



# UNIVERSITY OF DAR ES SALAAM



## 9<sup>TH</sup> RESEARCH AND INNOVATION WEEK PROGRAMME

Theme: Fostering Research and Innovation through University – Industry Partnerships

5<sup>th</sup> - 7<sup>th</sup> June 2024  
Venue: University of Dar es Salaam Library



**Hon. Jumaa H. Aweso (MP)**  
Minister for Water

**Guest of Honour - Opening**



**Prof. Carolyne Ignatius Nombo**  
Permanent Secretary, Ministry of Education,  
Science and Technology of Tanzania

**Guest of Honour - Closing**



**Prof. William A. L. Anangisye**  
Vice Chancellor, University of Dar es Salaam



**Prof. Nelson M. K. Boniface**  
Ag. Deputy Vice Chancellor - Research



**Ms. Rehema James Muniko**  
Director of Ceremony, RIW 2024  
School of Journalism and Mass Communication  
(SJMC)



## INTRODUCTION

Since 2015, the University of Dar es Salaam (UDSM) has been organizing the Research and Innovation Week (RIW), formerly known as Research Week (RW), to showcase competitive research results and innovative products, processes, and services. The primary goal is to bring together diverse groups of researchers and innovators to share and advance scholarly and creative research work, highlighting some of their best research outputs and innovations. UDSM RIW events are typically conducted first at the Unit level, followed by a University-wide level. During these events, the University community recognizes students, schools, colleges, and institutes for their cutting-edge scholarly and creative research and innovation activities through a series of discussions, forums, symposia, exhibitions, and award ceremonies. In general, the UDSM RIW has succeeded in many ways, such as motivating students and staff members of the University to continue with the impetus of searching for competitive knowledge, and conducting impactful research and innovations.

This year's RIW focuses on "**Fostering Research and Innovation through University – Industry Partnerships,**" reflecting UDSM's commitment to enhancing collaborations with industry partners. Such partnerships are crucial for translating research and innovations into practical applications that drive socio-economic development. UDSM remains dedicated to producing quality research results and ensuring that the innovations arising from these efforts are transformed into new processes, products, and services. By strengthening University-Industry partnerships, UDSM aims to leverage the strengths of both sectors, fostering an environment where research, innovations and industrial expertise converge to create impactful solutions. This collaborative approach contributes to improving the overall living standards and quality of life for Tanzanians through research, innovation and shared knowledge.



## **Ms. Fauzia Malik** *Keynote Speaker*

**Chief Executive Officer  
Super Meals Limited (Cool Blue) & Tembo Tiles Limited**

Fauzia Malik holds a degree from Barat College of DePaul University with a major in Computer Science and a minor in Business Administration. She recently attained her Entrepreneur's Master's Program at Massachusetts Institute of Technology, USA. Her journey in the world of business leadership began in 2010 when she assumed control of the family-owned Super Meals Limited, a company that was established back in 1997. At this present time, she currently serves as the Chief Executive Officer of Super Meals Limited, known for producing Cool Blue Pure Drinking Water and Tembo Tiles Limited. Fauzia is known for her financial and operational reforms including technology and systems that increased business efficiency. With the introduction of ISO 9001 & HACCP systems, the company was able to position itself as a trusted bottled water supplier and for the first time in 2013 won approval as US Army's sole bottled water supplier for their bases in Africa. In addition, Fauzia Malik, is a fitness enthusiast and her passion for sports and staying healthy fit prompted her to build a high quality active wear brand in Tanzania which she launched in December 2020 as Pure Fitness Activewear focusing on encouraging women to use workouts as a tool to improve their mental health while having access to high quality, stylish and affordable workout wear.

She is currently a Board Member of the Association of Tanzanian Employers (ATE) Industries and Manufacturing Sector since 2023 and is also a Member of the CEO Roundtable which aims to enhance impact in business leadership and the country's sustainable development and prosperity since 2017. As an advisor and board member with more than 25 years of business experience, she has guided organizations through complex restructurings, finance, strategy and operations and has developed strategic, financial, operating and turnaround strategies across multiple industries Fast Moving Consumer Good (Beverages), Construction, and Clothing. In addition, she is also the Founder and Managing Director of Baby Tembo Limited, a diaper trading business that aims to provide mothers in Africa with quality, cost-efficient diapers.

