



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

Theme: Research and Innovation for Societal Impact in Tanzania

24<sup>th</sup> - 26<sup>th</sup> MAY, 2022 Venue: University of Dar es Salaam Library





Hon. Kassim Majaliwa Majaliwa (MP)

Prime Minister of the United Republic of Tanzania

Guest of Honour - Opening



**Prof. Adolf Mkenda (MP)** 

Minister of Education, Science and Technology
Guest of Honour - Closing





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



**Prof. Bernadeta Killian**Deputy Vice Chancellor - Research

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#### **UNIVERSITY OF DAR ES SALAAM**

#### **INTRODUCTION**

Since 2015, the University of Dar es Salaam (UDSM) has been organizing the Research and Innovation Week (RIW) formerly known as Research Week and abbreviated as RW for showcasing competitive research results. The main drive is to bring together diverse groups of researchers to share and further scholarly and creative research work and highlight some of their best research outputs and innovations. UDSM RIW events are normally carried out first at Unit level, followed by a University-wide level. During the events, the University community recognises students, faculty, departments, schools, colleges and institutes for their cutting edge scholarly and creative research activities through a series of discussions, forums, symposia, exhibitions, seminars, workshops, and award ceremonies. In general, the 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 creative innovations.

In addition, the RIW events have been mostly in research without paying a great deal of attention to innovation which also plays a significant role in knowledge exchange for improved processes, products and services. Given that the current effort of 6<sup>th</sup> Government under the leadership of President Samia Suluhu Hassan to improve the living standards of Tanzanians, this year's RIW focuses on Research and Innovation for Societal Impact. At this juncture UDSM continues to stay at the forefront of producing quality research results and ensure that the innovations that come out of research efforts are turned into new processes, products and services.

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#### **UNIVERSITY OF DAR ES SALAAM**



## PROF. EVELYNE ISAACK MBEDE

Keynote Speaker

Prof. Evelyne Isaack Mbede is an Associate Professor of Earth Sciences at the School of Mining and Geoscience (SoMG), Department of Petroleum Science and Engineering, University of Dar es Salaam. She is a native of Njombe in Tanzania and she established strong credentials for research in basin tectonics and earthquake risks, and for connecting the work to communities in those zones.

She is a holder of PhD (Natural Sciences) from Technical University Berlin (1993) and MSc. (Petroleum Geology) from Imperial College, University of London (1984) and BSc. (Geology) from UDSM (1982). After graduating with a first-class degree, in 1982 she was employed as a Tutorial Assistant by UDSM, rising through ranks to Associate Professor in 2001. She has published more than 50 communications in mainly but not exclusively peer reviewed Journals.

Between 2007 and 2016 she had worked as Director of Science, Technology and Innovation (STI) within the Tanzanian Government charged with the responsibility of spearheading STI in the country. Prior to joining the Ministry, Prof. Mbede had worked with UDSM for over 20 years where she served various academic and administrative positions rising to the position of Dean of the Faculty of Science, in the current College of Natural and Applied Sciences (CONAS).

Prof. Mbede has served in various boards and equivalent positions including the Governing Board of the International Atomic Energy Agency in Vienna Austria; the Board of Directors for Tanzania Industrial Research and Development Organisation (TIRDO), the Board Tanzania Atomic Energy Commission (TAEC), Commission of Science and Technology COSTECH, the Board of the e-Government, Council of Sokoine University of Agriculture (SUA), Council Ardhi University (ARU), Council Dar es Salaam Institute of Technology (DIT) and Council Mbeya University of Science and Technology (MUST). Currently she is a member of Board of Directors of the Rural Water Supply and Sanitation Agency (RUWASA), Council of University of Iringa (UOI) and the Award Committee of Mwalimu J. Nyerere Memorial Fund awarded by the Bank of Tanzania (BOT).

