DeBonne N. Wishart, Ph.D.

Environmental Scientist ● Hydrogeophysicist ● Hydrogeologist

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https://scholar.google.com/citations?user=kZO6VXIAAAAJ

***Executive Summary*:** Broadly trained and accomplished Environmental Geoscientist with extensive geological experience ● Combined 22 years of experience teaching and research experience ● Expertise in geophysical, hydrological, geochemical, and proximal and remote software and sensor platforms ● Research Agency Review Panelist ● Excellent interpersonal, written, and oral communication skills ● Experienced with rigorous tasks in complex, high-demanding environments ● Fairly fluent in Spanish (SL)

Education

Ph.D. Environmental Science & Environmental Studies, Rutgers University-Newark and Jersey & New Jersey Institute of Technology (NJIT), 2008.
M.S. Geological Sciences (Hydrogeology), Virginia Tech, 2000.
B.A. Geology & Business Administration (Minor), Rutgers University-Newark, 1997.
D.M.S. Management Studies, University of Technology/JIM School of Advanced Management, Jamaica WI. 1990.

Languages

English Oral and Written (First Language)
Spanish-Oral and Written (Second Language,)

Professional Experience

Academic Appointments & Experience:

2021–Present *Professor*, Environmental Sciences and Geosciences, International Center for Water Resources Management, Central State University, Wilberforce, OH.
2015-Present T*enured Associate Professor*, Environmental Sciences and Geosciences International Center for Water Resources Management, Central State University, Wilberforce, OH.26
2017-2018 Research Scientist/Visiting Scholar, USDA-ARS Soil Drainage Unit Midwest Area, Ohio State University, Columbus, OH.
2010-Present *Assistant Professor*, Environmental Sciences and Geosciences (Tenure-Track) - Central State University International Center for Water Resources Management, Wilberforce, OH.
2009-2010 *Lecturer*, Hydrogeology & Hydrology & Surface Processes, State University of New York at Buffalo (SUNY) Department of Geology, NY.
2008-2009 *Visiting Assistant Professor*, Illinois Wesleyan University Department of Chemistry, Bloomington, IL.
2002-2008 *Geology Instructor*, Rutgers University-Newark Department of Academic Foundations EOF Summer Program, Newark, NJ.

2007-2008 *Doctoral Fellow*, Rutgers University-Newark, NJ Department of Earth and Environmental Sciences, Newark, NJ.
2002-2005 *Graduate Teaching Assistant*, Rutgers University-Newark, NJ Department of Earth and Environmental Sciences, Newark, NJ.
2000-01 *Assistant Project Hydrogeologist and Groundwater Modeler*, TRC Environmental Corporation, Hazmat Division, Windsor, Connecticut.
1995-1996 *Geology Laboratory Instructor*, Rutgers University-Newark, Department of Geology, Newark, NJ.
1997-1999 *Graduate Teaching Assistant*, Virginia Polytechnic Institute and State University Blacksburg, VA.
1990-91 *Supervisor and Authorized 'B' Signatory, Executive Accounts,* National Commercial Bank Jamaica Limited Corporate Office, Kingston, Jamaica W.I.
1983-91 *Tiller and Clerical Officer*
National Commercial Bank Jamaica Limited King Street/Duke Street Branches, Kingston, Jamaica, W.I.

Fellowships & Internships:
2017 USDA ARS 1890 Faculty Research Sabbatical Fellow, Soil Drainage Unit – Midwest Area, Department, Ohio State University, Columbus, OH.
2006 Dissertation Fellow, Newark Graduate School, Rutgers University-Newark.
2002 Newark Graduate School Fellow, Rutgers University-Newark, New Jersey.
1999 Summer Intern, Virginia Tech Multicultural Academic Opportunities Program (MAOP).

Professional Affiliations

2020-Current International Association for Promoting Geoethics (IAPG)
2020-2023 International Geothermal Association (IGA) #53266942
2017 - 2019 Professional Member, New York Academy of Sciences (NYAS)
2002-Current International Association of Hydrological Sciences (IAHS)
2016-Current Member (Educator), Global STEM Alliance of New York Academy of Sciences
2015-2018 International Geothermal Association (IGA) #53266942
2011-Current Professional Member, Water Management Association of Ohio
2009-Current Organization for Women in Science for the Developing World (OWSD) #3928
2015-2016 Full Member, American Meteorological Society, #413767
2014-2016 Society of Engineering and Environmental Geophysicists (EEGS)
2013-2016 Full Member, Sigma Xi –Univ. of Dayton Chapter, #20131890001
2013-2016 Society of STEM Women of Color (SSWOC), RM 2013131
2012-2015 International Geothermal Association (IGA)
2011-2015 Environmental and Engineering Geophysical Society (EEGS)
2011-2015 Professional Member, Geological Society of America (GSA)-N. Eastern/Central
2010-2012 Professional Member, National Groundwater Association (NGWA)
2005-Current American Geophysical Union-Near-Surface Geophysics (NSG)

Honors and Awards

2016 Founding Member Honor' of Society of STEM Women of Color (SSWOC)
2014 State of Ohio Office of the Governor and Lieutenant Governor '2013 Greene County OH Achiever (Resolution # 14-4-17-21).
State of Ohio General Assembly Award for 'Tremendous Success'.
2013 State of Ohio General Assembly Award for 'Outstanding Achievement'.

Geological Society of America (GSA)/ExxonMobil Bighorn Basin Field Award for University Professors

1997 Rutgers-Newark Honors College 'Rutgers Scholar', Newark, NJ.

H. P. Woodward Award for 'Outstanding Undergraduate Achievement in Geology', Rutgers University-Newark, NJ.

Inge Gambe Memorial Award for 'Outstanding Achievement of an International Student', Rutgers University-Newark, NJ.

Publications

Refereed Journal Articles:

2020 Allred, B., Martinez L., Fessehazion, M., Rouse, G., Koganti, T., Freeland, R., Eash, E., ***Wishart, D***., Featheringill, F., Time of Day Impact on Mapping Agricultural Subsurface Drainage Systems with UAV Thermal Infrared Imagery. *Agricultural Water Management*, 256, 107071. https://doi.org/10.1016/j.agwat.2021.107071. **[24 Citations]**

2019 Allred, B. J., Martinez L., L. Martinez, Rouse, G., Williamson, T., ***Wishart, D.***, Koganti, T, Freeland, R, Eash, N., Batschelet, A., and Featheringill, R., Overall results and key findings on the use of UAV Visible True Color, Multispectral, and thermal infrared imagery to map agricultural drainage pipes, *Agricultural Water Management*, 232, 106036. **[67 Citations]**

Allred, B. J., N. Eash, R. Freeland, L. Martinez, and ***D. N. Wishart***, Agricultural drainage tile surveying using an unmanned aerial system with Real-Time Kinematic Positioning: A Case Study, *Computers and Electronics in Agriculture*, 165, 10946, 1-8. **[35 Citations]**

2018 Allred, B., ***Wishart, D.***, Martinez L., Schromberg, H., Mirsky, S., Meyers, G., Elliott, and Charyton, C., Delineation of agricultural drainage patterns using ground penetrating radar integrated with a real-time kinematic global navigation satellite system. *Agriculture*, *8*(11), 167. https://doi.org/10.3390/agriculture8110167. **[37 Citations]**

Allred, B. J., N. Eash, R. Freeland, L. Martinez, and ***D. N. Wishart***, Effective and efficient agricultural drainage pipe mapping with UAS thermal infrared imagery: A Case Study. *Agricultural Water Management*, 197, 132-137. **[72 Citations]**

2009 ***Wishart, D. N.***, L. D. Slater , D. L. Schnell, and G. Herman, Hydraulic anisotropy characterization of pneumatic-fractured sediments using azimuthal self-potential gradient, *Journal of Contaminant Hydrology*, 103, (3-4), 134-144. **[22 Citations]**

