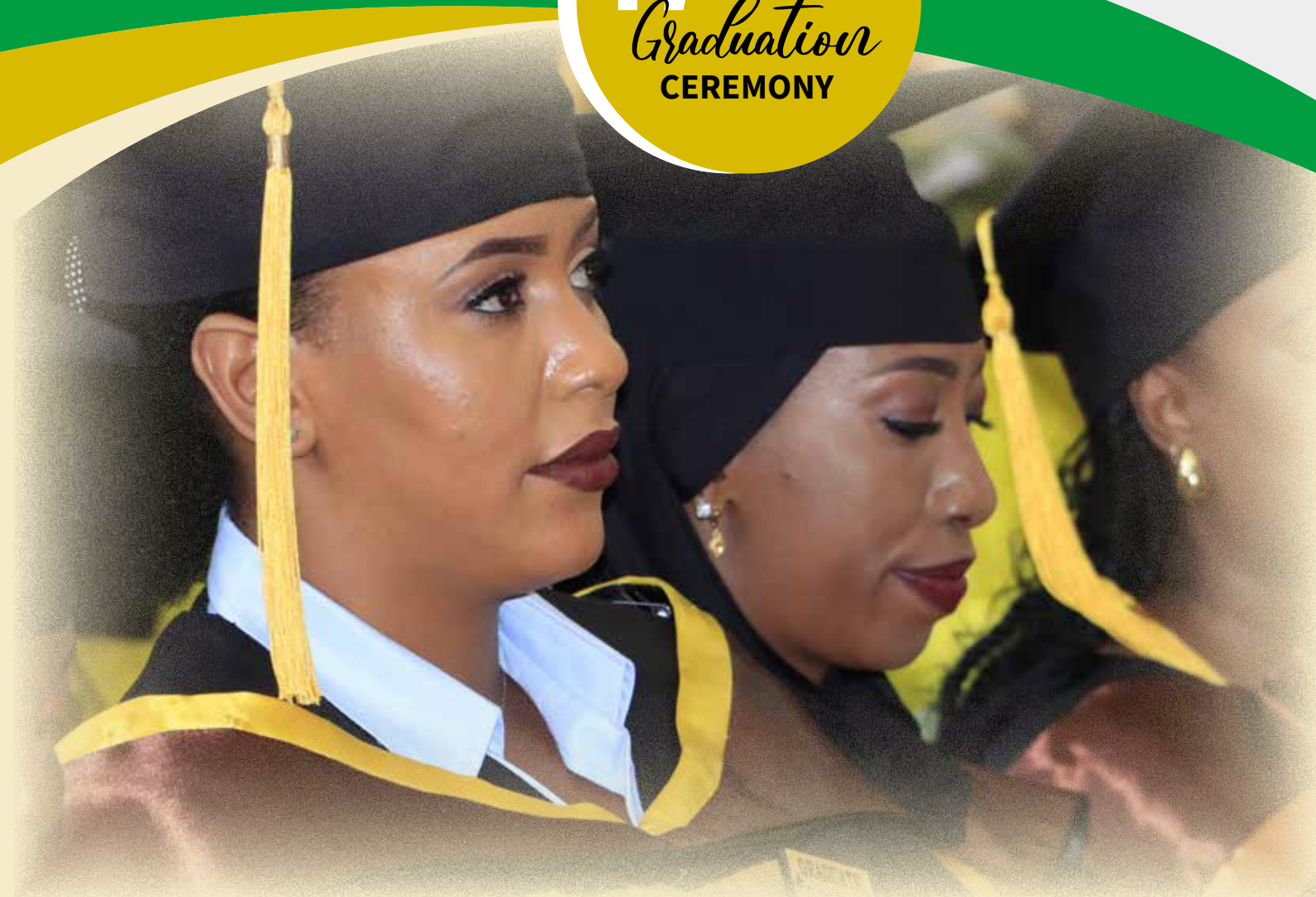
Dedan Kimathi University of Technology

DEDAN KIMATHI UNIVERSITY OF TECHNOLOGY

UNIVERSITY

Souvenir Magazine

17TH Graduation CEREMONY



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Message from the Chancellor



On behalf of the Dedan Kimathi University of Technology (DeKUT) fraternity, I congratulate our graduates on reaching this momentous milestone in their academic journey. Today, we honour your academic accomplishments and the exceptional resilience, dedication, and unwavering commitment that have propelled you toward this outstanding achievement.

This day marks the culmination of years of hard work, personal sacrifices, and relentless pursuit of knowledge. Each of you has demonstrated remarkable determination, overcoming challenges with courage and grace, and you now stand at the threshold of a future filled with boundless possibilities. Your success is a testament to your efforts and reflects the collective support from your families, guardians, friends, mentors, and the vibrant DeKUT community.

As you step forward into the next chapter of your life, I urge you to carry the values and principles deeply instilled in you during your time at DeKUT. Whether you choose to further your education, join the professional realm, launch innovative ventures, or follow your passions, let the solid foundation of knowledge, innovation, research and expertise you have gained serve as your guiding light. The world is dynamic and ever-evolving, demanding adaptability, creativity, and an unyielding commitment to excellence. As an alumnus of DeKUT, you embody the principles of innovation, research-driven inquiry, and ethical leadership. Let these ideals inspire your every endeavour, shaping you into leaders, visionaries, and changemakers who will leave an indelible mark on society.

I encourage you to embrace the future with confidence and integrity. Pursue your aspirations with boldness, knowing that the skills and values nurtured within the halls of this great institution will empower you to navigate both opportunities and challenges with determination. As ambassadors of DeKUT, you are torchbearers of our mission to foster excellence and contribute meaningfully to global progress. As you embark on this transformative journey, remember that success is not merely about personal achievements but also about uplifting others and positively impacting the world. Be empathetic, innovative, and steadfast in your commitment to creating a better, more equitable society.

Once again, congratulations on this remarkable accomplishment. You are the pride of DeKUT, and we eagerly anticipate the extraordinary contributions you will make in your respective fields and communities. May your journey be filled with success, fulfilment, and lasting happiness.

Congratulations, Class of 2024!

General (Rtd) Dr. Julius Waweru Karangi
EGH, CBS, DCO, LOM
Chancellor, DeKUT

Message from the Council Chairman

It is with immense pride and joy that I welcome you all to the 17th Graduation Ceremony of Dedan Kimathi University of Technology (DeKUT), a momentous occasion to celebrate the exceptional achievements of the Graduating Class of 2024. Today, we honour your hard work, resilience, and dedication to pursuing excellence. Congratulations on reaching this significant milestone!



The University Council remains steadfast in its commitment to developing the University through policy development and infrastructural development. The Council has approved policies that have seen the University develop Financially Independent Centers to encourage prolific innovation and research at the University. So far, the call has been headed by the faculty as many centers have come up and are actively operating crucial research, innovation and community development projects. On the infrastructure front, the council is pleased that the University main gate facelift. This project will ensure that the University's landmark entrance is aesthetically pleasing to the community, guests and travellers using the Nyeri Nyahururu road. The council cannot thank the Government of Kenya enough for the immense support that it has given to the University, in infrastructural development and policy support. As the University gears towards more growth, the Council recognizes the crucial role that the Government's support will play.

At DeKUT, we remain steadfast in our commitment to fostering academic excellence, innovation, and personal growth. As a Premier Technological institution, we take pride in nurturing graduates who are well-prepared to drive meaningful change and contribute to our nation's progress and development. You are now part of a legacy of transformative leaders and skilled professionals equipped to meet the demands of a rapidly evolving world.

