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QUARTERLY BULLETIN
FROM THE OFFICE OF THE
VICE CHANCELLOR

DEDAN KIMATHI UNIVERSITY
OF TECHNOLOGY

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MOTTO

Better Life through Technology

VISION STATEMENT

A Premier Technological University Excelling in Quality Education, Research, and Technology Transfer for national development.

MISSION STATEMENT

To provide academically stimulating, culturally diverse and quality learning environment that fosters research, innovation and technology development towards producing relevant technical and managerial human resource and leaders to contribute to attainment of national development goals.

GSMA representatives visit DeKUT

GSMA is a trade body that represents the interests of mobile operators worldwide. Approximately 800 mobile operators are full GSMA members and a further 300 companies in the broader mobile ecosystem are associate members. DeKUT runs an innovation and incubation hub (DeHUB) whose main purpose is to identify and nurture innovators. Since inception in 2015, the hub has established partnerships with several tech companies and similar hubs across the country and through various organized events and meet ups, the goal of inspiring young innovators is being realized.

In the month of July, GSMA representatives were excited to visit DeKUT and interact with young DeKUT innovators on the subject- innovation – and possible funding from GSMA. The students were grateful for the great insights from the team and the motivation this session brought about.

DeKUT was the first African University that GSMA visited.



Data Science Africa 2017

Data science seeks to exploit advances in machine learning and statistics to make sense of the growing amounts of data available from various sources and use this data to solve real problems. Data Science Africa aims at creating a hub in the network of data science researchers across Africa by:

1. Providing an index of researchers and practitioners in the field of Data Science in Africa
2. A resource of lectures and notes
3. Links and sources of information and potential data sources
4. In the future a discussion forum to discuss Data Science questions
5. An online presence for data science conferences and workshops

This year's Data Science Africa workshop was held in Arusha, Tanzania. DeKUT hosted the conference in 2015. Dr. Ciira Maina, present in the workshop with Prof. Charles Mundia and some students, is the lead in matters Data Science at DeKUT https://sites.google.com/site/cwamainadekut/

The chancellor visits Mrs. Mukami Kimathi



On Saturday, 26th July 2017, DeKUT's chancellor, Prof. Shellemiah Keya, accompanied by some DeKUT staff members and students, Dedan Kimathi Memorial High School students and Dedan Kimathi Primary School had a privilege to visit the late Dedan Kimathi Wachiuri's family. The main aim was to pay tribute to Dedan Kimathis' wife (Loise Mukami). Dedan Kimathi was a heroic figurehead of the mau mau rebellion against British colonial minority rule while the British government saw him as a terrorist. He was among the freedom fighters who fought for the independence of Kenya and left a legacy. In his honor, Dedan Kimathi University of Technology (DeKUT) among other institutions were named after him. DeKUT is proud to be associated with this hero.
https://www.dkut.ac.ke/index.php/about-dekut/about-us/why-dedan-kimathi

Research and Development

Dr. Monica Mburu (Ph.D.), a Food Science and Technology Researcher, at the Institute of Food Bioresources Technology, is carrying out a research aimed at investigating the effects of new growing environments and agronomical treatments on chia seed quality and scientific validation on the efficacy and safety of the active ingredients in chia seed and leaves that warrants its health benefits, as well as evaluation of its commercial viability in Kenya.

Chia (Salvia hispanica L.) has a promising future in Kenya for food security, improved nutrition and health. Chia seed and leaves are protein-rich with good balance of essential amino acids making it suitable for malnourished children and adults living in rural areas who need better access to protein-rich food supply. It can enhance the nutrition status of food crop and fit in rotational farming. Chia seeds contain almost of all the essential nutrients such as protein, vitamins, omega-3 fatty acids, dietary fiber, antioxidants and minerals essential for optimum growth and development in good proportions. This is a superior food especially for infant complementary feeding. The high amount of alpha omega 3 is important in lowering the risk of cardiovascular heart disease.

Salvia hispanica (chia) has limited food applications in Kenya, since it is still being exploited. In the developed countries, it is commonly consumed in beverages, cereals, and salad dressing from the seed or eaten raw and as salad from chia sprout.

This research on Chia Products development focuses on: Chia yoghurt, Chia oil, Chia dried vegetables, Chia enriched cookies and cakes and Chia seeds drink.



Siemens Training

Knowledge is replacing other resources as the main driver of economic growth. Higher institutions of learning play a vital role in regards to generation and dissemination of knowledge. This way, the knowledge is applied for economic growth and development. Siemens has responded to the need of students by creating an industry certification program that will help students, workers, industries, teachers and institutions. DeKUT partnered with Siemens, as the 1st University in Africa, to offer a Siemens Mechatronic Systems Certification. In addition to training our students, this programme is adding value to the industry players; KENGEN 1st cohort was trained within the period July to September, 2017.

Public Lecture

The collaboration between DeKUT and Technical University of Applied Sciences (TUAS) – Wildau in Germany has been in existence since 2013 and has been enriched over time. To facilitate Knowledge & Technology Transfer between Kenya and Germany and leverage on unique training and research resources in the respective Universities for improvement of training and research output, DeKUT and TUAS runs an exchange program for both staff and students.

On Wednesday 6th 2017, Dr. Kiril Dimitrov, Material Engineer, and Prof. Thomas Goldman, Mechanical Engineer both from TUAS conducted a public lecture organized by the faculty of engineering in collaboration with students under the exchange program. The main topics of the public lecture were on the mechanical properties of PLA rayon fiber reinforcement composite and Geophysical methods in archeology and environmental investigations which is one of DeKUT's projects in the exchange program.



The Central Kenya ASK Show

The theme of the Agricultural Show this year was to Promote Innovation and Technology in Agriculture and Trade. DeKUT is progressively making industrialization attainable by providing quality education that supports Research, Innovation and Technology Transfer agenda; the heartbeat of DeKUT. This was evident during the 2017 Central Kenya ASK Show where the University won the Best stand in Research and Development award, 2nd Best University stand and 3rd Best stand in interpretation of the theme.

The president, His Excellency Hon. Uhuru Kenyatta, was impressed by the student's projects and DeKUT's effort towards promoting Research, Innovation and Technology Transfer when he graced the Show. Of key interest to him was the Usalama Watch App; i-monitor whose team he invited to state house for a presentation and Masomo Bora App which he referred to the Ministry of Education. He appreciated the good work being done by leather technology department and said he would send representatives from state house to visit and pursue the agenda. He also urged the Nyeri County Governor to work with the Institute of Food Bioresources Technology department especially on the Coffee Technology agenda for faster growth and development.



Highlights of what to look out for:

- **The 3rd Annual STI & E Conference**
https://www.dkut.ac.ke/index.php/component/k2/the-3-rd-dekut-international-conference-on-science-technology-innovation-and-entrepreneurship

- **KUSA National Games 2017**
https://www.dkut.ac.ke/index.php/kusa-games-2017