

1. Job Title:

- Assistant Researcher

2. Contact Information

- E-mail: mugabomaurice@gmail.com

3. Biography:

Maurice Mugabowindekwe is Assistant Researcher at the Centre for Geographic Information Systems and Remote Sensing of the University of Rwanda. He holds a Master of Science Degree in Geo-Information Science and Earth Observation –Specialization in Natural Resources Management –from University of Twente (2014 – 2016), and a BSc in Geography – Option of Environmental Management –from former National University of Rwanda (currently, University of Rwanda) (2010 – 2013). Before joining CGIS, Maurice was involved in a number of projects where he played a big role for GIS and environmental management components. Moreover, he delivered a number of courses in different higher education institutions, including Digital Image Processing of Remotely Sensed Data; Modelling of Environmental Processes; GIS and Remote Sensing Applications in Resource Planning and Management; Computer-Assisted Cartography; Geoscience for Land Management; and Integrated Watershed Management (Unit of Wetlands Ecosystem Management, and Socio-economic and Environmental Impact Assessment). Currently, he is delivering a course of Introduction to Geographic Information Systems and Cartography at the College of Science and Technology. Additionally, he will be delivering courses of Advanced GIS, Map Projections and Spatial Data Infrastructure. Also, he is currently working on different research projects in areas of Remote Sensing (Multispectral and Hyperspectral) & GIS and their various applications; Natural Resources Management; Food Security; Climate Change; and Environmental Management.



4. Professional Trainings:

- **2014:** Training on “*Discovery, Exploration and Exploitation of Free data and Tools for Supporting the Mitigation of and the Adaptation of Agriculture and Forestry to Climate Change*”, held at Catholic University of Leuven (KU Leuven), Belgium.
- **2013:** Training on “*Participatory Mapping of Building Materials*”, organized by SKAT Consulting Rwanda Ltd, and held in Karongi, Rwanda.

5. Research Activities

a. Publications

i. Published

- **Mugabowindekwe, M.**, Muyizere, A., Fadong, L., Yunfeng, Q. and Rwanyiziri, G. 2018. Application of Multi-Temporal MODIS NDVI Data to Assess Practiced Maize Calendars in Rwanda. *Journal of Resources and Ecology*, Vol 9 (3) pp. 273-280 May, 2018. DOI: 10.5814/j.issn.1674-764x.2018.03.007, available online: <http://www.bioone.org/doi/abs/10.5814/j.issn.1674-764x.2018.03.007>
- Rwanyiziri, G. and **Mugabowindekwe, M.** 2016. Assessing Local Farmers' Awareness and Perceptions towards Wetland Protection and Conservation Strategies: The Case of Bugesera District, Rwanda. *Donnish Journal of Geography and Planning*, Vol 2(3) pp. 022-028 October, 2016 [ISSN: 2984-8725], available online: <http://donnishjournals.org/djgrp/pdf/2016/october/Rwanyiziri-et-al.pdf>

b. Research Projects

- **2014:** Use of free data and tools to assess impact of Kavumu dam on farming in Rugeramigozi wetland, Muhanga district, Rwanda. **Role:** Assistant Researcher (Awarded Fellowship, and had been Orally Presented in Professional Training on “*Discovery, Exploration and Exploitation of Free data and Tools for Supporting the Mitigation of and the Adaptation of Agriculture and Forestry to Climate Change*”, held at Catholic University of Leuven (KU Leuven), Belgium).

c. Conference Attendance/Organization

- **Mugabowindekwe, M.** and Rwanyiziri, G. 2018. Application of Remote Sensing to Assess and Improve the Level of Homogeneity within the Currently Used Agricultural Area Frames in Rwanda. In *the 2nd Regional Centre for Mapping of Resources for Development International Conference*. Nairobi, Kenya (Oral Presentation).
- **Mugabowindekwe, M.** and Muyizere, A. 2017. Use of Hyper-temporal NDVI Data to Assess Differences in Practiced Maize Crop Calendars in Rwanda. In *the 4th International Conference on Environment, Energy and Development (ICEED 2017)*, jointly organized by University of Lay Adventists of Kigali (UNILAK) and Xinjiang

Institute of Ecology and Geography (XIEG), and held at Lemigo Hotel, Kigali, 31st August 2017 (Oral Presentation).

- *Joint Symposium on Soil & Water Conservation and High Yield & Efficiency Agriculture in Headwater of Nile*. A symposium jointly organized by University of Lay Adventists of Kigali (UNILAK) and Institute of Geographical and Natural Resources Research of Chinese Academy of Science, and held at UNILAK, 29th August, 2017 (Attendance)
- **Mugabowindekwe, M.** and Ndikumana, D. 2016. Controlled Agriculture using Hydroponic Systems in Rwanda. In *Investing in Agribusiness for Food Security in Africa*, Africa Agribusiness Academy, Kigali, Rwanda, 29th September, 2016 (Oral presentation).
- *Future of farming and Food Security in Africa*. FoodFirst Conference, 2015. Rabobank – Duisenberg Auditorium, Utrecht City, Netherlands (Attendance).
- **November – December 2016:** Co-chair of the Organizing Committee of the workshop on “Anti-Corruption Education as a Way of Building Positive Peace in Rwanda”; A workshop sponsored by Shalom Educating for Peace Rwanda (Organisation and Attendance)

6. Modules/Courses Taught

- *Introduction to Geographic Information Systems and Cartography:* Course in Department of Geography and Urban Planning (Undergraduate), College of Science and Technology, University of Rwanda (UR), and in Department of Architecture, School of Architecture and Built Environment, College of Science and Technology, University of Rwanda (UR)

7. Awards

- **2014:** The *Earth Observation and GIS in a System Perspective* Best Poster Award, by ITC-Faculty of Geo-Information and Earth Observation, University of Twente, Enschede, Netherlands.
- **2012:** The First Award in the First East African University Students’ Debate on East African Community Political Integration, Arusha, Tanzania

8. Computer Skills

- Tools for Spatial Data Management: Fluency with ArcGIS, ENVI, ERDAS, QGIS, ArcPAD (for mobile GIS), Map Source, DNR Garmin, Google Earth and OpenStreet Map.
- Tools for Spatial Data Acquisition: Fluency with Various Types of GPS Receivers (Settings and Operations)
- Programming Skills: Basic Skills in Python Programming Language and R
- Tools for Statistical Analysis: Fluency with SPSS, MS Excel and Basics with R