

Israel, Ropo Orimoloye, PhD

Austin, Texas, USA.

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Publications: [Google Scholar](#); [ResearchGate](#)

EDUCATION

MSc. In Geographic Science, University of Cincinnati, Ohio, United States

Ph.D. in Geography, University of Fort Hare, Alice, South Africa

MTech. in Meteorology, Federal University of Technology, Akure, Nigeria

B.Tech. in Meteorology, Federal University of Technology, Akure, Nigeria

AWARD AND RECOGNITION

- Scientific Research Honor and a Full member of Sigma Xi, The Scientific Research Honor Society
- Council Member of Tennessee's Geographic Information

PROFESSIONAL APPOINTMENTS

2025 -	Geospatial Technology Specialist , Apple Inc. Austin, Texas
2023-2025	Assistant Professor (Term) , School of Environment, Geography, and Sustainability, Western Michigan University, Kalamazoo, Michigan, USA.
2023-2023	Acting Head of the Department , Department of Geography, University of the West Indies, St Augustine Campus, Trinidad and Tobago (June to August, 2023)
2022-2023	Acting Head of the Department , Department of Geography, University of the West Indies, St Augustine Campus, Trinidad and Tobago (November 2022 to January 2023)
2022-2023	Lecturer (Assistant Professor) , Department of Geography, University of the West Indies, St Augustine Campus, Trinidad and Tobago
2018-	Program Manager , Climate 4 Food, East London, Eastern Cape Province, South Africa
2022-2022	Lecturer (Assistant Professor) , Geography and Environmental Science, School of Social Science, The Independent Institute of Education, MSA, Roodepoort, 1724, Johannesburg, South Africa

- 2020-2022 **Part-time Lecturer (Adjunct Assistant Professor)**, Faculty of Health & Environmental Sciences/Faculty of Engineering, Built Environment and Information Technology, Central University of Technology, Bloemfontein, Free State, South Africa
- 2019-2022 **Postdoctoral Researcher**, Centre for Environmental Management, University of the Free State, South Africa
- 2018-2019 **Postdoctoral Researcher**, Department of Geography and Environmental Science, University of Fort Hare, South Africa
- 2016-2018 **Graduate Assistant/Tutor**, Department of Geography and Environmental Science, University of Fort Hare, South Africa
- 2009-2009 **Weather Observer and Geospatial Analyst**, National Centre for Remote Sensing (NCRS), Jos, Nigeria

Teaching Experience

Courses Taught at the University Level (past and current)

EVS5012	Environmental Science
GEG523	Integrated Environmental Management
IPGE5111	Introduction to Physical Geography
IESR8412	Integrated Environmental and Social Risk Management: Policy and Practice
GEOG 5670	GIS Programming
GEOG 5010	Introduction to Geographic Information Systems
GEOG 2650	Digital Earth-Introduction to Geospatial Technologies
GEOG 5840	UAS Data Capture and Analysis
GEOG 1231	Earth Environments 1
GEOG2010	Geographical Information Systems
GEOG3113	Remote Sensing and GIS
GEOG3117	Environmental Modelling with GIS
GEOG 3010	Fundamentals of GIS
GISF7212	Geographical Information Systems: FOSS Geo-Informatics
GEG508	Geospatial Artificial Intelligence
ENRM 2000	Soil and Land Evaluation - GPS and Remote Sensing Techniques in Soil and Land Surveys
GEOG3107	Meteorology and Climatology
CLIM7311	Climatology
ENRM3002	Anthropogenic Climate Change Management
GCCA8412	Global Climate Change and Adaptation
ENRM 2002	Energy Resources & Sustainability

MPDG8411	Methodological and Philosophical Developments in Geography and Environmental Science
IRP0011	Introduction to Research & Research Project

Personal Courses

1. Short course on Climate Change and Resilience for Agriculture
2. Short course on GIS for Ecological Systems

Graduate Committees (Advisor)

S/N	Degree	Name and Institution	Status	Year
1	Msc	Rayan Salman A Alsaedi, Western Michigan University USA	Graduated	2025
2	Msc	Kwadwo Frimpong, Western Michigan University USA	Graduated	2025
3	PhD	Fumiso Muyambo, University of the Free State, South Africa	Graduated	2024
4	PhD	Lum Sonita, University of the Free State, South Africa	Graduated	2024
5	PhD	Afuye Gbenga Abayomi, University of Fort Hare, South Africa	Graduated	2022
6	Msc	Kamogelo Mamabolo, University of the Free State, South Africa	Graduated	2023
7	Msc	Lerato Moyahabo, University of the Free State, South Africa	Graduated	2023
8	Msc	Amate-Belle Clinton, University of the Free State, South Africa	Graduated	2023
9	Msc	Khuthadzo Mulovhedzi, University of the Free State, South Africa	Graduated	2023
10	Honour	Brittany Kretzschmar, Monash University South Africa, South Africa	Graduated	2022
11	Honour	Nyasha Magidi, Monash University South Africa, South Africa	Graduated	2022
12	Honor	Kumbiraisha Chagonda, Monash University South Africa, South Africa	Graduated	2023

Examiner

2022	PhD	Khulekani Eric Ndabezitha , University of KwaZulu Natal, South Africa
2022	Msc	Oboneng Cynthia Nonjola , University of the Free State, South Africa
2022	Msc	Karabo Motene , University of the Free State, South Africa
2021	Msc	Reneilwe Linah Maenetja , University of the Free State, South Africa
2021	Msc	Ncumisa Mabengu , University of the Free State, South Africa
2021	Msc	Silent Ruzvidzo , Central University of Technology, Free State, South Africa
2020	Msc	Mahlape Ramahloko , University of the Free State, South Africa
2019	Msc	Nkululeko Ephraim Zondi , University of the Free State, South Africa
2019	Honours	Yolisa Ngonyoti , University of Fort Hare, South Africa
2019	Honours	TSENGERAI REBECCA PAIDA , University of Fort Hare, South Africa
2019	Honours	Mpanyaro Z , University of Fort Hare, South Africa

