

Curriculum Vitae

Julius Y. Anchang

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a) Research Interests

Remote sensing of African savannas, earth observation based natural resource monitoring and management.

b) Education

University of Buea

BSc (Hons), Environmental Science, 2005

University of Buea

MSc, Botany, 2010

University of South Florida

PhD, Geography and Environmental Science and Policy, 2016

c) Appointments

April 2020 – present: **Research Assistant Professor**, Plant and Environmental Sciences Department, New Mexico State University.

May 2017 – March 2020: **Post-Doctoral Research Fellow**, Plant and Environmental Sciences Department, New Mexico State University.

Jan 2017 – May 2017: **Adjunct Instructor**, Geographic Information Systems, School of Geosciences, University of South Florida, Tampa, Florida.

January 2011 – Dec 2016: **Graduate Teaching Assistant (Doctoral Level)**, University of South Florida, Tampa, Florida.

d) Publications

Ross, C.W., Hanan, N.P., Prihodko, L., **Anchang, J.**, Ji, W. and Yu, Q., 2021. Woody-biomass projections and drivers of change in sub-Saharan Africa. *Nature Climate Change*, 11(5), pp.449-455.

Brungard, C., Nauman, T., Duniway, M., Veblen, K., Nehring, K., White, D., Salley, S. and **Anchang, J.**, 2021. Regional ensemble modeling reduces uncertainty for digital soil mapping. *Geoderma*, 397, p.114998.

Hanan, N.P. and **Anchang, J.Y.**, 2020. Satellites could soon map every tree on Earth, *Nature* 587, pp 42-43.

Samasse, K., Hanan, N.P., **Anchang, J.Y.** and Diallo, Y., 2020. A High-Resolution Cropland Map for the West African Sahel Based on High-Density Training Data, Google Earth Engine, and Locally Optimized Machine Learning. *Remote Sensing*, 12(9), p.1436.

Kumar, S.S., Prihodko, L., Lind, B.M., **Anchang, J.**, Ji, W., Ross, C.W., Kahi, M.N., Velpuri, N.M. and Hanan, N.P., 2020. Remotely sensed thermal decay rate: an index for vegetation monitoring. *Scientific reports*, 10(1), pp.1-11.

Anchang, J.Y., Prihodko, L., Ji, W., Kumar, S.S., Ross, C.W., Yu, Q., Lind, B., Sarr, M.A., Diouf, A.A. and Hanan, N.P., 2020. Toward Operational Mapping of Woody Canopy Cover in Tropical Savannas Using Google Earth Engine. *Frontiers in Environmental Science*.

Kumar, S. S., Hanan, N. P., Prihodko, L., **Anchang, J. Y.**, Ross, C. W., Ji, W., Lind, B. M., 2019, Alternative vegetation states in tropical savannas: the search for consistent signals in diverse remote sensing data, *Remote Sensing*, 11, 815 (DOI: 10.3390/rs11070815).

Anchang, J. Y., Prihodko, L., Kaptué, A. T., Ross, C. W., Ji, W., Kumar, S. S., Lind, B. M., Sarr, M. A., Diouf, A. A. and Hanan, N. P., 2019, Trends in woody and herbaceous vegetation in the savannas of West Africa, *Remote Sensing*, 11, 576 (DOI:10.3390/rs11050576).

Ji, W., Hanan, N.P., Browning, D.M., Monger, H.C., Peters, D.P., Bestelmeyer, B.T., Archer, S.R., Ross, C.W., Lind, B.M., **Anchang, J.** and Kumar, S.S., 2019. Constraints on shrub cover and shrub–shrub competition in a US southwest desert. *Ecosphere*, 10(2), p. e02590.

Ross, C.W., Prihodko, L., **Anchang, J.**, Kumar, S., Ji, W. and Hanan, N.P., 2018. HYSOGs250m, global gridded hydrologic soil groups for curve-number-based runoff modeling. *Scientific data*, 5, p.180091.

- Acheampong, M., Yu, Q., Enomah, L.D., **Anchang, J.** and Eduful, M., 2018. Land use/cover change in Ghana's oil city: Assessing the impact of neoliberal economic policies and implications for sustainable development goal number one—A remote sensing and GIS approach. *Land use policy*, 73, pp.373-384.
- Njoh, A.J., Ananga, E.O., **Anchang, J.Y.**, Ayuk-Etang, E.M. and Akiwumi, F.A., 2017. Africa's triple heritage, land commodification and women's access to land: Lessons from Cameroon, Kenya and Sierra Leone. *Journal of Asian and African Studies*, 52(6), pp.760-779.
- Ananga, E.O., Njoh, A.J., **Anchang, J.Y.** and Akiwumi, F.A., 2017. Participation-related factors influencing performance in four urban-based community-operated water schemes in Kisumu, Kenya. *Community Development Journal*, 52(2), pp.319-336.
- Anchang, J.Y.**, Ananga, E.O. and Pu, R., 2016. An efficient unsupervised index-based approach for mapping urban vegetation from IKONOS imagery. *International Journal of Applied Earth Observation and Geoinformation*, 50, pp.211-220.

e) Awards and Funding

- NASA Studies with Icesat-2: Improving Estimates of Vegetation Structure and Biomass in Global Drylands with ICESat-2 (Co-Investigator, \$409,536.00.)
- NASA SERVIR Applied Science Team: Range Monitoring for Decision Support and Pastoral Livelihoods and Food Security in Arid and Semi-Arid East and Southern Africa. 80NSSC20K0162 (Co-Investigator, \$220,823.00)
- NASA GEDI: Patterns and Drivers of Tree Height and Biomass in Water Limited Ecosystems. (Co-Investigator, \$163,340.00)

f) Developed applications and datasets

- <https://savannalabnmsu.users.earthengine.app/>
<https://doi.org/10.3334/ORNLDAAC/1566>
<https://doi.org/10.3334/ORNLDAAC/1738>

g) Training workshops

As Lead Trainer:

February 2018, Automated workflows for satellite data retrieval and processing, Centre AGRHYMET, Niamey, Niger.

November 2018, woody cover and wood biomass mapping using Google Earth Engine, Centre de Suivi Ecologique (CSE), Dakar, Senegal.

As Trainee:

July 2017, Open Science Grid User School for High Throughput Computing, University of Wisconsin Madison.

September 2019, Geo For Good Summit on Google Earth Engine, Sunnyvale CA.