I join the entire DeKUT fraternity in celebrating the fruits of your passion, perseverance, and inspiring abilities. The success of our alums across various industries underscores the transformative power of the DeKUT education. You are inheriting this legacy, carrying forward the values of integrity, discipline, and hard work. As you step into a competitive and dynamic professional landscape, remember that those who adapt quickly to change and embrace emerging technologies will thrive. The knowledge and skills you acquired here have prepared you to take on this challenge confidently and competently.

Be proud ambassadors of DeKUT as you build your careers and ventures, making lasting contributions to your communities, our nation, and the world. Uphold the principles and ideals instilled in you at this great institution. With integrity and determination, I am confident you will leave a meaningful mark in your respective fields.

Once again, congratulations to the Class of 2024! You have made us proud, and we eagerly look forward to the incredible accomplishments that lie ahead for each of you.

Congratulations once again to the Class of 2024!

Dr. James Kariuki,
Council Chairman, DeKUT

Message from the Vice Chancellor



Welcome to the 17th Graduation Magazine! We are proud to celebrate the achievements of 1282 graduands in this cohort. This marks a significant milestone for the University as we commemorate academic excellence, groundbreaking strides in research and innovation, and an unwavering commitment to advancing technology for a better life. I extend my heartiest congratulations to our graduating students on this remarkable accomplishment.

DeKUT is Kenya's leading Premier University of Technology, with more than 90% of its programs dedicated to technology education, research, and development. Driven by our vision, we strive to be a top-tier Technological University, offering quality education, conducting meaningful research, and advancing technology transfer to support national development. By concentrating on specialized areas, we aim to build capacity and conduct research that aligns with the country's development goals. Additionally, DeKUT has made considerable progress in promoting regional and international research and innovation, cultivating an environment that fosters innovation and entrepreneurship.

Research is the cornerstone of societal advancement, offering solutions to pressing challenges and driving economic development. At DeKUT, we emphasize applied research geared towards innovation and problem-solving. Our ecosystem includes Financially Independent Centers (FICs), which serve as hubs of excellence in specialized research domains, securing funding for projects to tackle societal challenges. These FICs have produced impressive outputs, such as air quality monitoring devices, access control systems, and smart card programming solutions. They also engage in capacity-building initiatives for communities and institutions alike.

The University has expanded its reach through strategic collaborations and partnerships. Notable partnerships include Memoranda of Understanding with institutions such as the Kenya Film Commission, Mukurweini Wakulima Dairy Ltd, New Kenya Planters Cooperative Union (New-KPCU), and international Universities like the University of Franche-Comté in France and the University of Siegen in Germany. These collaborations advance excellence in research, pooling resources and expertise to tackle global challenges. Moreover, our partnership with the United Nations Economic Commission for Africa (UNECA) to establish the Origin Research and Innovations Labs exemplifies our commitment to addressing complex challenges across the continent. Origin is a centralized hub for innovators, researchers, and entrepreneurs, offering cutting-edge laboratory facilities, access to funding, and a platform to transform ideas into impactful solutions.

Our commitment to community empowerment remains unwavering. Through the Directorate of Research, Innovation Management, and Community Linkages, DeKUT aligns its efforts with the Social Pillar of Vision 2030 to improve the quality of life for citizens. Initiatives like the Coffee Technology Centre (CTC) equip individuals with the skills to drive the national development agenda.

To our esteemed graduands, congratulations on reaching this significant milestone! As you embark on the next chapter of your journey, remember that you carry more than a degree. You embody the values and ideals of DeKUT—integrity, excellence, and a commitment to positive change. Be exemplary ambassadors of our University and embrace the challenges ahead with courage and determination. You are well-equipped to leave a lasting impact in your respective fields and beyond.

Go forth and make a difference.

Congratulations, Class of 2024!

DeKUT Shines in Historic State Visit to The United States of America

His Excellency the President of Kenya, Dr. William Samoei Ruto, C.G.H., recently led a historic delegation to the White House, marking a Kenyan leader's first official state visit to the United States in 18 years. Among the distinguished attendees were Prof. Eng. Peter N. Muchiri, Vice Chancellor of Dedan Kimathi University of Technology (DeKUT) and Dr. Anthony Githinji, the CEO of Semiconductor Technologies Limited (STL). The visit focused on strengthening technological partnerships between Kenya and the United States, particularly advancing the Semiconductor value chain in Africa, fostering innovation, and creating job opportunities for Kenyan youth in the rapidly growing tech sector.

This visit underscored the mutual commitment of both nations to advancing technological capabilities, fostering innovation, and expanding economic opportunities. Prof. Muchiri's participation highlighted the critical role of academic institutions like DeKUT in driving technological progress, championing research, and preparing the next generation with the skills required to thrive in a rapidly evolving digital economy. DeKUT's designation as a Center of Excellence in Semiconductor Manufacturing positions it as a pivotal player in this transformative collaboration.

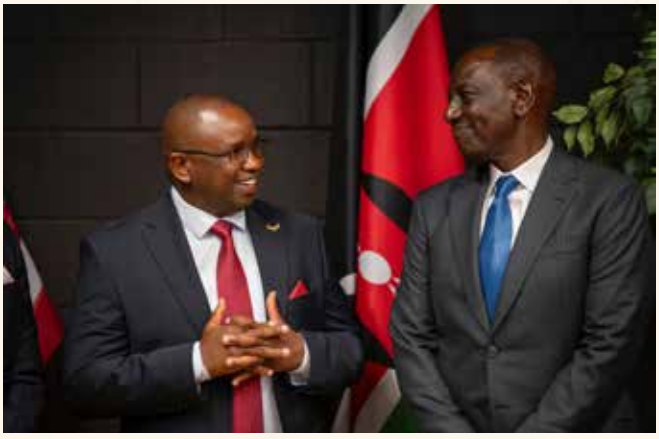
A groundbreaking Collaboration Agreement was signed during the visit to Spelman College in Atlanta, Georgia. This agreement aims to strengthen partnerships between Universities and industry, fostering innovation, research, and job creation in STEM-related fields in Kenya and globally. Key signatories included five leading U.S.A Universities, DeKUT, and several other Kenyan Universities, alongside global tech giants Microsoft, Mastercard, and Micron Technologies. President Dr. William Samoei Ruto and U.S. Ambassador to Kenya Meg Whitman presided over the agreement, underscoring the shared commitment to building capacity in STEM-related programs.

It was a significant step forward in aligning academic and industry efforts to accelerate technological development and economic growth. DeKUT's leadership and expertise in semiconductor manufacturing, coupled with its dedication to applied research and innovation, position it at the forefront of efforts to transform Kenya into a hub of technological excellence. This historic visit lays the groundwork for enhanced bilateral cooperation, driving significant advancements in Kenya's tech sector and contributing to the global semiconductor value chain.









DeKUT Hosts 5th Engineering Partnerships Convention: Shaping the Future of Engineering Excellence

From 7th to 10th, May, 2024, Dedan Kimathi University of Technology (DeKUT) hosted the 5th Engineering Partnerships Convention (EPC), a flagship annual event organized by the Engineers Board of Kenya (EBK) under the theme, "Engineering@60: Reflections, Response, Resetting," marked an opportunity to reflect on the field's historical progress, tackle present challenges, and chart a strategic path for future growth. The convention united over 800 companies and stakeholders, reaffirming DeKUT's position as a hub of engineering excellence.

