



# WEEKLY Newsletter

September 28–October 4 2024

## KEWI and KETR B Engage in Strategic Talks on Academic and Professional Partnerships



*Dr. Kimeli M. Chirchir, Deputy Director Corporate Services and Patrick Ronoh from Kenya Engineering Technology Registration Board jointly spearhead a meeting between KEWI and KETR B on various areas of collaboration.*

BY DORINE EVA IRUNGU

The Kenya Water Institute (KEWI) on Wednesday, 3<sup>rd</sup> October 2024, held fruitful discussions with the Kenya Engineering Technology Registration Board (KETRB) on various areas of collaboration aimed at strengthening technical education and professional development in water engineering sector. One of the major mandates of KETR B being, to Collaborate with Engineering Technology Training Institutions, Professional Associations, and other relevant bodies in matters relating to Training and Professional Development of Engineering Technologists,

the key focus of the discussions centered on the recognition of KEWI’s water engineering technology courses by KETR B, ensuring that graduates meet industry standards and can easily transition into the workforce.

Additionally, the two institutions explored how they can partner in offering Continuous Professional Development (CPD) programs to equip professionals in the water and engineering fields with advanced skills and knowledge. KEWI and KETR B also expressed mutual interest in conducting joint research projects to address emerging challenges in engineering technology and water

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## KEWI and KETRB Engage in Strategic Talks on Academic and Professional Partnerships

management.

Furthermore, the two institutions recognized the critical role of hands-on experience in shaping competent professionals. As a result, they explored various ways to create and enhance internship and industrial attachment linkages, providing KEWI students with expanded opportunities to engage in real-world engineering environments. These internships will serve as a bridge between academic learning and professional practice, offering students invaluable exposure to industry operations, problem-solving, and the application of technical skills. By securing partnerships with key industry players, KEWI and KETRB aim to strengthen the capacity of students to transition smoothly into the workforce, fully prepared to contribute to Kenya's water engineering sectors.



*Dr. Chirchir and Mr. Ronoh during the meeting at KEWI headquarters, Nairobi.*

In addition to joint research, KETRB committed to actively involve KEWI in its seminars and workshops. The Institute will be onboarded as a key partner in future seminars, providing a platform for KEWI faculty and students, to participate in critical industry discussions and share their research findings with professionals from the engineering and water sectors. This collaboration will not only raise KEWI's profile in professional circles but also offer valuable opportunities for networking, capacity-building, and staying informed about the latest trends and technological advancements in the industry.

The two institutions also held promising discussions on establishing linkages with both regional

and international bodies in the water and engineering sectors. Recognizing the importance of a global perspective, both institutions aimed to expose KEWI students and graduates to the latest global

best practices, innovations, and technological advancements through linkages with international bodies. Through these linkages, KEWI graduates will not only benefit from enhanced academic and practical knowledge but will also gain a competitive edge in the job market, both locally and globally.

These international partnerships will provide KEWI students with opportunities for international internships, exchange programs, and participation in global research initiatives. By aligning their programs with globally recognized standards and accreditations, KEWI and KETRB are working to ensure that graduates are well-prepared to meet the demands of the international job market.

The meeting concluded with a commitment from both institutions to formalize the discussed areas of collaboration and work towards implementing these initiatives.



*Mr. Eric K. Wamiti, Deputy Director Academic Affairs.*

## KEWI Partners with Danish Industries to Roll out Curriculums in Water Management and Climate Change



*Water sector stakeholders during a validation workshop for three specialized curriculums developed jointly by KEWI and Danish Industries under the Strategic Partnership Agreement (SPA) at KEWI, Nairobi*

**BY: FAIZAH JEPKORIR**

The Kenya Water Institute (KEWI) has partnered with Danish Industries under the Strategic Partnership Agreement (SPA) to roll out three specialized curriculums addressing critical issues in climate change, water, and wastewater management. These curriculums—Water Desalination Technology, Wastewater Management Technology, and Climate Change—are now part of KEWI's short courses and are partially funded by Danish Industries. The project is aimed at equipping professionals with the necessary skills to manage the growing environmental challenges related to water management and climate change.

