

Dr. Noble Banadda is a Professor of Agricultural and Biosystems Engineering and Chair, Department of Agricultural and Biosystems Engineering (ABE). He has been a faculty member since 2006. Noble teaches a number of undergraduate and graduate courses and is heavily involved in research. His primary areas of interest are Mathematical modeling; Food Processing Engineering; Waste Engineering; Renewable Energy; Chemical reactor design and optimization. Noble received his Ph.D. in Chemical Engineering, from Katholieke Universiteit Leuven, Belgium in 2006. Noble has followed postdoctoral training in Chemical Engineering at Massachusetts Institute of Technology, USA. Noble is a registered Professional Engineer in The Institution of Engineers Tanzania # MIET1572, Next Einstein Fellow Laurate, Fellow of the Uganda National Academy Sciences, Fellow of the Global Young Academy, Member of the American Society of Agricultural and Biological Engineers (ASABE) #1051201.

List of Selected Publications

1. Irene Nansubuga, Noble Banadda, Willy Verstraete and Korneel Rabaey. A review of Sustainable Sanitation Systems in Africa. *Reviews in Environmental Science and Bio-technology*, 1-14, 2016
2. Kyagulanyi J., Banadda N., Mulamba P., Kabenge I., Kiggundu N. and Muyonga J. Estimation of spatial and temporal grain amaranth water requirements using satellite, local and virtual weather stations datasets in Uganda. *International Journal of Agricultural and Biological Engineering*, 9(2): 85-97, 2016
3. Irene Nansubuga, Willy Verstraete, Korneel Rabaey and Noble Banadda. Mesophilic digestion and subsequent biochar formation from High Rate Activated Sludge. *Water Research*, 81:216-222, 2015
4. Irene Nansubuga, Noble Banadda, Mohammed Babu, Willy Verstraete and Korneel Rabaey. Co-digestion of Primary sludge with cow dung and brewery sludge: the effect on biogas production. *International Journal of Agricultural and Biological Engineering*, 8(4): 86-94, 2015

5. Richard Ssonko Elijah, Nicholas Kiggundu and Noble Banadda. Waste Engine Oil Contamination of Soils and its Bioremediation. *Environmental Engineering and Management*, 14(8): 1969-1974, 2015
6. Ayaa.F., Mtui P., Banadda N. and Jan Van Impe. Design and Computational fluid dynamic modeling of a Municipal Solid Waste Incinerator for Kampala City, Uganda. *American Journal of Energy Engineering*, 2(3):80-86, 2014. 22
7. Allan J. Komakech, Noble E. Banadda, Joel R. Kinobe, Levi Kasisira, Cecilia Sundberg, Girma Gebresenbet and Bjorn Vinnerås. Characterization of municipal waste in Kampala, Uganda. *Journal of the Air and Waste Management Association*, 64: 340-348, 2014
8. Komakech A.J., Banadda E.N., Gebresenbet G. and Vinnerås B. Mapping urban Agriculture in Kampala City with special focus on animal manure generation. *Agronomy for Sustainable Development*, DOI 10.1007/s13593-013-0164-7, 2013 T.
9. Nkurunziza, J.B. Nduwayezu, I. Nhapi and E.N. Banadda. Turbid water treatment with moringa oleifera and study of its quality evolution. *Water Science and Technology*, 59(8): 1551-1558, 2009
10. R. Jenne, E.N. Banadda, I.Y. Smets, J. Deurinck and J.F. Van Impe. Detection of filamentous bulking problems: developing an image analysis system for sludge composition monitoring. *Microscopy and Microanalysis*, 13(1): 36-41, 2007
11. I.Y. Smets, E.N. Banadda, J. Deurinck, N. Renders, R. Jenn'e and J.F. Van Impe. Dynamic modeling and control strategies of filamentous bulking outbreaks in Lab-scale activated sludge processes. *Journal of Process Control*, 16: 313-319, 2006
12. E.N. Banadda, I.Y. Smets, R. Jenn'e and J.F. Van Impe. Predicting the onset of filamentous bulking in biological wastewater treatment systems by exploiting image analysis information. *Journal of Bioprocess and Biosystems Engineering*, 27(5): 339-348, 2005

Selected Achievements

1. Consulting Team Member / The feasibility study on potential public private partnership in Post- harvest within climate resilient supported value chains in Rwanda/ Funded by Government of Rwanda / June 2015

2. Consulting Team Leader / Post-harvest and handling of Maize and beans gap needs assessment and market analysis in Rwanda/ Funded by Government of Rwanda / March 2015
3. Consulting Team Leader / Labour Market Needs Assessment study in the food processing sector in Uganda / Funded by International Organization for Migration / July 2014
4. Consulting Team Member / Development of Strategic Investment Framework for Agro-industries and related Agribusinesses in the EAC Sub-Region / Funded by UN-FAO / February 2014
5. Consulting Team Member / Feasibility study for establishing a dairy processing plant for UHT Milk and Yoghurt in Uganda/ Funded by Private Sector Client / May 2013
6. Consulting KPMG Team Member / Assignment for procurement agency services for goods and related services for the Agricultural Business Initiative Trust (aBi Trust) dairy programme in South- Western Uganda / Funded by Royal Dutch Government / May - August, 2013
7. Consulting Team Leader / Soap Production for Uganda Prison Services / Funded by Government of Uganda / March 2012
8. Consulting Team Leader / Designs and Bills of Quantities for Drying, Storage and Processing Structures for the Sudan Productive Capacity Recovery Programme (SPCRP)/ Funded by UN-FAO / February 2012
9. Consulting Team Leader / Appraisal and Perspectives of the Technical Systems of Rice Processing in Uganda/ Funded by UN-FAO / November 2011
10. Consulting Team Member / Strategic Project Implementation Plan and Development of Agro- business Plan For Pilot Mini-Estates Project in Kibaale District, Uganda/ Funded by UN-FAO / November 2011
11. Consulting Team Member / Develop Agro-processing Safety Measures and Develop Business Plans for Tomato, Grain and Ground Nut Oil within the framework of Sudan Productive Capacity Recovery Programme/ Funded by UN-FAO / April- May 2011

12. Consulting Team Leader / Opportunities for Agro-industry Development for Food Security in the East African Community Region/ Funded by UN-FAO and Kilimo Trust Uganda/ February 2011
13. Consulting Team Member / Feasibility analysis and market assessment for small-medium size processing plant for UHT Milk, Pasteurized Milk, Ice Cream AND Pasta in Uganda/ Funded by Private Sector Client - GPI/ February 2010
14. Principal Investigator / Low cost multiple platform Tractor Fabrication. Funded by The Food Technology Business Incubation Centre (FTBIC)/ August 2015 - December 2015
15. Principal Investigator / Bioenergy from food waste, Makerere University. Funded by FTBIC / February 2014
16. Consulting Team Leader / Technical Inspection and Verification of Agricultural Equipment and Machinery for World Vision Uganda / Funded by World Vision Uganda April 2015