The event featured engineers, scientists, innovators, and industry leaders who convened to share knowledge and shape the future of engineering. Key highlights included an innovation fair, the launch of the EBK strategic plan, and site tours to the Kirinyaga Water Treatment Plant and Semiconductor Technologies Limited. The opening day saw addresses by prominent figures such as EBK Chairman Erastus Mwongera, CE, FIEK, CBS, and DeKUT Vice Chancellor Prof. Eng. Peter N. Muchiri. Attendees explored cutting-edge innovations through numerous exhibitions and engaged in breakout sessions addressing critical engineering challenges.

The final days delved into the pivotal topic of the commercialization of education, research, and technology—a cornerstone for driving innovation and societal transformation. The convention concluded with a gala dinner featuring sponsor addresses, awards, and a tree-planting initiative led by DeKUT's Vice Chancellor to honour flood victims, which aligned with the National Tree Planting Day. This act emphasized DeKUT's dedication to combating climate change and environmental preservation.

In its entirety, the 5th EPC highlighted DeKUT's unwavering commitment to fostering applied research, innovation, and engineering excellence, furthering the advancement of engineering in Kenya and beyond.











DeKUT Hosts Data Science Africa 2024: Advancing AI and Innovation for Societal Impact

DeKUT recently hosted the Data Science Africa (DSA) 2024 Nyeri Summer School and Workshop from the 3rd to 7th of June 2024. The event commenced with an address by DeKUT's Vice Chancellor, Prof. Eng. Peter. N. Muchiri, highlighting the University's steadfast dedication to Science, Technology, Engineering, and Mathematics (STEM) education. He underscored DeKUT's commitment to integrating Research and Development (R&D), fostering human resource development, and driving innovation through entrepreneurial endeavours.

The DSA 2024 event brought together participants from over thirty African countries. It also featured guest speakers from various Universities and leading organizations such as Google AI, Sunbird AI, Spotify, and Edge Impulse, who enriched the discussions with their expertise. Under the theme' Data Science for Social Good in the Age of Generative AI', the event explored cutting-edge topics in data science such as Edge Machine Learning (Edge ML) and Natural Language Processing (NLP).

The Summer School provided a comprehensive learning experience, combining tutorial sessions led by industry professionals with insightful lectures on fundamental and advanced data science and machine learning topics. Participants were urged to engage deeply with Generative AI, delving into applications like image, text, and code generation to develop solutions for practical issues. Under NLP, they explored the capabilities of Large Language Models (LLMs), particularly their relevance to East African languages, and gained hands-on experience through practicum labs.

The workshop sessions, where attendees played a crucial role, provided a vital platform for them to present and discuss projects integrating AI, covering methodologies, comparative analyses, and critical issues in the field. Participants explored case studies on addressing real-life human-wildlife conflicts, climate change mitigation, healthcare enhancement and predictive modelling, showcasing the intersection of data science and generative AI.

The five-day event showcased the latest advancements and challenges in data science for societal benefit. It served as a unique networking opportunity, fostering connections among professionals across Africa and globally. This event exemplified DeKUT's role in fostering innovation, research and collaboration in data science, aiming to impact society positively through cutting-edge research and education initiatives.









The Centre Of Research On Volcanology In Africa At DeKUT, The New Baby In Town

By Dr. Patrick Kirita Gevera

Lecturer, Geothermal Training and Research Institute, DeKUT

Located on the slopes of Mt. Kenya, DeKUT is strategically placed between several majestic volcanic marvels of Kenya. These include Mt. Kenya, which is the second highest mountain in Africa; the Aberdare range, which is 160km long and 3500m high range, as well as the Kenyan Rift Valley, an active tectonic and volcanic rift, where we are currently witnessing the breaking up of the African continent within which there is a geothermal resource, a product of volcanology in abundant supply with a potential of supplying 10,000 MW of clean electric energy and unexplored critical mineral resources.

Regionally, the African continent is dotted with about 150 known volcanoes, some billions of years old, yet some are still in their infancy and developing right before our eyes. This unique location puts the Geothermal Training and Research Institute (GeTRI) at the perfect spot for studies on all these volcanic activities happening in the country and across the continent.

GeTRI was established at DeKUT in early 2013 to offer an MSc and Postgraduate Diploma in Geothermal Technology and conduct research in geothermal technology. The Institute has since grown to offer a BSc in Geology, and a soon-to-begin MSc in Geology program with a currently ongoing program review process to enhance the existing programs to address the industry needs. As a result of this growth, the University Council approved the establishment of the Centre for Volcanology Research in 2023, a first of its kind in Africa. But why is the Centre for Volcanology Research crucial for Kenya and Africa?

Due to the rapid climate change exacerbated by the heavy global reliance on fossil fuels, most countries are gearing towards achieving the UN SDG 7: Affordable and clean energy. In Africa, Kenya is among the pioneers and most significant consumers of almost 100% clean energy for electricity generation, where hydroelectric power has been the most important contributor. However, with the recent erratic rainfall patterns in the country, the government is working towards increasing its electricity generation from geothermal energy. This is achievable by a combination of luck and improvement in research in the geothermal technology field. Luck? The Great Rift Valley is a vast geological fault line, “a huge natural crack” that runs a whopping one-sixth of the earth’s circumference (approx. 6,000 km), and Kenya lies right in the middle of it! This fault line is where tectonic forces pull the world apart, where the African continent will eventually break into two parts. Due to this “breaking apart”, the part of the earth where the Rift Valley is located is becoming thinner and thinner, making it closer and closer to the earth’s hot interior called the mantle. Due to this, the ground in the Rift Valley becomes hot compared to other regions. This is manifested by hot springs, geysers, and steam vents seen across the Kenyan Rift Valley in areas such as Bogoria, Ol Karia, etc. This heat that makes the earth hot is what we manipulate to generate electricity. In addition to the energy potential of these volcanic centres, volcanic eruptions are known to be hazardous to human, animal, and plant health and destroy infrastructure. Therefore, understanding how these volcanoes behave will help us minimize and avoid (risk mitigation) the destruction that comes with their eruptions.

To improve research on geothermal technology, GeTRI’s Centre on Volcanology in Africa will help the country further in its vision of achieving its 100% reliance on clean energy for electricity generation and mitigating or minimizing hazards associated with volcanic eruptions in Kenya and across Africa. The Centre facilitates research to better understand the volcanic provinces in Kenya and across Africa and benefit economically from these provinces. The Centre is envisaged to collaborate with research institutes across the continent, such as the Network of African Volcanologists and organizations such as the Geological Society of Kenya (GSK), Geothermal Association of Kenya (GAK), KenGen, Geothermal Development Company (GDC), National Environment Management Agency (NEMA), Ministry of Energy and Petroleum, United Nations Environment, universities and observatories.

The Centre’s core activities will be to collect primary/secondary data on African volcanos and act as a depository, facilitate research and teaching on volcanology in Africa, and promote collaboration among African volcanologists. This research Centre will benefit DeKUT by raising the University’s profile as an authority in volcanology-related research, attracting regional and global research collaboration and funding opportunities, and creating a niche for the University to attract students and researchers interested in studying volcanology, especially within Africa. The Centre is planning to host the next “International Joint Large Igneous Province/Dyke Swarm Conference” at DeKUT in July-August 2026 to fast-track its activities. The conference will bring global experts from Large Igneous Provinces (LIPs) to discuss research development in this area. The official call for the conference will be released soon through the Institute’s website. We welcome all interested researchers, students, and investors who wish to explore our volcanoes in Kenya and across the continent to join us as we trailblaze this unchartered path.

