



UNITED REPUBLIC OF TANZANIA
MINISTRY OF WATER
WATER INSTITUTE



**50 YEARS
ANNIVERSARY
AND 3RD
INTERNATIONAL
MAJI SCIENTIFIC
CONFERENCE**

2024
31ST JAN TO 2ND FEB

EVENT PROGRAMME



**Mlimani City
Dar es Salaam**

Word from the Rector of Water Institute



Dr. Adam O. Karia (PhD)
Rector of Water Institute

Dear Colleagues, it is with great honor I am extending this welcome note to you. It has been 50 years since the Institute established and mandated to produce experts and expertise for empowering the water sector. A lot has been achieved with our contribution to the sector, and we are grateful for the milestones attained, and acknowledge the contribution and support of YOU our stakeholders and partners.

Water Institute is a great team, and I am grateful to have such a team of devoted and committed staff, without whom 50 years celebrations wouldn't have been this meaningful.

Apart from having our graduates working and transforming the sector in various aspects of the water sector throughout the country and abroad, the International Maji scientific conference is another milestone being celebrated. In this third time a better conference experience is assured, and more so a platform where practice and academia meet and engage is provided. We are aware of the need for continuous learning, especially in this era of change and technological advancements. We welcome you all to make use of this opportunity to network, engage in presentations and discussions, learn and share experiences, and create partnerships and collaborations.

Cheers to a successful 2024 Maji Scientific Conference!
God bless you All!

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1. Introduction

Water Week in Tanzania has since 2019 incorporated an annual International scientific conference under Ministry of Water guidance, which for the past two years has been organized by the Water Institute, providing a platform for presentation and discussion of water research, practices, and experiences for the purpose of empowering and sustaining the sector toward the UN's 2030 goal of safe water and sanitation for all.

For 2024, bearing in mind the significant changes impacting global trends, the conference aims to provide a platform where practitioners within the sector will share their operational experiences in ensuring water and sanitation services are meeting needs of all as policy stipulates, and researchers will deliver their feedback responding to current sectoral prevailing challenges, and also take home introduced research areas of interest for future further work.

2. Conference Themes

2.1 Main Theme

The main theme of the conference is “Water and Sanitation in a Changing World.” Climate change threatens water systems through droughts and floods, endangering lives. Emerging technologies for water and sanitation management together with supportive laws and policies can counter these impacts. As Tanzania pushes to meet SDG 6 targets and Africa Agenda 2063 aspiration 1, researchers and practitioners are invited to share experiences, findings, innovations on water and sanitation at the 2024 International Maji Conference. Presentations are grouped according to conference sub-themes elaborated herewith.

2.2 Sub-themes

2.2.1 Water Supply and Sanitation Management (WSM).

Sustainable approaches, and systems to deliver clean, affordable water and sanitation services to communities, from source to tap and wastewater management are essential. The theme also will accommodate transformations and innovations in water harvesting approaches and resource governance. This sub-theme welcomes studies and practices that are linked to or related to the following topics:

- i. Water supply, sanitation and hygiene
- ii. Non-revenue water management
- iii. Digital technologies for water and sanitation management
- iv. Community engagement in water and sanitation
- v. Climate change adaptation in WASH
- vi. Financing management issues in WASH

2.2.2 Water resources management (WRM)

Maintaining a sufficient supply for human needs and environmental requirements, water resources management entails the sustainable allocation, development, and conservation of surface and groundwater resources. This sub-theme welcomes studies and practices that are linked to or related to the following topics:

- i. Water, energy, food, ecosystem nexus
- ii. Technological innovations in water resources management
- iii. Transboundary water management

2.2.3 Water quality management (WQM)

Water Quality Management involves monitoring, protecting, and improving the quality of drinking water, freshwater resources, and receiving waters through pollution control, treatment, preventive management, and emerging technology; submissions should align with these focus areas. This sub-theme welcomes studies and practices that are linked to or related to the following topics:

- i. Water quality management
- ii. Nature-based solutions and indigenous technology
- iii. Governance for water quality management

3. Plenary Session

Opening Ceremony



Guest of Honour: His Excellency Dr. Jakaya Mrisho Kikwete, Former President of the United Republic of Tanzania.

