

Dr. Isa Kabenge is a Lecturer in the Department of Agricultural and Biosystems Engineering (ABE). He has been a faculty member since 1999. Dr. Kabenge teaches a number of undergraduate and graduate courses and is heavily involved in research. His primary research interest areas are Impact of climate change to agricultural systems, Application of gridded datasets to developing and modeling solutions for challenges related to hydrological systems and environmental engineering, Evapotranspiration and other energy fluxes of vegetative surfaces, Application of GIS to management of natural resources, Application of biological systems for environmental protection, Quantification of plants water use and surface energy balance, Water/Wastewater systems design, operation and maintenance. In addition, Dr. Kabenge has extensive consulting experience, and has worked with a number of entities and projects in various consulting roles. Dr. Kabenge received his Ph.D. in Agricultural and Biological System Engineering, from University of Nebraska-Lincoln, USA in 2011. Prior to pursuing his doctorate, he earned a Postgraduate Diploma in Projects Planning and Management at Uganda Management Institute in 2007, a Masters in Agricultural Engineering from University of Pretoria, South Africa in 2002 and a B.Sc. in Agricultural Engineering from Makerere University in 1998.

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. (* corresponding Author)
2. Nabaterega, R., Banadda, N., Muyonga, J. H., Kiggundu, N., Kabenge, I., and P. Tumutegyeize, (2015), Determining the most appropriate and optimum ratios of Organic waste for Biogas generation from small-scale food processing units. *International Journal of Applied Sciences and Engineering Research*, Vol. 4, No. 2/3.
3. Anaba, A. L., Banadda, N., Kiggundu, N. and I. Kabenge (2015), Design of solar powered irrigation system. *Int. J. Res. Environ. Stud.* 2(5): pp. 54-65
4. Kabenge, I., S. Irmak, G.E. Meyer, J.E. Gilley, S. Knezevic, T.J. Arkebauer, D. Woodward, and M. Moravek (2013), Evapotranspiration and surface energy balance of a common reed-dominated riparian system in the Platte River Basin, central Nebraska. *Transactions of ASABE*, 56(1): 135-153.

5. Kabenge, I., and S. Irmak (2012), Evaporative losses from a common reed-dominated peachleaf willow and cottonwood riparian plant community, *Water Resour. Res.*, 48, W09513, doi:10.1029/2012WR011902.
6. Irmak, S., I. Kabenge, K. E. Skaggs, and D. Mutibwa (2012), Trend and magnitude of changes in climate variables and reference evapotranspiration over 116-yr period in the Platte River Basin, Central Nebraska- USA, *J. Hydrol.*, 420 – 421, 228-244.
7. Sharma, V., Irmak, A. and I. Kabenge, S. Irmak (2011) Application of GIS and Geographically Weighted Regression to Evaluate the Spatial Non-Stationarity Relationships between Precipitation vs. Irrigated and Rainfed Maize and Soybean Yields. *Transactions of ASABE*, 54(3): 953-972.

Selected Accomplishments

1. Lake Albert Regional Social-Economic Baseline Assessment - 2012 (Client: Worley Parsons for Tullow Uganda Operations PTY LT)
2. Environmental and Social Impact Assessment and Resettlement Action Plan (RAP) for feeding into the Engineering Design and Tender Documentation for Improvement of Priority Drainage Systems in Kampala Capital City - 2015 (Client: Kampala Capital City Authority, Kampala).
3. Environmental and Social Impact Assessment and Resettlement Action Plan (RAP) for Proposed Project on Irrigation Scheme Development in Central and Eastern Uganda - 2015 (Client: JICA Study Team – NTC International Co., Limited).
4. Environmental impact assessment and Auditing of Proposed Paper Recycling Project and existing Paper Packaging Facility for Riley Packaging Limited, Mukono - May 2014 (Client: Riley Packaging Limited, Mukono).
5. Environmental Audit for TEP Uganda North Nile Facilities (Well sites Jobi 3, Jobi East 3, Jobi East 6, Jobi East 7, and Mpyo-F. Other facilities Tangi Camp, Waste Consolidation Area, Seismic Camp, and Explosive Magazine - 2013 (Client: Total E&P Uganda B.V.).