

## *Curriculum Vitae*

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### **DEBJANI SIHI**

Post-Doctoral Investigator (Ph.D.)

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### **Employment History**

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- Post-Doctoral Investigator, University of Maryland Center For Environmental Science, Appalachian Laboratory (August 2015 to present) (PI: Dr. Eric A. Davidson)
- Post-doctoral Fellow (Visiting), Organismic and Evolutionary Biology, Harvard University (Jan 2016 to present) (PI: Dr. Andrew D. Richardson)
- Laboratory Technician, Wetland Biogeochemistry Lab, University of Florida (2014-2015) (PI: Dr. Patrick W. Inglett)
- Research Fellow, Punjab Agricultural University, Punjab, India (April,2011 – July,2011) (PI: Dr. Om Prakash Choudhary)

### **Education**

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#### **Doctorate of Philosophy:**

2011 – 2015

Affiliation: University of Florida, Gainesville, Florida

Major: Soil and Water Science

GPA: 3.94/4.00

Advisor: Dr. Patrick W. Inglett

Graduate Research Assistant

#### **Master of Science:**

2008 – 2010

Affiliation: Indian Agricultural Research Institute, New Delhi, India

Major: Environmental Sciences

Minor: Microbiology

GPA: 8.64/10.00

Advisor: Dr. Dinesh Kumar Sharma

Junior Research Fellow of Indian Council of Agricultural Research

#### **Bachelor of Science:**

2004 – 2008

Affiliation: Bidhan Chandra Krishi Viswavidyalaya, WB, India

Honors: Agriculture

Major: Agricultural Chemistry and Soil Science

GPA: 8.61/10.00

## Research Interests

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Soil biogeochemistry, measurements and modeling greenhouse fluxes, soil organic matter decomposition, climate change/warming studies, elemental cycling, wetlands and aquatic ecosystems, dynamics of soil microbes and enzymes, and sustainable agricultural practices.

## Research Experiences

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- **Post-Doctoral Research (ongoing):** *Integrated Belowground Greenhouse Gas Flux Measurements and Modeling* (The project is supported by USDA grant 2014-67003-22073).

Modeling interactions of belowground temperature, moisture, and substrate supply with the net soil emissions of GHGs (CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O) using a model-data fusion approach within a Markov Chain Monte Carlo (Bayesian) framework. Models under use are a soil flux model, DAMM (Dual Arrhenius and Michaelis-Menten) and an ecosystem flux model, FöBAAR (Forest Biomass, Assimilation, Allocation and Respiration).

- **Doctoral Dissertation:** *Processes and modeling of soil organic matter (SOM) decomposition in subtropical wetlands* (The project was supported by National Science Foundation grant DEB 0841596).

Conducted soil sampling, laboratory experiments and decomposition modeling for the study, presented results in national conferences, and published manuscript in peer-reviewed journals.

- **Short-term Research** (2011): *Characterization and use of EMS induced mutants of rice variety Nagina 22 for yield, BB resistance and tolerance to acidic sodic soils.*

Conducted experiments under Greenhouse condition and laboratory; worked with plant grown under hydroponics condition; analyzed data; interpreted results; documented results for project report.

- **Master Thesis** (2008-2010): *Environmental consequences of organic vs. conventional cultivation of basmati rice.*

Organized field trip with local farmers and co-operative farming agency; conducted laboratory experiment for the study; presented results in different national conferences; published results in peer-reviewed journal.

## Presentations at conferences and symposiums (\*Invited)

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- **Sihi, D.** and Davidson, E. A. Integrating Measurements and Models of Water Limitation on Soil and Ecosystem Respiration in Two New England Forests from Hourly to Decadal

Timescales. American Geophysical Union Fall Meeting, San Francisco, CA, December 12-16, 2016 (Abstract submitted for *oral presentation*).