2008 ***Wishart, D. N.***, L. D. Slater, and A. E. Gates, Fracture anisotropy characterization in crystalline bedrock using field-scale azimuthal self-potential gradient, *Journal of Hydrology, 358,* 35 – 45, doi:10.1016/j.jhydrol.2008.05.017. **[46 Citations]**

2006 ***Wishart, D.N.***, L.D. Slater, and A.E. Gates, Self-potential improves characterization of hydraulically-active fractures from azimuthal geoelectrical measurements, *Geophysical Research Letters,* 33, 17314, doi: 1029/2006GL027092. **[74 Citations]**

2005 Slater, L. D., D. Ntarlagiannis, and ***D. N. Wishart***, On the relationship between induced polarization and surface area in metal-sand and clay-sand mixtures, *Geophysics*, 71(2), A1 – A5. **[197 Citations]**

International Electronic Magazine Articles: Near Surface Geophysics:

2017 Wishart, D. N. and B. J. Allred, Self-Potential: An underexplored geophysical tool for soil drainage, in FastTIMES, Volume 22(4), December 2017, Quarterly Magazine of the Environmental and Engineering Geophysical Society (EEGS).

Abstracts in Preparation for Submission:

2026 ***Wishart, D. N.***, Delineation of a low-temperature geothermal system, Using Landsat Imagery, Bath, St. Thomas, Jamaica, World Geothermal Congress (WGC) 2026, June 22, 2026, Calgary, Alberta, Canada.

Abstracts Accepted:

2022 Fisher, J., ***Wishart, D. N***., Koon-Koon- R., Status of the geothermal resources of Jamaica: Country Update, Abstract No. 1442, Technical Programme of the 2023 World Geothermal Congress, Beijing, China.

Conference Proceedings (Published):

2021 ***Wishart, D. N.***, Binary Cycle Plant design for water-dominated, low enthalpy geothermal system, 40th World Geothermal Congress (WGC), May 21-26, 2021, Reykjavik, Iceland. (Accepted 12-22-2019) **[2 Citations]**

Wishart, D. N., Evolution of a Geothermal Brine from a Low-Temperature Radioactive Spring, World Geothermal Congress (WGC), May 21-26, 2021, Reykjavik, Iceland.

2018 Allred, B. J., Freeland, R., ***Wishart, D. N.***, Rouse, G., and Williamson, T., Mapping agricultural subsurface drainage by proximal and remote sensing technologies integrated with a satellite navigation system, Agricultural Geophysics: Invited Paper #351735, American Geophysical Union Fall Meeting, December 10-14, Washington DC.

Allred, B. J., N. Eash, R. Freeland, L. Martinez, and ***D. N. Wishart***, Incorporating unmanned aircraft imaging with ground-penetrating radar for efficient mapping of agricultural drainage tile systems, 29th Annual Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP), March 25- 29, 2018, Nashville, TN.

Freeland, Allred, B. J., N. Eash, ***D. N. Wishart*** and R. L. Martinez, Incorporating unmanned aircraft imaging with ground-penetrating radar for efficient mapping of agricultural drainage tile systems, 29th Annual Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP), March 25- 29, 2018, Nashville, TN.

2015 ***Wishart, D.N.***, Comparison of silica and cation geothermometers of Bath hot springs, Jamaica WI, World Geothermal Congress (WGC)/Stanford University, April 19-24, 2015, Melbourne Australia and New Zealand. [Peer-reviewed by the Stanford Geothermal Program, Stanford University, CA]. **[26 Citations]**

2014 ***Wishart, D.N.***, Chemometrics and hydrogeochemistry of thermal and mineralized waters of eastern and central Jamaica, MinWat 2014, "International Multidisciplinary Conference on Mineral Waters: 'Genesis, Exploitation, Protection and Valorisation", Theme A: Hydrogeology and Hydrogeochemistry-origin, Protection and Management, 8-11 September 2014, Karlovy Vary (Carlsbad), Czech Republic.

2013 ***Wishart, D. N.***, Geothermometry and shallow circulation of a low enthalpy System: The Bath Geothermal Reservoir, Jamaica, Proceedings Paper, the 38th Workshop on Geothermal Reservoir Engineering, SGP-TR-176, Stanford University, Stanford, California, February 11-13, Stanford, CA. [4 Citations]

2008 ***Wishart, D. N.*** and D. Schnell, Non-Invasive geotechnical technique for evaluating fractures induced by pneumatic or hydraulic fracturing, The Sixth International Conference on Oxidation and Reduction Technologies for In-Situ Treatment of Soil and Groundwater (ORTs-6), September 2008, San Diego, CA.

Wishart, D. N., L. D. Slater , D. L. Schnell, and G. Herman, Azimuthal signatures associated with pneumatic fracturing, Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP), ISSN (print): 1554-8015, pp. 829-832 Society of Exploration Geophysics (SEG), April 2008, Denver, Colorado,

2007 ***Wishart, D. N***., and L. D. Slater, Anisotropy characterization of fractured crystalline bedrock using asymmetric azimuthal geoelectric techniques, EOS Transactions, American Geophysical Union, 88(23), Joint Assembly Supplement, Abstract NS53A-07. Slater, L. D., ***D. N. Wishart***, and A. E. Gates, Geoelectrical characterization of hydraulic anisotropy in fractured rock aquifers, 2007 US.EPA/NGWA Fractured Rock Conference: State of the Science and measuring Success in Remediation (5017), September 24–26, Portland, MA. (ORAL)

2006 ***Wishart, D. N***., and L. D. Slater, Hydraulic and electric anisotropy characterization of the New Jersey Highlands fractured bedrock in "Environmental Geology of the Highlands," Field Guide and Proceedings, Eds. S. Macaoay and W. Montgomery, Geological Association of New Jersey, XXIII Annual Conference and Field Trip, October 13-14, 2006, Ramapo College, NJ.

Panels:

2023 Panelist on "Carbon Neutral Future", 42nd Annual Technical Conference of the National Association of Black Geoscientists (NABG), September 27-30, 2023, Washington, DC.

2019 Stephanie Pearl (ORISE), Chavonda Jacobs-Young (Administrator, USDA-ARS), ***and D. N. Wishart***, "1890 Faculty Research Sabbatical Program (FRSP) FY 2020 Informational Webinar, USDA Agricultural Research Service, December 5, 2019.

Conferences (Oral, Poster, & Virtual):

2026 World Geothermal Congress (WGC 2026) Forging Geothermal Innovation, Calgary, Alberta, Canada, June 8-12, 2026.

2025 VIS 2025 Virtual Island Innovation Summit

2024 PIVOT 2024 – Catching Fire Series hosted by Project Innerspace (geothermalhouse.org Virtual Conference) – September 24, 2024, New York, New York. (**Virtual Conference**)

2023 PIVOT 2023 – Building Bridges, University of Texas at Austin, September 4, 2023-October 6, 2023, Houston, Texas. (**Virtual Conference**)
Week I – Plenary and Geothermal and Artificial Intelligence (AI) 9/13/2023
Week II – Spotlights on Geothermal in Kenya and Nigeria (AI) 9/20/2023
Week III – Spotlights on Geothermal in Canada, Colombia, and the Mideast 9/27/2023
Week IV – Live Broadcast from Geothermal Rising Conference, Reno Nevada 10/6/2023
Grants Resource Center/American Association of State Colleges and Universities (GRC/AASCU) Virtual Funding Summit, GRC AASCU April 11- 13, 2023.

