



Curriculum Vitae

Personal information

First name(s) / Surname(s)

Esther Shupel Ibrahim

Address(es)

National Centre For Remote Sensing, Jos, Nigeria.
Geomatics Lab, Geography department, Humboldt-Universität zu Berlin, Germany
Models & Simulation, Leibniz Centre for Agricultural Landscape Research, Germany.

Telephone(s)

Mobile: +234 8065266024

Fax(es)

E-mails

esther.shupel@gmail.com
esther.shupel.ibrahim@geo.hu-berlin.de
esther_shupel.ibrahim@zalf.de

Nationality

Nigerian

Gender

Female

Religion

Christianity

Desired employment / Occupational field

Geo-information and remote sensing application for natural resources and disaster management

Professional experience

2008-Present

Asst. Chief Scientific Officer

National Centre for Remote sensing (NCRS), Jos,
National Space Research and Development Agency (NASRDA), Abuja
Federal Ministry of Science and Technology, Nigeria

My present employer is saddled with the responsibility of space research and development in the country. I am involved with space applications and general research activities, which mostly involves the spatial analysis and modelling, creation of maps, atlases, writing reports, etc. My duties also involves field observation and a substantial remote sensing/ GIS analysis.

2006-2007

Geography Teacher.

Compulsory one year, National Youth Service Corps [NYSC] programme.

Government Girls Arabic Secondary School, Gusau, Zamfara State, Nigeria.

One of Nigeria's policies is a compulsory one year service to the country after university education. I was posted and served the country in a girl's secondary school, where I taught geography in a senior secondary class.

2005

National Power Holding Company, Headquarters, Abuja, Nigeria.

Student Industrial Working Experience Scheme (Internship)

Department of Environment and resettlement

Another of Nigeria's educational policy is student industrial training, where students are posted to industries, offices, schools, agencies and institutions of relevance to their studies to learn more about practical applications from such organization. I did my second industrial training with the National power holding company of Nigeria, under the Department of environment and resettlement. Where I learnt and worked on

Environmental Impact Assessment of the various activities of hydro power generation on the environment and resettlement of persons affected by the operations of the company.

2004 **Federal Capital Development Agency. Abuja. Nigeria.**
Student Industrial Working Experience Scheme (Internship)
Department of Land Survey and Mapping.

I did my first Industrial training with the organisation in charge of the affairs of the nation's Federal Capital Territory (FCT) Under the department in charge of planning and mapping of the federal capital's plots. This was the first place I got involved in advanced cartography and GIS.

Education and training

2018 July-Present

Doctoral Researcher

Geomatics Lab, Geography Institute, Faculty of Mathematics and Natural Sciences. Humboldt University of Berlin, Germany.

In Collaboration with

Models and Simulations Group of Leibniz Centre for Agricultural Landscape Research, Müncheberg. Germany

Research Topic: "Diseases and Pests Impacts on Crop Production under Climate Change in Nigeria: Combining Remote Sensing and Agro-Ecosystem Modeling"

2016

Diploma in Computer Software Engineering

Zibeh Institute of Technology

Jos, Nigeria

2010-2012

MSc. Geo-information and earth observation for natural resources management [with a total average of 74 marks]

■ Master of Science, (M.Sc).(Hons)

Faculty ITC, University of Twente, The Netherlands

Key achievement: I was awarded a Merit award for innovative research

2006-2007

National Youth Service Corp

■ Certificate of nation serving

2006

Certificate in computer applications

Christian-Edu Training Centre (CHREDAC), Jos, Nigeria.

2000-2005

B.Sc. Geography, [Second Class Upper Division with a 3.60 CGPA]

■ Bachelor of Science, B.Sc.(Hons)

University of Maiduguri, Borno State, Nigeria

2005

Senior Secondary School Certificate Examination, National Examination Council

■ SSCE NECO

External Examination. Maiduguri, Borno State. Nigeria

1993-1999

Senior Secondary School Certificate Examination, West African Examination Council Certificate

■ SSCE WAEC

Government Girls Secondary School, Nabordo Bauchi State. Nigeria.

