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EDUCATION

Ph.D. in Natural Resources, University of Nebraska, Lincoln, in Remote Sensing. Research focused on the use of remote sensing and GIS towards developing semi-analytical models for shallow marine bathymetry, and bottom recognition of benthic habitats using high resolution remotely sensed data. Dissertation title: *Multi- and Hyperspectral Remote Sensing of Tropical Marine Benthic Habitats*. July 2006.

Master in Technology (M. Tech) in Civil Engineering, Indian Institute of Technology, Kanpur, India, in Microwave Remote Sensing. Research focused on modelling the variability of soil moisture and associated parameters over Indian subcontinent using passive microwave satellite data. Thesis title*: Retrieval of Land and Ocean Parameters using IRS-P4 MSMR data*. May 2002.

Master in Science (M.Sc) in Earth Sciences, Pondicherry University, India, in Applied Geology. Research focused on analyzing geochemistry of volcanic rocks. Thesis title: *Geochemistry of Yelagiri Syenite, Tamilnadu*. May 2000.

Bachelor of Science (B. Sc) in Geology, Berhampur University, India. May 1998.

TEACHING EXPERIENCE

Instructor: Geospatial Techniques in Landscape Analysis (GEOG 8450), Department of Geography, University of Georgia. Spring 2014 – present (even years)

Instructor: Problems in Remote Sensing of Environment (GEOG 8550), Department of Geography, University of Georgia. Spring 2013 – present (odd years)

Instructor: Field and Lab Methods in Remote Sensing (GEOG 4460/6460), Department of Geography, University of Georgia. Spring 2013 – present

Instructor: Digital Image Analysis (GEOG 4450/6450), Department of Geography, University of Georgia. Spring 2013 – present

Instructor: Remote Sensing of Environment (GEOG 4350+L/6350+L), Department of Geography, University of Georgia. Fall 2012 – present

***I**nstructor: Application of Remote Sensing Technologies in Monitoring Global Climate Change* (NASA GCCE: NNL09ZB1005C), Department of Geosciences, Mississippi State University. Summer 2011 – present

Instructor: Advanced Remote Sensing (GR 4343/6343), Department of Geosciences, Mississippi State University. Spring 2010 – Spring 2012

Instructor: Field Techniques in Remote Sensing (GR 8330), Department of Geosciences, Mississippi State University. Spring 2010 – Spring 2012

Instructor: Remote Sensing of the Physical Environment (GR 4333/6333), Department of Geosciences, Mississippi State University. Fall 2009 – Spring 2012

Instructor: Dynamic Earth (EES 1000), Earth & Environmental Sciences, University of New Orleans. Fall 2008 – Spring 2009

Instructor: Geospatial Analysis II (EES 4096/4096G), Earth & Environmental Sciences, University of New Orleans. Spring 2008 – Spring 2009

Instructor: Geospatial Analysis I (EES 4096/4096G), Earth & Environmental Sciences, University of New Orleans. Fall 2007 – Spring 2009

Instructor: 2006 Earth Observation Joint Seminar Series (NRES 896), School of Natural Resources, University of Nebraska. Fall 2006.

Instructor: Introduction to Remote Sensing (GEOG 418/818), School of Natural Resources, University of Nebraska. Fall 2006.

Part-time Instructor: *Introduction to Remote Sensing* (GEOG 418/818), School of Natural Resources, University of Nebraska. Fall 2005.

Teaching Assistant: *Introduction to Remote Sensing* (GEOG 418/818), School of Natural Resources, University of Nebraska. Fall 2005.

Teaching Assistant: *Digital Image Analysis* (GEOG 420/820), School of Natural Resources, University of Nebraska. Spring 2004, 2005.

Teaching Assistant, Engineering Geosciences (CE 242), Department of Civil Engineering, Indian Institute of Technology, Kanpur, India. July 2000 – June 2001.

PROFESSIONAL EXPERIENCE

Professor, Department of Geography, University of Georgia-Athens. August 2019 – present

Associate Professor, Department of Geography, University of Georgia-Athens. August 2014 – July 2019

Adjunct Associate Professor, Department of Geosciences, Florida Atlantic University. December 2017 – present

Adjunct Associate Professor, Earth and Environmental Sciences, University of Nebraska-Lincoln. April 2016 – present

Assistant Professor, Department of Geography, University of Georgia-Athens. August 2012 – July 2014

Adjunct Assistant Professor, Department of Geosciences, Mississippi State University. August 2012 – July 2014

Assistant Professor, Department of Geosciences and Geosystems Research Institute, Mississippi State University. August 2009 – July 2012

Researcher, Northern Gulf Institute, Mississippi State University. August 2009 – July 2012

Adjunct Assistant Professor, Biological Sciences, Jackson State University. October 2011 – July 2013

Adjunct Assistant Professor, Earth & Environmental Sciences, University of New Orleans. August 2009 – July 2012

Assistant Professor, Earth & Environmental Sciences and Pontchartrain Institute for Environmental Sciences, University of New Orleans. June 2007 – July 2009

Research Assistant Professor, School of Natural Resources, University of Nebraska. August 2006 - May 2007.

Research Assistant, School of Natural Resources, University of Nebraska. August 2002 - July 2006.

Research Intern, Goddard Space Science Program, NASA. June 2003 - August 2003.

Research Assistant, Department of Civil Engineering, Indian Institute of Technology, Kanpur, India. June 2001 - May 2002

Research Assistant, Department of Earth Sciences, Pondicherry University, India. June 1999 - May 2000.

OTHER AFFILIATIONS

Affiliate Director, GA SpaceGrant. May 2018 – present

Fulbright Specialist, U.S. Department of State's Bureau of Educational and Cultural Affairs (ECA) and World Learning. April 2017 – present

Founding Member and Core Faculty, Georgia Informatics Institute (GII). August 2016 – present

Faculty Member, UGA Marine Institute (UGAMI). August 2016 – present

Affiliated Faculty Member, Center for Integrative Conservation Research (CICR), UGA. September 2012 – present

Affiliated Scientist, Flux Tower Working Group, Georgia Coastal Ecosystem (GCE) Long Term Ecological Research (LTER), UGA. January 2013 – present

Affiliated Faculty Member, Latin American & Caribbean Studies Institute (LACSI), UGA. August 2012 – present

Affiliated Faculty Member, Center for Geospatial Research (CGR), UGA. August 2012 – present

EDITED BOOKS

Ecology, Conservation, and Restoration of Chilika Lagoon, India. C. Max Finlayson, G. Rastogi, **D. R. Mishra** and A. Pattnaik. *Springer* (**Forthcoming; Release Date: Dec, 2019**).

Bio-Optical Modeling and Remote Sensing of Inland Waters (2017). **D. R. Mishra**, I. Ogashawara and A. A. Gitelson. 1st Edition, pp. 332, ISBN: 9780128046449, *Elsevier*, Waltham, MA.

BOOK CHAPTERS

6. Kumar, A., **D. R. Mishra**, and Sk. Md. Equeenuddin (2019). Spatio-temporal dynamics of sediment plume and algal bloom in Chilika Lagoon. In: C. Max Finlayson, G. Rastogi, M. Suar, D. R. Mishra, and A. Pattnaik (eds.) Ecology, Conservation, and Restoration of Chilika Lagoon, India, Springer, Switzerland (**in press**).

5. **Mishra D. R.,** I. Astuti, and S. Mishra (2019). Coastal water algorithms (chlorophyll-1). In: M. Madden and S. Bernardes (eds.) Manual of Remote Sensing, American Society for Photogrammetry and Remote Sensing, 4th Edition, Bethesda, Maryland (**in press**).

7. Ogashawara, I., **D. R. Mishra**, and A. A. Gitelson (2017). Remote Sensing of Inland Waters: Background and Current State-of-the-Art. In: D. R. Mishra, I. Ogashawara, and A. A. Gitelson (eds.) Bio-Optical Modeling and Remote Sensing of Inland Waters, 1st Edition, pp. 332, ISBN: 9780128046449, Elsevier, Waltham, MA.

4. **Mishra, D. R.**, S. Ghosh, C. Hladik, J. L. O'Connell, and H. J. Cho (2015). Wetland mapping methods and techniques using multi-sensor, multi-resolution remote sensing: Successes and Challenges. In: P. S. Thenkabail (ed.) Remote Sensing Handbook, Vol. III, pp. 191-226, ISBN: 13: 978-1-4822-1972-6, CAT# K22131, CRC Press, Taylor and Francis, Boca Raton, FL.

3. **Mishra, D. R.,** and S. Ghosh (2015). Using moderate resolution satellite sensors for monitoring the biophysical parameters and phenology of tidal wetlands. In: R. Tiner, V. Klemas, and M. Lang (eds.) Remote Sensing of Wetlands: Applications and Advances, pp. 283-314, ISBN: 13: 978-1-4822-3738-2, Taylor and Francis, Boca Raton, FL.

2. Cho, H. J., **D. R. Mishra**, P. Kirui, and J. Wood (2012). Remote sensing of submerged aquatic vegetation. In: Boris Escalante-Ramirez (ed.) Remote Sensing - Applications, ISBN: 978-953-51-0651-7, InTech, Available from: http://www.intechopen.com/books/remote-sensing-applications/remote-sensing-of-submerged-aquatic-vegetation.

1. **Mishra, D. R.**, (2009). High-resolution ocean color remote sensing of coral reefs and associated benthic habitats. In: X. Yang (ed.) Remote Sensing and GIS for Coastal Ecosystem Assessment and Management: Principles and Applications, XIV, pp. 171-210, ISBN: 978-3-540-88182-7, Springer-Verlag GMBH, Germany.

PEER-REVIEWED JOURNAL ARTICLES

70. Astuti, I., K. Sahoo, A. Milewski, and **D. R. Mishra** (2019). Impact of land use/land cover change on surface runoff in an increasingly urbanized tropical watershed, Indonesia. *Water Resources Management* (**in revision**)
69. Miller, P., T. L. Mote, A. Kumar, and **D. R. Mishra** (2019). Systematic precipitation redistribution following a strong hurricane landfall. *Theoretical and Applied Climatology* (**in revision**).

68. Page, B., L. Olmanson, and **D. R. Mishra** (2019). A harmonized image processing workflow using Sentinel-2 and Landsat-8 for mapping water clarity in optically complex lake systems. *Remote Sensing of Environment* (**in press**).

67. Kumar, A., C. Cooper, C. Remillard, S. Ghosh, A. Haney, F. Braun, Z. Connor, B. Page, K. Boyd, S. Wilde, and **D. R. Mishra** (2019). Spatio-Temporal Monitoring of Hydrilla to Aid Management Actions. *Weed Technology*, 1-12, https://doi.org/10.1017/wet.2019.13

66. Hauer, M. E., R. D. Hardy, **D. R. Mishra**, and J. S. Pippin (2019). No landward retreat: Examining 80 years of population migration and shoreline change in Louisiana. *Population and Environment*, 40: 369, https://doi.org/10.1007/s11111-019-00315-8

65. Miller, P., A. Kumar, T. L. Mote, F. D. S. Moraes, and **D. R. Mishra** (2019). Persistent hydrological consequences of Hurricane Maria and their coevolution with land surface recovery in Puerto Rico. *Geophysical Research Letters*, 46, https://doi.org/10.1029/2018GL081591.

64. Rotta, L. H. S., **D. R. Mishra**, E. Alcântara, N. N. Imai, F. S. Y. Watanabe, and T. W. P. Rodrigues (2019). K_d(PAR) and depth based model to estimate the height of submerged aquatic vegetation in a oligotrophic reservoir: A case study at Nova Avanhandava, Brazil. *Remote Sensing*, 11(3): 317, https://doi.org/10.3390/rs11030317

63. Zhang, C., **D. R. Mishra**, and S. Pennings (2019). Mapping salt marsh soil properties using imaging spectroscopy. *ISPRS Journal of Photogrammetry and Remote Sensing*, 148: 221-234, https://doi.org/10.1016/j.isprsjprs.2019.01.006.

62. Tao, J., **D. R. Mishra**, D. L. Cotton, J. O'Connell, M. Leclerc, H. Nahrawi, G. Zhang, and R. Pahari (2018). A comparison between the MODIS product (MOD17A2) and a tide-robust empirical GPP model evaluated in a Georgia wetland. *Remote Sensing*, 10(11): 1831, https://doi.org/10.3390/rs10111831

61. Cao, F., **D. R. Mishra**, J. Schalles, and W. Miller (2018). Evaluating ultraviolet (UV) based photochemistry in optically complex coastal waters using the Hyperspectral Imager for the Coastal Ocean (HICO). *Estuarine, Coastal and Shelf Science*, 215: 199-206, https://doi.org/10.1016/j.ecss.2018.10.013

60. Shrestha, S., I. Miranda, M. L. E. Pardo, A. Kumar, T. Rashid, S. Dahal, C. Remillard, and **D. R. Mishra** (2018). Identifying and forecasting potential biophysical risk areas within a tropical Mangrove ecosystem using multi-sensor data. *International Journal of Applied*

Earth Observation and Geoinformation, 74: 281-294, https://doi.org/10.1016/j.jag.2018.09.017

59. Rodrigues, T., **D. R. Mishra**, F. S. Y. Watanabe, E. Alcântara, and N. N. Imai (2018). Performance of existing QAAs in Secchi disk depth retrieval in phytoplankton and dissolved organic matter dominated inland waters. *Journal of Applied Remote Sensing*, 12(2): 036017, https://doi.org/10.1117/1.JRS.12.036017

58. Astuti, I., **D. R. Mishra**, S. Mishra, and B. Schaeffer (2018). A hybrid approach for deriving inherent optical properties in oligotrophic estuaries. *Continental Shelf Research*, 166:92-107, https://doi.org/10.1016/j.csr.2018.06.016

57. Rotta, L. H. S., **D. R. Mishra**, F. S. Y. Watanabe, T. W. P. Rodrigues, E. Alcântara, and N. N. Imai (2018). Analyzing the feasibility of a space-borne sensor (SPOT-6) to estimate the height of submerged aquatic vegetation (SAV) in inland waters. *ISPRS Journal of Photogrammetry and Remote Sensing*, 144: 341-356, https://doi.org/10.1016/j.isprsjprs.2018.07.011