GRANTS AND FUNDING

2024	UCAR Cooperative Programs for the Advancement of Earth System Science Travel grants	\$1000
2022-2023	University of the West Indies Travel grants	\$6,000
2022-2023	University of the West Indies University Visit grants	\$2,000
2019-2022	University of the Free State Centre for Graduate Research Support	\$7,000
2019-2021	NAS University of Free State, South Africa Central Research Funds	\$15,000
2019-2022	National Research Foundation Fellowship Award, University of the Free State, South Africa	\$120,000
2018-2019	Postdoctoral Fellowship Award, University of Fort Hare, South Africa	\$15,000
2019	Elsevier Foundation and The World Academy of Sciences (TWAS) Travel Grants 2019	\$709
2018	Seed Grant, University of Fort Hare, South Africa	\$3,000

PUBLICATIONS

(a) Published Journal Articles

2025

- (64) Muyambo, F., Belle, J., Nyam, Y. S., & ***Orimoloye, I. R.*** (2025). Developing an integrated disaster risk reduction strategy to enhance the resilience of vulnerable communities. *Sustainable Environment*, 11(1), 2488414.

2024

- (63) Afuye, G. A., Nduku, L., Kalumba, A. M., Santos, C. A. G., ***Orimoloye I.R.***, Ojeh, V. N., ... & Sibandze, P. (2024). Global trend assessment of land use and land cover changes: A systematic approach to future research, development and planning. *Journal of King Saud University-Science*, 103262. <https://doi.org/10.1016/j.jksus.2024.103262>
- (62) Awah, L. S., Belle, J. A., Nyam, Y. S; ***Orimoloye I.R*** (2024). Understanding Drivers of Changing Flood Dynamics for Enhancing Coastal Community Resilience: A Participatory Approach. *Regional Environmental Change*, Springer.
- (61) Awah, L. S., Belle, J. A., Nyam, Y. S; ***Orimoloye I.R*** (2024). A System Archetype Approach to Identify Behavioural Patterns in Flood Risk Management: Case Study of Cameroon. *Environmental Development*, Elsevier
- (60) Awah, L. S., Belle, J. A., Nyam, Y. S; ***Orimoloye I.R*** (2024). A Systematic Analysis of Systems Approach and Flood Risk Management Research: Trends, Gaps, and Opportunities. *International Journal of Disaster Risk Science*. <https://doi.org/10.1007/s13753-024-00544-y>
- (59) Awah, L. S., Belle, J. A., Nyam, Y. S; ***Orimoloye I.R*** (2024). A participatory systems dynamic modelling approach to understanding flood systems in a coastal community in Cameroon. *International Journal of Disaster Risk Reduction*. <https://doi.org/10.1016/j.ijdr.2023.104236>
- (58) Chaitanya B. Pande; Pranaya Diwate; ***Orimoloye IR***; Lariyah Mohd Sidek; Arun Pratap Mishra; Kanka N. Moharir; Subodh Chandra Pal; Fahad Alshehri; Ismail Elkhachy; Abebe Debele Tolche (2024). Impact of Land use/land cover changes on evapotranspiration and model accuracy using Google Earth Engine and Classification and Regression Tree Modeling. *Geomatics, Natural Hazards and Risk* (TGNH). <https://doi.org/10.1080/19475705.2023.2290350>
- (57) Fumiso Muyambo; Johanes Belle; Yong Sebastian Nyam; ***Orimoloye I.R*** (2023). Climate Change extreme events and exposure of local communities to water scarcity: a case study of QwaQwa in South Africa. *Environmental Hazards*, Taylor and Francis. <https://doi.org/10.1080/17477891.2024.2315263>.

- (56) Afuye GA., Kalumba AM, L. Nduku; and **Orimoloye, I.R** (2024). Global Trend Assessment Of Land Use And Land Cover Changes: A Systematic Approach to Future Research Development and Planning. Journal of King Saud University – Science, Elsevier.
- (55) Fumiso Muyambo; Johaness Belle; Yong Sebastian Nyam; **Orimoloye I.R** (2023). Building resilience to multiple climate change-related risks in QwaQwa using the community capital approach. Accepted with minor revision in Journal of Water and Climate Change, IWA.

2023

- (54) Chaitanya B. Pande, **Orimoloye I.R. (2023).** Comparative Assessment of Improved SVM Method under Different Kernel Functions for Predicting Multi-scale Drought Index. Water Resources Management. <https://doi.org/10.1007/s11269-023-03440-0>

2022

- (53) **Orimoloye I.R. (2022).** Agricultural Drought and its Potential Impacts: Enabling Decision-Support for Food Security in Vulnerable Regions. *Frontiers in Sustainable Food Systems*. <https://doi.org/10.3389/fsufs.2022.838824>
- (52) **Orimoloye I.R.,** Belle J.A., Chaitanya B. Pande, Olusola A.O., Ololade O.O. (2022). Drought disaster monitoring and Land use dynamics: Identification of drought drivers using regression-based algorithms. *Natural Hazards*. <https://doi.org/10.1007/s11069-022-05219-9>
- (51) **Orimoloye I.R.,** Belle J.A., Orimoloye, YM, Olusola AO., Ololade O.O. (2022). Drought: A Common Environmental Disaster. *Atmosphere*. <https://doi.org/10.3390/atmos13010111>
- (50) **Orimoloye I.R.,** Belle J.A., Olusola AO., Ololade O.O. (2022). Navigating nature's complexities through Terra MODIS information and downscaled regional climate model: Mainstreaming space-based information for drought disaster risk management. *Physics and Chemistry of the Earth, Elsevier*.
- (49) **Orimoloye I.R. (2022).** Water, Energy and Food Nexus: Policy Relevance and Challenges. *Frontiers in Sustainable Food Systems*. <https://doi.org/10.3389/fsufs.2021.824322>.
- (48) Mazinyo, S. P., Nel, W., Zhou, L., **Orimoloye, I. R.,** & Olatoye, T. A. (2022). Climate Perceptions and Adaptation Strategies of Smallholders in the Ngqushwa Local Municipality, South Africa. *Africa Insight*, 52(1), 88-102. https://hdl.handle.net/10520/ejc-afrins_v52_n1_a7
- (47) R.S. Shelar, S.P. Shinde, Chaitanya B. Pande, Kanak N. Moharir, **Orimoloye I.R,** Arun P. Mishra, Abhay M. Varade. (2022). Sub-watershed Prioritization of Koyna river basin in India using multi criteria analytical hierarchical process, remote sensing and GIS techniques. *Physics and Chemistry of the Earth*. <https://doi.org/10.1016/j.pce.2022.103219>.
- (46) Fumiso Muyambo; Johaness Belle; Yong Sebastian Nyama; **Orimoloye I.R** (2022). Climate-Change-Induced Weather Events and Implications for Urban