Prof. Mbede is the recipient of the prestigious 2019 TWAS-C.N.R. Rao Award for Scientific Research for her significant contributions to Earth science and reduction of natural disasters. She is a member of the Organization for Women in Science for the Developing World (OWSD) and a fellow of the Tanzania Academy of Sciences. Prof. Evelyne Mbede is committed to science as a form of public service, and to having a positive impact.

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#### **UNIVERSITY OF DAR ES SALAAM**



## MR. SEIF ALI SEIF Keynote Speaker

Mr. Seif is the Chairman of Super Group of Companies. He is a person of the highest level of integrity who has earned a highly distinguished reputation within Tanzania and outside Tanzania for his contribution and accomplishments in socio-economic development matters. Super Group of Companies is renowned as one of the leading business groups in Tanzania that have been actively serving the Entire East African market for over 40 years in the field of Automotive Industry, High-end Logistics Solution, Pipe Manufacturing and Agro-industry of Tanzania.

Mr. Seif has devoted and dedicated his life journey to investing in a sustainable socio-economic infrastructure of Tanzania that significantly contributes to the country's economic development and creates massive employment opportunities as well as economic value chain. He has demonstrated great quality of being a practical, transformative and result oriented leader. He is currently serving as a Chairman of the Board of Directors of the Group, which consist of Superdoll Trailer Manufacture Co. Limited, Super Star Forwarders Co. Limited, Pipe Industries Co. Limited, Kagera Sugar and Mtibwa Sugar Estates Limited.

Mr. Seif is known for his unique strategic pioneering of a remarkable turnaround of Kagera Sugar and Mtibwa Sugar Agricultural Projects from ground zero after privatization to become one of the role model and leading Agriculture projects in the East African Region. As a Chairman of Superdoll, Mr. Seif is known to have initiated a role model partnership with Global Tyre Icon - Michelin France, in the last 30 years, which has transformed the landscape of Tanzania's tyre industry massively through the state of the art and innovative tyre products and technologies. Michelin invested heavily in Research and Development to provide unique tyre solutions specifically for Tanzania's Geographical conditions. In addition to that, Mr. Seif, was appointed as a member of Michelin Importers Advisory Council based in Paris - France. This is one of the highest body consisting of 7 members globally advising Michelin on Strategic Development. Mr Seif has also served as Chairman of the Tanzania Truck Owners Association for 15 consecutive years. Through his distinguished leadership, the Association has grown to be robust and influential in the Transport Industry of Tanzania and during his leadership, the Association was rated as one of the best Association the East and Southern Africa, by the Federation of East and Sourthern African Road Transport Associations (FESARTA).

Through his commitment to Public-Private Partnership, Mr. Seif has been appointed at different occasions to serve as a board member of the Road Fund Board of Tanzania, the Board of Directors of Tankoads, and the Board of Directors of Tanzania Investment Center (TIC). Mr. Seif is also a Certified Speaker, Trainer and Coach under the John Maxwell Global Institute of Leadership and empowerment based in the United States of America. Based on his ability to demonstrate consistent leadership integrity, Mr Seif was Awarded the highest National honour in the nation of France, known as "National Order of the Legion D'Honneur" by the President of the Republic of France in June 2015 in respect of his outstanding contribution, commitment and integrity in economic development.



## **Strategic Partnership Dialogue**

Maximising University – Industry Linkage in Research and Innovation for Societal Impact

