

Dr. Sudhanshu Sekhar Panda

Professor, GIS/Environmental Science
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University of North Georgia
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Academic Achievement

- **Ph.D.** in Agricultural and Biosystems Engineering **2003**
North Dakota State University, Fargo, North Dakota 58105, USA.
Dissertation: Data Mining Applications in Production Management of Crop.
- **M. S.** in Environmental Remote Sensing for Geoinformation Development **1996**
Space Technology Application & Research Program,
School of Environment, Resources and Development (SERD),
Asian Institute of Technology, Pathumthani, Khlongluang 12120, Thailand.
Dissertation: Planning Soil Conservation Measures on Watershed Basis Using Remote Sensing, Geographic Information Systems and Universal Soil Loss Equations: A Case Study.
- **B. S.** in Agricultural Engineering **1988**
Orissa University of Agriculture and Technology, Bhubaneswar, 751009, India.
Senior Project: Design & Field Performance Evaluation of Plunger Auger Fertilizer Injector.

Specialized Training

Professional Training and other Research Seminars:

- Completed four-day Workshop on 'Grant Academy' conducted by University of North Georgia. May 9-12, 2016.
- Completed a two-day workshop on 'Business Writing and Grammar Skills Made Easy and Fun' from SkillPath seminars achievement through learning, May 8-9, 2006.
- Completed two-day seminar on 'Responsible Conduct of Research: Essentials for Research Success and Integrity' conducted by Idaho State University Office of Research, U.S. Dept. of Health and Human Services, and Office of Research Integrity. October 20-21, 2005.
- Completed a one-day workshop on 'Managing Multiple Projects, Objectives and Deadlines' from SkillPath seminars achievement through learning, April 22, 2005.

Geodesign Workshop:

- Completed the 'Geodesign workshop' conducted by Dr. Carl Steinitz and sponsored by Georgia Coastal Regional Commission for proposing, synthesizing, and evaluating conceptual design solutions and scenarios for 10 coastal Georgia counties on topics or issues related to climate (sea level rise and storms), ecology and conservation, water, transportation, historic & cultural resources, housing/urban development, and others, April 20 – 21, 2016.
- Completed the 'Geodesign workshop' conducted by Dr. Carl Steinitz at the College of Environment and Design, University of Georgia for proposing, synthesizing, and evaluating conceptual design solutions and scenarios for Chatham County, GA, with experts from areas like climate-related (sea level rise and storms), ecology and conservation, water, transportation, historic & cultural resources, housing/urban development, and others, January 26 – 28, 2015.

GLOBE Training:

- Completed the 'Global Learning and Observations to Benefit the Environment (GLOBE) Trainer Certification Program (TCP) (http://www.globe.gov/globe_flash.html)' for being recognized as a certified GLOBE trainer. May-Oct, 2005.

Hydrology Training:

- Completed two one-day workshops on 'Introduction to GIS Hydrology' and 'Advances in Hydrologic Modeling with ArcGIS (ArcHydro)' in the ESRI International Users Conference, San Diego, CA; July 23-28, 2005.
- Completed 1-day workshop on 'BASINS-SWAT' in AWRA Annual Spring Specialty Conf. on GIS and Water Resources III, Gaylord Opryland Hotel, Nashville, TN; May 16, 2004.

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GIS (ESRI) Training and Workshops:

- Completed Environmental Systems Research Institute (ESRI) sponsored instructor led 2-day workshop on 'Introduction to ArcGIS Server' at Institute of Environmental Spatial Analysis, Gainesville State College, Gainesville, Georgia, March 29-30, 2010.
- Completed ESRI sponsored instructor led 5-day workshop on 'Introduction to Programming ArcObjects with VBA' at GIS Training and Research Center, Idaho State University, Pocatello, ID, Mar 13-17, 2006.
- Completed ESRI sponsored instructor led 2-day workshop on 'Introduction to ArcIMS® 9' at GIS Training and Research Center, Idaho State University, Pocatello, Idaho, January 5-6, 2006.
- Completed online ESRI workshop courses on 'Georeferencing Rasters in ArcGIS,' 'Working with ArcPad' and 'Customizing ArcPad' 2006.
- Completed a one-day workshop on 'ArcObjects Programming for Java Developers' in the ESRI International Users Conference, San Diego, CA; July 23-28, 2005.
- Completed online ESRI workshop courses on 'Working with Forms, Variables, and Functions in VBA,' 'Understanding Branching and Looping in VBA,' 'Introductions to Map Production System Atlas,' 'Working with CAD Drawings in ArcGIS' 'Introduction to ArcGIS Survey Analyst,' 'Working with Survey Data in ArcGIS,' 'Getting Started with Surface Analysis using ArcGIS Spatial Analysis,' and 'ArcGIS Annotation: Tips and Tricks,' 2005-06.
- Completed online ESRI courses on 'Turning Data into Information Using ArcGIS 9,' 'Geoprocessing with ArcGIS Desktop,' 'Learning ArcGIS 9 3D Analyst,' 'Learning ArcGIS 9 Spatial Analyst,' 'Spatial Analysis of Geohazards Using ArcGIS 9,' 'Learning Arc-IMS 4.0,' 'Customizing Arc-IMS 4.0,' 'Creating, Editing, and Managing Geodatabases for ArcGIS 9,' 'Introduction to MS-Visual Basic 6,' 'Creating and Editing Labels and Annotations,' and 'Introduction to ArcView 3.X,' 2003-2006.
- Completed 3-day workshop on 'Introduction to ArcGIS 8 (for ArcView 8, ArcEditor 8, and ArcInfo 8)' at Center for Advanced Spatial Technologies, University of Arkansas, Fayetteville, May 27-29, 2003.

Other Training and Workshops:

- One-day workshop on Trimble Robotics Total Station S7 for field survey application, March 16, 2018.
- Training on 'Gas Chromatograph Mass Spectrometer (GCMS)' application in material quality measurement, at Bio-imaging and Sensing Center of NDSU, December 26-27, 2001.
- One-month training program on 'Renewable Energy Development and Management' with Orissa Renewable Energy Development Agency (OREDA), India, 1987.

Employment History

- 1) **Professor, GIS/Environmental Science;** Institute of Environmental Spatial Analysis, University of North Georgia, Gainesville, GA, USA. [**August 2016 – Present**]

Responsible for full load teaching of courses related to geospatial technology (GIS), environmental sciences (ESCI), information technology (IT), and engineering (ENVE); conducting research in the area of geospatial technology based modeling application for broad range of natural resources sustainable management decision support system development in global climate change condition and precision agriculture/site specific crop management (SSCM); along with service learning.

- 2) **Associate Professor, GIS/Environmental Science;** Institute of Environmental Spatial Analysis, University of North Georgia, Gainesville, GA, USA. [**January 2013 – August 2016**]

Responsible for full load teaching of courses related to geospatial technology, environmental sciences, information technology, and engineering; conducting research in the area of geospatial technology based modeling application for natural resources sustainable management decision support system development in global climate change condition; service learning; and coordinating the Information Technology (IT) track of IESA.

- 3) **Associate Professor, GIS/Environmental Science;** Natural Science, Engineering, and Technology Division, Gainesville State College, Gainesville, GA, USA. [**August 2011 – December 2012**]

Responsible for full load teaching courses related to geospatial technology, environmental sciences, information technology, and engineering; conducting research in the area of geospatial technology based modeling application for natural resources sustainable management decision support system

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development in global climate change condition; service learning; and coordinating the Information Technology track of IESA.

- 4a) Assistant Professor, GIS/Environmental Science;** Natural Science, Engineering, and Technology Division, Gainesville State College, Gainesville, GA, USA. [August 2006 – August 2011]

Responsible for full load teaching courses related to geospatial technology, environmental sciences, information technology, and engineering; conducting research in the area of geospatial technology based modeling application for natural resources sustainable management decision support system development in global climate change condition; service learning; and coordinating the Information Technology track of IESA; along with undertaking the **Global Learning and Observations to Benefit the Environment (GLOBE)** (http://www.globe.gov/globe_flash.html) program partnership responsibilities for Georgia.

- 4b) Affiliated Faculty;** Department of Geosciences; Idaho State University, Pocatello, ID, USA. [August 2006 – July 2008]

Responsible for advising graduate students in the MS GIScience program and conducting research related to geospatial technology.

- 5) Lecturer/GeoSTAC Coordinator;** GIS Training and Research Institute, Idaho State University, Pocatello, Idaho, USA. [January 2005 – August 2006]

Responsible for developing & teaching geospatial technology courses for graduate and undergraduate classes including online courses; developing and teaching workshops in geotechnology for Tristate (ID, MT, WY) attendees; advising graduate students; conducting research in the area of geotechnology, hydrology, modeling, natural resource management, and precision agriculture; along with coordinating in the Geospatial Training and Analysis Cooperative (GeoSTAC) effort (<http://geology.isu.edu/geostac/>) at Idaho State University; and undertaking the **GLOBE** program partnership responsibilities in Idaho.

- 6) Postdoctoral Research Associate;** Biological and Agricultural Engineering Department, University of Arkansas, Fayetteville, Arkansas, USA. [April 2003 – January 2005]

In this job, I was responsible for:

- Developing and managing the project, ‘GIS-based Decision Support System (DSS) Development for Beaver Lake Watershed Management’.
- Assisting in the initial development of the project, ‘Nutrient Management DSS of Eucha-Spavinaw Watershed’.
- Developing neural network models for lake water quality prediction using remote sensing.
- Developing and managing the project ‘Nonpoint Source Management Program-A Watershed Based Implementation Approach in the State of Arkansas.’

- 7) Ph.D. Candidate/Graduate Research Assistant;** Agricultural and Biosystems Eng., North Dakota State University, Fargo, North Dakota, USA. [Aug. 1999–April 2003]

- As a graduate student, I was responsible for the Upper Midwest Aerospace Consortium (UMAC) (<http://www.umac.org/>) sponsored project, ‘Development of data mining techniques for production management of crop.’ This ‘Precision Agriculture’ research was focused on creating neural network models for predicting crop yields and seasonal crop water requirement before harvest.
- As a **Graduate Research Assistant [January 2002- April 2003]**, I worked on Initiative for Future Agriculture and Food Systems (IFAFS) (http://www.csrees.usda.gov/about/offices/compprogs_ifafs.html) project, ‘Soil nutrient zone mapping by the use of the aerial image information and data mining techniques.’

- 8) Remote Sensing and GIS Expert/ Water Resources Engineer;** STS ENGINEERING CONSULTANTS CO., LTD., Bangkok, Thailand. [Nov. 1996–Aug. 1999]

Responsible for performing survey, detailed engineering design of hydrological structures such as bridges, culverts etc., of highway, railroad, dams, and ports projects using aerial photographs and the GPS instrument along with the main responsibility of writing/developing engineering grant proposals.

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9a) Data Entry Operator; Space Technology Application & Research (STAR) Program, Asian Institute of Technology (AIT), Bangkok, Thailand. [Sep. 1996–Nov. 1996]

Responsible for the completion of the CNES (French Space Agency) (<http://www.cnes.fr/web/CNES-en/7114-home-cnes.php>) sponsored project ‘Approach of Social and Spatial Dynamics in Relation to Industrialization: A Comparative Study of Actors and Public Policies between North, North-East and South of Thailand’ along with another research assistant and my M.Eng. advisor, Dr. Haja Andrianasolo.

9b) Research Associate (part time); Energy Technology Program, Asian Institute of Technology, Bangkok, Thailand. [Sep. 1996–Nov. 1996]

In this position, I was responsible for preparing the ‘Renewable Energy status report in six Asian countries, Bangladesh, Philippines, Vietnam, Nepal, Cambodia and Laos PDR’ for the Swedish International Development Agency grant.

10) M. Engineering Student; Space Technology Application and Research program, Asian Institute of Technology, Bangkok, Thailand. [Jan. 1995–Aug. 1996]

11) Junior Soil Conservation Engineer/Silt Engineer; Department of Soil Conservation, Govt. of Orissa, India. [Oct. 1988–Dec. 1994]

In this job, I was responsible for:

- Preparing detailed engineering design and performing construction supervision of different hydrological structures such as water harvesting structures (WHS), diversion weirs, earthen dams, gully control structures, contour bunds, bench terraces, etc.
- Leading the team on a number of watershed management projects under federally funded schemes like ‘Area Development Approach for Poverty Termination (ADAPT)’, ‘Drought Prone Area Project (DPAP)’, ‘River Valley Project (RVP)’, ‘Waste Land Development Schemes (WLDS)’, ‘National Watershed Development Projects for Rainfed Areas (NWDPR).’