Water Resource Management in the Free State Province of South Africa. Environmental Management. <https://dx.doi.org/10.1007/s00267-022-01726-4>

- (45) Tshuma, M; Belle, JA; Ncube, A; Nyam, YS and ***Orimoloye, I.R.*** (2022). Building resilience to hazards in the water, sanitation, and hygiene (WASH) systems: A global review. International Journal of Environmental Health Research. <https://doi.org/10.1080/09603123.2022.2153809>
 - (44) Ogunjo, S., Olusola, A., & ***Orimoloye, I.R*** (2022). Association between weather parameters and SARS-CoV-2 confirmed cases in two South African cities. GeoHealth, e2021GH000520., Willey. <https://doi.org/10.1029/2021GH000520>
 - (43) Busayo E. T; Afuye G.A; Olusola A. O; Kalumba A. M; Olusola O. O; ***Orimoloye I. R*** (2022) Rediscovering South Africa: Flood disaster risk management through Ecosystem-based Adaptation. *Environmental and Sustainability Indicators*. <https://doi.org/10.1016/j.indic.2022.100175>
 - (42) Adetoso A. Adetoro, Mjabuliseni S. C. Ngidi, Temitope O. Ojo., Gideon Danso-Abbeam., Abiodun A. Ogundeji., ***Orimoloye I.R.*** (2022). Weather-index insurance as an adaptation strategy to climate change: a global insight. Climate Research. <https://doi.org/10.3354/cr01697>
 - (41) Oladayo Amed Idris, Prosper Opute, ***Orimoloye IR***, Mark Steve Maboeta. (2022). Climate change in Africa and vegetation response: A bibliometric and spatial-based information assessment. Sustainability.
 - (40) Adeyeye Damilola, Adelabu Samuel, sudhir kumar singh, ***Orimoloye I.R.***, Olusola AO. (2022). Carbon Footprint Assessment and Mitigation Scenarios: A Benchmark Model for GHG indicator in a Nigerian University. *Environment, Development and Sustainability*. <https://doi.org/10.1007/s10668-021-02098-1>
- 2021**
- (39) ***Orimoloye, I.R.,*** Belle. J.A, Ololade, O.O. (2021). Satellite-based application in drought disaster assessment using Terra MOD13Q1 data across Free State Province, South Africa. Journal of Environmental Management. <https://doi.org/10.1016/j.jenvman.2021.112112>
 - (38) ***Orimoloye, I.R.,*** Olusola AO, Ololade, O.O, Adelabu SA. (2021). A persistent fact: Reflections on Drought Severity Evaluation Over Nigerian Sahel using MOD13Q1. Arabian Journal of Geosciences, 14, 1997 (2021). <https://doi.org/10.1007/s12517-021-08369-5>
 - (37) ***Orimoloye, I.R.,*** Belle. J.A, Ololade, O.O (2021). Drought disaster monitoring using MODIS derived index for drought years: A space-based information for ecosystems and environmental conservation. Journal of Environmental Management. <https://doi.org/10.1016/j.jenvman.2021.112028>

- (36) ***Orimoloye I.R.***, A. M. Kalumba, L. Zhou. (2021). Drought disaster risk adaptation through ecosystem services-based solutions: Way forward for South Africa. Sustainability. <https://doi.org/10.3390/su13084132>
 - (35) Masonwabe Dyosi, A. M. Kalumba, HB Magagula, L. Zhou; ***Orimoloye I.R.*** (2021). Drought conditions appraisal using geoinformatic and multi-influencing factors. Environmental Monitoring and Assessment. <https://doi.org/10.1007/s10661-021-09126-7>
 - (34) Afuye GA., Kalumba AM, Busayo ET; and ***Orimoloye, I.R*** (2021). A bibliometric review of vegetation response to climate change. Environmental Science and Pollution Research
 - (33) Afuye GA., Kalumba AM, and ***Orimoloye, I.R*** (2021). Characterisation of vegetation response to climate change: A review. Sustainability
 - (32) Adetoso Adebisi Adetoro; Mjabuliseni Ngidi; Yong Sebastian Nyam; ***Orimoloye I.R.*** (2021). Temporal evaluation of water footprint, water sustainability and water productivity (WFSP) research. Scientific African. <https://doi.org/10.1016/j.sciaf.2021.e00732>
 - (31) Madasa A. Ololade O.O, ***Orimoloye, I. R.*** (2021). Application of geospatial indices for mapping land cover/use change detection in a mining area. Journal of African Earth Sciences. <https://doi.org/10.1016/j.jafrearsci.2021.104108>
 - (30) Olatoye, T. A., Mazinyo, S. P., Odeyemi, A. S., ***Orimoloye, I. R.,*** & Busayo, E. T. (2021). Forest Systems Services Provisioning in Africa: Case of Gambari Forest Reserve, Ibadan, Nigeria. International Journal of Forestry Research, 2021.
 - (29) Salami SO, Adegbaaju OD, Idris OA, Jimoh MO, Olatunji TL, Omonona S, ***Orimoloye, I.R.***, Adetunji AE, Olusola AO, Maboeta MS and Laubscher CP. (2021). South African wild fruits and vegetables under a changing climate: the implications on health and economy. South African Journal of Botany. <https://doi.org/10.1016/j.sajb.2021.08.038>
- 2020**
- (28) ***Orimoloye, I. R.,*** Belle, J. A., Olusola, A. O., Busayo, E. T., & Ololade, O. O. (2020). Spatial assessment of drought disasters, vulnerability, severity and water shortages: a potential drought disaster mitigation strategy. Natural Hazards, **105**, 2735–2754, P (1-20). <https://doi.org/10.1007/s11069-020-04421-x>
 - (27) ***Orimoloye, I.R.,*** Ololade, O.O. (2020). Spatial evaluation of land-use dynamics in gold mining area using remote sensing and GIS technology. *International Journal of Environmental Science and Technology*. <https://doi.org/10.1007/s13762-020-02789-8>.
 - (26) ***Orimoloye, I.R.,*** Belle. J.A, Ekundayo, T. C, Ololade, O. O (2020). Systematic mapping of disaster risk management research and the role of innovative technology. Environmental Science and Pollution Research. <https://doi.org/10.1007/s11356-020-10791-3>.