## Moderator: Dr. Remidius Ruhinduka, Lecturer-School of Economics





**Dr. Catherine Masao**Researcher, University of Dar es Salaam

Dr. C.A. Masao is a Lecturer, Researcher and Consultant employed by the University of Dar es Salaam, Institute of Resource Assessment (IRA) since 2005. Dr. Masao is an expert in the area of Biodiversity Management, nature conservation, ecosystem services, climate change & ecosystem management. Dr C.A. Masao has taken part in a number of assignments that relates to her expertise including (just to mention a few); National studies for the SADC Trans-boundary water resources management programme, the long term research on Afro-alpine Sky Islands": Genetic Versus Taxonomic Biodiversity, Biodiversity Conservation and implications of Climate Change that was conducted on high mountains of eastern Africa (Kenya, Uganda, Ethiopia and Tanzania), Cost Benefit and viability analysis of the UNDP Poverty-Environment Initiatives in Tanzania, midterm and terminal evaluation of the WWF projects on Improving Natural Resources use on the eastern side of Udzungwa Mountains National Park. Dr. Masao was appointed by the then Vice President of the United Republic of Tanzania (currently the president of URT), Her Excellence Samia Suluhu Hassan to be a member of the National Taskforce for invasive species in Tanzania; where she was elected as a Secretary to the team. Since 2020, Dr. Masao has been a Biodiversity Advisor for the ongoing TRC's SGR construction activities from Dar es Salaam to Maktopora, Maktopora to Isaka Mwanza, Tanzania. She is an appointed Board Member of the National Environmental Management Council (NEMC) since December 2018. Dr. Masao is a Board Chair for the Climate Action Network Tanzania (CAN-Tanzania), a member of the UNDP - Small Grants National Steering Committee. She is one of the Lead Authors for Chapter 9 (Africa Chapter) of the Working Group II of the IPCC Sixth Assessment Report (AR6). Dr. Masao is also a member of the Regional Plant Expert Group of the IUCN Red Listing in East Africa.



Ms. Miranda Naiman
Founder & Managing Partner, Empower Ltd.

Miranda describes herself as 'an unstoppable force for good' and is the Founder of Empower - a disruptive Consulting Firm that passionately provides Talent, Advisory and Insight services to clients across the African continent. She is a Forbes-acclaimed, Tanzanian Entrepreneur with an academic

background in Education and Theatre for Development who strategically transferred her skillset to the private sector in 2009 when she founded Empower. She relishes connecting with nature by spending time on the beach, hiking mountains and sharing quality moments with family enjoying great food. Miranda is Board Director of CRDB Bank Plc and Board Chair of the African Women Entrepreneurship Cooperative that empowers hundreds of women from across the continent. She is Board Vice Chair of CCBRT Hospital and an active member-leader of the Entrepreneurs' Organization where she serves as Incoming Chair of Global Learning. Miranda recently won the Tanzania Consumer Choice Award for 'Most Preferred Female CEO' and is a Member of The Africa List – a select community of next generation CEOs in Africa's most exciting growth markets.





Ms. Fauzia Malik
Chief Executive Officer, Super Meals Limited (Cool Blue)
& Tembo Tiles Limited

Fauzia Malik is the Chief Executive Officer of Super Meals Limited, producers of Cool Blue Pure Drinking Water. The company, a family business, was formed in 1997 before Fauzia taking over the management in 2010. Since then, Fauzia restructured financial control and distributions systems and did a staff overhaul that reduced costs and increased 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. With the introduction of new machinery and technology, Cool Blue was able to expand its customer base that called for the construction of a new, larger, and modern factory located in Vianzi to meet the growing demand. Fauzia's vision for the company is to become the leading company in serving Tanzania with timely, affordable, safe, and environmentally sensitive drinking water. In addition to being CEO of Super Meals Limited, Fauzia runs multiple other businesses. She is the Managing Director of Tembo Tiles Limited, a leading manufacturer of construction materials, specializing in paving blocks and ready-mix concrete. The company is registered as a "Class One" Specialist Contractor on Landscape and Paving works. In 2020 at the height of Covid-19, Fauzia launched a brand of activewear called Pure Fitness as a tool to encourage people to exercise for their physical and mental health. The brand offers high-quality and affordable activewear for both men and women and organizes a series of fitness events known as Pure Fitness Bootcamp to bring together and grow the community of fitness enthusiasts. Taking advantage of her extensive knowledge in beverage dispensing solutions and product distribution, Fauzia launched a brand of coffee vending machines, Pure Café in 2021. Pure Café offers professional coffee vending solutions to corporate clients. 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. Apart from empowering 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 Malik is a holder of a degree from Barat College of DePaul University with a Major in Computer Science and a Minor in Business Administrations and is currently in her 3rd Year of an Entrepreneur's Master Program at MIT.