2022 PIVOT 2022 All Hands-on Deck - Pivoting Hydrocarbons to Geothermal (Virtual Conference) – July 25-29, 2022. (**Virtual Conference**)
US Department of Defense (DOD) Science, Mathematics, and Research for Transformation (SMART) Symposium: Creating Leaders of the Future July 12 - 14, 2022, Tysons, Virginia. (**Virtual Conference**)
Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUASI) Cyberseminars: "*Hydrologic Science and Indigenous Voices*" presented May 18-June 22, 2022.
(Virtual Conference)

2021 PIVOT 2021 Geothermal. Reimagined - Pivoting Hydrocarbons to Geothermal (Virtual Conference) – July 19-23, 2021

2019 *Wishart, D. N.*, Allred, B. J., Spectral and Quantitative Monitoring of Tile-Drainage on Agricultural Watersheds", Session H330 - Remote Sensing Applications for Water Management and Extremes Prediction III Poster # **H33O-2236** American Geophysical Union Fall Meeting, December 9-13, 2019, San Francisco, CA. (Poster)

2018 ***Wishart, D. N***., Allred, B. J., Martinez, L., Electrokinetic Response of Drainage Tile Functionality on Agricultural Farmlands, Agricultural Geophysics #419217 American Geophysical Union Fall Meeting, December 10-14, Washington DC. (Poster)

Freeland, R., Allred, B., Eash, N., Martinez, L., ***Wishart, D.N***., 2018, Incorporating Unmanned Aircraft Imaging with Ground-Penetrating Radar (GPR) and Real-Time Kinematics (RTK) for Efficient Mapping of Agricultural Drainage Tile Systems. #12 1801561, American Society of Agricultural and Biological Engineers (ASABE), **July 29 – August 1, 2018, Cobo Center,** Detroit, MI. (Oral)

Allred, B. J., Eash, N., Freeland, R., ***Wishart, D. N.,*** and Thayne, J., 2018, Remote Sensing Based Mapping for Agricultural Subsurface Drainage, Ohio LICA Convention, January, 2018, Columbus, OH. (Oral)

2016 ***Wishart, D. N.,*** Climate Proxies: An Inquiry-Based Approach to Discovering Climate Change on Antarctica, Session #ED005: Climate Literacy: in Multi-disciplinary Higher Education, American Geophysical Union Fall Meeting, December 12-16, 2016, San Francisco, CA. (Oral)

Wishart, D. N., Engaging Critical Thinking in Marine Science: Blending Paleoclimatology with Traditional Oceanography, American Meteorological Society Annual Meeting, January 11-14, 2016, New Orleans, LA. (Poster)

2015 ***Wishart, D. N***., Challenges to Gender Diversity in the Earth and Environmental Science Disciplines, Gender Summit 6 Asia-Pacific, Better Science & Technology for Creative Economy: Enhancing the Societal Impact through Gendered Innovations in Research, Development and Business, August 24-28, 2015, Seoul, South Korea. (Oral)

Wishart, D. N., Assessment of Geothermal Potential of an Emergent Thermal Spring, Clarendon Plains Basin, Geothermal potential Resources in Sedimentary Basins, American Geophysical Union Joint Assembly, May 3-7, 2015, Quebec, Canada,

Wishart, D.N., Technology-Driven and Innovative Training for Sustainable Agriculture in The Face of Climate Change, American Geophysical Union, December 14-19, 2015, San Francisco, CA. (Poster)

Wishart, D. N., Minority Serving Institutions (MSIs) as Engines for Improving Education on Climate Change, American Meteorological Society Annual Meeting, January 4-8, 2015, Phoenix, AZ. (Poster)

2014 ***Wishart, D.N.,*** Fluid evolution and geochemical signature of mineral springs: A multivariate statistical approach, Geological Society of America (GSA) Annual Meeting, October 19-22, 2014, Vancouver, British Columbia, Canada. (Oral)

Wishart, D. N., Characterization of geothermal fluids from emergent Na-Cl type waters of Milk River spring, Jamaica, Proceedings Paper, the 40th Workshop on Geothermal Reservoir Engineering, California, January 26-28, 2015, Stanford, CA. (Oral)

2014 ***Wishart, D.N.,*** Estimation of Reservoir Geotemperatures from Multicomponent and Classical Geothermometry of the Bath Geothermal Reservoir: An Integrated Approach, American Geophysical Union, December 15-19, 2014, San Francisco, CA. (Poster)

2012 ***Wishart, D. N***., Integrated hydrogeochemistry and geothermal assessment of thermal springs of Jamaica, West Indies. Geochemistry Session: Geological Society of America Annual Meeting, Session 43 – "Insights in Geochemistry", November 3-7, 2012, Charlotte, NC. (Oral)

Wishart, D. N., Hydrogeochemical and geothermometry of thermal springs in Central and Eastern Jamaica, 34th International Geological Congress, Session 6.2 (Geothermal Resources) , August 5-10, Brisbane, Australia. (Oral)

2008 Slater, L. D., ***D. N. Wishart***, D. L. Schnell and Herman, G. C., Hydraulic Anisotropy Characterization Using Azimuthal Self Potential Gradient [ASPG]: Results from

Pneumatic Fracturing of Tight Clay Soils, (Invited), Near Surface Geophysics, 2008 Fall Meeting, American Geophysical Union, December 15 – 19, San Francisco, CA.
Slater, L. D. and ***D. N. Wishart***, Geoelectrical characterization of hydraulic anisotropy in fractured rock aquifer model: the advantages of 'natural (self) potential over 'induced' electric potentials, Society of Exploration Geophysicists (SEG) Hydrogeophysics Workshop, July 31–August 2, 2008, Vancouver, BC, Canada.
Wishart, D. N., Implications of Chloride, boron, and lithium in hydrothermal systems of Jamaica, West Indies, Session: (Geothermal Resources), American Geophysical Union (AGU) Fall Meeting, Session H13G: Shallow and Deep Geothermal Systems: Characterization, Integration, Stimulation, Simulation, and Induced Seismicity III Posters, No.1444), December 3 -7, San Francisco, CA.
Wishart, D. N., L. D. Slater and A. E. Gates, Electrokinetic and anisotropic fluid flow in fractures, ExxonMobil Newark Basin Geoscience Workshop, May 26-30, 2008, Exxon Mobil Northeast Corporate Strategic Research (CSR) Center, Clinton, NJ.

2007 ***Wishart, D. N***., and L. D. Slater, Advancements in fracture anisotropy characterization of the New Jersey Highlands bedrock using azimuthal geoelectrical methods, American Geophysical Union, Spring Meeting 2007, May 22-25, Acapulco, Mexico, NA.
Wishart, D. N., and L. D. Slater, and A. E. Gates, Azimuthal geoelectrical characterization of fracture flow in the New Jersey Highlands bedrock, Geological Society of America 2006 Annual Meeting, Session 6: Fractured Rock Characterization in Applied Geology, Vol. 38, No. 7, p. 26 October 22–25, Philadelphia, PA.
Wishart, D. N. and L. D. Slater, Geoelectrical characterization of fracture flow in the New Jersey Highlands bedrock, 18th Annual Electromagnetic Induction (EMI) Workshop, Session 13: Other Contributions, S13- 12: September 17–23, El Vendrell, Spain (Poster)

2006 ***Wishart, D. N***., L. D. Slater, and A. E. Gates, Azimuthal geoelectrical characterization of fracture flow in the New Jersey Highlands bedrock, Geological Society of America 2006 Annual Meeting, October 22, Philadelphia, PA. (Poster)
Wishart, D. N., and L. D. Slater, Hydraulic and electrical anisotropy of the New Jersey Highlands fractured bedrock, Geological Association of New Jersey (GANJ), Fall Meeting, October 13-14, Ramapo College, Mahwah, NJ. (Oral)
Wishart, D. N. and L. D. Slater, Geoelectrical characterization of fracture flow in the New Jersey Highlands bedrock, 18th Annual Electromagnetic Induction (EMI) Workshop, September 17–23, El Vendrell, Spain. (Poster)

2005 Ntarlagiannis, D., L. D. Slater, and ***D. N. Wishart***, The dependence of induced polarization on surface area in metal sand and clay sand mixtures, American Geophysical Union Fall Meeting, Abstract #H41F-0465.
Wishart, D. N., L.D. Slater, and A. G. Bolden, An integrated geoelectrical assessment of fracture and anisotropy characterization of the North New Jersey Highlands bedrock, American Geophysical Union Fall 2005 Meeting, December 5–9, San Francisco, CA.