- (25) **Orimoloye, I.R.**, Ololade, O.O. Belle. J.A (2020). Exploring the emerging evolution trends of disaster risk reduction research: A global scenario. *International Journal of Environmental Science and Technology*. <https://doi.org/10.1007/s13762-020-02847-1>
- (24) **Orimoloye, I.R.**, Ololade, O.O. (2020) Global trends assessment of environmental health degradation studies from 1990 to 2018. *Environment, Development and Sustainability*. 1-14.
- (23) **Orimoloye, I. R.**, & Ololade, O. O. (2020). Potential implications of gold-mining activities on some environmental components: a global assessment (1990 to 2018). *Journal of King Saud University-Science*, 32(4), 2432-2438.
- (22) Adediji, O., Olusola, A., James, G., Shaba, H. A., **Orimoloye, I. R.**, Singh, S. K., & Adelabu, S. (2020). Early warning systems development for agricultural drought assessment in Nigeria. *Environmental Monitoring and Assessment*, 192(12), 1-21. <https://doi.org/10.1007/s11069-020-04421-x>
- (21) Owolabi, S. T., Madi, K., Kalumba, A. M., & **Orimoloye, I. R.** (2020). A groundwater potential zone mapping approach for semi-arid environments using remote sensing (RS), geographic information system (GIS), and analytical hierarchical process (AHP) techniques: a case study of Buffalo catchment, Eastern Cape, South Africa. *Arabian Journal of Geosciences*, 13(22), 1-17. <https://doi.org/10.1007/s12517-020-06166-0>
- (20) Busayo, E. T., Kalumba, A. M., G. A Afuye, O. Y. Ekundayo & **Orimoloye, I. R.** (2020). Assessment of the Sendai framework for disaster risk reduction studies since 2015. *International Journal of Disaster Risk Reduction*. <https://doi.org/10.1016/j.ijdrr.2020.101906>.
- (19) Ekundayo O. Y., Okogbue E. C., Akinluyi F.O, Kalumba A.M, **Orimoloye I.R.** (2020). Spatiotemporal drought assessment using vegetation health index and standardized precipitation index over Sudano-Sahelian region of Nigeria. *African Geographical Review*. <https://doi.org/10.1080/19376812.2020.1841658>.
- (18) Haindongo, P. N.; Kalumba, A.M; **Orimoloye, I. R.** (2020). Local people's perceptions about Land Use Cover Change (LULCC) for sustainable human wellbeing in Namibia. *GeoJournal*.
- (17) Adetoro, A.A., Abraham, S., Paraskevopoulos, A.L., Owusu-Sekyere, E., Jordaan, H., **Orimoloye, I.R.** (2020). Alleviating water shortages by decreasing water footprint in sugarcane production: The impacts of different soil mulching and irrigation systems in South Africa, *Groundwater for Sustainable Development*. <https://doi.org/10.1016/j.gsd.2020.100464>.
- (16) Nyam, YS, Kotir, JH, Jordaan, AJ, Ogundeji, AA, Adetoro, AA., **Orimoloye, I.R.** (2020). Towards understanding and sustaining natural resource systems through the systems perspective: a systematic evaluation. *Sustainability* 2020, 12, 9871. <https://doi.org/10.3390/su12239871>

2019

- (15) **Orimoloye, I. R.**, Mazinyo, S. P., Kalumba, A. M., Nel, W., Adigun, A. I., & Ololade, O. O. (2019). Wetland shift monitoring using remote sensing and GIS techniques: landscape dynamics and its implications on Isimangaliso Wetland Park, South Africa. *Earth Science Informatics*, 12(4), 553-563.
- (14) **Orimoloye, I. R.**, Ololade, O. O., Mazinyo, S. P., Kalumba, A. M., Ekundayo, O. Y., Busayo, E. T., & Nel, W. (2019). Spatial assessment of drought severity in Cape Town area, South Africa. *Heliyon*, 5(7), e02148.
- (13) **Orimoloye, I. R.**, Mazinyo, S. P., Kalumba, A. M., Ekundayo, O. Y., & Nel, W. (2019). Implications of climate variability and change on urban and human health: A review. *Cities*, 91, 213-223.
- (12) Busayo, E. T., Kalumba, A. M., & **Orimoloye, I. R.** (2019). Spatial planning and climate change adaptation assessment: Perspectives from Mdantsane Township dwellers in South Africa. *Habitat International*, 90, 101978.
- (11) Willie, Y. A., Pillay, R., Zhou, L., & **Orimoloye, I. R.** (2019). Monitoring spatial pattern of land surface thermal characteristics and urban growth: A case study of King Williams using remote sensing and GIS. *Earth Science Informatics*, 12(4), 447-464.