DeKUT Presents Kenya-AIST - The New Baby in the Research, Technology and Innovation Arena

By Prof. JW Khamasi, EBS,

Ag. Principal, Kenya Advanced Institute of Technology

Email: principal@kenya-aist.ac.ke



It was on 8th July, 2022 when Kenya-AIST was established as a legal entity through publication in Kenya Gazette Supplement No. 117, Legislative Supplement No. 55, under Legal Notice No. 130. From the onset, the Institute was conceptualized, designed and is being constructed as a specialized postgraduate degree awarding institution of strategic national importance; and is modelled after the Korean Advanced Institute of Science and Technology (KAIST). The establishment of Kenya-AIST was aimed at meeting the shortage of highly skilled engineers needed in Kenya and in the region; to drive the country into an industrialized Nation. Once the baby comes of age, it is expected to make a significant contribution to Kenya's transformation into a prosperous and innovative country, with its graduates leading Kenya's economic and technological growth.

Kenya-AIST is an anchor tenant of KoTDA and administratively under the State Department of ICT and the Digital Economy, in the Ministry of ICT and the Digital Economy (ref. *The Executive Order No. 1/2023 of January 2023)*. The Institute is envisioned as the engine for moving Konza Technopolis; and together, we envision a time when all companies in the Technopolis will develop a symbiotic relationship with the Institute. With that focus, Kenya-AIST will contribute to realization of the Government's commitment to strengthen KoTDA by bringing together industry, academic institutions and other innovators to co-invest in emerging technologies and to create high-quality jobs that leverage on artificial intelligence, robotics and other technologies; and thus enhance Kenya's regional and global competitiveness.



Vision and Mission of Kenya-AIST

Kenya-AIST is designed as a specialized post-graduate degree-awarding institution with a focus on advanced research, training and education in science, technology and engineering. It is a flagship project under Kenya Vision 2030 and critical in the achievement of Bottom-up Economic Transformation Agenda (BETA).

Our Vision

- The vision of Kenya-AIST is to lead pioneer research and education in science and technology, and nurture highly qualified scientists and engineers for Kenya's industrialization and modernization.

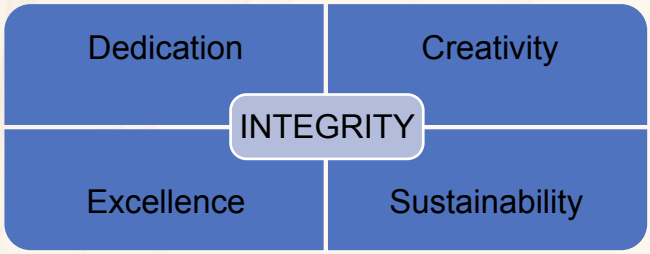
Our Mission

- The mission is to nurture highly qualified scientists and engineers by equipping them with theoretical and practical knowledge; conduct socially relevant

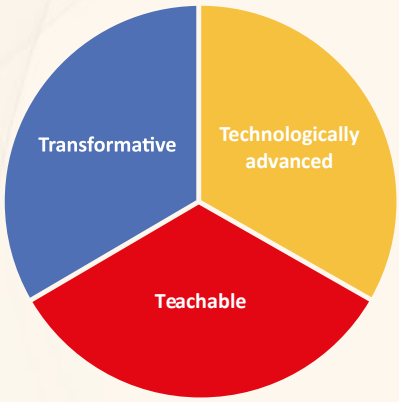
research and development to improve national competitiveness and speed up industrialization; create social and economic values to improve Kenyans' quality of life.

Guiding Core Values

Kenya-AIST will be guided by the following core values:



Kenya-AIST Curriculum Design Philosophy



Curriculum Design Philosophy

The curriculum design philosophy is embodied in the 3T principles. The curriculum of Kenya-AIST must be "**transformative**" in the sense that it brings about meaningful changes both for the learner and for Kenya, "**technologically advanced**" by teaching the students new approaches with frontier knowledge and skills, and "**teachable**" by tailoring the contents to local needs and conditions.

Academic Programmes

For a start, the programmes to be offered at Kenya-AIST during the first 5 years are:

MASTERS PROGRAMMES	DOCTORAL PROGRAMMES
▪ Master's Degree in Civil Engineering, ▪ Master's Degree in Electrical & Electronic Engineering, ▪ Master's Degree in ICT Engineering, ▪ Master's Degree in Mechanical Engineering, ▪ Master's Degree in Nuclear Engineering, ▪ Master's of Science in Agricultural Biotechnology, and ▪ Master's of Science in Chemical Engineering,	▪ Doctor of Philosophy in Agricultural Biotechnology. ▪ Doctor of Philosophy in Chemical Engineering, ▪ Doctor of Philosophy in Civil 7 Environmental Engineering, ▪ Doctor of Philosophy in Electrical & Electronic Engineering, ▪ Doctor of Philosophy in ICT Engineering, ▪ Doctor of Philosophy in Mechanical Engineering, ▪ Doctor of Philosophy in Nuclear Engineering,

To Prospective Students

✓ Are you seeking admission into a Master's degree programme in an engineering field or computer science or IT or Agricultural Biotechnology?

✓ Are you passionate about contributing to Kenya's transformation into a prosperous and innovative country?

✓ Do you have a dream to improve the quality of life of Kenyans at a point in time? If your first degree is in an area aligned to the academic programmes listed above, then we would like to know ways in which you would like to transform Kenya through technology and the digital economy. Kenya-AIST is the place to pursue a Master's degree and achieve your dream.

✓ Are you an industrialist and searching for researchers and innovators to address your industrial challenges? Let us have a conversation.

To the Scholars and Researchers

a. Kenya-AIST has job opportunities – for faculty and researchers in the academic areas of focus.

b. There are **opportunities for study** – we will be recruiting the first cohort of Master's students in 2025/2026.

c. There are **opportunities for visiting scholars** in the various departments.

d. Accommodation that is conducive for living and research is available to staff and students.

e. We are also **searching for partnerships/linkages** with academic and research institutions, and we welcome Kenyan researchers in both the global South and North to join this initiative.

For more information, contact the **principal@kenya-aist.ac.ke**



PIONEERING AFRICA'S FUTURE THROUGH ARTICIFICIAL INTELLIGENCE AND FRONTIER TECHNOLOGIES

The Origin Fest Hackathon 2024 gathered innovators, entrepreneurs, and researchers, all dedicated to addressing Africa's key challenges and paving the way for a sustainable future. Participants gained hands-on experience with advanced data science and AI tools while learning about critical topics like intellectual property rights, the University Fund (UF), and strategies to protect their groundbreaking ideas. This immersive experience strengthened problem-solving skills and fostered valuable connections within Africa's growing tech and entrepreneurial sectors.

One of the event's highlights was the chance for participants to pitch their innovative ideas to a panel of experts. The four most impactful projects earned the opportunity to showcase their concepts at the Third Forum for the Alliance of Entrepreneurial Universities in Africa, alongside ongoing mentorship and collaborative support from Origin and challenge sponsors to refine their solutions further. Throughout the hackathon, participants engaged in active brainstorming, collaborative forums, and open discussions, creating a space where all ideas were welcomed and refined with feedback from peers and mentors. This cooperative atmosphere nurtured creative solutions and cultivated a strong community of innovators eager to tackle Africa's pressing issues.

The Origin Fest Hackathon 2024 was a powerful example of how innovation, technology, and entrepreneurship can drive transformative change. As participants continued to develop their projects, they brought the continent closer to sustainable solutions tailored to Africa's unique challenges. The Origin Fest's efforts to empower the next generation of innovators are laying the foundation for a brighter future for Africa.