- \***Sihi, D.** and Davidson, E. A. Coupled Simulation of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O Fluxes from a Forested Wetland Using Data-Model Fusion Approach. ASA-CSSA-SSSA Meeting, Phoenix, AZ, to be held November 6-9, 2016 (*oral presentation*).
- Inglett, P. W., **Sihi, D.**, Medvedeff, C., and Inglett, K. S. What's in store?: Interactive effects of warming, nutrient- and carbon-limitation on decomposition and greenhouse gas production in wetlands. ASA-CSSA-SSSA Meeting, Phoenix, AZ, to be held November 6-9, 2016 (*oral presentation as co-author*)
- **Sihi, D.** and Davidson, E. A. Modeling the dynamics of CO<sub>2</sub> and CH<sub>4</sub> fluxes at soil microsite scale. Ecological Society of America Annual Meeting, Fort Lauderdale, FL, to be held August 7-12, 2016 (*Abstract accepted for oral presentation*).
- **Sihi, D.**, Davidson, E. A., and Savage, K. Modeling soil methane fluxes along the concentration gradient of oxygen. International Soil Modeling Conference, Austin, TX, March 29-April 1, 2016 (*Lightning talk and poster presentation*).
- Davidson, E. A., **Sihi, D.**, and Savage, K. The Soil Sink for Nitrous Oxide: Trivial Amount but Challenging Question. American Geophysical Union Fall Meeting, San Francisco, CA, December 14-18, 2015 (*oral presentation as co-author*).
- **Sihi, D.**, Inglett P. W., and Inglett, K. S. Warming Effects Enzyme Turnover During Decomposition of Subtropical Peat. American Geophysical Union Fall Meeting, San Francisco, CA, December 14-18, 2015 (*Poster presented*).
- Inglett P. W., **Sihi, D.**, and Inglett, K. S. Warming rate drives microbial limitation and enzyme expression during peat decomposition. American Geophysical Union Fall Meeting, San Francisco, CA, December 14-18, 2015 (*Oral presentation as co-author*).
- Gerber, S., **Sihi, D.**, Inglett, P. W., and Inglett, K. S. Substrate limitation in microbial decomposition models. Ecological Society of America Annual Meeting, Baltimore, MD, August 9-14, 2015 (*oral presentation as co-author*).
- \***Sihi, D.** Processes and modeling of temperature sensitivity of organic matter decomposition in subtropical wetlands. UMCES Appalachian Laboratory, Frostburg, MD, May 21, 2015.
- Inglett, K. S., Goswami, S., **Sihi, D.**, and Inglett, P. W. Temperature sensitivity of hydrolytic enzymes: Application to decomposition and greenhouse gas emission. Greater Everglades Ecosystems Restoration, Coral Springs, FL, April 21-23, 2015 (*oral presentation as co-author*)
- **Sihi, D.**, Gerber, S., Inglett, K.S., and Inglett, P.W. Modeling the Response of Soil Organic Matter Decomposition to Warming: Effects of Dynamical Enzyme Productivity and Nuanced Representation of Respiration. American Geophysical Union Fall Meeting, December, San Francisco, CA, 15-19, 2014 (*poster presented*).
- **Sihi, D.**, Inglett, K.S., and Inglett, P.W. Temperature Sensitivity of Soil Organic Matter Decomposition in Subtropical Wetlands: Assessing the Role of Microbial Carbon Use Efficiency. ASA-CSSA-SSSA, Long Beach, CA, November 2-5, 2014 (*Runner up in oral presentation*).
- **Sihi, D.**, Papacek, J. R., Foster, D. K., Inglett, K.S., and Inglett, P.W. The Importance of Enzyme Kinetics in the Temperature Sensitivity of Organic Matter Decomposition in

Wetlands. ASA-CSSA-SSSA Meeting, Long Beach, CA, November 2-5, 2014 (*One of the top three presenters in poster presentation*).

