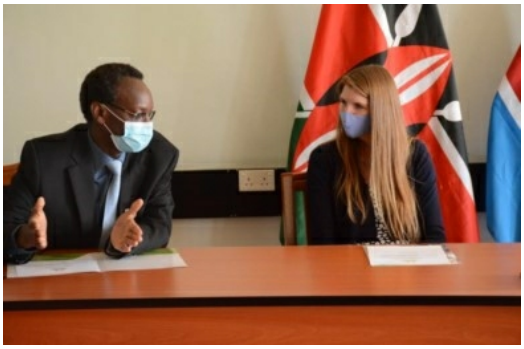
DEDAN KIMATHI UNIVERSITY OF TECHNOLOGY
MONTHLY NEWS BULLETIN

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Visit by the British High Commissioner, H.E Jane Marriot



On Thursday, 4th February 2021, we were privileged to host the British High Commissioner, H.E. Jane Marriot, who visited our coffee lab, the Dedan Kimathi Incubation and Innovation Hub (DeHUB) and Semiconductor Technologies Limited. The High Commissioner was particularly interested in meeting the innovators at DeHUB after learning its involvement in various Tech Hackathons and, more specifically, the Hub's involvement in the Acceleration Program dubbed in the Great COVID Hackathon sponsored by the U.K. Tech Hub in Nairobi.



In her programme to support 30 female entrepreneurs to grow their GreenTech businesses, Her Excellency Jane Marriot got a chance to be acquainted with various innovations from the Hub. DeHUB is a member of the Association of Countrywide Hubs, which is the umbrella for Kenya's innovation hubs.

Aside from that, the High Commissioner was also pleased with our Coffee terming it as one of the best coffee she has ever tasted. We continue to leverage local and international collaborations to actualize our vision of excelling in quality education, research, and technology transfer for development.





The Potential of Chia (Salvia hispanica) Farming in Kenya for Improved Food Security, Nutrition and Health



Kenya's high malnutrition rate is a serious public health problem that requires urgent attention from all sectors. The demand for functional food with multiple health benefits has increased with



increasing public health awareness worldwide. Provision of nutritious food should be addressed across the food chain by introducing novel crops that easily adapt locally and can be grown with the existing ones, like chia that can be an alternative to maize farming to enhance nutrition and supply. Chia (Salvia hispanica L.) is an exotic plant in Kenya where the effects of new growing environments and agronomical treatments on seed quality are being exploited. It has a promising future for food security, improved nutrition and health and it is more suitable in the food industry due to its essential physicochemical and functional properties. It is an excellent agent in food thickening, gel formation, chelator, foam enhancement, emulsification, suspension formation, clarifying agent, and rehydrating agent. This makes it commercially viable to develop new products enriched with omega-3, protein, soluble/insoluble fibre and phenolic compounds. Research has shown that chia seeds are also beneficial to animal feeds, where their addition resulted in a rise of alpha-linolenic acid (ALA) and a reduction of cholesterol levels in eggs and meat.

To this effect, the University has been exploring research on Chia and through Chia Project, the experts at the University have been involved in sensitization and training Nyeri County Agriculture Extension Officers. The 2nd Phase of this training happened in February this year. This project is in line with the University's vision of contributing to innovation and sustainable development in agriculture through food science and technology.



Empowering the 'boy child' at Kieni Technical and Vocational College



Emerging perceptions and public debate in Kenya suggests that the boy child has been left behind in the gender equality agenda. To validate these perceptions, the National Youth Council conducted an assessment in eight counties in Kenya. The Commission also sought to identify key drivers of exclusion of the boy child. The assessment involved county and national government officers, community leaders, heads of schools and the youth.

The findings of the assessment were that the general perception in all counties was that the boy child faces challenges that hinder his enjoyment of opportunities for progress, especially in education. The assessment identified the key drivers of the boy child's exclusion to include issues related to homes and families, socialization process, and cultural and traditional factors. The assessment makes key recommendations on how drivers of exclusion of the boy child can be addressed so that both the boy child and the girl child enjoy equal opportunities in society. This will require concerted efforts and effective collaboration between the national and county governments and all other stakeholders if gender parity is to be achieved.

On 5th February 2021, the Cabinet Secretary, Ministry of ICT, Joe Mucheru, the Vice Chancellor, Prof. Ndiragu Kioni, the CEO National Youth Council and other dignitaries visited Kieni Technical and Vocational College amidst discussions of this assessment to empower the boy child. In his address, the Vice Chancellor mentioned that the University will partner with Kieni Technical and Vocational College in providing value addition to start courses in leather technology and cosmetics at the college.





Courtesy visit by the Kenya Film Commission towards setting up a Sound Studio



Earlier in the year 2020, the University launched the DeKUT_Kenya Film Commission Animation & Gaming Hub after signing a Memorandum of Understanding with the Kenya Film Commission (KFC). This came about after discussions to invest in a Digital Media Centre to promote and grow the creative industry in order to reduce the youth unemployment gap.