Fauzia is a firm believer in empowering entrepreneurs, with a special focus on women. In 2014, she became a founding member of Entrepreneurs Organization (EO) Tanzania and over the years, has served in positions such as Chapter Membership Chair, Chapter President, and Member of EO Global Women Recruitment Committee. Fauzia has given keynote speeches and spoke in various panels in Tanzania, where she shares her experience to empower people, especially women in business. Fauzia actively promotes working out as a tool for women to achieve a healthier physical and mental state, she runs an Instagram page where she shares her workout journey to inspire other women to do the same. Fauzia believes in empowering women by enhancing individual and business growth through peer-learning. An award-winner, she received the Top 50 Women in Management campaign in Tanzania. Her experience spans start-ups to private companies and includes diverse companies - such as Super Meals (Cool Blue), Tembo Tiles, Baby Tembo, Pure Café and Pure Fitness.



# Prof. Joel Nobert Kirway

## *Keynote Speaker*

**Associate Professor in Water Resources Engineering  
& Hydrology, University of Dar es Salaam**

Prof. Nobert, a PhD holder in Civil Engineering specializing in Hydrology, has had a remarkable career progression at the University of Dar es Salaam. Starting as an Assistant Lecturer in 2001, he has steadily climbed the ranks to become an Associate Professor in 2022. Throughout his tenure, he has held various key positions within the university, such as Coordinator of the Hydraulic Laboratory in the Water Resources Engineering Department from 2009 to 2012, Head of the Department of Water Resources Engineering from 2012 to 2018, Deputy Director of the Institute of Resource Assessment (IRA) from 2018 to 2021, and currently serves as the Director of the Institute of Resource Assessment. Additionally, Prof. Nobert is a registered Professional Engineer with the Tanzania Engineers Registration Board (ERB) and an Environmental Expert registered by the National Environmental Management Council (NEMC).

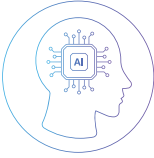
He currently holds the position of Research and Development Advisory Committee Member for the Tanzania Commission of Science and Technology (COSTECH) since 2021 and is also a Board member for WaterNet Board of Trustees focusing on capacity building in Integrated Water Resources Management for the SADC since 2020. He is actively involved in managing several research projects, such as the NORHED II Project - Environmental Risk Management under Increasing Extremes and Uncertainty – MERIT, which is funded by NORAD from 2021 to 2026. Additionally, he is leading the Climate change and Ecosystems Management projects in Malawi and Tanzania, supported by the Norwegian Programme for Capacity Development in Higher Education and Research for Development (NORHED) from 2021 to 2026. Some of his completed projects include the RESBEN project funded by the United Kingdom Research and Innovation, Global Challenges Research Funds (UKRI-GCRF) where he served as the Principal Investigator at UDSM from 2020 to 2023. He also successfully completed the project on Linking Public-Private Partnership to Secure Sustainable Water Resources Management in the Kilombero-River Basin, funded by the Swedish International Development Agency, spanning from 2015 to 2020.

Prof. Nobert has engaged in numerous consultancy projects within the realm of Water Resources Management and hydrological modeling. One of his notable achievements includes the creation of a water allocation model for the Kagera river basin, a river that spans across Uganda, Rwanda, and Burundi, as part of the Nile Equatorial Lakes Subsidiary Action Program (NELSAP). Currently, he is spearheading the team responsible for crafting the Integrated Water Resources Management and Development Plan (IWRMDP) for the Lake Victoria basin. Additionally, he played a crucial role in the formulation of the Integrated Water Resources Management and Development Plan for the internal drainage basin in Tanzania, focusing on Water Resources Modeling and DSS component, which was funded by the World Bank under the Ministry of Water. Furthermore, he contributed his expertise as part of the Ministry of Water's expert team to facilitate the Transboundary Water Allocation (WAP) for the Mara River basin. Prof. Nobert is actively involved in conducting the Environmental and Social Impact Assessment (ESIA) for the Standard Gauge Railway (SGR) project, serving as a water resources expert for Lot 3, 4, and 5 (Makutupora-Tabora, Tabora-Isaka, and Isaka-Mwanza). Moreover, he is serving as the hydrologist for the project focused on the Development of an Operational Decision Support System (ODSS) through Enhanced Hydro-Meteorological Services for the Ministry of Water in Tanzania, subcontracted by the Danish Hydraulic Institute-DHI (2021-2024).