2003 Gates, A. E. and ***D. N. Wishart***, Environmental Education in Harriman–Sterling Forest State Park, Dorr Foundation Science Teachers Workshop, June 7, 2003, Sterling Forest, New York. (Oral)

1999 ***Wishart, D. N.***, A steady-state model of groundwater flow in the White Limestone aquifer of the Rio Cobre and Rio Minho-Milk River hydrologic basins, Jamaica, West Indies- Graduate Student Scientific Research Symposium (GSSRS), Virginia Tech.

Conference Sessions Convened and Chaired:

2021 Chair: Session 52B Power Generation R1- Power Plant, 2020+ 1 World Geothermal Congress, Tuesday, October 26, 2021 (13:00-14:40 pm), Room: Silfurberg B, Harpa Convention Center, Reykjavik, Iceland

2018 Co-Convener: Soil Science, 29th Annual Symposium on the Application of Geophysics to Engineering and Environmental Problems, March 25- 29, 2018, Nashville, TN.

2016 Primary Convener/Chair (D. N. Wishart): NS24A Near-Surface Geophysical Applications to Soil Processes, Dynamics, and Agriculture II (ORAL),
NS21B Near Surface Geophysical Applications to Soil Processes, Dynamics, and Agriculture I (POSTERS), Chair: X. Comas (Florida Atlantic University); Co-Conveners: B. Allred (USDA-ARS) and D. Ntarlagiannis (Rutgers University-Newark): AGU Fall Meeting, December 12-16, 2016, San Francisco, CA.

2015 Chair: Hydrogeology Session 3, 40th World Geothermal Congress, Thursday, April 23, 2015 (03:30 pm), Melbourne Convention and Exhibition Centre, South Wharf, Victoria 3006, Australia.

2007 Co-convener: NS06: 'Geophysical Characterization of Fractures and Fractured Media', American Geophysical Union (AGU), Spring Meeting, May 22-25, 2007, Acapulco, Mexico, N.A.

Manuscripts (In Progress):

2026 ***Wishart, D. N.***, Allred, B., Delineation and assessment of agricultural drain tile functionality from multispectral analysis of Landsat 8 satellite imagery. *Agricultural Water Management*, #AGWAT_2019_1688, (Under Revision for Resubmission).
Wishart, D. N. and B. J. Allred, A review of proximal sensing and remote sensing applications in agricultural research, *Agriculture and Natural Resources*
Wishart, D. N., Allred, B., and Martinez L., Electrokinetic Response to Tile Drainage on a California from Self-Potential, *Journal of Hydrology* (In Progress).
Wishart, D. N, Evolution of a seawater-derived brine and structurally–controlled flow associated with the South Coast Fault Zone, Jamaica, *Geothermics* (In Progress)

Dissertation & Theses:

2008 Wishart, D. N., 'Hydraulic anisotropy characterization of fracture-dominated media using azimuthal self-potential', (PhD) Dissertation, Department of Earth and Environmental Sciences, The Graduate School-Newark, Rutgers University, Newark, NJ, 198 p. Publication Number: AAI3326966; ISBN: 9780549791348; Source: Dissertation Abstracts International, Volume: 69-08, Section: B, page: 4627.; 175 p. **[3 Citations]**

2000 ***Wishart, D. N.***, Hydrogeology and simulated water budget of the Rio Cobre and Rio Minho-Milk River basins, Jamaica, West Indies, Virginia Polytechnic Institute and State University, Blacksburg, VA, Master's Thesis, 267 p. **[2 Citations]**

1996 ***Wishart, D. N.***, Microscopic and geochemical analytic interpretation on the provenance and technology of Pithoi Pottery sherds from Bronze Age Cyprus, Rutgers University, Newark, NJ, Senior Honors Thesis, 32 p.

1989 ***Wishart, D. N.***, The effects of understaffing on individual and group performance in National Commercial Bank Jamaica Limited., University of Technology/Jamaican Institute of Management, Kingston, Jamaica, WI., 49 p.

Technical Reports:

2022 American Geophysical Union-Near Surface Geophysics (AGU-NSG) Draft Report "Defining research and teaching priorities that could be advanced through a Near-Surface Geophysics (NSG) Center".

2012 Wishart, D. N., Preliminary assessment of geothermal potential of thermal springs of eastern and central Jamaica, LEADER Mini-grant Award, Wright State University, Dayton, OH.

2007 Wishart, D. N., and L. D. Slater, Advancing the characterization of fractured bedrock aquifers using electrical geophysical methods: application to water resources evaluation

in the New Jersey Highlands in New Jersey Water Resources Research Institute Final Technical Report.

2006 Wishart, D. N., and L. D. Slater, Advancing the characterization of fractured bedrock aquifers using electrical geophysical methods: application to water resources evaluation in the New Jersey Highlands in New Jersey Water Resources Research Institute Annual Technical Report.

2001 Wishart, D. N. Chapter on 'Groundwater flow Modeling and Remedial Design' for a contaminated plume at Area 51, FAA Technical Center, Atlantic City Air Force Base, New Jersey, [contributed chapter on Groundwater Flow Modeling], HAZMAT Division, Windsor, CT., 250 p.

Invited Talks:

2016 Wishart, D. N., 'Natural Causes of Climate Change', College of Southern Nevada, Las Vegas, Nevada, April 29, 2016.

2014 Wishart, D. N., 'Geothermometry and shallow circulation of a low enthalpy system: The Bath geothermal reservoir', Indiana University of Pennsylvania, Indiana, PA.

2013 ***Wishart, D. N.***, 'Geothermometry and Shallow Circulation of a Low Enthalpy System: The Bath Geothermal Reservoir', Central Connecticut State University, New Britain, CT.

2012 ***Wishart, D. N.***, 'Comparison between silica and action geothermometry of thermal springs in Central and Eastern Jamaica', Department of Geosciences, Georgia State University, GA.

2011 ***Wishart, D. N.***, Electrokinetic delineation of hydraulic anisotropy in fractured media using azimuthal self-potential gradient', Department of Earth and Environmental Sciences Spring Colloquium, May 5, 2011, Wright State University, Dayton, OH.

2010 ***Wishart, D. N.***, 'Geoelectric advantages of hydraulic anisotropy characterization of fractured rock from azimuthal self-potential gradient', Department of Geosciences Spring Colloquium, University of Wisconsin- Eau Clare, WI.
Wishart, D. N., 'The Mechanics of Glacial Flow and Transport', Department of Geology Spring Colloquium, University of Wisconsin-Parkside, Kenosha, WI.

2009 ***Wishart, D. N.***, 'Hydraulic anisotropy characterization fractured media using azimuthal self-potential', Department of Geology 'Pegrum Lecture Series', State University of New York at Buffalo, NY.

Symposia:

2022 Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUASHI) New Cyber Seminar Series: Hydrologic Science and Indigenous Voices
May 18 – June 22, 2022 Hosted by Maribeth Kniffin, PhD., Founder, Riverbytes, LLC, Research Affiliate, Department of Philosophy, University of California, Davis.

2010 Wishart, D. N., 'Advancing anisotropy characterization using azimuthal self-potential gradient', International Center for Water Resources Spring Colloquium, Central State University, Wilberforce, OH.