56. Wu, W., M. Bethel, **D. R. Mishra**, and T. Hardy (2018). Predicting aboveground green biomass in salt marshes based on worldview-2 imagery using mixed-effects modeling in Bayesian framework. *GIScience and Remote Sensing*, 1(25), https://doi.org/10.1080/15481603.2018.1460934

55. Zhang, C., S. Denka, and **D. R. Mishra** (2018). Mapping freshwater marsh species in the wetlands of Lake Okeechobee using very high-resolution aerial photography and LiDAR data. *International Journal of Remote Sensing*, 1-19, https://doi.org/10.1080/01431161.2018.1455242

54. Rodrigues, T., **D. R. Mishra**, E. Alcântara, I. Astuti, F. S. Y. Watanabe, and N. N. Imai (2018). Estimating the optical properties of inorganic matter-dominated oligo-to-mesotrophic inland waters. *Water*, 10(4): 449, doi:10.3390/w10040449

53. Zhang, C., S. Denka, H. Cooper, and **D. R. Mishra** (2018). Quantification of sawgrass marsh aboveground biomass in the coastal Everglades using object-based ensemble analysis and Landsat data. *Remote Sensing of Environment*, 204: 366-379, https://doi.org/10.1016/j.rse.2017.10.018

51. Page, B., A. Kumar, and **D. R. Mishra** (2018). A novel cross-satellite based assessment of the spatio-temporal development of a cyanobacterial harmful algal bloom. *International Journal of Applied Earth Observation and Geoinformation*, 66: 69-81, https://doi.org/10.1016/j.jag.2017.11.003

50. Ghosh, S., and **D. R. Mishra** (2018). Analyzing the long-term phenological trends of salt marsh ecosystem across coastal Louisiana. *Remote Sensing*, 9(12): 1340; doi:10.3390/rs9121340

49. Kumar, A., P. Stupp, S. Dahal, C. Remillard, R. Bledsoe, A. Stone, C. Cameron, G. Tastogi, R. Samal, and **D. R. Mishra** (2017). A multi-sensor approach for assessing mangrove biophysical characteristics in coastal Odisha, India. Special issue of 'Remote Sensing' in *Proceedings of the National Academy of Sciences, India Section A: Physical Sciences*, 1-22, https://doi.org/10.1007/s40010-017-0441-y

48. Rodrigues, T., **D. R. Mishra**, E. Alcântara, F. S. Y. Watanabe, L. Rotta, and N. N. Imai (2017). Retrieving total suspended matter in tropical reservoirs within a cascade system with widely differing optical properties. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 99: 1-18, doi: 10.1109/JSTARS.2017.2745700

47. O'Connell, J., **D. R. Mishra**, D. Cotten, L. Wang, and M. Alber (2017). The Tidal Marsh Inundation Index (TMII): An inundation filter to flag flooded pixels and improve MODIS tidal marsh vegetation time-series analysis. *Remote Sensing of Environment*, 201: 34-46, http://dx.doi.org/10.1016/j.rse.2017.08.008

46. Kumar, A., **D. R. Mishra**, Sk. Md. Equeen, H. J. Cho, and G. Rastogi (2017). Differential impact of anniversary severe cyclones on the water quality of a tropical coastal lagoon. *Estuaries and Coasts*, 40: 317-342, doi:10.1007/s12237-016-0172-3

45. Ogashawara, I., **D. R. Mishra**, R. Nascimento, E. Alcantara, M. Kampel, and J. L. Stech (2016). Re-parameterization of a quasi-analytical algorithm for colored dissolved organic matter dominant inland waters. *International Journal of Applied Earth Observation and Geoinformation*, 53: 28-145, http://dx.doi.org/10.1016/j.jag.2016.09.001

44. Watanabe, F., **D. R. Mishra**, I. Astuti, T. Rodrigues, E. Alcântara, N. N. Imai, C. Barbosa (2016). Parameterization and calibration of a quasi-analytical algorithm for tropical eutrophic waters. *ISPRS Journal of Photogrammetry and Remote Sensing*, 121: 28-47, http://dx.doi.org/10.1016/j.isprsjprs.2016.08.009

43. Wang, G., Z. Lee, R. Ma, and **D. R. Mishra** (2016). Retrieving absorption coefficients of multiple phytoplankton pigments from hyperspectral remote sensing reflectance. *Limnology and Oceanography- Methods*, 14(7): 432-447, doi:10.1002/lom3.10102

42. **Mishra, D. R**., and R. W. Gould, Jr (2016). Preface: Remote sensing in coastal environments. *Remote Sensing*, 8(8), 665, doi:10.3390/rs8080665

41. Rotta, L., **D. R. Mishra**, E. Alcântara, and N. N. Imai (2016). Analyzing the status of submerged aquatic vegetation using novel optical parameters. *International Journal of Remote Sensing*, 37(16), 3786-3810, doi:10.1080/01431161.2016.1204027

40. Hauer, M. E., J. Evans, and **D. R. Mishra** (2016). Millions projected at risk from sea level rise in the Continental United States. *Nature Climate Change*, 6, 691-695, doi:10.1038/nclimate2961
    * *Ranked #4 among the top-5 Nature Climate Paper with more than 9000 reads*
    * *Ranked #21 in media coverage among all climate science papers published in 2016*

39. **Mishra, D. R**., E. J. D'Sa, and S. Mishra (2016). Preface: Remote sensing of water resources. *Remote Sensing*, 8(2), 115, doi: 10.3390/rs8020115

38. Kumar, A., Sk. Md. Equeen, **D. R. Mishra**, and B. C. Acharya (2016). Remote monitoring of sediment dynamics in a coastal lagoon: Long-term spatio-temporal variability of suspended sediment in Chilika. *Estuarine, Coastal and Shelf Science*, 170(5): 155-172, ISSN 0272-7714, http://dx.doi.org/10.1016/j.ecss.2016.01.018

37. Ghosh, S., **D. R. Mishra**, and A. Gitelson (2016). Long-term monitoring of biophysical characteristics of tidal wetlands in the northern Gulf of Mexico — A methodological approach using MODIS. *Remote Sensing of Environment*, 173: 39-58; http://dx.doi.org/10.1016/j.rse.2015.11.015

36. Srichandan S., B. Maharana, J. Y. Kim, A. Kumar, **D. R. Mishra**, P. Bhadury, P. Muduli, A. K. Pattnaik, and G. Rastogi (2015). Interannual and cyclone-driven variability in phytoplankton communities of a tropical coastal lagoon. *Marine Pollution Bulletin*, 101(1): 39-52; http://dx.doi.org/10.1016/j.marpolbul.2015.11.030

35. Du, X., D. Cao, **D. R. Mishra,** S. Bernardes, T. R. Jordan, and M. Madden (2015). Change detection in coal seam spontaneous combustion areas using ASTER thermal infrared data. *Remote Sensing*, 7: 6576-6610; doi:10.3390/rs70606576

34. Mishra, S., **D. R. Mishra** (2014). A novel remote sensing algorithm to quantify phycocyanin in cyanobacterial algal blooms. *Environmental Research Letters*, 9:114003, doi:10.1088/1748-9326/9/11/114003

33. **Mishra, D. R**., (2014). Coastal remote sensing. *GIScience and Remote Sensing*, 51(2): 115-119, doi: 10.1080/15481603.2014.895579

32. Cho, H., I. Ogashawara, **D. R. Mishra,** J. White, A. Kamerosky, L. Morris, C. Clarke, A. Simpson, and D. Banisakher (2014). Evaluating Hyperspectral Imager for the Coastal Ocean (HICO) data for seagrass mapping in Indian River Lagoon, FL. *GIScience and Remote Sensing*, 51(2): 120-138, doi: 10.1080/15481603.2014.895577

31. **Mishra, D. R.,** B. A. Schaeffer, and D. Keith (2014). Performance evaluation of Normalized Difference Chlorophyll Index in northern Gulf of Mexico estuaries using the Hyperspectral Imager for the Coastal Ocean. *GIScience and Remote Sensing*, 51(2): 175-198, doi: 10.1080/15481603.2014.895581

30. Mishra S., **D. R. Mishra**, and Z. Lee (2014). Bio-optical inversion in highly turbid and cyanobacteria dominated waters. *IEEE Transactions in Geosciences and Remote Sensing*, 52(1): 375-388; doi: 10.1109/TGRS.2013.2240462

29. Ogashawara, I., **D. R. Mishra**, S. Mishra, M. Pedroso Curtarelli, J. Luiz Stech (2013). A performance review of reflectance-based algorithms for predicting phycocyanin concentrations in inland waters. *Remote Sensing*, 5(10): 4774-4798; doi:10.3390/rs5104774

28. **Mishra, D. R.,** and S. Ghosh (2013). Moderate resolution satellite data for mapping salt marshes. *SPIE Newsroom*, doi: 10.1117/2.1201304.004800

27. Mishra S., **D. R. Mishra**, Z. Lee, and C. Tucker (2013). Quantifying cyanobacterial phycocyanin concentration in turbid productive waters: A quasi-analytical approach. *Remote Sensing of Environment*, 133: 141-151, doi: 10.1016/j.rse.2013.02.004

26. Cho J., S. Mishra, and **D. R. Mishra** (2013). Graphical user interface for benthic mapping. *ACEEE International Journal on Information Technology*, 3(1): 23-27, doi: 01.IJIT.3.1.1138

25. Dash P., N. Walker, **D. R. Mishra**, E. D'Sa, and S. Ladner (2012). Atmospheric correction and vicarious calibration of Oceansat-1 Ocean Color Monitor (OCM) data in coastal case 2 waters. *Remote Sensing*, 4(6): 1716-1740, doi: 10:3390/rs4061716

24. Relles, N. J., D. O. B. Jones, and **D. Mishra** (2012). Creating landscape-scale maps of coral reef cover for marine reserve management from high resolution multispectral remote sensing. *GIScience and Remote Sensing*, 49(2): 251-274, doi: http://dx.doi.org/10.2747/1548-1603.49.2.251

23. **Mishra, D. R.**, H. J. Cho, S. Ghosh, C. Downs, A. Fox, P. B. T. Merani, P. Kirui, N. Jackson, and S. Mishra (2012). Post-spill state of the marsh: Remote estimation of the ecological impact of the Gulf of Mexico oil spill on Louisiana salt marshes. *Remote Sensing of Environment*¸118: 176-185, doi: 10.1016/j.rse.2011.11.007

22. Mishra, S., **D. R. Mishra** (2012). Normalized Difference Chlorophyll Index: A novel model for remote estimation of chlorophyll-*a* concentration in turbid productive waters. *Remote Sensing of Environment*¸117: 394-406, doi: 10.1016/j.rse.2011.10.016

21. Dash, P., N. Walker, **D. R. Mishra**, C. Hu, J. L. Pinckney, and E. J. D'Sa (2011). Estimation of cyanobacterial pigments in a freshwater lake using OCM satellite data. *Remote Sensing of Environment*¸115: 3409-3423, doi: 10.1016/j.rse.2011.08.004

20. Swain, S., S. Narumalani, and **D. R. Mishra** (2011). Monitoring invasive species: Detecting Purple loosestrife and evaluating biocontrol along the Niobrara River, Nebraska. *GIScience and Remote Sensing*, 48(2): 225-244, doi:10.2747/1548-1603.48.2.225

19. **Mishra, D. R.**, S. Mishra (2010). Plume and bloom: Effect of Mississippi River diversion opening on the spatio-temporal variability of water quality parameters in Lake Pontchartrain. *Geocarto International*, 25(7): 555-568, doi: 10.1080/10106041003763394

18. Mishra, S., **D. R. Mishra**, and W. Schluchter (2009). A novel algorithm for predicting phycocyanin concentrations in cyanobacteria: A proximal hyperspectral remote sensing approach. *Remote Sensing*, 1: 758-775, doi:10.3390/rs1040758

17. Rundquist, D., A. Gitelson, M. Lawson, G. Keydan, B. Leavitt, R. Perk, J. Keck, **D. R. Mishra**, and S. Narumalani (2009). Proximal sensing of coral features: spectral characterization of *Siderastrea siderea*. *GIScience and Remote Sensing*, 46(2): 139-160, doi:10.2747/1548-1603.46.2.139

16. Narumalani, S., **D. R. Mishra**, R. Wilson, P. Reece, and A. Kohler (2009). Detecting and mapping four invasive species along the floodplain of North Platte River, Nebraska. *Weed Technology*, 23:99-107, doi:10.1614/WT-08-007.1

15. Hoffman, J. D., S. Narumalani, **D. R. Mishra**, P. Merani, and R. G. Wilson (2008). Predicting potential occurrence and spread of invasive plant species along the North Platte River, Nebraska. *Invasive Plant Science and Management*, 1:359-367, doi:10.1614/IPSM-07-048.1

14. **Mishra, D. R.**, S. Narumalani, D. Rundquist, M. P. Lawson, and R. Perk (2007). Enhancing the detection and classification of coral reef and associated benthic habitats: A hyperspectral

remote sensing approach. *Journal of Geophysical Research,* 112, C08014, doi:10.1029/2006JC003892

13. Narumalani, S., **D. R. Mishra**, J. Burkholder, Paul B. T. Merani, and G. Wilson (2006). A comparative evaluation of ISODATA and spectral angle mapping for the detection of Saltcedar using airborne hyperspectral imagery. *Geocarto International,* 21(2): 59-66.

12. **Mishra**, **D. R.**, S. Narumalani, D. Rundquist, and M. P. Lawson (2006). Benthic habitat mapping in tropical marine environments using QuickBird imegery. *Photogrammetric Engineering and Remote Sensing*, 72(9): 1037-1048.

11. **Mishra, D. R.**, S. Narumalani, R. Bahl, D. Rundquist, and M. P. Lawson (2006). Predicting the percent cover of corals: An *in-situ* remote sensing approach. *Geophysical Research Letters*, 33, L06603, doi:10.1029/2005GL025056.