Keynote Address

Keynote Presenter

Professor Dr. Eddy J. Moors is Rector of IHE Delft Institute for Water Education. He also holds the position of professor “Water and Climate” at VU University, Amsterdam, the Netherlands. Moors started his career at the World Meteorological Organization working in Africa and the Caribbean. Before coming to Delft, he worked at Wageningen Environmental Research. Moors is among others chair of the Global Network of Water Museums (WaMuNet), member of the board of trustees of the Just Digit Foundation, chair of the SENSE research school, member of the board of governors of the World Water Council and chair of the Stakeholder Advisory Board of Water4All. He is associated editor of the Elsevier journal “Environmental Science and Policy” as well as member of the editorial board of “Climate Services” also of Elsevier.



Moderator - Panel discussion

Dr. Jesper Katomero is an experienced researcher and consultant on governance and accountability based in Tanzania. His research and consultancy work is focused on the politics of resources governance from the perspectives of citizens, communities, CSOs and governments and how this has an impact on sustainability and accountability. Jesper has rich experience in conducting baseline surveys and evaluation studies in the governance sector in Tanzania, including over 10 years of experience in engaging with the CSO's, the Government and International Organisations. His work has been funded by the Netherlands Organization for Scientific Research—Science for Global Development (NW-WOTRO), Hewlett Foundation, Governance and Local Development Institute (GLD), University of California, Berkley Evidence in Governance and Politics (EGAP) network and the UK Department for International Development (DFID).



Panelists (Keynote presentation discussants)

Eng. Mwajuma J. Waziri is the Deputy Permanent Secretary of the Tanzania's Ministry of Water with a vast portfolio of overseeing the complete spectrum of implementation of water projects. Eng. Mwajuma Waziri holds Master's degree in Water Resources Engineering from University of Dar es Salaam and is a registered Professional Engineer. Prior to the current post, she served as the Assistant Director for Water Supply and Sanitation from 2020 to 2023 where she managed multi-million dollars mega water supply projects across the country.



Eng. Mwajuma Waziri is a seasoned Tanzanian Water Resources Civil Engineer with wealth of experience spanning over a decade. Specializing in water engineering, she commands comprehensive set of skills that include detailed engineering design, technical specifications, construction works, tendering as well as evaluation aligning seamlessly with both international and local standards. Being a teamwork inspirational and strategist leader, Eng. Mwajuma Waziri has undertaken multiple leadership roles in multistakeholder-complex projects as well as high-level tasks that successfully came to accomplishments.

Dr. Masudi Senzia is a Professional Engineer who has worked for almost 30



years in Education and Water Sectors in Tanzania. He has practical experience in civil engineering and sanitation ranging from planning, design, supervision of construction works as well as project management. He has gained extensive knowledge and experience in particular in the water sector through working, interaction with professionals of various disciplines at different levels including the central and local governments, local and international agencies, the private sector as well as non-governmental organizations working in the water sector. He worked as

Research coordinator for Resource Oriented sanitation, a European Union funded research project hosted by the then Arusha municipal. Dr Senzia has published a good number of papers in the areas of wastewater treatment/sanitation especially in waste stabilization ponds. He previously worked as Lecturer and later promoted to the Management level at Arusha Technical College (ATC), one of the Public Technical and Vocational Education Training Institutions responsible for training of Artisans, Technicians and Engineers in various fields.

Eng. Dr Senzia is currently Environmental and Social Management Manager of Rural Water Supply and Sanitation Agency (RUWASA), which commenced its operations officially on 1st July 2019 to oversee Water Service in Rural areas. The establishment of RUWASA was part of reforms in water sector championed by the Government of United Republic of Tanzania to improve the rural water sub-sector. Dr Senzia is Currently serving as a Board Member (MAB) for Water Institute.