- \***Sihi, D.**, Inglett, P.W., Gerber, S., and Inglett, K.S. Temperature sensitivity of organic carbon processing under two contrasting rates of warming. 15<sup>th</sup> Soil and Water Science Department Forum, 18<sup>th</sup> September, 2014, University of Florida, Gainesville, FL (*oral presentation*).
- **Sihi, D.**, Gerber, S., Inglett, K.S. and Inglett, P.W. Mathematical Formulation of Carbon Use Efficiency Affects Warming Response in Wetland Decomposition Models. Joint Aquatic Science Meeting, Portland, OR, May 18-23, 2014 (*Poster presented*).
- **Sihi, D.**, Gerber, S., Inglett, K.S. and Inglett, P.W. Inclusion of maintenance respiration alters temperature response in microbial soil organic matter decomposition model for wetlands. Water Institute Symposium, Feb 11-12, 2014, University of Florida, Gainesville, FL (*poster presented*).
- **Sihi, D.**, Inglett P.W. and Inglett K.S. Temperature sensitivity of anaerobic C processing: The importance of C quality vs. nutrient availability. ASA, CSSA, & SSSA International Annual Meetings, Tampa, FL, November 3-6, 2013 (*One-of the top three presenters in Oral presentation*).
- **Sihi, D.**, Inglett P.W. and Inglett K.S. Temperature Sensitivity of Soil Organic Matter Decomposition in a Subtropical peatland: The Importance of Substrate Quality and Phosphorus Loading. Annual Meeting of Society of Wetland Scientists, Duluth, MN, June 2-6, 2013(*Poster presented*).
- **Sihi, D.**, Gerber, S., Inglett, K.S. and Inglett, P.W. Incorporating microbial physiology into soil organic carbon (SOC) decomposition models. Soil and Water Science Department Forum, 6<sup>th</sup> September, 2013, University of Florida, Gainesville, FL (*Poster presented*).
- Goswami, S., Inglett, P.W., **Sihi, D.**, and Inglett, K.S. Temperature Sensitivity Of Enzyme Kinetic Parameters In Subtropical Wetland Soils Of Contrasting Nutrient Status. Soil and Water Science Department Forum, 6<sup>th</sup> September, 2013, University of Florida, Gainesville, FL (*Poster presented as co-author*).
- **Sihi, D.**, Gerber, S., Inglett, K.S. and Inglett, P.W. Incorporating microbial physiology in soil organic matter (SOM) decomposition models for wetlands. SWSSAC/FAESS/ SWFAEP joint conference, Tampa, FL, October 6-9, 2013 (*Poster presented*).
- **Sihi, D.**, Gerber, S. Inglett K.S., and Inglett P.W. Inclusion of maintenance respiration alters temperature response in microbial soil organic matter decomposition model. Graduate Student Research Day, 29<sup>th</sup> October, 2013 at University of Florida, Gainesville, FL (*Poster presented*).
- **Sihi, D.**, Inglett, P. W. and Inglett, K. S. Effect of organic matter quality, P-loading and temperature on carbon biogeochemistry in subtropical peats. Graduate Student Research Day, 23<sup>rd</sup> October, 2012 at University of Florida, Gainesville, FL (*poster presented*).
- **Sihi, D.**, Inglett, P. W., and Inglett, K. S. Temperature sensitivity of greenhouse gas (CO<sub>2</sub> and CH<sub>4</sub>) production and flux in a subtropical wetland: The importance of organic matter quality and nutrient availability. Soil and Water Science Department Forum, 7<sup>th</sup> September, 2012, University of Florida, Gainesville, FL (*poster presented*).

- Pathak H. **Sihi, D.**, Sharma, D. K. and Inglett, P. W. Greenhouse Gas emission from Agricultural Wetland (Rice Field): Organic vs. Conventional farming. 9<sup>th</sup> INTECOL International Wetlands Conference, Orlando, FL, June 3-8, 2012 (*poster presented*).
- **Sihi, D.**, Sharma, D. K., Pathak, H., Lata and Sharma, O. P. Assessment of Environmental Quality under organic and conventional basmati rice cultivation. Crop Improvement. The Crop Improvement Society of India. International Conference on Preparing Agriculture for Climate Change (ICPACC), Feb. 6-8, 2011, Punjab Agricultural University, Ludhiana, Punjab, India. (*Extended summary published and poster presented*).
- **Sihi, D.**, Sharma, D. K., Pathak, H. and Sharma, O. P. Ecological and economical impact of organic basmati cultivation on ecosystem services. 5<sup>th</sup> International Nitrogen Conference, Dec. 3-7, 2010 in New Delhi, India (*Poster presented*).
- **Sihi, D.**, Sharma, D. K., Pathak, H., Singh, Y. V. and Sharma, O. P. Ecological and socio-economic impact of organic vis-à-vis conventional basmati rice cultivation under farmers' participatory mode. National Symposium on Sustainable rice production system under changed climate, Nov. 27-29, 2010, Central Rice Research Institute (CRRI), Cuttack, Orissa, India (*Poster presented*).