10. **Mishra, D. R.**, S. Narumalani, D. Rundquist, and M. P. Lawson (2005). Characterizing the vertical diffuse attenuation coefficient for downwelling irradiance in coastal water: Implications for water penetration by high resolution satellite data. *ISPRS Photogrammetry and Remote Sensing*, 60: 48-64.

9. Narumalani, S., **D. R. Mishra**, M. Karabulut, and M. A. Palecki, (2005). An assessment of vegetation response to different moisture conditions using SPOT-XS data. *International Journal of Geoinformatics*, 1(2): 33-46.

8. Singh, R. P., **D. R. Mishra**, A. K. Sahoo, and S. Dey (2005). Spatial and temporal variability of soil moisture over India using IRS P4 MSMR Data, *International Journal of Remote Sensing*, 26(10): 2241-2247.

7. **Mishra, D. R.**, S. Narumalani, D. Rundquist, and M. Lawson (2005). High resolution ocean color remote sensing of benthic habitats: A case study at the Roatan Island, Honduras. *IEEE Transactions in Geosciences and Remote Sensing*, 43 (7): 1592-1604.

6. **Mishra**, **D. R.**, S. Narumalani, M. P. Lawson, and D. C. Rundquist (2004). Deriving a bathymetric map using IKONOS multispectral data**.** *Giscience and Remote Sensing*, 41(4): 301-321.

5. Narumalani, S., **D. R. Mishra**, and R. Rothwell (2004). Change detection and landscape metrics for inferring anthropogenic processes at EFMO, Iowa. *Remote Sensing of Environment*, 91(3): 478-489.

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CONFERENCE PRESENTATIONS

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112. Mao, L., **D. R. Mishra**, D. Cotten, J. O'Connell, C. Narron, and P. Hawman, "Analyzing Chlorophyll Fluorescence in a Juncus Roemerianus Dominated Marsh at Different Heights using a Pulse Amplitude Modulated (PAM) Fluorometer", poster presentation at *American Geophysical Union (AGU) meeting,* Washington, D.C., December 2018.

111. Narron, C., J. O'Connell, **D. R. Mishra**, and D. Cotten, "Reparameterization of the Tidal Marsh Inundation Index (TMII) to Improve Landsat Vegetation Time-Series in Georgia and Gulf Coast Tidal Marshes", poster presentation at *American Geophysical Union (AGU) meeting,* Washington, D.C., December 2018.

110. Hawman, P., **D. R. Mishra**, D. Cotten, J. O'Connell, C. Narron, and L. Mao, "Effects of Cloud Cover on Light Use Efficiency in Salt Marsh Species", poster presentation at *American Geophysical Union (AGU) meeting,* Washington, D.C., December 2018.

109. Yin, Y., N. Hashemi, A. Grundstein, **D. R. Mishra**, and L. Ramaswamy, "Individual-borne Heat Monitoring Sensors and Applications", poster presentation at *American Geophysical Union (AGU) meeting,* Washington, D.C., December 2018.

108. Neel, N., D. Cotten, **D. R. Mishra**, S. Ullrich, M. Adams, A. Burd, M. Madden, and T. Mote, "The Spectral Ocean Color (SPOC) Small Satellite Mission: Developing an Adjustable Multispectral Imager", poster presentation at *American Geophysical Union (AGU) meeting,* Washington, D.C., December 2018.

107. Kumar, A., **D. R. Mishra**, and B. Page, "Adapting Current State of Art: A Multi-sensor Approach for Monitoring Cyanobacterial Harmful Algal Blooms along Freshwater-Marine Continuum", poster presentation at *Ocean Optics XXIV,* Dubrovnik, Croatia, October 2018.

106. Tonekaboni, N., L. Ramaswamy, **D. R. Mishra,** A. Grundstein, S. Kulkarni, and Y. Yin, "SCOUTS: A Smart Community Centric Urban Heat Monitoring Framework", paper presentation at *1st International Workshop on Advances in Resilient and Intelligent Cities (ARIC 2018),* Seattle, WA, November 2018.

105. Whilden, S., N. Neel, D. Cotten, and **D. R. Mishra**, "Implementing a Software-Defined Radio Scheme for a CubeSat Ground Station", poster presentation at *Symposium on Space Innovation,* Atlanta, GA, November 2018.

104. Summey, K., D. Cotten, and **D. R. Mishra**, "Post-Launch Optical Aberration Detection for Small Satellites", poster presentation at *Symposium on Space Innovation,* Atlanta, GA, November 2018.

103. Red, R., M. Saki, D. Cotten, and **D. R. Mishra**, "Software Architecture of the UGA COSMO Ground Station", poster presentation at *Symposium on Space Innovation,* Atlanta, GA, November 2018.

102. Heavner, N., M. Ely, D. Cotten, and **D. R. Mishra**, "Feasibility of CubeSat Frames for Heat Dissipation Multi-view Onboard Computational Imager (MOCI)," poster presentation at *Symposium on Space Innovation*, Atlanta, GA, November 2018.

101. Kumar, A., **D. R. Mishra**, and B. Page, "Adapting Current State of Art: A Multi-sensor Approach for Monitoring Cyanobacterial Harmful Algal Blooms along Freshwater-Marine Continuum", poster presentation at *Ocean Optics XXIV*, Dubrovnik, Croatia, October 2018.

100. O'Connell, J., M. Alber, **D. R. Mishra**, K. B. Byrd, "Remotely Sensing of Belowground Biomass in Georgia Salt Marshes", poster presentation at *LTER All Science Meeting*, Pacific Grove, CA, September 2018.

99. O'Connell, J., M. Alber, **D. R. Mishra**, K. B. Byrd, "Landsat Models of Spartina alterniflora Belowground Biomass in Coastal Marshes", paper presentation at *Ecological Society of America (ESA)*, New Orleans, LA, August 2018.

98. **Mishra**, **D. R**., L. Ramaswamy, A. Kumar, S. Bhandarkar, V. K. Boddula, S. Narumalani, "A Multi-cloud Cyber Infrastructure for Monitoring Global Proliferation of Cyanobacterial Harmful Algal Blooms", poster presentation at the *International Geoscience and Remote Sensing Symposium (IGARSS)*, Valencia, Spain, July 2018.

97. O'Connell, J., M. Alber, **D. R. Mishra**, K. B. Byrd, "Remotely Sensed Estimates of Spartina alterniflora Belowground Biomass", paper presentation at *Georgia Seagrant Symposium*, Athens, GA, May 2018.

96. Narron, C., **D. R. Mishra**, J. O'Connell, and D. Cotten, "Estimating Belowground Biomass and Root:Shoot Ratios of Gulf Coast Salt Marshes using Remote Sensing and Biophysical Data", paper presentation at the *American Association of Geographers Conference*, New Orleans, LA, April 2018.

95. Hawman, P., **D. R. Mishra**, D. Cotten, and J. O'Connell, "Effects of Diffuse Photosynthetically Active Radiation on Light Use Efficiency of Salt Marsh Species", paper presentation at the *American Association of Geographers Conference*, New Orleans, LA, April 2018.

94. Yanzhe, Y., N. Hashemi, A. Grundstein, and **D. R. Mishra**, "Community-centric Individual Level Approach for Analyzing and Mitigating Urban Heat Hazards", paper presentation at the *American Association of Geographers Conference*, New Orleans, LA, April 2018.

93. Kumar, A., **D. R. Mishra**, B. Lamb, and B. Liu, "Multi-Platform Sensor Data Fusion for Estimating the Inherent and Apparent Optical Properties in Oligo-to-Mesotrophic Waters", poster presentation at *Ocean Sciences Meeting*, Portland, OR, February 2018.

92. Forbrich, I., H. Nahrawi, M. Leclerc, J. O'Connell, **D. R. Mishra**, M. Fogarty, J. Edson, A. Vázquez-Lule, R. Vargas, A. Giblin, and M. Alber, "Variation in Salt Marsh CO2 Fluxes across a Latitudinal Gradient along the US Atlantic Coast", paper presentation at *American Geophysical Union (AGU) meeting*, New Orleans, LA, December 2017.

91. Kumar, A., **D.R. Mishra**, R. Bledsoe, C. Cameron, S. Dahal, C. Remillard, A. Stone, and P. Stupp, "A Multi-Sensor Approach to Enhance the Prediction of Mangrove Biophysical Characteristics in Chilika Lagoon and Bhitarkanika Wildlife Sanctuary, Odisha, India", paper presentation at *American Geophysical Union (AGU) meeting,* New Orleans, LA, December 2017.

90. O'Connell, J., M. Alber, **D. R. Mishra**, and K. B. Byrd, "Estimating Patterns in Spartina alterniflora Belowground Biomass within Salt Marshes", paper presentation at *American Geophysical Union (AGU) meeting,* New Orleans, LA, December 2017.

89. O'Connell, J., M. Alber, **D. R. Mishra**, and K. B. Byrd, "Landsat Models of Spartina alterniflora Belowground Biomass in Coastal Marshes", paper presentation at *Coastal and Estuarine Research Federation (CERF) meeting,* Providence, RI, November 2017.

88. Rasquinha, D., and **D. R. Mishra**, "Living on the edge: Mangrove forest dynamics of Bhitarkanika Conservation Area", poster presentation at *Coastal and Estuarine Research Federation (CERF) meeting,* Providence, RI, November 2017.

87. Forbrich, I., H. Nahrawi, M. Leclerc, J. O'Connell, **D. R. Mishra**, A. Giblin, M. Alber, A. Vázquez-Lule, R. Vargas, M. Fogarty, and J. Edson, "Variation in Salt Marsh CO2 Fluxes Across a Latitudinal Gradient Along the US Atlantic Coast", paper presentation at *Coastal and Estuarine Research Federation (CERF) meeting,* Providence, RI, November 2017.

86. Weber, S., **D. R. Mishra**, S. Wilde, and E. Kramer, "Utilizing Geospatial Cloud Computing for Enhanced Global Monitoring and Mapping of Cyanobacteria Harmful Algal Blooms," Paper presentation at *SEDAAG,* Starkville, MS, November 2017.

85. **Mishra, D. R.**, L. Ramaswamy, A. Grundstein, N. Hashemi, Y. Yin, S. Kulkarni, and H. Pendyala, "Personalized Heat Exposure Monitoring Using Sensor Cloud Based Framework", poster presentation at *NSF Cyber Physical Systems (CPS) PI meeting,* Washington D.C., November 2017.

84. Grundstein, A., **D. R. Mishra**, L. Ramaswamy, N. Hashemi, and Y. Yin, "Personalized Heat Exposure Monitoring Using Sensor Cloud Based Framework: Preliminary Results", poster presentation at *Center for Disease Control (GIS)- GIS Day,* Atlanta, GA, November 2017.

83. Whilden, S., D. Cotten, and **D. R. Mishra**, "CubeSats and Radiation Damage", poster presentation at *Symposium on Space Innovation,* Atlanta, GA, October 2017.

82. Versteeg, C., D. Cotten, and **D. R. Mishra**, "Thermal and Structural Simulations of Small Satellite Systems", poster presentation at *Symposium on Space Innovation,* Atlanta, GA, October 2017.

81. Leicher, B., P. Copenhaver, C. Adams, J. Roach, D. Cotten, and **D. R. Mishra**, "Concept of Operations in Small Satellite Functionality", poster presentation at *Symposium on Space Innovation,* Atlanta, GA, October 2017.

80. O'Connell, J., M. Alber, **D. R. Mishra**, and K. B. Byrd, "Remote Sensing of Spartina alterniflora Belowground Biomass", paper presentation at *Georgia Sea Grant Research Symposium, Athens, GA,* September 2017.

79. Cotten, D. L., C. Adams, N. Neel, and **D. R. Mishra**, "The Feasibility of Structure from Motion over Planetary Bodies with Small Satellite Systems", paper presentation at *Small Satellite Conference,* Logan, UT, August 2017.

78. Cotten, D. L., C. Adams, **D. R. Mishra**, and N. Neel, "Structure from Motion from a Constrained Orbiting Platform", paper presentation at *International Space Station R&D Conference,* Washington, D.C., July 2017.

77. Boddula, V., L. Ramaswamy, and **D. R, Mishra**, "A Spatio-Temporal Mining Approach for Enhancing Satellite Data Availability: A Case Study on Blue Green Algae", *Proceedings of IEEE International Congress on Big Data (Big Data Congress)*, pp.216-223, Honolulu, HI, June 2017, doi: 10.1109/BigDataCongress.2017.37.

76. Boddula, V., L. Ramaswamy, and **D. R, Mishra**, "CyanoSense: A Wireless Remote Sensor System using Raspberry-Pi and Arduino with Application to Algal Bloom", *Proceedings of IEEE Conference on AI & Mobile Services (AIMS@SERVICES)*, pp.85-88, Honolulu, HI, June 2017, doi: 10.1109/AIMS.2017.19.

75. Cotten, D. L., C. Adams, **D. R. Mishra**, N. Neel, G. Grable, and K. Ngo, "SPectral Ocean Color Satellite", paper presentation at the *CubeSat Developers Workshop*, San Luis Obispo, CA, April 2017.

74. **Mishra**, **D. R.**, "A Cyber-infrastructure for Combating the Proliferation of Cyanobacterial Harmful Algal Blooms", paper presentation at the *American Association of Geographers Conference*, Boston, MA, April 2017.

73. Page, B., and **D. R. Mishra**, "A Performance Evaluation of Atmospheric Correction Models for Landsat-8 over Turbid Waters", paper presentation at the *American Association of Geographers Conference*, Boston, MA, April 2017.

72. Astuti, I., **D. R. Mishra**, B. S. Wiwiho, and A. A. Kurnia, "A 20-Year Land Use Change Analysis of Upper Brantas - Konto Watersheds, East Java, Indonesia: Drivers and Implications on Watershed Functions and Water Resources", paper presentation at the *American Association of Geographers Conference*, Boston, MA, April 2017.

71. Kumar, A., C. Cooper, S. Ghosh, A. Haney, F. Braun, Z. Conner, and **D. R. Mishra**, "Utilizing NASA Earth Observations and Proximal Remote Sensing for Mapping the Spatio-Temporal Distribution of *Hydrilla verticillate*", paper presentation at the *American Association of Geographers Conference*, Boston, MA, April 2017.