ADVANCING AFRICAN START-UPS AND INNOVATION

The 3rd Forum of the Alliance of Entrepreneurial Universities in Africa (AEUA) was convened to promote African start-ups and innovation, bringing together academia, industry leaders, government officials, and entrepreneurs from Africa and beyond. The Hosted by the Origin Research and Innovation Lab, East Africa, and supported by the United Nations Economic Commission for Africa, the event focused on the theme "Towards One Million Startups & $100 Billion Revenue." The keynote address, delivered by Dr. Juma Mukhwana, Principal Secretary of the State Department for Industry, Ministry of Trade, Investment, and Industrialization, highlighted the transformative impact of entrepreneurial Universities on African economies.

Held over two days, the forum encouraged dialogues on creating sustainable, long-term collaborations, strengthening inter-University partnerships, and aligning academia with industry and government to address Africa's specific needs. The AEUA's mission centres on fostering job creation, wealth generation, and sustainable growth by building robust ecosystems that nurture startups. DeKUT, a leader in entrepreneurial ecosystem development, showcased its Science & Technology Park, which hosts Kenya's first semiconductor industry, demonstrating its commitment to promoting innovation and equipping students and startups with the tools to develop advanced technological solutions.

The forum's theme, "Forging Reliable, Sustainable, and Long-Term Partnerships," guided discussions on leveraging public-private partnerships to enhance academia's capacity to solve societal issues. Experts emphasized how academic institutions can drive national growth by adopting collaborations beyond traditional academic roles, positioning African innovations to make a global impact. Participants shared knowledge and strategies, united by the vision of establishing African universities as key players in the growth of local industries and expanding entrepreneurship on the continent.

This forum, led by Origin and AEUA, underscores the critical role of Universities in fostering a thriving entrepreneurial environment. Africa is paving the way for global competitiveness and empowered youth by combining research, innovation, and enterprise. Concluding with a call to action, the forum urged all stakeholders—academia, industry, government, and the public—to actively support the continent's innovative and entrepreneurial future.









DeKUT Hosts the 2024 Kenya National WorldSkills Competition

The WorldSkills National Competition 2024 was successfully hosted at Dedan Kimathi University of Technology (DeKUT), bringing together the brightest minds in Mechatronics and Mechanical Engineering Computer-Aided Design (CAD). This prestigious event highlighted the importance of fostering critical skills among the youth, industries, government, and educational institutions. The competition created a unique platform to unite stakeholders in a collaborative effort to nurture the talent that will shape the future of our nation.

DeKUT's unwavering commitment to cultivating an environment where talent is identified and developed was a pivotal factor in the WorldSkills National Competition 2024 success. More than just a talent search, the competition recognized participants with diverse skill sets essential for driving innovation and progress. The event was a clear testament to the University's dedication to enhancing educational experiences and preparing the youth for the dynamic world of technology and engineering.

DeKUT proudly celebrated the victory of Joshua Nyandwaki and Ray Wekesa, who secured Gold in the Mechatronics category. Silver was awarded to Andrew Juma and Frankline Owiye from Kiambu National Polytechnic, while Kinoti Mutugi Marvin and Felix Mugira from Mukiria Technical and Training Institute earned third place.The Mechanical Engineering CAD category also saw impressive performances. Mulwa Amos Sila from DeKUT clinched the Gold medal, with Julia Wambui Kamau from Kisii National Polytechnic taking home the Silver medal. These participants' success reflects their dedication and the bright future that awaits them in their respective fields. DeKUT remains honoured to have hosted this remarkable event and looks forward to witnessing the continued achievements of these talented individuals.

Congratulations to all participants for their outstanding contributions to the competition. Your success is a testament to the incredible potential of our youth and the promising future of innovation and excellence in Kenya.









ARTIFICIAL INTELLIGENCE: THE CORNERSTONE OF FUTURE IN ACADEMIA AND INDUSTRY

By: David Gichohi Maina

BSc Computer Science First Class Hon, MSc Computer Science



Artificial Intelligence (AI) is no longer a distant concept in technology; it is rapidly becoming the cornerstone of academia and industry. As we embrace the Fourth Industrial Revolution, AI is becoming more invaluable in transforming research, innovation, and problem-solving with cutting-edge solutions. In university education, AI offers an unparalleled ability to analyze vast research data, personalize learning experiences, and equip students with future-ready skills. To stay relevant and impactful, AI will be a subject of study and a tool to advance all disciplines.

AI is not merely a tool but the future of academic and industrial innovation. It is increasingly clear that any field aiming to stay pertinent and progressive can only do with it.

To fully leverage AI's potential, universities, faculty, and students must proactively approach this shift. Embracing AI requires lifelong learning, interdisciplinary thinking, and ethical consideration. Investing in modern labs and data resources and offering courses for AI principles while emphasizing hands-on projects and cross-disciplinary applications will ensure universities take the lead in producing innovators who can tackle today's challenges.

DeKUT has been at the forefront of this shift, nurturing a culture that values innovation and equips students to harness AI's potential. The University's commitment to AI is evident through its resources, academic programs, and emphasis on real-world applications, creating an environment where students are prepared to lead in a data-driven world. I have experienced firsthand the University's dedication to academic excellence and transformative research. My journey began in 2012 when I enrolled for a Bachelor of Science in Computer Science, graduating with First Class Honors in 2016. This achievement and my deep-rooted futuristic passion led me back to DeKUT in 2021 to pursue a Master of Science in Computer Science.

Throughout my MSc studies, I had the privilege of participating in several AI summits, conferences, workshops, and training programs that broadened my understanding and exposed me to advancements in research.

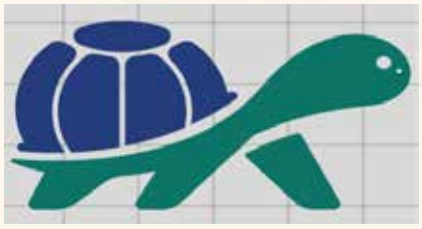
A particularly memorable experience was attending the **Deep Learning Indaba 2024** at the University Amadou Mahtar Mbow (UAM) in Dakar, Senegal, from the 1st to the 7th of September 2024. There, I engaged with leading AI researchers and enthusiasts from across Africa and worldwide. Themed *"Xam-Xamlé"* (to gain and share knowledge), the conference highlighted AI's role in driving Africa's progress through knowledge-sharing. The conference not only deepened my technical insights but also connected me with a network of brilliant minds passionate about the future of AI on our continent. I was honoured to receive the **Poster Book Prize** for my research presentation during this conference. Additionally, I was privileged to speak at a workshop organized by Qhala and Qubit Labs on "*Navigating AI Regulatory Challenges for Fraud Detection in Motor Insurance Claims*", highlighting the need for AI regulations on ethics, transparency, and accountability, critical for ensuring that AI benefits society at large.

I also participated in the **Deep Learning IndabaX Kenya Summits** in 2023 and 2024, organized at the School of Computer Science and IT, where we delved into the transformative potentials of AI across various fields. Courtesy of DeKUT, I have attended the "*AI for Future Workforce*" Train-the-Trainers training by Intel Company, facilitated by Sustainable Living Lab. I also contributed to discussions on institutional preparedness at the "*Universities Dialogue on Artificial Intelligence*" Workshop organized by the Commission for University Education, Kenya.

