

Newsletter

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RWESCK Leads Ace Project Performance

The Regional Water and Environmental Sanitation Centre, Kumasi (RWESCK) at the Kwame Nkrumah University of Science and Technology (KNUST) leads in performance in implementing World Bank African Centre of Excellence (ACE) project at the 9th ACE impact Regional Workshop held in Morocco.

The 5-day workshop aimed at fostering cross-country partnerships and networks among ACE centers, Moroccan higher educational institutions and private sector stakeholders. The workshop provided an opportunity for participants to contribute and learn from discussions addressing specific project activities and fiduciary aspects.

Speaking at the workshop, Professor Ellis Owusu-Dabo, the Pro-Vice Chancellor, KNUST expressed the university's high regard for the ACE Project, emphasizing that it is an integral part of the institution. He reaffirmed the University's commitment to ensuring the sustainability of the ACEs, including RWESCK.

The workshop was jointly organised by the World Bank, the Association of African Universities (AAU), and the French Development Agency (AFD).



MSc 4+1 Masters Programme

Rather than the compulsory placement of university graduates in the public and private sectors as mandated by the National Service Scheme (NSS) in Ghana, the Regional Water and Environmental Sanitation Centre, Kumasi (RWESCK) at the Kwame Nkrumah University of Science and Technology (KNUST) is rolling out plans to enable BSc degree (4) holders continue with one (1) year Master of Science (MSc) programme before NSS.

The programme, dubbed MSc 4+1 aims to produce highly skilled graduates who can effectively apply the knowledge, abilities, and expertise gained from the programme to address challenges related to water resource management, community and urban water asset management, ageing network, high unaccounted-for-water.

Throughout the program, students will have the opportunity to collaborate with industries, enabling them to acquire knowledge, skills, and proficiency in digital transformation and innovations. By the end of the programme, students are expected to have a clear understanding of their career goals and specialize in specific areas before entering the workforce.



RWESCK Admits First Batch of MSc Students

The first batch of 30 students pursuing MSc degrees at the Regional Water and Environmental Sanitation Centre, Kumasi (RWESCK) has commenced their studies. RWESCK would for the first-time train students in the field of MSc Water Supply Engineering and Management and MSc Environmental Sanitation and Waste Management.

The classes are conducted both online and in-person on weekends. Students are elated as this weekend schedule allows them to balance their work commitments and education simultaneously. Gabriel Nii Noi Badger, the class representative for the Environmental Sanitation and Waste Management program, views this opportunity as a way to expand his knowledge in the environmental sector.

“This programme is an avenue for knowledge acquisition for someone like me who is already in the environmental sector, the duration for the programme is also perfect and I will encourage knowledge seekers to enrol in it,” he said.

“The online class has been very helpful to me. I can go over what has been taught in my free time because I get the opportunity to record the lectures. The online class makes it easy to balance work and school” said Antoinette Akosua Fremah, from Water Supply Engineering and Management class.



RWESCK develops Innovative Plasma Equipment for Air Pollution Control and Indoor Air Quality Improvement.

Researchers at the Regional Water and Environmental Sanitation Centre, Kumasi (RWESCK) at Kwame Nkrumah University of Science and Technology have developed a Dielectric Barrier Discharge (DBD) reactor generating Non-Thermal Plasma (NTP) with innovative potential for air pollution control through advanced oxidation process.

The reactor efficiently removes airborne Volatile Organic Compounds (VOCs) from flue gas, notorious for their harmful effects on public health and the environment before being released into the atmosphere. In a lab-synthesized industrial waste air, the reactor achieved an impressive 96% removal efficiency for 300 ppm benzene, largely relying on $\bullet\text{O}$ and $\bullet\text{OH}$ radicals, as well as high energy electrons to decompose the pollutant.

Under different conditions, according to the researchers, the reactor's removal efficiency exceeded 95%, boosted by increased oxygen content and relative humidity, enhancing electron concentration. The study shed light on the crucial role of active particles such as $\bullet\text{O}$ and $\bullet\text{OH}$ radicals in benzene decomposition.

The reactor also proved effective in improving indoor air quality, by the degradation of low-concentration formaldehyde with an outstanding 99% removal efficiency. The process's success depended on optimizing discharge power, initial concentration, flow rate, and relative humidity. The centre's innovative plasma system presents a promising opportunity to combat air pollution towards a cleaner and healthier future.