Key achievement: Head Girl of the school (1998/1999 session) and best graduating student

I represented the school in diverse state and national quiz and debate competitions with outstanding successes and awards.

1988-1993

Primary School Certificate, Saá du Zunguru, Primary school, Bauchi, Nigeria

■ Primary school certificate.

Key achievement: Best graduating student of the class.

Languages	Language	Self-assessment
	English	Very Fluent
	Jarawa	Native speaker
	Bijim	Native speaker
	Hausa	Very Fluent
	Yoruba	Basic speaker
	German	Very Basic Speaker

Trainings I have had opportunities to participate in workshops, trainings and conferences with active Interaction and breakout sessions in teams which have allowed me to achieve maximum social and intellectual competence. These scientific events have exposed me to a multicultural pool of people from across the globe. The interest of my organization in my career is a clear testimony of diligence in my work schedule and portrays me as a promising future investment. Some of these workshops and trainings are listed below:

Local tannings

Local Trainings

- Introduction to ILWIS, **National Centre for Remote Sensing, Jos Nigeria** (October 2008)
- Image interpretation, **National Centre for Remote Sensing, Jos Nigeria** (January 2009)
- Land use/land cover mapping workshop, **National Centre for Remote Sensing, Jos Nigeria**. (March 2010)
- Advanced Digital Image Processing in ERDAS **IMAGINE National Centre for Remote Sensing Jos, Nigeria** (May 2010).
- Spatial Analysis for Flood Risk Modeling by National **Centre for Remote Sensing Jos**, November, 2012.
- GIS for Soil Erosion Modelling. **National Centre for Remote Sensing Jos, Nigeria** (February, 2014).
- Predictive modelling for urban, forest, agriculture and water management by **National Centre for Remote Sensing Jos, Nigeria** (March 2015).
- Terrain Analysis and 2D flow modelling in HEC-RAS and ArcGIS by **National Centre for Remote Sensing Jos, Nigeria** (October, 2015).
- Remote Sensing Mathematical Modelling. **By Women In Aerospace-Jos Initiative**, Nigeria (August, 2017)
- GIS Spatial Analysis and Modelling for Crime Management and forecasting, **National Centre for Remote Sensing Jos, Nigeria** (September, 2017).
- Spatial Modelling for suitabilities, Vulnerabilities and Epidemiology of Diseases by **National Centre for Remote Sensing Jos, Nigeria** (January-February, 2018).

International Trainings

- Land Change Modeling Methods: calibration, validation and extrapolation using Idrisi Selva **by Prof. Robert Gilmore Pontius, University Clark University United State. At Faculty ITC, The Netherlands** (2011)
- International Charter for Space and Major disasters project manager training course by **Surrey United Kingdom. Abuja. Nigeria** (8th -10th April 2013).

Conferences

- International Response for hydrological related disasters by **NEMA Nigeria and University of Oklahoma at NEMA Head Quarters Abuja, Nigeria** (December 2013)
- How to publish in peer-reviewed journals by **Dr Gunther Tress of the TRESS ACADEMIC at ZALF Müncherberg, Germany** (October r 2019).

1. **International conference on water and energy management. University of Twente, The Nethherlands. (November 2011).**
 - Paper presented: Exploring bioenergy potential from waste woody biomass in Nigeria using remote sensing and quantitative tools
2. **2nd African Regional Centre for Space Science and Technology Education-English (ARCSSTE-E) Conference. Osun State. Nigeria (22-24th August 2012)**
3. **National conference for remote sensing and GIS for National Development and Security. Federal university Ogun State, Nigeria**
Paper presented: Suburban growth analysis: the case of Jos suburban neighbourhoods in central Nigeria. (May, 2013)
4. **5th African Leadership Conference (ALC), December 2013 Accra, Ghana.**
5. **Global Space Application Conference (GLAC), June 2-4 2014, Paris France**
Paper: Geospatial modelling of public transport network system in Jos city, Plateau state. Nigeria.(2014)
6. **2nd National conference for remote sensing applications in disaster mitigation. Kogi State, Nigeria (Nov, 2014)**

