

## **Introduction to the AARSE2016 Special Issue of the South African Journal of Geomatics**

Dr. Anthony Gidudu and Prof. Yazidhi Bamutaze  
Co-Chairs – Local Organizing Committee, AARSE2016  
Makerere University – Kampala, UGANDA

The papers in this special issue of SAJG are derived from the 11<sup>th</sup> International Conference of the African Association of Remote Sensing of the Environment hosted in Uganda by Makerere University. The conference was held from the 24<sup>th</sup> to 28<sup>th</sup> October 2016 under the theme '*Our Earth, Our Heritage: Harnessing Geospatial Technologies for Sustainable Development in Africa*', with a view of recognizing not only the past efforts related to resource management challenges, but also positioning to take care of the expected changes, owing to the post 2015 Global Development agenda. The conference attracted scholarship under the following sub themes: Space and earth observation technology for sustainable development goals (SDG's), Disaster risk management and resilience, From climate change to climate risk management, Human capital development in geospatial science, Big Data and spatial data infrastructure utility and management, Africa space policy and strategy: Cost benefit of space technology, Geospatial science and technology for water and watershed management, Conflict management, human security and peace, Cities and demographic transitions, Geospatial technologies for Energy Management. From these presentations, selected high-quality papers were invited to develop and submit full papers to the SAJG for consideration in a special issue. These papers were subjected to the journal's review process which involved a double blind peer-review and accepted papers are included in this special issue on successful address of raised concerns.

As is well known, maize is one of the most important subsistence and commercial crops in Africa. Recently however, significant losses due to *Phaeosphaeria* Leaf Spot (PLS) infestation have been reported. Therefore, techniques for early detection of PLS infestation are valuable for mitigating maize yield losses. Recently, remotely sensed datasets have become valuable in crop assessment. Odinda et al (2018) therefore sought to detect early PLS infestation by comparing the performance of commonly used higher spatial resolution sensors (WorldView, Quickbird, Sentinel series 2, RapidEye and SPOT 6) based on their spectrally resampled field spectra.

Ngie and Ahmed (2018) appropriated satellite imagery to estimate maize crop yields. This is especially important because crop yield estimation provides information to policy and decision makers that can guide food supply not only to a nation but also influence its import and export dynamics.

Asiyanbola (2018) on the other hand evaluated awareness and use of Geographical Information Systems (GIS)/Remote Sensing by public servants in environmental related professions in Ibadan, Oyo State, Nigeria.

Ssentongo et al (2018) explored the use of an integrated approach of remotely sensed derived-indices in detecting forest cover and ecosystem service change in central Uganda. This paper is especially important considering that Natural forests in Uganda have experienced both spatial and temporal modifications from different drivers which need to be monitored to assess the impacts of such changes on ecosystems and prevent related risks of reduction in ecosystem service benefits.

Alaigba et al (2018) involved the use of Geographic Information System (GIS) to examine variation of physiologic comfort of the people living in Akure urban environment using the Physiological Equivalent Temperature (PET) index in Akure, Nigeria.

Kitutu et al (2018) carried out a situational analysis of Healthcare Service Delivery using Geographically Weighted Regression in Sironko District, Uganda. This paper had a threefold purpose: (1) To compare existing health staffing, funding and medical supplies data given the limited national healthcare budget (2) To spatially explore the relationship between health service utilization and gaps in resource allocation, and (3) To develop propositions to support the health policy.

Bamweyana and Kayondo (2018) carried out a spatially explicit modelling of extreme weather and climate events hot spots for cumulative climate change in Uganda. This was in a bid to address the reality of climate change and its influence on the intensity and frequency of extreme weather events such as heat waves, droughts, floods, and landslides in Uganda.

Finally, I would like to thank the Editor and Board of the South African Journal of Geomatics for the opportunity and privilege of publishing in this journal. This gesture goes a long way in nurturing and spurring Geomatics scholarship not only in South Africa but Africa at large.