



Name	Ivan Muzira Mukisa
Position	Associate Professor
Department	Department of Food Technology and Nutrition
Education	<ul style="list-style-type: none"> • PhD (Microbiology), Norwegian University of Life Sciences, Norway - 2012 • MSc. Food Technology, Katholieke Universiteit Leuven and Universiteit Gent, Belgium - 2007 • BSc. Food Science & Technology Makerere University - 2003
Work Experience	<ul style="list-style-type: none"> • Head of Department Food Technology & Nutrition, Makerere University Kampala, Uganda. <i>August 2019 - present</i> • Assoc. Professor, Department of Food Technology & Nutrition, Makerere University Kampala, Uganda. <i>January 2019 - present</i> • Senior Lecturer, Department of Food Technology & Nutrition, Makerere University Kampala, Uganda. <i>November 2013 - present</i> • Assistant Lecturer, Department of Food Technology & Nutrition, Makerere University Kampala, Uganda • <i>October 2008 - October 2013</i> • Teaching Assistant, Department of Food Technology & Nutrition, Makerere University Kampala, Uganda, <i>January 2004 - October 2008</i>
Research Interests	I am a Food Scientist/Microbiologist with a passion for the microbiology, safety and processing of foods. My research concentrates on two main areas: the microbiology of fermented food products and development of nutrient dense foods/snacks. I have studied the microbiological diversity of traditional fermented products, probiotic potential of lactic acid bacteria and the use of locally available traditional foods to develop acceptable nutrient dense porridges and snacks for children.
Courses Taught	<ul style="list-style-type: none"> • FST1101 Introductory Food Science and Technology • AEN2110 Microbiology for Engineers • FST1201 Biochemistry II • FST1205 Food Microbiology I • BPE3201 Applied Microbiology • FST7102 Advanced Food Microbiology
Graduate Supervision	<ol style="list-style-type: none"> 1. Bernard J Kiwanuka, MSc Food Safety & Quality Management, Makerere - 2024 2. Denis Ntaate, MSc Food Safety & Quality Management, Makerere - 2024 3. Olive Katooke, MSc Food Science & Technology, Makerere - 2024 4. Siliver Kagoda, MSc Applied Human Nutrition, Makerere - 2024

	<ol style="list-style-type: none"> 5. Emmanuel Okalany, MSc Food Safety & Quality Management, Makerere - 2023 6. Catherine Arinaitwe, MSc Applied Human Nutrition, Makerere - 2023 7. Soumaya Abdou Salam, MSc Food Science & Technology, Makerere - 2023 8. Vincent Lutwama, MSc Animal Science, Makerere - 2022 9. Rehema Meeme, MSc Food Safety & Quality Management, Makerere - 2022 10. Shamim Birungi, MSc Food Science & Technology, Makerere - 2022 11. Amanda Murungi, MSc Applied Human Nutrition, Makerere - 2022 12. Paddy Ainebyona, MSc Agricultural Engineering, Makerere - 2021 13. Stellah Byakika, PhD Food Science, Makerere - 2020 14. Sarah Mulelengi, MSc Applied Human Nutrition, Makerere - 2020 15. Margaret Komugisha, MSc Food Science & Technology, Makerere - 2020 16. Egide Nsengimana, MSc Food Science & Technology, Makerere - 2019 17. Abubaker Bakulumpagi, MSc Food Science & Technology, Makerere - 2019 18. Mary Namwanje, MSc Applied Human Nutrition, Makerere - 2019 19. Catherine Birungi, MSc Applied Human Nutrition, Makerere - 2018 20. Gloria Arinaitwe, MSc Food Science & Technology, Makerere - 2018 21. Tom Bbosa, MSc Applied Human Nutrition, Makerere - 2018 22. Mary Raphael Marcel, MSc Applied Human Nutrition, Makerere - 2018 23. Jennifer Racheal Apio, MSc Applied Human Nutrition, Makerere - 2018 24. Honi Buzo, MSc Food Science & Technology, Makerere - 2017 25. Philip Musoke, MSc Food Science & Technology, Makerere - 2017 26. Yassin Hassen Umar, MSc Food Science & Technology, Makerere - 2017 27. Josephine Nakanwagi, MSc Soil Science, Makerere - 2017 28. Stellah Byakika, MSc Food Science & Technology, Makerere - 2016 29. Abigael O. Oladimeji, MSc Food Science & Technology, Makerere - 2016 30. Sheilla Natukunda, MSc Applied Human Nutrition, Makerere - 2016 31. Leela Zaizay, MSc Applied Human Nutrition, Makerere - 2016 32. Susannah Stevenson, MSc Applied Human Nutrition, Makerere - 2016
