

## Kenneth Ekpetera O.

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[LinkedIn](#), [Twitter](#), Personal Website

### Positions

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Graduate Student Representative- Faculty Meeting Rep (GAS, KU) August 2020- Present  
Chapters Committee Chair – ASPRS (SAC) April 2021- Present

### Education

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**PhD Geography** Aug. 2021 - Present  
University of Kansas. Lawrence, KS.

**Master of Science in Geography** Aug. 2019 - July 2021  
University of Kansas, Lawrence, KS.  
CGPA: **4.00/4.00**

**Graduate GIS Certification** Aug. 2019 - Dec. 2020  
University of Kansas, Lawrence, KS

**B.Sc. Geography and Environmental Management** Feb 2012 - Jan 2017  
University of Abuja. Abuja – Nigeria.  
CGPA: **4.56 / 5.00** (First Class Honors)  
Class Rank: 1<sup>st</sup> (Best Graduate student, University of Abuja- 2017)

### Conferences & Workshops

- **Kenneth. O. Ekpetera** & Xingong Li (June 2021), Possibilities and Limitations of IMERG Datasets for Estimating Probable Maximum Precipitation Across Contiguous USA Under Varying Precipitation Conditions. University Consortium for Geographic Information Science ([UCGIS](#)) Symposium 2021. (June 7- June 11, 2021). See schedule of paper presented under [Smart & Resilient Cities](#).
- **Kenneth. O. Ekpetera** & Xingong Li (March 2021), Possibilities and Limitations of Estimating Probable Maximum Precipitation in Kansas USA, using IMERG Datasets. American Society for Photogrammetry and Remote Sensing (ASPRS) 2021 Annual Conference Program. (March 29 – April 4, 2021). See full conference [proceedings](#) and [abstract](#).
- **Kenneth. O. Ekpetera** (2021), Estimating Probable Maximum Precipitation Over the African Regions Using IMERG Satellite Datasets. 10<sup>th</sup> annual Graduate Research Workshop, Kansas African Studies Center (KASC) University of Kansas (Feb 19, 2021). See full workshop [proceedings](#) and [abstract](#).

### Professional Membership

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- Association of American Geographers (**AAG**) – August 2020 – present.
- Kansas Association of Mappers (**KAM**) – August 2020 - present.
- American Society for Photogrammetry and Remote Sensing (**ASPRS**) – Feb 2021 - present.
- University Consortium for Geographic Information Science (**UCGIS**) – Jan 2021 - present.

## **Research Experience**

- **Enhancing Kansas Flood Mapping Tool (Characterizing 100-year water surface profile using LIDAR ).**  
Kansas Biological Survey, KU. Summer 20/21
- **Estimating and validating PMP from IMERG precipitation datasets across rain gauges in Kansas**  
Department of Geography, KU. August 2019 – July 2021
- **Gentrification Mapping across Cities and States in contiguous USA.**  
Department of Educational Leadership and Policy Studies, KU. Winter 20/ Summer 21
- **Prairies -native plant restoration (Precipitation-control experiment, Biomass extraction, & Meta-analysis).**  
Kansas Biological Survey (KBS), KU – James Bever research group. Summer 2020
- **Mapping Encroachment disparities in sub-urban communities.**  
Geography and Environmental Management, UNIBUJA. January 2017 – May 2019

## **Employment/Teaching Responsibilities**

- Intro. Cartography & Geovisualization (GEOG 311) – KU (**Primary Instructor**) Fall 2021
- Intro to Geographic Information Systems (GEOG 358) - KU Spring 2021
- Mapping our changing world (GEOG 111) - KU Spring 2021
- Geo-visualization and Cartography (Geography 311) - KU Fall 2020
- Physical Geography (Geography 105) - KU Spring 2020
- Human Geography (Geography 201) - KU Fall 2019
- Hydrology (Geography 312) - UNIBUJA Spring 2019
- Elementary Land Surveying (Geography 207) - UNIBUJA Fall 2018
- Geography of the FCT (Geography 107) - UNIBUJA Summer 2018
- Map Analysis (Geography 105) - UNIBUJA Spring 2018
- Intro to Physical Geography (Geography 101) - UNIBUJA Fall 2017

## **Awards and Funding**

- Graduate Teaching Assistant (Fall 2021 – Spring 2022)- KU Geog. & Atmos. Sci.
- Graduate Research Assistant (Summer 2021) – Depth of Edu. Leadership and Policy Std.
- Graduate Research Assistant (GRA) (Summer 2021) – Kansas Biological Survey (KBS).
- Graduate Research Assistant (Winter 2020) – Depth of Edu. Leadership and Policy Std.
- Graduate Teaching Assistant (Fall 2020 – Spring 2021)- KU Geog. & Atmos. Sci.
- Graduate Research Assistant (GRA) (Summer 2020) – Kansas Biological Survey (KBS).
- Field Research Assistant (RA) (Summer 2020) – KBS, James Bever group.
- Graduate Teaching Assistant (Fall 2019-Spring 2020) - KU Geog. & Atmos. Sci.
- Graduate Research/Teaching Assistant (2017-2019) – Dept. of Geog. & Env. Mgt. UNIBUJA.
- Best Graduate student & Student of the year Awards (UNIBUJA) (2017)

## **Research Interest**

- Remote Sensing, GIS, Spatial Programming, Flood Risk Mapping, Flood Modeling, Extreme events, PMPs, Watershed Analysis, Geography, USA, Africa.

