

RUPALBEN D. MANGUKIYA
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PROFESSIONAL SUMMARY

Experienced faculty with 8+ years of full-time equivalent college/university-level teaching and research experience. Highly organized, detail-oriented, proficient at working on various assignments simultaneously – teaching, advising undergraduate students, managing and supervising undergraduate research projects, organizing co-curricular activities, and managing educational field trips, motivated to succeed in implementing technology-based curriculum delivery and assessment tools.

EDUCATION

- August 2014 – December 2020** **Doctor of Philosophy (Ph.D.) in Environmental Sci. and Public Policy**
George Mason University, Fairfax, VA, U.S.A.
Courses: Waterscape Ecology/Management, Environmental Policy, Land Use Modeling Techniques, Geographic Information System (ArcGIS), Quantitative Methods – Statistical Analysis using the ArcGIS, and Intro to Natural Resource Law
- June 2009 – April 2011** **Master of Science in Environmental Science & Technology**
Institute of Science and Technology for Advanced Studies and Research (ISTAR), Sardar Patel University, Vallabh Vidyanagar, Gujarat, India.
- June 2006 – April 2009** **Bachelor of Science in Environmental Science**
Natubhai V. Patel College of Pure and Applied Sciences (NVPAS), Sardar Patel University, Vallabh Vidyanagar, Gujarat, India.

TEACHING EXPERIENCE

- 07/2025 – Present** **Thomas McKenna Meredith '48 Lecturer in Environmental Science**
Trinity College, Hartford, CT
- Teaching courses in the Environmental Science program, which include, but are not limited to, the following courses:
 - ENVS375 – Methods in Environmental Science
 - ENVS149 – Intro to Environmental Science
- 08/2021 – 06/2025** **ASSISTANT PROFESSOR (Tenure-Track) AND PROGRAM COORDINATOR OF ENVIRONMENTAL STUDIES**
Cottey College - Nevada, MO
- Developed and taught courses in the Environmental Studies program:
 - ENV110 – Introductory Environmental Studies
 - ENV120 – Intro to Environmental Science
 - ENV125 – World Regional Geography
 - ENV270 – Intro to Geographic Information Systems (GIS)
 - ENV315 – Ecosystems, Functions, and Management
 - ENV350 – Environmental Conditions and Global Economic Development
 - ENV360 – Environmental Planning and Impact Assessment
 - ENV365 – Environmental Justice
 - ENV370 – Sustainability in Action

- ENV310 – Mastering GIS
- ENV390 and 490 – ES Capstone Courses
- As program coordinator: Updated the ES program goals and degree requirements and added a minor in ES. Developed the program assessment plan and updated the curriculum map plan. Additional responsibilities included updating the course schedule and rotations, course assessments, managing the budget, assessing the program goals, and advising ES majors.
- Member of assessment committee: Served as chair for 2024-25 AY. Responsibilities included working with other program coordinators to develop their program assessment plans and review course assessments and program goal assessments submitted by all other faculty members.
- Served on the Serenbetz Institute leadership team, reviewing the Undergraduate Research and Leadership immersion proposals.
- Performed other departmental and college-level duties as expected (e.g., meetings, office hours, professional development training, serving on informal committees, and serving at college events).

05/2022 – 06/2022 ADJUNCT FACULTY

05/2021 – 07/2021 George Mason University - Fairfax, VA

- Taught EVPP 480 – Sustainability in Action, which involved community-based service learning, student-led discussions, and problem-solving action projects.
- Worked with the course coordinator to discuss course development and students' performances.
- Organizing and updating the course material to improve its delivery and learning outcomes.

**08/2014 – 12/2020 GRADUATE LECTURER/GRADUATE TEACHING ASSISTANT (part-time)
George Mason University - Fairfax, VA**

- Taught the following courses that involved lab practices, community-based service learning, student-led discussions, and problem-solving action projects.
 - EVPP110 – Ecosphere - Intro to Environmental Science I (Lab + Lecture)
 - EVPP111 – Ecosphere - Intro to Environmental Science II (Lab)
 - EVPP480 – Sustainability in Action
- Evaluated and revised lesson plans and course content to facilitate and moderate classroom discussions and student-centered learning.
- Utilized instructional technologies in course delivery for both in-class and online instruction to engage and educate students.
- Managed undergraduate student projects and advised on focus, methodology, and report writing.
- Coordinated with course coordinators to update the syllabus, develop a schedule, and determine a reading list for varied courses.
- Graded assignments according to strict institutional policies and upheld guidelines for academic integrity.