1999 Wishart, D. N., 'A steady-state model of groundwater flow in the White Limestone aquifer of the Rio Cobre and Rio Minho-Milk River hydrologic basins, Jamaica, West Indies', Graduate Student Scientific Research Symposium, Virginia Polytechnic Institute & State University, Blacksburg, VA.

Grants Awarded

2017 USDA/NIFA -1890 Institution Teaching, Research and Extension Capacity Building Grants (CBG) Program (FY) 2017-Professional Development ($100,000).

2012 National Science Foundation (NSF)/ Wright State University ADVANCE LEADER Mini-grant, Geothermal Site Characterization of Hot Springs in Eastern and Central Jamaica, PI [2012], ($3200).

2011 National Science Foundation (NSF)/ Wright State University ADVANCE LEADER Mini-grant, "Applied Hydrogeochemical and Geothermometric Characterization of Jamaica's Thermal Springs", PI [2011], ($5000).
National Science Foundation NSF/CSU ADVANCE LEADER Mini-grant (CSU), "Preliminary Assessment of the Geothermal Potential from Thermal Springs in Central and Eastern Jamaica", PI, [2011], ($3200).

2010 National Science Foundation (NSF) Wright State University ADVANCE LEADER Mini-grant, "Integrated Hydrogeochemical Hydrogeophysical Methods for Assessing Geothermal Potential from Thermal Springs", PI [2010], ($5000) one time.

2007 Rutgers University Agricultural Experimental Station New Jersey Water Resources Research Institute /USGS Graduate Students Grant-in-Aid, Hydraulic Anisotropy Characterization of Pneumatic-Fractured Sediments Using Azimuthal Self-Potential Gradient, Rutgers University, New Brunswick, N. J., Co-PI [2007], ($2100) one time.

2006 Rutgers University Agricultural Experimental Station New Jersey Water Resources Research Institute /USGS Graduate Students Grant-in-Aid: "Fracture anisotropy Characterization in Crystalline Bedrock Using Field-Scale Azimuthal Self-Potential Gradient", New Brunswick, N. J., Co-PI [2006], ($5000) one time.

2003 Dorr Foundation Grant (NY), "Environmental Science in Harriman and Sterling Forest Parks, New York", Co-PI [2003], ($5000) one time.

1998 Graduate Research Development Grant, Virginia Tech Graduate Student Assembly, "Hydrogeology and simulated water budget of the Rio Cobre and Rio Minho-Milk River basins, Jamaica, West Indies", ($500) one time.

Research Grant Proposals:

2022 S. Williams-Stroud, R. Macguire, R. Makhnenko, X. Yang, A. Slates, D. N. Wishart, S. Tesfaye, S. Carpenter, J. Moortgart, B. Gwayali, F. Gomez, and ODNR Geological Survey - NSF 22-562 Cultural Transformation in the Geoscience Community Implementation Grant: "Community Science Collaboration – Understanding Natural and Induced Seismicity in the Midwestern U.S." [NSF Directorate for Geosciences (GEO/OAD) Requested amount: $6,979,420]

2019 D. N. Wishart (P.I.), R. Freeland, B. A. Allred, Innovative Detection of Subsurface Drainage for Agricultural Sustainability and Water Quality Protection from Remote Sensing, USDA-NIFA-Capacity Building Program BGP-006696, 09-22-2019.
S. Khanal (OSU), A. Sawyer (OSU), B. Allred (USDA-ARS), and D. N. Wishart (Co-PI), Quantifying Subsurface Drainage Using Remote Sensing Technology For Better Water Quality Management, USDA NIFA AFRI Foundational Applied Science Program, July 25, 2019 ($30,000).
A Machine Learning Approach to the Development of a Spectral Library of Agricultural Landscapes with Visible Tile Drain Networks, T, Williamson (USGS), J. Boldt (OKI WSC), B. A. Allred (USDA-ARS), and D. N. Wishart (Co-PI), February 28, 2019.

2018 R. Freeland (P.I.), D. N. Wishart (Co-PI), and B. Allred, Novel Detection of Subsurface Drainage for Agricultural Sustainability and Water Quality Protection from Remote Sensing, National Science Foundation Innovations at the Nexus of Food, Energy and Water Systems (INFEWS) (INFEWS) # 18-545, Co PI, [2019-2021] ($2,500,000) (09-26-18):

2017 R. Freeland (P.I.), B. Allred, N. Eash, P. Freeman, K. Grote, J. Thayne, T. Williamson, and D. N. Wishart, Promoting Environmentally and Economically Beneficial Subsurface Drainage Practices Using Aerial/Satellite Imagery and Proximal Soil Sensing

Technologies, USDA National Institute of Food and Agriculture (NIFA)/ Agriculture and Food Research Initiative (AFRI) Water for Food Production Systems (A9101), [2018-2022] ($5,200,000)

Webinars

2026 Illuminating Atmospheric Aerosols with Fluorescence Lidar: A New Era in Aerosol Profiling, May 28, 2026, Jessica Duncombe and Benedikt Gast (Leibniz Institute for Tropospheric Research (TROPOS), Associated Institute of Physics/Wiley.
"Forecasting D-Day: The Science Behind History and the Story Behind PRESSURE", May 26, 2026, American Meteorological Society ID#825 6992 6949
"Ethical AI in research: Evaluating tools and applying best practices", May 25, 2026 Elsevier, Amsterdam, Netherlands.

2025 1st Annual School of Ice Winter Webinar, Dartmouth College Ice Drilling Program (IDP) 1-21-2025

2024 Spectral Evolution Webinar Series, "Remote Sensing Methods: Field Reflectance Measurements", 9-25-2024
Beta Analytic, "Breaking Down Hydrocarbons: A Forensic Approach with PIANO Analysis", 1-16, 2025

2023 COLDEX Fall 2024 International Seminar Series
- "Southern Ocean Circulation and Biogeochemistry across the MPT", 12-6-2023
- "Sea Surface Temperatures across the MPT" 11-14-2023
- "Modelling Efforts on the MPT", 10-5-2023
- "CO_2 Reconstructions across the Mid-Pleistocene Transition (MPT)", 9-12-2023

White House Initiative on HBCUs -HBCU PARTNERS Act Lunch and Learn Series
- Advisory Council on Historic Preservation (ACHP) & National Endowment for the Arts (NEA), 07-14-2023, 12:00 p.m.-1:15 p.m. EST
- Department of State (DOS), U.S. Agency for International Development (USAID), and U.S. Agency for Global Media (USAGM), 06-02-2023, 12:00 p.m.-1:15 p.m. EST
- Department of Justice (DOJ), Department of the Treasury (USDT), & National Endowment for the Humanities (NEH), 05-26-2023. 12:00 p.m.-1:15 p.m. EST
- NASA and National Science Foundation (NSF), 05-19-2023, 12:00 p.m.-1:15 p.m. EST
- US Department of Agriculture (USDA) and Department of Transportation (DOT), 04-28-2023, 12:00 p.m.-1:15 p.m. EST
- Department of the Interior (DOI) and Department of Commerce (DOC), 04-14-2023, 12:00 p.m.-1:15 p.m. EST
- Department of Energy (DOE) and Nuclear Regulatory Commission (NRC), Ask NASA – What to Know Before Applying for NASA Grants and Cooperative Agreements 03-31-2023, 12:00 p.m.-1:15 p.m. EST
- Department of Health and Human Services, 03-17-2023, 12:00 p.m.-1:15 p.m. EST
- US Environmental Protection Agency (USEPA) and National Oceanic and Atmospheric Administration (NOAA), 03-10-2023, 12:00 p.m.-1:15 p.m. EST

Technical Expertise

Professional Skillset:

Geospatial, geophysical, groundwater, hydrological, geochemical, and geothermometric modeling, ● multispectral analysis ● chemometric analysis ● statistical analysis ● geophysical and hydrogeological investigations ● soil proximal and remote sensing (UAVs & Multispectral Satellite Image Processing) for environment and agriculture ●

photogrammetric processing ● Groundwater flow and contaminant transport modeling ● geothermal potential assessment ● Environmental Site Assessments (Phase I, II, III) and site remediation ● Technical reports ● Microsoft office Suite

Grants Awarded

2017 USDA/NIFA -1890 Institution Teaching, Research and Extension Capacity Building Grants (CBG) Program (FY) 2017-Professional Development ($100,000).