Mr. Unguu Ramadhani Sulay Managing Director, Coca-Cola Kwanza Limited

Unguu joined CCK effective 28th June 2021, as the first Tanzanian Managing Director leading a Country with Management Team of all Tanzanian functional directors. Unguu has broad experience as a Finance Director and Company Secretary including serving as a board member of the Dar es Salaam Stock Exchange (DSE- 2017-2019). His most recent role was CFO & Company secretary for Plasco Ltd, and prior to that he served as Finance Director at Alliance One Tobacco, and Financial Controller at Tanga Cement. He started his career at Tanzania Cigarette Company where he held various roles of increasing responsibility with his last role as Financial Planning and Analyst Manager before joining Tanga Cement. He has a unique academic background as he studied Medicine for 2 years before pursuing his qualification as an Accountant. He holds both a Masters and Bachelors degree in Accounting and Finance from Mzumbe University in Tanzania. In addition he has professional certifications as chartered accountant (ACCA/CPA(T), he also graduated from a one year CEO Apprenticeship Program (CAP) facilitated by the CEO Roundtable of Tanzania in collaboration with Strathmore University Business School in Kenya. He is passionate about football and is an ardent supporter of Manchester United in the English Premier League and Yanga in the Tanzanian Premier League. His number one motivation is to witness the transformation of ideas into workable applications that solve imminent social challenges.



Registration 08:00-09:00 **Secretariat Announcements** 09:00-09:05 **Dean of Ceremony** Arrival of Guest of Honour, Visiting 09:05-09:30 Pavilions by Guest of Honour and Invited Guests **UDSM Management** National Anthem and University Song 09:30-09:35 **University Choir** Welcoming Remarks 09:35-09:45 Prof. William A.L Anangisye, **Vice Chancellor** Introductory Remarks and Overview of Research and 09:45-10:00 Innovation activities at UDSM Prof. Bernadeta Killian, **Deputy Vice Chancellor - Research** Inviting Prof. Bonaventure Rutinwa, Deputy Vice Chancellor-10:00-10:05 Academic to Recite Biographies of Keynote Speakers Helium Potential and Industrialisation Linkages for 10:05-10:20 National Development in Tanzania **Keynote Speaker:** Prof. Evelyn Mbede, Associate Professor in Earth Sciences, **University of Dar es Salaam** Enhancing University-Industry Linkage: Experience from 10:20-10:35 Manufacturing and Productive Sectors in Tanzania **Keynote Speaker:** Mr. Seif Ali Seif, Chairman, SUPER Group of Companies



10:35-10:40 10:40-10:45 10:45-10:55 10:55-11:30 11:30-11:35 11:45-16:30 **End of Day 1** 

Research and Innovation Week Song **University Choir** 

Inviting the Minister of Education, Science and Technology Prof. William A.L Anangisye, Vice Chancellor

Inviting the Guest of Honour to Deliver Opening Speech Hon. Prof. Adolf Mkenda (MP)
Minister of Education, Science and Technology

Opening Speech and Launching the 7<sup>th</sup> UDSM Research and Innovation Week

Hon. Kassim Majaliwa Majaliwa (MP) Prime Minister, United Republic of Tanzania

Group Photo

UDSM Photographer

Exhibitions **All Participants** 



08:00-09:00 09:00-16:30 09:00-09:10 09:10-09:30 09:30-09:40 09:40-12:40

Registration **Secretariat** 

Exhibitions

All participants

Strategic Partnership Dialogue - Maximising University - Industry Linkage in Research and Innovation for Societal Impact

