEARCH GRANTS FUNDED

Maruthi Sridhar BB. (PI). Spatial and temporal modeling of mercury fate and dynamics in East Tennessee watersheds. 2014-2016, $199,999, NSF-HBCU-UP.

Maruthi Sridhar BB. (PI). Landscape level patterns of mercury contamination and bioaccumulation in East Fork Poplar Creek (EFPC) watershed, 2014-2015, $ 15,000. (Funded - DOE Grant)

Maruthi Sridhar BB. (PI). Use of a geospatial database and model to map mercury distribution and transport in the East Fork Poplar Creek watershed, Oak Ridge, Tennessee, 2013-2014, $ 15,000. (Funded - DOE Grant)

Maruthi Sridhar BB. (PI). Monitoring agricultural sewage sludge, 2012-2013, $10,860. (Funded – USDA subcontract through University of Toledo) Sub Award No. 10390057-TSU

Vincent RK, **Maruthi Sridhar BB**. Calibration and validation of remote sensing data for the Lower Colorado River Region, 2007-2011, $56,000. (Funded – USBR subcontract through Central State University)

Vincent RK, **Maruthi Sridhar BB.** Monitoring agricultural sewage sludge, 2010- 2013, $468,000. (Funded – USDA subcontract through University of Toledo)

Vincent RK, **Maruthi Sridhar BB.** Monitoring agricultural sewage sludge, 2009- 2012, $101,765. (Funded – USDA subcontract through University of Toledo)

SKILLS

Instrumental:

***Soil and Plant Chemical Analysis*:** Inductively coupled plasma Optical Emission Spectroscopy (ICP-OES), Microwave Digestion, Atomic Absorption Spectroscopy (AAS), Calorimetry.

***Microscopy*:** Scanning Electron Microscope (SEM), Transmission Electron Microscope (TEM), Light Microscope (LM), Environmental Scanning Electron Microscope (ESEM) EDS-X-ray, Microtome.

Remote Sensing: ASD Spectroradiometer (350-2500 nm), FTIR Spectroradiometer (2-16 µm)

Computer:

***Geospatial Packages*:** ER Mapper, ERDAS, ENVI, Arc GIS.

***Statistical Packages*:** SAS, Minitab, SPSS

PROFESSIONAL HONORS: FELLOWSHIPS AND AWARDS

Fellowships

2014 *Department of Energy (DOE) Visiting Faculty Fellowship for Oak Ridge National Lab, Oak Ridge, TN.*

2013 *Department of Energy (DOE) Visiting Faculty Fellowship for Oak Ridge National Lab, Oak Ridge, TN.*

Awards

2015 *Distinguished Research and Scholarly Activity Award*. Awarded for Outstanding Research and Scholarly Accomplishments in College of Science, Engineering and Technology (COSET) at Texas Southern University (TSU), Houston, TX.

2015 *Award of Appreciation*. Awarded for being the Keynote Speaker at the TSU Research Week- 2015, March 31- April 2, Houston, TX.

2014 *Award of Special Recognition*. Awarded for the poster presentation in 14th Annual Houston Area GIS Day Conference, November 19-21, Houston, TX.

2012 *Award of Honor*. Awarded third place in faculty oral presentation by the Office of Research, Texas Southern University in Research Week, 2012.

2004 *American Association of Scientists of Indian Origin Graduate student recognition Award*. Awarded for outstanding academic and research performance in Environmental and Soil Science.

2004 *Mississippi State University Office of Research's Graduate Student Research Award*. Awarded for Research Excellence.

2004 *Mississippi State University Office of Graduate Studies Graduate Student Recognition Award*. Awarded for Outstanding academic and research performance.

2003 *Society of Wood Science and Technology Best Student Poster Award*. Awarded First place in 46th annual meeting of Society of Wood Science and Technology at Bellevue, WA.

2003 *Battelle Best Graduate Student Research Paper Award*. Awarded First Place in The 7th International Symposium of In Situ and On-site Bioremediation, Orlando, FL.