Eng. Dr. Dickson K. Gidion is a Lecturer of the Water Institute, Consulting



Engineer, Associate Editor of Journal of Water Resources, Engineering, Management and Policy (JWEMPO), reviewer of Journal of Cleaner Production (JCLP), Utilities Policy (JUIP) and Water Resources Management (WRM). He has a solid working experience of over 15 years in the Water Sector. He is a Civil Consulting Engineer specialized in water, registered by the Engineers registration Board (ERB) of Tanzania under the WI Consulting Bureau LTD and a Researcher with publications in reputable journals. Generally, Eng.

Dr. Dickson K. Gidion research career major in utilities regulation, water quality management, non-revenue water management, data envelopment analysis (DEA) and operational research, and Consultancy work major in water system planning, water system design, construction management and operation management.

Mr. Robert K.M. Sunday, fondly known as Sunday is an Assistant Director of Water Resources (Transboundary Waters) in the Tanzania's Ministry of Water. Mr. Sunday holds a Postgraduate Diploma in Leadership (202 –2022) from UONGOZI Institute (Tanzania) and Aalto University Executive Education (Finland), Master of Science Degree in Water Management-specialization in Water Resources Management (2011-2023) from UNESCO-IHE Institute for Water Education, Delft- the Netherlands; and Bachelor of Arts in Geography and Environmental Studies with honours (2006-2009) from University of Dar es Salaam, Tanzania.



Mr. Sunday manages a number of international portfolios as follows: Co-Chair of the Joint Technical Committee of the Joint Songwe River Basin Commission (SONGWECOM) Tanzania and Malawi; Member of Technical Advisory Committee of Nile Basin Initiative (10 countries); Member of Technical Committee of Zambezi Watercourse Commission (8 countries); Member of Technical Advisory Committee of the African Ministers' Council on Water (54 countries); and National Focal Point of the United Nations Economic Commission for Europe (UNECE) on the 1992 Water Convention on the Protection and Use of Transboundary Watercourses and International Lakes among others.

With thirteen years' experience, Mr. Sunday is a seasoned expert in hydrology and water resources management, transboundary water management and cooperation, and passionate with institutional strengthening, capacity building, skills development and professional and organizational leadership. He is increasingly developing devotion in affairs of resource mobilization.

4. Technical Workshops

Workshop 1: Rainwater Harvesting and Management as Climate Change Adaptation in East Africa

Speakers: Eng. Han Heijnen and Mr. Alfred Tobiko



Han Heijnen holds a master's degree in sanitary engineering from Delft University, the Netherlands. Since 1977 he lived in Asia and Africa working in water supply, sanitation and public health. In the early days of his career, water was often still sufficient although quality and service needed development. Since then, population growth, urbanization and climate change have started to affect the reliability and seasonality of water resources. Han Heijnen started developing rainwater solutions

in rural water supply in Sri Lanka in 1995 as part of a World Bank investment program and has gradually promoted the importance of rainwater harvesting for water security globally.

He has worked for the Governments of Nepal and Sri Lanka, for the World Health Organization, UNICEF, and several NGOs and knowledge institutes. Since 2015 he is the President of the International Rainwater Harvesting Alliance, based in Geneva.



Tobiko completed his BA Commerce (accounting) from Egerton University, Kenya. He joined Clean Water – Healthy Village Kenya and became its Director in 2018. The CWHV Kenya NGO operates from Narok County, (Olekoros) in South-West Kenya, where it runs a training centre and organizes its teams of masons. In the last few years over 350 rainwater harvesting systems have been built using the Calabash cistern as storage. Alfred Tobiko and his team have provided international training to masons in Serengeti, Tanzania and

Kasese, Uganda. Training of a Rwanda NGO is being prepared.