70. Cotten, D., C. Adams, **D. R. Mishra**, M. Madden, and S. Bernardes, "STEM Opportunities for Undergraduates Building Nanosatellites: the NASA CubeSat Program Georgia", paper presentation at the *Imaging & Geospatial Technology Forum (IGTF)/ASPRS Meeting*, Baltimore, MD, March 2017.

69. Cotten, D., C. Adams, **D. R. Mishra**, M. Madden, S. Bernardes, K. Ngo, N. Neel, N. Ilango, M. LeCorre, G. Grable, and A. King, "Building a Small Satellite Research Program at the University of Georgia: UGA Payload Development for CubeSats", paper presentation at the

Imaging & Geospatial Technology Forum (IGTF)/ASPRS Meeting, Baltimore, MD, March 2017.

68. Cotten, D. L., S. Bernardes, **D. R. Mishra**, C. Adams, H. Neal, K. Ngo, P. Copenhaver, N. Illango, A. King, G. Grable, and P. Hwang, "A41H-0161: The SPectral Ocean Color (SPOC) Small Satellite Mission: From Payload to Ground Station Development and Everything in Between", poster presentation at the *American Geophysical Union Fall Meeting,* San Francisco, CA, December 2016.

67. Cotten, D. L., S. Bernardes, **D. R. Mishra**, C. Adams, H. Neal, K. Ngo, P. Copenhaver, N. Illango, A. King, G. Grable, and P. Hwang, "ED23B-0828: Enhancing STEM Education through Cubesats: Using Satellite Integration as a Teaching Tool at a Non-Tech School", poster presentation at the *American Geophysical Union Fall Meeting,* San Francisco, CA, December 2016.

66. **Mishra, D R.,** "Solving Coastal Environmental Challenges in the Age of Big Data", paper presentation at the *TropMet*, Bhubaneswar, India, December 2016.

65. Kumar, A., **D. R. Mishra**, Sk. Md. Equeen, H. J. Cho, and G. Rastogi, "Tale of Two Cyclones: Differential Impact of Phailin and Hudhud on Chilika Lagoon", poster presentation at the *TropMet*, Bhubaneswar, India, December 2016.

64. Boddula, V., L. Ramaswamy, R. Pasumarthi, and **D. R, Mishra**, "Data Driven Analysis of Algal Bloom Activity for Effective Water Sustainability", paper presentation at the *IEEE SustainCom*, Atlanta, GA, October 2016.

63. Hauer, M., and **D. R. Mishra**, "Adaption Regimes to Sea Level Rise: The Case of Coastal Louisiana", paper presentation at the *Population Association of America Annual Meeting*, Washington D.C., April 2016.

62. **Mishra, D. R.**, "Cyber-Cyano: Linking Big Data Science with Remote Sensing for Effective Monitoring of Water Resources", paper presentation at the *American Association of Geographers Conference*, San Francisco, CA, April 2016

61. Page, B., and **D. R. Mishra**, "A Performance Evaluation of Atmospheric Correction Models for Landsat-8 over Turbid Waters", paper presentation at the *American Association of Geographers Conference*, San Francisco, CA, April 2016

60. Astuti, I., **D. R. Mishra**, and B. S. Wiwoho, "Understanding 20 Years of Suspended Sediment Dynamics in Tropical Reservoirs in a Developing Country", paper presentation at the *American Association of Geographers Conference*, San Francisco, CA, April 2016

59. Kumar, A., **D. R. Mishra**, and Sk. Md. Equeenuddin, "Differential Impact of Anniversary Cyclones on a Coastal Lagoon", paper presentation at the *American Association of Geographers Conference*, San Francisco, CA, April 2016

58. Ghosh, S., J. Tao, and **D. R. Mishra**, "Analyzing MODIS Derived Site–specific Tidal Wetland Phenology using TIMESAT", paper presentation at the *American Association of Geographers Conference*, San Francisco, CA, April 2016

57. Rodrigues, T. W. P., **D. R. Mishra**, E. Alcântara, F. S. Y. Watanabe, and N. N. Imai, "Assessing Bio-optical Models to Estimate Total Suspended Matter in Oligotrophic Tropical Reservoirs", paper presentation at the *American Association of Geographers Conference,* San Francisco, CA, April 2016

56. Hauer, M., J. M. Evans, and **D. R. Mishra**, "Population Projections and Risk of Inundation from SLR for the United States in 2100", poster presentation at the *Southeast Climate Consortium Fall Meeting,* Athens, GA, October 2015.

55. Boddula, V., A. Joshi, L. Ramaswamy and **D. R, Mishra**, "Harnessing Social Media for Environmental Sustainability: A Measurement Study on Harmful Algal Blooms", paper presentation at the 2015 *IEEE International Conference on Collaborative and Internet Computing (IEEE CIC),* Hangzhou, P. R. China, October 2015.

54. Cao, F., **D. R. Mishra**, J. Schalles, and W. Miller, "Blending two ocean color algorithms to evaluate ultraviolet (UV) optics and photochemistry using the Hyperspectral Imager for the Coastal Ocean (HICO)", paper presentation at the *International Ocean Color Science Meeting,* San Francisco, CA, June 2015.

53. Astuti, I., S. Mishra, B. Schaeffer, and **D. R. Mishra**, "A Quasi Analytical Approach for Deriving Inherent Optical Properties in Florida Estuary Waters", paper presentation at the *Association of American Geographers Conference,* Chicago, IL, April 2015.

52. Wang, L., and **D. R. Mishra**, "Estimating GPP in Georgia Coast Salt Marshes Equipped Based on MODIS product and CO2 Eddy Covariance", paper presentation at the *Association of American Geographers Conference,* Chicago, IL, April 2015.

51. Page, B., V. Boddula, **D. R. Mishra**, L. Ramaswamy, and S. Bhandarkar "A Cloud Infrastructure for Early Detection of Cyanobacterial Harmful Algal Blooms", poster presentation at the *Association of American Geographers Conference,* Chicago, IL, April 2015.

50. Ogashawara, I., L. Li, J. Stech, and **D. R. Mishra**, "Assessing the variability in the specific absorption coefficient of phytoplankton through water type classification", poster presentation at the *Association of American Geographers Conference,* Chicago, IL, April 2015.

49. Ghosh, G., and **D. R. Mishra**, "A comparative evaluation of established noise correction techniques on MODIS derived salt marsh phenology", paper presentation at the *Association of American Geographers Conference*, Chicago, IL, April 2015.

48. Kumar, A., Sk. Md. Equeen, **D. R. Mishra**, and B. C. Acharya, "Variability of Total Suspended Sediment in Chilika Lake During Phailin using MODIS/TERRA," paper presentation at *ISPRS Technical Commission VIII*, Remote Sensing Applications and Policies, Hyderabad, India, December 2014

47. Astuti, I., **D. R. Mishra**, S. Mishra, and B. Schaeffer, "Quasi Analytical Approach (QAA) for Deriving Optical Properties in Florida Estuary Waters," poster presentation at *SEDAAG*, Athens, GA, November 2014

46. Ghosh, S., B. Bartelme, I. Astuti, E. Benyshek, D. Haskett, J. He, B. Page, S. Wilde, and **D. R. Mishra**, "Developing a Cyanobacteria Detection Tool for Georgia Inland Waters Using NASA Landsat 8 OLI Data for Water Quality Protection and Restoration," paper presentation at *SEDAAG*, Athens, GA, November 2014

45. Wang, G., Z. Lee, and **D. R. Mishra**, "Retrieving Absorption Coefficient of Specific Pigments from Hyperspectral Remote Sensing Reflectance Measured over Phytoplankton Bloom Waters," poster presentation at the *Ocean Optics XXII*, Portland, ME, November 2014.

44. Watanabe, F.S.Y, E. Alcântara, T. W. P. Rodrigues, L. H. S. Rotta, N. N. Imai, **D. R. Mishra**, and C. C. F. Barbosa, "Application of RED-NIR Algorithms and Semi-analytical Models for Estimating Chlorophyll-a in Barra Bonita Reservoir, Tietê River (Brazil)," *Proceedings of the Ocean Optics XXII*, 6pp., Portland, ME, November 2014.

43. **Mishra, D. R.**, S. Mishra, and S. Narumalani "Hyperspectral Remote Sensing of Cyanobacteria: Successes and Challenges", *Proceedings of the SPIE Remote Sensing*, Multispectral, Hyperspectral, and Ultraspectral Remote Sensing Technology, Techniques and Applications. Vol 92630J, Beijing, China, November 2014, doi:10.1117/12.2069320.

42. Ogashawara, I., M. Curtarelli, **D. R. Mishra**, E. Alcantara, and J. L. Stech "Development of a Filter for Phycocyanin Bio-optical Estimation", *Proceedings of the Geoscience and Remote Sensing Symposium (IGARSS)*, 2014 IEEE International , pp.3862-3865. Quebec, Canada, July 2014, doi: 10.1109/IGARSS.2014.6947327.

41. Cho, H. J., and **D. R. Mishra**, "Quantification of Health and Productivity of Salt Marshes using Satellite Data", paper presentation at the *Coastal Habitat Integrated Mapping and Monitoring Program (CHIMMP) Workshop*, St. Petersburg, FL April 2014.

40. Ghosh, G., and **D. R. Mishra**, "Phenological Analysis of Salt Marsh Habitats of Northern Gulf of Mexico Using MODIS Data", paper presentation at the *Association of American Geographers Conference*, Tampa, FL, April 2014.

39. He, J., S. Ghosh, S. Padgett-Vasquez, N. Chen, J. White, and **D. R. Mishra**, "Remote Estimation of Salt Marsh Biophysical Parameters in the Georgia Coast: Assessing Site Specific Salt Marsh Physiological Health.", paper presentation at the *Association of American Geographers Conference*, Tampa, FL, April 2014.

38. White, J., S. Pidgett-Vasquez, S. Ghosh, A. Baruch, N. Chen, J. Mote, and **D. R. Mishra**, "Remote Estimation of Salt Marsh Biophysical Parameters in the Georgia Coast: Model Cal/Val using NASA Sensors to Improve Monitoring and Restoration Efforts by the Georgia Department of Natural Resources", paper presentation at the *Association of American Geographers Conference*, Tampa, FL, April 2014.

37. Banisakher, D., H. J. Cho, **D. R. Mishra**, and L. Morris, "Benthic Habitat Mapping in the Indian River Lagoon, Florida Using Hyperspectral Imager for the Costal Ocean", paper presentation at the *Association of American Geographers Conference*, Tampa, FL, April 2014.

36. McNeal, K., C. Guthire, and **D. R. Mishra**, "Sedimentary Biogeochemical Indicators for Assessing the Impacts of the DeepWater Horizon Blowout on Coastal Wetlands", paper presentation at the *AGU Meeting of Americas*, Cancun, Mexico, May 2013.

35. Ghosh, S., **D. R. Mishra**, and H. J. Cho, "Monitoring the Response and Recovery of the Salt Marsh Biophysical Characteristics after the Deepwater Horizon Oil Spill", paper presentation at the *Association of American Geographers Conference*, Los Angeles, CA, April 2013.

34. Cho, J., **D. R. Mishra**, C. Clarke, and A. Kamerosky, "Hyperspectral Signal Bands to HICO Image Data Bands for Seagrass Mapping", *Proceedings of the 2013 IEEE WHISPER*, 5th Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing. 4pp. Gainesville, FL, June 2013.

33. Guthrie, C., K. S. McNeal, **D. R. Mishra**, G. A. Blakeney, S. Ghosh, and C. G. Downs, "Temporal Salt Marsh Sediment Response to the Deep Water Horizon BP Oil Spill at Marsh Point, MS", paper presentation at the *Geological Society of America Annual Meeting*, Paper No. 156-28, Charlotte, NC, November 2012.

32. **Mishra, D. R.**, "Novel Remote Sensing Techniques for Monitoring Estuarine Water Quality", presentation at the *SEERS Fall meeting*, Jacksonville, FL, October 2012.

31. **Mishra D**., H. J. Cho, S. Ghosh, C. Downs, A. Fox, and A. Mckibben, "Impact of the Gulf of Mexico Oil Spill on the Health and Productivity of Louisiana Salt Marshes", poster presentation at the *COSPAR Scientific Assembly,* Mysore, India, July 2012.

30. Ghosh, S., **D. R. Mishra,** A. Gitelson, D. J. Reed, and C. Downs, "Remote Estimation of Gulf Coast Salt Marsh Biophysical Parameters", paper presentation at the *Association of American Geographers Conference*, New York City, NY, February 2012.

29. Dash, P., N. Walker, **D. R. Mishra**, C. Hu, J. Pinckney, and E. D'Sa, "Atmospheric Correction, Vicarious Calibration and Development of Algorithms for Quantifying Cyanobacterial Blooms from Oceansat-1 OCM Satellite Data" paper presentation at the *AGU Fall Meeting*, San Francisco, CA, December, 2011.

28. Mishra, S., **D. R. Mishra**, C. Tucker, "Quantifying Phycocyanin Concentration in Cyanobacterial Algal Blooms from Remote Sensing Reflectance-A Quasi Analytical Approach" poster presentation at the *AGU Fall Meeting*, San Francisco, CA, December, 2011.

27. **Mishra, D. R.**, "Remote Sensing of Coastal Vegetation and Water Resources", presentation at the American Society for Photogrammetry & Remote Sensing (ASPRS) MSU Chapter, Starkville, MS, November 2011.

26. **Mishra**, **D. R.**, "Impact of Climate Chnage on Coastal resources of Southeast United States", presentation at the CLiPSE Climate Change 2nd Workshop (NSF Sponsored), Memphis, TN, October 2011.

25. Guthrie, C., K. S. McNeal, H. A. Stauffenberg, A. Blankley, **D. R. Mishra**, "Salt Marsh Sediment Biogeochemical Response to the Deep Water Horizon Oil Spill (Ocean Springs,

MS) 2011", paper presentation at the Association of Environmental and Engineering Geologists (AEG) 54th Annual Meeting, Technical Session #13, Anchorage, AK, September 2011.