2012 National Science Foundation (NSF)/ Wright State University ADVANCE LEADER Mini-grant, Geothermal Site Characterization of Hot Springs in Eastern and Central Jamaica, PI [2012], ($3200).

2011 National Science Foundation (NSF)/ Wright State University ADVANCE LEADER Mini-grant, "Applied Hydrogeochemical and Geothermometric Characterization of Jamaica's Thermal Springs", PI [2011], ($5000).

National Science Foundation NSF/CSU ADVANCE LEADER Mini-grant (CSU), "Preliminary Assessment of the Geothermal Potential from Thermal Springs in Central and Eastern Jamaica", PI, [2011], ($3200).

2010 National Science Foundation (NSF) Wright State University ADVANCE LEADER Mini-grant, "Integrated Hydrogeochemical Hydrogeophysical Methods for Assessing Geothermal Potential from Thermal Springs", PI [2010], ($5000) one time.

2007 Rutgers University Agricultural Experimental Station New Jersey Water Resources Research Institute /USGS Graduate Students Grant-in-Aid, Hydraulic Anisotropy Characterization of Pneumatic-Fractured Sediments Using Azimuthal Self-Potential Gradient, Rutgers University, New Brunswick, N. J., Co-PI [2007], ($2100) one time.

2006 Rutgers University Agricultural Experimental Station New Jersey Water Resources Research Institute /USGS Graduate Students Grant-in-Aid: "Fracture anisotropy Characterization in Crystalline Bedrock Using Field-Scale Azimuthal Self-Potential Gradient", New Brunswick, N. J., Co-PI [2006], ($5000) one time.

2003 Dorr Foundation Grant (NY), "Environmental Science in Harriman and Sterling Forest Parks, New York", Co-PI [2003], ($5000) one time.

1998 Graduate Research Development Grant, Virginia Tech Graduate Student Assembly, "Hydrogeology and simulated water budget of the Rio Cobre and Rio Minho-Milk River basins, Jamaica, West Indies", ($500) one time.

Research Grant Proposals (Not Funded):

2023 S. Williams-Stroud, R. Macguire, R. Makhnenko, X. Yang, A. Slates, D. N. Wishart, S. Tesfaye, S. Carpenter, J. Moortgart, B. Gwayali, F. Gomez, and ODNR Geological Survey - NSF 23-539 CTGC Cultural Transformation in the Geoscience Community, 3/2023 [$2,000, 000 2022

S. Williams-Stroud, R. Macguire, R. Makhnenko, X. Yang, A. Slates, D. N. Wishart, S. Tesfaye, S. Carpenter, J. Moortgart, B. Gwayali, F. Gomez, and ODNR Geological Survey - NSF 22-562 Cultural Transformation in the Geoscience Community Implementation Grant: "Community Science Collaboration – Understanding Natural and Induced Seismicity in the Midwestern U.S." [NSF Directorate for Geosciences (GEO/OAD) Requested amount: [$6,979,420]

2019 ***D. N. Wishart (P.I.)***, R. Freeland, B. A. Allred, Innovative Detection of Subsurface Drainage for Agricultural Sustainability and Water Quality Protection from Remote Sensing, USDA-NIFA-Capacity Building Program BGP-006696, 09-22-2019.

S. Khanal (OSU), A. Sawyer (OSU), B. Allred (USDA-ARS), and ***D. N. Wishart (Co-PI)***, Quantifying Subsurface Drainage Using Remote Sensing Technology For Better

Water Quality Management, USDA NIFA AFRI Foundational Applied Science Program, July 25, 2019 ($30,000).
A Machine Learning Approach to the Development of a Spectral Library of Agricultural Landscapes with Visible Tile Drain Networks, T, Williamson (USGS), J. Boldt (OKI WSC), B. A. Allred (USDA-ARS), and ***D. N. Wishart*** (Co-PI), February 28, 2019.

2018 R. Freeland (P.I.), ***D. N. Wishart (Co-PI)***, and B. Allred, Novel Detection of Subsurface Drainage for Agricultural Sustainability and Water Quality Protection from Remote Sensing, National Science Foundation Innovations at the Nexus of Food, Energy and Water Systems (INFEWS) (INFEWS) # 18-545, Co PI, [2019-2021] ($2,500,000) (09-26-18):

2017 R. Freeland (P.I.), B. Allred, N. Eash, P. Freeman, K. Grote, J. Thayne, T. Williamson, and ***D. N. Wishart***, Promoting Environmentally and Economically Beneficial Subsurface Drainage Practices Using Aerial/Satellite Imagery and Proximal Soil Sensing Technologies, USDA National Institute of Food and Agriculture (NIFA)/ Agriculture and Food Research Initiative (AFRI) Water for Food Production Systems (A9101), [2018-2022] ($5,200,000)

Professional Service

STEM Mentorships:

- 2022-24 *Mentor,* Geosciences Education & Mentorship Support (GEMS) Program
- 2016-17 *Mentor,* New York Academy of Sciences (NYAS) Next Scholars Program
- 2015-17 *Mentor,* New York Academy of Sciences (NYAS) 1000 Girls 1000 Future
- 2015-17 *Mentor,* New York Academy of Sciences Global STEM Alliance (GSA)

External Reviews of Student Scholarship for Service Programs:

2022 *Panelist and Reviewer*, Universities Space Research Association-Department of Defense (DOD), Air Force Research Laboratory (AFRL)-University Research and Engagement Program (*UREP*).

2015 *Panelist/Rapporteur*, EPA-Science to Achieve Results (STAR)

External Reviews of Research Proposals for Federal Funding Agencies:

2024 *Reviewer*, NSF Hydrological Sciences – Hydrogeophysics Research Proposal (8/2024)

2023 *Panelist/Reviewer*, NSF SBIR/STTR Phase II – April 2023

2021 *Reviewer*, Universities Space Research Association-NASA Postdoctoral Program (NPP) – July and October Review Cycles
Panelist/Reviewer, NSF SBIR/STTR Phase II – October Review Cycle

2020 *Panelist/Reviewer*, NASA Earth Surface and Interior (ESI) October 2020.
Panelist/Reviewer, NSF SBIR/STTR Phase II
Panelist/Reviewer, NSF Established Program to Stimulate Competitive Research (**EPSCoR**)
Reviewer, Universities Space Research Association-NASA Postdoctoral Program (NPP)

2019 *Reviewer*, Universities Space Research Association-NASA Postdoctoral Program (NPP)
Panelist/Reviewer, NSF SBIR/STTR Phase II

2018 *Reviewer*, Universities Space Research Association-NASA Postdoctoral Program (NPP)
Panelist/Reviewer, NSF SBIR/STTR Phase I
Reviewer, NASA Postdoctoral Program (NPP), March & July Review Cycle

2017 *Reviewer*, Universities Space Research Association-NASA Postdoctoral Program (NPP)
Panelist/Reviewer, NSF SBIR/STTR Phase I
Panelist/Reviewer, NSF SBIR/STTR, **Phase I**

Panelist/Reviewer, NSF Improving Undergraduate STEM Education Program (IUSE)
2016 *Reviewer*, Universities Space Research Association-NASA Postdoctoral Program (NPP)