Workshop 2: Decentralised storm water management – the need of good maintenance

Speaker: Prof. Dr. Ing. Wolfgang Dickhaut



Prof. Dr.-Ing. Wolfgang Dickhaut is head of the research group “Environmentally sound Urban and Infrastructure Planning” (USIP) at HafenCity University Hamburg (HCU). Currently he is Visiting Professor at ARDHI UNIVERSITY (Dar es Salaam, Tanzania). USIP deals with different instruments and contents of the infrastructure and environmental planning. The objective of the research was and is to develop, in collaboration with

and for planning practice, current and applicable guidelines for a more effective use of environmental planning knowledge. The integration of infrastructures in the urban planning context is a special field of work of the working group. To do this, green infrastructure was build and monitored, to evaluate and assess the impacts for the urban neighborhoods. The team of USIP is interdisciplinary. All research activities are characterized by interdisciplinary tasks and actors from different disciplines. USIP is currently and since 2001 active in various research projects for climate adaptation of water management, e.g. Blue Green Infrastructure, Water Sensitive Urban Design, Decentralized Sanitation, Building Greenery.

Workshop 3: Significance of water utility creditworthiness as means of alternative projects financing: case study of Tanga UWASA

Speaker: Eng. Geoffrey Hilly



Geoffrey Hilly is a Civil Engineer and Managing Director at Tanga Urban Water Supply and Sanitation Authority with over nineteen years of working experience in water related water projects and within the water sector helping Tanzanians with water service infrastructures and service provision. Geoffrey posses a bachelor degree in Civil Engineering from University of Dar es Salaam, Tanzania since 2004 and master degree in Urban Water

Engineering and Management as a joint program from IHE Delft Institute for Water Education, the Netherlands and Asian Institute of Technology, Thailand since 2017.

5. Conference Abstracts

A total of 50 abstracts have been received from professionals of varying expertise, working within and out of sector. These were reviewed by experts, and those qualified will be presented during the conference, either orally (physically or virtually) or through poster. Post conference, authors are welcomed to submit their full paper to the special issue of the Journal of Water Resources, Engineering, Management and Policy (JWEMPO), www.jwemppo.ac.tz. More details of the abstracts and authors are available in the provided book of abstract.

6. Conference Deliverables

The organizing committee will ensure that conference content is well captured and later on compiled so as to allow retrieval by participants post conference, but also consumption by the general public beyond borders and in future. Hence rapporteurs are fully engaged and well equipped, and the following are expected deliverables:

- Conference proceedings
- Conference report which will include all key issues gathered from the presentations, and evaluation of the conference.
- Publication in special issue of scientific conference of JWEMPO journal (www.jwemppo.ac.tz)

7. Young Researcher Awards

The conference will acknowledge some of participants that have remarkably added value to the scientific community by awarding Young Scientist/Researchers (under 35) with Best Presenter' Awards under each sub-theme and Poster. The Awards aim at motivating innovative research and recognizing their significant contributions to the scientific community in relation to the conference themes. Proper adjudication procedures will be followed to identify outstanding young individuals.

8. Cocktail Party

The conference organizing committee understands that there is always a healthy way of ending an enriching and empowering experience like that brought forth by a scientific conference. Henceforth, you are all welcomed to a cocktail party scheduled to take place in the evening of 2nd February 2024. Feel free to dress up in an evening attire, and dance yourself through the night, while continuing to network.

9. Appreciation

Reviewers

The conference organizing committee highly appreciates the role played by reviewers (listed in table below), from whose commitment and devotion we have a compilation of great informative and empowering presentations.