Papers presented:

7. A geospatial assessment of the 2012 non-sourced flood in lower Plateau state, Nigeria
8. The assessment of urban sprawl and its infrastructural and economic consequences: a case study of Jos and environ.
9. Mapping and assessing animal disease outbreak areas in plateau state, Nigeria
10. **57th Annual Conference of the Association of Nigerian Geographers , 2016 (aka UNILAG ANG-2016)**
Paper presented: Farmer's Adaptation Mechanism in the Mining Areas of Parts of the Jos Plateau, Nigeria
11. **International conference on lake chad**
12. Conference titled "Saving the Lake Chad" as a delegate at NICON Hilton hotel, from 25th to 29 February 2018).

National Projects

- Natural Resources Mapping in Nigeria at scale 1:100,000 (2009-2010)
- Health facility mapping of Osun sate Nigeria (2009-2010)
- Modeling of 2012 Flood Inundation in the Niger and Benue Troughs (2013-2014)
- Natural Resources Mapping in Nigeria at scale 1:50,000 (2012-207)

Paper published

Journal: Elsevier Science direct (Ecological indicators)

Title: Exploring bioenergy potentials of built-up areas based on NEG-EROEI indicators.

Manuscripts under review

Springer, SN Applied Sciences (Accepted paper)

Title: Feature based application for short-term wind speed prediction using improved long-term memory recurrent Neural Network.

Journal: American Journal of Environmental Sciences (Accepted paper)

Assessment and Estimation of soil loss use RUSLE in Koromi-Federe catchment of Jos-East LGA

Journal: Wiley (Land Degradation and Development)

Desertification in Nigeria: a product of climate change or human activities? A case of desert encroachment monitoring in North-Eastern Nigeria using remote sensing techniques

Journal: Elsevier Science direct (Applied Geography)

Geospatial Suitability Assessment for Small Holder Irrigation Water, towards Increased Food Production and Poverty Eradication in Nigeria: A case of Jos East LGA. Plateau State

Journal: The Egyptian Journal of Remote Sensing and Space Sciences

An Evaluation Of The Impact Of Mining-Induced Land Fragmentation On Food Production Activities In Barkin Ladi Local Government Area, Plateau State, Nigeria

Journal: Springer Water Resources Management (Submission in progress)

Title: Spatial Analysis of Ground Water Potentials and Water Demand in Nigeria towards a Sustainable Water Supply.

Organisational skills and competences

I acquired Organizational skills on the job with various training's all sponsored by my current employer and working closely with my superiors with vast experience in GIS, remote sensing and mapping projects. My studies at the international institute for aerospace technology has tremendously boost my RS and GIS capabilities. Some of the projects I have been involved in have exposed me to certain mapping skill and competencies in GIS and remote sensing. Itemized below are some salient points that will further convince you on my skill in mapping.

