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REPUBLIC OF KENYA

KENYA WATER INSTITUTE KEWI Fountain Of Water Knowledge

WEEKLY Newsletter

January 25– January 31 2025

Ministry Promises Support for KEWI and National Employment Authority Partnership

Principal Secretary State Department for Water and Sanitation, Julius Korir, CBS, (Centre) chairs a meeting between National Employment Authority Chairman CHRP Vincent Kigen and KEWI to discuss innovative collaboration framework between the two institutions.

BY: PIUS KIMANI

Kenya Water Institute (KEWI) and National Employment Authority (NEA) quest to partner in a transformative process of transitioning the KEWI graduates into the job market took a more promising step after the two institutions engaged further on how to make the partnership work.

In a meeting chaired by Principal Secretary State Department for Water and Sanitation, Julius Korir, CBS, at Maji House, Nairobi, and attended by Chairman of NEA CHRP Vincent Kigen and KEWI management to discuss an innovative framework for engagement between the Authority and the water institute, the discussions focused on transitioning students, skills matching with the job market, and creating placement opportunities with a special focus on international job prospects.

While lauding the efforts made by the government and specific organizations to address the employment issue of

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Ministry Promises Support for KEWI and National Employment Authority Partnership

KEWI Management represented by Head of Management Information Technology Department Mr. Leonard Makokha (Right) and Head of Short Courses Coordination Unit Ms. Nanetia Nchoko (Centre) during the meeting with PS and NEA leadership.

graduates across the nation who are feeling the pinch of slow uptake into the job market due to many factors, the PS said the move will help empower the KEWI graduates and help them contribute to the growth of the sector.

"This collaboration is set to empower students with the right skills, better prepare them for the dynamic job market, and open up exciting career opportunities—both locally and globally," he said.

KEWI already has a working partnership with NEA that seeks to place the KEWI Certificate and Artisan graduates on job opportunities outside the country. The agreement requires that the interested graduates be in possession of valid passports.

The Ministry will work together with NEA to help KEWI bridge the gap between education and employment, ensuring that the future workforce is equipped, skilled, and ready to contribute to sustainable water and sanitation solutions.

The efforts to create job opportunities for the Kenyan youths and graduates' rhyme with the government's dedication to addressing unemployment through innovative and sustainable solutions, with the president urging all stakeholders to support efforts aimed at building a vibrant and inclusive job market for the country's workforce.

The government has been facilitating structured opportunities for jobseekers to find employment abroad while ensuring their rights and welfare are protected. President William Ruto has been encouraging youth to take advantage of employment programs, which are facilitated by the National Employment Authority (NEA), to access jobs both locally and internationally.

The moves come shortly after the cabinet approved a policy that seeks to enhance and strengthen technical and vocational education and training in Kenya.

The Dual Training Policy model has instructed that trainees spend 50% to 70% of their training in industry and the rest in institutions to ensure that they acquire relevant practical skills.

Once implemented, the policy will not only ensure strong collaborations between training institutions and the industry but will also help address the skills mismatch in the labor market by integrating classroom instruction with hands-on industry training. This will be through leveraging the latest technologies and expertise to enhance the employability of graduates.

NEA Chairman , CHRP Vincent Kigen during the meeting with KEWI, Ministry and NEA.

Institute Distributes Workshop Tools to Its Campuses to Enhance Practical Training

Chiakariga Campus Principal Mr. Paul Rarieya receives a set of workshop tools from Deputy Director Academic Affairs Mr. Eric Wamiti.

BY: ABIGAEL SONGOK & KORIR KIPKURUI

Kenya Water Institute (KEWI) efforts to enhance the training of its students and sector players has always taken center stage. With the institute management making every effort to improve the infrastructure and increase resources, it's evident that the institute is a wagon that has already left the station and reeling to make impact in the wider water, sanitation and irrigation sector.