On 12th February 2021, a team from the Kenya Film Commission paid a courtesy visit to the University to start the process of setting up a sound studio at the Film Hub. The partnership aims to provide a platform where young people and interested parties in creative art can use technology in film making and participate in digital media products marketed widely. The university aids in providing capacity development support for the interested parties as the Commission's main objective is to provide a vibrant film industry in Kenya.

Commemorating our hero, Dedan Kimathi Wachiuri, during Kimathi Week



Every year in the week that falls on 18th February (the date that the hero was executed), we celebrate Dedan Kimathi Wachiuri, after whom our institution is named. We call it Kimathi Week to commemorate his courage and bravery that saw Kenya achieve her independence. Dedan Kimathi's vision, ideas, actions, and outcomes are attributes that this University strongly identifies to pursue its mission to improve society.

To commemorate our hero, the University organized various activities involving students and staff members within and outside the University. These included;

(Photo courtesy of Standard Media.)

1. Visit to the Nyeri Maximum Prison

As part of the Kimathi Week and Corporate Social Responsibility initiative, DeKUT under the students' welfare visited G.K Maximum Prisons in Nyeri, where they interacted with the prisoners under Crime Si Poa initiative.

The initiative primarily focuses on discouraging engagement in criminal activities and addresses threats to peace through behavioral and attitudinal change while promoting the benefits of a crime-free society.







2. Educating the 'boy child' on how to handle different life issues affecting them

On 13th February 2021, Dedan Kimathi University of Technology Students' Organization (DeKUTSO) organized a men's conference to educate the boychild on handling different challenges affecting them; for example, drug abuse. This was due to the rising number of depression cases among students, especially the boy child, who mostly face challenges and talk less about them.



3. DeKUT Nairobi Campus Sports

Team work is one of the core values at DeKUT. It is through team work that our heroes were able to succeed in the fight for independence. As a University we enhance this through various co-curricular and extracurricular activities such as sports.

On Saturday, 20th February, DeKUT Nairobi Campus students and staff members organized a sports day at the Main Campus to wind up the Kimathi Week. Different activities took place, such as 100-meter races, tag war, egg race and team building.

This event provided a perfect opportunity for our students to develop and utilize their talents in various sporting disciplines as well as interact with their staff members.





Training on Automated Performance Management

Planning and tasks management is essential to effectiveness and efficiency. In this era of technological advancement, technology can be applied to simplify processes, planning and increase efficiency and effectiveness. Such technology include workload automation software which is used to streamline and automate I.T. processes related to job scheduling, batch processing or other repetitive tasks. These tools centralize control over business processes across mainframe and cloud computing systems. Companies use this software to manage, schedule, and optimize workload



processes. After a period of working on such a solution by the University's Software Development Centre, the School of Computer Science & Information Technology held training on the Workload Management System use to educate DeKUT staff members on utilizing their time effectively using the tool. The training was held on 24th February 2021.



The Workload Manager will aid in assisting DeKUT staff members in planning and managing their duties. Through this software, lecturers are able to set up their teaching goals for an academic year and later on implement and monitor them effectively.

DeKUT Develops a Data-Driven Digital Twin for real-time monitoring of FDM 3D Printer

Industries are in transition from the 3rd industrial revolution to the 4th industrial revolution. Globally, researchers are trying to create a smooth transition between those two revolutions.



As a University of technology that focuses on research, innovation, technology development and transfer, we are at the forefront in enabling this smooth transition. To that effect, our researchers in the school of engineering have been working on various solutions and using 3 technologies: 3D printer technology (industry 3.0), Digital twin technology (industry 4.0) and Big data technology (industry 4.0) have managed to create a non-invasive digital twin. With this technology, industries can be able to shift from industry 3.0 to industry 4.0 without destroying existing systems.

We congratulate Prof. Jean Bosco, Dr. Fredrick Mwema and Mr. Charles Odada for this invention.

DeKUT participates in the Kenya Alumni Engagement Programme

As a University successfully running a Students and Staff Exchange Programme, we are privileged to be participating in the Kenya Alumni Engagement Programme. The Kenya Alumni Engagement Programme is a partnership between Cultural Vistas, United States and Dedan Kimathi University of Technology. This programme aims at recruiting alumni of U.S. government-funded programs to help Kenyans address challenges in the nation's forward progress. The project's main objective is to engage alumni of U.S. government exchanges in enhancing peace and security, economic empowerment, health, and the rule of law in Kenya.

While access to quality health care is a constitutional right, millions of Kenyans cannot afford to pay for health services at public or private clinics. Even given public health insurance, only 20% of Kenyans have access to medical insurance, leaving as many as 35 million Kenyans excluded from quality health care coverage. Such are the issues this program seeks to help solve by engaging U.S. government-funded exchange program alumni to promote peace and security, economic empowerment, health and the rule of law; including combating corruption through a speaker series, community service projects and mentorship programs. The program will also strengthen county alumni chapters.

Alumni are invited to join the speaker series and develop mentorship programs in locations where the Embassy has American spaces. This project will also launch a competition among U.S. government alumni to carry out community service projects. The programme runs from 1st February to 30th June 2021.



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