2003 *Mississippi State University Graduate Student Travel Support Grant*. Awarded to attend Soil Society of America Annual Meetings, Denver, CO. November 2-6, 2003. $ 500

2003 *Battelle Research Institute Graduate Student Travel Support Grant*. Awarded to attend The 7th International Symposium of In Situ and On-site Bioremediation, Orlando, FL. June 2-5, 2003. $ 2000

2001-2004 *Mississippi State University Graduate Research Assistantship*.

1997-2000 *A.N.G.R. Agricultural University, India, Graduate Research Assistantship*.

PUBLICATIONS AND PRESENTATIONS

Publication Summary

Published (74): Book Chapters (3), Refereed Journal Articles (20), Conference Abstracts (46), Non-refereed papers (5).

BOOK CHAPTERS

Maruthi Sridhar BB, Han FX, Vincent RK. 2014. Remote sensing of nutrient concentrations of soils and crops in biosolid amended soils. In Applied Manure and Nutrient Chemistry for Sustainable Agriculture and Environment, He Z and Zhang H. (Eds.). Springer Press, NY.

Nagler P, **Maruthi Sridhar BB**, Olsson AD, Glenn E. 2011. Hyperspectral remote sensing tools for quantifying plant litter and invasive species in arid ecosystems. In Hyperspectral Remote Sensing of Vegetation, Thenkabail, P.S., J.G. Lyon, A. Huete. (Eds.), ISBN: 9781439845370, CRC-Press, Taylor and Francis group, NY.

Maruthi Sridhar BB, Vincent RK. 2010. Mapping and estimation of chemical concentrations in surface soils using LANDSAT TM satellite imagery. In Satellite Communications, Nazzareno Diodato (Ed.), ISBN: 978-953-307-135-0, Sciyo, Available from: http://www.intechopen.com/articles/show/title/mapping-and-estimation-of-chemical-concentrations-in-surface-soils-using-landsat-tm-satellite-imager.

REFEREED JOURNAL PUBLICATIONS

Maruthi Sridhar BB, Witter JD, Wu C, Spongberg AL, Vincent RK. 2014. Effect of biosolid amendments on the metal and nutrient uptake and spectral characteristics of five vegetable plants. Water Air & Soil Pollution 225: 1-14.

Wu C, Spongberg AL, Witter JD, **Maruthi Sridhar BB**. 2012. Transfer of wastewater associated pharmaceuticals and personal care products to crop plants from biosolids treated soil. Ecotoxicology and Environmental Safety 85: 104-109.

Maruthi Sridhar BB, Han FX, Diehl SV, Monts DL, Su Y. 2011. Effect of phytoaccumulation of arsenic and chromium on structural and ultrastructural changes of brake fern (*Pteris vittata*). Brazilian Journal of Plant Physiology 23 (4): 285-293.

Tangestani MH, Jaffari L, Vincent RK, **Maruthi Sridhar BB**. 2011. Spectral characterization and ASTER-based lithological mapping of an ophiolite complex: A case study from Neyriz ophiolite, SW Iran. Remote Sensing of Environment 115: 2243-2254.

Maruthi Sridhar BB, Vincent RK, Roberts SJ, Czajkowski K. 2011. Remote sensing of soybean stress as an indicator of chemical concentration of biosolid amended surface soils. International Journal of Applied Earth Observation and Geoinformation 13: 676-681.

Maruthi Sridhar BB, Vincent RK, Clapaham WB, Osterberg J, Neale CMU, Watts DR, Sritharan SI. 2010. Mapping saltcedar (*Tamarix ramosissima*) and other riparian and agricultural vegetation in the Lower Colorado River region using multi spectral LandsatTM imagery. GeoCarto International 25 (8): 649-662.

Maruthi Sridhar BB, Vincent RK. 2009. Mapping and estimation of phosphorus and copper concentrations in fly ash spill area using LANDSAT TM Images. Photogrammetric Engineering and Remote Sensing 75 (9): 1030-1033.