To enhance practical training for its students, the institute has rolled on an exercise that will see distribution of workshop tools across campuses. Already the Deputy Director, Academic Affairs, Mr. Eric Wamiti, has visited the Kitui and Chiakariga Campus to officially hand over a set of workshop tools. This gesture is a part of KEWI's overarching mission of providing quality education in the water and environmental sectors, offering training, examinations, research, and consultancy services.

The move has been hailed by campus principals who have noted that the efforts were in line with the quest to have the satellite campus enhanced to competitively handle the ever-increasing demand for quality training across campuses for both the regular and the short course training needs.

Mr. Elkanah Matara Kaburi, Kitui campus principal, and other members of the academic

Institute Distributes Workshop Tools to Its Campuses to Enhance Practical Training

Kitui Campus principal Mr. Matara Kaburi and other members of staff when they received a set of workshop tools from Deputy Director Academic Affairs Mr. Eric Wamiti

staff who warmly graced the handover ceremony noted that improvement of learning and training environment across campuses was going to further enrich the performance culture observed by the institute. In his remarks, Mr. Kaburi expressed his heartfelt appreciation for the new tools, which he said will significantly enhance the practical learning experience for students at Kitui Campus.

"These tools will go a long way in ensuring that our students have the hands-on training they need to succeed in their careers and make meaningful contributions to the water sector," he stated.

His statements were echoed by his Chiakariga counterpart Mr. Paul Rarieya who appreciated the efforts and noted that the campus was reaping big from the improvements that it was receiving. Chiakariga Campus is benefiting from an ultramodern Irrigation and Drainage Complex that will turn around the service delivery of the campus

In this recent move, one cannot overstate the importance of practical training in fields like water and environmental management. While theoretical knowledge is essential, the ability to apply this knowledge through hands-on experience is what truly prepares students for the real-world challenges they will face in their careers. By equipping the Kitui campus with new workshop tools, KEWI is ensuring that students gain the practical skills necessary for success. Various training programs will use these tools, allowing students to engage in real-life applications of the concepts they learn in class.

The direct impact of these tools on students' learning experiences is clear. Firstly, the availability of proper workshop equipment enables students to practice their skills in a controlled and safe environment, simulating real-world conditions. This will help them build confidence and competence in their technical abilities

The availing of the new tools signifies KEWI's broader commitment to aligning its training with industry standards. As the water sector continues to evolve, it is essential for students to be exposed to the latest technologies and techniques. By continually upgrading the resources available to students, KEWI ensures that its graduates are well-equipped to tackle the dynamic challenges in the water industry, whether in water resource management, conservation, or infrastructure development.

Exploring Water Engineering: A Look into Land Surveying and Wastewater Infrastructure

Diploma students in Wastewater and Sanitation Engineering Technology during their practical lesson on Design and Construction of Water and Wastewater Infrastructure .

BY: FAITH GENESIS TAUNET

Have you ever wondered what it means to study water engineering? If you're like me, you may not fully understand what it entails. To satisfy my curiosity, I took a walk through the corridors of the Kenya Water Institute and I came across a group of second-year diploma students busy measuring and analysing land parameters. They were engaged in a practical session for their unit on *Design and Construction of Wastewater Infrastructure*, guided by their knowledgeable lecturer, Mr. George Magondu. He was kind enough to explain the project they were working on and give me deeper insight into the course.

This unit is part of the broader course *Design and Construction of Water and Wastewater Infrastructure*, taught at both certificate and diploma levels. It covers crucial aspects of the water sector, including water supply, sanitation, wastewater management, irrigation, and groundwater drilling. The core of this study involves understanding the land—its topography, utilities, and facilities—to design projects such as sewage expansion, irrigation systems, and water supply networks.

Surveying plays a crucial role in this process, as it involves gathering and analysing data about the land and its features. It falls under *geospatial science* or *geometric engineering* and focuses on three key parameters: location (geolocation), size, and shape of any given feature. Engineers use this data to interpret maps and plans accurately.