# Exclusive Symposium

**Theme:** *AI in Building the Digital Economy in Tanzania*



**Moderator:**

**Dr. Mathew Mindeme, CoICT**

Dr. Mindeme has 22 years of work experience in the field of ICT, both in the private and public sectors. He has a rich experience in strategic ICT governance and management. He is a lecturer in the Department of Computer Science and Engineering at the UDSM College of ICT (CoICT) and a registered ICT Consultant by the ICT Commission of Tanzania.

## PANELISTS



**Dr. Salome Maro**

*Lecturer, CoICT and Ag. Director, DICT*

Dr. Maro is a Lecturer in Computer Science and Engineering at the University of Dar es Salaam and currently the acting Director at the Directorate of ICT, UDSM. Her consultancy works include system analysis and design and she has worked extensively with Tanzanian government institutions. Dr. Maro's research focuses on software engineering and EdTech. Within Edtech she has worked with EdTechHub to support the Tanzania Institute of Education to develop and launch their LMS for teachers in Tanzania. Her recent projects are particularly on leveraging AI for educational content generation. She holds a PhD and an MSc in Software Engineering from the University of Gothenburg, Sweden.

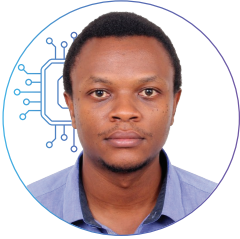


**Dr. Prosper Mafole**

*Chief Technical Officer, Airtel Tanzania*

Dr. Mafole is a telecommunication engineer with over 15 years of experience split between the teaching, research, operation, maintenance, regulation and management of telecommunication networks and services.

He has worked with Huawei technologies (T) Limited as RF planning & Optimization Engineer, Tanzania Communications Regulatory Authority (TCRA) as Spectrum Management Engineer, universities (including UDSM) as a Lecturer and Researcher, and a few other ICT companies. He has also worked in a number of government technical committees on ICT. Currently, he is serving as Chief Technical Officer at Airtel Tanzania. Dr. Mafole graduated from the University of Dar es Salaam in 2006 with a B.Sc. degree in Telecommunication Engineering. He also holds M.Sc. & PhD degrees in telecommunications obtained in 2010 and 2016 respectively.



## **Dr. Antony Kigombola** *Lecturer, CoICT*

---

Dr. Kigombola is a Lecturer, Researcher and Consultant at the University of Dar es Salaam. He holds a PhD in Computer and IT Systems Engineering. He has a natural passion for computers, software and new technologies such as Artificial Intelligence, Machine Learning, Blockchain, Big Data, Internet of Things etc. Dr. Kigombola has over 15 years of experience in teaching, research and consultancy. He has spent the best part of his career teaching at the University and providing consultancy services to various clients in and outside of Tanzania. His main areas of work include software engineering, blockchain technology and control systems.



## **Mr. Kalebu Gwalugano** *Chief Executive Officer, Neurotech*

---

Kalebu Gwalugano is a software engineer, machine learning engineer, and founder of Neurotech Africa, an AI company that develops conversational AI solutions for African languages. He is passionate about democratizing natural language processing tools for African languages and empowering developers to build chatbots and everyday experiences tailored to the local context and culture. He is also an open-source contributor, speaker, and advocate for AI in Africa





# Strategic Partnership Dialogue



## Transforming Ideas into Impact:

*The Role of University-Industry Collaborations*

### Moderator:

**Dr. Kelvin Munisi, CoSS**



## PANELISTS



### Adv. Grace Joachim

*Managing Partner, Joachim & Jacobs Attorneys*

Ms. Joachim is a co-founder of Joachim & Jacobs Attorneys. She is decisive, action-oriented and results-driven. She has abundant experience in Banking and Finance, Probate & Administration of Estates and Corporate and Commercial Law. She also assists clients with precision and eloquence in Civil Litigation, Arbitration, Land and Conveyancing a few to mention.



### Mr. Joshua Naiman

*Partner (Insight & Strategy), Empower*

Joshua Naiman is the Partner at Empower and is also gatekeeper for all Strategy Development. With a robust background in organizational transformation, Joshua has been at the forefront of numerous optimization projects, utilizing multi-method data collection techniques to drive meaningful change. His approach is deeply analytical, combining quantitative and qualitative methods to gain comprehensive insights and inform strategic decisions. Throughout his tenure at Empower, Joshua has spearheaded initiatives that have significantly improved organizational efficiency and effectiveness. His leadership style is both collaborative and decisive, fostering a culture of continuous improvement and innovation. He works closely with cross-functional teams to align strategic goals with operational execution, ensuring that Empower's projects not only meet but exceed stakeholder expectations.