Fellowships, Awards, and Honors

- Approved by National Science Foundation (NSF) Mathematical Sciences Graduate Internship (MSGI) Program for summer 2021 to guide PhD students on research projects with Drs, Amatya (USDA-FS), Erfan (Univ. of SC), and Mahan (Ohio State University).
- Awarded the GIAN (Global Initiative of Academic Networks, <https://www.iitg.ac.in/cet/gian.html>) fellowship with Department of Civil & Environmental Engineering, Indian Institute of Technology Guwahati, Guwahati, Assam, India Indian Institute of Technology, Guwahati for a course, ‘**Spatial Data Science for Disaster Management.**’ This award is by Government of India, 2020.
 - Course Code : [191006C02] Spatial Data Science for Disaster Management
- Faculty Fellow of University of North Georgia (UNG) Center for Undergraduate Research and Creative Activities (CURCA), 2017 - Present
- University of North Georgia CURCA Excellence in Undergraduate Research Faculty Award for the 2016-2017.
- Key-note Speaker for the 4th International Conference on Biodiversity, Las Vegas, NV, Jun 15-17, 2015.
- Key-note Speaker in the 2nd International Conference on Biodiversity and Sustainable Energy Development, Raleigh, NC, August 2013.
- Innovative Teaching Award, 2013, University of North Georgia.
- **GIS Professional (GISP) Certificate** from GIS Certificate Institute, USA, 2006.
- Graduate Researcher Award, College of Engineering and Architecture, North Dakota State University, Fargo, North Dakota, 2002.
- Toastmaster of the Year, 2001-2002, Gate City Toastmasters.
- NDSU Fellowship Award, North Dakota State University, 1999–2003. (*Awarded for the PhD study along with the graduate assistantship.*)
- Swedish International Development Agency (SIDA) Scholarship, 1995-1996 (*Award for the M. Engineering study at AIT, Bangkok.*)

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- National Scholarships, Government of India, 1972-1988 (*Throughout my career, starting from standard 3 till the end of my B. S. in Agricultural Engineering.*)

Professional Leadership Activities

- Organizing Committee Member, ensuing 2nd *ASABE Global Evapotranspiration Symposium* in Nanjing, China, October 25-29, 2020 (*Now Postponed to 2021*).
- Co-lead, of the ‘Outreach, Web site, and Special Issue Publication’ subcommittee of the ensuing 2nd *ASABE Global Evapotranspiration Symposium* in Nanjing, China, October 25-29, 2020 (*Now Postponed to 2021*).
- Session Moderator of the 17th **Annual Meeting of the American Ecological Engineering Society**, May 23–25, 2017, Athens, GA.
- Session Moderator of the 2017 **Georgia Water Resources Conference**, April 19–20, 2017, Athens, GA.
- Organizing Committee Member, 5th *International Conference on Biodiversity-2016* in Madrid, Spain on March 10-12, 2016. <http://biodiversity.conferenceseries.com/organizing-committee.php>.
- Organizing Committee Member, 4th *International Conference on Biodiversity-2015* in Las Vegas, NV, USA on June 15-17, 2015. <http://biodiversity.conferenceseries.com/organizing-committee.php>.
- Moderator of the 4th International Conference on Biodiversity, Las Vegas, NV, June 15-17, 2015.
- Session chair of two sessions in the 2nd International Conference on Biodiversity and Sustainable Energy Development, Raleigh, NC, August 2013.
- Organizing Committee Member, *ASABE April 2014 Symposium on “Evapotranspiration: Challenges in Monitoring and Modeling From a Leaf to the Landscape Scale and Beyond”* (<http://www.asabe.org/meetings-events/2014/04/2014-evapotranspiration-challenges-in-measurement-and-modeling-from-leaf-to-the-landscape-scale-and-beyond.aspx>)
- Partner and Certified Trainer for *GLOBE* (http://www.globe.gov/globe_flash.html) program.
- Coordinator, Geospatial Training and Analysis Cooperative (GeoSTAC) (<http://geology.isu.edu/geostac/>)
- General Secretary, College of Agriculture Engineering student union, OUAT, India, 1986.
- Secretary, Gate City Toastmasters club # 759 (<http://759.toastmastersclubs.org/>), Fargo, ND, 2001.
- Vice President, Membership of Gate City Toastmasters club # 759, Fargo, ND, 2002.

Editorial Activities

- Guest Editor, ‘Remote Sensing’ journal Special Issue “*Remote Sensing of Forest and Wetland Hydrology.*” – *To be published on Summer 2021.*
https://www.mdpi.com/journal/remotesensing/special_issues/forest_wetland_hydrology
- Guest Editor, ‘Climate’ journal Special Issue “*Assessment of Climate Change Impacts on Water Quantity and Quality at Small Scale Watersheds.*” – *Published on November 2020.*
https://www.mdpi.com/journal/climate/special_issues/climate_watersheds
- Editor-in-Chief, *Journal of Spatial Hydrology* (<http://www.spatialhydrology.net/index.php/JOSH>) (2013 - Present).
- Editorial Board Member of Open Access journal, *Journal of Biodiversity & Endangered Species* (<http://www.esciencecentral.org/journals/biodiversity-endangered-species.php>) (since 2013).
- Editorial Board Member of Open Access journal, *Journal of Ecosystem & Ecography* (<http://www.omicsonline.org/jeehome.php>) (since 2011).
- Associate Editor of IET-210 (System Analysis and Artificial Intelligence) division of *Transactions of ASABE* (<http://www.asabe.org/publications.aspx>) (2006 – 2009).
- Field Editor (Tessellation Data Models) for the book, *Encyclopedia of GIS* (2006-2007).
- Anonymous reviewer for several international journals, e.g., Transactions of ASABE, Agricultural Water Management, Journal of Spatial Hydrology, Computers and Electronics in Agriculture, Journal of American Water Resources Association, Journal of PE & RS, Environmental Modeling & Software, J. of Tropical Forest Science, Global Change Biology – Bioenergy, Open Access journal ‘Water’, ‘Climate’, ‘Agriculture’, etc.
- Anonymous reviewer for federal grant proposals (USAID, NSF, NASA).

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Affiliations

- Member, *Institute of Electrical and Electronics Engineers* (IEEE)
- Member, *American Society of Agricultural and Biological Engineering* (ASABE)
- Member, American Geophysical Union (AGU)
- Member, American Ecological Engineering Society (AEES)
- Member, American Consortium for Small Ruminant Parasite Control (ACSRPC)
- Member, URISA GA regional chapter (*Urban and Regional Information Systems Association*)
- Member, Alpha Epsilon (*Agricultural Engineering Honor Society.*)
- Member of several ASABE technical committees (SW-22 and IET-210).
- Member of Toastmasters International (<http://www.toastmasters.org/>) .
- Past member of AWRA (*Am Water Res Association*) and Sigma Xi (*The Scientific Research Society*).

Teaching Experience

- Taught several geospatial technology, information technology, agricultural engineering, and environmental science courses during my postdoctoral and teaching career since 2004. They are:
 - Principles of GIS
 - Advanced GIS
 - Spatial Analysis
 - Spatial Modeling
 - GPS: Field to Research
 - Water Seminar
 - Online Introduction to GIS
 - Application Development in GIS (ArcObjects Programming)
 - Fundamentals of Soil Science
 - Hydrology
 - Landuse & Conservation
 - Watershed Characterization (Capstone course-Environmental Science Track)
 - Spatial Analysis for Society and Environment (Capstone Course-Env. Studies Track)
 - Foundations of Programming
 - Foundations of Web Design
 - Intermediate Web Design (co-taught)
 - Information Technology Capstone (Capstone Course-Information Technology Track)
 - Neural Networks
 - Agricultural Remote Sensing and GIS (Co-taught)
 - Introduction to Engineering & Design
 - Engineering Graphics & Design
 - Environmental Studies
 - Introduction to Environmental Professions
 - Graphics & Information Visualization
 - Advanced Geospatial Modeling (Graduate courses)
- Developed and taught several workshops at Idaho State University (GEOSTAC Coordinator responsibility) and National WATER conferences. The workshops are:
 - Spatial Modeling
 - GPS Theory to Field
 - CAD Integration with ArcGIS
 - Managing Survey Data with ArcGIS
 - Cartography and Map Making
 - GLOBE workshops on Land Cover/Biology and GPS.
 - GPS application in Watershed Management

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Also, assisted in developing & co-teaching the following workshops in National WATER conferences

- Google Earth; Watershed Hydrology management using online ‘Web Soil Survey’; BASINS and PLOAD models in watershed water quality management; GIS in Cloud technology

Graduate Student Advisee

- John S. Nielson (M.S. GIScience)--- (Advisor) (2005-2007) – Idaho State University
 - Predictive modeling and mapping of diabetes among Hispanic in SE Idaho
- Brad J Gammet (M.S. GIScience)--- (Advisor) (2005-2007) – Idaho State University
 - Delineation of Big and Little Lost river sinks through the creation of high resolution DEM
- Cephes Holder (M.S. GIScience)--- (Advisor) (2005-2007) – Idaho State University
 - Modeling and Identification of canal system in SE Idaho for aquifer recharge
- Bhusan Gokhle (Ph.D. in Environmental Engineering)--- (Graduate Faculty Representative) (2005-2007) – Idaho State University
 - Groundwater radon-222 concentrations in Antelope Creek, Idaho: Measurement and interpolation.
- Niraj Jadav (M.S. in Agronomy) --- (External Advisor) (2010 -2012) – Fort Valley State University.
 - Field performance, micropopagation, and genetic transformation studies on paulownia elongata.
- Kyle Dalton (Ph.D. in Forestry Hydrology) --- (Co-advisor) (2011-present) – University of Georgia.
 - Geospatial model development for evapotranspiration estimation of biomass for bioenergy production.
- Shreedevi Moharana (PhD in Civil Engineering)---(External PhD Advisor/Dissertation Reviewer, 2019), Department of Civil Engineering, Indian Institute of Technology Guwahati, Guwahati, Assam, India.
 - Hyperspectral Remote Sensing of Rice Agriculture for Field Scale Variability Mapping.
- Laveti N. V. Satish (PhD in Civil Engineering)---(External PhD Advisor/Dissertation Reviewer, 2020), Department of Civil Engineering, Indian Institute of Technology Guwahati, Guwahati, Assam, India
 - River-Aquifer Interactions in Kosi Basin using Hydrological Models and Remote Sensing Inputs.
- Many unofficial MS and PhD theses/dissertations advising for UGA students.

Funded Grant Proposals

1. **PI:** UNG Presidential Innovation Award, “Designing and Establishing a Weir and Flume Structure for Stream Monitoring in Gainesville, GA.” 2021: \$5,000 (**S. Panda** and R. Sileshi)
2. **PI:** UNG Presidential Semester Award, “Cellphone APP based Remote Animal Health Monitoring System Development.” 2020-2021: \$12,000 and Semester off for research (**S. Panda**)
3. **Co-PI:** UNG Faculty Undergraduate Summer Engagement (FUSE) mini grant project: “*Hometown Harvest: Breaking nutritional barriers in schools through precision agriculture.*” 2020: \$2,985 (D. Patterson, R. Kent, **S.Panda**, K. A. Fadrowski, and J. R. Patterson)
4. **PI:** UNG Faculty Undergraduate Summer Engagement (FUSE) project: “Geospatial Technology Supported Environmental Impact Assessment of Historical Gold Mining Techniques in North Georgia: A Case Study of Lumpkin County.” 2018: \$8,000 (**S.Panda** and W. Balco)
5. **Co-PI:** NSF-ATE project, “Applying Geospatial and Engineering Technology (AGET).” 2017-2020: \$609,739 (J. Turk, **S.Panda**, C. Strother, and Y. Sun)
6. **Co-PI:** South Carolina DNR project, “State-wide Estimates of Reference or Potential Evapotranspiration Using Three Widely Used Methods for South Carolina, U.S.A.” 2017-2018: \$61,940 (T. Callahan, D. Amatya, **S.Panda**, A. Pallet, S. Harder, and H. Mizzell)
7. **PI:** UNG Presidential Innovation Award, “Automated Geospatial Model Development for Stream Bank Erosion Vulnerability Analysis.” 2016-2017: \$5,000, (**S. Panda**)
8. **PI:** UNG Presidential Summer Innovation Award, “Lake Lanier Watershed Management Decision Support System Development with Geospatial Technology.” 2016-2017: \$10,000, (**S. Panda**)
9. **Co-PI:** USDA Forest Service project, “Potential Impacts of High Precipitation Events on Peak Discharges and Forest Roads and Stream Cross Drainage Structures,” 2016-2019: \$50,000 (D. Amatya, **S. Panda**, P. Caldwell, D. Marion, A. Dolloff, S. Laseter, J. Grace, Y. Quyang, G. Sun, L. Tian)
10. **Co-PI:** GA-EPD (through Georgia Mountains Regional Commission) project, “Organic Amendment Restoration of Degraded Upland Landscapes in the Chestatee-Yahoola Watershed,” 2016-2018: \$112,096 (J. Ellis (PI), **S. Panda**)