2018

- (10) **Orimoloye, I. R.**, Mazinyo, S. P., Nel, W., & Kalumba, A. M. (2018). Spatiotemporal monitoring of land surface temperature and estimated radiation using remote sensing: human health implications for East London, South Africa. *Environmental earth sciences*, 77(3), 77.
- (9) **Orimoloye, I. R.**, Kalumba, A. M., Mazinyo, S. P., & Nel, W. (2018). Geospatial analysis of wetland dynamics: wetland depletion and biodiversity conservation of Isimangaliso Wetland, South Africa. *Journal of King Saud University-Science*, 32(1), 90-96.
- (8) Ogunjobi, K. O., Adamu, Y., Akinsanola, A. A., & **Orimoloye, I. R.** (2018). Spatio-temporal analysis of land use dynamics and its potential indications on land surface temperature in Sokoto Metropolis, Nigeria. *Royal Society open science*, 5(12), 180661.
- (7) **Orimoloye, I. R.**, Mazinyo, S. P., Nel, W., & Iortyom, E. T. (2018). Assessing changes in climate variability observation and simulation of temperature and relative humidity: a case of east London, South Africa. *Research Journal of Environmental Sciences*, 12(1), 1-13.
- (6) **Orimoloye I. R.**, Adefisan, E. A., (2018). Convective Instability Indices and Thermo-Dynamical Parameter for Forecasting Thunderstorms Occurrences over Kano, Nigeria. *Research Journal of Applied Sciences*, 13: 285-293.

2017

- (5) **Ropo, O. I.**, & Ibraheem, A. A. (2017). Response of cassava and maize yield to varying spatial scales of rainfall and temperature scenarios in Port Harcourt. *Res. J. Environ. Sci*, 11, 137-142.

- (4) Onamuti, O. Y., Okogbue, E. C., & **Orimoloye, I. R.** (2017). Remote sensing appraisal of Lake Chad shrinkage connotes severe impacts on green economics and socio-economics of the catchment area. *Royal Society open science*, 4(11), 171120.
- (3) **Ropo, O. I.**, Perez, M. S., Werner, N., & Enoch, T. I. (2017). Climate variability and heat stress index have increasing potential ill-health and environmental impacts in the East London, South Africa. *Int. J. Appl. Eng. Res*, 12(17), 6910-6918.
- (2) Hemba, S., Iortyom, E. T., **Ropo, O. I.** & Daniel, D. P. (2017). Analysis of the physical growth and expansion of Makurdi Town using remote sensing and GIS techniques. *Imperial J. Interdiscip. Res*, 3, 821-827.

2015

- (1) Adefisan, E. A., Bayo, A. S., & **Ropo, O. I.** (2015). Application of geospatial technology in identifying areas vulnerable to flooding in Ibadan metropolis. *J Environ Earth Sci*, 5(14), 153-166.

(b) Peer-Reviewed Book Chapters

- (13) **Orimoloye I.R.**, Olabode E. Ogunmakinde, Temitope Omotayo, Temitope Egbelakin, Chaitanya B. Pande, Adebayo Sojobi. (2024). Geospatial Applications and Risk-related Management in the Construction Industry: Opinions for Caribbean Scenarios. Book: Innovations, Disruptions and Future Trends in the Global Construction Industry. Routledge. <https://doi.org/10.1201/9781003372233-6>
- (12). Temitope Omotayo, Bankole Awuzie, Temitope Egbelakin, **Orimoloye I.R.**, Olabode E. Ogunmakinde, Adebayo Sojobi. (2024). The Construction Industry's Future Systems, People and Projects. Book: Innovations, Disruptions and Future Trends in the Global Construction Industry. Routledge. <https://doi.org/10.1201/9781003372233-21>
- (11) **Orimoloye I.R.**, (2022) Livelihood vulnerability assessment and drought events in South Africa. Accepted in the book titled: Climate Change Impacts on Natural Resources, Ecosystem, Springer. <https://doi.org/10.1007/978-3-031-19059-9>
- (10) **Orimoloye I.R.** (2022). Drought Disaster Risk Reduction and its Environmental Benefits in African Countries accepted in the book titled

Multi-Criteria Decision Analysis: Case Studies in Disaster Management to be published by “Taylor & Francis Group, CRC Press”

- (9) ***Orimoloye, I.R.,*** Ololade, O.O., Belle, J. A (2022). Spatio-environmental distribution of drought disaster events: A space-based approach using Terra-MODIS Vegetation Index. Book: Remote Sensing Applications in Disaster Management. Eds: Singh, R. UK: Taylor and Francis” ISBN 9780367502393. <http://dx.doi.org/10.1201/9781003224624-8>
- (8) Eresanya Emmanuel Olaoluwa, Olufemi Sunday Durowoju, Olasunkanmi Olorunsaye, ***Orimoloye I.R.,*** Mojolaoluwa T. Daramola, Akinyemi Akindamola Ayobami, Olasunkanmi Olorunsaye (2022). Understanding weather and climate extremes. <https://doi.org/10.1016/B978-0-323-88456-3.00008-3>.
- (7) YM Orimoloye, Adeyemi Olusola, Toju Babalola, ***IR Orimoloye*** (2022). Evaluating disaster risks to improve resilience: Lessons from Nigeria and South Africa. Handbook of Disaster Risk Reduction for Resilience (HD3R-2021) to be published in Springer)
- (6) ***Orimoloye I. R,*** Ekundayo O. Y, Busayo E. T, Afuye G. A, Kalumba A. M, Ekundayo T. C. (2022). Assessment of global research trends in the application of data science, deep and machine learning to COVID-19 pandemic. Accepted in the Book title: Data Science for COVID-19, Eds: Kose, U., Gupta, D. de Albuquerque, V.H.C., Khanna A. USA: Elsevier (ISBN 9780128245361). <https://doi.org/10.1016/B978-0-323-90769-9.00030-X>
- (5) Ekundayo T. C, ***Orimoloye I. R,*** Ololade O. O., Okoh A. I. (2022). Prioritization of health emergency research and disaster preparedness: a systematic assessment of coronavirus disease 2019 (COVID-19) pandemic". Accepted in the Book title: Data Science for COVID-19. Eds: Kose, U., Gupta, D. de Albuquerque, V.H.C., Khanna A. USA: Elsevier (ISBN 9780128245361). <https://doi.org/10.1016/B978-0-323-90769-9.00033-5>