## Project Report

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- Inglett, K.S., Osborne, T.Z., Bochnak, A.M.K., Vandam, B., Duffy, S., Inglett, P.K., and **Sihi, D.** Hydrologic Effects on Soil Stability - Loss, Formation, and Nutrient Fluxes. Submitted to St. Johns River Water Management District, 2013.

Contributed in modeling part of the subsidence rate of peat soils; writing the related results which were incorporated into the annual report.

## Manuscripts

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- **Sihi, D.**, Gerber, S., Inglett, P. W., and Inglett K. S. Comparing models of microbial-substrate interactions and their response to warming. *Biogeosciences*, 13, 1-20, 2016, doi:10.5194/bg-13-1-2016.
- **Sihi, D.**, Inglett, P. W., and Inglett K. S. Carbon quality and nutrient status drive the temperature sensitivity of organic matter decomposition in subtropical peat soils. *Biogeochemistry*, 2016 (accepted).
- **Sihi, D.**, Inglett, P. W., Gerber, S., and Inglett K. S. Temperature sensitivity of soil organic matter decomposition in subtropical wetlands: Does microbial carbon use efficiency play a role? (*Global Change Biology*, under review).
- **Sihi, D.**, Inglett, P. W., and Inglett, K. S., Temperature sensitivity of peat decomposition under two contrasting rates of warming: the importance of extracellular enzyme activity (to be submitted to the journal *Soil Biology and Biogeochemistry*).
- **Sihi, D.**, Inglett, P. W., and Inglett K. S. Accelerated enzyme turnover with warming in soil (to be submitted to the journal *Soil Biology and Biogeochemistry*).
- **Sihi, D.**, Inglett, P. W., Bianchi, T. S., Tfaily, M., and Inglett K. S. Temperature determine the composition of dissolved organic matter from subtropical peat soils (to be submitted to the journal *Biogeochemistry*).

- **Sihi, D.**, Gerber, S., Inglett, P. W., and Inglett K. S. Parameterizing a stoichiometry model for better representation of anaerobic decay dynamics by coupled measurements and simulation modeling. (to be submitted to the journal Ecological modelling).
- **Dari B, Sihi, D., S K Bal.** Performance of Direct Seeded Rice under Various Dates of Sowing and Irrigation Regimes in Semiarid India, Paddy and Water Environment, 2016 (accepted).
- **Sihi, D.**, Dari, B., Sharma, D. K., Pathak, H., Nain, L., and Sharma, O. P. Organic vs. conventional cultivation of basmati rice: Impact on soil health. (Journal of plant nutrition and soil science, under review).
- **Sihi, D.**, Sharma, D. K., Pathak, H., Singh, Y. V., Sharma, O. P., Nain, L., Chaudhary, A. and Dari, B. Evaluation of yield, quality and pest management strategies in certified organic and conventional system of basmati rice (*Oryza sativa*) cultivation. *Oryza-An International Journal of Rice*, 2012, 49(1), 24-29.