24. Ghosh, S., **D. R. Mishra**, H. J. Cho, P. Kirui, A. Fox, N. Jackson, C. Downs, and P. Merani, "Impact of the Gulf of Mexico Oil Spill on the Health and Productivity of Louisiana Salt Marshes", paper presentation at the *Northern Gulf Institute meeting*, Biloxi, MS, May 2011.

23. Downs, C., S. Ghosh, and **D. R. Mishra**, "Using Proximal Sensing to Monitor the Oil Spill Impact on Wetlands Across Gulf States", poster presentation at the *Northern Gulf Institute meeting*, Biloxi, MS, May 2011.

22. **Mishra D**., H. J. Cho, S. Ghosh, P. Kirui, A. Fox, N. Jackson, C. Downs, and P. Merani, "Impact of the Gulf of Mexico Oil Spill on the Health and Productivity of Louisiana Salt Marshes: Preliminary Results", paper presentation at the *Association of American Geographers meeting*, Seattle, WA, April 2011.

21. Dash, P., N. Walker, **D. R. Mishra**, and C. Hu, " Atmospheric Correction, Vicarious Calibration and Development of Algorithms for Quantifying Cyanobacterial Blooms from Oceansat-1 OCM Satellite Data", paper presentation at the *ASLO Aquatic Sciences Meeting*, San Juan, PR, February 2011.

20. Jackson, N., P. Kirui, S. Ghosh, H. J. Cho, and **D. R. Mishra**, "Quantifying the Impact of the Gulf of Mexico Oil Spill on Salt Marshes", poster presentation at the *Bays and Bayous Symposium*, Mobile, AL, December 2010.

19. **Mishra D**., H. J. Cho, "Quantifying the Impact of the Gulf of Mexico Oil Spill on the Health and Productivity of Louisiana Salt Marshes", poster presentation at the *NSF Oil Spill PI Meeting*, Tampa, FL, November 2010.

18. Mishra S., **D. R. Mishra**, "A New Novel Normalized Band Difference Index for Mapping Chlorophyll-a in Case-II Productive Waters", paper presentation at the *American Association of Geographers Conference*, Washington D.C., April 2010.

17. Mishra S., **D. R. Mishra**, W. M. Schluchter "Hyperspectral Remote Sensing Techniques in Predicting Phycocyanin Concentrations in Cyanobacteria: A Comprehensive Study", poster presentation at the *AGU Fall Meeing*, San Francisco, CA, December 2009.

16. Mishra S., **D. R. Mishra**, "Effect of the opening of Mississippi river diversions on the spatio-temporal variability of water quality in the Lake Pontchartrain", poster presentation at the *American Association of Geographers Conference*, Las Vegas, NV, March 2009.

15. Mishra S., **D. R. Mishra**, "Effect of Bonnet-Carrie Spillway opening on spatio-temporal variability of water quality parameters in the Lake Pontchartrain", poster presentation at the *9th Biennial Basics of the Basin Symposium*, New Orleans, LA, November 2008.

14. Narumalani S., **D. R. Mishra**, P. Merani, and J. Hoffman, "Mapping and modeling of invasive vegetation along the North Platte River, NE, using remote sensing and GIS", paper presentation at the *American Association of Geographers Conference*, Boston, MA, April 2008.

13. Becker, D., **D. R. Mishra**, and D. Rundquist, "Detecting Coastal Marsh Species Using Hyperspectral Remote Sensing", poster presentation at the *AAG Great Plains-Rocky Mountain Division and the West Lakes Division* meeting, Lincoln, NE, October 2006.

12. **Mishra, D. R.**, S. Narumalani, D. Rundquist, and M. Lawson, "Enhancing the detection and classification of coral reef and associated benthic habitats using AISA Eagle hyperspectral data", poster presentation at the *AAG Great Plains-Rocky Mountain Division and the West Lakes Division* meeting, Lincoln, NE, October 2006.

11. Wilson, R., **D. R. Mishra**, and S. Narumalani, "Saltcedar survey of the North Platte river", paper presentation at the *Threats to Nebraska Rivers – Invasive Plants Conference*, Kearney, NE, August 2006.

10. Narumalani, S., **D. R. Mishra**, J. Burkholder, P. Merani, and G. Wilson, "A comparative evaluation of ISODATA and Spectral Angle Mapping for the detection of Saltcedar using airborne hyperspectral imagery", poster presentation at the *Pecora 16 Conference*, Sioux Falls, SD, October 2005.

9. **Mishra, D. R.**, S. Narumalani, D. Rundquist, and M. Lawson, "Benthic habitat mapping in tropical marine environments using QuickBird imagery: A case study in Roatan Island, Honduras", paper presentation at the *American Association of Geographers Conference*, Denver, CO, April 2005.

8. **Mishra, D. R.**, S. Narumalani, D. Rundquist, and M. Lawson, "Remote sensing of shallow marine environments", paper presentation at the *NOAA, Coastal Geotools Conference*, Myrtle Beach, SC, March 2005.

7. Narumalani, S. and **D. R. Mishra**, "Remote sensing for saltcedar detection", presented at the Asian Institute of Technology, Bangkok, Thailand, November 2004.

6. **Mishra, D. R**., S. Narumalani, and R. Rothwell, "Land Use change analysis at Effigy Mounds Monument, Iowa", poster presentation at the SNR Annual Colloquium, Lincoln, NE, October 2003.

5. Narumalani, S., R. Rothwell, **D. R. Mishra**, P. Budde, B. Witcher, L. Thomas, and M. DeBacker, "Using GIS in landscape ecology analysis," presented at the Nebraska GIS Symposium, Lincoln, NE, May 2003.

4. **Mishra**, **D. R.**, A. Sahoo, R. Kanwar, and R. P. Singh, "Rain rate over Indian sub-continent using MSMR data", *Proceedings of the Pan Ocean Remote Sensing Conference*, Vol. II, pp. 550 – 554, Bali, Indonesia, September 2002**.**

3. **Mishra D. R**., R. Kanwar, A. K. Sahoo, and R. P. Singh, "Effect of wind speed on rain rate over ocean using MSMR and QUICKSCAT Data", poster presentation at *XII National Space Science Symposium*, Bhopal, India, February 2002.

2. **Mishra D. R**., S. Dey, R. Kanwar, A. K. Sahoo, and R. P. Singh, "Variability of rain rate over ocean using MSMR Data", poster presentation at the *ISRS Symposium*, Ahmedabad, India, December 2001.

1. Sahoo, A. K., **D. R. Mishra,** S. Dey, A. K. Shukla, and R. P. Singh, "Emissivity derived from MSMR data as a precursor for future Gujarat earthquakes", paper presentation at the *ISRS Symposium,* Ahmedabad, India**,** December 2001.

TECHNICAL REPORTS

15. Biber, P., **D. R. Mishra**, W. Wu, and G. Carter (2018). Final Report: *Understanding the trajectory of coastal salt marsh structure, function, and processes in the face of sea level rise: a synthesis from historical imagery, biophysical processes, and hierarchical modeling,* National Academy of Sciences Gulf Research Program - Data Synthesis Grants # 22051.

14. **Mishra**, **D. R**., J. O'Connell, M. Alber, and K. Byrd (2018). Final Report: *A novel hybrid approach for mapping belowground productivity and carbon sequestration potential within Georgia salt marshes,* GA SeaGrant # 2016-R/HCE-16.

13. **Mishra**, **D. R**., (2018). Final Report: *A MODIS based biophysical parameters centered framework for monitoring carbon sequestration potential of Gulf Coast salt marshes*, NASA Grant NNX14AR30G.

12. Wilde, S., and **D. R. Mishra** (2015). Final Report*: Implications of eutrophication and climate change in promoting toxic cyanobacterial blooms in agricultural ponds across Georgia*, GWRI Grant# 2014GA345B.

11. **Mishra, D. R.,** H. J. Cho, and S. Ghosh (2013). Final Report: *RAPID: Quantifying the Impact of the BP Deepwater Horizon Oil Spill on the Health and Productivity of Louisiana Salt Marshes,* NSF DEB Grant#1265224.

10. Reed, D., **D. R. Mishra**, and A. Gitelson (2013). Final Report: *A MODIS Based Decision Support Tool for Gulf Coast Salt Marsh Conservation and Restoration*, NASA Grant NNH08ZDA001N-GULF.

9. **Mishra, D. R.**, K. McNeal, A. Mercer, and B. Cooke (2012). Final Report: *Quantifying the Impact of the Gulf of Mexico Oil Spill on the Health and Productivity of Louisiana and Mississippi Salt Marshes,* NGI Phase-1 and NGI Phase-2.

8. **Mishra, D**. **R.**, D. Maygarden, and H. Egger (2012). Final report: *How Healthy is this Marsh? Employing Innovative Remote Sensing Techniques for Assessing Marsh Health in Restoration Projects, Involving High School Students and Teachers*. Marine and Coastal Literacy, Louisiana Sea Grant, 27 pp.

7. **Mishra, D**., P. Das, and S. Mishra (2009). Final report: *Measuring 2005 Land Loss in the Pontchartrain Basin Using High Resolution Color Infrared Aerial Photography at a Scale of 1/12,000: Hurricane Impact*. NOAA, 25 pp.

6. Narumalani, S., **D. R. Mishra** (2006). Final report: *Mapping Saltcedar, Russian olive, and Canada thistle along North Platte River corridor west of Lake McConaughy*. U.S Department of Agriculture, 45 pp.

5. Narumalani, S., **D. R. Mishra**, and C. Smith (2006). Final report: *Nebraska Army National Guard wetland planning level survey for Camp Ashland training site, Greenlief training site, and Mead training site*. Nebraska Military Department, 110 pp.

4. Narumalani, S., **D. R. Mishra**, P. B. T. Merani, and R. Rothwell (2005). Final report: *Nebraska Army National Guard planning level survey for Camp Ashland training site, Greenlief training site, and Mead training site*. Nebraska Military Department, 160 pp.

3. Narumalani, S., **D. R. Mishra**, and R. Rothwell (2004). Final report: *Land Use/Land Cover interpretation and analysis for three national monuments*. National Park Service, Intermountain Region, U.S. Department of the Interior, 93 pp.

2. Narumalani, S., S. Tunnell, G. Willson, J. Burkholder, and **D. R. Mishra** (2004). Final report: *Noxious weeds inventory and mapping at Capulin Volcano national monument, Fort Union national monument, and Lake Meredith national recreation area*. National Park Service, Intermountain Region, U.S. Department of the Interior, 55 pp.

1. **Mishra, D. R.**, (2003). *Processing GPS data from the NASA Experimental Advanced Research Lidar (EAARL)*. Goddard Space Science Program report, NASA, code 972, pp. 1-22.

EXTERNAL GRANTS (CURRENT AND PENDING)

54. Controls on carbon and light absorption of coastal marsh ecosystems through micrometeorological and field-based measurements to improve satellite derived productivity modeling, (Role: Co-I, PI: K. Schafer, Co-Is: numerous), **DOE**, $102,000. 09/01/2019 - 08/31/2022.

53. Enhancing satellite-based GPP modeling by incorporating underwater photosynthesis by coastal marshes during tidal flooding, (Role: PI, Co-Is: J. O'Connell and D. Cotten), **NASA**, $461,552. 10/01/2019 - 09/30/2021.

52. Scaling-up pulse amplitude modulation (PAM) fluorescence measurements to develop a SIF-GPP model for tidal marshes to enhance satellite-based GPP estimation, (Role: PI, Student Investigator: L. Mao), **NASA**, $101,901. 09/01/2019 - 08/31/2022.

51. Controls on carbon and light absorption of coastal marsh ecosystems through micrometeorological and field-based measurements to improve satellite derived productivity modeling, (Role: PI, Student Investigator: P. Hawman), **NASA**, $102,000. 09/01/2019 - 08/31/2022.

50. Remote sensing of carbon use efficiency and belowground net primary production to understand spatiotemporal variation in tidal wetland carbon storage and resiliency, (Role: PI, Student Investigator: C. Narron), **NASA**, $101,850. 09/01/2019 - 08/31/2022.

49. Heat Exposure Prediction in Urbanized Environments, (Role: Co-I, PI: A. Grundstein, Co-Is: L. Ramaswamy), **NASA**, $331,297. 11/01/2019 - 10/31/2022.

48. Phenological stress resulting from atypical drought events in a climate-sensitive, wet neotropical biome, (Role: Co-I, PI: P. Miller, Co-Is: T. Mote), **NASA**, $374,957. 11/01/2019 - 10/31/2022.

47. Improving current and future estimates of agricultural water demand in Florida, (Role: Co-I, PI: V. Seidel, Co-Is: numerous), **NASA**, $500,000. 01/01/2019-12/31/2021 (***pending***).

46. Monitoring the water quality parameters of the cascade reservoirs in São Paulo State, Brazil, (Role: Co-I, PI: E. Alcântara), **Chamada MCTIC/CNPq Nº 28/2018 - Universal/Faixa C - De**, R$120,000, USD equivalent: $31,000. 02/011/2019-01/31/2021 (***pending***).

45. Bio-optical modeling to estimate water quality parameters in urban reservoirs using aerial hyperspectral data, (Role: Collaborator, PI: T. Rodrigues), **CNPq/MCTI, Govt. of Brazil**, R$60,000, USD equivalent: $15,000. 02/011/2019-01/31/2021 (***pending***).

44. Hydrologic optics of inland water at different latitudes- A tool for an integrated management of aquatic systems (HOIMAS), (Role: Collaborator, PI: E. Alcântara, Co-Is: numerous), **FAPESP - CONFAP - WATER JPI 2018**, R$300,000, USD equivalent: $77,856. 04/01/2019-03/31/2022 (***pending***).

43. Next Generation Integrated Coastal Mapping and Modeling Tools to Guide Resource Management and Prioritize Restoration of Marsh Habitats in the Gulf of Mexico, (Role: Co-I, PI: P. Biber, Co-Is: W. Wu, A. Mercer, C. Smith and C. Shepard), **NOAA**, $5,500,000. 01/01/2019-12/31/2024 (***pending***).