S/N	Name	Organization, Country
1	Dr. William Senkondo	Water Institute, Tanzania
2	Dr. Doglas Mmasi	Water Institute, Tanzania
3	Dr. Magori Nyangi	Water Institute, Tanzania
4	Dr. Kessy Kilulya	University of Dar es Salaam, Tanzania
5	Dr. Leonard Sibomana	Ardhi University, Tanzania
6	Dr. Fanuel Ligate	University of Dar es Salaam, Tanzania
7	Dr. Getachew Dagnaw	Addis Ababa University, Ethiopia
8	Dr. Mwemezi Lwiza	The Nelson Mandela African Institution of Science and Technology, Tanzania
9	Dr. Lusajo Mfwango	Water Institute, Tanzania
10	Dr. Eunice Makungu	Water Institute, Tanzania
11	Dr. Irene Tarimo	Open University of Tanzania, Tanzania

12	Dr. Minu Andrew	Tanzania Commission for Science and Technology, Tanzania
13	Dr. Mwakalesi Alinanuswe	Sokoine University of Agriculture, Tanzania
14	Dr. David Gwapedza	Rhodes University, South Africa
15	Dr. Innocent Chomba	University of Zambia, Zambia
16	Dr. Edmund Mutayoba	Water Institute, Tanzania
17	Dr. Gislai Kifanyi	Mbeya University of Science and Technology, Tanzania
18	Dr. Sahani Nkinda	Water Institute, Tanzania
19	Dr. Tulakemelwa Ngasala	Michigan State University, USA
20	Dr. Shija Kazumba	Dar es Salaam Institute of Technology, Tanzania

Organizing Committee: IMSC 2024



Dr. Adam O. Karia
Rector



Dr. Tulinave B. Mwamila
Chairperson



Dr. William C. Senkondo
Ass. Chairperson



Ms. Ghanima H. Chanzi:
Marketing & Logistics
Committee



Ms. Josephine J. Gobry:
Invitation & Fundraising
Committee



Mr. Dotto A. Salim:
Invitation & Fundraising
Committee



Dr. Magori J. Nyangi:
Abstract & Programme
Development Committee



Dr. Eunice J. Makungu:
Abstract & Programme
Development Committee



Ms. Lightness E. Mrema:
Abstract & Programme
Development Committee

“Welcome all to that platform where practitioners, researchers, academicians, development partners; meet, interact, network, and connect to engage in addressing water and sanitation related societal problems.”

Sponsors



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Timetable

Master of Ceremony: Mr. Ibrahim A. Wikedzi & Eng. Nancy Mduma

Day 1: Wednesday 31th January, 2024
08:00 – 09:00 Registration of Participants & Welcoming Tea
09:00 – 11:00 Workshops & Side Events
Workshop 1: Rainwater harvesting and management as climate change adaptation in East Africa; Eng. H. Heijnen (IWA-RWHM/WI/IRHA)
Workshop 2: Decentralized storm water management – the need of good maintenance; Prof. Dr. Ing. W. Dickhaut (ARU/HCU)
11:00 – 11:20 Arrival of Guest of Honor and Tour in Exhibition booths
11:30 – 13:20 Official Opening
Singing of the Tanzanian National Anthem (5 min)
Singing of the East African Anthem (5 min)
Prayer/Dua (5 min)
Introduction of Guests: Dr. Adam O. Karia – Rector, WI (5 min)
Welcoming Speech & WI 50 years Documentary: Dr. Adam O. Karia – Rector, WI (20 min)
Special Greetings (WI MAB/PS/Minister/RC /DC) (20 min)
Official Opening of the WI 50 years celebration and IMSC 2024: H.E. Dr. Jakaya Mrisho Kikwete (Guest of Honor) (20 min)
Greetings from Sponsors (20 min)
Rewards & Recognition: Secretariat (5 min)
Vote of Thanks: WI Alumni (5 min)
13:20 – 13:45 Group photo
13:45– 15:00 Lunch break /Tour in Exhibition booths & Posters

15:00 – 16:00

Workshop/Side event

Workshop 3: Significance of creditworthiness as means of alternative project financing; Eng. G. Hilly (TANGA UWASA)