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11. **PI:** USDA Forest Service project, “Database Development and Applications for Forest Bioenergy Water Quality Assessment.” 2015-2017: \$25,000. (**S. Panda**).
12. **PI:** USDA Forest Service project, “Assessing Impacts of Climate Change on Water Yield of a Low-Gradient Turkey Creek Forested Watershed using SWAT model.” 2014-2015: \$2,650. (**S. Panda**).
13. **PI:** USDA Forest Service project, “Assessment of the Reach and Condition of Freshwater Tidal Creeks in the Lower Coastal Plain, Charleston County, South Carolina.” 2014: \$3,190. (**S. Panda**).
14. **Co-PI:** Forsyth County Arts Alliance, “Excursion connecting contemporary online art to Forsyth County’s Treasured locations.” 2014-2015: \$33,745. (B. Sale and **S. Panda**).
15. **Co-PI:** Innovative teaching project. “Web-based Wetland Diversity Assessment & Management (WWDAM)”, 2013-2014: \$2,400. (E. Lampert, M. Mayhew, M.Flood, N. Hyslop, and **S. Panda**)
16. **PI:** NIFA project, “Online estimation of stream fecal coliform load from non-point sources.” 2011-2012: \$20,008. (**S. Panda**, M.D. Smolen, M. Gitau).
17. **Co-PI:** DoE project, “Watershed-scale reference evapotranspiration (REF-ET) or potential and actual evapotranspiration (PET) estimates for Pine forest stands and its intercropping with switchgrass at three study sites in NC, AL, and MS.” 2011-2014: \$247,417. (D. Amatya (PI) and **S. Panda**)- This project is a section of overall DoE sanctioned project of \$2,092,892 for the project headed by NC State University.
18. **Co-PI:** USDA-CSREES project, “Watershed assessment tools for extension and research training project.” 2010-2011: \$45,000. (D. Saraswat(PI), T. Tsegaye, **S. Panda**, J.A. Sallee, M.D. Smolen, D. Radcliffe, F. Henning, S.O. Dennis, T. Sweeney, W. Tadesse, R. Faucett).
19. **Senior Personnel:** America View wide Single State-View project, “Historic Hall County, Georgia – 1955 spaces and places.” 2010-2011: \$5,000. (J. Sharma (PI), D. Gillespie (Co-PI), R. Kabat, J. Hamilton, J. O’Sullivan, **S. Panda**).
20. **PI:** United States Geologic Survey (USGS) funded project, “Acquisition and analysis of high spatial resolution orthoimagery for the Great Smoky Mountain National Park and the Chattahoochee National Forest.” 2010-2011: \$485,390.00. (**S. Panda**, J.B. Sharma, M. Madden, T. Jordan)
21. **Co-PI:** United States Geologic Survey (USGS) funded project, “Acquisition of LIDAR for the Tennessee Portion of Great Smoky Mountains National Park and the Foothills Parkway.” 2010-2011: \$373,000. (M. Madden (PI), T. Jordan, **S. Panda**, J.B. Sharma)
22. **Co-PI:** USDA-CSREES project, “Watershed assessment tools for extension and research training project.” 2009-2010: \$42,279. (D. Saraswat (PI), T. Tsegaye, **S. Panda**, J.A. Sallee, M.D. Smolen, D. Radcliffe, F. Henning, S.O. Dennis, T. Sweeney, W. Tadesse, R. Faucett)
23. **PI:** GA Power funded project, “Watershed DSS Practicum Development.” 2009-10: \$25,000. (**S. Panda**)
24. **PI:** Gwinnet Technical College (GTC) funded project, “ArcIMS site development for GTC campus tree finder.” 2009: \$5,000. (**S. Panda**)
25. **Co-PI:** USDA-CSREES project, “Watershed assessment tools for extension and research training project.” 2008-2009: \$40,000. (D. Saraswat (PI), T. Tsegaye, **S. Panda**, J.A. Sallee, M.D. Smolen, S.O. Dennis, T. Sweeney, W. Tadesse)
26. **PI:** Hall County, GA project, “Review and analysis of Hall County recycling program using survey and geospatial technology.” 2009. \$ 3, 700. (**S. Panda**)
27. **Co-PI:** National Aeronautics and Space Administration (NASA) project, “Exploring the use of remote sensing for spatial data analysis of blueberry bushes.” 2008- 2010: \$56,055. (G. Hoogenboom (PI), **S. Panda**, and J. Paz.)
28. **Co-PI:** National Aeronautics and Space Administration (NASA) project, “Comparing Effects of Management Practices on Rangeland Health with Geospatial Technologies.” 2007-2009: \$459,100. (K.T. Weber (PI), **S. Panda**, J. Théau, T. T. Sankey, and C.A. Moffet).
29. **Consultant:** University of Georgia, “Geotechnology Application in Blueberry Plant Delineation from Forested Land Use.” 2007: \$ 5,000.
30. **PI:** GSC award, “Online Geospatial Technology Course Development.” 2007: \$4,000. (**S. Panda**)
31. **PI:** Idaho Department of Land (IDL) project, ‘Landowner Forest Stewardship Plans (LFSP) Spatial Analysis Project (SAP) for the state of Idaho.’ 2006-2007: \$24,928.74. (**S. Panda**)
32. **Co-PI:** National Aeronautics and Space Administration (NASA) project, ‘Forecasting Rangeland Condition with GIS in Southeastern Idaho.’ 2005-2008: \$992,000. (K.T. Weber (PI), R. Inouye,

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S. Panda , T. Windholz)

33. Written and compiled (as coordinating person) > 25 multi-million dollar project proposals for detailed engineering design of highways, railways, port, and dams. Those were submitted to the various govt. and non-govt. organizations in Thailand. 1996-1999. Four proposals got funded among them.

Publications & Presentations

Editorials:

1. **Panda, S. S.**, 2013. Editorial for Journal of Biodiversity & Endangered Species, 1:4.
<http://dx.doi.org/10.4172/jbes.1000e108>.

Technical Note:

1. **Panda, S.S.** 2021. Development of the reflectance curve for blueberry (to be part of NASA reflectance curve library). Remote Sensing. (*In Preparation to be Submitted for Review*).

Book Chapters:

1. Panda, S.S., Trettin, C., Amatya, D.M., and Kelly, B. 2018. *Tidal Freshwater Forested Wetlands Ecosystems Global Warming Impact Related Management Decision Support with Advanced Geospatial Technology* (Chapter 6.6) in *Wetlands Functions, Restoration and Wise Use Book*: Springer Publications.
2. **Panda, S.S.**, E. Mason, S. Sen, and H.W. Kim, 2015. *Forest Hydrology Management Decision Support with Geospatial Technology*. Chapter in 'Forest Hydrology'. CAB International, Nosworthy Way, Wallingford OX10 8DE, United Kingdom.
3. **Panda, S.S.**, M. Rao, P.S., Thenkabail, and J. Fitzgerald, 2015. *Remote Sensing Satellites and Sensors: Optical, Radar, LiDAR, Microwave, Hyperspectral, and UAVs*. 1st Chapter in *Remote Sensing Handbook: Vol. I, II, and III*, Ed P. S. Thenkabail. CRC Press: New York.
4. Amatya, D.M., Sun, G., Rossi, C.G., Ssegane, H.S., Nettles, J.E., and **Panda, S.S.**, 2014. *Forests, land use change, and water*. Chapter in 'Impact of Climate Change on Water Resources in Agriculture', Ed C.A. Zolin. Science Publisher: Brazil.
5. **Panda, S.S.**, 2013. *Geospatial Modeling Applications for Biofuel Sustainability Assessment*. Biofuel Crop Sustainability, Ed. B. Singh. Wiley-Blackwell Publications: New York, NY.
6. **Panda, S.S.**, 2012. *Atmospheric Emission of Infrared Radiation*. Encyclopedia of Global Warming and Climate Change, Ed. S. G. Philander, Princeton University. Sage Publications: Los Angeles, pp 95 - 96.
7. **Panda, S.S.**, 2012. *Carbon Sequestration*. Encyclopedia of Global Warming and Climate Change (2nd ed.), Ed. S. G. Philander, Princeton University. Sage Publications: Los Angeles, pp 205 - 207.
8. **Panda, S.S.**, 2012. *Evaporation Feedbacks*. Encyclopedia of Global Warming and Climate Change (2nd ed.), Ed. S. G. Philander, Princeton University. Sage Publications: Los Angeles, pp 549 - 550.
9. **Panda, S.S.**, 2012. *Geospatial Technology*. Encyclopedia of Global Warming and Climate Change (2nd ed.), Ed. S. G. Philander, Princeton University. Sage Publications: Los Angeles, pp 624 - 626.
10. **Panda, S.S.**, 2012. *Hydrological Cycle*. Encyclopedia of Global Warming and Climate Change (2nd ed.), Ed. S. G. Philander, Princeton University. Sage Publications: Los Angeles, pp 737 - 739.
11. **Panda, S.S.**, 2012. *Precipitation*. Encyclopedia of Global Warming and Climate Change (2nd ed.), Ed. S. G. Philander, Princeton University. Sage Publications: Los Angeles, pp 1144 - 1146.
12. **Panda, S.S.**, 2012. *Rainfall Patterns*. Encyclopedia of Global Warming and Climate Change (2nd ed.), Ed. S. G. Philander, Princeton University. Sage Publications: Los Angeles, pp 1169 - 1170.
13. **Panda, S.S.**, 2012. *Pollution, Water*. Encyclopedia of Global Warming and Climate Change (2nd Edition), Ed. S. G. Philander, Princeton University. Sage Publications: Los Angeles, pp 1129 - 1133.
14. **Panda, S.S.**, 2010. *Green Math*. Green Society (Green Education), Ed. P. Robbins, D. Mulvaney, and J. G. Golson. Sage Publications: Los Angeles.
15. **Panda, S.S.**, 2010. *Crystalline Silicon Solar Photovoltaic Cell*. Green Society (Green Technology), Ed. P. Robbins, D. Mulvaney, and J. G. Golson. Sage Publications: Los Angeles.
16. **Panda, S.S.**, 2010. *Solid Waste Treatment*. Green Society (Green Technology), Ed. P. Robbins, D. Mulvaney, and J. G. Golson. Sage Publications: Los Angeles.
17. Gregory, J., **S.S., Panda**, and K. T. Weber, 2010. Accurate mapping of ground control points for image-

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- rectification and holistic planned grazing preparation. Pages 49-54 in K. T. Weber and K. Davis (Eds.), Final Report: Forecasting Rangeland Condition with GIS in Southeastern Idaho (NNG06GD82G). 189 pp.
18. **Panda, S.S.**, 2010. *Environmental Measures*. Green Society (Green Energy), Ed. P. Robbins, D. Mulvaney, and J. G. Golson. Sage Publications: Los Angeles.
 19. **Panda, S.S.**, 2010. *Ethanol, Sugarcane*. Green Society (Green Energy), Ed. P. Robbins, D. Mulvaney, and J. G. Golson. Sage Publications: Los Angeles.
 20. **Panda, S.S.**, 2010. *Green Power*. Green Society (Green Energy), Ed. P. Robbins, D. Mulvaney, and J. G. Golson. Sage Publications: Los Angeles.
 21. **Panda, S.S.**, 2010. *Non-Point Source*. Green Society (Green Energy), Ed. P. Robbins, D. Mulvaney, and J. G. Golson. Sage Publications: Los Angeles.
 22. **Panda, S.S.**, 2010. *Renewable Energy Portfolio*. Green Society (Green Energy), Ed. P. Robbins, D. Mulvaney, and J. G. Golson. Sage Publications: Los Angeles.
 23. **Panda, S.S.**, 2010. *Soil Erosion*. Green Society (Green Food), Ed. P. Robbins, D. Mulvaney, and J. G. Golson. Sage Publications: Los Angeles.
 24. **Panda, S.S.**, 2010. *Soil Nutrient Cycling*. Green Society (Green Food), Ed. P. Robbins, D. Mulvaney, and J. G. Golson. Sage Publications: Los Angeles.
 25. **Panda, S.S.**, 2010. *Carbon Neutral*. Green Society (Green Cities), Ed. P. Robbins, N. Cohen, and J. G. Golson. Sage Publications: Los Angeles.
 26. **Panda, S.S.**, 2010. *Landfills*. Green Society (Green Cities), Ed. P. Robbins, N. Cohen, and J. G. Golson. Sage Publications: Los Angeles.
 27. **Panda, S.S.**, 2010. *Organic Agriculture*. Encyclopedia of American Environmental History, Ed. Kathleen A. Brosnan. Facts on File, 2010.
 28. **Panda, S.S.**, 2010. *Energy, Fossil Fuel*. Encyclopedia of American Environmental History, Ed. Kathleen A. Brosnan. Facts on File, 2010.
 29. **Panda, S.S.**, 2010. *Fruits and Vegetable Production*. Encyclopedia of American Environmental History, Ed. Kathleen A. Brosnan. Facts on File, 2010.
 30. **Panda, S.S.**, 2008. *Biomass*. Encyclopedia of Global Warming and Climate Change (1st ed.), Ed. S. G. Philander, Princeton University. Sage Publications: Los Angeles, pp 126 - 127.
 31. **Panda, S.S.**, 2008. *Energy, Renewable*. Encyclopedia of Global Warming and Climate Change (1st ed.), Ed. S. G. Philander, Princeton University. Sage Publications: Los Angeles, pp 366 - 369.
 32. **Panda, S.S.**, 2008. *Spatial aspects of bioinformatics*. Encyclopedia of Geographical Information Science. Eds. S. Sekhar and H. Xiong. Springer: New York, pp 52-56.
 33. **Panda, S.S.**, 2008. *Spatial image mining*. Encyclopedia of Geographical Information Science. Eds. S. Sekhar and H. Xiong. Springer: New York, pp 475-479.
 34. **Panda, S.S.**, 2008. *Self Organizing Map (SOM) usage in land cover classification*. Encyclopedia of Geographical Information Science. Eds. S. Sekhar and H. Xiong. Springer: New York, pp 1036 - 1042.