Surveying is a scientific process that requires specific techniques, methodologies, and equipment. Diploma students are trained to collect, analyse, and present data that engineers use for designing infrastructure. At the diploma level, students should be able

Exploring Water Engineering: A Look into Land Surveying and Wastewater Infrastructure

able to interpret survey drawings such as maps and plans.

Surveying involves several key topics:

•**Land Surveying**: A broad introduction to the discipline, leading into specialized areas such as linear and angular measurement.

•**Linear and Angular Measurement**: Students measure distances, angles, and coordinates to determine land features' size, shape, and location.

•**Leveling**: This helps in understanding terrain elevations, which is essential for designing sewer gradients, canal slopes, and excavation depths.

•**Setting Out**: Applying designs to real-world locations on the ground before construction begins.

•**Earthworks**: Determining land areas and volumes, essential for excavation and dam capacity estimation.

Surveying involves both traditional and modern techniques, including:

•**Trigonometry and Triangulation**

•**GPS Mapping**

Chain Surveying

During practical sessions, students interact with different surveying equipment, such as measuring tapes, survey chains, measuring wheels, and digital tools. By using various methods, they learn to analyse and compare the accuracy and reliability of different instruments.

In the water sector, surveying is vital for referencing underground pipelines and water supply lines. Engineers use offsetting techniques to map the main water supply and distribution lines, ensuring future accessibility even if pipelines are underground. Reference points such as building corners or electricity poles help in locating water infrastructure accurately.

Surveying is a prerequisite for engineering design because it helps engineers understand the ground conditions both in terms of position and elevation. The main products of surveying are maps, plans, and accompanying survey data, which can be in digital or analogue formats.

During project implementation, surveying is used for setting out infrastructure positions, ensuring the correct placement and elevation as per design specifications. After construction, an *As-Built Survey* is conducted to capture the final record of the completed project.

Water engineering is a fascinating field that integrates land surveying, design, and construction to ensure efficient water management systems. From measuring land parameters to designing wastewater infrastructure, students at the Kenya Water Institute gain hands-on experience that prepares them for real-world projects. Next time you see a well-planned irrigation system or a smoothly running sewage network, remember the critical role surveying played in making it happen!

Institute Enhances Environmental Governance, Announces Environmental Impact Assessment and Audit Training Course

BY: BRITNEY MOKEIRA

The Kenya Water Institute (KEWI) is set to launch its highly anticipated Environmental Impact Assessment (EIA) and Environmental Audit (EA) Professional Development Program. Scheduled to take place from March 24th to May 2nd, this program aims to equip participants with essential skills and knowledge to address environmental concerns in development projects.

With the increasing number of projects failing to meet the environmental standards set by regulatory authorities, the need for trained professionals in environmental assessment has never been more critical. KEWI has taken the initiative to bridge this gap by offering this comprehensive training program, targeting organizations and individuals who seek to enhance their expertise in environmental sustainability and compliance.

As a National Environment Management Authority (NEMA) accredited training center, KEWI ensures that participants receive top-tier training aligned with regulatory requirements. The program is designed to empower professionals with the ability to identify potential environmental impacts, propose mitigation measures, and conduct effective audits to ensure compliance with environmental laws and policies. This ensures that projects are not only environmentally sound but also socially and economically sustainable.

By enrolling in this training, participants will gain hands-on experience and in-depth knowledge of the EIA and EA processes. The curriculum will cover various aspects, including environmental regulations, risk assessment, impact mitigation strategies, and auditing techniques. Additionally, trainees will explore case studies of past environmental assessments, allowing them to analyze real-world scenarios and develop problem-solving skills applicable to their fields.

The training will also include interactive sessions with experienced environmental practitioners, regulators, and policymakers, offering valuable insights into best practices and emerging trends in environmental assessment. Participants will have opportunities to network and collaborate with professionals from different sectors, fostering partnerships that can lead to innovative environmental solutions.

This training is particularly beneficial for environmental officers, consultants, project managers, engineers, urban planners, and policymakers seeking to strengthen their understanding of environmental governance. By equipping professionals with the necessary knowledge and tools, KEWI aims to contribute significantly to Kenya's commitment to sustainable development and environmental conservation.