16:00 – 18:00

PLENARY SESSION

Keynote Address: Professor Eddy Moors, Rector - UNESCO IHE
Theme: Water and Sanitation in a Changing World

Panel Session

Moderator: Dr. Jasper Katomero - UDOM

- i. Panelist 1: Eng. Mwajuma J. Waziri – MoW
- ii. Panelist 2: Eng. Dr. Dickson G. Kasese – WI
- iii. Panelist 3: Eng. Dr. Masudi Senzia – RUWASA
- iv. Panelist 4: Mr. Robert K. Sunday – MoW

18:00 – 18:30

Evening Tea/Tour in Exhibition booths & Posters

18:00

End of day 1

Day 2: Thursday 1st February, 2024

08:00 – 09:00

Registration of Participants & Welcoming Tea

09:00– 13:20

PAPER PRESENTATIONS AND DISCUSSIONS (Oral & Virtual)

Sub-Theme: Water Resource Management (WRM)

Sessions Chair: Clarence Kisiki; Lusajo Mfwango; Doglas Mmasi; Peter Mwidima

Rapporteurs: Lightness Mrema; Josephine Gobry; Kelvin Ndai; Musiba Musiba

S/N	Title	Authors
1.	Water Resources Management Practice: The case of Lake Rukwa Basin	Grace Chitanda
2.	Niche Dimensions of Predatory Fish in Two Estuaries with Different Degrees of Anthropogenic Disturbances: Case of Wami and Pangani Rivers	Theresia J. Lyasenga, Prosper L. Mfilinge, Daniel A. Shilla, John A.M. Mahugija
3.	Application of Business Continuity Model for Sustainable Water Management System in Rural Areas	Eligi R. Shayo
4.	Impacts of Bottom Valley Cultivation on Water Resources Management Under the Changing Climate in Little Ruaha River Sub-Catchment, Tanzania	Neema A. Mwamoto
5.	Health Condition of Lukosi River Catchment Using Selected Physico-Chemical Parameters as Indicators of Water Quality	Ahmad A. Nyagongo Vedasto G. Ndibalema, Makarius C. Lalika
6.	Capacity Building for Sustainable Water Resources Management- <i>Lesson from Lake Nyasa BWB.</i>	Masaka Y. Maganga
7.	Evaluating the Performance of Low-Impact Development Practices in Mitigating Runoff Floods in the Kinyerezi River Sub-Catchments in Dar Es Salaam, Tanzania	Livingstone Swilla, Zacharia Katambara & Mwajuma Lingwanda
8.	The Use of Air to Water Technology to Tap into Atmospheric Moisture as a Source to Overcome Water Stress	Pitio B. Ndyeshumba
9.	Mapping and Assessing the Current Status of Water Sources for Effective Restoration and Conservation Practices: A Strategy to Enhance Environmental Flows of Mbarali River Subcatchment.	Nyemo Chilagane, Papilon Mkome, Elius Chundu, George Wandelage, Winfred Mbungu, Festo Silungwe, Japhet Kashaigili

10.	Wetlands for Environmental Pollution Control and Poverty Alleviation Through Agricultural Activities	Irene A. Tarimo
11.	Integrated Water Resource Management for Water Services and Hygiene (IWRM4WASH) and Ensure Climate Resilience in Wami/Ruvu Basin	Janette Worm, Miriam. M. Esanju, Paschal Qutaw
12.	Agroforestry as a Nature-Based Solution in Mindu Dam Catchment Area	Miriam M. Esanju, Emmanuel Komba
13.	Implication Of Water Policy and Water Utility Management Systems on the Performance of Water Quality Service Delivery in Africa	Margaret S. Kironde

13:20 – 14:20

Lunch break/Tour in Exhibition booths & Posters

14:20– 17:00

PAPER PRESENTATIONS AND DISCUSSIONS (Oral & Virtual)

Sub Theme: Water Quality Management (WQM)