- (4) ***Orimoloye I.R.***, Belle J.A., Olusola A., Ololade O.O. (2021) Space-Based Drought Disaster Risk and Climate Change Assessments: Strategies for Environmental Conservation. In: Lackner M., Sajjadi B., Chen WY. (eds) Handbook of Climate Change Mitigation and Adaptation. Springer, New York, NY. https://doi.org/10.1007/978-1-4614-6431-0_138-1
- (3) Ekundayo O. Y., Okogbue E. C, Akinluyi F.O, Kalumba A.M, ***Orimoloye, I. R.*** (2021). Geoinformatics Approach in Desertification Evaluation using Vegetation Cover Changes in the Sudano-Sahelian Region of Nigeria from 2000 to 2010. (Accepted in the book title “Remote Sensing Applications in Disaster Management. 1st Edition. Eds: Ripudaman Singh. UK: Taylor and Francis”) ISBN 9780367502393. <https://www.taylorfrancis.com/chapters/geoinformatics-approach-desertification-evaluationusing-vegetation-cover-changes-sudano-sahelian-region-nigeria-2000-2010-ekundayo-okogbue-akinluyi-kalumba-israel-orimoloye/e/10.1201/9781003049210-18>
- (2) Ololade O.O., ***Orimoloye I.R.*** (2021) Contribution of a Well-Managed Landfill to Sustainable Development. In: Baskar C., Ramakrishna S., Baskar S., Sharma R., Chinnappan A., Sehrawat R. (eds) Handbook of Solid Waste Management. Springer, Singapore. https://doi.org/10.1007/978-981-15-7525-9_46-1
- (1) Ololade O.O, Otunola B.O, ***Orimoloye I.R.*** (2021). Conflicting perceptions of sustainability in mining: Influencing factors in the Rustenburg region: Book: Mining and Community in the South African Platinum Belt: A Decade after Marikana. Eds: Prof Lochner Marais. NOVA). <https://novapublishers.com/shop/mining-and-community-in-the-south-african-platinum-belt-a-decade-after-marikana/>

Presentations and Invited Lectures

i. Conferences Attended/presented with Dates and/or Papers Presented

- (18) Orimoloye, I.R., Ololade, O.O. (2024). Drought Disaster Risk Reduction and Its Environmental Benefits. In: Ksibi, M., *et al.* Recent Advances in Environmental Science from the Euro-Mediterranean and Surrounding Regions (3rd Edition). EMCEI 2021. Advances in Science, Technology & Innovation. Springer, Cham. https://doi.org/10.1007/978-3-031-43922-3_123
- (17) **Orimoloye, I.R.**, (2024). Land use dynamics and environmental changes in Michigan County using Support Vector Machine. UCAR Africa Initiative Workshop held at the Center green, Boulder, CO, USA.
- (16) **Orimoloye, I.R.**, (2023). Climate Scenario and Drought Disaster Appraisal in the Urban Context. American Meteorological Society 103rd AMS Annual Meeting to be held 08 - 12 January 2023 in Denver, CO, USA.
- (15) **Orimoloye, I.R.**, (2023). Risk of Climate Change and Natural Hazards in the Urban Context. American Meteorological Society 103rd AMS Annual Meeting to be held 08 - 12 January 2023 in Denver, CO, USA.
- (14) **Orimoloye, I.R.**, (2023). Spatiotemporal Monitoring of Drought and its Impacts on Food Security. 2023 UWI Faculty of Food and Agriculture Research Day
- (13) **Orimoloye, I.R.**, (2023). Spatiotemporal Evaluation of Drought in the Caribbean using Remotely Sensed Data: Identifying Drought Potential Impact on Food Security. 2023 UWI Faculty of Food and Agriculture Research Day
- (12) **Orimoloye, I.R.**, and Ololade, O.O. (2022). Hazard risk and climate change in mountainous environments: A systematic assessment, Southern African Mountain Conference 2022, South Africa (Presenting Author).
- (11) S Terzi, J Devies., E Cheo., YS Nyam., S Schhneiderbauer., and **Orimoloye, I.R.**, J Szarzynski. (2022). Exploring Upstream-downstream water demand scenarios for Future Adaptation in Mountains. Southern African Mountain Conference 2022, South Africa.

- (10) **Orimoloye I.R.**, Belle, J., Olusola, A., & Ololade, O. (2021, December). Climate Change and Drought Drivers: Identification of drought drivers and climate extreme using regression-based algorithms. In AGU Fall Meeting Abstracts (Vol. 2021, pp. NH15G-2161). <https://ui.adsabs.harvard.edu/abs/2021AGUFMNH15G2161O/abstract>
- (9) Shekhar et al., 2021. Policy Brief: Can Social Protection Support in Addressing Climate Change Adaptation? Presented at United Nations - Climate Change COP 26, 31 Oct 2021 – 12 Nov 2021. https://www.youtube.com/watch?v=t7_8iUD26bk
- (8) **Orimoloye, I.R.**, Belle. J.A, Ololade, O.O. (2021). Leveraging Climate Projections and Remote Sensing Information for Drought Disasters Appraisal (American Association of Geographers Annual Meeting 2021)
- (7) **Orimoloye, I.R.**, Ololade, O.O. Belle. J.A (2020). Space-based drought disaster risk and climate change assessments: Strategies for environmental conservation. 2020 UNU Summer Academy on World Risk and Adaptation Futures: Social Protection, 21-25 September 2020, Bonn, Germany, (Presenting Author).
- (6) **Orimoloye I. R** (2020). UN-SPIDER Virtual International Expert Meeting "Space-based Solutions for Risk and Disaster Management in Africa, Bonn, Germany, June 30 to July 2, 2020.
- (5) **Orimoloye I. R** (2019). UN-SPIDER Bonn International Conference: “Space-based Solutions for Disaster Management in Africa: Challenges, Applications, Partnerships” Bonn, Germany, 6 to 8 November 2019.
- (4) **Orimoloye I. R** and Olusola O. Ololade (2019). Global trends assessment of environmental health degradation studies from 1990 to 2018 (4th TYAN International Thematic Workshop and 1st African Symposium on "Big Data, Analytics and Machine Intelligence for Financial, Health and Environmental Inclusion in Developing Countries, 10-14 June 2019, Akure, Nigeria). (Presenting Author).
- (3) Busayo ET, Kalumba AM, **Orimoloye I. R.** (2019). Spatial planning and climate change adaptation assessment: perspectives from Mdantsane Township dwellers in South Africa. 4th TYAN International Thematic Workshop and 1st African Symposium on "Big Data, Analytics and Machine