Maruthi Sridhar BB, Vincent RK, Witter JD, Spongberg AJ. 2009. Mapping the total phosphorus concentration of surface soils using LANDSAT TM data. Science of the Total Environment 47: 2894-2899.

Su Y, Han FX, **Maruthi Sridhar BB,** Monts DL. 2008. Phytoextraction and accumulation of mercury in three plant species: Indian mustard (*Brassica juncea*), Beard grass (*Polypogon monspeliensis*), Chinese brake ferns (*Pteris vittata)*. International Journal of Phytoremediation 10: 547-560.

Maruthi Sridhar BB, Chapin TL, Vincent RK, Axe MJ, Frizado JP. 2008. Identifying the effects of different construction practices on the spectral characteristics of concrete. Cement and Concrete Research 38: 538-542.

Maruthi Sridhar BB, Han FX, Diehl SV, Monts DL, Su Y. 2007. Effects of Zn and Cd accumulation on structural and physiological characteristics of barley plants. Brazilian Journal of Plant Physiology 19 (1): 15-22.

Maruthi Sridhar BB, Vincent RK. 2007. In situ spectral reflectance measurements of a *Microcystis* bloom in Klamath Lake, Oregon. Journal of Great Lakes Research 33: 279-284.

Su Y, **Maruthi Sridhar BB**, Han FX, Diehl SV, Monts DL. 2007. Effect of bioaccumulation of Cs and Sr natural nuclides and impact on foliar structure and plant spectral reflectance of Indian mustard (*Brassica juncea*). Water Air & Soil Pollution 180: 65-74.

Maruthi Sridhar BB, Han FX, Monts DL, Diehl SV, Su Y. 2007. Spectral reflectance and leaf internal structure changes of barley plants due to phytoextraction of zinc and cadmium. International Journal of Remote Sensing 28 (5): 1041-1054.

Maruthi Sridhar BB, Han FX, Diehl SV, Monts DL, Su Y. 2007. Monitoring the effects of Arsenic- and Chromium- accumulation in Chinese brake fern (*Pteris vittata*) using microscopy and near infrared spectral reflectance. International Journal of Remote Sensing 28 (5): 1055-1067.

Han FX, Patterson WD, Xia Y, **Maruthi Sridhar BB,** Su Y. 2006. Rapid determination of mercury in plant and soil samples using inductively coupled plasma atomic emission spectroscopy, a comparative study. Water Air & Soil Pollution 170: 161-171.

Maruthi Sridhar BB, Diehl SV, Han FX, Monts DL, Su Y. 2005. Changes in plant anatomy due to uptake and accumulation of Zn and Cd in Indian mustard (*Brassica juncea*). Environmental and Experimental Botany 54: 131-141.

Su Y, Han FX, **Maruthi Sridhar BB,** Monts DL. 2005. Phytotoxicity and phyto accumulation of trivalent and hexavalent chromium in Brake fern. Environmental Toxicology and Chemistry 24 (8): 2019-2026.

Han FX, Su Y, **Maruthi Sridhar BB,** Monts DL. 2004. Distribution and bioavailability of trivalent and hexavalent chromium in contaminated soil. Plant and Soil 265:243-252.

Han FX, **Maruthi Sridhar BB**, Monts DL, Su Y. 2004. Phytoavailability and toxicity of trivalent and hexavalent chromium to *Brassica juncea L. Czern*. New Phytologist 162: 489-499.

PUBLISHED CONFERENCE PROCEEDINGS

Su Y, **Maruthi Sridhar BB**, Han FX, Monts DL, Diehl SV. 2008. Effect of bioaccumulation of Cs and Sr natural isotopes on foliar structure and plant spectral reflectance of Indian mustard (*Brassica juncea*). Proceedings of the Waste Management Symposium, Phoenix, AZ.

Monts DL, Su Y, Han FX, **Maruthi Sridhar BB,** Waggoner CA, Plodinec MJ. 2005. Investigation of the efficiency of mercury uptake by selected plant species. Proceedings of the 10th International Conference on Environmental Remediation and Radioactive Waste Management, Glasgow, Scotland.