## **Programming Skills & Tools**

Python, R-Language, Google Earth Engine (Java, Python API), ArcGIS

## **Certifications**

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- **ESRI-** Python Scripting for Geoprocessing Workflows March 2020
- **ESRI-** Building Models for GIS Analysis Using ArcGIS March 2020
- **Direction Mag-** Integrating ArcGIS and Jupyter for Geospatial Data science Dec. 2020
- **NASA-ARSET-** Mapping and Monitoring Lakes and Reservoirs with Satellite Observations Feb. 2021
- **NASA-ARSET-** Using Google Earth Engine for Land Monitoring Applications June 2021

## **Selected projects**

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- Application of Earth Engine in estimating PMPs from gauges Fall 2020  
**Tools:** Python, Java, GEE, & R-Programming.
- Generating Unit Hydrograph using Spatial Analyst tools in Makurdi Watershed, Nigeria. Spring 2020  
**Tools:** ArcMap, ArcGIS Pro, Excel.
- Proximity Assessment of Douglas County Census Blocks to Watersheds and Road networks, KS, USA.  
**Tools:** Postgres-Spatial Query Language- using Jupyter Fall 2019
- Machine Learning: Supervised and Unsupervised Classification using ERDAS IMAGINE Fall 2019

## **Recent Publications**

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- **Kenneth Ekpeteri**, Xingong Li, Jude Kastens, David Mechem (2021), Possibilities and Limitations of IMERG Datasets for Estimating Probable Maximum Precipitation. (**Under Review**)
- **Kenneth Ekpeteri**, Chen Liang, Jim Coll, (2021), Delineating Lake Surface Area and Volume in GIS using Remote Sensing Images collected through time: Influence of Temperature and Precipitation. (**Under Review**)

## **Previous Articles**

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- **Kenneth O. Ekpeteri**, F. O. Ekeh & N.M. Ofodum (2019), Impact of abattoir wastes on ground water quality in the FCT, Abuja-Nigeria: A case study of Gwagwalada satellite town. **IISTE-Journal of Environment and Earth Science**. Vol-9, No-4 Page 90-104. **ISSN: 2224-3216(paper) 2225-0948(online)**. Received 17<sup>th</sup> April 2019, Accepted April 27<sup>th</sup>, 2019. DOI: 10.7176/JEES.
- **Kenneth O. Ekpeteri**, F. O. Ekeh & M. N. Eziechi (2019), Housing conditions in the FCT, Abuja-Nigeria: A case study of Gwagwalada satellite town. **IISTE-Journal of Environment and Earth Science**. Vol-9, No-4 Page 105-118. **ISSN: 2224-3216(paper) 2225-0948(online)**. Received 17<sup>th</sup> April 2019, Accepted April 27<sup>th</sup>, 2019. DOI: 10.7176/JEES.
- **Kenneth O. Ekpeteri** & F. O. Ekeh (2019), Impact of Population increase on agricultural productivity in Kwali Area Council-Abuja, Nigeria (2007-2016). **Global Journal of Advanced Research**. Vol-6, Issue-4 Page 135- 146. **ISSN: 2394-5788**.

- **Kenneth O. Ekpeterere** & F. O. Ekeh (2019), Impact of Urbanization on farm sizes in Kuje Area Council of the FCT (2010- 2017). **Global Journal of Advanced Research**. Vol-6, Issue-3 Page 101 – 111. **ISSN: 2394-5788**.
- **Kenneth O. Ekpeterere** & F. O. Ekeh (2019), Assessment of temperature anomalies between urban and rural areas of Gwagwalada satellite town, Abuja-Nigeria. **Global Journal of Advanced Research**. Vol-6, Issue-5 Page163- 179. **ISSN: 2394-5788**.
- **Kenneth O. Ekpeterere** & F. O. Ekeh (2019), Socio-economic impact of Youth unemployment in the FCT, Abuja-Nigeria: A case study of Abaji Area Council. **IISTE-Journal of Environment and Earth Science**. Vol-9, No-6, Page139-154. **ISSN: 2224-3216(paper) 2225-0948(online)**. Received, June 4<sup>th</sup>, 2019. Accepted June 25<sup>th</sup>, 2019. DOI: 10.7176/JEES.
- **Kenneth O. Ekpeterere** (2018), Assessment of land use conflict in Gwagwalada Town of the Federal Capital Territory, Abuja- Nigeria Using Remote Sensing. **International Journal of Scientific and Engineering Research**. Volume 9, Issue 10, Page 2146- 2153, **ISSN 2229-5518**.

### **Supervisor**

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Xingong Li (Professor). **Email:** [lix@ku.edu](mailto:lix@ku.edu)

**Research Focus:** Spatial Programming, GIS, Remote Sensing, Water Resources (Hydrology & Flood Mapping)

### **References**

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- Available upon request