Peer Reviewed Journal Papers:

1. Ouyang, Y., Leininger, T. D., **Panda, S. S.**, Zipperer, W. C., & Stroope, T. L. (2021). Contributions to groundwater from National Forest lands in the Mississippi Embayment: a century-long simulation. *Water Practice and Technology*, 16(1), 83-95.
2. D. M. Amatya, S. Tian, D. A. Marion, P. Caldwell, S. Laseter, M. A. Youssef, J. M. Grace, G. M. Chescheir, **S. S. Panda**, Y. Ouyang, G. Sun, and J. M. Vose. 2021. Estimates of Precipitation IDF Curves and Design Discharges for Road-Crossing Drainage Structures: Case Study in Four Small Forested Watersheds in the Southeastern US. *J. Hydrol. Eng.*, 2021, 26(4): 05021004. DOI: [10.1061/\(ASCE\)HE.1943-5584.0002052](https://doi.org/10.1061/(ASCE)HE.1943-5584.0002052). © 2021 American Society of Civil Engineers.
3. A. Anandhi, D. Karunanidhi, G. Muthu Sankar, **S. S. Panda**, N. Kannan. 2021. A framework for sustainable groundwater development tool developed during the IUSSTF workshop. *Water*. (In Review)
4. **Panda, S.S.**, T.H. Terrill, A. Mahapatra, B. Kelly, Van Wyk, J., and Morgan, E. 2020. Site-specific Fodder Management of Sericea Lespedeza : Geospatial Technology Based Fodder Quality and Yield Enhancement Model Development. *Agriculture*. 2020, 10(9), 419; <https://doi.org/10.3390/agriculture10090419>.

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5. Walega, A., Amatya, D. M., Caldwell, P., Marion, D., & **Panda, S. S.** 2020. Assessment of storm direct runoff and peak flow rates using improved SCS-CN models for selected forested watersheds in the Southeastern United States. *Journal of Hydrology: Regional Studies*, 27, 100645.
6. **Panda, S.S.**, D.M. Amatya, K. K Liu, A. Muwamba, T. Callahan. 2020. Efficient Surface Interpolation Algorithm Usage Analysis for Environmental Spatial Data Distribution Mapping: A Case Study of South Carolina wide Potential Evapotranspiration. *Journal of South Carolina Water Resources*. (In Press-to be published in 2021)
7. **Panda, S. S.**, J. M. Grace, and D. M. Amatya. 2020. R-Factor Development with Climate Change Based Latest Storm Events Data. *Climate*. (In Press – to be published in 2021).
8. **Panda, S.S.**, D.M. Amatya, A. Muwamba, and G. Chescheir. 2019. Estimation of evapotranspiration and its parameters for pine, switchgrass, and intercropping with remotely-sensed images based geospatial modeling. *Environmental Modelling & Software*, 121, 104487.
9. S. Tian, D.M. Amatya, D.A. Marion, P. Caldwell, S. Laseter, M.A. Youssef, J.M. Grace, G.M. Chescheir, **S.S. Panda**, Y. Ouyang, G. Sun, and J.M. Vose, 2019. Estimations of precipitation IDF and design discharges for road cross drainage structures: A Case study in four small forested watersheds in the Southeastern US. *Journal of Hydrologic Engineering*. (In Review)
10. Muwamba, A., B. Rau, C. C. Trettin, D. M. Amatya, E.W. Tollner, and S. S. Panda. 2019. Regional Differences in Stream Water Nitrogen, Phosphorus, and Sediment Responses to Forest Harvesting in Conterminous USA. *Journal of Environmental Quality*, 48(3), 634-644. DOI: [10.2134/jeq2018.04.0145](https://doi.org/10.2134/jeq2018.04.0145).
11. Sahoo, K., Mani, S., Milewski, A.M., Hoghooghi, N., and **Panda, S.S.** 2019. Assessment of biomass production potential from strip-mined lands (SML) and its impacts on stream water quality. *Water*, 11(3): 546. DOI: [10.3390/w11030546](https://doi.org/10.3390/w11030546).
12. Amatya, D. M., Muwamba, A., **Panda, S.S.**, Callahan, T., Harder, S., & Pellett, C. A. 2018. Assessment of Spatial and Temporal Variation of Potential Evapotranspiration Estimated by Four Methods for South Carolina. *Journal of South Carolina Water Resources*, 5(1), 5.
13. **Panda, S.S.**, Amatya, D.M., Jackson, R., Sun, G., and Noormets, A. 2018. Automated Geospatial Models of Varying Complexities for Pine Forest Evapotranspiration Estimation with Advanced Data Mining. *Water*, 10 (11), 1687. <https://doi.org/10.3390/w10111687>
14. **Panda, S. S.**, Gerrit H, Joel P. Blueberry Orchard Delineation with High-Resolution Imagery and Self-Organizing Map Neural Image Classification. *Agri Res & Tech: Open Access J.* 2016; 3(1): 555602. DOI: [10.19080/ARTOAJ.2016.03.555602](https://doi.org/10.19080/ARTOAJ.2016.03.555602).
15. **Panda, S.S.**, Amatya, D.M., Sun, G., and Bowman, A. 2016. Remote Estimation of a Managed Pine Forest Evapotranspiration with Geospatial Technology. *Transactions of ASABE*, 59(6).
16. Noori, O. and **S.S. Panda**, 2016. Site-specific Management of Common Olive: Remote Sensing, Geospatial, and Advanced Image Processing Applications. *Computers and Electronics in Agriculture*, 127: 680 - 689. DOI: <http://dx.doi.org/10.1016/j.compag.2016.07.031>.
17. **Panda, S.S.**, D.M. Amatya, and G. Hoogenboom, 2014. Stomatal Conductance, Canopy Temperature, and Leaf Area Index Estimation Using Remote Sensing and OBIA techniques. *Journal of Spatial Hydrology*, 12(1): Fall 2014.
18. Amatya, D., C. Trettin, **S.S. Panda**, and H. Ssegane. 2013. Application of LiDAR data for hydrologic assessments of low-gradient coastal watershed drainage characteristics. *Journal of Geographic Information System*, 5(2): 175-191. DOI: [10.4236/jgis.2013.52017](https://doi.org/10.4236/jgis.2013.52017).
19. **Panda, S.S.**, D.D. Steele, S. Panigrahi, and D.P. Ames, 2011. Precision water management in corn using automated crop yield modeling and remotely sensed data. *International Journal of Remote Sensing Applications*, 1(1): 11-21.
20. **Panda, S.S.**, S. Panigrahi, and D.P. Ames, 2010. Crop yield forecasting from remotely sensed aerial images with self-organizing maps. *Transactions of ASABE*, 53(2): 323-338. doi: 10.13031/2013.29563.
21. **Panda, S. S.**, G. Hoogenboom, and J. Paz, 2010. Remote sensing and geospatial technological applications for site-specific management of fruit and nut crops: A review. *Remote Sensing*, 2(8): 1973-1997.
22. **Panda, S.S.**, D. P. Ames, and S. Panigrahi, 2010. Application of vegetation indices for agricultural crop yield prediction using neural network. *Remote Sensing*, 2(3), 673-696.

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23. **Panda, S. S.**, G. Hoogenboom, and J. Paz, 2009. Distinguishing blueberry bushes from mixed vegetation land-use using high resolution satellite imagery and geospatial techniques. *Computers and Electronics in Agriculture*, 67 (1-2): 51-59.
24. **Panda, S.S.**, H. Andrianasolo, and D. Steele, 2005. Application of geotechnology to watershed soil conservation planning at the field scale. *Journal of Environmental Hydrology*, 13 (16): 1-22.
25. **Panda, S.S.**, V. Garg, and I. Chaubey. 2004. Artificial neural networks application in lake water quality monitoring using satellite imagery. *Journal of Environmental Informatics*, 4 (2): 65-74.
26. **Panda, S.S.**, H. Andrianasolo, VVN Murty, and K. Nualchawee, 2004. Forest management planning for soil conservation using satellite images, GIS mapping, and soil erosion modeling. *Journal of Environmental Hydrology*, 12(13): 1-16.
27. Jhang, J., S. Panigrahi, **S.S. Panda**, M.S. Borhan, 2002. Techniques for yield prediction from corn aerial images – a neural network approach. *An International Journal: Agricultural and Biosystems Engineering*, 3 (1): 18-28.

Peer Reviewed Journal Papers (*In-Preparation to Submit*):

28. **Panda, S. S.**, J. M. Grace, D. M. Amatya, P. Caldwell, D. Marion. 2021. Forest Structure Vulnerability Determination in Changing Climate Using RUSLE and Stream Bank Erosion Susceptibility Geospatial Models. *Environmental Modelling & Software* (*In Preparation to submit*).
29. **Panda, S.S.**, T.H. Terrill, A. Mahapatra, J.E. Miller, J. Mosjidis, J.M. Luginbuhl, J.M. Burke, and J.P. Muir. 2021. Sericea Lespedeza Fodder Quality Prediction Modeling Using Soil and Environmental Parameters. *Agronomy* (*In Preparation to be Submitted for Review*).
30. **Panda, S. S.**, D. M. Amatya., D. Misra, and D. Sahoo. 2021. Leaf Area Index Based Model Development for Remote Measurement of Potential Water Loss through Evapotranspiration of Kadzu during the Growing Season. Atmosphere, (Evapotranspiration Observation and Prediction: Uncertainty Analysis) Special Issue. (*In Preparation to be Submitted for Review*).
31. **Panda, S.S.**, Amatya, D.M., Walters, B., Nettles, J, and Sun, G. 2021. Forest Biomass Estimation and ET Correlation Study with Advanced Geospatial Technology for Environmental and Climate Modeling. *Climate* (Assessment of Climate Change Impacts on Water Quantity and Quality at Small Scale Watersheds) *Special Issue*. (*Invited through American Geophysical Union (AGU) conference Presentation and In Preparation to be Submitted for Review and Publication*).
32. Reeves, Z, **Panda, S.S.**, Ouyang, Y., Grace, J. M., Amatya, D. M. 2021. Groundwater & Surface Water Contamination Susceptibility Determination through a Combination of DRASTIC and RUSLE Geospatial Model Automation. *Climate* (Assessment of Climate Change Impacts on Water Quantity and Quality at Small Scale Watersheds) *Special Issue*. (*Invited through American Geophysical Union (AGU) conference Presentation and In Preparation to be Submitted for Review and Publication*).
33. **Panda, S.S.**, and A. Mahapatra. 2021. Data mining application in geospatial data supported sweet sorghum yield and quality assessment. *Computers & Electronics in Agriculture* (*In Preparation to be Submitted for Review*).
34. **Panda, S.S.** and G. Hoogenboom, 2021. Heuristics-integrated self-organizing map (SOM) network for clustering of aerial images. *Computers and Electronics in Agriculture* (*In Preparation to be Submitted for Review and Publication*).
35. **Panda, S.S.** and Noori, O. 2021. Site-specific olive orchard management decision support with geospatial technology based artificial neural network modeling. *Agriculture* (*In Preparation to be Submitted for Review*).
36. Sahoo, M., Misra, D., Thompson, A. M., Panda, S. S. 2021. Winter Soil Temperature and its Effect on Soil Nitrate Status: A Study on the Projected Impacts in a Vertical Profile. *Agriculture* (*In Preparation to be Submitted for Review and Publication*).

Peer Reviewed Proceedings:

1. **Panda, S.S.**, Babayani, N. D., Morgan, E., Van Wyk, J. A., Terrill, T, and Mahapatra, A. 2021. *Geoinformation Technology Application for Animal Health Management Decision Support System*

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- Development*. Accepted for presentation and publication as full paper in the Proceedings of IST-Africa Conference 2021 (<http://www.ist-africa.org/Conference2021/>)
2. Reeves, Z, **Panda, S.S.**, Ouyang, Y., Grace, J. M., Amatya, D. M. 2020. *Groundwater & Surface Water Contamination Susceptibility Determination through Automated Geospatial Models using Combined Modeling Approach of DRASTIC and RUSLE*. Presented and Accepted for publication as a long abstract in the Proceedings of the Seventh Interagency Conference on Research in the Watersheds (ICRW), Tifton, GA in November 16-19, 2020.
 3. **Panda, S.S.**, Robertson, J., Pilgrim, Z., Ouyang, Y., Grace, J.M., and Amatya, D. M. 2020. *Geospatial Modeling Approach to Determine Potential Sinkholes Risk Probability and Soil Subsidence Analysis*. Presented and accepted for publication as full paper in the Proceedings of the Seventh Interagency Conference on Research in the Watersheds (ICRW), Tifton, GA November 16-19, 2020.
 4. **Panda, S.S.**, Amatya, D., Grace, J.M., Caldwell, P., and Marion, D. 2018. *Automated Geospatial Model Based Assessment of Erosion Vulnerability at Forest Road/Stream Crossings under Extreme Precipitation Intensities Scenario*. Published as a short abstract in the Proceedings and presented in the Sixth Interagency Conference on Research in the Watersheds (ICRW) at National Conservation Training Center, Shepherdstown, WV in July 23-26, 2018.
 5. **Panda, S.S.**, Amatya, D., and Sun, G. 2018. *QSWAT Modeling for Forecasting Hydrologic Behavior in a Coastal Forested Watershed in the Global Climate Change Setup*. Published as a short abstract in the Proceedings and presented in the Sixth Interagency Conference on Research in the Watersheds (ICRW) at National Conservation Training Center, Shepherdstown, WV in July 23-26, 2018.
 6. **Panda, S.S.**, N. Mitcham, M. Cash, and A. Crain, 2015. *Geospatial Technology Based Alligator Snapping Turtles Habitat Suitability Analysis in Southern Georgia for Preservation Decision Support*. Proceedings of the 4th International Conference on Biodiversity, to be held on June 15 - 17, 2015 in Las Vegas, NV.
 7. **Panda, S.S.**, A. Allison, and D. M. Amatya, 2015. *Remote Reach Water Quality Assessment with Geospatial Data*. Proceedings of the 4th International Conference on Biodiversity, to be held on June 15 - 17, 2015 in Las Vegas, NV.
 8. **Panda, S.S.**, Lafferty, R., and Cole, J., 2015. *Assessment of the Reach and Ecological Condition due to Coastal Flooding in Georgia Coast with Advanced Geospatial Technology Application*. Proceedings of the 2015 Georgia Water Resources Conference, April 28–30, 2015, Athens, GA.
 9. Kim, Y. and **S.S. Panda**, 2015. *Georgia Automated Geospatial Flood Potential Map Development and Analysis for Decision Support*. Proceedings of the 2015 Georgia Water Resources Conference, April 28–30, 2015, Athens, GA.
 10. Dees, J. and **S.S. Panda**, 2015. *Flood Assessment and Evacuation Plan Development for Hypothetical Dam Breach at Sinclair Dam Using HAZUS-MH and ArcGIS Network Analyst*. Proceedings of the 2015 Georgia Water Resources Conference, April 28–30, 2015, Athens, GA.
 11. **Panda, S.S.**, D. Hohnhorst, and J. Bless, 2013. *Development of Online Estimation Tool for Calculation of Stream Fecal Coliform Load from Non-point and Point Sources*. Proceedings of the 2nd International Conference on Biodiversity and Sustainable Energy Development, held August 12–14, 2013, Raleigh, NC.
 12. **Panda, S.S.**, M. Cash, and J. Riley, 2013. *BMP Structures Supported Urban Water Quality Improvement Analysis Using ArcSWAT*. Proceedings of the 2nd International Conference on Biodiversity and Sustainable Energy Development, held August 12–14, 2013, Raleigh, NC.
 13. Brosssett, M. and **S.S. Panda**, 2013. *Analysis of Georgia Conservation Lands: For Endangered & Threatened Fish and Mussel Species and Biota Listed Streams Using Geospatial Technology*. Proceedings of the 2013 Georgia Water Resources Conference, held April 10–11, 2013, Athens, GA.
 14. Rumiser, B. and **S.S. Panda**, 2013. *HAZUS-MH: Looking at the Probabilistic Effects of Hurricanes over the Georgia Coast in the Changing Climate and Remedial Suggestions*. Proceedings of the 2013 Georgia Water Resources Conference, held April 10–11, 2013, Athens, GA.
 15. **Panda, S.S.** and D. Bowman, 2013. *Cash Crop Land Suitability Analysis Using Environmental Spatial Information through Automated Geospatial Model*. Poster in the Proceedings of the 2013 Georgia Water Resources Conference, held April 10–11, 2013, Athens, GA.