Maruthi Sridhar BB, Diehl SV, Su Y, Monts DL, Han FX. 2003. Monitoring structural changes in plants during phytoremediation of Cr and As contaminated soils. Proceedings of Southeastern Microscopic Society Conference, Columbia, SC.

Maruthi Sridhar BB, Diehl SV, Su Y, Monts DL. 2003. Monitoring the internal structure of barley plants subjected to metal phytoremediation. Proceedings of the 7th International Symposium on In situ and on-site biremediation, Battelle, 2003, Orlando, FL.

Su Y, **Maruthi Sridhar BB,** Monts DL. 2002. Monitoring the process of phytoremediation of Zn and Cd by barley (*Hordeum vulgare*) using visible and near-infrared diffuse reflectance spectrometry. Proceedings of the 9th Biennial International Conference on Nuclear and Hazardous Waste Management, Spectrum, 2002, Reno, NV.

PUBLISHED CONFERENCE ABSTRACTS AND PRESENTATIONS

*Graduate Student

Maruthi Sridhar BB, Peterson M, Bevelhimer M. 2015. Mercury contamination and bioaccumulation in East Tennessee watersheds. TSU Research Week, Texas Southern University, Houston, TX, March 31- April 2, 2015 (Invited Talk).

Maruthi Sridhar BB. 2015. Landscape level patterns of mercury contamination and bioaccumulation in East Fork Poplar Creek (EFPC) watershed. TSU Research Week, March 31 – April 2, Houston, TX.

Maruthi Sridhar BB, Peterson M, Bevelhimer M. 2015. Geospatial models to map mercury dynamics at watershed scale. NSF- HBCU-UP/CREST PI/PD Meeting, American Association for the Advancement of Science (AAAS), Feb 18-19, Washington, DC.

*Howlider HR, **Maruthi Sridhar BB**. 2015. Analyzing the mercury contamination in soil and sediments of East Fork Poplar Creek (EFPC) in Tennessee. TSU Research Week, Texas Southern University, Houston, TX, March 31- April 2, 2015.

*Segun A, **Maruthi Sridhar BB**. 2015. Effects of landscape factors on mercury and methyl mercury contamination and bioaccumulation in Redbreast Sunfish (*Lepomis auritus*) in East Fork Poplar Creek (EFPC) watershed, Tennessee. TSU Research Week, Texas Southern University, Houston, TX, March 31- April 2, 2015.

*Lakkaraju S, **Maruthi Sridhar BB**. 2015. Geospatial and statistical analysis of methyl mercury (MeHg) and polychlorinated biphenyl (PCB) distribution in East Tennessee watersheds. TSU Research Week, Texas Southern University, Houston, TX, March 31- April 2, 2015.

*Saah G, **Maruthi Sridhar BB**. 2015. Analysis of urban sprawl and its effect on urban environmental characteristics using spectral reflectance and Landsat data in Harris County, Texas. TSU Research Week, Texas Southern University, Houston, TX, March 31- April 2, 2015.

*Esmaeili M, **Maruthi Sridhar BB**. 2015. Land use and land cover change in Galveston County, Texas. TSU Research Week, Texas Southern University, Houston, TX, March 31- April 2, 2015.

*Alhassan F, **Maruthi Sridhar BB**. 2014. Land cover change analysis of the Buffalo San Jacinto watershed region in Texas, 14th Annual Houston Area GIS Day Conference, November 19-21, Houston, TX.

*Eltayeb HA, **Maruthi Sridhar BB**. 2014. Land use and land cover changes in the North Galveston Bay watershed region in Texas, 14th Annual Houston Area GIS Day Conference, November 19-21, Houston, TX.

*Esmaeli M, **Maruthi Sridhar BB**. 2014. Landsat 5 imagery of urban development in Galveston Island, Texas 1986-2011, 14th Annual Houston Area GIS Day Conference, November 19-21, Houston, TX.