<p>Selected Publications</p>	<ol style="list-style-type: none"> 1. Akande, O. A., Nakimbgwe, D., & Mukisa, I. M. (2023). Development and Characterization of Instant Nutrient Dense Amaranth-based Composite Soup for Women of Child Bearing Age. <i>Asian Journal of Food Research and Nutrition</i>, 2(4), 795-808. 2. Akande, O. A., Oluwamukomi, M., Osundahunsi, O. F., Ijarotimi, O. S., & Mukisa, I. M. (2023). Evaluating the potential for utilising migratory locust powder (<i>Locusta migratoria</i>) as an alternative protein source in peanut-based ready-to-use therapeutic foods. <i>Food Science and Technology International</i>, 29(3), 204-216. 3. Akoth, S., Nuwagira, A., Byakika, S., & Mukisa, I. M. (2023). Pickling as a preservation technique for <i>Solanum aethiopicum</i>; an edible green leafy vegetable. <i>Life</i>, 4, 5. 4. Birungi S.W., Mugabi R., Nabubuya A., Mukisa I.M., Wambete J. & Tibagonzeka E.J. (2023). Nutritional composition of least-cost staple food sources of nutrients in eastern Uganda. <i>African Journal of Food, Agriculture, Nutrition and Development</i>. 23(7):23975-23993. https://doi.org/10.18697/ajfand.122.23100. 5. Birungi S.W., Mugabi R., Nabubuya A., Mukisa I.M., Wambete J. & Tibagonzeka E.J. (2023). Low-cost nutrient-dense composite flours for children aged 1-5 years developed from locally available foods. <i>African Journal of Food, Agriculture, Nutrition and Development</i>. 23(8):24177-24196. https://doi.org/10.18697/ajfand.122.23100. 6. Meeme R., Mukisa I.M. & Mugabi R. (2023). Kombucha Production in Uganda: Quality Aspects and Compliance with Standards. <i>Food ScienTech Journal</i>, 5(2):145-165. http://dx.doi.org/10.33512/fsj.v5i2.19880.

7. Nanyondo, J., Byakika, S., & Mukisa, I. M. (2023). Production of a probiotic soy-soursop yogurt containing *Lactobacillus rhamnosus* yoba 2012. *European Journal of Agriculture and Food Sciences*, 5(4), 60-64.
8. Okalany, E., Byakika, S., Asimwe, J. K., & Mukisa, I. M. (2023). Knowledge, attitudes and practices of processors of deep-fried fish and potato chips with regard to cooking oil quality-A case of Kampala District, Uganda. *Food and Humanity*, 1, 928-932.
9. Soumaya, A.S., Mukisa, I.M., Mugabi, R. & Muyanja, C. (2023). Preservation of Chayote (*Sechium Edule* L) Using Different Drying Methods. *Journal of Food Research*. 12(4):45-55. <https://doi.org/10.5539/jfr.v12n4p45>.
10. Mugabi, R., Byakika, S., & Mukisa, I. M. (2022). Effects of Feed Moisture Content, Soybean Ratio and Barrel Temperature on Physical and Functional Properties of Extruded Maize-Soybean Flour Blends. *Tanzania Journal of Science*, 48(2), 447-459.
11. Byaruhanga, Y. B., Byakika, S., & Mukisa, I. M. (2022). Survival and Acidification Potential of *Lactobacillus Plantarum* MNC 21 Stored in Air-Dried Sorghum Flours. *Food ScienTech Journal*, 4(2), 119-128.
12. Byakika, S., Mukisa, I. M. & Muyanja C. (2022). Lactic Acid Bacteria Antagonism of Acid-tolerant and Antibiotic-resistant Non-staphylococcal Pathogenic Species Isolated from a Fermented Cereal Beverage using Baird-Parker Agar. *Nutrition and Food Sciences Research* 9(1):31-40.
13. Namubiru, L., Male, D., Mukisa, I.M, & Byaruhanga, Y.B. (2022). Food Safety Knowledge, Attitudes and Practices of Food Handlers along the Rice Value Chain of Uganda. *Journal of Food Industry*, 6 (1): 1-31
14. Akande, O. A., Oluwamukomi, M., Osundahunsi, O. F., Ijarotimi, O. S., & Mukisa, I. M. (2022). Evaluating the potential for utilising migratory locust powder (*Locusta migratoria*) as an alternative protein source in peanut-based ready-to-use therapeutic foods. *Food Science and Technology International*, 0(0); 1-13.
15. Mukisa, I. M., Byakika, S., Meeme, R., Wacoo, A. P., Sybesma, W., & Kort, R. (2019). Adopting traditional fermented foods as carriers for probiotics. *Nutrition & Food Science*.