**Dr. Augustina Alexander**  
*Lecturer, CoET & Director, DICA*

---

Dr. Alexander is a Lecturer at the University of Dar es Salaam in the Department of Water Resources Engineering, College of Engineering and Technology. She is currently the Director of Internationalization, Convocation and Advancement at UDSM. Dr. Alexander holds a B.Sc. Hons. Civil and Water Resource Engineering, M.Sc. Water Resource Engineering both from the University of Dar es Salaam and a PhD in Civil Engineering from South Africa. She is a registered (PEng) Civil and Water Resources Engineer with about 15 years' experience in teaching, consultancy and research. Dr. Alexander has majored in hydrology and hydrogeology; and conducted various studies on impacts of landuse/cover and climate change on water resources. Her current research interest is on transdisciplinary approach in water resources management, groundwater-surface water interaction, groundwater regime in mining areas as well as pollution monitoring and control. Her research works have been recognized and published in international peer reviewed journals as well as presented in national and international conferences.



**Mr. Jason Yi**  
*Board Director, Huawei Technologies  
(Tanzania) Co. Ltd.*

---

With 24+ years of work in the ICT industry, Mr. Jason Yi started as a software engineer after graduating his Master degree from Huazhong University of Science and Technology, China, and had worked on multiple positions ever since. Since 2019, he has been working in the field of future technologies trends and risk mitigation with the standardization approach on Trustworthy AI and cyber security.



## Day 1: WEDNESDAY, 5<sup>TH</sup> June 2024 - Opening Ceremony

### TIME

08:00 - 09:00

09:00 - 09:05

09:05 - 09:30

09:30 - 09:35

09:35 - 09:45

09:45 - 10:00

10:00 - 10:05

10:05 - 10:20

10:20 - 10:35

10:35 - 10:40

10:40 - 11:00

11:00 - 11:30

11:30 - 11:45

11:45 - 16:30

Event	Responsible
Registration	Secretariat
Announcements	Director of Ceremony
Arrival of Guest of Honour, Visiting Pavilions by Guest of Honour and Invited Guests	UDSM Management
National Anthem and University Song	University Choir
Welcoming Remarks	Prof. William A.L. Anangisy, Vice Chancellor
Introductory Remarks and Overview of Research and Innovation activities at UDSM	Prof. Nelson Boniface, Deputy Vice Chancellor -Research
Inviting Prof. Bonaventure Rutinwa, Deputy Vice Chancellor-Academic to recite biographies of Keynote Speakers	Director of Ceremony
Topic: <i>Building Partnerships for Water Innovation: A Business Perspective</i>	Director of Ceremony
<b>Keynote Speaker 1: Ms. Fauzia Malik, CEO - Cool Blue &amp; Tembo Tiles</b>	
Topic: <i>Advances in Water Resource Management: Lessons from Academia</i>	Director of Ceremony
<b>Keynote Speaker 2: Prof. Joel Nobert Kirway, Associate Professor of Water Resources Engineering and Hydrology, UDSM</b>	
Entertainment	University Choir
Inviting the Guest of Honour to Deliver Opening Speech	Prof. William A.L. Anangisy, Vice Chancellor
Opening Speech and Launching the 9th UDSM Research and Innovation Week	Hon. Jumaa H. Aweso (MP), Minister for Water
Group Photo	UDSM Photographer
Exhibitions	All Participants