### **Fellowships/Scholarships, Awards & Recognition**

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- Excellence in Graduate Studies (Ph.D. Level), Soil and Water Science Department, University of Florida, 2015.
- Received approval of proposal (proposal ID: 49006) submitted to the EMSL-Pacific Northwest National Laboratory with the title of “FT ICRMS and EEMs analysis to assess if the molecular composition of dissolved organic C (DOC) alters with warming of subtropical wetland soils”, May 2015.
- Recognition of High Scholarship, Outstanding Achievement or Service by Delta Epsilon Iota (DEI) Academic Honor Society, University of Florida, Gainesville, FL, 2015.
- The Institute of Food and Agricultural Sciences (IFAS) Travel Grant, University of Florida, FL, USA @ \$200 (2015)
- Recognition for Outstanding service, Mayors’ Council, University of Florida, 2015.
- Oral session room monitor at the American Geophysical Union Fall Meeting held in San Francisco, December 14-18, 2015, abstract submission fee @350 was waved.
- Runner-up in Oral presentation in 2014 ASA-CSSA-SSSA international annual meeting under the section of “Wetland Soils”, awarded monetary prize @ \$200
- One of the top three presenters in poster presentation in 2014 ASA-CSSA-SSSA international annual meeting under the section of “ACS Diversity Graduate Student poster Competition”, awarded monetary prize @ \$200
- 2014 Graduate Student Leadership Conference participant, in 2014 ASA-CSSA-SSSA International Annual meeting, Nov 2-5, Long Beach, California, USA
- Internship (assisted members of the media at Newsroom) at the 2014 Annual SSSA, ASA and CSSA Meetings, held in Long Beach, November 2-5, 2014, awarded monetary prize @ \$100
- Room monitor at the Joint Aquatic Science Meeting held in Portland, Oregon, USA, May 18-23, 2014, awarded monetary prize @ \$200
- Nominated among 13 finalists for Alec Courtelis Award (Fall, 2014) at University level, University of Florida, Gainesville, Florida.
- The A. S. Herlong Sr. Graduate Scholarship, IFAS/CALS, University of Florida, FL, USA @ \$2,000 (2014-2016)



- Recognition from International Honorary for Leaders in University Apartment Community, University of Florida, FL, USA (2014)
- The Davidson Graduate Student Travel Scholarship, University of Florida, FL, USA @ \$300 (2014)
- The Office of the Vice President for Research travel grant, University of Florida, FL, USA @ \$400 (2014)
- The Institute of Food and Agricultural Sciences (IFAS) Travel Grant, University of Florida, FL, USA @ \$200 (2014)
- The Graduate Student Council (GSC) Travel Grant, University of Florida, FL, USA @ \$350 (2014)
- Outstanding CALS international student, University of Florida International Center, University of Florida, FL, USA (2014)
- The William Robertson Fellowship, Soil and Water Science Department, University of Florida, FL, USA @ \$1000 (2013-2014)
- The William C. and Bertha M. Cornett Fellowship, IFAS/CALS, University of Florida, FL, USA @ \$2,000 (2013-2014)
- Outstanding CALS international student, University of Florida International Center, University of Florida, FL, USA (2013)
- Recognition from University Minority Mentoring Program (2013) and College of Education (2013) at UF, FL
- One of the top three presenters in Oral presentation in 2013 ASA-CSSA-SSSA international annual meeting under the section of “Wetland Soils”, awarded monetary prize @ \$100
- Internship (assisted members of the media at Newsroom) at the 2013 Annual SSSA, ASA and CSSA Meetings, held in Tampa, Florida, USA, November 3-6, 2013, awarded monetary prize @ \$100
- The Davidson Graduate Student Travel Scholarship, University of Florida, FL, USA @ \$300 (2013)
- The Institute of Food and Agricultural Sciences (IFAS) Travel Grant, University of Florida, FL, USA @ \$200 (2013)
- The Office of the Vice President for Research travel grant, University of Florida, FL, USA @ \$200 (2013)
- The Graduate Student Council (GSC) Travel Grant, University of Florida, FL, USA @ \$350 (2013)
- The Graduate School Grinter Fellowship, University of Florida, FL, USA @ \$2,416 (2012-2013)
- The Graduate Student Council (GSC) Travel Grant, University of Florida, FL, USA @ \$250 (2012)
- The Graduate School Grinter Fellowship, University of Florida, FL, USA @ \$2,000 (2011-2012)
- Moderator assistant in multiple oral sessions at 9<sup>th</sup> INTECOL International wetlands conference, Orlando, Florida, June 3-6, 2012, abstract submission fee @350 was waved.
- ICAR Junior Research Fellowship (JRF), Indian Agricultural Research Institute, New Delhi, India (2008-2010)