*Heydari S, **Maruthi Sridhar BB**. 2014. Analysis of temporal land cover changes in East Galveston watershed region of Texas, 14th Annual Houston Area GIS Day Conference, November 19-21, Houston, TX.

*Mosley J, **Maruthi Sridhar BB**. 2014. Land cover change in Greater Lubbock area, Lubbock County, Texas, 14th Annual Houston Area GIS Day Conference, November 19-21, Houston, TX.

Maruthi Sridhar BB, Peterson M, Bevelhimer M. 2014. Geospatial database to map mercury concentration in East Fork Poplar Creek (EFPC) watershed. 14th Annual Houston Area GIS Day Conference, November 19-21, Houston, TX.

*Saah G, **Maruthi Sridhar BB**. 2014. Analysis of urban sprawl and its effect on urban environmental characteristics using spectral reflectance and Landsat data, 14th Annual Houston Area GIS Day Conference, November 19-21, Houston, TX.

Maruthi Sridhar BB, Peterson M, Bevelhimer M. 2013. Geospatial database to map mercury concentration in East Fork Poplar Creek (EFPC) watershed. Society of Environmental Toxicology and Chemistry (SETAC) North America 34th Annual Meetings, November 17-21, Nashville, TN.

Maruthi Sridhar BB, Peterson M, Bevelhimer M. 2013. Geospatial database to map mercury concentration in East Fork Poplar Creek Watershed (EFPC) watershed. ORAU Faculty Poster Session, August 6, Oak Ridge National Lab (ORNL), Oak Ridge, TN.

Maruthi Sridhar BB, Vincent RK. 2012. Remote sensing of soybean stress as an indicator of chemical concentration of biosolid amended surface soils. SSSA annual meetings, October 21-24, Cincinnati, OH.

Maruthi Sridhar BB, Vincent RK, Wicks J. 2011. Remote sensing for monitoring water quality. American Society of Photogrammetry and Remote Sensing (ASPRS) Conference, November 14-17, Herndon, VA.

Maruthi Sridhar BB, Vincent RK. 2011. Application of remote sensing to map the soil chemical characteristics. American Society of Photogrammetry and Remote Sensing (ASPRS) Conference, November 14-17, Herndon, VA.

Vincent RK, Sanderson L, **Maruthi Sridhar BB**. 2011. Landsat TM monitoring of total phosphorous in lakes as related to cyanobacterial blooms. American Society of Photogrammetry and Remote Sensing (ASPRS) Conference, November 14-17, Herndon, VA.

Sanderson L, Vincent RK, **Maruthi Sridhar BB**. 2011. Use of Landsat TM phycocyanin algorithm to show possibility of similar world view 2 algorithm. American Society of Photogrammetry and Remote Sensing (ASPRS) Conference, November 14-17, Herndon, VA.

Maruthi Sridhar BB, Vincent RK. 2010. Remote sensing of evapotranspiration using Landsat TM data. Remote Sensing and Hydrology 2010 Symposium September 27-30, Jackson Hole, WY.

Maruthi Sridhar BB, Vincent RK. 2010. Remote sensing of evapotranspiration using Landsat TM data. Second State of the Art Conference on Remote Sensing of Evapotranspiration, August 16-18, Desert Research Institute, Las Vegas, NV.

Maruthi Sridhar BB, Vincent RK. 2010. Mapping Saltcedar (*Tamarix ramosissima*) and other riparian and agricultural vegetation in the lower Colorado River region using multi spectral LANDSAT TM imagery. Second State of the Art Conference on Remote Sensing of Evapotranspiration, August 16-18, Desert Research Institure, Las Vegas, NV.

Maruthi Sridhar BB, Vincent RK. 2010. Mapping and estimation of phosphorus and copper concentrations in fly ash spill area using LANDSAT TM data. TVA-Kingston Fly ash release environmental research symposium, March 11-12, Harriman, TN.