Participating in these engagements underscored the importance of collaboration and continuous learning, especially in the fast-evolving field of AI. It also reminds us of our work's impact on shaping policy and ensuring that AI serves the greater good. The moments have been invaluable in reinforcing the importance of my research and driving my commitment to furthering AI studies.

As I graduate, I am immensely grateful to DeKUT for its support, from academic guidance to scholarship opportunities and research resources, which have empowered me to contribute meaningfully to the world.

AI is reshaping our world and will play a central role in every facet of life. DeKUT has provided the foundation to make meaningful contributions in this field. With the University's legacy of excellence, I am ready to carry forward a vision of ethical AI and community-driven progress, working toward solutions that address real-world needs and inspire future generations.



The Essential Role of Strong Internal Controls in the Success of Higher Educational Institutions

CPA. James Muthusi HD

Head, Audit, Risk & Compliance DeKUT

In the complex landscape of higher education, the success of institutions hinges on their ability to manage resources effectively, ensure compliance, and maintain a commitment to academic integrity. Strong internal controls play a crucial role in achieving these objectives. This article explores the essential functions of internal controls in higher educational institutions, highlighting their impact on financial management, risk mitigation, regulatory compliance, and overall institutional integrity.

1. Enhancing Financial Management

Adequate internal controls are foundational for sound financial management in higher education. These controls help institutions safeguard their assets, prevent fraud, and ensure the accurate reporting of financial information. By implementing robust budgeting, accounting, and expenditure procedures, institutions can maintain financial transparency and accountability.

For example, clear segregation of duties within financial operations can significantly reduce the risk of errors and fraudulent activities. As part of an internal control framework, regular audits and financial reviews further bolster trust in the institution's financial practices and help make informed strategic decisions.

2. Mitigating Risks

Higher education institutions face many risks, including financial instability, compliance failures, and reputational damage. Strong internal controls are a critical cog in the risk management framework that helps identify, assess, and mitigate these risks. Institutions can proactively address potential vulnerabilities by establishing policies and procedures that govern operations.

For instance, risk assessments can guide the development of controls related to enrolment management, financial aid disbursement, and investment strategies. Institutions can enhance their resilience and adaptability in an ever-changing educational landscape by understanding and mitigating these risks.

3. Ensuring Regulatory Compliance

Higher educational institutions are subject to various regulations, including financial aid and accreditation. Strong internal controls are essential for ensuring compliance with these regulations, thus protecting the institution from legal repercussions and potential loss of funding.

By fostering a compliance culture, institutions avoid penalties and enhance their reputation among stakeholders, including students, faculty, and government agencies.

4. Promoting Academic Integrity

Internal controls also play a vital role in promoting academic integrity within higher educational institutions. Establishing clear policies on academic standards, assessment processes, and student conduct helps ensure that academic processes are fair and transparent.

By implementing controls such as plagiarism detection software and secure examination procedures, institutions can deter academic dishonesty and uphold the credibility of their degrees. A commitment to academic integrity fosters trust among students and faculty and enhances the institution's reputation in the academic community.

5. Facilitating Strategic Planning and Decision-Making

Strong internal controls provide valuable data and insights that support strategic planning and decision-making. By ensuring the accuracy and reliability of financial and operational data, institutions can better assess their performance and make informed choices about resource allocation and program development.

Regular reporting and analysis of key performance indicators, supported by internal controls, enable the top leadership to identify trends, evaluate program effectiveness, and make strategic adjustments. This data-driven approach enhances the institution's ability to respond to challenges and capitalize on opportunities for growth and innovation.

Conclusion

The essential role of strong internal controls in higher educational institutions cannot be overstated. These controls bolster financial discipline, mitigate risks, ensure regulatory compliance, promote academic integrity, and facilitate strategic decision-making. As higher education continues to evolve, institutions must prioritize developing and implementing robust internal control frameworks to achieve long-term success. By doing so, they can protect their resources and reputation and foster an environment of trust and excellence that benefits students, faculty, and the broader community.

DeKUT's EXPERIENTIAL LEARNING A GAME CHANGER



By Erick Oundah

As the country grapples with insurmountable socio-economic and political problems, many unanswered questions have emanated from the citizenry. Are political leaders, the supposed products of universities, not experienced enough to deliver in their respective capacities, or has sheer negligence resulted in the status quo? Every electioneering period allows the citizenry to replace the supposedly underperforming leaders. Amidst their tenure, the new crop of elected leaders displays the attributes of the former leaders. Self-assured hubris, misrepresentation of the populace, abuse of office, and disregard for the constitution become the order of their (leaders) life in office.

This begs the question: should leaders be blamed, or should higher learning institutions be criticized for failing to teach the necessary leadership skills alongside coursework? The four-year course at Dedan Kimathi University of Technology (DeKUT) has immensely benefitted the graduating class owing to its hands-on approach.

The contemporary world has different categories of students. Some students have been assured of job opportunities, and their reason for being in the university is to get the degree certificates to occupy and defend the promised jobs. If such students ascend to the leadership role, the nation is doomed. Another set of students join higher learning institutions to be promoted in the workplace. Theirs is not personal development; they need a gate pass to receive higher salaries and benefits. The last lot join universities to pursue their respective fields of interest because they are persuaded, beyond a reasonable doubt, by the integral role of education in fast-tracking a developing economy. A learned nation is a prosperous nation. When a nation invests in education, critical thinkers and problem solvers multiply, and detrimental challenges capable of stagnating a country are amicably solved without delays. Proper education furthermore lowers the poverty level and dependency rate as graduates strive to create jobs rather than applying and waiting for unavailable jobs.

DeKUT's focus is not only on academic qualifications but also on extracurricular activities that make an all-around graduate fit to steer the nation to greater heights. With the unfolding cases of insecurity, more so in the northern part of Kenya, the Forensic Science and Criminology students had an opportunity to visit the Humanitarian Peace Support School (HPSS) on 31/03/2023 and received training on Introduction to Explosive Hazards, Types of IEDs and Components, Effects of Explosives, Small Arms and their operations, and Military Working Dogs capabilities. The trainees were awarded certificates.

The need for a secure nation has also seen DeKUT introduce and strengthen the Taekwondo classes, where all students are coached and certified. These skills benefit students, especially in self-defense scenarios when faced with danger.

In their studies, students have greatly benefited from the library, which has books from all fields. The library has made it easy for students to start and complete the research works without hassle, as materials are readily available. DeKUT's approach to learning has made and will continually make needed leaders who will steer this country to greater heights.

Besides, the burgeoning cases of corruption and embezzlement of public funds saw the need to initiate the DeKUT Ethics and Integrity Club. The ethics ambassadors have traversed the nation, preaching the gospel of ethical behaviour at workplaces, learning institutions, and open public forums.

As we graduate today, we will miss the tremendous symbiotic lecturer-student relationship. Most students come for the degree, and as they leave, they will positively impact society before they even think of looking for employment opportunities, thanks to extracurricular activities. The University has taught the graduating lot to approach national issues with utmost confidence and not be wracked with guilt, undermining progress.

DeKUT Hosts the IndabaX Kenya Summit 2024: Unlocking Africa's AI Potential

DeKUT proudly hosted the IndabaX Kenya Summit 2024, a dynamic three-day event that brought together 150 on-site participants and 100 virtual attendees under the theme "Unlocking the Potential of Artificial Intelligence." The summit was a vibrant platform for exchanging ideas, insights, and innovations to advance AI across Africa.