- University Merit Scholarship, Bidhan Chandra Krishi Viswavidyalaya, West Bengal, India (2004-2008)

## Teaching Experience

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### Teaching Assistant: Lead discussion in Lecture, Laboratory, and Field sessions

- Introduction to soils in the environment Lab (SWS 3022L); Fall, 2014
- Environmental Biogeochemistry (SWS 4223 and SWS 5224); Spring, 2014
- Introduction to soils in the environment Lab (SWS 3022L); Fall, 2013
- Environmental Biogeochemistry (SWS 4223/6932); Spring, 2013
- Introduction to soils in the environment (SWS 3022); Fall, 2012
- Environmental Biogeochemistry (SWS 4223/6932); Spring, 2012

### Guest Lecturer

- Taught a lecture on “*Soil: Basic characteristics and classification*” in Soil: Genesis, Nature, and Characterization (GEOG 340), Geography Department, College of Liberal Arts and Sciences, Frostburg State University, Frostburg, MD, Fall 2016.

## Mentoring undergraduate students

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- PlantingScience Scientist mentor, 2016-17 academic year.
- Supervised undergraduate intern and hourly employee on soil sample collection from New England forest, processing of soil samples, and analysis for total nutrients (TC and TN), University of Maryland Center for Environmental Science Appalachian Laboratory during Summer 2016.
- Mentor in Gator Launch Mentoring Program, Career Resource Center, University of Florida, FL, USA (2014-2015)
- Mentor in University Minority Mentor Program (UMMP), University of Florida, FL, USA (2014-2015)
- Mentor in University Minority Mentor Program (UMMP), University of Florida, FL, USA (2013-2014)
- Mentor in SWS Undergraduate Mentoring Program, SWS Annual Meeting, May 18-23, Portland, Oregon, USA (2014)
- Tutoring (voluntary) for GRE Exam to Haitian students for their enrolment in IFAS Program, University of Florida, 2013
- Mentor in SWS Undergraduate Mentoring Program, SWS Annual Meeting, June 3-6, Duluth, Minnesota, USA (2013)
- Mentor in Soil and Water Science Department Graduate-Undergraduate Mentorship Program, University of Florida, Florida, USA (2013)
- Mentor in Yulee-Diamond Global Mentorship Program, University of Florida, Florida, USA (2012-2013)

## Professional Affiliations

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- American Geophysical Union (AGU), 2012 to present
- European Geophysical Union (EGU), 2015 to present
- Ecological Societies of America (ESA), 2015 to present
- Soil Science Society of America (SSSA), 2011 to present
- American Society of Agronomy (ASA), 2011 to 2015
- Crop Science Society of America (CSSA), 2011 to 2015
- Society of Wetland Scientist (SWS), 2011 to present
- Association for the Science of Limnology and Oceanography (ASLO), 2014 to 2015
- Delta Epsilon Iota (DEI) Academic Honor Society, 2015 to present
- Florida Earth Foundation: An International non-profit public-private partnership organization, 2012- to present
- Association for Women Soil Scientists (AWSS), 2013-2014
- Association of Agricultural Scientists of Indian Origin (AASIO), 2013-14

### **Reviewer/Editorial Board Member for Scholarly Journals**

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- Biogeosciences
- Agricultural and Forest Meteorology
- Plant and Soil
- Environmental Reviews
- Environmental Monitoring and Assessment
- Canadian Center of Science and Education journals (Sustainable Agricultural Research, Journal of Sustainable Development, Environment and Pollution, Environment and Natural Resources Research)
- Open Agriculture