The curriculums on water desalination and wastewater management target artisans,

technicians, and craft-level professionals, offering practical skills to manage water resources and treatment technologies effectively. The climate change curriculum, designed for executives, focuses on leadership in climate resilience, which is essential as Kenya faces increasing environmental challenges.

The project also integrates the Recognition of Prior Learning (RPL) framework, which allows KEWI to assess and certify professionals with existing skills. As part of this initiative, 60 students specializing in plumbing and

pipefitting will receive certification, contributing to the skilled workforce needed in Kenya's water sector.

To ensure the relevance of these curriculums, KEWI recently conducted a validation exercise with key stakeholders from the water sector. Representatives from the National Environmental Management Authority (NEMA), Water Resources Authority (WRA), Thika Water and Sewerage Company, and Oololaiser Water and Sewerage Company, along with private sector partners including Water Kiosk Africa and Davis & Shirtliff, participated.

Their input was instrumental in refining the courses to meet the needs of both public and private sector players in water management. This collaborative effort has helped shape the curricula to



## KEWI Partners with Danish Industries to Roll out Curriculums in Water Management and Climate Change



*Mercy Khamonya from KEWI offers her insight during the validation of three specialized curriculums at KEWI, Nairobi.*

ensure they address real-world demands, making them industry-aligned and practical.

Speaking on the initiative, the Deputy Director Academic Affairs Mr. Eric Wamiti, emphasized the importance of desalination and wastewater management in tackling Kenya's water challenges. He remarked, "Desalination technology and effective wastewater practices are essential for sustainability and public health, especially in the context of climate change." He also highlighted the significance of climate resilience training, noting that equipping professionals with

leadership skills in this area will be crucial for the country's future.

Following the validation, the curriculums will be reviewed by KEWI's Academic Board and later approved by the Governing Council. With these programs, KEWI is taking significant steps toward addressing water management and climate change issues, while building the capacity of professionals in these vital sectors.

This partnership not only strengthens KEWI's leadership in water-related training but also aligns with Kenya's Vision 2030 goals and

global efforts to promote sustainability and climate resilience. Through this collaboration, KEWI continues to position itself as a key driver in building the skills necessary for effective water resource management and environmental sustainability, ensuring that professionals are well-prepared to face the complex challenges of climate change.



# Training For Efficiently Managed Water Utilities Through Operation and Maintenance at Kisumu Campus



*Trainees from Nairobi City Water and Sewerage Company (NCW&SC) undertaking a professional training on Operation and Maintenance of Water Supply Networks pose for a group photo with their facilitators and trainers at KEWI, Kisumu*

**BY: OTIENOFREDRICK**

For the second week, the Kenya Water Institute Kisumu Campus hosts the second cohort of 30 trainees on Operation and Maintenance of Water Supply Networks. The participants drawn from Nairobi City Water and Sewerage Company (NCW&SC) are part of a team of 150 staff from the Company undergoing training over a 5-week period from 23rd September - 25th October 2024.

The high impact training not only represents the institutes commitment to providing technical support and capacity development to water service providers but demonstrates

support for the broader vision of provision of safe water for all.

The training coincides with massive investment by the Nairobi City County in Water Supply and Sanitation Infrastructure to improve water supply and sanitation by easing pressure on overloaded sewer lines, increasing coverage sewer sewerage services new areas for improved sanitation services, to address sewer overflow, and spillage.

Among the projects being undertaken include, Ladnan Hospital Sewer Extension, 16 kilometer long Riruta Sewer Extension Works, Martin Luther Primary School Sewer

Relief project, Sewer Rehabilitation along Moi Lane and Kariakor Market, Donholm - Savannah Sewer Rehabilitation and Upgrade, 3.5 Kilometer Kamunde Road Sewer Line Rehabilitation and Upgrade Works, Mowlem KCC Sewer Kline Upgrade Works, St Georges Primary School Sewer Relief, Njiru Sewer Line Extension, and 500m<sup>3</sup> Mihang'o Underground Storage Tank.

With a strong focus on improved water supply and sanitation coverage, the training builds on existing knowledge, experiences and industry best practices, to strengthen capacity of staff to perform key processes tasks

## Training For Efficiently Managed Water Utilities Through Operation and Maintenance at Kisumu Campus



*A training session on Operation and Maintenance of Water Supply Networks for Nairobi City Water and Sewerage Company (NCW&SC) staff at KEWI, Kisumu campus.*

processes including water quality tasks and processes, hydraulic operations, and emergency operations.