This year's summit delved into AI's transformative role in tackling challenges unique to the continent. Discussions revolved around scalable solutions for resource-limited economies and explored AI applications in education, technology, health, and agriculture. A strong emphasis was placed on skill-building and training, reinforcing Africa's leadership in AI development and implementation.

One of the event's standout sessions, "Artificial Intelligence for Africa," underscored the significance of creating AI solutions tailored to Africa's needs. Participants embraced a collaborative spirit, brainstorming innovative ways to address local issues and foster technologies that positively impact communities across the continent. The hackathon was a significant highlight, showcasing participants' ingenuity in developing cutting-edge AI solutions that have the potential to reshape Africa's future.

In addition to stimulating discussions and workshops, the summit celebrated trailblazing individuals who have contributed exceptionally to AI research and development. Awards were presented for Academic Excellence, Breaking Academic Barriers, and African AI Research, honouring individuals who set a new benchmark in the AI community and inspire others to follow suit.

DeKUT is proud to have hosted this remarkable event, providing an avenue for impactful presentations, valuable networking, and discussions that will leave an indelible mark on Africa's AI landscape. By fostering such initiatives, DeKUT reaffirms its commitment to driving innovation, research and shaping the future of technology across the continent and beyond.





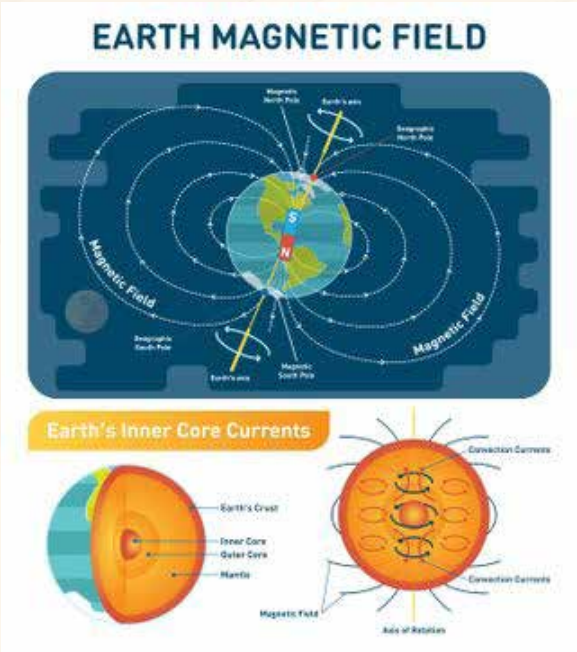




THE EARTH'S MAGNETIC PROPERTY

By Derrick Mathenge

BSc Geology, GeTRI



Have you ever wondered why a compass always points to the north? Or how does the Earth protect us from harmful radiation and solar winds? The answer lies in the Earth's magnetic field, a phenomenon that has puzzled scientists for centuries. In this article, we will explore the source of the Earth's magnetic property and how it has, is, and will continue to affect our lives.

Our planet, Earth, is the only known planet to host life. One of the fantastic properties of the globe is its magnetic field, which protects us from cosmic radiation and the charged particles emitted by our Sun. Many wonder how the Earth generates its strong magnetic field. Scientists from various fields, such as geology, geophysics, and others, have solved the problem. After a series of research and discussions, it was concluded that the magnetic field originated from the interior of the Earth itself.

We need to answer one fundamental question to answer the topic question fully: What do we mean by the interior of the Earth?

Just as an onion ring has layers, so does the Earth. The innermost layer is called the core. It plays a massive role in generating the Earth's magnetic field. It is located about 2900 km deep on the Earth's surface. The core has a radius of approximately 3485 km. That, in comparison, is about the distance from New York to London in a straight vector. The core is younger than Earth, which is about 4.5 billion years old. The core was formed about 1 billion years ago. A solid, super-hot nugget spontaneously crystallised inside a 4,200-mile-wide ball of liquid metal at the planet's centre. The core is divided into two sublayers: the inner and outer core.

The outer core is the second layer of the Earth's core, a hot and fluid layer of molten metal. It is mainly made of iron and nickel, but it also contains some other elements that make it more conductive. The outer core is about 2,260 km thick and starts around 2,889 km below the Earth's surface. The temperature in the outer core varies depending on how close it is to the inner core. In the outer region, it is about 2,700°C to 4,200°C, which is hotter than the surface of the Sun. The inner region is about 3,700°C to 7,700°C, almost as hot as the Sun's centre. The outer core is not a calm and stable layer. It constantly moves and swells a phenomenon called convectional turbulence- above the inner core, creating a powerful electric current.

This current generates a magnetic field of 2.5 milliteslas. That is 50 times stronger than the one we feel on the Earth's surface. This magnetic field is also a shield that protects us from harmful radiation and solar winds.

The outer core is also responsible for the growth of the inner core. As the Earth's core cools down over time, some liquid metal in the outer core solidifies and attaches to the inner core. This happens at a rate of 1 mm per year, meaning the inner core gains 80,000 tonnes of iron every second, making the outer core a vital and dynamic layer of the Earth's core that influences the Earth's magnetism and geology.

A theory later formed from this, called the Dynamo Theory, suggests that the iron-nickel fluid in the core is the primary source of the Earth's magnetic field. It explains the origin of the Earth's main magnetic field as a self-exciting dynamo. It proposes that fluid motion in the Earth's outer core moves conducting materials (liquid iron) across an existing weak magnetic field and generates an electric current. This dynamo mechanism generates the Earth's magnetic field. This theory was first proposed by Joseph Larmor in 1919. Walter M. Elsasser, a father of the presently accepted dynamo theory, suggested that this magnetic field resulted from electric currents in the fluid's outer core.

CARTOGRAPHY: MAPPING HUMAN PROGRESS

By: Victor Cedric Ng'ang'a
Bsc Geology student, GeTRI



Cartography, the science and art of creating maps, has evolved from simple representations of local surroundings to sophisticated tools for global navigation. In the past, maps were hand-drawn and used by societies to depict immediate environments, often serving cultural, military, or exploratory purposes. As geographic knowledge grew, maps expanded to illustrate distant lands, enhancing trade and discovery. With technological advances, cartography shifted from decorative artistry to precision-focused designs for practical use in travel and infrastructure. Today, digital tools, satellite imagery, and Geographic Information Systems (GIS) allow for highly accurate, interactive maps that are easily accessible worldwide. This evolution highlights cartography's essential role in shaping human understanding of the Earth and beyond.

As civilizations advanced, the purpose and techniques of cartography matured. The Babylonians, for example, created what is known as "The Map of the World," a clay tablet portraying Babylon at the centre. This depiction reflected their worldview, showing how cartography often projected cultural perspectives as much as geographical data. In ancient Greece, cartographers like Anaximander and Eratosthenes pushed the field further, developing maps beyond local terrain and attempting to encompass the known world. The Greek scholar Claudius Ptolemy's seminal work, *Geographike hyphegesis*, introduced key concepts like latitude and longitude and adopted the spherical Earth model. His approach laid a scientific foundation for cartography, providing later generations with systematic tools for charting familiar and unknown lands.

During the Middle Ages, the influence of cultural and spiritual beliefs was evident in cartography. Maps created by Muslim and European scholars often placed Jerusalem at the centre, symbolizing its significance in a world where faith shaped knowledge. These maps, known as T-maps, divided Europe, Asia, and Africa with the Mediterranean Sea and the Nile River as boundaries, often reflecting symbolic interpretations as much as geographic ones. During this period, they highlighted the dual role of maps as tools for navigation and expressions of societal and cultural identity.

