Dr. Allan John Komakech is a Lecturer in the Department of Agricultural and Biosystems Engineering (ABE). He has been a faculty member since 2001. Dr. Komakech teaches a number of undergraduate and graduate courses and is heavily involved in research. His primary research interest areas are Waste management (Nutrient recycling and composting) life-cycle assessment and modelling, renewable energy (anaerobic digestion, solar, biomass), waste water treatment, irrigation and water resources engineering. In addition, Dr. Komakech has consulting experience, and has worked with a number of entities and projects in various consulting roles.

Dr. Komakech received his Ph.D. in Environmental Engineering from Swedish University of Agricultural Sciences, Uppsala, Sweden in 2014. Prior to pursuing his doctorate, he earned a Post graduate diploma in groundwater exploration, water resource exploitation and conservation from the Hebrew University of Jerusalem, Israel in 2006, a M.Sc. in Agricultural Engineering from University of Pretoria, South Africa in 2004 and a B.Sc. in Agricultural Engineering from Makerere University in 1999.

List of Selected Publications

1. Mboowa, D., Banadda, N., Kiggundu, N., Kabenge, I., and A.J. Komakech (2015), Estimation of methane generation based on anaerobic digestion and mass balance at Kiteezi Landfill, Kampala, Uganda. African Journal of Environmental Science and Technology, 9(9): 741-746.
2. Komakech, A.J., Zurbrügg, C., Semakula, D., Kiggundu, N. & Vinnerås, B. 2015. Evaluation of the Performance of Different Organic Fertilisers on Maize Yield: A Case Study of Kampala, Uganda. Journal of Agricultural Science; Vol. 7, No. 11. Pages 28-37. doi: 10.5539/jas.v7n11p28
3. Komakech, A.J., Sundberg, C., Jönsson, H. & Vinnerås, B. 2015. Lifecycle assessment of biodegradable waste treatment systems for sub-Saharan African cities. Resources, Conservation and Recycling, Vol 99: – 110. DOI. 10.1016/j. resconrec.2015.03.006.

4. Lalander, C.H., Komakech, A.J. & Vinneras, B. 2015. Vermicomposting as manure management strategy for urban small-holder animal farms - Kampala case study. Waste Management. Vol 39: 96 – 103. http://dx.doi.org/10.1016/j. wasman.2015.02.009
5. Kinobe J.R, Niwagaba C.B, Gebresenbet G., Komakech A.J. & Vinnerås B. 2015. Mapping out the solid waste generation and collection models: The case of Kampala City, Journal of the Air & Waste Management Association, 65:2, 197-205, DOI: 10.1080/10962247.2014.984818
6. Komakech, A. J., Banadda, N.E, Kinobe, J. R., Kasisira L.,Sundberg, C., Gebresenbet G., Vinnerås, B. 2014. Characterization of Municipal Waste in Kampala, Uganda. Journal of the Air & Waste Manage. Assoc. 64(3). 340-348, DOI: 10.1080/10962247.2013.861373
7. Komakech, A.J., N.E. Banadda, G. Gebresenbet, and B. Vinnerås. 2014. Maps of animal urban agriculture in Kampala City. Agron. Sustain. Dev.34(2):493–500. doi: 10.1007/s13593-013-0164-7.
8. Menya, E., and A. J. Komakech. 2013. Investigating the effect of different loading densities on selected properties of dried coffee using a GHE dryer. Agric Eng Int: CIGR Journal, 15(3): 231－237.

Selected Accomplishments

1. Consulting Team leader / Identification and Design of Irrigation Projects in Kapchesombe and Kwapa. / Funded by Veco (Uganda) / October - December 2015
2. CO PI on a RUFORUM funded project titled: “Development of a Low-Cost Pineapple Drier and Utilization of Agricultural Waste to Enhance Income Security among Small-holder Farmers in Kayunga District”. 2015 – on-going.
3. Co-investigator on project titled “Developing appropriate technologies for processing and value addition to desert date leaves and fruits”. Project funded by Carnegie competitive post-doctoral research grants 2011-2013.
4. Co-investigator on project titled “The status and opportunities for improving rice processing industry in Uganda”. Project funded by MSI 2009 – 2011.