

PERSONAL INFORMATION



**Neema Mduma, PhD**

 Arusha, Tanzania

 +255 713 702 661

 [neema.mduma@nm-aist.ac.tz](mailto:neema.mduma@nm-aist.ac.tz)

**Sex** Female | **Date of birth** 21/10/1989 | **Nationality** Tanzanian

WORK EXPERIENCE

- September 2020 – to date **Lecturer (Information and Communication Sciences and Engineering)**  
Nelson Mandela African Institution of Science and Technology
- January 2018 – August 2020 **Assistant Lecturer (Information and Communication Sciences and Engineering)**  
Nelson Mandela African Institution of Science and Technology
- May 2016 – December 2017 **Assistant Lecturer (Information Technology)**  
University of Iringa (Formerly Tumaini University Iringa)
- October 2012 – April 2016 **Tutorial Assistant**  
University of Iringa (Formerly Tumaini University Iringa)

EDUCATION AND TRAINING

- February 2017 – August 2020 **PhD Information and Communication Sciences and Engineering**  
Nelson Mandela African Institution of Science and Technology, Tanzania
 
  - Research Focus: Machine Learning
- January 2014 – April 2016 **MSc Information and Communication Sciences and Engineering**  
Nelson Mandela African Institution of Science and Technology, Tanzania
 
  - Research Focus: Mobile Development
- August 2009 – October 2012 **BSc Information Technology**  
Tumaini University Iringa, Tanzania
 
  - Research Focus: E-learning

PERSONAL SKILLS

Mother tongue(s) Swahili

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	Excellent	Excellent	Very Good	Very Good	Very Good
French	Very Good	Excellent	Excellent	Very Good	Excellent

## Honours and awards

- Data Science Africa (DSA), DSA Research Assistant Grant
- The African Centre for Technology Studies (ACTS), Post-Doctorial AI4D Scholarship
- L'Oréal-UNESCO for Women in Science, 20 Young Talents in Sub-Saharan Africa
- Principal Investigator, Lacuna Fund in Agriculture
- WIMA STEM awarded by Women in Management Africa (WIMA)
- Excellence in Science and Technology Leadership awarded by Coca-Cola Kwanza Ltd
- International Women's Day Recognition awarded by Puma Energy Tanzania
- Women in Science awarded by Next Einstein Forum
- Tanzania Sheroes awarded by The Launchpad and Embassy of Sweden
- Queen Elizabeth Scholar awarded by Carleton University at Ottawa, Canada
- Deep Learning Indaba conference, MIT Press Book award at Nairobi, Kenya
- The 4<sup>th</sup> Business Plan Competition, First winning team at Nelson Mandela African Institution of Science and Technology
- Nelson Mandela Week Exhibitions, Third winner award at Nelson Mandela African Institution of Science and Technology

## ADDITIONAL INFORMATION

## Selected Publications

- Document Digitization Technology and Its Application in Tanzania. In: Arai K. (eds) Intelligent Systems and Applications. IntelliSys 2021. Lecture Notes in Networks and Systems, vol 295. Springer, Cham. [https://doi.org/10.1007/978-3-030-82196-8\\_53](https://doi.org/10.1007/978-3-030-82196-8_53). (Co-authored with Mbonimpaye John, Beatus Mbunda, Victor Willa, Dina Machuve and Shubi Kaijage)
- Web Based Attendance, Leave and Payroll System for Small Scale Industries: A Case of SOSOMA Industries Limited Rwanda. International Journal of Advances in Scientific Research and Engineering (IJASRE), ISSN:2454-8006, 7(7), 56-63. <https://doi.org/10.31695/IJASRE.2021.34041>. (Co-authored with Olivier Hungurimana and Dina Machuve)
- IoT-based System for Automated Floodwater Detection and Early Warning in the East African Region; A Case Study of Arusha and Dar es Salaam, Tanzania. International Journal of Advanced Technology and Engineering Exploration, Vol 8(79). DOI: <http://dx.doi.org/10.19101/IJATEE.2021.874099>. (Co-authored with Ange Josiane Uwayisenga and Mussa Ally. Dida)
- Development of the RFID Based Library Management and Anti-Theft System: A Case of East African Community (EAC) Region. International Journal of Advances in Scientific Research and Engineering, 7(5). DOI: <https://doi.org/10.31695/IJASRE.2021.34016>. (Co-authored with Deo Irankunda, Ramadhani Sinda and Mussa Ally. Dida)
- Development of a Smart Ugali Cooker. International Journal of Advanced Technology and Engineering Exploration, 8(75). DOI: <http://dx.doi.org/10.19101/IJATEE.2020.762148>. (Co-authored with Samwel Katwale, Ngollo Daudi, Amrani Hassan, Musa Ally and Michael Kisangiri)
- An Ensemble Predictive Model Based Prototype for Student Drop-out in Secondary Schools – Journal of Information Systems Engineering & Management, 4(3). DOI: <https://doi.org/10.29333/jisem/5893> (Co-authored with Khamisi Kalegele and Dina Machuve)
- A Survey of Machine Learning Approaches and Techniques for Student Dropout Prediction - Data Science Journal, 8:14, pp. 1-10. DOI: <https://doi.org/10.5334/dsj-2019-014> (Co-authored with Khamisi Kalegele and Dina Machuve)
- Machine Learning Approach for Reducing Students Dropout Rates – International Journal of Advanced Computer Research, Vol 9(42), 2019, <https://www.accentajournals.org/PaperDirectory/Journal/IJACR/2019/5/3.pdf>, ISBN: 2277-7970 (Co-authored with Khamisi Kalegele and Dina Machuve)
- Evaluating the Challenges of Technology Enhanced Learning in Universities in Tanzania - IST Africa Conference Proceedings, Paul Cunningham and Miriam Cunningham (Eds), IIMC International Information Management Corporation, 2013, <https://ieeexplore.ieee.org/document/6701796>, ISBN: 978-1-905824-38-0. (Co-authored with Josephat Oroma)