### **Research-related Skills**

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- Certified analyst for TOC and TN on Shimadzu TOC-L analyzer, Wetland Biogeochemistry Laboratory (NELAP-Certified Laboratory, DOH ID:E72949), Institute of Food and Agricultural Science, University of Florida
- Expertise on instrumentations: Gas Chromatography (GC), High performance liquid chromatography (HPLC), Gas chromatography–mass spectrometry (GC-MS), Shimadzu TOC-L analyzer, Auto Analyzer (AA), Infra-red Gas Analyzer (IRGA, LI-COR 8100, & GASMET), UV-VIS Spectrophotometer, Fluorometer, Atomic Absorption Spectrophotometer (AAS), Flame Emission Spectrophotometer (FES), Polarography, Distillation apparatus, Potentiometer and Electrical Conductivity Meter.
- Software expertise: Statistical package (SAS, R, Matlab, and JMP), Bayesian Analysis (JAGS, OpenBUGS), Programming language (C and FORTRAN), STELLA (a software for systems simulation), ArcGIS, MS office suite, Lund-Potsdam-Jena (LPJ) dynamic global vegetation model, and a Decision Support System (DSS) named as InfoRCT Simulation Model.
- Analytical Techniques: Soil Enzyme and Microbial Kinetic Study, Stable Isotope Enrichment techniques, Microbial Community analysis by BIOLOG (EcoPlate), Laminar

flow and Dilution techniques, Physico-chemical properties of soil, and Ground Water Quality Parameters.

## Examinations Qualified

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- GRE (Graduate Record Examination)
  - Total Score : 1340/1600
  - Quantitative : 790/800
  - Verbal : 550/800
  - Analytical writing : 3.5/6.0
- TOEFL (iBT)
  - Total Score : 97 /120
  - Reading : 24/30
  - Listening : 22/30
  - Speaking : 23/30
  - Writing : 28/30
- All India Junior Research Fellowship (JRF) Examination conducted by Indian Council of Agricultural Research (ICAR), New Delhi, India
- Qualified in National Eligibility Test (NET) in Earth, Atmospheric, Ocean & Planetary Sciences conducted jointly by Council of Scientific and Industrial Research (CSIR)-University Grants Commission (UGC) with Fellowship, India
- Qualified in National Eligibility Test (NET) in Environmental Sciences conducted by University Grants Commission (UGC) with Fellowship, India
- Qualified in National Eligibility Test (NET) in Forestry and Environmental Science conducted by Indian Council of Agricultural Research (ICAR), India

## Leadership Positions held

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- Secretary of Mayors' Council at University of Florida, FL, USA (2013- 2015)
- Webmaster, Graduate Student Council at University of Florida, FL, USA (2014-2015)
- Event Director, Indian Graduate Student Association at University of Florida, FL, USA (2014-2015)
- Vice president, Soil and Water Science Department at University of Florida, FL, USA (2014-2015)
- Fund Raising Chair, UF Wetlands Club (2014-2015)
- Senator- Student Government (SG), Constituency: Graduate Seat, University of Florida, FL, USA (Fall term, 2013)
- Class representative (CR), Indian Agricultural Research Institute, New Delhi, India (2009-2010)
- Class team member, Bidhan Chandra Krishi Viswavidyalaya, West Bengal, India (2005-2006, 2006-2007)

## Voluntary Activities

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### Conferences and symposiums:

- Captured moments of the World Café: Nutrients in the Nexus. The Food-Energy-Water Nexus, National Council for Science and the Environment, Jan 19-21, Arlington, VA.
- Volunteered (Oral session room monitoring) at the American Geophysical Union Fall Meeting held in San Francisco, December 14-18, 2015.
- Worked as moderator of Lightning Talk for Graduate students and helped in set-up and cleaning at 15<sup>th</sup> Soil and Water Science Department at University of Florida, September 18, 2014.
- Volunteered (room monitor) at the Joint Aquatic Science Meeting held in Portland, Oregon, USA, May 18-23, 2014
- Internship (assisted members of the media at Newsroom) at the 2014 Annual SSSA, ASA and CSSA Meetings, held in Long Beach, November 2-5, 2014
- Internship (assisted members of the media at Newsroom) at the 2013 Annual SSSA, ASA and CSSA Meetings, held in Tampa, Florida, USA, November 3-6, 2013
- Volunteered at “Water Choices V” program- A Day long think tank on Water held at Straughn IFAS Extension Professional Development Center on September, 2012
- Volunteered at 14<sup>th</sup> Annual Soil and Water Science Research Forum, University of Florida, September, Sept 6, 2013
- Volunteered at 13<sup>th</sup> Annual Soil and Water Science Research Forum, University of Florida, September, Sept 7, 2012
- Volunteered at The 4<sup>th</sup> UF Water Institute Symposium, University of Florida, Feb 11-12, 2014
- Volunteered at The 3<sup>rd</sup> UF Water Institute Symposium, University of Florida, Feb 15-16, 2012
- Volunteered (moderator assistant) in multiple oral sessions at 9<sup>th</sup> INTECOL International wetlands conference, Orlando, Florida, June 3-6, 2012, abstract submission fees @350 was waved.