Other benefits expected from the training include better understanding of the City's supply network plans, water sources, head works, treatment and distribution networks. The training will also equip participants with enhanced skills to improve the Company's Operation and Maintenance Plan with proper delimitation of routine tasks, scheduled tasks such as

network inspection, preparation and improvement of operations checklists, supervision and maintenance. The participants are further expected to perform key roles aimed at strengthening capacity to manage stores and equip them with skills to trail usage and access to requisite tools, components, equipment, and materials for effective O&M practice.

In her opening remarks, Campus Principal Dr Emily Chepkoech welcomed the participants to the institute.

On behalf of the KEWI Management, the Principal thanked the Management and Staff of NCWSC for partnering with the institute and encouraged active participation and cooperation with course facilitators to effectively achieve training objectives. Idealizing the Campus as a rich amalgam of expertise in Water knowledge, Dr. Chepkoech encouraged participants to interact actively with course material and translate meaningful experiences from the training to the workplace.

## Mental Health Wellness: A Focus on Thriving, Not Just Surviving

BY: BRITNEY MOKEIRA

The Kenya Water Institute (KEWI) recently held an insightful Mental Health Awareness Talk aimed at promoting mental well-being among students, featuring Ms. Speranza Kosen, the founder of Mind Matters, as the main speaker. The talk focused on recognizing the signs of mental health struggles and learning how to overcome them. Madam Kosen's message was profound: 'Mental health is not just about surviving but thriving.' She emphasized that students should not merely cope with the pressures of life but should also strive to build resilience and self-awareness. By doing so, they can navigate the challenges of academic life, social expectations, and personal issues more effectively.

Ms. Kosen highlighted the early signs of mental health struggles and she encouraged students to recognize these signs in themselves and others so that they can seek help before their mental health deteriorates. A key point of her talk was the importance of breaking the stigma surrounding mental health, especially among young people. She urged students to speak openly about their struggles and to see seeking



*Ms. Speranza Kosen, Founder of "Mind Matters" addresses KEWI staff and students on matters of mental wellness. Mind Matters deals with enlightening the youth and teens on Mental Wellness.*

help as a sign of strength, not weakness.

During the talk, students were provided with practical tools for overcoming mental health challenges, stressing the importance of self-care, which includes maintaining a balanced routine, engaging in physical activity, and ensuring proper rest. Additionally, they should recognize the power of building strong support systems, whether through friends, family, or professionals, and the benefits of positive affirmations and mindfulness practices. These tools, can help students stay grounded and resilient in the face of difficulties. Importantly, the students struggling to seek professional help were encouraged, reminding them that therapy and counseling are vital resources for personal growth and mental well-being.

The talk was especially timely for KEWI students, many of whom might be

facing the stresses of academics and uncertainty about their futures. The pressures of performing well often lead to neglecting mental health, and this event provided a

much-needed reminder of the importance of prioritizing well-being. The message empowered students to take proactive steps toward better mental health. The emphasis on early intervention and the importance of support systems resonated with the audience, encouraging them to be more open about their struggles and to support each other.

In conclusion, the mental health wellness talk at KEWI was a crucial initiative in promoting mental health awareness among students. This gave students hope and practical guidance for dealing with the challenges they face. By promoting mental wellness and creating a supportive environment, KEWI is taking significant steps towards ensuring the holistic well-being of its students.

# Professional Development Program: Water Desalination Technologies



*A water desalination plant coming up at KEWI headquarters, Nairobi. This is a joint project between KEWI and Water Kiosk Africa.*

BY PIUS KIMANI

As Kenya, like many other places, continues to face the challenges of water scarcity and quality, relevant authorities have been burning their midnight oil to help address the menace. The need to address this issue has clearly signalled the Ministry of Water, Sanitation, and Irrigation to take a front role in offering the necessary leadership and the required guidance in this aspect.

With the available water resources facing the dangers of water with poor quality, it has become imperative to find a lasting solution with a positive ripple effect. This is to help guarantee the safety of such water for human and animal

consumption and for other uses such as farming.

One promising approach to alleviate these problems is through the adoption of advanced water treatment processes like water desalination technologies.