01/2013 – 04/2014 AD-HOC LECTURER

**AND
12/2011 – 04/2012 Natubhai V. Patel College of Pure & Applied Science - Vallabh Vidyanagar,
Anand, Gujarat, India.**

- Taught undergraduate environmental science courses, including lab and lecture courses:
 - ES201 – Concepts of Ecology

- ES202 – Fundamentals of Environmental Science
- ES303 – Environmental Pollution and Management
- ES304 – Industrial Waste Management
- ES305 – Natural Resources and Conservation
- Advised and supervised undergraduate research projects.
 - “Effects of Industrial wastewater on seed germination and its growth”
 - “Noise pollution status and its effects in Anand City, Gujarat, India”
 - “An assessment of physio-chemical parameter of soil quality under different land covers in Anand City, Gujarat, India”
- Advised undergraduate students to assess their progress toward degree completion.
- Created and evaluated the central exams and weekly assignments in collaboration with other faculties.
- Coordinated with the head of the department to revise and restructure the course curriculum that aligns with the Environmental Science Department's mission, vision, and goals.
- Served as an Organizing Secretary for events such as national & state-level research symposiums, educational field trips, and college-level co-curricular activities.
- Developed strong organizational & procurement skills and the ability to work in a driven environment.

07/2012 – 12/2012 TRAINEE ASSISTANT PROFESSOR
Institute of Science & Technology for Advanced Studies and Research - Vallabh Vidyanagar, Anand, Gujarat, India

- Led graduate courses including Environmental Science laboratory and seminar courses.
- Contributed to departmental and college-wide programs such as college-level research showcase, educational field trips, and workshops in collaboration with other institutions.
- Proctored exams and provided remediation for learning improvement goals.
- Collaborated with colleagues on curriculum revision, evaluation of course syllabi, and lesson plans.
- Evaluated and supervised student activities and performance levels to provide reports on academic progress.
- Maintained cooperative working relationships with faculty and staff in the Environmental Science Department.

OTHER PROFESSIONAL EXPERIENCE

07/2016 – 08/2016 GRADUATE RESEARCH ASSISTANT
Charter Communications, Time Warner Cable - Herndon, VA

- Organized and managed Policy Inventory to ensure proper archival of the documentation in the related databases.
- Analyzed the energy conservation and cost-benefit analysis for the Hub Collapse project and prepared a report.

07/2015 – 12/2015 RESEARCH INTERN
National Park Services - Fairfax, VA

- Contributed to Federal Facility Target Load Reduction Planning for Chesapeake Bay Watershed Protection and Restoration in Allegheny Portage Railroad National Historic Site (ALPO)
- Created geospatial boundaries for National parks in BayFAST.
- Performed land-use analysis for parks.
- Analyzed data using the BayFAST tool to develop potential strategies to reduce Total Maximum Daily Loads (TMDLs) and determine the TMDL reduction targets.

05/2011 – 08/2011 TECHNICAL RESEARCH ASSISTANT

Gujarat Ecological Education and Research Foundation – Gandhinagar, Gujarat, India.

- Worked on the Integrated Coastal Zone Management (ICZM) project to enhance management practices concerning pollution and land use in coastal areas.
- Served in an interdisciplinary research team for data collection, data analysis, and report writing.

05/2010 – 07/2010 INTERN

Gujarat Ecological Education and Research Foundation – Gandhinagar, Gujarat, India.

- Estimated the GHG emissions from the Land Use and Land Use Change (LULUC) sector to evaluate the “Greenhouse Gas Inventory for Gujarat State, India” project.
- Collaborated with different organizations to collect relevant data and information.
- Documented and analyzed the collected information.
- Presented quarterly progress to the research committee and prepared a report for the same.
- Coordinated with other researchers to perform associated initiatives of the Government of Gujarat aimed at taking significant action against climate change.

RESEARCH EXPERIENCE

- 08/2016 – 12/2020 Ph.D. Dissertation:** “Relationship between Economic and Non-Economic Pillars of Sustainable Development at Sub-national Scales within the USA”
- 01/2016 – 05/2016 Independent Research Study:** “Effects of Land-use Change on TMDL in Shenandoah Watershed using Arc-SWAT”
- 01/2015 – 05/2015 Course Project:** “Evaluating the relationship of Land Surface Temperature, Evapotranspiration, and Land Elevation with MODIS derived Normalized Vegetation Difference Index (NDVI), VA, USA”
- 05/2014 – 07/2014 Independent Research Study:** “District-Level Analysis of Sustainable Livelihood Security Index for Gujarat State, India”
- 06/2010 – 04/2011 M.S. Thesis:** “Study of Water Quality in Surat City, Gujarat, India”
- 06/2008 – 04/2009 B.S. Thesis:** “Study of Irrigation Water Quality of Nadiad district, Gujarat, India”

PUBLICATIONS

- Mangukiya, R., & Sklarew, D. (2023). Analyzing Three Pillars of Sustainable Development Goals at Sub-national Scales within the USA. *World Development Sustainability*, 100058. <https://doi.org/10.1016/j.wds.2023.100058>
- Mangukiya, R., Bhattacharya, T., & Chakraborty, S. (2012). Quality characterization of groundwater using water quality index in Surat city, Gujarat, India. *International Research Journal of Environment Sciences*, 1(4), 14–23. www.isca.in/IJENS/Archive/v1/i4/3.ISCA-IRJEvsS-2012-048.pdf