Welcoming Remarks

Prof. Bernadeta Killian,

Deputy Vice Chancellor-Research

A Word from the VC

Prof. William A.L. Anangisye
Vice Chancellor

Entertainment University Choir

Panel Discussion

Moderator: Dr. Remidius Ruhinduka, Lecturer-School of Economics

> Panelist 1: Dr. Catherine Masao, Senior Researcher, UDSM:

TRC-UDSM Research Partnership on Standard Gauge Railway Project (SGR): A Model for Knowledge Co-creation

Panelist 2: Ms. Miranda Naiman, Founder and Managing Partner, Empower Limited:

A Partnership in Developing 21<sup>st</sup> Century Skills for UDSM Students: Generation Empower & UDSM

Panelist 3: Ms. Fauzia Malik, CEO Super Meals Limited (Cool Blue):

University-Industry Linkage: Opportunities and Challenges

Panelist 4: Mr. Unguu Ramadhani Sulay, Managing Director, Coca-Cola Kwanza Limited:

Societal Transformation Agendas and New Business Models in Tanzania: Lessons from University-Industry Engagements



Dr. Saudin Mwakaje,

13:20-13:30

Vote of Thanks

Prof. David Mfinanga

Deputy Vice Chancellor-Administration

**Chief Corporate Counsel and Secretary to Council** 

13:30-14.00

**Break** 

Symposium - Theme: Responding to COVID-19 with Research and Innovation: UDSM Mitigating Initiatives against COVID - 19

Discussion and Wrap up on Legal Framework for Partnership

14:00-15:30

Panel Discussion

Moderator: Dr. Ahmad Mohamed Makuwani, Assistant Director - Ministry of Health

#### Panelist 1: Dr. Clarence Mgina (CoNAS)

Fukiza UDANOL - COVID-19 Intervention through Valorization of Indigenous Knowledge

#### Panelist 2: Mr. Shagembe Magolanga (CoSS)

Preventive Measures against COVID-19 in the Context of Scarcity and Collective Culture in Tanzania

#### Panelists 3: Dr. Simon Marandu & Dr. Pendo Bigambo (TDTC)

Design and Fabrication of Automatic and Foot-activated Handwashing Machines and Production of Three-layer Hi-tech Face Masks for COVID -19

#### Panelist 4: Dr. Bernard Mbwele (MCHAS)

The Patterns of Lower Respiratory Tract Infections: A Sign of understanding COVID-19 Suspects in Mbeya, Tanzania

## Panelists 5: Dr. Kondrada Haule, Dr. Florence Kyaruzi & Dr. Innocent Rugambuka (DUCE)

Students' Perceptions of Teacher Support on Home-Based Assessment Packages for Learning during COVID-19 School Closure in Tanzania



Discussion and Wrap up

Moderator: Dr. Ahmad Mohamed Makuwani
Assistant Director - Ministry of Health

Group Photo

**UDSM Photographer** 



Registration 08:05-09:00 Secretariat **Exhibitions** 09:00-14:00 **All Participants** Announcement 09:05-09:30 **Dean of Ceremony** Arrival of Guest of Honour 14:20 Prof. Adolf Mkenda, **Minister of Education, Science and Technology** Overview of Exhibitions and Awards 14:20-14:30 Prof. Bernadeta Killian, **Deputy Vice Chancellor - Research** Welcoming Remarks 14:30-14:40 Prof. William A.L. Anangisye, **Vice Chancellor** Closing Speech 14:40-15:00 **Guest of Honour** Presentation of Awards on selected 15:00-16:00 Innovation, Research and Outreach **Guest of Honour** Entertainment 16:00-16:15 **University Choir** Vote of Thanks 16:15-16:25 Dr. Mussa Mgwatu, **Director of Research and Publication** Group Photo with Guest of Honour 16:25-16:30 **UDSM Photographer** 16:30 End of Event **All Participants** 























## Hekima ni Uhuru

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