Sessions Chairs: Clarence Kisiki; Lusajo Mfwango; Doglas Mmasi; Peter Mwidima

Rapporteurs: Lightness Mrema; Josephine Gobry; Kelvin Ndai; Musiba Musiba

S/N	Title	Authors
1.	Water Quality Management in Emergency Situations through Water Safety Plan	Henry Mugassa
2.	Locally Available Materials for Drinking Water Treatment in Tanzania-A Critical Review	Fanuel Ligate
3.	Organic Matter Sources and Sewage Pollution in Human-Impacted River Estuaries-Wami and Pangani: Multidimensional Approach of Fatty Acids and Stable Isotopes	Theresia J. Lyasenga, Prosper L. Mfilinge, Daniel A. Shilla, John A. Mahugija.
4.	Urbanisation and Structure of Benthic Macroinvertebrates in the Watercourses of the City of Yaoundé and its Surroundings	Temgoua. Z. Anita, Foto. M. Samuel, Atchimi. T. Bernard

5.	Divulging the Association Between Physicochemical and Heavy Metal Characteristics of Dumpsite Leachate and Groundwater Around Pugu Kinyamwezi	Gift I. Marandu, Kassim R. Mussa, Offoro N. Kimambo and Amina Hamad
6.	The Effects of Anthropogenic Activities on Urban River Water Quality: The Case of the Kumba River, Southwest Region of Cameroon	Niba M. Fonteh
7.	Assessment of Water Quality and Community Perception on Cave Water at Shehia of Mangapwani in Unguja- Zanzibar: The Case of Mangapwani Historical CavesS	Leopord S. Leonard and Sarah N. Sallanya
8.	The Potential of Farm-Scale Rainwater Harvesting for Irrigation in Regions with Saline Groundwater	Esther L Nya, Tulinave B. Mwamila, Willis Gwenzi, Chicgoua Noubactep
9.	Multi-pollutants Removal from Effluents by Alkali Modified Sugarcane Bagasse Fibres	Joseph W. Sengasu: Joseph Y. Philip: Kessy F. Kilulya

17:00– 17:30

Tea break/Tour in Exhibition booths & Posters

17:30

End of day 2

Day 3: Friday 2nd February, 2024

08:00 – 09:00

Registration of Participants & Welcoming Tea

09:00 – 13:00

SUB-THEME PAPER PRESENTATIONS AND DISCUSSIONS (Oral & Virtual)

Sub Theme: Water Quality management & Water Supply and Sanitation Management

09:00 – 11:00

Sub Theme: Water Quality management (WQM)

Session Chairs: Clarence Kisiki; Lusajo Mfwango; Doglas Mmasi; Peter Mwidima

Rapporteurs: Lightness Mrema; Josephine Gobry; Kelvin Ndai; Musiba Musiba

S/N	Title	Authors
10.	Small Community Nalgonda Based Water Defluoridation Plant	Sahani Nkinda
11.	Performance of Copper Wire-Assisted Activated Carbon Electrode on Water Hardness Removal	Antoni M. Bairo, Lilian M. Daudi, Joyce Elisadiki, Mtabazi G. Sahini, Said A. Vua.
12.	Colorimetric Sensing of Mercury in Aqueous Solutions Using Silver Nanoparticles Prepared from <i>Synadenium Glaucescens</i> Root Aqueous Extract	Alinanuswe J. Mwakalesi
13.	Hydraulics of Waste stabilization Ponds and Implication to Effluent Quality	Fides Massawe
14.	Adsorption of Phenol in Wastewater on Activated Carbon from Litchi Fruit Seed and Husk: Isotherm and Kinetic Studies	Linda B. Numfor, Mwemezi Rwiza, Revocatus Machunda
15.	Machine Learning Techniques Applications in Water Quality Monitoring and Modelling: A Research Travelogue	Oswald P. Bomani, Norbert M. Assey, Salehe R. Mayange