Read Full Article

<https://www.nature.com/articles/s41598-021-02276-1>



■ RWESCK Launches Short-Term Training Curriculum on Digital Transformation

Regional Water and Environmental Sanitation Centre, Kumasi (RWESCK) has launched a 3-week training programme on digital transformation skills. The programme is to help develop joint short-term courses on digital innovative skills and train young graduates and young sector professionals to acquire practical digital skills.

Addressing the participants, the Centre’s Director, Professor Sampson Oduro Kwarteng challenged them to take advantage of the training and upgrade their skills.

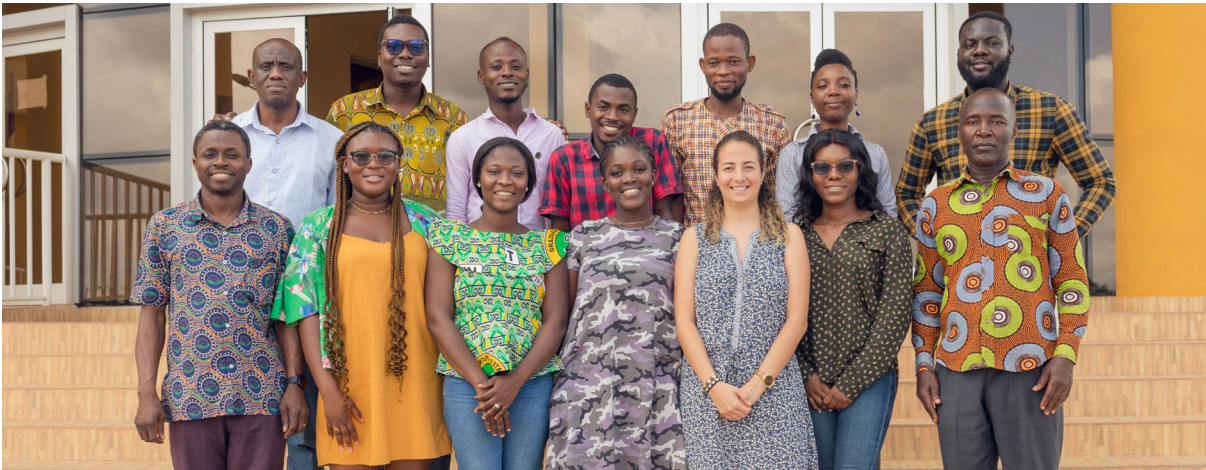
“This is different from the six weeks internship, usually you are asked to go to any industry for an internship and bring a report after six weeks but now we are engaging you as a consultant. We give you the assignment to deliver outputs, including software and what have you”

“A time will come when there will be job vacancies but you will not be employed because you do not have the skills that are needed, so I will encourage you to take advantage of this opportunity to equip yourselves with digital skills”. He stressed.

The idea of this project is to introduce digital transformation skills into water and sanitation education to enhance the employability of young Ghanaian graduates with digitalisation innovation skills during their masters training, research, and internship periods,

The Project is funded by the French Embassy in Ghana.

Competency- Based Training News



RWESCK Extends Internship Training Period from 6 Weeks to 6 Months

As part of the Master's level training at the Regional Water Environmental and Sanitation Centre, Kumasi (RWESCK), students are required to undergo a 6-week industrial internship. However, the centre considers this duration insufficient for practical training. To address this issue, RWESCK, through the Nyansapo project, has extended the internship period from 6 weeks to 6 months for MSc degree graduates.

This initiative is to improve the employability of young individuals by providing them with practical demonstrations of digital skills during a six-month graduate internship program. RWESCK will collaborate with industry partners to implement the internship program, aiming to enhance digital competence, raise qualification levels, and increase graduates' chances of finding employment.

During the internship, participants will engage in various tasks, such as compiling an inventory of software tools, conducting field data capture using digital devices, testing software tools and methods for operational management and optimization, demonstrating skills in Big Data analytics, AI/ML, reliability optimization, and more.

The overall goal of the project is to develop short-term courses and internship programs focused on digital skills training, which will serve as training-of-trainers (ToT) programs to equip interns with the ability to train future young graduates. The implementation of the extended internship program is scheduled to commence from July to December 2023.

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