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16. **Panda, S.S.**, S. Henning, C. Ertberger, and J. Skarda, 2013. *Lake Bottom Sediment Analysis With Soil and Water Assessment Tool Application*. Proceedings of the 2013 Georgia Water Resources Conference, held April 10–11, 2013, Athens, GA.
17. Martin, J. and **S.S. Panda**, 2013. *Agricultural Damage Analysis for 100-Yr Flood Using HAZUS-MH*. Proceedings of the 2013 Georgia Water Resources Conference, held April 10–11, 2013, Athens, GA.
18. **Panda, S.S.** and K. Burry, 2011. *Geospatial Technology Application in Landscape Change Monitoring of Southeastern United States Coastal Wetlands and Impact from Global Warming and Climate Change*. Published in the Proceedings of International Symposium on Erosion and Landscape Evolution Hilton Anchorage Hotel, Anchorage, Alaska, September 18-21, 2011. ISELE Paper Number 11096.
19. Skarda, R.J., **S.S. Panda**, and J.B. Sharma, 2011. *An Assessment of the Impact of Retention Ponds for Sediment Trapping in the Ada Creek and Longwood Cove Using Remotely Sensed Data and GIS Analysis*. Published in the Proceedings of International Symposium on Erosion and Landscape Evolution Hilton Anchorage Hotel, Anchorage, Alaska, September 18-21, 2011. ISELE Paper Number 11025.
20. **Panda, S.S.**, J. Martin, and G. Hoogenboom, 2011. *Blueberry Crop Growth Analysis Using Climatologic Factors and Multi-temporal Remotely Sensed Imageries*. Published in the Peer Reviewed Proceedings of 2011 Georgia Water Resources Conference, Ed. Denise Carroll, April 11-13, 2011, ISBN: 0-9794100-2-9. <http://www.gawrc.org/2011proceedings.html>.
21. Nesbitt, J. and **S.S. Panda**, 2011. *Cotton Crop Rotation Suitability Analysis for Southwest Georgia Using Geospatial Technology*. Published in the Peer Reviewed Proceedings of 2011 Georgia Water Resources Conference, Ed. Denise Carroll, April 11-13, 2011, ISBN: 0-9794100-2-9. <http://www.gawrc.org/2011proceedings.html>.
22. Fitzgerald, J. and **S.S. Panda**, 2011. *Engineering-based New Reservoir Design and Environmental Suitability Analysis with Geospatial Technology*. Published in the Peer Reviewed Proceedings of 2011 Georgia Water Resources Conference, Ed. Denise Carroll, April 11-13, 2011, ISBN: 0-9794100-2-9. <http://www.gawrc.org/2011proceedings.html>.
23. Strother, C. and **S.S. Panda**, 2011. *Soil Moisture and Peanut Crop Yield Correlation Study in Georgia with Two Contrasting Precipitation Years*. Published in the Peer Reviewed Proceedings of 2011 Georgia Water Resources Conference, Ed. Denise Carroll, April 11-13, 2011, ISBN: 0-9794100-2-9. <http://www.gawrc.org/2011proceedings.html>.
24. **Panda, S.S.** and H. J. Byrd, 2009. *Geo-spatial model development for 12-digit HUC based NPS pollution prioritization mapping for Fannin County, GA*. Peer Reviewed Proceedings of 2009 Georgia Water Resources Conference, Ed. Denise Carroll, pp 434 – 443.
25. Kraemer, C. and **S.S. Panda**, 2009. *Automated geo-spatial ArcHydro type model development for watershed delineation*. Peer Reviewed Proceedings of 2009 Georgia Water Resources Conference, Ed. Denise Carroll, pp 428 – 433.
26. Skelton, S. and **S.S. Panda**, 2009. *Geo-spatial technology use to model flooding potential in Chestatee River Watershed*. Peer Reviewed Proceedings of 2009 Georgia Water Resources Conference, Ed. Denise Carroll, pp 410 – 417.
27. **Panda, S.S.**, I. Chaubey, M. M. Matlock, B. E. Haggard, and K. L. White, 2004. *Development of a GIS-based decision support system for Beaver Lake watershed management*. Published in the peer reviewed Proceedings of American Water Resources Association (AWRA) Spring Specialty Conference, May 17-19, 2004, Nashville, TN.
28. Gautam, R.K., S. Panigrahi, **S.S. Panda**, and D. Franzen, 2002. *Nutrient zone management using non-imagery information*. Published in the Proceedings of the 6th International Conference on Precision Agriculture, July 14-17, 2002. Paper No. 2002-124.

Technical Paper Presentations:

1. **Panda, S. S.** 2021. *Geospatial Technology Application in Biomass Production Enhancement through Precision Agriculture Modeling*. Accepted to be presented in the symposium conducted by Orissa University of Agriculture and Technology (OUAT) and Bharat Petroleum Corporation Limited, India collaboration Bioethanol Production from Paddy Straw Project Group, February 25-26, 2021.

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2. Wilcox, W. and **Panda, S. S.** 2021. *Open Source QSWAT Hydrologic Modeling Software Customization for Watershed Characterization Study of Lough Neagh Watershed in Northern Ireland*. Submitted to be presented in the Georgia Water Resources Conference 2021, March 22-23, Athens, GA.
3. **Panda, S. S.**, Gaddis, B., and Winsett, D. 2021. *Automated Flood Potential Geospatial Model Development for Management Decision Support*. Submitted to be presented in the Georgia Water Resources Conference 2021, March 22-23, Athens, GA.
4. **Panda, S. S.** and Perkins, P. 2021. *Geospatial Technology Application for Small Reservoir Design with Environmental-friendly Decision Support*. Submitted to be presented in the Georgia Water Resources Conference 2021, March 22-23, Athens, GA.
5. Winsett, D. and **Panda, S. S.** 2021. *Coastal Island Environmental Management Decision Support through Geo-hydrologic Modeling Approach*. Submitted to be presented in the Georgia Water Resources Conference 2021, March 22-23, Athens, GA.
6. D.M. Amatya, J. Campbell, S. Johnson, K. Elder, N. Lany, D. Kikoyo, **S. Panda**, S. Laseter, J.M. Grace, and A. Walega. *Influence of Precipitation Intensity-Duration-Frequencies on Road Culvert Vulnerabilities at Three USDA Forest Service Long-term Experimental Forests in Varying Ecoregions*. Submitted to be presented in the July 11-14, 2021 ASABE Annual Virtual Meeting.
7. **Panda, S. S.**, Smith, O., Cho, C., Grace, J.M., Amatya, D., and Caldwell, P. 2021. *Universal Soil Loss Equation Model Modification with Climate Change Induced Parameter Modification and Process Automation*. Waiting for presentation acceptance in ‘Soil Erosion Research Under a Changing Climate - A Decadal ASABE Soil Erosion Research Symposium’, January 10-15, 2021 at Aguadilla, Puerto Rico. (postponed for 2022)
8. **Panda, S. S.**, Pilgrim, Z., Grace, J.M., and Amatya, D., 2020. *Geospatial Technology Based Lake Sidney Lanier Impounding Volume Change Analysis and Sediment Profile Development*. Presented in the Annual International ASABE Conference 2020, July 12-15, 2020 at Omaha, NE.
9. **Panda, S. S.**, Smith, O., Grace, J.M., and Amatya, D., 2020. *Geospatial Technology Supported Soil Subsidence Study with over 70 years of Temporal Topographic and Groundwater Data Analyses*. Presented in the Annual International ASABE Conference 2020, July 12-15, 2020 at Omaha, NE.
10. **Panda, S. S.** 2020. *Groundwater Depletion and Its Consequences -Contamination Susceptibility, Soil Subsidence, and Sinkhole Probability Analyses with Automated Geospatial Modeling Approach*. Presented at the Indo-US Bilateral Workshop on ‘Integrated Hydrochemical Modeling for Sustainable Development and Management of Water Supply Aquifers.’ Jan 02-04, Coimbatore, Tamil Nadu, India.
11. Amatya, D. M., **Panda, S.S.**, Chescheir, G. M., and Muwamba, A. 2019. *Satellite-data based Geospatial Modeling Approach for Estimating Evapotranspiration and its Parameters for Switchgrass Intercropped Pine Forests*. Presented in the 2019 American Geophysical Union (AGU) conference, San Francisco, CA, December 9-13, 2019.
12. Ignatius, A., J. Turk, **S.S. Panda**, Y. Sun, Z. Miller. 2019. *Active Learning in the Geospatial Sciences*. Presented in the ATE Conference, Washington, D.C. on October 23-25, 2019.
13. **Panda, S. S.**, Robertson, J., Wilson, A., and Turk, J. 2019. *Automated Geospatial Model Development for West Indian Manatees Habitat Suitability Analysis and Conservation Decision Support*. Presented in the 19th Annual Meeting of the American Ecological Engineering Society, Jun 3–6, 2019, Asheville, NC.
14. **Panda, S. S.**, Turk, J., Moore, C., and Lucas, Y. 2019. *Comprehensive Watershed Management Decision Support System Development with Hydro-Geospatial Models Integration - Lake Lanier Watershed, the Case Study*. Presented in the 2019 Georgia Water Resources Conference, April 16–17, 2019, Athens, GA.
15. McVay S. and **Panda, S. S.** 2019. *Geospatial Model Development to Analyze the Reservoir Volume Change with the Soil Erosion Model Perspective*. Presented in the 2019 Georgia Water Resources Conference, April 16–17, 2019, Athens, GA.
16. Robertson, J., **Panda, S. S.**, Durand, M., and Balco, W. 2019. *Geospatial Technology Supported Environmental Impact Assessment of Historical Gold Mining in North Georgia*. Presented in the 2019 Georgia Water Resources Conference, April 16–17, 2019, Athens, GA.
17. **Panda, S. S.**, Davis, C., and Davis, T. 2019. *Drought Vulnerability Model Development of Georgia Using Updated Geospatial Data for Management Decision Support*. Presented in the 2019 Georgia Water Resources Conference, April 16–17, 2019, Athens, GA.