42. Airborne Hyperspectral imagery and Lidar-based DEM in Support of Long-Term Research in the NSF Georgia Coastal Ecosystems LTER Study Domain, (Role: Co-I, PI: J. Schalles, Co-Is: numerous), **NEON**, no funds, flight mission requested (***pending***).

41. Developing an effective and targeted monitoring system for tracking toxic harmful algal blooms across Georgia, (Role: PI, Co-PI: S. Wilde), **GWRI,** $55,299. 03/01/2019-02/29/2020 (***funded***).

40. LTER: Georgia Coastal Ecosystems IV, (Role: Co-I, PI: M. Alber, Co-Is: numerous), **NSF**, $6,762,000. 12/01/2018-11/30/2024 (***funded***).

39. Climate-influenced Nutrient Flows and Threats to the Biodiversity of the Belize Barrier Reef Reserve System, (Role: Co-I, PI: R. Griffin, Co-Is: E. Cherrington, C. Lee and A. Tewfik), **NASA**, $724,390. 12/01/2018-11/30/2021 (***funded***).

38. Advancing space-based GPU computer vision algorithms, (Role: PI, Co-I: C. Cotten), **GA Space Grant Consortium**, $20,000. 08/01/2018-07/31/2019 (***current***).

37. Board development for space-based processors, (Role: Mentor, Fellowship for Mr. Caleb Adams), **GA Space Grant Consortium**, $20,147. 08/01/2018-07/31/2019 (***current***).

36. Multi-view Onboard Computational Imager, (Role: Co-PI, PI: D. Cotten, Co-Is: numerous), **Air Force Research Laboratory (AFRL) – University Nanosat Program (UNP), Phase-B,** $750,650, 04/01/2018-03/31/2020 (***current***).

35. A tidal and species based MODIS GPP product for estimating marsh blue carbon across the southeastern United States, (Role: PI, Co-Is: J. O'Connell and D. Cotten), **NASA**, $994,963. 03/01/2017-02/28/2019 (***current***).

34. Phyto-health: An investigation of phytoplankton functional type, photoacclimation and grazing dynamics in the Chilika lagoon: A pigment chemotaxonomy approach, (Role: collaborator, PI: T. Acharyya, Co-I: G. Rastogi), **Science and Engineering Research Board (SERB), DST, India**, INR 48,62,400, USD equivalent: $75,975. 01/01/2017-12/31/2020 (***current***).

33. SPOC mission for the CubeSat Launch Initiative, (Role: PI, Co-Is: numerous), **NASA**, No funds, Selected for launch in August 2019 (***current***).

32. EAGER: A sensor cloud-based community-centric approach for analyzing and mitigating Urban Heat Hazards, (Role: PI, Co-Is: L. Ramaswamy and A. Grundstein), **NSF**, $238,399. 09/15/2016-09/14/2019 (***current***).

31. Digital orbital analysis of water resources for Georgia, (Role: PI, Co-Is: numerous), **NASA**, $467,918. 06/22/2016-12/31/2019 (***current***).

30. CyberSEES: Type 1: Meghdoot: A multi-cloud for enhancing sustainability via effective monitoring of inland waters and coastal wetlands, (Role: Co-I, PI: L. Ramaswamy, Co-I: S. Bhandarkar), **NSF**, $399,912. 12/01/2014-12/31/2019 (***current***).

29. Persistent hydrological consequences of hurricane interactions with the Georgia coastline, (Role: Co-I, PI: P. Miller, Co-I: T. Mote), **GA Seagrant**, $10,000. 01/01/2018-12/31/2018.

28. Understanding the trajectory of coastal salt marsh structure, function, and processes in the face of sea level rise: a synthesis from historical imagery, biophysical processes, and hierarchical modeling (Role: Co-I, PI: P. Biber, Co-Is: W. Wu, and G. Carter), **National Academy of Sciences**, $506,619. 01/01/2016-06/31/2018.

27. A novel hybrid approach for mapping belowground productivity and carbon sequestration potential within Georgia salt marshes, (Role: PI, Co-Is: J. O'Connell, M. Alber, and K. Byrd), **GA SeaGrant**, $212,808. 02/01/2016-06/30/2018.

26. GeorgiaSat-1, (Role: PI, Co-Is: numerous), **Air Force Research Laboratory (AFRL) – University Nanosat Program (UNP), Phase-A**, $110,000. 01/01/2016-12/31/2017.

25. A MODIS biophysical parameters centered framework for monitoring carbon sequestration potential of Gulf Coast salt marshes, (Role: PI), **NASA**, $441,413. 09/01/2014 – 12/31/2017.

24. Understanding and managing the risk from cyanobacteria toxicity in farm ponds due to land management and climate interactions, (Role: PI, Co-Is: L. Kramer, and S. Wilde), **NIFA/USDA- NNF**, $36,000. 08/01/2015-07/31/2017.

23. A multi-sensor approach to enhance the prediction of mangrove biophysical characteristics in Chilika Lagoon and Bhitarkanika Wildlife Sanctuary, Odisha, India, (Role: faculty advisor), **NASA DEVELOP**. 09/12/2016-04/01/2017.

22. Parameterization of a bio-optical model for deriving inherent optical properties in tropical reservoirs in Brazil: Nova Avanhandava and Barra Bonita (São Paulo State), (Role: Co-I, PI: E. Alcântara), **Science without Borders: CNPq/MCTI, Govt. of Brazil**, R$323,287, USD equivalent: $83,899. 08/11/2013-08/10/2016.

21. Utilizing NASA earth observations and proximal remote sensing for mapping spatio-temporal distribution of Hydrilla, (Role: faculty advisor), **NASA DEVELOP**. 05/15/2015-07/31/2016.

20. Implications of eutrophication and climate change in promoting toxic cyanobacterial blooms in agricultural ponds across Georgia, (Role: Co-I, PI: S. Wilde), **GWRI,** $54,320. 08/01/2014-07/31/2015.

19. Developing a cyanobacteria detection tool for Georgia inland waters using NASA Landsat-8 OLI data for water quality protection and restoration, (Role: faculty advisor), **NASA DEVELOP**. 06/15/2014-04/30/2015.

18. Transformational approach to monitoring water quality sustainability of coastal ecosystems from satellite remote sensing, (Role: Co-I, PI: B. Schaeffer), **NRL**. 11/1/2012-12/31/2014.

17. Model to separate water column chlorophyll and benthic vegetation signals from HICO data, (Role: Co-I, PI: H. Cho), **NRL**. 11/1/2012-12/31/2014.

16. Preliminary research and data gathering for resubmission of the NSF-CyberSEES proposal- "CyberSEES: Type 1: Meghdoot: A multi-cloud infrastructure for effective monitoring of inland waters and coastal wetlands sustainability, (Role: Co-I, PI: L. Ramaswamy, Co-I: S. Bhandarkar), **UGA OVPR**, $10,000. 01/01/2014-05/15/2014.

15. Remote Estimation of Salt Marsh Biophysical Parameters in the Georgia Coast: Model Cal/Val using NASA Sensors to Improve Monitoring and Restoration Efforts by the Georgia Department of Natural Resources, (Role: faculty advisor), **NASA DEVELOP**. 06/15/2013-11/30/2013.

14. Physics-based ocean-color algorithms for water-quality products of coastal and inland waters, (Role: Co-I, PI: Z. Lee), **NASA**, $194,550. 08/01/2011 - 08/31/2013.

13. RAPID: Quantifying the impact of the Gulf of Mexico oil spill on the health and productivity of Louisiana salt marshes, (Role: PI, Co-I: H. Cho), **NSF**, $199,703 (MSU Portion: $129,703). 08/15/2010- 07/31/2013.

12. Strengthening global climate change education through remote sensing application in coastal environment using NASA satellite data and models, (Role: Co-I, PI: H. Cho), **NASA**, $320,977. 05/15/2010-08/14/2013.

11. A MODIS based decision support tool for Gulf Coast salt marsh conservation and restoration, (Role: PI, Co-Is: D. Reed and A. Gitelson), **NASA**, $395,439. 02/01/2010-12/31/2012.

10. A regional partnership for climate science literacy in the southeastern United States, (Role: Co-I, PI: K. McNeal, Co-Is: numerous), **NSF**, $998,998. 10/1/2010- 09/30/2012 .

9. Comprehensive study of the impact of the Deepwater Horizon oil spill on the health and productivity of Gulf Coast salt marshes, (Role: PI, Co-Is: K. McNeal, A. Mercer, and B. Cooke), **NGI Phase-2**, $193,775. 02/01/2011 - 08/15/2012.

8. How healthy is this marsh? Employing innovative remote sensing techniques for assessing marsh health in restoration projects involving high school students and teachers, (Role: PI, Co-I: D. Maygarden), **Louisiana Sea Grant**, $149,987. 02/2010-05/2012.

7. Developing a tool for remote detection of cyanobacterial harmful algal bloom in Mississippi waters: A tangible step toward an early warning system, (Role: PI), **Henry Fund-Mississippi State University**, $10,000. 05/17/2010- 03/03/2012.

6. Field sampling to study the impact of Deepwater Horizon oil spill on the health and productivity of Gulf Coast salt marshes, (Role: PI, Co-Is: K. McNeal, A. Mercer, and B. Cooke), **Gulf of Mexico Research Initiative**, $80,876. 07/01/2011 - 02/28/2012.

5. Developing a geospatial tool to quantify the effectiveness of the previous and current marsh restoration efforts, (Role: PI), **DNR LA**, $75,000; 08/01/2009 – 07/31/2012.

4. Comprehensive study of the impact of the deepwater horizon oil spill on the health and productivity of Gulf Coast salt marshes, (Role: Co-I, PI: D. Shaw, Co-Is: numerous), **NGI Phase-1**, $60,000 (**Total Funding: $10, 000,000**); 05/01/2010 – 12/31/2010.

3. Measuring 2005 land loss in the Pontchartrain Basin using high resolution color infrared aerial photography at a scale of 1/12,000: Hurricane impact, (Role: PI), **NOAA**, $89,128; 06/01/2007 – 05/31/2009.

2. Mapping, quantifying, and predicting current and future invasive plant species spread along the North Platte River corridor In Nebraska (Role: Co-I, PI: S. Narumalani), **USDA**, $45,000; 10/01/2005 – 09/30/2007.

1. Natural resources mapping of Camp Ashland Training Site, Ashland, NE, using high density LIDAR (Role: Co-I, PI: S. Narumalani), **Nebraska Army National Guard**, $69,000; 01/01/2006 – 12/31/2006.

INTERNAL COMPITITIVE GRANTS

8. President's Venture Funds, **Office of the President**, **UGA**, $5,000. 2019

7. Communicating with Astronauts and Tracking Satellites: Undergraduate Experiential Learning through Space Communication and Development, (Role: PI, Co-I: D. Cotten), **Learning Technologies Grants**, **Center for Teaching and Learning** (**CTL**), **UGA**, $24,665. 2017.

6. Providing undergraduate students equipment for ground to space communications, (Role: Co-I, PI: D. Cotten), **Parents Leadership Council**, **UGA**, $5,000. 2017.

5. Capacity building for research and training for food system sustainability and security, (Role: Co-I, PI: E. Kramer, Co-Is: numerous), **CAES**, **UGA**, $7,500. 2017.

4. President's Venture Funds, **Office of the President**, **UGA**, $5,000. 2017

3. President's Venture Funds, **Office of the President**, **UGA**, $5,000. 2016.

2. Women in technology workshop, (Role: Co-I, PI: D. Cotten), **Office of Service Learning**, **UGA**, $1,750. 2016.

1. Provost's Sumer Research Grant, UGA, $5,000. 2013.

NEWS AND MEDIA REPORTS

- Featured stories, interviews and media reports on the NSF SCOUTS project, NSF CyanoTRACKER project, and NASA and AirForce funded CubeSat projects at: Georgia Magazine, UGA Research Magazine, UGA Today, Red and Black, Online Athens, And Athens Banner Herald, 2017-2018

- *Deadly Toxins in Water Supply a 'Wake-Up Call' for Local U.S. Authorities*, story featured in Newsweek Magazine, October 2018, web: https://www.newsweek.com/deadly-toxins-water-supply-wake-call-local-us-authorities-1058555

- *Satellites on Toxic Algae Patrol*, NSF CyanoTRACKER project featured in NASA's Landsat Science page, October 2018, web: https://landsat.gsfc.nasa.gov/satellites-on-toxic-algae-patrol/

- NSF CyanoTRACKER project overview featured on CYANOCOST, European Cooperation in Science and Technology, October 2018, web: https://cyanocost.files.wordpress.com/2018/10/cyanonews-issue-10-sep-oct-2018.pdf

- Featured stories, interviews and media reports on the NASA and AirForce funded CubeSat projects at: UGA Today, Red and Black, Online Athens, GA Public Radio, March 2016

- Featured stories, interviews, media reports, and blogs on the Nature Climate Change paper at 270 outlets including: NY Times, Yahoo News, National Geographic, Time Magazine, LA Times, Chicago Tribune, Bloomberg News, Daily Mail, Guardian, Miami Herald, Reuters, Wired, Carbon Brief, Climate Central, Mashable, Phys, Times of India, India Times, Orlando NPR, Daytona News Journal, Environment & Energy Publishing (Washington, D.C.), WNCT Channel 9, Greenville, NC, Fox35, Orlando, Reuters TV, Weather Plus, Huffington Post, Star Tribune, Forbes, Atlanta Journal Constitution, UGA Today, Online Athens, GA Public Radio, Red and Black, Informs, Hartford Courant, WYNC, The Telegraph, South Florida Sun-Sentinel, Business Insider, The Boston Globe, World News SBS, Adelaide Now, EurekAlert!, NOLA - New Orleans Local News, Daily Press, Arstechnica, The Hamilton Spectator, Shanghai Daily, SF Gate, MSN, Manila Bulletin, The Economic Times, Popular Science, Christian Science Monitor, Live Science, Tampa Bay Times, Irish Examiner, International Business Times, Seattle Post-Intelligencer, Fusion, Public Radio International, Newsweek, and numerous others. Link to all reports at: http://www.nature.com/nclimate/journal/v6/n7/nclimate2961/metrics/news

  Ranked #21 in media coverage among all climate science papers published in 2016.