Peer Journal Review:
2022 Hydrogeophysical Characterization of Swine Effluent Amended Soils in Mantled Karst, NRES-15259-2022, Transactions of the ASABE-The American Society of Agricultural and Biological Engineers
Estimation of Silk Production By Means Of Remote Sensing Images
Special Issue: Remote Sensing for Crop Stress Monitoring and Yield Prediction
No. 1852659, MDPI Remote Sensing
2020 MDPI Geosciences #915652
2019 Natural Resources and Environmental Systems #NRES-13783-2019 Transactions of the ASABE-The American Society of Agricultural and Biological Engineers
2018 Journal of Geoscience Education Manuscript #UJGE-2018-0082
2018 Journal of Environmental and Engineering Geophysics (JEEG) #1713
2018 Hydrogeology Journal #HJ 2017-5141 - Geothermal/Geochemistry
2017 International Geophysical Journal
2013 Journal of Environmental Management (JEMA-D-12-02298) – Storm Water Engineering
2010 Journal of Applied Geophysics (APGEO #1768)
Journal of Environmental Management (JEMA-09-01553) – Hydrogeology
2009- Journal of Contaminant Hydrogeology
2009 International Journal of Physical Sciences - Geophysics
2008 Pure and Applied Geophysics
2007 Geophysics (Manuscript #2007-0192)

Earth and Ocean Science Textbook Reviews and Proposals:
2025 W. W. Norton & Company Publishers, "Oceanography Textbook Chapters 11, 12, & 13 Final Review "Oceanography", Author: Gillian Stewart, September, October 4, 2025
Kendall Hunt Publishing "Review of Geologic Disasters Workbook with Applications to Physical Geology and Oceanography"
McGraw Hill Publishers, "Laboratory Manual for Physical Geology", 2027 Release by Charles Jones
2024 W. W. Norton & Company "Oceanography Textbook Chapters 12 & 13 Initial Review "Oceanography", Author: Gillian Stewart, April 4, 2024
2022 W. W. Norton & Company "Oceanography Textbook Proposal Review "Oceanography", Author: Gillian Stewart
2021 American Geophysical Union (AGU)/Wiley Publishing Company Textbook Proposal Review "Natural Disasters", Author: Alexander Gates
2021 Cambridge University Press "Global Environmental Issues: An Earth Science Perspective" by Kevin Pickering & Lewis Owen
2013 McGraw-Hill Chapters 15, 16, and 23 in the 12th Edition of Physical Geology by C. C. Plummer and D. H. Carlson.

Graduate Theses Reviews:
2009 Review of Graduate Theses - Department of Geology, State University of New York at Buffalo, New York.

Institutional Service, Central State University
2025 *Chair,* Evaluation of Administrator for promotion to Full Professor with Tenure

	Chair, Evaluation of the Dossier for application of a faculty member for promotion to Full Professor with Tenure
	Member, Evaluation of Administrator for promotion to Full Professor with Tenure
2024	*Member*, Carnegie Classification Committee for Community Engagement
	Chair, Evaluation of the Dossier for application of a faculty member for promotion to Full Professor
	Initiated Review of the CSU Water Resources Management Program
	Reviewer, CSU Grade Appeal Committee
2023	*Reviewer*, CSU Grade Appeal Committee
2022-	*Campus Representative*, Barry Goldwater Scholarship
2022-23	*Chair*, Committee on Student Retention
2020-23	*Member*, Committee on Student Retention
2019-20	*Member*, Search Committee for Water Research/GIS Faculty Position
2018-19	*Member,* AAUP Faculty Grievance Committee
2016-17	*Chair*, AAUP Faculty Grievance Committee
2016-18	*Member*, Campus Tree Board Committee for Environmentally Sustainability
2015-	*Member*, Faculty College of Science & Engineering Advancement Committee
2015	*Member*, Search for the Dean of the College of Science and Engineering Position
2014-17	*Faculty*. Learning Communities for Scientific Process and Quantitative Reasoning
2014	*Member*, Ad-Hoc Senate Committee on Academic Program Review-Biology
2013-16	*Member*, Committee on University, Community, and Student Relations
2013-16	Member, Committee on Intercollegiate Athletics
2013-14	Member, Search Committee for Industrial Waste Water Engineer Faculty Positions
2013-17	*Research Advisor*, LSAMP Undergraduate Student Research
2013-16	*Campus Representative*, The Geological Society of America (GSA)
2012-13	*Member*, Academic Calendar and Honorary Degrees Committee
2010-13	*Member*, Technology Enhancement Committee
2011-13	*Coordinator*, University College 'First Year Seminar (FYS) II
2011-13	*Advisor*, Undergraduate Geology Capstone Research
2010-	Academic Advisements: Geoscience, Water Resources, Environmental Engineering, and Manufacturing Engineering Students
2010-11	*Advisor*, Preparing Critical Faculty for the Future (PCFF) Project for Improving Undergraduate STEM Education

Advanced Professional Development

2023	Ice Cores and Climate Change: School of Ice, US Ice Drilling Program, June 18-22, 2023, Dartmouth College, Hanover, New Hampshire. (50-Hr. Certified Training.)
2018	Agricultural Water Management Systems to Balance Production and Environmental Objectives: The Overholt Drainage School: Water Management Systems, Ohio State University Extension and OARDC, March 12-16, 2018, Lima, OH. (40hrs Certified Training.)
	UAV Mapping of Agricultural Watersheds: August 28, 2018, Becks Farms, London, OH.
2017	Drone & Pix4D Photogrammetric Processing: TopCon Solutions, Carol Stream, IL.
	Pix4D Photogrammetric Processing Software: Pix4D Academy, Sinclair Community College Unmanned Aerial Systems, August 7-8, 2017, Dayton, OH. 20-Hr.Certified Training)
2017	FAA Part 107 Remote Unmanned Aerial Vehicles (UAVs) Pilot License Training
2016	Ice Cores and Climate Change: Dartmouth College School of Ice, AMS/US Ice Drilling Program, May 22-26, 2016, Denver, CO. (50-Hr. Certified Training.)

2015 Paleoclimatology of Marine Sediment Cores: MSI-REaCH: 'Reconstructing Earth's Climate History', June 21-27, 2015, AMS/IODP, Gulf Coast Repository (GCR), Texas A& M University, College Station, TX. (50-Hr. Certified training)

2014 Climate Studies: AMS Climate Studies Diversity Project, May 18-23, 2014, Silver Spring, MD. [NSF/NASA Goddard/NOAA National Centers for Environmental Prediction/ Howard University Beltsville Center for Climate System Observation] (50-Hr.Certified Training.)

Professional Workshops:

2023 Program Overview and Grants Writing Technical Assistance Workshop, May
Department of Energy Visiting Faculty Program (VFP) Workshop, April 26, 2023 (Virtual)
NIFA Grants Support Technical Assistance Workshop

2016 Leadership Studies: STEM Leadership Academy, September 17-19, 2016, Fielding Graduate University, Washington, DC. (3 Cr,)

2014 GSA Short Course: "What's Your Problem? What's Your Point"? October 10, 2014, Vancouver, BC, Canada.
2014 Society of STEM Women of Color (SSWOC), June 7-9, 2014, Herndon, VA.

2013 Multidisciplinary Integrated Basin Analysis of the Bighorn Basin of Montana and North-Central Wyoming, GSA ExxonMobil Bighorn Basin Field Laboratory, July 30-August 5, 2013.

2013 Society of STEM Women of Color (SSWOC) Conclave, June 8-10, 2013, Chantilly, VA.

2012 Early Career and Future Faculty "Developing a Diverse Professoriate for Underrepresented-Minority Early-Career Faculty in the Geosciences: AGI/National Academy of Engineering, April 2-4, 2012, Arlington, VA.

2011 Engaging Departments Summer Institute: Association of American Colleges and Universities (AAC&U), July 13-17, Ellicott City, MD.

