

Dr. Robert Mugabi is an Assistant Lecturer in the Department of Food Technology and Nutrition (FTN). He has been a faculty member since 2010. Mr. Mugabi teaches a number of undergraduate courses and is currently enrolled for his Ph.D. studies at the University of Nebraska-Lincoln, USA. His primary research interest area is Food processing/ engineering. His other research interest areas are Value-added processing of agricultural commodities; effects of new process technologies on food quality and food safety; Post-harvest technology fundamentals and applied aspects of grain storage and drying; and Process control of food processing operations. Mr. Mugabi received his M.Eng.Sc. in Food processing Engineering from University of New South Wales, Australia in 2012 and a B.Sc. in Chemical and Process Engineering from University of Dar es Salaam in 2005.

### **List of Selected Publications**

1. R. Mugabi, L.W. Curtis & Y.B. Byaruhanga (2015). Performance Evaluation of Locally Fabricated Hammer Mills in Rural Uganda: Crafting a Test Protocol. ASABE Paper No. 2180215. ASABE, St. Joseph, MI.
2. R. Mugabi & R. Driscoll (2015). In-store drying as an alternative for corn drying in Uganda. ASABE Paper No. 2189396. ASABE, St. Joseph, MI.
3. E. C. Newgard , H. A. Pushpadass, C. L. Weller, K. M. Eskridge , M. A. Hanna, R. Mugabi and R. A. Flores (2015). Hammer Mill Size Reduction Comminution Law Coefficients for Corn and Grain Sorghum. ASABE Paper No. 2189398. ASABE, St. Joseph, MI.
4. R. Mugabi & R. Driscoll (2016). Study of Maize Drying in Uganda Using an In-store Dryer Weather Data Simulation Software. International Journal of Food Processing Technology (Accepted for publication).
5. R. Mugabi, K.M. Eskridge, & C.L. Weller (2016). Effect of moisture content, hammer tip speed, and feed rate on final particle size and energy consumption during size reduction of corn bran using a hammer mill. Transactions of the ASABE. (in progress)

## **Selected Accomplishments**

1. Development of Pilot Plant for Bio-ethanol Processing, University of Dar es Salaam, Department of Chemical and Process Engineering (2008 – 2009).
2. Named the Mary and Charles Sukup Global Professor in Food Security, College of Agriculture and Life Sciences, Iowa State University (2015-present).
3. Faculty co-leader of the Iowa State / Makerere Service Learning Programme (2009-present).
4. Served as principal investigator or co-principal investigator on research and education grants totaling \$3 million (2001-present).
5. Served as major professor for three Ph.D. students, five M.S. students. Served on Program of Study committees for 43 Ph.D. students and 27 M.S. students (2001-present).
6. Professor-in-Charge for Online Learning, Colleges of Engineering and Liberal Arts & Sciences, Iowa State University. Oversaw online programs that grew to serve over 10,000 students annually (2010-2015)
7. Director of Assessment, College of Engineering, Iowa State University. Managed ABET accreditation for 12 engineering programs that teach over 8,000 students (2008-2016).
8. Founding secretary of the Education, Outreach and Professional Development Division of the American Society of Agricultural and Biological Engineers (2005).
9. Invited speaker (multiple occasions) for the American Soybean Association Quality Conferences in Japan, Korea, China and Taiwan (1989-2004).
10. Named Outstanding Advisor for the College of Agriculture and Life Sciences, Iowa State University (2006)
11. Recognized for Best Session (topic: MOOCs), Conference on Industry and Education Collaboration, American Society for Engineering Education, Continuing Professional Development Division (2014).
12. Created twelve new courses including undergraduate coursework in biorenewables (2001-2013).
13. Created a graduate program and undergraduate minor in Energy Systems Engineering (2013).