- Interviewed by German Public Radio on the 3rd Anniversary of BP DwH Oil Spill at: http://www.dradio.de/dlf/sendungen/forschak/2080031/

- Research activities featured in Gulf Research Initiative website at: http://gulfresearchinitiative.org/2012/identification-of-marsh-stress-hot-spots-leads-to-restoration-tool/

- Research activities featured in May 2012 issue of NOAA Communicator at: http://www.externalaffairs.noaa.gov/communicator/noaacom_16.html

- Vastag, B. (2011, April 18). A year after BP spill, fate of Gulf ecosystem still murky. *Washington Post*, Web: *http://www.washingtonpost.com/national/a-year-after-bp-oil-spill-fate-of-gulf-ecosystem-remains-murky/2011/04/15/AFH3FEwD_story.html*

- Kaufman, L. (2011, April 11). Gulf's complexity and resilience seen in studies of oil spill. *The New York Times*, Web: *http://www.nytimes.com/2011/04/12/science/12spill.html?pagewanted=all*

RESEARCH STAFF SUPERVISED (CURRENT & FORMER)

- Dr. Hui Li (Ph.D. Fujian Normal University, 2008), Visiting Research Scientist, 2018-present (Supervisor)
- Dr. Jessica L. O'Connell (Ph.D. Oklahoma State University, 2011), Research Scientist, 2019-present (Co-supervisor)
- Dr. David L. Cotten (Ph.D. University of Georgia, 2011), Research Scientist, 2018-present (Supervisor)
- Dr. David L. Cotten (Ph.D. University of Georgia, 2011), Postdoctoral Associate, 2014-2018 (Co-supervisor)
- Dr. Jessica L. O'Connell (Ph.D. Oklahoma State University, 2011), Postdoctoral Associate, 2013-2019 (Co-supervisor)
- Dr. Jianbin Tao (Ph.D. Wuhan University, 2010), Visiting Associate Professor, 2015-2016 (Supervisor)
- Dr. Ahmed Wahid (Ph.D. Suez Canal University, Egypt, 2008), Postdoctoral Associate, 2014 (Co-supervisor)
- Dr. Prashanth Alluvada (Ph.D. Indian Institute of Technology, Kanpur, 2003), Postdoctoral Associate, 2009-2010

STUDENTS ADVISED (CURRENT & FORMER)

Current Ph.D. Students:

Caroline Narron (Ph.D. Geography, University of Georgia). Dissertation title: *TBD.*

Lishen Mao (Ph.D. Geography, University of Georgia). Dissertation title: *TBD.*

Abhishek Kumar (Ph.D. Geography, University of Georgia). Dissertation title: *TBD.*

Dina Rasquinha (Ph.D. ICON/Geography, University of Georgia). Dissertation title: *TBD.*

Peter Hawman (Ph.D. Geography, University of Georgia). Dissertation title*: TBD.*

Past Ph.D. Students:

Ike Astuti (Ph.D. Geography, University of Georgia). Dissertation title: *Characterizing the impacts of two decades land use change in tropical watersheds (1994 – 2014) on the water quality of reservoirs, Indonesia.* (**Graduated: Dec, 2017).**

Shuvankar Ghosh (Ph.D. Geography, University of Georgia). Dissertation title: *Bio-physical remote sensing of salt marshes.* (**Graduated: Dec, 2017).**

Thanan Pequeno (Ph.D. Department of Cartography, São Paulo State University, Presidente Prudente, Brazil). Dissertation title*: From oligo to eutrophic inland waters: Advancement and challenges for bio-optical modeling* (Co-Adviser). (**Graduated: Mar, 2017).**

Fernanda Watanabe (Ph.D. Department of Cartography, São Paulo State University, Presidente Prudente, Brazil). Dissertation title*: Parametrization of bio-optical models for estimating chlorophyll-a concentration in the Bonita Reservoir, Tiete River, SP, Brazil* (Co-Adviser). (**Graduated: Mar, 2016).**

Luiz Henrique da Silva Rotta (Ph.D. Department of Cartography, São Paulo State University, Presidente Prudente, Brazil). Dissertation title*: Estimation of submerged aquatic vegetation height and distribution in Nova Avanhandava Reservoir (São Paulo State, Brazil) using bio-optical modeling* (Co-Adviser). (**Graduated: Mar, 2014).**

Sachidananda Mishra (Ph.D. Earth and Atmospheric Sciences, Mississippi State University). Dissertation title: *Remote sensing of cyanobacterial harmful algal bloom in turbid productive waters.* **(Graduated: Aug, 2012).**

Current Masters Students:

N. Neel (M.S. Geography, University of Georgia). Thesis title: *TBD*

Past Masters Students:

B. Page (M.S. Geography, University of Georgia; 2017). Thesis title: *A multi-satellite based technique for phenological assessment of cyanobacterial algal blooms across inland waters* (Adviser)

S. Weber (M.S. Geography, University of Georgia; 2017). Thesis title: *Utilizing geospatial cloud computing and data analytics for cyanobacteria harmful algal bloom risk mapping in Georgia Piedmont waterbodies* (Adviser)

Li Wang (M.S. Geography, University of Georgia; 2015). Thesis title: *Tide adjusted wetland index (TAWI) for Georgia salt marsh ecosystem: A model to minimize the tide effect on MODIS surface reflectance.*

Edward Huell (M.S. Geosciences, Mississippi State University; 2012). Thesis title: *Comparative study on DEM interpolation using Monte Carlo and Latin Hypercube simulation*.

Sara K. Moore (M.S. Earth and Environmental Sciences, University of New Orleans; 2010). Thesis title: *Developing a geospatial tool to quantify the effectiveness of the previous and current marsh restoration efforts.*

Current M.S. and Ph.D. Committees:

Noah Goyke (Ph.D. Forestry, University of Georgia). Dissertation title*: TBD*

Stephen Kinane (Ph.D. Forestry, University of Georgia). Dissertation title*: TBD*

Yanzhe Yin (Ph.D. Geography, University of Georgia). Dissertation title*: TBD*

Caren Remillard (Ph.D. Geography, University of Georgia). Dissertation title*: TBD*

Sara Denka (Ph.D. Geosciences, Florida Atlantic University). Dissertation title*: TBD*

Subash Dahal (Ph.D. Plant and Soil Sciences, University of Georgia). Dissertation title*: TBD*

Robert Sorrells (Ph.D. Geography, University of Georgia). Dissertation title*: TBD*

Shannon Healy(M.S. Geography, University of Georgia). Thesis title*: TBD*

Past M.S. and Ph.D. Committees:

Himanshu Pendyala (M.S. Computer Science, University of Georgia; 2018). Thesis title: *A temperature and activity based adaptive smartphone sensing framework in the context of urban heat islands.*

Brad Johnson (Ph.D. Geography, University of Georgia; 2019). Dissertation title: *The impact of urbanization on regional scale climate and winter precipitation.*

Ashton Griffin (Ph.D. Ecology, University of Georgia; 2018). Dissertation title: *Understanding and predicting coral disease across scales: White Pox and the critically-endangered Elkhorn coral, Acropora Palmata.*

Andrew Knight (M.S. Geography, University of Georgia; 2018). Thesis title: *Detection of Landmine and Unexploded Ordnance-Like Targets using UAS and Image Analysis.*

Abigail Knapp (M.S. Geology, University of Georgia; 2018). Thesis title: *Spatiotemporal dynamics of the hydrologic drivers of harmful algal blooms in two Piedmont reservoirs, Georgia.*

Pranjay Patil (M.S. Computer Science, University of Georgia; 2017). Thesis title: *Classification and location extraction of harmful algal blooms from microblogs*

Elizabeth Anne Guinessey (M.S. Ecology, University of Georgia; 2017). Thesis title*: Variability in greenhouse gas flux within a temperate salt marsh ecosystem.*

Moumita Chanda Das (M.S. Computer Science, University of Georgia; 2017). Thesis title: *Incentivization for citizen science: A case study on monitoring cyanobacterial harmful algal blooms.*

Steve Padgett-Vasquez (Ph.D. Geography, University of Georgia; 2017). Dissertation title*: Forest connectivity from a bird's eye view: Linking cloud forests to mangroves in the Bellbird Biological Corridor of Costa Rica*.

Vinay Kumar Boddula (Ph.D. Computer Science, University of Georgia; 2017). Dissertation title*: Cyber-Social-Physical approaches towards effective detection of cyanobacterial blooms.*

Brett Stephen Berry (M.S. Ecology, University of Georgia; 2016). Thesis title: *Quantifying the effects of white pox disease and bleaching in Elkhorn coral in the Florida Keys from 1994-2014.*

Fang Cao (Ph.D. Marine Science, University of Georgia; 2015). Dissertation title: *A new algorithm to retrieve Colored Dissolved Organic Matter (CDOM) absorbance spectra in the UV from ocean color*.

Awani Joshi (M.S. Computer Science, University of Georgia; 2015). Thesis title: *A measurement study on harmful algal blooms using social media-Twitter*

Reshma Chowdary (M.S. Computer Science, University of Georgia; 2015). Thesis title: *Computation analysis of satellite data for chlorophyll concentration*

Branden McGee (M.E.P.D, College of Environmental Design, University of Georgia; 2014). Thesis title: *Using spatial analysis to determine critical areas of the encroachment of saltwater for planning*

Siva Venkat Gogineni (M.S. Computer Science, University of Georgia; 2014). Thesis title: *An empirical evaluation of big data technologies for federated sensor services*

Igor Ogashawara (M.S. Remote Sensing, National Institute for Space Research, INPE, Brazil; 2014). Thesis title: *Re-parameterization of a quasi-analytical algorithm and phycocyanin estimation for a tropical reservoir*

Jamie Morgan (M.S. Forestry, University of Georgia; 2013). Thesis title: *Novel methods for detection and management of the epiphytic cyanobacterium, (Order Stigonematales) on Hydrilla Verticillata*

Calista Gauthrie (M.S. Geosciences, Mississippi State University; 2012). Thesis title: *Salt marsh sediment biogeochemical response to the BP Deepwater Horizon blowout (Skiff Island, LA, and Cat Island, Marsh Point and Saltpan Island, MS)*

Richard Carley Jr. (M.S. Geosciences, Mississippi State University; 2012). Thesis title: *Evaluation of the impact of the Deepwater Horizon oil spill and hurricanes on wildfires in southeast Louisiana*

Saranee Dutta (M.S. Geosciences, Mississippi State University; 2010). Thesis title: Landscape partitioning for within class fire size variance reduction

Matthew Byron Bethel (Ph.D. Earth and Environmental Sciences, University of New Orleans; 2009). Dissertation title: *Geospatial technology/traditional ecological knowledge-derived information tools for the enhancement of coastal restoration decision support processes.*

Jennifer C. Roberts (M.S. Earth and Environmental Sciences, University of New Orleans; 2008). Thesis title: *Vegetative response to hurricane sedimentation.*

Ph.D. External Examiner:

Shailaja Thapa (Ph.D. Environmental Science and Engineering, Indian School of Mines, Dhanbad; 2018). Dissertation title: *Characterization of land subsidence phenomena in Jharia Coalfield, India using differential interferometric SAR and advanced differential interferometric SAR.*

Debishree Khan (Ph.D. Environmental Science and Engineering, Indian School of Mines, Dhanbad; 2015). Dissertation title: *Evaluating the scenario and options of solid waste management using GIS: A case study of Dhanbad city, India.*

Sumit Kumar Chaudhary (Ph.D. Environmental Science and Engineering, Indian School of Mines, Dhanbad; 2015). Dissertation title: *Investigation into the satellite image fusion and quality assessment techniques for land use applications.*

Undergrads Mentoring:

Caleb Adam, Juweek Adolphe, Ryan Babaie, Helena Bales, Anurag Banerjee, Chrissie Brady, Kenny Cochran, Paige Copenhaver, CJ Gonzales, Graham Grable, Nicholas Gravina, Nirav Ilango, Paul Keith, Adam King, Megan LeCorre, Nicholas Neel, Khoa Ngo, Jaicob Stewart, Timothy Brown, Zachary Grayson**,** James Headley, William Hill, Matthew Hinton, Edward Holland, Tyler Hunt, Jermil Lott, Mirandy Lott, Andrew Tucker, Brent Wallace

LABORATRY STAFF SUPERVISED (CURRENT & FORMER)

- Wenjing Xu, Research Assistant, 2014-2015
- Benjamin Page, Part-time Worker, 2014-2015
- Jacob M. Spaulding, Part-time Worker, 2014-2015
- Ayn Remillard, Part-time Worker, 2014-2015
- Pradeep Ragu Chanthar, Web Developer (part-time) , 2013-2014
- Joel Craig, Field Operation Manager, 2013-2014
- Christopher Downs, Field Operations Manager, 2010-2012

MEMBERSHIPS

- Member: **American Geophysical Union**
- Member: **Geological Society of America**
- Member: **Association of American Geographers**
- Member: **American Society for Photogrammetry and Remote Sensing**
- Member: **Sigma Xi**
- Member: **Southeastern Estuarine Research Society**
- Member: **Southeastern Division of the Association of American Geographers**

ACADEMIC AND PROFESSIONAL SERVICE

Grant Review:

- Reviewer for Maryland SeaGrant Annual Grant Program, 2019
- NSF Proposal Reviewer for the Division of Ocean Sciences, Ocean Technology and Interdisciplinary Coordination Program (OTIC) Program, 2019
- Reviewer for User Support Programme Space Research, Netherlands Space Office, Dutch Research Council, NOW, 2019
- NSF EPSCor (Kansas) Proposal Ad-hoc Reviewer, 2018
- Review Panel Member (November 2018): NASA ROSES 2018 proposal solicitation A.46, DSCOVR Science Team
- Reviewer for Civilian Research & Development Foundation (CRDF) Global Grant Program, 2018
- NSF GSS Proposal Ad-hoc Reviewer for the Major Research Instrument (MRI) Program, 2018
- Reviewer for National Academy of Sciences Gulf Research Program, 2017
- Reviewer for RESTORE Act Center of Excellence for Louisiana, 2017
- Reviewer for Civilian Research & Development Foundation (CRDF) Global Grant Program, 2017
- Reviewer for South Carolina SeaGrant Annual Grant Program, 2017
- Reviewer for NASA SC Space Grant/EPSCoR Grant Proposal, 2017
- Reviewer for Netherland's Technology Foundation STW (STW) Grant Proposal, 2016
- Reviewer for Belgian Federal Government's Support to Exploitation and Research in Earth Observation (STEREO III) Grant Proposal, 2016
- Reviewer for New Zealand Government's National Science Challenges "Sustainable Seas Challenge" Grant Proposal, 2016
- NSF Proposal Reviewer for the Division of Ocean Sciences, Ocean Technology and Interdisciplinary Coordination Program (OTIC) Program, 2016
- Reviewer for Civilian Research & Development Foundation (CRDF) Global Grant Program, 2016
- NSF Geography and Spatial Sciences (GSS) Advisory Panel, 2014-2016
- Review Panel Member (May 2015): NASA ROSES 2015 proposal solicitation A.45, HyspIRI Preparatory Airborne Activities and Associated Science: Coral Reef and Volcano Research.
- Reviewer for Brazilian National Council for Scientific and Technological Development (CNPq) Grant Proposals, 2015
- NSF Proposal Ad-hoc Reviewer for the Major Research Instrument (MRI) Program, 2015
- NASA Proposal Reviewer for the Remote Sensing Theory (RST) Program, 2015

- Reviewer for Estonian Research Council (ETAg) Grant Proposal, 2015
- Reviewer for Estonian Research Council (ETAg) Postdoctoral Grant Proposal, 2015
- Reviewer for U.S. Civilian Research & Development Foundation (CRDF) Global Grant Program, 2014
- NSF Proposal Ad-hoc Reviewer for the Geography and Spatial Sciences Program 2013-2014
- Reviewer for Civilian Research & Development Foundation (CRDF) Global Grant Program, 2013
- Review Panel Member (March 2011): Henry Family Research Fund proposal solicitation; College of Arts and Sciences, Mississippi State University.
- Review Panel Member (March 2010): NASA ROSES 2009 proposal solicitation A.40-Earth Science for Decision Making: Gulf of Mexico Region.
- Reviewer (2009): Natural Environment Research Council (NERC) -Technologies Proof of Concept Funding Programme (NE/H002685/1).

Editorial Service

- Associate Editor: *ISPRS Journal of Photogrammetry and Remote Sensing*, 2018-present
- Senior Associate Editor: *Remote Sensing*, 2018-present
- Co-Editor: *Southeastern Geographer*, 2015-present
- Associate Editor: *Remote Sensing*, 2016-2018
- Co-Editor: Book on "*Bio-Optical Modelling and Remote Sensing of Inland Waters*" Elsevier (Anticipated publication date: January, 2017)
- Co-Editor: Book on "*Ecology, Restoration, and Conservation of Chilika Lake*", Springer (Anticipated publication date: August, 2017
- Co-Editor of 2016 Special Issue on "Remote Sensing in Coastal Environments" for the journal "*Remote Sensing*"
- Co-Editor of 2015 Special Issue on "Remote Sensing of Water Resources" for the journal "*Remote Sensing*"
- Editorial Board Member: *GIScience and Remote Sensing*, 2014-present
- Editorial Board Member: *Remote Sensing*, 2014-2016
- Editor of 2013 Special Issue on "Coastal Remote Sensing" for the journal "*GIScience and Remote Sensing*"

Journal and Book Review:

- Book Reviewer: *Coral Reef Remote Sensing: A Guide for Mapping, Monitoring and Management* for Springer
- Editorial Review Panel Member (November 2011): Springer Book on "Coral Reef Remote Sensing: A Guide for Mapping, Monitoring and Management"
- Occasional Reviewer for
  Hydrobiologia, 2019-present
  Biodiversity and Conservation, 2018-present
  Great Lakes Research, 2018-present
  Indian Journal of Geo Marine Sciences, 2018-present
  Journal of Marine Biological Association of UK (JMBA), 2018 -present
  Advances in Water Research, 2017-present

Proceedings of National Academy of Sciences, India ,2017-present
International Journal of Health Geographics, 2016-present
Marine Pollution Bulletin, 2016-present
Environmental Monitoring and Assessment, 2016-present
Harmful Algae, 2015-present
Agricultural and Forest Meteorology, 2015-present
Remote Sensing Letters, 2015-present
Environmental Practice, 2015-present
Ecological Modelling, 2014-present
Pedosphere, 2014-present
IEEE Geoscience and Remote Sensing Letters, 2014-present
Sensors, 2013-present
Journal of Applied Remote Sensing, 2013-present
Ecological Informatics, 2012-present
PLOS One, 2012-present
Science of the Total Environment, 2012-present
Journal of Applied Meteorology and Climatology, 2012-present
Limnology and Oceanography Methods, 2012-present
Environmental Research Letters, 2012-present
Environmental Monitoring and Assessment, 2011-present
Journal of Vegetation Science, 2011-present
Chinese Journal of Oceanology and Limnology, 2010-present
Geomatics, Natural Hazards and Risk, 2010-present
Marine Ecology, 2010-present
Arid Land Research and Management, 2010-present
IEEE Transactions on Geoscience and Remote Sensing, 2010-present
Global Change Biology Bioenergy, 2010-present
Earth Interactions, 2010-present
IEEE J-STARS, 2010-present
Environmental Management, 2009-present
Continental Shelf Research, 2009-present
International Journal of Environmental Research and Public Health, 2009-present
Journal of Environmental Management, 2009-present
Central European Journal of Geosciences, 2008-present
Remote Sensing of Environment, 2008-present
Advances in Space Research, 2008-present
Journal of Coastal Research, 2008-present
International Journal of Remote Sensing, 2007-present
SPIE: *Journal of Applied Remote Sensing*, 2007-present
Geophysical Research Letters, 2006-present
Marine Geodesy, 2006-present
Photogrammetric Engineering and Remote Sensing, 2005-present
Geological Society of America (*GSA Books*), 2005-present
Geocarto Internationals, 2005-present

Invited Lectures:

- Invited Speaker: School of Earth, Ocean and Climate Sciences, Indian Institute of Technology (IIT), Bhubaneswar, India, January, 2019
- Invited Speaker: Department of Atmospheric Sciences and National Space Science and

Technology Center Joint Colloquium, University of Alabama, Huntsville (UAH), March, 2018

- Invited Speaker: Coastal Sciences Seminar Series, Gulf Coast Research Laboratory, University of Southern Mississippi, September, 2017
- Invited Speaker: XVII Brazilian Symposium of Remote Sensing, Santos, Brazil, May, 2017
- Invited Speaker: Department of Cartographic Engineering, São Paulo State University, Presidente Prudente, Brazil, March 2017
- Invited Speaker and Visiting Faculty: Department of Environmental Sustainability, Xavier University, Bhubaneswar, India, December, 2016
- Invited Speaker: Asian Institute of Public Health, Bhubaneswar, India, December, 2016
- Invited Speaker: Department of Marine Sciences, Berhampur University, India, December, 2016
- Invited Speaker: Department of Environmental Science and Engineering, Indian School of Mines, Dhanbad, India, December, 2016
- Invited Speaker: Center for Oceans, Rivers, Atmosphere and Land Sciences, Indian Institute of Technology, Kharagpur, India, November, 2016
- Keynote Speaker: Research Scholar Day at CORAL, Indian Institute of Technology, Kharagpur, India, November, 2016
- Keynote Speaker: 91thAnnual Scientific Meeting of Indonesian Geographer Society (IGI), Malang, Indonesia, October, 2016
- Invited Speaker: Department of Geography Social Science, Universitas Negeri Malang, October, 2016
- Invited Speaker: Geography Colloquium, University of South Carolina, Columbia (USC), September, 2016
- Invited Speaker: Earth Science Seminar, Indiana University-Purdue University Indianapolis (IUPUI), March, 2016
- Invited Speaker: Graduate Lecture Series, Bethune-Cookman University, Florida, March, 2016
- Plenary Speaker: Coffee with the Pros: Crafting Your NSF CAREER Award Proposal, University of Georgia, November, 2015
- Plenary Speaker: UGA Big Data Symposium, University of Georgia, October, 2015
- Invited Speaker: Earth, Planetary, and Space Sciences Institute seminar, Michigan Tech, September, 2015
- Invited Speaker: Impact of Deepwater Horizon on wetlands in the Gulf of Mexico workshop, LA SeaGrant, New Orleans, August, 2015
- Invited Speaker: Distinguished Lectures in Mathematics and Computing, Embry-Riddle Aeronautical University, April, 2015
- Invited Speaker: Odum School of Ecology, University of Georgia, April, 2015
- Invited Speaker: Department of Cartographic Engineering, São Paulo State University, Presidente Prudente, Brazil, March 2015
- Invited Speaker: Chilika Development Authority (CDA), Government of Odisha, India, July 2014
- Invited Speaker: National Institute of Technology (NIT), Rourkela, India, July 2014
- Invited Speaker: Department of Geology, Indian School of Mines (ISM), Dhanbad, June 2014
- Invited Speaker: National Institute for Space Research (INPE), Brazil, March 2014
- Invited Speaker: Center for Integrative Conservation Research, University of Georgia,

March 2014
- Invited Speaker: Department of Cartographic Engineering, São Paulo State University, Presidente Prudente, Brazil, November 2013
- Invited Speaker: Department of Marine Science, University of Southern Mississippi, Stennis Space Center, November 2011
- Invited Speaker: Integrated Environmental Science, Bethune-Cookman University, November 2011
- Invited Speaker: Department of Biological Sciences, Mississippi State University, November 2009

Other Service:

- Co-organizer of a workshop on "Urban Environmental Sustainability in a Smart and Connected World", August 2018.
- Scientific committee member 2018 International Conference on Advanced Remote Sensing (ICARS 2018)
- Judge in 2015 AAG RSSG Student Honors Poster Competition
- Investigator and Mentor: NASA DEVLOP program (January 2013-present)
- Member: HICO data user (November 2012-present)
- Director: Remote Sensing Specialty Group (RSSG) (748 members), Association of American Geographers (AAG), March 2009-present
- Judge in 2009 AAG RSSG Student Honors Paper Competition
- Coordinator for 2006 *Joint Remote Sensing Seminar* hosted by Purdue University

University and Departmental Service:

- Search Committee Member for *Business Manager*, Department of Geography, 2019
- Search Committee Member for *Grants Coordinator*, Department of Geography, 2019
- UGA OVPR's James L. Carmon Scholarship Committee, 2017-2018
- UGA Department of Marine Sciences Faculty Hire Search Committee, December, 2017
- UGA Department of Geography Strategic Planning Committee, August, 2017
- Chair, UGA's Georgia Informatics Initiative Executive Committee, January 2017-present
- UGA Department of Geography Advisory Committee, August 2016-2017
- UGA's Georgia Informatics Initiative Founding Committee, 2016
- UGA's Georgia Informatics Symposium Planning Committee, 2016
- UGA Department of Geography Graduate Studies Committee, August 2015-present
- UGA ICON Graduate Admission Committee, August 2014-2016
- Search Committee Member for *CGR Associate Director*, 2015
- UGA Department of Geography Colloquium Committee Chair, August 2014-2015
- UGA Department of Geography Advisory Committee, August 2013-2015
- Center for Integrative Conservation Research (CICR) Research Committee, August 2013-2014
- UGA Department of Geography Curriculum Committee, August 2013-present
- UGA Department of Geography Ad hoc Committee on undergraduate major recruitment, January 2013-present
- UGA Department of Geography Instructional Tech Committee, August 2012-July 2013
- MSU Department of Geosciences Ph.D. Enhancement Committee, August 2009- July 2012
- UNO Earth and Environmental Sciences Undergraduate Advising Committee, August 2008-

July 2009

RECOGNITITIONS AND AWARDS

- 2018 Global Initiative for Academic Network (GIAN) Award to teach a course titled "Bio-optical Characterization of Water Resources" at IIT Kharagpur, India
- 2018 Fulbright Specialist Award to teach a course titled "Remote Sensing in Earth System Science" at Xavier University, Odisha, India
- 2017 Creative Research Medal, University of Georgia
- Best Poster Award, TROPMET 2016, India
- Featured Researcher (2016), Center for Integrative Conservation Research (CICR), UGA
- SEDAAG Research Honors Award, 2015
- Best Poster Award, Southeast Climate Consortium Fall Meeting, 2015
- Mississippi State University - Centers and Institutes Faculty Research Award (2012)
- Mississippi State University - Cherri M. Musser Faculty Award ($2,500), (2011)
- Geosystems Research Institute, Mississippi State University: GRI Academic Faculty of the year (2011)
- University of Nebraska, Lincoln- Outstanding Research Assistant of the year (2006)
- Invited Talk: Represented School of Natural Resources in *Nebraska Symposium on Interdisciplinary Graduate Science Research, (2005)*.
- David and Anne Larric Student Fund, School of Natural Resources, UNL, (2005).
- ONR/NSF funding for attending a training course "Ocean Optics: Radiative Transfer and Inversions of Ocean Color Remote Sensing" at Darling Marine Center, Maine, (2004).
- Ted Elliott Memorial Student Fellowship, School of Natural Resources, (2004).
- Goddard Coastal Research (GCR) Fellowship, GSFC, NASA, (2003)
- Graduate Fellowship, School of Natural Resources, University of Nebraska, (2002)
- Graduate Fellowship, Indian Institute of Technology, Kanpur, India, (2000)
- Best Graduate Student Certificate, National Geophysical Research Institute (NGRI), India, (2000).
- Oil and Natural Gas Corporation (O.N.G.C), Chennai, India, Gold Medal, (2000).
- Pondicherry University Gold Medal, (2000).