### Student Organizations and Student Club:

- Served as Graduate Student Committee, Soil and Water Science Department, University of Florida, Florida, USA (2013-2014)
- Graduate Student Council (GSC), University of Florida, Florida, USA (2013-present)
  - Graduate Student Council (GSC) Travel Grants Reviewer
  - New Graduate Orientation by GSC: Planning committee member, Tour guide instructor and coordinator, 2013
- Gators for Asha, a non-profit organization at the University of Florida, USA (2013)
  - Facilitated by distributing leaflets of Praharsha , an Indian cultural event
- Graduate Assistants United (GAU), University of Florida, Florida, USA (2012-present)
  - Facilitated in membership distribution and ice-cream Social in Diamond Village
- Mayors’ council (2012-present)
  - Facilitated most of the multicultural events held in Graduate and Family Housing, University of Florida
- Wetlands Club, University of Florida, Florida, USA (2011to present)
  - Volunteered on different events organized by UF Wetlands club: Outreach (Education events in the Storm Water Ecological Enhancement Project, SEEP;

Chilly Festival at O'Leno State Park), Lake clean-up, Tabling (CALs kick-off, 2014, Earth Day ) and Fund-raising activities (cypress tree transplanting, t-shirts and cap selling) on several occasions

- Indian Graduate Students Association (Fall, 2014)
  - Lead the pick-up of many new international graduate students from Gainesville Regional Airport on their first-time arrival in USA and helped in their temporary accommodation
  - Volunteered at the India Fest and Health Fair, Santa Fe College, March 29, 2014

#### Workshop organizations and attendance:

- Service to Activism in the Everglades: a workshop led by former Florida Governor and Senator Bob Graham on March 22, 2014 at Bob Graham Center for Public Service, University of Florida
- Citation Management Tools: Endnote Web and Ref Works 2.0 at Marston Science Library, University of Florida (2013)
- Scholarly Communications Workshop: Copyright Essentials for the Graduate Researcher at Marston Science Library, University of Florida (2013)
- UF Professional Development Workshops: How to Give an Effective Presentation at a Conference Workshop at Reitz Union Auditorium, University of Florida (2013)
- Rural Agricultural Work Experience (RAWE) for 6 months at village: Ghoragachha, Dist: Nadia, West Bengal, India; conducted by B.C.K.V. during the undergraduate program (2007-2008)
- Block training under the supervision of Agriculture Development Officer (ADO) of Block: Lalbagh, Dist: Murshidabad, West Bengal, India for 15 days to acquaint with the agricultural systems and the works of A.D.O. Office (2005)

#### Other voluntary activities:

- Science Fair Judge at the Regional Science Fair Program at Santa Fe College, Gainesville on February 6, 2014
- Science Fair Judge at the Alachua County School Volunteer Program at Ft. Clarke Middle School, Gainesville on Dec 10, 2013
- Science Fair Judge at the Professional Academies Magnet (PAM) at Lofton High School, Gainesville on May 30, 2013
- Science Fair Judge at the Alachua County School Volunteer Program at Bishop Middle School, Gainesville on Nov 15, 2012
- Presented India at the College of Education's International Day Celebration at the University of Florida, Fall 2013
- Volunteered in Watershed moments community learning series and open house at the Appalachian Laboratory, University of Maryland Center for Environmental Science, Fall 2015-Spring 2016.