PROFESSIONAL DEVELOPMENT

- **Training/Workshops/Certificates:**

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| 2024 | Spatial Analysis with ArcGIS Pro (Instructor Led) by ESRI |
| 2024 | Attended Teaching Introductory GIS with ArcGIS Online: A Faculty Panel – Discussing different ways educators are incorporating web-based methods and tools into their introductory courses, resources, materials, and other collateral available to incorporate into lessons and courses, on June 12, 2024 |
| 2023 | Attended – GIS Tools to Support Environmental Justice , a hands-on workshop by Megan Martinez, organized by Environmental Council of the States and ESRI, November 8, 2023 |
| 2023 | Cartography - Massive Open Online Course (MOOC) by ESRI |
| 2023 | Going Places with Spatial Analysis - Massive Open Online Course (MOOC) by ESRI |
| 2010 | Participated in demonstration training of Instruments like HPLC, GC, and ICP at SICART Laboratory, Vallabh-Vidyanagar, Gujarat, India |
| 2010 | Workshop on GIS software – E RDAS and ArcGIS 10.1 at GEER Foundation, Gujarat, India |

- **Presentations and Participations:**

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| 2024 | Virtually participated – the International Conference on “ Sustainable Development (ICSD) 2024 ” held on September 19, 2024, organized by the Sustainable Development Solutions Network (SDSN) and the Global Association of Master’s in Development Practice (MDP) |
| 2024 | Attended a Webinar on “ Climate Action Unbound: A New Curricular Model Driving Institutional Change ,” by AASHE, September 18, 2024 |
| 2024 | Virtually participated – the 7 th International Conference on “ Environmental Sustainability and Climate Change ” held on August 19-20, 2024, in Las Vegas, USA |
| 2024 | Attended “ Leveraging AI in ArcGIS ” – A Webinar Series for Environmental Professionals – To learn how Artificial intelligence and Geo AI can help you gain deeper insights from geospatial data & assist in solving complex problems, June 6, 2024 |
| 2023 | Attended Webinar on “ Climate Resources for Research and Teaching ,” November 14, 2023 |
| 2022 | Attended “ GIS for Environmental Regulation ” – A Webinar Series for Environmental Professionals by ESRI |
| 2022 | Attended “ Enhancing Qualitative Social Science with GIS ” – A webinar by Victoria Phillips |

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| 2014 | Participated as an Organizing secretary for the National-level Symposium on “ Jal Dhara – Clean Water for a Healthy World ” organized by the Department of Biological and Environmental Sciences, Natubhai V Patel College, Anand, Gujarat, India |
| 2012 | Participated in a National Symposium on “ Sustainable Development: Issues and Concerns ,” Gujarat, India |
| 2012 | Participated in a National Seminar on “ Empowering Educational System through Quality Enhancement and Capacity Building of Teachers and Students ,” Gujarat, India |
| 2012 | Participated in a National Seminar on “ New Perspectives of Natural Sciences-II ,” Gujarat, India |
| 2012 | Participated in a National Seminar on “ New Perspectives of Natural Sciences-I ,” Gujarat, India |
| 2010 | Poster presentation on “ Anti-Greenhouse Effects ” and won second prize at State-level Science Excellence, organized by Gujarat University, India |
| 2009 | Poster presentation on “ Recycling of Waste Material ” and won second prize at State-level Science Excellence, organized by Gujarat University, India |
| 2009 | Poster presentation on “ Energy conservation ” – State-level symposium organized by Biochemistry Department, C.U. Shah Science College, Ahmadabad, Gujarat, India |
| 2008 | Participated in a State Level Seminar on “ Current trends in Environmental Sciences Environmental Protection, Industrial Hygiene & Safety ,” Gujarat, India |

SKILLS

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| <ul style="list-style-type: none"> • Microsoft Office • Tableau • R (programming language) • ArcGIS • Research program design and analysis • Good Laboratory Practices (GLP) • Data Collection, Organization, and Analysis • Project Management/Supervising • Time Management and Organization • Teamwork and Collaboration | <ul style="list-style-type: none"> • Course Assessments • Program Assessments • Lesson Planning • Group and individual instruction • Online content delivery • Curriculum Development • Classroom lecturing • Faculty Collaboration • Advising Students • Academic research and writing • Classroom management |
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HONORS AND AWARDS

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| 2024 | The Lillian Corley Faculty Development fund award, established and endowed by the Indiana State Chapter of the P.E.O. Sisterhood in honor of Lillian Corley, a past president of the International Chapter, to support "research and professional development for faculty members of Cottey College, Nevada, MO |
| 2018 | Honorable Mention Environmental Science and Policy Graduate Student Teacher Award at George Mason University, Fairfax, VA |
| 2017 | Exceptional Environmental Science and Policy Graduate Student Teacher Award at George Mason University, Fairfax, VA |
| 2014 | Lee and Marty Talbot Foreign Student Endowed Scholarship at George Mason University, Fairfax, VA |