11:00 – 13:00

Sub Water Supply and Sanitation Management (WSM)

Session Chairs: Clarence Kisiki; Lusajo Mfwango; Doglas Mmasi; Peter Mwidima

Rapporteurs: Lightness Mrema; Josephine Gobry; Kelvin Ndai; Musiba Musiba

S/N	Title	Authors
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1.	Role of Innovative Large Diameter Structured Wall HDPE Pipes in Water Supply and Sanitation Management.	Saravanan Babu
2.	Effectiveness of Household-Installed Bio-Sand Filters in Morogoro, Tanzania	Jamal B. Kussaga & Neema Moirana
3.	Removal Kinetics of <i>Escherichia Coli</i> from Faecal Sludge Treated with <i>Moringa Oleifera</i> on Unplanted Sand Drying Beds.	Mmasi B. Doglas
4.	Avoiding Unnecessary Cost in Water Quality Analysis (WQA) Aspect for the Groundwater Sourced Rural Water Supply Projects	Aaron E. Swai
5.	Prioritization of Services Deliveries for Tanzania Water Utilities Improvements - Application of Micro Integration Decision (Mid) Model - Innovation	Fredius J. Magige, Sam Shemsanga & Clement Kivegalo
6.	Use of Octacalcium Phosphate with an Innovative Household-Scale De-fluoridation Prototype for De-fluoridation	Mihayo Nkinda, Alfredo Idini, Franco Frau, Luciano Gutierrez

13:00– 14:00

Lunch break/Tour in Exhibition booths & Posters

14:00– 16:00

SUB-THEME PAPER PRESENTATIONS AND DISCUSSIONS (Oral&Virtual)

Sub Theme: Water Supply and Sanitation Management (WSM)

Session Chairs: Clarence Kisiki; Lusajo Mfwango; Doglas Mmasi; Peter Mwidima

Rapporteurs: Lightness Mrema; Josephine Gobry; Kelvin Ndai; Musiba Musiba

S/N	Title	Authors
7.	Digital Technologies for Water and Sanitation Management	Mweta M. Allen
8.	Addressing Tanzania's Sanitation Challenges Through Inclusive and Integrated Citywide Approaches	Oscar L. Mbekenga

9.	Navigating the Water-Energy-Food Nexus: Challenges in Water Resources for Agricultural Production in Rungwe, Tanzania	Brown Gwambene
10.	Capacity Building for Sustainable Water Resources Management-Lesson from Lake Nyasa - BWB	Masaka Y. Maganga
11.	Proposed CBWSOS Monitoring and Assessment Modality - Lessons from Ongoing Monitoring and Assessment of UWSAS	Issa Oseno
12.	Factors affecting the performance of the community-based water supply organizations in Katavi Region, Tanzania	Peter Ngunula
16:00– 16:20		
Arrival of Guest of Honor and Tour in Exhibition booths & Posters Hon. Jumaa H. Aweso (MP) – Minister for Water		
16:20– 17:30		
Closing Session		
Young Researchers Awarding Ceremony (25 min)		
Evaluation/Feedback from participants (15 min)		
Vote of Thanks: Water Institute Alumni (15 min)		
Closing Remarks: MoW Management (15 min)		
17:00 – 18:00		
Evening Tea		
18:00 – 22:00		
Networking (Cocktail/Live band)		

POSTERS		
S/N	Title	Authors
1.	Assessment of the Suitability of Groundwater in Kigamboni, Tanzania for Domestic and Irrigation Purpose Using Multivariate and Water Quality Index Analyses.	Magori J. Nyangi, Ginsela Anthony, Asha Mahimbo
2.	Analysis of the Occurrence of Elemental Pollutants in Shallow Aquifers Using Water Quality Index Method: The Case of Dar Es Salaam, Tanzania	Leopord Leonard
3.	The Role of Water Resources Management in Ensuring the Food Security in Tanzania	Joseph Joseph
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