1. Health care facility mapping of Osun state, Nigeria. 2009.
2. Geo-data base for commercial buildings in terminus, Jos. Plateau State. 2009
3. Land use/Land cover mapping of Nigeria, at a scale of 1:100,000. 2010
4. Desertification mapping and early warning of north eastern and western Nigeria.
5. Land covers types covered by the ecological corridor system in eastern Overijssel, Netherlands, (2010).
6. Land use/land cover mapping using landscape guided approach in Lemele area. The Netherland.
7. Water management and nature in Regge and Dinkel catchment (2011)
8. Analysis of potential land use conflicts in Haaksbergen (2011)
9. modeling annual soil loss of Nam chun, using Rmmf model (2011)
10. Residential and industrial expansion: projections that respect the natural environment in Overijssel province. The Netherland (2011)
11. Vegetation change detection in Buursezand. The Netherlands
12. Biomass potential for bio-energy production from build-up areas: the Overijssel case (2011-2012)
13. Pilot LULC mapping of Plateau state at a scale of 1:50,000. (April to July 2012)
14. Geo-database creation for revenue collection in Kaduna State, Nigeria (August 2012)
15. Lineaments extraction and geology mapping of the Wamba complex. Nassarawa state (August to Sept. 2012)
16. Pipelines and tank farms inventory of petroleum and related products in Kaduna state, Nigeria (Oct. to Nov 2012)
17. Bird species prediction modelling in Jos east LGA. Plateau, Nigeria
18. A satellite inventory of fuel wood exploitation and its environmental consequences in Jos east LGA. Plateau state (on-going)
19. Suitability mapping of sites to build new hostels in Samaru Campus Zaria, Kaduna Stat. Nigeria. (Dec. 2012 to January 2013)
20. Evaluating the potentials of renewable energy in Nigeria using remote sensing and quantitative tools (on-going)
21. The impact of population on the environment. The Barkin Ladi case (May, 2013)
22. 2012 space based flood inundation mapping for Nigeria (2013)
23. A geospatial assessment of the 2012 non sourced flood in Nigeria; the case study of lower Plateau, Plateau State. (2013)
24. Suburban growth analysis
25. Gully erosion mapping of lower Plateau State, Nigeria (2014)
26. Geospatial modelling of public transport network system in Jos city, Plateau state. Nigeria.(2014)
27. Assessing the changes in river morphology of the lower Benue using spatial tools (2014)

28. The assessment of urban sprawl and its infrastructural and economic consequences: a case study of Jos and environs (2014)
29. Mapping and assessing animal disease outbreak areas in plateau state, Nigeria (2014)
30. A spatial assessment of population growth on landuse/landcover conversions and environmental degradation (2014)
31. Mapping the impacts of mining on agriculture in Plateau state(2014)
32. Predictive modelling of vegetation and urban changes in Jos and environs, Plateau state. Nigeria (March 2015)
33. Crops identification ,mapping and estimations using GIS and remote sensing: case study of maize (zea mays) in Jos South L.G.A (February 2016)
34. Assessing suitable areas to site reservoirs for irrigated agriculture using remote sensing and GIS tools (June 2016)
35. Hotspot assessment of the Bukuru Crisis in Plateau State. (August 2016)
36. Estimating the potential of bioenergy from groundnut and beans residue in Bogoro LGA, Bauchi State government area of plateau state, Nigeria (2018)

Technical/computer skills and competences

ArcGIS	Very Good
ERDAS imagine	Very Good
ILWIS	Very Good
Arcveiw	Very Good
Idrisi	Fair
R-Statistical package	Good
QuantumGIS	Good
Python	Fair
JAVA	Good
Arcpy	Good
SPSS	Good
Spyder	Fair
Strata	Fair
Google Earth Engine	Fair

Desktops, Laptops, Workstation and Servers.	Very Good
GPS, Large Scanners and Printers	Very Good
Word	Very Good
Excel	Very Good
PowerPoint	Very Good
Internet User skills	Very Good
Windows 98.NT,XP, Vista and Window 7 Usage	Good

Professional Membership

- ITC, Alumni.
- Netherlands International Alumni Association Nigeria (Member)
- Women in Aerospace, Africa (Member)
- Women in Aerospace, Nigeria (Member)
- Women in Aerospace-Jos initiative (Vice President)

Other skills and competences

Driving licence

YES

Referees

Prof Patrick Hostert
Head Geomatics Lab
 Geography Institute, Faculty of Mathematics and Natural Sciences
 Humboldt University of Berlin

Germany
Mobile: (030)2093-6805
Email: patrick.hostert@geo.hu-berlin.de

Prof Alexey Voinov
Director, PERSWADE - Centre on Persuasive Systems for Wise Adaptive Living
School of Information, Systems and Modelling
Faculty of Engineering and IT,
University of Technology Sydney, Australia
Mobile: +61 2 95143102
Email: alexey.voinov@uts.edu.au

Dr. E. N. Gajere
Director National Center for Remote sensing (NCRS).
National Space Research and Development Agency (NASRDA)
Nigeria
Mobile: +234 8022731733
Email: efrongajere@yahoo.com