**END OF DAY 1**

**Hekima ni Uhuru**  
[www.udsm.ac.tz](http://www.udsm.ac.tz)

Day 2: THURSDAY, 6<sup>th</sup> June 2024

## TIME

08:00 -

08:30 - 09:00

09:00 -

11:30 - 12:45

12:45 - 13:00

13:00 - 14:00

14:00 -

-

-

14:30 - 14:40

14:40 - 15:40

Event	Responsible
Exhibitions	All participants
Registration	Secretariat
Introducing the Exclusive Symposium – Theme: <i>AI in Building the Digital Economy in Tanzania</i>	
<b>Panel Discussion</b>	<b>Moderator:</b>
Panelist 1: Dr. Salome Maro, Lecturer, CoICT and Ag. Director, DICT	Dr. Mathew Mndeme, CoICT
Panelist 2: Dr. Prosper Mafole, Chief Technical Officer, Airtel Tanzania	
Panelist 3: Dr. Antony Kigombola, Lecturer, CoICT	
Panelist 4: Mr. Kalebu Gwalugano, Chief Executive Officer, Neurotech	
Discussion and Wrap up	<b>Moderator:</b> Dr. Mathew Mndeme, CoICT
Group Photo	UDSM Photographer
Lunch	Director of Ceremony
Introducing the Strategic Partnership Dialogue – <i>Transforming Ideas into Impact: The Role of University-Industry Collaborations</i>	
	Director of Ceremony
Welcoming Remarks	Prof. Nelson Boniface, <b>Deputy Vice Chancellor - Research</b>
A Word from the VC	Prof. William A.L Anangisye, <b>Vice Chancellor</b>
Entertainment	University Choir
<b>Panel Discussion</b>	
<b>Panelist 1:</b> Adv. Grace Joachim, Managing Partner, Joachim & Jacobs Attorneys	
<b>Panelist 2:</b> Mr. Joshua Naiman, Partner (Insight & Strategy), Empower	
<b>Panelist 3:</b> Dr. Augustina Alexander, Senior Lecturer, CoET & Director, DICA	
<b>Panelist 4:</b> Mr. Jason Yi, Board Director, Huawei Technologies (Tanzania) Co. Ltd.	
	<b>Moderator:</b> Dr. Kelvin Munisi, CoSS

Day 2: THURSDAY, 6<sup>th</sup> June 2024

## TIME

15:40 - 16:40

Event	Responsible
Discussion and Wrap up	Moderator

16:40 - 17:00

Vote of Thanks	Prof. Bernadeta Killian, Deputy Vice Chancellor-Planning, Finance and Administration
----------------	--

17:00 - 17:10

Group Photo	UDSM Photographer
-------------	-------------------

END OF DAY 2

Day 3: FRIDAY, 7<sup>th</sup> June 2024

08:00 - 09:00

Event	Responsible
Registration	Secretariat

09:00 - 14:00

Exhibitions	All participants
-------------	------------------

14:00 - 14:10

Announcement	Director of Ceremony
--------------	----------------------

14:20

Arrival of Guest of Honour	Prof. Carolyne Ignatius Nombo, Permanent Secretary, Ministry of Education, Science and Technology of Tanzania
----------------------------	--

14:20 - 14:30

Overview of Exhibitions and Awards	Prof. Nelson Boniface, Deputy Vice Chancellor – Research
------------------------------------	--

14:30 - 14:40

Welcoming Remarks	Prof. William A.L. Anangisye, Vice Chancellor
-------------------	--

14:40 - 15:00

Closing Speech	Guest of Honour
----------------	-----------------

15:00 - 16:00

Presentation of Awards on selected Innovation, Research, Industry Linkage and Scholarly Publications	Guest of Honour, Sponsors and UDSM
--	---------------------------------------

16:00 - 16:15

Entertainment	University Choir
---------------	------------------

16:15 - 16:25

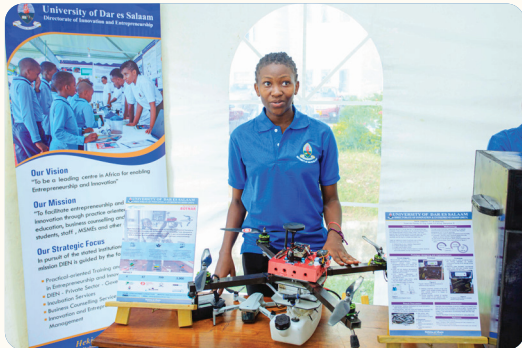
Vote of Thanks	Dr. Mussa Mgwatu, Director of Research and Publication
----------------	--

16:25 - 16:30

Group Photo with Guest of Honour	UDSM Photographer
----------------------------------	-------------------

16:30

END OF EVENTS	ALL
---------------	-----



Hekima ni Uhuru

University of Dar es Salaam

Mwalimu Julius Nyerere Mlimani Campus

P.O. Box 35091

Dar es Salaam - Tanzania

[www.udsm.ac.tz](http://www.udsm.ac.tz)