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18. Mirolli, M., Reeves, Z., and **Panda, S. S.** 2019. *Comprehensive Watershed Management Decision Support System Development with Hydro-Geospatial Models Integration - Lake Lanier Watershed, the Case Study*. Presented in the 2019 Georgia Water Resources Conference, April 16–17, 2019, Athens, GA.
19. Wilson, A., Robertson, J. and **Panda, S.S.** 2018. *Conservation Decision Support System Design for West Indian Manatees Habitat Suitability and Protection*. Presented in the Georgia Undergraduate Research Conference (GURC) 2018, November 2-3, 2018, Gainesville, GA, USA.
20. **Panda, S.S.**, Amatya, D., and Liu, K.K. 2018. *Efficient Mapping of South Carolina Potential Evapotranspiration through Automated Modeling, Software Development, and Algorithm Modification and Comparison*. Presented in the 2018 South Carolina Water Resources Conference, October 17-18, 2018, Columbia, SC, USA.
21. D.M. Amatya, A. Muwamba, **S.S. Panda**, T. Callahan, S. Harder, and A. Pellet. 2018. Assessment of Spatial and Temporal Variation of Potential Evapotranspiration Estimated by Four Methods for South Carolina, USA. . Presented in the 2018 South Carolina Water Resources Conference, October 17-18, 2018, Columbia, SC, USA.
22. Mirroli, M., **S.S. Panda**, B. Jacobson, R. Randall, and S. Skelton. 2018. *Geospatial Technology and Topographic Survey Based Coastal Erosion Mapping of Sapelo Island, Georgia*. Presented in the Georgia Geospatial Conference, October 1-3, Athens, GA. (**Won 1st Prize in the Student Paper competition**)
23. Depew, W., M. Flood, and **S.S. Panda**. 2018. *Geospatial Modeling and Field Verification Approach for Watershed Based Decision Support System Design for Water Quality Improvement in Lake Lanier*. Presented in the Georgia Geospatial Conference, October 1-3, Athens, GA. (**Won 2nd Prize in the Student Paper competition**)
24. Durand, M., **S.S. Panda**, and W. Balco. 2018. *Geospatial Technology Supported Environmental Impact Assessment of Historical Gold Mining Techniques in North Georgia: A Case Study of Lumpkin County*. Presented in the Georgia Geospatial Conference, October 1-3, Athens, GA.
25. **Panda, S.S.**, Amatya, D., Flitcroft, I.D., and Liu, K. 2018. *Temporal Evapotranspiration and Crop Production Correlation Study in Georgia to Develop Cropping Management Decision Support*. Presented in the Annual International American Society of Agricultural and Biological Engineers (ASABE) Conference 2018, July 29 –August 1, 2018, Detroit, MI. (Paper #: 1801213)
26. **Panda, S.S.**, Amatya, D., Grace, J.M., and Caldwell, P. 2018. *Geospatial Technology-based Assessment of Erosion Vulnerability at Forest Road/Stream Crossings under Climate Change Related Extreme Precipitation Intensities Scenario*. Presented in the Annual International American Society of Agricultural and Biological Engineers (ASABE) Conference 2018, July 29 –August 1, 2018, Detroit, MI. (Paper #: 1801226)
27. **Panda, S.S.**, Terrill, T., Hundt, L., Brady, L., Novobiliski, A., and VanWyk, J.A. 2018. *Sustainable Animal Health Management with Real-time Remote Activity Monitoring System Development*. Presented in the Annual International American Society of Agricultural and Biological Engineers (ASABE) Conference 2018, July 29 –August 1, 2018, Detroit, MI. (Paper #: 1801233)
28. **Panda, S.S.**, and Turk, J. 2018. *Ultra-high Resolution Geospatial Data Based Model Development for Okefenokee Swamp Wildfire Potential Analysis*. Presented in the 18th Annual Meeting of the American Ecological Engineering Society, June 12–14, 2018, Huston, TX.
29. **Panda, S.S.**, and Turk, J. 2018. *Lake Lanier Watershed Management Decision Support System Development with Geospatial Technology Supported Hydrologic Modeling Approach*. Presented in the 18th Annual Meeting of the American Ecological Engineering Society, June 12–14, 2018, Huston, TX.
30. **Panda, S.S.**, Amatya, D., Flitcroft, I.D., Graham, T., and Liu, K. 2017. *Software Development for Remote Sensing Based Forest Evapotranspiration Mapping of Chattahoochee National Forest*. Presented in the Annual International American Society of Agricultural and Biological Engineers (ASABE) Conference 2017, July 16 –19, 2017, Spokane, WA. (Paper #: 1700992).
31. **Panda, S.S.**, Ballenger, K., and Ellis, J. 2017. *Automated Updated RUSLE Model Development in ArcGIS ModelBuilder in Climate Change Condition*. Presented in the Annual International American Society of Agricultural and Biological Engineers (ASABE) Conference 2017, July 16 –19, 2017, Spokane, WA. (Paper #: 1701008).

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32. **Panda, S.S.**, Terrill, T.H., and Van Wyk, J.A. 2017. *An Automated Cellphone-Based Feedback and Training System for Resource-Poor Farmers for Sustainable Animal Health and Production Management*. Presented in the 26th International Conference of the World Association for the Advancement of Veterinary Parasitology, September 4–8, 2017, Kuala Lumpur, Malaysia.
33. **Panda, S.S.**, Miller, C., and Wilson, H. 2017. *Potential Sinkholes Risk Probability Analysis through Automated Geospatial Modeling – A study in Southeast United States*. Presented in the 17th Annual Meeting of the American Ecological Engineering Society, May 23–25, 2017, Athens, GA.
34. Moore, L. and **Panda, S.S.** 2017. *Lake Tahoe Aquifer Contamination Susceptibility Analysis through Fully-automated DRASTIC Groundwater Assessment Model Development*. Presented in the 17th Annual Meeting of the American Ecological Engineering Society, May 23–25, 2017, Athens, GA.
35. Fink, K. and **Panda, S.S.** 2017. *Geospatial Technology-based Kemp’s Ridley Sea Turtle Habitat Suitability Analysis in Florida for Conservation Decision Support*. Presented in the 17th Annual Meeting of the American Ecological Engineering Society, May 23–25, 2017, Athens, GA.
36. Amatya, D.M., Sun, G., and **Panda, S.S.** 2017. *Ecohydrological Studies at Santee Experimental Forest, Baseline Data, Extreme Events, and Hydrological Vulnerabilities in the Context of South Eastern US Forests*. Closing Keynote Presented in the 2017 Municipal Wet Weather Stormwater Conference, May 17, 2017, Charleston, SC.
37. **Panda, S.S.**, Worthington, N., and Amatya, D.M. 2017. *Automated Geospatial Model Development for Stream Bank Erosion Spatial Vulnerability Determination*. Presented in the 2017 Georgia Water Resources Conference, April 19–20, 2017, Athens, GA.
38. Musengo, S. and **Panda, S.S.** 2017. *Wetland Loss – An Artificial Environmental Disaster: A Case Study of Okefenokee Swamp*. Presented in the 2017 Georgia Wat Res Conf, April 19–20, 2017, Athens, GA.
39. **Panda, S.S.** and Druden, C. 2017. *Geospatial Analysis for Swine CAFOs and Stream Water Quality Correlation Study*. Presented in the 2017 Georgia Wat Res Conf, April 19–20, 2017, Athens, GA.
40. Miklas, K., **Panda, S.S.**, and Dinesh, M. 2017. *Mangrove Change Detection- The National Everglades Park of Florida*. Presented in the 2017 Georgia Wat Res Conf, April 19–20, 2017, Athens, GA.
41. Duffy, M. and **Panda, S.S.** 2017. *Sustainable Management Decision Support System Development for Barrow County, GA through Flood Potential Analysis*. Presented in the 2017 Georgia Wat Res Conf, April 19–20, 2017, Athens, GA.
42. Dinesh, M. and **Panda, S.S.** 2017. *Farm Scale Sustainable Water Management Decision Support System Development through Geohydrologic Models*. Presented in the 2017 Georgia Wat Res Conf, April 19–20, 2017, Athens, GA.
43. **Panda, S.S.**, Amatya, D.M., Jackson, R., Muwamba, A., Sun, G., Noormets, A., Nettles, J., Appleboom, T., Chescheir, G., Kim, Y., Kelly, B., and Bowman, A. 2016. *Estimation of ET for Pine, Switchgrass, and its Intercropping Landuse with Remotely Sensed Data*. Presented in the Symposium on Watershed Scale Sustainability of Forest-based Bioenergy, Raleigh, North Carolina, September 28 - 29, 2016.
44. **Panda, S.S.**, Trettin, C. C., Amatya, D.M., and Kelly, B. 2016. *Tidal Freshwater Forested Wetlands Ecosystems Global Warming Impact Related Management Decision Support with Advanced Geospatial Technology*. Presented in the 10th International Wetlands Conference, Changsu, China, September 19 - 24, 2016.
45. Amatya, D.M., **Panda, S.S.**, and Trettin, C. C. 2016. *Challenges in Hydrologic Modeling of Low-gradient Coastal Freshwater-Tidal Forests: A Case Study of South Carolina, U.S.A.* Presented in the 10th International Wetlands Conference, Changsu, China, September 19 - 24, 2016.
46. **Panda, S.S.** and Cromer, R. 2016. *Algorithm Development for Lake Water Quality Assessment with Temporal Land Cover Spatial Analysis of the Watershed*. Presented in the Georgia Geospatial Conference, Athens, GA on October 3-5.
47. Peoples, R. and **Panda, S.S.** 2016. *Automated Geospatial Model Development for Drought Vulnerability Analysis in the State of Georgia*. Presented in the Georgia Geospatial Conference, Athens, GA on October 3-5. (Got honorable mention in all student paper competition)
48. Miklas, K. and **Panda, S.S.** 2016. *Future Hurricane Susceptibility Study in South Carolina Coast and Decision Support System Design for Preparedness*. Presented in the Georgia Geospatial Conference, Athens, GA on October 3-5. (Won 2nd Prize in undergraduate student paper competition)

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49. Schrader, L. and **Panda, S.S.** 2016. *Linking Incessant Earthquake in Oklahoma to Man-made Causes through Automated Geospatial Model Development*. Presented in the Georgia Geospatial Conference, Athens, GA on October 3-5.
50. **Panda, S.S.**, Amatya, D., Timmerman, T., and Fisteag, E. 2016. *Automated Geospatial Model Development for Stream Bank Erosion Spatial Vulnerability Determination for Coastal and Upland Streams*. Presented in the Stream Ecology and Restoration (EcoStream) Conference 2016, August 22 – 25, 2016, Asheville, NC.
51. **Panda, S.S.**, Amatya, D., Walters, B., and Nettles, J. 2016. *Forest Biomass Estimation and ET Correlation Study with Advanced Geospatial Technology for Environmental and Climate Modeling*. Presented in the International American Society of Agricultural and Biological Engineers (ASABE) Conference 2016, July 17 –20, 2016, Orlando, FL. (Paper #: 2455782).
52. **Panda, S.S.**, Amatya, D., Noormets, A., Sun, G., Jackson, R., and Nettles, J. 2016. *Comprehensive Remote Sensing Based Evapotranspiration Estimation Model Development for Homogenous Pine Forest*. Presented in the International American Society of Agricultural and Biological Engineers (ASABE) Conference 2016, July 17 –20, 2016, Orlando, FL. (Paper #: 2455798).
53. An invited presentation from a companion study on “*Impacts of Switchgrass Intercropping in Traditional Pine Forests on Hydrology and Water Quality*” was made by Dr. Devendra Amatya at the UN FAO/GBEP-IEA sponsored Bioenergy and Water workshop on August 25-26, 2015 in Stockholm, Sweden.
54. Amatya, D.N., **S.S. Panda**, and G. Sun, 2015. *Assessing hydrologic impacts of climate change on a low-gradient forested watershed using SWAT model*. Presented in the 4th International Conference Forests & Water in a Changing Environment, at Kelowna, British Columbia, Canada during July 5-8, 2015
55. Bhattacharjee, G., L. Manuel, **S. S. Panda**, S. Basu, T. E. Affifi, L. Altena, L. Gonzalez-Arechaga, and R. Olvera. *A spatio-temporal analysis of heat island causes and effects around Austin, TX*. Presented in First International Symposium on Sustainable Human-Building Ecosystems (ISSHBE) at Carnegie Mellon University, Pittsburgh, PA; October 7, 2015.
56. **Panda, S.S.**, Amatya, D., Kim, Y., Sun, G., and Chescheir, G. 2015. *Advanced Image Processing Approach for ET Estimation with Remote Sensing Data of Varying Spectral, Spatial and Temporal Resolution*. Presented in the 5th Interagency Conference on Research in Watersheds in North Charleston, SC, March 2 - 5, 2015.
57. **Panda, S.S.**, Bowman, A., Sun, G., and Amatya, D.M., 2014. *Pine Evapotranspiration Parameter Estimation Model Development with Landsat Imagery*. Presented in the ASABE Symposium on “Evapotranspiration: Challenges in Monitoring and Modeling From a Leaf to the Landscape Scale and Beyond” in Raleigh, NC, April 7-11, 2014.
58. **Panda, S.S.**, 2014. *Leaf Area Index Based Model Development for Remote Measurement of Potential Water Loss through Evapo-transpiration of Kudzu during the Growing Season*. Presented in the ASABE Symposium on “Evapotranspiration: Challenges in Monitoring and Modeling From a Leaf to the Landscape Scale and Beyond” in Raleigh, NC, April 7-11, 2014.
59. Dalton, K.P., **Panda, S.S.**, Amatya, D.M., Jackson, R., Nettles, J. and Chescheir, G., 2014. *Evapotranspiration Parameter Estimation Model Development with Advanced Geospatial Technology*. Presented in the ASABE Symposium on “Evapotranspiration: Challenges in Monitoring and Modeling From a Leaf to the Landscape Scale and Beyond” in Raleigh, NC, April 7-11, 2014.
60. **Panda, S.S.** and A. Crain, 2013. *Flood Potential Prediction Advanced Automated Geospatial Model Development for Watershed Management*. Presented in the 2013 Water Education Summit Conference, September 24 –26, 2013, Chattanooga, TN.
61. **Panda, S.S.**, D. Hohnhorst, and J. Bless, 2013. *Development of Online Estimation Tool for Calculation of Stream Fecal Coliform load from Non-Point and Point Sources*. Presented in the 2013 Water Education Summit Conference, September 24 –26, 2013, Chattanooga, TN.
62. **Panda, S.S.**, M. Cash, and J. Riley, 2013. *BMP Structures Supported Urban Watershed Water Quality Improvement Analysis Using ArcSWAT*. Presented in the 2nd International Conference on Biodiversity & Sustainable Energy Development, August 12- 14, 2013, Raleigh, NC.