2011 Society of STEM Women of Color (SSWOC), June 3 - 5, 2011, Atlanta, GA.

2008 Newark Basin Hydrocarbon Systems: ExxonMobil Northeast Corporate Strategic Research Center (CSR), May 21-25, 2008, Clinton, NJ.
18th Electromagnetic Induction Workshop, Universitat de Barcelona, El Vendrell, Spain.

Professional & Educational Travel Support:

2024 Geologic History Excursion of the San Juan Skyway and Coal Bed Methane Extraction by the Southern Ute Tribe of Southwest Colorado (May 21-24, 2024)

2019 American Geophysical Union Fall Meeting, December 8-12, 2019, San Francisco, CA.

2018 American Geophysical Union Fall Meeting, December 11-15, 2018, Washington, DC.

2016 Society of STEM Women of Color (SSWOC), Sept. 17-19, 2016, Ellicott City, MD.

2015 AAAS/NSF Travel Award to the Gender Summit 6 Asia-Pacific for US Female STEM Faculty Researchers in 'Better Science & Technology', Seoul, South Korea.
Faculty Opportunity Award, 40th World Geothermal Congress, Melbourne Australia, April 19-22, 2015. ($1000)
American Meteorological Society MSI-REaCH, Gulf Coast Repository (GCR), TX
American Meteorological Society, Annual Meeting, January 4-8, 2015, Phoenix, AZ.

2015 Society of STEM Women of Color (SSWOC), June 17-19, 2015, Chantilly, VA.

2014 Faculty Opportunity Award, MinWat 2014, Karlovy Vary, Czech Republic, ($1000)
American Meteorological Society (AMS) Climate Studies Diversity Project

2013 GSA/ExxonMobil Bighorn Basin Field Laboratory, 07/30 – 8/5/2013.

2012 Geological Society of America/US National Committee for the International Union of Geological Sciences (GSA/USNC/IUGS), Travel Award to the International Geological Congress (IGC), Brisbane, Australia.

AGI/National Academy of Engineering Workshop for Early Career and Future Faculty
2011 Society of STEM Women of Color Conclave (SSWOC) Travel Award.
AAC&U Engaging Departments Summer Institute, 07/13 – 07/17/2011, Ellicott City, Maryland.
2008 Newark Basin Hydrocarbon Systems Workshop, Clinton, NJ.
2006 18th Electromagnetic Induction Workshop, (University of Barcelona, El Vendrell, Spain, (€750) one time.

Title IX Training

2023 United Educators Learning Portal: Mandatory Title IX Training: Mosaic: Prevent Sexual Violence Together; Mosaic: Prevent Discrimination and Harassment Together; Committing to Diversity, Equity, and Inclusion

Technical Skills:

Technological software skills span geophysical and geochemical modeling; geospatial, multispectral modeling, statistical analysis; Google Earth Pro; QGIS; and Microsoft Office.

Geophysical and hydrogeological investigations ● Soil proximal and remote sensing (UAVs & Multispectral Satellite Image Processing) for environment and agriculture ● Multispectral analysis and photogrammetric processing ● Groundwater flow and contaminant transport modeling ● Hydrogeochemical assessment of geothermal potential of hydrothermal systems ● Geothermometry ● Geostatistical analysis and chemometrics ● Soil and groundwater remediation

Academic Instruction:

I. ***2010-Present International Center for Water Resources Management, Central State University, Wilberforce, Ohio (Undergraduate Level & Capstone):***

- GEL 1101 *Physical Geology Lecture & Laboratory* (4 Cr)
- GEL 1105 *Historical Geology Lecture & Laboratory* (4 Cr)
- GEL 1110 *Oceanography* (3 Cr)
- GEL 1240 *Natural Disasters* (3 Cr)
- GEL *2205 Environmental Geology* (3 Cr)
- GEL 3305 *Introduction to Geophysics Lecture/Lab* (4 Cr)
- GEL 3311 *Paleontology* (3 Cr)
- GEL *3321 Mineralogy Lecture/Lab* (4 Cr)
- GEL 4401 *Stratigraphy and Sedimentation Systems Lecture/Lab* (4 Cr)
- GEL 4421 *Petrology* (3 Cr)
- GEL 4450 *Special Problems in Geology* (4 Cr)
- GEL 4460 *Process Geomorphology* (4 Cr)
- GEL 4495 *Senior Project in Geology* – Capstone Research (3 Cr)

II. ***2008-09 Department of Geosciences, State University of New York (SUNY) at Buffalo, New York (Graduate & Undergraduate Level):***

- GLY (415/515) Applied Groundwater Hydrogeology Lecture/Lab (4 Cr)
- GLY 313 Surface Processes & Hydrology 2 Lecture/Lab (4 Cr)

III. ***2008-09 Department of Environmental Studies, Illinois Wesleyan University, Bloomington, Illinois (Undergraduate Level):***

- ENST 115 Earth System Science
- ENST/CHEM 135 Water Quality Lecture/Lab (4 Cr)

IV. ***2001-08 Department of Earth and Environmental Sciences, Rutgers University-Newark, New Jersey (Undergraduate Level):***

- *1100 Physical Geology Lecture & Laboratory (4 Cr)*
- *1100 Historical Geology Lecture & Laboratory (4 Cr)*
- *2200 Environmental Geology Laboratory (1 Cr)*

1997–99 Department of Geosciences, Virginia Tech. Blacksburg, Virginia (Undergraduate Level):

- *GEOL 1000 Physical Geology Laboratory (1 Cr)*
- *GEOL 1205 Resources Geology Lecture/Lab (1 Cr)*

Advisement, Honors Research Projects:

2026 McIntosh, Trinity, "Design Proposal for the Mitigation of Saltwater Intrusion on Grand Bahama Island (GBI), Archipelago of the Bahamas" (spring semester /2026)

2025 Murphy, Kaylen "Proposed Solar Technology Solutions to Supplement Bahamas Energy Resources", (fall semester /2023)

2023 Otabor, Aleah, "*Design proposal of a floating city for New Providence Island (NPI), the Archipelago of the Bahamas*" (fall semester /2023)
Cuello-Galvez, J. D., "*Combined phytoremediation and bioenergy solutions to mitigating invasive Sargassum along the Punta Cana coastline"*, Dominican Republic" (spring semester 2023).

Corporate Appointments

I. ***2000-01 - Assistant Project Hydrogeologist and Groundwater Modeler, TRC Environmental Corporation, Hazmat Division, Windsor, Connecticut.*** Environmental Site Assessments (CT, NY, NJ, & PA)

- Numerical modeling of groundwater flow, contaminant transport modeling & fate hydrocarbon plume at FAA Atlantic City Air Force Base, NJ in MODFLOW
- ort modeling; soil and groundwater monitoring;
- Water quality sampling, sample dispatch and analyses
- Aquifer and well pump tests
- Site remediation design; and Preparation and delivery of technical reports to clients.

II. ***1990-91 Commercial Banker, Supervisor and Authorized 'B' Signatory, Executive Accounts,*** **National Commercial Bank Jamaica Limited Corporate Office, Kingston, Jamaica W.I.**

- Operated as the 'Corporate Relief Supervisor' and Senior Supervisor-in-Training
- Nine years of Commercial Banking experience in the Jamaican financial sector
- Analyzed and projected financial performance for the institution's island-wide branch network
- Managed transactions for executive accounts
- Supervised tillers and administration staff

III. ***1983-91 Commercial Banker, Tiller and Clerical Officer***

National Commercial Bank Jamaica Limited King Street/Duke Street Branches, Kingston, Jamaica, W.I.

- Promoted to Head Teller
- Achieved revenue and customer retention goals
- Performed monthly audit of individual and company accounts
- Performed a wide range of checking, savings, and foreign exchange transactions