The Environmental Impact Assessment and Environmental Audit training at KEWI provides a unique opportunity for professionals to contribute to sustainable development in Kenya. By ensuring that development projects adhere to environmental regulations, trained professionals will play a crucial role in safeguarding the environment for future generations.

KEWI invites interested candidates to apply for this beneficial training opportunity. To secure a spot in the program, applicants can submit their applications through the following link: https://shorturl.at/UUo73 .Don't miss this chance to enhance your professional skills and contribute to a more sustainable future. Enroll today and be part of Kenya's environmental conservation efforts.

(See Advert on Page 8)

Call for Environmental Impact Assessment (EIA) & Environmental Audit (EA) Training

REPUBLIC OF KENYA

KENYA WATER INSTITUTE

Fountain of Water Knowledge

Call for Applications

Kenya Water Institute Calls for Applications for its

Environmental Impact Assessment (EIA) & Environmental Audit (EA)

| Short Course |

Course Timelines: *March 24th, 2025 - May 2nd, 2025*

Mode of Delivery: *Blended (Online and Face to Face)*

Application Deadline: *March 18th, 2025*

Non-Residential Cost: *Ksh. 50,000*

Venue: *Kenya Water Institute, Nairobi, South C*

"KEWI is a NEMA - Kenya Accredited EIA/EA Training Center."

Apply at the link: *https://ee.kobotoolbox.org/single/S8dwMdHt*

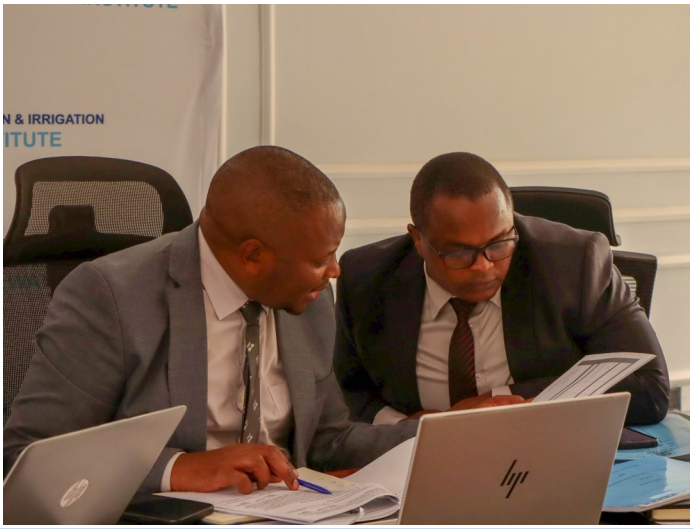
shortcourses@kewi.orke | *Kenya Water Institute* | *@kewi_kenya* | *0722207757*

Upcoming Professional Development Program

Professional Development Program Schedule (February)

MANAGERIAL			
Strategic Leadership in water Management	3rd—7th February 2025	KEWI Main Campus	Ksh.45,000
Water Governance			
SUPERVISORY			
Non-Revenue Water Management	17th—21st February 2025	KEWI Main Campus	Ksh. 35,000
Advanced Pump Technology			
TECHNICAL			
Drilling Techniques	17th—21st February 2025	KEWI Main Campus	Ksh.30,000
Non-Revenue Water Management			

Moments During KEWI's 20th Cycle Annual Performance Evaluation for FY 2023/2024



Chiakariga Campus Marketing KEWI Programs to Local Schools.

Quote of the Week

"Begin somewhere. You cannot build a reputation on what you intend to do."

Liz Smith

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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 (DWRTM)
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 (CWLT)
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

T o 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

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OTHER SERVICES OFFERED

Water Quality Laboratory Services
Drilling and Test Pumping Services
Ground water Assessment Services
Conferencing Services
Troubleshooting of pumps boreholes and distribution systems
Repair of pumps boreholes and distribution systems

Your feedback is crucial for our improvement

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