Intelligence for Financial, Health and Environmental Inclusion in Developing Countries, 10-14 June 2019, Akure, Nigeria.

- (2) **Orimoloye I. R.**, Mazinyo S. P., Nel W. (2018). Assessment of Human Health Indications of Climate Variability: Integrating Meteorological and Epidemiological Data in East London, South Africa (SSAG 2018 Academic Conference, October 1-6, University of Free State, Bloemfontein, SA). (Presenting Author).
- (1) **Orimoloye I. R.**, Mazinyo S. P., Nel W., Kalumba A. M., 2017. Spatio-temporal Remote Sensing of Land Surface Temperature and Estimated Radiation: Human Health Implications for East London, South Africa. (University of Fort Hare, Research and Innovation conference, 23rd October, 2017), (Presenting Author).

ii. Invited Lectures/Talks

- 2021** Career opportunities for graduate students. Careers Resource Symposium organized by the Department of Marine and Science Technology, Federal University of Technology, Akure. Sep 10, 2021
- 2020** Guest speaker at the Leading the Change Regional Certified Webinar, African Youth and Civil Society Green Growth Hub: “From the pandemic to Agenda 2030, Mobilized for Change” organized by African Network of Young Leaders for Peace and Sustainable Development in partnership with Worldwide Fund for Nature International. The Workshop was held in September 28, 2020, (Cameroon, 2020).

iii. News and newsletter

2024

- (1) **Orimoloye I. R.**, (2024). Geospatial Research Applications. AUVSI UNCREWED INSIGHTS 2024 Volume 1

iv. Organized Workshops & Conference Sessions

- 2024 **Workshop organizer and facilitator:** Workshop Title: Introduction to QGIS and Hands-On Session at 2024 ESA Great Lakes Regional Conference, 251 Business Ct, Kalamazoo, MI 49008-5200, USA.
- 2023 **Session Chair:** **Orimoloye, I.R.**, (2023). Risk of Climate Change and Natural Hazards in the Urban Context. American Meteorological

Society 103rd AMS Annual Meeting to be held 08 - 12 January 2023 in Denver, CO, USA.

Projects

2019-2022	Drought disaster risk assessment and its potential impact on the environment in the Free State Province, South Africa	Completed	PI
2019-2021	Assessment of the ecological and environmental degradation and possible restoration in the Welkom mining area	Completed	Co-PI
2022-	Special Issue in Land on Earth Observation (EO) for Land Degradation and Disaster Monitoring	In-progress	Guest Editor
2024	Book Editor titled Environmental and Disaster Management: Remote Sensing and GIS Case Studies for Sustainable Solutions to be published in Taylor and Francis	In-progress	Book editor

Workshop and Training Attended

- i. NASA Applied Remote Sensing Training: Fundamentals of Machine Learning for Earth Science Organised by National Aeronautics and Space Administration, April 20 to May 4, 2023
- ii. Academic Peer Review Training organized by IEMSA Teaching and Learning, South Africa (August 19, 2022)
- iii. NASA Applied Remote Sensing Training: Tools for Analyzing NASA Air Quality Model Output Organised by National Aeronautics and Space Administration, February 22 to March 1, 2022
- iv. NASA Applied Remote Sensing Training: Satellite Observations for Analyzing Natural Hazards on Small Island Nations Organised by National Aeronautics and Space Administration, August 18 to 24, 2021
- v. NASA Applied Remote Sensing Training: Species Distribution Modeling with Remote Sensing Organised by National Aeronautics and Space Administration, August 12, 2021 - August 19, 2021
- vi. NASA Applied Remote Sensing Training: Hyperspectral Data for Land and Coastal Systems, Organised by National Aeronautics and Space Administration, January 19, to February 3, 2021
- vii. NASA Applied Remote Sensing Training: Introduction to NASA's "Black Marble" Night Lights Data Organised by National Aeronautics and Space Administration, December 3, 2020.
- viii. NASA Applied Remote Sensing Training: MODIS to VIIRS Transition for Air Quality Applications Organised by National Aeronautics and Space Administration, October 22, 2020.