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63. **Panda, S.S.**, D. Hohnhorst, and J. Bless, 2013. *Development of Online Estimation Tool for Calculation of Stream Fecal Coliform load from Non-Point and Point Sources*. Presented in the 2nd International Conference on Biodiversity & Sustainable Energy Development, August 12-14, 2013, Raleigh, NC.
64. **Panda, S.S.**, A. Dudley, and D. Amatya, 2013. *Automated Geospatial Model Development for Wildfire Susceptibility Analysis and Decision Support*. Presented in the International American Society of Agricultural and Biological Engineers (ASABE) Conference 2012, July 21–24, 2013, Kansas City, MO. Paper # 1620401.
65. **Panda, S.S.** and G. Hoogenboom, 2013. *Blueberry Orchard Site Specific Crop Management with Geospatial Based Yield Modeling*. Presented in the International American Society of Agricultural and Biological Engineers (ASABE) Conference 2012, July 21–24, 2013, Kansas City, MO. Paper # 1620890.
66. **Panda, S.S.**, J. Nolan, and L. Irminger. 2012. *Orchard LAI estimation and land-use correlation using geospatial technology*. Presented in the Georgia Geospatial Conference 2012, October 16–18, 2012, Athens, GA.
67. Fitzgerald, J. and **S.S. Panda**, 2012. *Differentiating hydrophytes in non-coastal wetlands using hydrologic soil groups, LiDAR, based topographic map, and OBIA based image segmentation*. Presented in the International American Society of Agricultural and Biological Engineers (ASABE) Conference 2012, July 29–August 2, 2012, Dallas, TX. Paper # 1338203.
68. **Panda, S.S.**, K. Burry, and C. Tamblyn. 2012. *Wetland change and cause recognition in Georgia coastal plain*. Presented in the International American Society of Agricultural and Biological Engineers (ASABE) Conference 2012, July 29–August 2, 2012, Dallas, TX. Paper # 1338205.
69. Amatya, D., **S.S. Panda**, T.M. Williams, R.W. Skaggs, P. Conrads, and C.C. Trettin. 2012. *Sources of uncertainty and errors in estimating water balances of low-gradient forested watersheds in the coastal plain*. Presented in the International American Society of Agricultural and Biological Engineers (ASABE) Conference 2012, July 29–August 2, 2012, Dallas, TX. Paper # 1337048.
70. **Dalton, K.P.**, S.S. Panda, D. Amatya, R. Jackson, G. Chescheir, and J. Nettles. 2012. *Remote Estimation of Pine Forest Hydrologic Parameters with Advanced Geospatial Technology*. Presented in the International American Society of Agricultural and Biological Engineers (ASABE) Conference 2012, July 29–August 2, 2012, Dallas, TX. Paper # 1337043.
71. **Panda, S.S.** and J. Bless. 2012. *WebGIS application in watershed information dissemination for decision support*. Presented in National Water Conference, May 20-24, 2012, Portland, OR.
72. **Panda, S.S.**, J. Rylee, and J. Fitzgerald. 2012. *Geospatial technology based new and healthy reservoir design for drinking water supply*. Presented in National Water Conference, May 20-24, 2012, Portland, OR.
73. **Panda, S.S.**, S. Henning, C. Ertberger, and J. Skarda. 2012. *Sediment load and impact analysis in Lake Sidney Lanier using geospatial technology, SWAT modeling, and advanced instrumentation*. Presented in Southeast Lake and Watershed Management Conference, May 13-15, 2012, Columbus, GA.
74. Nolan, J., **S.S. Panda**, and K. Mobasher. 2011. *Landscape probability study of Coosawatee 8-digit HUC watershed using geospatial Technology*. Georgia Urban and Regional Information Systems Association (GA-URISA), Atlanta, GA. (Awarded second prize in undergraduate category.)
75. Fitzgerald, J. and **S.S. Panda**, 2011. *Multi-temporal land use change analysis of the Alcovy watershed for prudent environmental management decision support*. Georgia Acad of Sci Conf 2011, Gainesville, GA.
76. Hale, J.D. and **S.S. Panda**, 2011. *Multi-temporal land use change analysis of Oconee County, GA for development support and land management*. Georgia Acad of Sci Conference 2011, Gainesville, GA.
77. Phillips, Z., **S.S. Panda**, and Sharma, J.B., 2011. *Analysis of multi-temporal land use change in Jones County, Georgia for proper land-use planning decision making*. Georgia Academy of Science Conference 2011, Gainesville, GA.
78. **Panda, S.S.** 2010. *Image segmentation algorithm comparison through blueberry orchard delineation*. 2010 Geospatial Conference, October 19-22, 2010, Athens, GA.
79. Fitzgerald, J. and **S.S. Panda**, 2010. *Reservoir suitability design and runoff estimation using SCS method*. 2010 Geospatial Conference, October 19-22, 2010, Athens, GA. (Awarded first prize in undergraduate category.)

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80. Burry, K., J. Lipscomb, and **S.S. Panda**, 2010. *Development of automated geospatial model to determine the demise of a small wetland in Flowery Branch*. Georgia Urban and Regional Information Systems Association (GA-URISA), Atlanta, GA. (Awarded first prize in undergraduate category.)
81. **Panda, S.S.** and Dalton, K., 2010. *Development of an automated watershed stream health determination model using the 12-point physical watershed parameters*. National Water Conference 2010, February 21-25, 2010, Hilton Head, SC.
82. **Panda, S.S.** 2009. *SQL application in geographic information system*. SQL Saturday Conference, October 10, 2009, Gainesville, Georgia.
83. Taylor, P. and **S.S. Panda**, 2009. *SQL and ArcIMS server development*. SQL Saturday Conference, October 10, 2009, Gainesville, Georgia.
84. Reed, J. and **S.S. Panda**, 2009. *A suitability analysis model for potential blueberry production in Georgia using geospatial technology*. Georgia Academy of Science Conference 2009, Atlanta, GA.
85. Dalton, K. and **S.S. Panda**, 2009. *Dam breaks scenario modeling with HAZUS-MH software*. Georgia Academy of Science Conference 2009, Atlanta, GA.
86. Sean, F. and **S.S. Panda**, 2009. *Geospatial technology usage to analyze environmental and socioeconomic impacts on coastal resources in southwestern Madagascar*. Georgia and Florida Academy of Science Conference 2009, Atlanta, GA.
87. **Panda, S.S.** and R. Randall, 2009. *Geospatial model development for watershed based fecal coliform estimation and comparison with Virginia Tech's bacteria loading calculator*. CSREES National Water Conference, February 8 – 12, 2009, St. Louis, Missouri.
88. **Panda, S.S.**, 2008. *Geoinformation technology application in Lake Lanier watershed ecohydrologic modeling*. ASABE Paper No. 085249. St. Joseph, MI.
89. **Panda, S.S.** and J. Proctor. 2008. *Impact of LULC, DEM, and soil resolution and temporal changes on the watershed related output estimation*. Joint Annual Meeting of the Georgia Chapters of Soil & Water Conservation Society (SWCS), American Society of Agricultural & Biological Engineers (ASABE), and Southeast Chapter of International Erosion Control Association (IECA), 2008, Athens, GA.
90. **Panda, S.S.**, 2008. *Ecohydrologic Modeling for rangeland management with the soil and water assessment tool*. GIS in Teaching and Research Conference 2008, Atlanta, GA.
91. Lance, L. and **S.S. Panda**, 2008. *Delineation of cougar habitat in Appalachian mountain range in Georgia with geospatial modeling*. Georgia and Florida Academy of Science Conference 2008, Jacksonville, Florida. (Awarded first prize in best paper category.)
92. **Panda, S.S.**, I. Chaubey, and M. Matlock. 2007. *Geo-information Technology for Watershed Management Decision Support System Development*. Southern Region Water Quality Conference, Fayetteville, AR.
93. **Panda, S.S.**, S. H. Ahmed, S. Jude, T. Morgan, and K. David. 2007. *Development of forest stewardship program spatial analysis project for Idaho land management planning*. ASABE Paper No. 071094. St. Joseph, MI.
94. **Panda, S.S.** and K.T. Weber. 2006. *GLOBE program as an important tool to help K-12 education and GIS community*. Presented in the Intermountain GIS User's Conference, April 4-8, Helena, MT.
95. Gammet, B. and **S.S. Panda**. 2006. *Classification of Russian Knapweed (Acroptilon Repens) through ArcGIS Spatial Analyst Multivariate toolset*. Presented in the Intermountain GIS User's Conference, April 4-8, Helena, Montana, USA.
96. Holder, C. and **S.S. Panda**. 2006. *Examining field variability of soil electrical conductivity and its relations to remotely sensed data using artificial neural networks*. Presented in the Intermountain GIS User's Conference, April 4-8, Helena, Montana, USA.
97. Nielson, J. and **S.S. Panda**. 2006. *Predictive modeling and mapping of fasting blood glucose: A preliminary study of diabetes among Hispanics in SE Idaho*. Presented in the Intermountain GIS User's Conference, April 4-8, Helena, Montana, USA.
98. **Panda, S.S.**, I. Chaubey, K.L. White, and M. M. Matlock. 2005. *Decision support system development for beaver lake watershed management: An environmental informatics approach*. ASAE Paper No. 052199. St. Joseph, MI.

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99. **Panda, S.S.** and S. Panigrahi. 2005. *Learning Vector quantization approach for crop yield estimation zoning with radiometric corrected aerial image textural features*. Presented in the Intermountain GIS User's Conference, April 18-22, Pocatello, ID, USA.
100. **Panda, S.S.**, J. Tibbitts, and K.T. Weber. 2005. *Advanced GIS application in facilitating telecommunication service at Idaho State University*. Presented in the Intermountain GIS User's Conference, April 18-22, Pocatello, Idaho, USA.
101. Gammet, B., **S.S. Panda**, and K.T. Weber. 2005. *Mapping of leafy spurge coverage using aerial imagery and GIS techniques*. Presented in the Intermountain GIS User's Conference, April 18-22, Pocatello, Idaho, USA.
102. Chaubey, I., **S.S. Panda**, M. Matlock, and K.L. White. 2005. *Development of a GIS-based decision support system for watershed management*. Presented in the First International Conference on Environmental Science and Technology sponsored by the American Academy of Sciences, January 23-26, 2005, New Orleans, Louisiana, USA
103. **Panda, S.S.**, I. Chaubey, and V. Garg. 2004. *Artificial neural networks application in lake water quality estimation using satellite imagery*. ASAE Paper No. 042073. St. Joseph, MI.
104. Chaubey, I., **S.S. Panda**, K.L. White, M. Matlock, B. Haggard, and T.A. Costello. 2004. *Beaver Lake watershed decision support system*. Presented in the 2004 Annual Conference of the Arkansas Water Resources Center.
105. **Panda, S.S.**, S. Panigrahi, and R. Gautam, 2003. *Learning vector quantization (LVQ) based neural classification for soil nutrient management*. ASAE Paper No. 033066. St. Joseph, MI.
106. S. Panigrahi, R. Gautam, H. Gu, **S.S. Panda**, M. Venugopal, and U Kizil, 2003. *Fluorescence imaging for quality assessment of meat*. ASAE Paper No. RRV03-0025. St. Joseph, MI.
107. **Panda, S.S.**, D. Steele and S. Panigrahi, 2002. *Precision water management using automated crop yield model*. ASAE Paper No. 022251. St. Joseph, MI.
108. **Panda, S.S.**, S. Panigrahi, R. Gautam, and D. Franzen, 2002. *Analysis of clustering techniques for predicting soil NO₃-N from aerial images*. ASAE Paper No. 023090. St. Joseph, MI.
109. Gautam, R.K., S. Panigrahi, **S.S. Panda**, and D. Franzen, 2002. *Petiole nitrate prediction using statistical and neural network approach*. ASAE Paper No. 021043. St. Joseph, MI.
110. **Panda, S.S.** and S. Panigrahi, 2001. *Use of self-organizing map for analysis of remotely sensed aerial images for crop yield prediction*. ASAE Paper No. 013115. St. Joseph, MI.
111. **Panda, S.S.** and S. Panigrahi, 2001. *Analysis of data mining techniques for selected biosystems*. ASAE Paper No. 013049. St. Joseph, MI.
112. **Panda, S.S.**, S. Panigrahi, and N. Derby. 2001. *Crop yield prediction modeling using soil adjusted vegetation index (SAVI)*. ASAE Paper No. SD 01-115. St. Joseph, MI.
113. **Panda, S.S.**, D. Steele, and H. Andrianasolo. 2001. *Watershed based soil conservation measures planning from remote sensing, GIS, and USLE*. ASAE Paper No. SD 01-110. St. Joseph, MI.
114. **Panda, S.S.**, H. Andrianasolo, VVN Murty, and K. Nualchawee, 2000. *Planning soil conservation measures on watershed basis with integrating remote sensing, GIS techniques and universal soil loss equation (USLE)*. ASAE Paper No. 002059. St. Joseph, MI.
115. **Panda, S.S.** and S. Panigrahi, 2000. *Analysis of remotely sensed aerial images for precision farming*. ASAE Paper No. 003055. St. Joseph, MI.
116. **Panda, S.S.**, H. Andrianasolo, 2000. *Watershed soil erodibility (K) factor and slope length and gradient (LS) factor determination using satellite images, topographic map, and GIS Technique*. ASAE Paper No. RRV 00202. St. Joseph, MI.
117. **Panda, S.S.** and S. Panigrahi, 2000. *Data pre-processing technique and an optimal neural network design for crop yield prediction*. ASAE Paper No. RRV 00401. St. Joseph, MI.