Desalination, the process of removing salt and other impurities from seawater or brackish water to produce fresh water, offers a reliable solution to boost water supply, especially in regions facing freshwater shortages. This technology has garnered increasing interest in Kenya due to its potential to secure a sustainable and dependable source of drinking water.

With KEWI being the only institution mandated to offer training and research in the

wider water sector, it is time then to come through and offer guidance on how to address the issue. And thus, in partnership with the Confederation of Danish Industries, the institute has developed an in-depth curriculum dedicated to desalination technologies. Titled Water Desalination Technologies, this program, once rolled out, will provide trainees in the water sector with the essential knowledge and skills required to efficiently implement and manage desalination systems.

The curriculum, which recently underwent a validation exercise from public and private water sector stakeholders, covers a number of desalination techniques, like

# Professional Development Program: Water Desalination Technologies

thermal and reverse osmosis desalination. It also incorporates global innovations and best practices, ensuring learners stay informed of the latest technological advancements and research in the field.

Once rolled out and after incorporating the inputs proposed and provided during the validation workshop held at KEWI, the curriculum will equip trainees, mostly artisans, craftsmen, and technicians in the water

sector, with the practical skills and knowledge required to assemble, operate, maintain, and troubleshoot desalination technologies. The focus will be on hands-on training, which will see the trainees identify

types of desalination processes and identify components of various desalination systems; practical applications, which will include assembling desalination components like filters, pumps, membranes, solar, etc.; operating and maintaining desalination systems; and problem-solving techniques in desalination systems, which will explore

application of safety standards and energy-efficient practices.

The trainees will get a chance to learn about diverse water management concepts, describe water desalination technologies, and extensively elaborate on the operation and maintenance of thermal desalination systems.

They will also be able to demonstrate the operation and maintenance of reverse osmosis desalination systems. The trainees will also be



taught entrepreneurial and employability skills in water desalination technologies, and upon successful completion of the program, participants will receive a certificate of competency in water desalination technology from KEWI.

As a means to evaluate the effectiveness of the curriculum and identify areas for improvement, the trainees will

be provided with a post-training feedback tool designed to assess the immediate impact of the training. The feedback received and a randomized follow-up evaluation conducted by the institute will help assess the sustained impact of participants' knowledge and skills in Water Desalination Technologies at their workplace.

This evaluation approach will enable KEWI to continuously refine the curriculum, ensuring its relevance and enhancing the practical application of water desalination technologies in real-world scenarios, and also allowing KEWI to meet the evolving needs of participants and address challenges faced in the field of water distribution systems.

With keen development of the curriculum content and direction, KEWI has remained focused on fostering a culture of continuous learning and improvement in water management. The curriculum will stand as a testament to the institute's commitment to excellence, grounded in thorough research, expert input, and strong partnerships with stakeholders.

# Upcoming Short Course Training



REPUBLIC OF KENYA



## KENYA WATER INSTITUTE

### COURSE: LEADERSHIP & GOVERNANCE IN WATER & SANITATION

#### TARGET GROUP:

Board Members, CEOs, Senior Management Officers of Water Service Providers and Water Institutions  
CECM, Chief Officers and County Directors.

Cost: Kshs. 75,000/-



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✉ [shortcourses@kewi.or.ke](mailto:shortcourses@kewi.or.ke)

☎ +2547 57416565  
+2547 22858020

🌐 [www.kewi.go.ke](http://www.kewi.go.ke)

#### Quote of the Week

“If you cannot do great things, do small things in a great way.”

-Napoleon Hill,

#### EDITORIAL TEAM

##### Editor

Dorine Eva Irungu

##### Writers:

Faizah Jepkorir

Pius Kimani

Dorine Eva Irungu

Otieno Fredrick

Britney Mokeira

##### Photographer

Pius Kimani

##### Designer

Pius Kimani

## Round up of The Week's Events



*A team from Strathmore University, led by Dr. Irine Ngunjiri, Head of Water Governance and Innovation Hub, during a courtesy call to KEWI to discuss areas of collaboration in a pilot project dubbed "Capacity Building for Young Females." In attendance were KEWI's Deputy Director Corporate Services, Dr. Kimeli M. Chirchir, and the Head of Management Information Technology Department, Mr. Leonard Makokha.*