- ix. NASA Applied Remote Sensing Training: Remote Sensing of Coastal Ecosystems Organised by National Aeronautics and Space Administration, August 25 to September 8, 2020
- x. Summer School 2020, *"Developing Machine Learning Algorithms for spatial and spatiotemporal data science problems"* organized by OpenGeoHub, August 16, to 22, 2020
- xi. NASA Applied Remote Sensing Training Using Earth Observations to Monitor Water Budgets for River Basin Management, July 21 to August 4, 2020.
- xii. Urban Climate and Heat Islands - CMCC Series on Urban Adaptation, Organised by Centro Euro-Mediterraneo Sui Cambiamenti Climatici (CMCC) (July 16, 2020).
- xiii. Training Workshop for the Mediterranean Sea, Copernicus Marine Service Online Training Workshop dedicated to the Mediterranean Sea, July 3, 2020
- xiv. NASA Applied Remote Sensing Training: Understanding Phenology with Remote Sensing Organised by National Aeronautics and Space Administration (30th, June 2020).
- xv. NASA Applied Remote Sensing Training: Groundwater Monitoring using Observations from NASA's Gravity Recovery and Climate Experiment (GRACE) Missions Organised by National Aeronautics and Space Administration (25th, June 2020).
- xvi. NASA Applied Remote Sensing Training: An Inside Look at How NASA Measures Air Pollution Organised by National Aeronautics and Space Administration (26th to 28th, May 2020).
- xvii. NASA Applied Remote Sensing Training: Advanced Forest Mapping and Monitoring with SAR Data Organised by National Aeronautics and Space Administration (12th to 21st of May 2020).
- xviii. Meeting well-below 2°C targets would increase energy sector jobs - CMCC Series on Urban Adaptation hosted by Centro Euro-Mediterraneo Sui Cambiamenti Climatici (CMCC) (9th, June 2020).
- xix. Participatory Policy Development Processes and Environmental Sustainability - CMCC Series on Urban Adaptation hosted by Centro Euro-Mediterraneo Sui Cambiamenti Climatici (CMCC) (3rd, June 2020).
- xx. Planning a sustainable city: strategies and tools - CMCC Series on Urban Adaptation hosted by Centro Euro-Mediterraneo Sui Cambiamenti Climatici (CMCC) (28th, May 2020).
- xxi. 12th Block Course 2020 Theme: Disaster Risk Management for Sustainable Development "From Vulnerability to Resilience" Organized by United Nations University, Institute for Environment and Human Security (UNU-EHS) and Disaster Management Training and Education Centre for Africa, University of the Free State, South Africa (17th to 28th February 2020). <https://www.ufs.ac.za/natagri/departments-and-divisions/disaster->

[management-training-and-education-centre-for-africa-home/short-learning-programmes/next-block-course](https://www.umfreesa.ac.za/management-training-and-education-centre-for-africa-home/short-learning-programmes/next-block-course)

- xxii. Geographic Information Systems and Global Positioning Systems Applications, Undertaken at the Centre for Environmental Management, University of the Free State, South Africa (28 October – 1 November 2019).
- xxiii. Roles and responsibilities of a supervisor Workshop, 1 October 2019, Research Development, University of the Free State.
- xxiv. German-Southern African Summer School, 2019 on Monitoring of Surface Water Quality: General Framework, Methods, Tools and Strategies Undertaken at the Centre for Environmental Management, University of the Free State, South Africa (24 – 30 March, 2019)
- xxv. 4th TYAN International Thematic Workshop and 1st African Symposium on "Big Data, Analytics and Machine Intelligence for Financial, Health and Environmental Inclusion in Developing Countries, 10-14 June 2019, Akure, Nigeria

Academic Service

University, College, and Department Service

2023	Coordinator, Master of Philosophy Program, Department of Geography, University of the West Indies, Trinidad and Tobago	Coordinator
2022 - 2023	Recruitment and Outreach Coordinator, Department of Geography, University of the West Indies, St Augustine Campus, Trinidad and Tobago	Coordinator
2022 - 2023	Agriculture, Health and Social Vulnerability, University of the West Indies, St Augustine Campus, Trinidad and Tobago	Member
2022-2023	Campus Committee for Undergraduate Awards Selection 2022/2023 - University of the West Indies, St Augustine Campus, Trinidad and Tobago	Faculty Representative
2022-2023	Faculty of Food and Agriculture Research Committee, University of the West Indies, St Augustine Campus, Trinidad and Tobago	Member
2022-2023	Campus Research Ethics Committee, University of the West Indies, St Augustine Campus, Trinidad and Tobago	Member
2022-2023	Committee, AgricTech, Faculty of Food and Agriculture, University of the West Indies, St Augustine, Trinidad and Tobago	Member

MEMBERSHIPS

2017 -	South African Council for Natural Scientific Professions	Member
2023 -	American Meteorological Society	Member
2018 -	Society of South African Geographers	Member
2021 -	American Geographical Union	Member
2020 -	Global Network of Civil Society Organisations for Disaster Reduction	Member
2016 -	American Association of Geographers	Member
2019 -	African Scientists	Member
2020 -	Geological Society of America	Member
2019 -	Arid Zone Ecology Forum	Member

CERTIFICATIONS

2020	Certificate in Global Energy and Climate Policy (University of London)
2020	Certificate in Spatial Data Science and Applications (Yonsei University)
2020	Certificate in R programming (Data Lead Africa)
2020	Certificate in Python programming (Data Lead Africa)
2020	Certificate in Project Planning (Speccon (Pty) Ltd)
2019	Certificate in Geographic Information Systems and Global Positioning Systems Applications (University of the Free State)

Review of Academic Journals (Selected few):

- Science of the Total Environment, Elsevier
- Remote Sensing Applications: Society and Environment, Elsevier
- Urban Climate, Elsevier
- Meteorology and Atmospheric Physics, Springer
- Journal of Mountain Science, Springer
- Atmospheric Science Letters, Wiley
- Journal of African Earth Sciences, Elsevier
- African Journal of Science, Technology, Innovation and Development (Taylor & Francis)
- Remote Sensing, MDPI
- ISPRS International Journal of Geo-Information, MDPI
- Ecological Indicators, Elsevier
- Applied Water Science, Springer
- African Geographical Review, Taylor and Francis
- Integrated Environmental Assessment and Management, Wiley
- Environmental Monitoring and Assessment, Springer

- European Journal of Remote Sensing, Taylor and Francis

Funding Agency Referee

- 2023** External Expert Reviewer - Climate-Smart Adaptive Resilience and Engagement for Animal Evacuation Project, University of Newcastle (UON), University Drive, Callaghan NSW 2308 Australia
- 2019 -** Reviewer for South African's National Research Foundation Rating Application

Public Service

- 2023** Career talk at the Five Rivers Secondary School Career Day Range Road, Five Rivers, Trinidad and Tobago Volunteer
- 2020 -** GeoMentor, American Association of Geographers, Washington, DC, USA (December 2019 till date) Volunteer
- 2020** Workshop on proposal and project writing (University of the Free State community) Volunteer

Names and Addresses of three Referees

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