Technical Poster Presentations:

1. **Panda, S.S.**, D.M., Amatya, J. Grace, P. Caldwell, D. Marion. 2019. *Forest Road/Stream Crossings Erosion Vulnerability Assessment using Geospatial Hydrologic Model under Extreme Precipitation Events*. Presented in the 2019 American Geophysical Union (AGU) conference, San Francisco, CA, December 9-13, 2019.

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2. **Panda, S.S.**, M. Palmer, Y. Ouyang, and J. Grace. 2019. *Automated DRASTIC Groundwater Assessment Model Development for Contamination Susceptibility Determination*. Presented in the 2019 American Geophysical Union (AGU) conference, San Francisco, CA, December 9-13, 2019.
3. Terrill, T., **Panda, S.S.**, vanWyk, J.A., and Morgan E. 2017. *Site Specific Fodder Management Decision Support System Development for Lespedeza Cuneata Production*. Presented in the Third International Conference on Global Food Security, 5-8 December, 2017 in Cape Town, South Africa.
4. Ballanger, K., Sharma, J.B., and **Panda, S.S.** 2016. *Study of Pine Forest Recovery from Pine Beetles Infestation through High-resolution Multi-temporal Image Analyses*. Presented in the Georgia Geospatial Conference, Athens, GA on October 3-5.
5. Dudley, A., **S.S. Panda**, D. Amatya, and Y. Kim, 2015. *Hydro-climatology Based Wildfire Susceptibility Automated Geospatial Model Development for Forest Management*. Proceedings of the 2015 Georgia Water Resources Conference, April 28–30, 2015, Athens, GA.
6. Kelly, B., **Panda, S.S.**, Trettin, C., Amatya, D., and Kim, Y., 2014. *Assessment of the Reach and Ecological Condition of Freshwater Tidal Creeks in Lower Coastal Plain, Charleston County, South Carolina with Advanced Geospatial Technology Application*. Presented in the South Carolina Water Resources Conference 2014 in Columbia, SC., October 15-16, 2014.
7. A. Smith, C. Tamblyn, Phillips, J., and **S.S. Panda**. 2012. *Impact of urbanization and point source on changes in water quality in upstream of Upper Chattahoochee River*. Presented in the Georgia Geospatial Conference 2012, October 16 – 18, 2012, Athens, GA.
8. **Panda, S.S.**, J. Nolan, D. Amatya, K. Dalton, R.M. Jackson, H. Ssegane, and G. Chescheir. 2012. *Stomatal conductance and leaf area index estimation using remotely sensed information and forest speciation*. Presented in the 3rd International Conference on Forests and Water in Changing Environment 2012, Fukuoka, Japan. September 18 –20, 2012.
9. Hale, J. D., C. Tamblyn, M. Cash, and **S.S. Panda**. 2012. *Fecal coliform and stream health analysis of Flat Creek with geospatial model development*. Presented in Southeast Lake and Watershed Management Conference, May 13-15, 2012, Columbus, GA.
10. Phillips, J., C. Tamblyn, A. Smith, and **S.S. Panda**. 2012. *Impact of urbanization and point source on changes in water quality in upstream of Upper Chattahoochee River*. Presented in Southeast Lake and Watershed Management Conference, May 13-15, 2012, Columbus, GA. (**Awarded 1st Prize in student poster competition**)
11. Cash, M. and **S.S. Panda**. 2012. *Urban stream water quality control with green island provision*. Presented in Southeast Lake and Watershed Management Conference, May 13-15, 2012, Columbus, GA. (**Honorable mention in the student poster competition**)
12. Rylee, J., **S.S. Panda**, J. Fitzgerald, and D. Hohnhorst. 2012. *Geospatial technology based suitability analysis for new additional reservoirs in Hall County, GA*. Presented in Southeast Lake and Watershed Management Conference, May 13-15, 2012, Columbus, GA. (**Awarded 2nd Prize in student poster competition**)
13. Ertberger, C., A. Jaume, and **S.S. Panda**. 2012. *Estimation and evaluation of bacterial loadings of the Upper Chattahoochee watershed*. Presented in Southeast Lake and Watershed Management Conference, May 13-15, 2012, Columbus, GA.
14. Amatya, D., **S.S. Panda**, G. Cheschair, J. Nettles, T. Appleboom, and W. Skaggs, 2011. *Evaluating evapotranspiration and stomatal conductance of matured pine using geospatial technology*. American Geophysical Union Conference 2011, December 5-9, 2011.
15. **Panda, S.S.**, P. Peters, R. Harris, and R.J. Skarda, 2011. *Remote measurement of potential water loss through evapo-transpiration of kudzu during the growing season*. National Water Conference 2011, January 31-February 1, 2011, Washington, DC.
16. Saraswat, D., D. Radcliffe, F. Henning, J.A. Sallee, J.L. Peterson, M. Silitonga, M.D. Smolen, R. Faucett, S.O. Dennis, **S.S. Panda**, T. Tsegaye, T. Sweeney, and W. Tadassee. *Watershed Assessment Tools for Extension and Research (W.A.T.E.R.): A Stakeholder-Driven, Multistate Initiative in the Southern Region*. National Water Conference 2011, January 31-February 1, 2011, Washington, DC.
17. Robertson, K., and **S.S. Panda**, 2010. *Analysis and Comparison of SSURGO and STATSGO Soil Data with the Development of a Geospatial Erosion Model*. National Water Conference 2010, Hilton Head, SC.

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18. **Panda, S.S.**, R.H. Powell, I. Chaubey, and K.T. Weber. 2005. *Use of Map Algebra in Weightage-based Layer Management for 8-digit HUC Non-point Source Pollution Prioritization*. Poster presented in the Intermountain GIS User's Conference, April 18-22, Pocatello, Idaho, USA (**Awarded second prize in the poster competition**).
19. **Panda, S.S.**, I. Chaubey, and M. Matlock. 2004. *Using interactive GIS mapping in a watershed management DSS design*. Poster presented in 4th Annual American Ecological Engineering Society Conference, June 9-12, Fayetteville, AR.

Other Invited Presentations:

1. **Panda, S.S.** 2016. Geospatial Technology – Animal Resource Management Decision Support Application. Presented in the ACSRPC Consortium in the School of Agriculture at Fort Valley State University, Fort Valley, GA.
2. **Panda, S.S.** 2012. Geospatial Technology – the Binding Tool for Integrative Teaching, Research, and Extension in Agricultural and Environmental Science and Engineering. Presented in the School of Agriculture at Fort Valley State University, Fort Valley, GA.
3. **Panda, S.S.** 2011. Geospatial technology usage in PET and other hydrologic parameter evaluation. Presented in Bio and Ag Engineering Department, North Carolina State University, Raleigh, NC.
4. **Panda, S.S.**, 2010. Geoinformation technology in eco-hydrologic resource management and decision support. Presented in the Center for Forested Wetlands Research, USDA Forestry Service, Cordesville, SC.
5. **Panda, S.S.** 2009. Remote Sensing: Land Use Classification, Change Analysis, and Forecasting. Presented in the Integrated Geospatial Education and Technology Training (iGETT) presentation series.
6. **Panda, S.S.**, 2007. Geoinformation technology in environmental resource management and decision support. Presented in Crop and Environmental Science department, University of Georgia, Athens.
7. **Panda, S.S.**, 2006. Software and database development in geographic information system. Presented in the Association of Information Technology Professional (AITP) group meeting, Idaho State University, Pocatello, ID.
8. **Panda, S.S.**, 2005. Development of a GIS-based decision support system for Beaver Lake watershed management. Presented in the Graduate Engineering Seminar, School of Engineering, Idaho State University, Pocatello, ID.
9. **Panda, S.S.**, 2005. Using GIS for hydrologic modeling. Presented in the GIS Day at GIS Training and Research Center, Idaho State University, Pocatello, ID.

Published Decision Support Systems and other Project Web Sites (*some sites are not being in services now*):

1. Web-based Wetland Diversity Assessment & Management (WWDAM) (created in Google Sites): <https://sites.google.com/site/wetlanddiversityandmanagement/>
2. Watershed Assessment Tools for Extension & Research (WATER) web site (Created with ASP.Net): <https://web.ung.edu/gis/water/>.
3. Online Point & Non-point sources based Fecal Coliform Calculation Tool web site (<https://web.ung.edu/gis/water/calculator.aspx>)
4. West Fork Little River Watershed GIS-based Decision Support System Development site (Created in Dreamweaver and JavaScript): <https://web.ung.edu/gis/gp/>.
5. Beaver Lake Watershed Management GIS-based Decision Support System Development site (Created in Dreamweaver and JavaScript): <https://web.ung.edu/gis/blwdss/>.
6. Gwinnet Technical College Tree Finder webGIS site:
ArcIMS Site: https://gisweb.ung.edu/website/Gwinnett_Tech_Tree_Finder/viewer.htm.
ArcGIS Server site: <https://web.ung.edu/gis/hallco/GwinnettTechTest/web/>.

Few other important research projects not mentioned in the CV earlier:

1. Meat quality assessment using low light (UV-light) high speed imaging technique.
2. Determination of sugar content of grape using NIR spectroscopy. This was completed using NIR reflectance and transmittance spectroscopy techniques and neural network modeling.
3. Route Selection Study and Detailed Engineering Design of the Map Ta Phut to Rayong Railway. A collaborative study by many engineers from STS Engineering Consultants Co. Ltd., Thailand, DE Consult, Germany, Connell Wagner, Australia, and Transystems S.p.A.
4. Detailed Engineering Design of the Phuket Railway Project (160 km long). A collaborative study by many engineers from STS Engineering Consultants Co. Ltd., Thailand, SEATEC Co., Ltd, Thailand, DE Consult, Germany, Transmark Inc., U.K., and Transystems S.p.A., Italy.
5. Alternate Highways Planning and Design in the Pathumthani province using Remote Sensing (SPOT data), GIS, and the Geomorphological analysis report of the area.
6. Study of the Coastal/Marine resources of the Chantaburi peninsula using Microwave RS (Synthetic Aperture Radar (SAR) imagery) and SPOT imagery integration.

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My Professional Biodata Synopsis:

Dr. Sudhanshu Panda is a professional engineer specializes in soil and water engineering, precision agriculture, site specific crop management, and geospatial technology and its application in sustainable environmental management. He is working as a professor of GIS & Environmental Science in the Institute of Environmental Spatial Analysis at University of North Georgia. He received his PhD in Engineering from the Biosystems & Agricultural Engineering program of North Dakota State University. He earned his M.S. degree in Environmental Remote Sensing for Geoinformation Development from the School of Space Technology Application Research of Asian Institute of Technology. He has his B.S. degree in Agricultural Engineering from Odisha University of Agriculture & Technology. Dr. Panda has the unique experience of working in all three platforms of professional career, i.e., 1) at first as a field engineer (Soil Conservation Engineer) for the Government of Odisha, India, in charge of survey, design, construction supervision, and project evaluation of soil conservation structures such as water harvesting structures, diversion weirs, small earthen embankments, contour bunds, gully control structures, etc., to control erosion, reduce siltation in reservoir, and recharge ground water; 2) in the second phase as a Water Resources Engineer/Remote Sensing & GIS Expert in an Engineering Consulting Company in Bangkok, Thailand, being responsible for multi-million dollars proposal writing and assisting in completion of survey and design of water related structures like bridges and culverts for funded projects on railway lines, ports, and highway interchanges; 3) and lastly as an academic and researcher in the United States, being involved in full load teaching of geospatial technology (geographic information systems, remote sensing, global navigation satellite systems, and information technology), engineering (graphics & design), information technology (foundation of programming and foundation of web design) and environmental science (hydrology, soils, landuse conservation, watershed characterization, environmental spatial analysis, etc.) courses, researching in the fields of bioenergy production, global warming and climate change, water resources/watershed management, precision agriculture, site specific crop management, forest management, animal health management, sustainable biodiversity management with geospatial technology and artificial neural network application. Dr. Panda is a prolific modeler, developing models with ArcGIS ModelBuilder along with in statistics and artificial neural networks platform. He is a software developer with Visual Basics Studio and Python for environmental management decision support system development along with a strong expertise on WebGIS site development. He is an expert in sustainable water resource management decision support system development through his skills of geospatial technology, programming, model development, web design (WebGIS and the Web database management), and quick and sharp innovative thinking due to his real-world field experiences. He has experience of obtaining and successfully completing grants from various federal (NSF, NASA, NIFA, USGS, USDA-Forest Service, DOE, etc.), regional (GA-EPD and Idaho BLM), local (County governments), university (UNG, Gwinnett Technical College) and private (Georgia Power) funding sources. Recently he is involved on developing a Real-Time Small Ruminant Health Management System through animal movement tracking with RFIDs and providing instant suggestion to farmers on site specific fodder production, partnering with Fort Valley State University and University of Pretoria, South Africa. Teaching is Dr. Panda's biggest passion and helping students to build their lives is his ultimate goal (not speaking it loosely- he lives it) in life and he is an enthusiastic researcher.

If you would like this document in another format, please contact sudhanshu.panda@ung.edu or call 678-717-3594