## Round up of The Week's Events



*A team from Maasai National Polytechnic, led by Deputy Principal - Administration, Dr. Livingstone N. Mwaura, during a benchmark tour at KEWI on areas of formative and summative assessment methods, Portfolios of Evidence (PoEs), and occupational standards as required by the Technical Vocational Education and Training Authority (TVETA) regulations and standards.*

### Long - Term Programmes

Diploma in Water Engineering Technology (DWET) Diploma in Wastewater  
 Diploma in Water, Sanitation Engineering Technology (DWSET)  
 Diploma in Water Resources Management Technology (DWRMT)  
 Diploma in Irrigation and Drainage Engineering Technology (DIDET)  
 Diploma in Information Communication Technology (DICT)-KNEC  
 Diploma in Water Laboratory Technology (DWLT)  
 Certificate in Wastewater and Sanitation Engineering Technology (CWSET)  
 Certificate in Water Resources Management Technology (CWRMT)  
 Certificate in Information Communication Technology (CICT)- KNEC  
 Certificate in Water Laboratory Technology (CWLTL)  
 Certificate in Water Engineering Technology (CWET)  
 Drilling Operations and Management (DOM)  
 Plumbing and Pipe Fitting (PPF)  
 Water Operators Course (WOC) in:
 

- Water Supply
- Meter Reading
- Sewerage Operations

### Short - Term Programmes

Use of Earth Observation Tools and GIS for Water Resources Management  
 Entrepreneurship and Financial Management for Water Managers  
 Operation and Maintenance of Water Supply Networks  
 Metering and Installation of Water Supply Networks  
 Leak Detection & Repair techniques  
 Drilling Operations and Management (DOM)  
 Operation & Maintenance of Pumping Stations  
 Pump Selection, Installation and Maintenance  
 Plumbing, Pipe Fitting and Solar Water Heating  
 Instrumentation for Water and Wastewater Systems  
 Water Governance, Management and Technology  
 Application of GIS for Water Utilities Mapping  
 Drilling Operations and Management  
 Water Quality Sampling and Testing  
 Microbiological Water Quality Assessment  
 Integrated Water Resources Management  
 Non-Revenue water  
 Water Management  
 Customer Care

## Vision

A Technical Centre of Excellence in Training, Research, Innovation and Consultancy in the water, Sanitation and Irrigation Sector.

## Mission

To offer Competency-Based Training, Research, Innovation, Consultancy and Outreach Services in the Water, Sanitation and Irrigation Sector for sustainable development.

## Core Values

Good Corporate Governance  
Professionalism  
Customer Focus  
Innovativeness  
Inclusivity  
Patriotism  
Integrity

## GET IN TOUCH WITH US

**The Director,**  
**Kenya Water Institute,**  
P.O. Box 60013-00200 Nairobi  
TEL: +254 722-207757  
Email: [info@kewi.or.ke](mailto:info@kewi.or.ke)  
Website: [www.kewi.go.ke](http://www.kewi.go.ke)

**For enquiries about our TVET programs**  
Contact the Registrar, Admissions Office.  
Phone: 0735339206  
Email: [admissions@kewi.or.ke](mailto:admissions@kewi.or.ke)

**KEWI Nairobi Campus**  
P.O. BOX 60013 – 00200  
Tel: 0722207757  
Email: [info@kewi.or.ke](mailto:info@kewi.or.ke)

**KEWI Chiakariga Campus**  
P.O. BOX 12 – 60215  
Tel: 0729009104  
Email: [chiakariga@kewi.or.ke](mailto:chiakariga@kewi.or.ke)

**KEWI Kitui Campus**  
P.O. BOX 1514 – 90200  
Tel: 0707566395  
Email: [kitui@kewi.or.ke](mailto:kitui@kewi.or.ke)

**KEWI Kisumu Campus**  
P.O. BOX 7825 – 40100  
Tel: 0746212708  
Email: [kisumu@kewi.or.ke](mailto:kisumu@kewi.or.ke)

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Conferencing Services  
Troubleshooting of pumps boreholes and distribution systems  
Repair of pumps boreholes and distribution systems

Your feedback is crucial for our improvement



[communications@kewi.or.ke](mailto:communications@kewi.or.ke)



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