

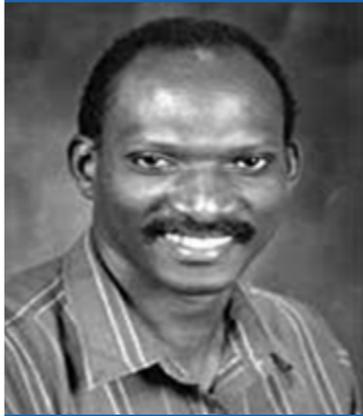


University of Dar es Salaam

Our April 2021 UDSM Alumnus

This is a “light corner” on the UDSM portal intended to feature for one month in turns two among many of the University’s graduates—alumni—since its foundation in 1961. The corner is designed to inform the public and the University itself, without prejudice in terms of historical precedence but guided only by professional information search, on the past graduates of the University, their whereabouts, their current position or engagement, what is remembered of them as past ‘boys’ and ‘girls’ of their time and, finally, on what is reckoned about their contribution to their Alma Mater, their nation, the Africa region and/or the wider world.

Kamazima M.M. LWIZA



Year of Matriculation: 1976

Year of Graduation: 1979

Award: BSc (Hons), The University of Dar es Salaam

More info:

- **M.A in Physics and Oceanography, University College of North Wales, U.K (1981);**
- **PhD in Physical Oceanography, University College of North Wales, U.K (1990).**

The UDSM ‘Alumnus of the Month’ for April 2021 is a science graduate of the 1979 graduating class, who is presently an associate professor of oceanography at Stony Brook University, New York (USA). He was born on the 7th of July 1955 in the Maruku village of Kigaze in Bukoba Rural District. He attended acquired primary education at Mwaui (1962-63) and New Alamasia Primary school (1963-68), both in Shinyanga district, from where he was admitted to Kibaha Secondary School for both ordinary- and advanced-level secondary education (1969-1974) and where he had exposure to and finally had good passes in science subjects, especially Mathematics and Physics.

In 1976, he was admitted at the University of Dar es Salaam for a three-year Bachelor of Science degree programme (with the combinations of Mathematics, Physics and Education). He successfully completed the programme, with honours, in 1979. In the following year (1980), he obtained admission for a two-year postgraduate study in Physical Oceanography at the University College of North Wales in the U.K where earned his Master’s degree in Physics and Oceanography in 1981. He remained closely affiliated with the University (North Wales) as he next steeped himself in a doctoral programme within the same field for another stretch of three years (1987-1990) in physical oceanography.

In 1991, he relocated to the US for a teaching-cum-research position at Stony Brook University in New York. He would continue with his basic subjects of specialisation, now with expanded areas of application in marine physics, climate dynamics and environmental science. His current research interests and concerns, spanning a considerable period of time and interwoven within multidisciplinary projects, have converged on four major issues: ‘Regional ocean climate variability’, ‘The theory and observations on coastal-trapped waves’, ‘Estuarine dynamics’, and, much closer home to Africa, ‘Climate variability in Lake Victoria and other Eastern African large lakes’. In the course of his investigations into deep-water bodies, Prof. Lwiza developed certain competencies, including a technique—‘Doppler imaging’—of removing tidal signals from ship-borne acoustic currents. This is a non-invasive test that can be used to estimate the flow of water by bouncing high-frequency sound (*ultrasound*) waves, hence ‘Doppler profile data’.

Within SoMAS, Kamazima Lwiza has—apart from teaching—served as Director/Dean and he has at different times advised research students in a unit known as Environmental Studies Academy. This unit has the mandate of offering non-credit seminars and activities that emphasize both scientific and social issues covered by the broad field of environmental studies. Through this programme, students from the natural and social sciences can apply their coursework thrusts specifically to the study of the environment.

Dr. Lwiza has published widely. A few of his works in the recent years, alone or jointly with colleagues, include ‘Superstorm Sandy marine debris wash-ups on Long Island – What happened to them?’ *In Mar. Pollution Bulletin*, 108:215-231 (with Swanson, R.L., K. Willig, and K. Morris (2016); ‘Fisheries and water-level fluctuations in the world’s largest desert lake.’ *In Ecohydrology*, 10(1), e1769 (with Gownaris, N.J., Pikitch, E.K., Aller, J.Y., Kaufman, L.S., Kolding, J., Obiero, K.O., Ojwang, W.O., Malala, J.O. and Rountos, K.J. (2017); ‘The influence of temperature stress on the physiology of the Atlantic surf clam, *Spisula solidissima*’ (with Hornstein, J., Espinosa, E.P., Cerrato, R.M., and Allam, B. (2018). *In Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology*, 222, 66-73; ‘Water level fluctuations and the ecosystem functioning of lakes’ (with Gownaris, N.J., Rountos, K.J., Kaufman, L., Kolding, J., and Pikitch, E.K. (2018). *In Journal of Great Lakes Research*, 44(6), 1154-1163; ‘Future changes and uncertainty

in decision-relevant measures of East African climate’ (with Bornemann, F.J., Rowell, D.P., Evans, B., Lapworth, D.J., Macdonald, D.M., Marsham, J.H., Tesfaye, K., Ascott, M.J. and Way, C. (2019). *In Climatic Change*, pp.1-20; ‘Application of classical coastal trapped wave theory to high scattering regions’ (with Brunner, K., and Rivas, D. (2019). *In Journal of Physical Oceanography*; ‘The impact of storm-induced coastal trapped waves on the transport of marine debris using high-frequency radar data’ (with Brunner, K. (2019); ‘Tidal velocities on the Mid-Atlantic Bight continental shelf using high-frequency radar’ (with Brunner, K. (2020). *In Journal of Oceanography*; and ‘Evidence of coastal trapped wave scattering using high-frequency radar data in the Mid-Atlantic Bight’ (With Brunner, K. (2020). *In Ocean Science Discussions*. As many as six publications date back to the 1990s and late 1980s, but focused on the “physics” of oceans.

On the social side of life, Kamazima is a strong lover of African culture. As a Tanzanian, he says: “I love Tanzanian folk music - Taarab and Bongo flava.” And yet this is notwithstanding the thousands of miles that lie between his current station of work and his continent and country of origin. For the past eight years, he has been chairperson of the ‘Kagera Cultural Think Tank’, a non-governmental taskforce (and reference group of standardisers) created to help standardise terms and word usage and thereby to preserve the commonality of certain perspectives and add value to the cultural events and cultural interpretations across the region.

Also, and perhaps of more interest to readers in the current moment, Professor Lwiza is collaborating with an NGO called ‘WorldVent’ [World Ventilator Foundation] in order to raise funds for producing 15,000 ventilators to distribute to African countries that need them in the wake of the emergence and character of the Corona-2019 pandemic. Kamazima is involved in the project so passionately, as a way of giving back to Africa. UDSM is fully appreciative of the work and commitment demonstrated by its alumnus.



In the US, with Drs. Roger Flood and Mary Scranton and PhD student Sarah Nickford [all of SoMAS, Stony Brook University, USA]: attending the Setauket Harbour Day on 23rd September 2017 and providing hands-on demonstration of a drone boat (Photos by Anne McElroy)



In Uganda, October/November 2020: Prof. Lwiza (aboard a hospital ship Jubilee Hope, with the ship’s Chief Engineer Deogratias Kabogo) studying the effect of higher temperatures on the spread of parasites in Lake Victoria, site of a high incidence of schistosomiasis (snail fever and bilharzia).

**Kamazima M.M. LWIZA is Our April 2021 Alumnus,
and his great stories begin here!**

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