Maruthi Sridhar BB, Vincent RK. 2009. Mapping the chemical concentrations of soils using LANDSAT TM data. SSSA annual meetings, November 1-5, Pittsburg, PA.

Maruthi Sridhar BB, Vincent RK, Sritharan SI, Watts DR, Osterberg J. 2009. Mapping the invasive Tamarix plant species using LANDSAT data. Ecological Society of America (ESA) Conference, August 2-7, Albuquerque, NM.

Maruthi Sridhar BB, Vincent RK. 2009. Spectral reflectance measurements of a Microcystis bloom. International Association for Great Lakes Research's 52nd Annual Conference, May 18-22, Toledo, OH.

Maruthi Sridhar BB, Vincent RK, Clapham P, Eckhardt D, Neale C, Osterberg J, Watts DR, Sritharan SI. 2008. Mapping the invasive salt cedar plant species (*Tamarix ramosissima*)

using spectral reflectance and remote sensing. American Society of Photogrammetry and Remote Sensing (ASPRS) Conference, April 28-May 2, Portland, OR.

Maruthi Sridhar BB, Vincent RK. 2006. Monitoring the application of sewage sludge to agricultural fields using spectral reflectance and remote Sensing. 18th World Congress of Soil Science, July 9-15, 2006, Philadelphia, PA

Maruthi Sridhar BB, Vincent RK. 2005. Monitoring the application of sewage sludge to agricultural fields using spectral reflectance and remote sensing. 4th Annual BGSU Research Conference, November 3-4, Bowling Green, OH.

Seudkamp MD, **Maruthi Sridhar BB,** Vincent RK, Michaels HJ. 2005. Spectral detection of stress in maize (*Zea mays*) sown on sludge-amended soil. 4th Annual BGSU Research Conference, November 3-4, Bowling Green, OH.

Maruthi Sridhar BB. Han FX, Diehl SV, Monts DL, Su Y. 2004. Effect of high soil concentrations of mercury on growth, physiology and internal structure of plants. SSSA annual meetings, November 1-4, Seattle, WA.

Maruthi Sridhar BB, Diehl SV, Su Y, Monts DL, Han FX. 2004. Remote monitoring of structural and physiological changes in fern (*Pteris vittata*) plants during phytoremediation of Cr and As contaminated soils. 2nd Graduate Student Symposium, Mississippi State University, Mississippi State, MS.

Maruthi Sridhar BB. Han FX, Diehl SV, Monts DL, Su Y. 2004. Discrimination of chromium phytotoxicity to plants using hyperspectral reflectance. SSSA annual meetings, November 1-4, Seattle, WA.

Maruthi Sridhar BB, Diehl SV, Su Y, Monts DL, Han FX. 2003. Changes in anatomical characters of plants subjected to heavy metal contamination. SSSA annual meetings, November 2-6, Denver, CO

Maruthi Sridhar BB, Diehl SV, Su Y, Monts DL, Han FX. 2003. Monitoring structural changes of fern (*Pteris vittata*) during phytoremediation of Cr and As contaminated soils. 57th Annual Conference of Forest Products Society, Seattle, WA.

Maruthi Sridhar BB, Diehl SV, Su Y, Monts DL. 2003. Monitoring the internal structure of barley plants subjected to metal phytoremediation. 7th International symposium on insitu and onsite bioremediation, Orlando, FL.

Maruthi Sridhar BB, Diehl SV, Su Y, Monts DL, Han FX. 2003. Phytoremediation of Cr and As contaminated soils using brake fern plants. Southern States Environmental Conference, September 23-25, Biloxi, MS

Maruthi Sridhar BB, Diehl SV, Su Y, Monts DL. 2003. Structural and ultrastructural changes in plants subjected to metal phytoremediation. 7th International symposium on insitu and onsite bioremediation, Orlando, FL.

Maruthi Sridhar BB, Diehl SV, Su Y, Monts DL, Han FX. 2003. Monitoring structural changes in plants during phytoremediation of Cr and As contaminated soils. Proceedings of Southeastern Microscopic Society Conference, Columbia, SC.