16. Mukisa, I. M., Ssendagala, G. W., & Byakika, S. 2020. Microbiological safety and physicochemical composition of Bongo, a traditional fermented milk product from Lyantonde district, Uganda. *Scientific African*, 10, e00583.
17. Mukisa, I. M., Ahimbisibwe, S & Byakika, S. 2021. Stabilization and preservation of a traditional sorghum-based fermented beverage. *Nutrition and Food Science Research*, 8 (4): 45-52.
18. Byakika, S., Mukisa, I.M., Byaruhanga, Y.B., & Muyanja, C. 2020. Probiotic potential of lactic acid starter cultures isolated from a traditional fermented sorghum-millet beverage. *International Journal of Microbiology*, 2020.
19. Byakika, S., Mukisa, I.M., Wacoo, A.P., Kort, R., Byaruhanga, Y., & Muyanja, C. 2019. Potential application of lactic acid starters in the reduction of aflatoxin contamination in fermented sorghum-millet beverages. *International Journal of Food Contamination*, 6 (4): 1-8.
20. Byakika, S., Mukisa, I. M., Byaruhanga, Y. B., & Muyanja, C. (2019). A review of criteria and methods for evaluating the probiotic potential of microorganisms. *Food Reviews International*, 35(5), 427-466.

<p>Grants/Projects</p>	<ol style="list-style-type: none"> 1. Development of affordable nutrient-rich plant-based F-75 and 100 for management of severe acute malnutrition (Co-PI). Value UGX 168,495,000. Funded by the government of Uganda through the Makerere Research and Innovation Fund (2021-2022). 2. Empowerment of the agro processing industry to meet the quantity and quality for local and export market - EAPI - phase 2 (Co-PI). Value UGX 169,872,800. Funded by the government of Uganda through the Makerere Research and Innovation Fund (2021-2022). 3. Incubating Mbarara ZARDI prototype starter cultures for enhancing productivity and safety of fermented milk products in cottage industries in Uganda (Co-PI). Value UGX 459,207,540. Funded by the government of Uganda through the Ministry of Science, Technology and Innovation (2021-2023). 4. Improving the quality of commercially produced <i>Obushera</i> through capacity building for processors and production of suitable pasteurizers (PI). Value UGX 73,535,000. Funded by the government of Uganda through the Makerere Research and Innovation Fund for the project (2020-2021). 5. Improving essential oil feedstocks and high-value products from <i>Mentha</i> spp to benefit local Uganda economies (Co-PI). Value £500,000. Funded by BBSRC-GCRF-IBBE through the University of Cardiff, UK (2019-2022). 6. Empowerment of the agro processing industry to meet the quantity and quality for local and export market - phase 1 (Co-PI). Value UGX 223 million. Funded by the government of Uganda through the Makerere Research and Innovation Fund (2019-2020).
<p>Service to Community</p>	<ul style="list-style-type: none"> • Head, Department of Food Technology and Nutrition, Makerere University (August 2019 - Present) • Vice Chairperson UNBS Technical Committee 208 on Food Labelling and Hygiene (August 2021 - Present) • Vice Chairperson UNBS Technical Committee 219 on Alcoholic Beverages (December 2021 - Present) • Senior Advisor to the Makerere University Food Science & Technology Students' Association (MUFOSTA) from December 2021 - Present.
<p>Professional Memberships</p>	<ul style="list-style-type: none"> • Member of the Uganda Professional Association of Food Scientists and Technologists (UGAFOST) from 2022 - Present • Fellow of the Uganda National Academy of Sciences from 2021- Present. • Member of the American Society for Microbiologists from 2021 - Present. • Member of the Nutrition Society of Uganda (NSU) - To date.
<p>Contact Information</p>	<p>Phone number: +256-775-414-537/+256-705-221-218 Email: ivanmuzira.mukisa@mak.ac.ug/ivanmukisa@gmail.com P. O. Box 7062, Department of Food Technology and Nutrition School of Food Technology, Nutrition and Bioengineering College of Agricultural and Environmental Science Makerere University, Kampala, Uganda Office location: Room A3-15, School of Food Technology, Nutrition and Bioengineering Building</p>
<p>Web Presence</p>	<p>ORCID: https://orcid.org/0000-0001-8942-3859 Google Scholar: https://scholar.google.com/citations?user=aNpzXy0AAAAJ&hl=en ResearchGate: https://www.researchgate.net/profile/Ivan-Mukisa Linkedin: https://ug.linkedin.com/in/ivanmuziramukisa Twitter: https://twitter.com/ivanmukisa</p>