Maruthi Sridhar BB, Su Y, Monts DL, Diehl SV. 2002. Monitoring leaf reflectance and internal structure of barley during phytoremediation of heavy metals. SSSA annual meetings, Indianapolis, IN.

Su Y, **Maruthi Sridhar BB,** Monts DL. 2002. Monitoring the process of phytoremediation of metal contaminated soil by Near IR Reflectance spectroscopy, ACS Meeting, Orlando, FL.

Su Y, **Maruthi Sridhar BB,** Monts DL. 2002. Monitoring the process of phytoremediation of zinc by barley (*Hordeum vulgare*) using visible and near infrared diffuse reflectance spectrometry. The 9th Biennial International conference on nuclear and hazardous waste management, Reno, NV.

Su Y, **Maruthi Sridhar BB,** Han FX, Monts DL, Diehl SV. 2002. Monitoring the impact of heavy metals on plant reflectance and internal leaf structure during phytoremediation process. USEPA – Spectral remote sensing of vegetation Conference, Lasvegas, NV.

GRADUATE STUDENTS ADVISED
PhD: Major Advisor (3); Committee member (1)
MS: Major Advisor (3); Committee member (3)

∞**Major Advisor**
Students Graduated
∞Njekeh Franklin Caspa, (PhD Environmental Toxicology, Spring 2013). *Dissertation Title: "The Impact of environmental stressors on maternal and infant health outcomes"*

∞Fabrice Fankem Fandom (MS Environmental Toxicology, Fall 2013). *Thesis Title: "Environmental exposures and impact of asthma on pregnancy"*

Current Students
∞Gilbert Saah, (PhD Environmental Toxicology, Expected Fall 2016). *Dissertation Title: "Analysis of urban sprawl and its effect on environmental characteristics using spectral reflectance and Landsat data in Harris County, Texas"*

∞Habibur Howlider, (PhD Environmental Toxicology, Expected Fall 2017). *Dissertation Title: "Analysis and Mapping of heavy metal contamination, availability and their interactions in soils of East Fork Poplar Creek, Tennessee"*

∞Shruti Lakkaraju (MS Environmental Toxicology, Expected Spring 2016). *Thesis Title: "Geospatial and statistical analysis of methyl mercury and Penta Chloro Biphenyls (PCB) distribution in East Tennessee Watersheds"*

∞Segun Adelanke (MS Environmental Toxicology, Expected Spring 2016). *Thesis Title: "Geospatial evaluation of landscape factors on the mercury and methyl mercury availability in East Fork Poplar Creek Watershed in Tennessee"*

Committee Member
Gloria Okome, (PhD Environmental Toxicology, Fall 2013). *Dissertation Title: "Models of fate and transport of pollutants in surface waters"*

Chakravarthy Koricherla (MS Chemistry, Fall 2013). *Thesis Title: "Synthesis and characterization of ruthenium complex containing hypoxanthine as equatorial ligand"*

Chioma Ihemadu (MS Environmental Toxicology, Fall 2013). *Thesis Title: "Analysis of persistent organic compounds and trace metals in urine samples of young adults'"*

Djene Keita (MS Environmental Toxicology, Spring 2015). *Thesis Title: "Fate and transport of triclosan in upper bayou, Houston, Texas"*

Sandeel Ahmed (MS Biology, Spring 2015). *Thesis Title: "The role of ribonucleases in various Yersiniae stress responses"*

INDEPENDENT REVIEWER OF INTERNATIONAL JOURNALS

International Journal of Remote Sensing
Water Air and Soil Pollution
Soil Sediment and Contamination
Soil Science Society of America Journal
Journal of Hazardous Materials
Naturwissenschaften
Journal of Asian Earth Sciences
International Journal of Health Geographics
GeoCarto International
Agronomy Journal
Science of Total Environment
Environmental Pollution

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Soil Science Society of America
Crop Science Society of America
American Society of Agronomy
American Society of Photogrammetry and Remote Sensing