The Renaissance and the Age of Exploration spurred an evolution in cartography, driven by Europe's expanding knowledge of the world. Maps from this era, such as Sebastian Münster's 1540 map depicting the Americas, illustrated newly discovered lands with unprecedented ambition, reshaping the European understanding of Earth's geography. Although these early maps sometimes included inaccuracies or imaginative elements, they embodied the spirit of discovery and curiosity that defined the period. European cartographers now began to see maps as essential tools for documenting new territories and facilitating exploration.

With the advent of the Industrial Revolution in the 19th century, maps shifted from artistic representations to practical instruments. As railroads and new trade routes developed, the demand for precise, reliable maps grew. Cartographers focused on factual accuracy to support navigation and commerce, with maps increasingly designed for utility over decoration. This period marked the definitive transition of maps into tools for navigating expanding cities and transport networks, reflecting the new industrial society's needs.

Modern cartography has advanced dramatically, aided by aerial photography, satellite imagery, and Geographic Information Systems (GIS). Today's cartographers can capture and analyze high-resolution images of the Earth's surface, enabling detailed and dynamic maps for diverse applications, from urban planning to environmental conservation. Digital tools, accessible through platforms like Google Earth, provide thorough, interactive maps of Earth and other celestial bodies, making exploration and spatial understanding available to anyone with internet access. The precision and depth of modern maps represent the culmination of centuries of scientific and technological progress.

In its evolution, cartography has reflected the ambitions and advancements of humanity. What began as simple representations has become an intricate science fundamental to disciplines across science, industry, and daily life. Maps today are more than just navigational tools; they are comprehensive resources that aid decision-making and shape how we perceive and interact with the world. As technological innovations continue, the future of cartography promises even more refined, accessible, and detailed maps, supporting human exploration and discovery on an ever-expanding scale.

EMPOWERING THE FUTURE WORKFORCE: THE ROLE OF UNIVERSITIES IN UPSKILLING THROUGH INDUSTRY COLLABORATION

By Dr Jane Kuria

Associate Dean, School of Computer Science and Information Technology



Introduction

In today's fast-evolving job market, continuous learning and skill enhancement are essential for staying competitive. As technology advances, universities are uniquely positioned to offer upskilling programs that address the skills gap and promote diversity and inclusion. Through strategic partnerships with industry, universities can create flexible, high-impact programs that prepare learners for future challenges. Dedan Kimathi University of Technology (DeKUT) is a prime example of how universities can work with industry to deliver impactful upskilling programs, like its **SKIES/KIEP rapid tech skills program** and the **ENGAGE project initiative**. These efforts, along with other collaborations with **Huawei ICT Academy**, **Intel Digital Readiness**, **Microsoft**, **IBM Skills Build**, **Google**, and **Cisco Networking Academy**, are shaping the future of tech education. Additionally, the DeKUT Science and Technology Park hosts numerous companies that play a crucial role in helping the University produce market-ready graduates and support ongoing upskilling efforts.

1. Why Upskilling is Critical Today

Technological advancements in data science, artificial intelligence (AI), blockchain, cloud computing and automation are reshaping industries at an unprecedented rate. As businesses integrate automation and data-driven solutions, they need workers with advanced skills to navigate these changes. Upskilling programs enable professionals to stay relevant and competitive.

A common challenge in higher education is the gap between the theoretical knowledge taught in universities and the practical skills needed in the workforce. Industry partnerships allow universities to bridge this gap, ensuring students graduate with real-world skills.

Continuous learning is essential for professionals to remain competitive and advance their careers. Upskilling programs allow people to build new skills throughout their professional lives.

The global shift to remote and hybrid work models and the gig economy, accelerated by the COVID-19 pandemic, has emphasized the need for skills in digital communication, remote collaboration, and virtual team management. Upskilling helps professionals remain effective in these new working environments.

In some industries, particularly tech, women and other underrepresented groups remain significantly underrepresented. Targeted upskilling programs are one way to close these gaps. DeKUT's **ENGAGE (Enabling Girls in AI and Growing Expertise)** program provides young women with machine learning and data science training. Programs like **ENGAGE** demonstrate how universities can build a more equitable workforce by providing marginalized groups with the skills they need to succeed.

Flexibility in learning is critical to making upskilling accessible to working mothers, caregivers, and people with disabilities. Universities should consider online courses, hybrid models, and adaptable internships to accommodate various needs.

When people from diverse backgrounds gain high-demand skills, they gain access to better-paying roles and advancement opportunities. Upskilling programs are essential in closing the gender pay gap and expanding opportunities for underrepresented groups.

2. The Role of Industry Collaboration in Upskilling

Collaborating with industry helps universities align curricula with the market's needs, ensuring students develop relevant skills. DeKUT's collaborations with the industry allow it to develop programs designed explicitly for high-demand areas like AI.

Partnerships with industry often bring valuable resources to universities, such as funding, equipment, and expertise. For example, DeKUT's upskilling programs in the School of Computer Science and IT in 2024 alone have provided over 20 desktop computers, one laptop, a server and three projectors for hands-on training.

Industry partnerships enhance graduate employability by ensuring students gain the practical experience that employers seek. With alliances across multiple tech domains, DeKUT continues strengthening its students' workforce readiness.

3. Evaluating the Impact of Upskilling Programs

Universities can measure program success through pre- and post-skill assessments to track participant growth. This approach provides a tangible way to see improvements in specific skill areas.

Graduate career tracking provides data on long-term program impact, including employment rates, promotions, and salary increases.

Feedback from employers hiring program graduates helps universities identify any gaps in training. Input from partners ensures that DeKUT's programs stay aligned with industry standards.

4. Outcomes of DeKUT's Upskilling Programs in the School of CS & IT

DeKUT's rapid tech skills program trained 33 participants in data science, cybersecurity, software engineering and soft skills. The program provided real-world project experience, enhancing technical and soft skills and preparing participants for the job market.

The **ENGAGE project** will significantly increase female participation in data science and AI, equipping young women with practical skills and internship experience. This program, set to run for five years, will continue to foster diversity and inclusion in tech.

DeKUT's collaborations with **Huawei ICT Academy**, **Intel's "AI for Future Workforce"**, **Microsoft**, **Google**, **IBM skills build**, and **Cisco Networking Academy** provide ongoing opportunities for students to upskill in areas critical to tech.

5. How Universities Can Secure More Industry Partnerships

Aligning curricula with industry demand is essential for attracting partnerships. DeKUT's collaborations with industry address national goals for innovation and entrepreneurship, strengthening industry support.

Promoting the success of completed programs helps attract more partners. Demonstrating positive outcomes for students and industry further supports the University's reputation.

Offering multiple options for collaboration—such as joint research, co-developed curricula, or internships—broadens partnership potential.

Conclusion

Upskilling programs prepare students and professionals to meet today's workforce demands. Through industry partnerships, Universities can offer practical, cutting-edge programs that enhance employability and foster inclusion. DeKUT's collaborations with industry show how universities can address skills gaps and build inclusive workforces.

By actively aligning programs with industry needs, highlighting program successes, and offering flexible collaboration options, universities and industries can continue shaping tomorrow's workforce. It's time to embrace strategic partnerships and invest in upskilling initiatives that prepare individuals for the challenges and opportunities of the ever-evolving job market.

OFFICE OF CAREER SERVICES (DeKUTOCS)

Beyond Graduation

As you stand on the cusp of graduation, filled with excitement and ambition, the Office of Career Services wishes to congratulate all students who have completed their studies. We are here to support your journey beyond campus. At DeKUT, we understand that entering the professional field can be both exhilarating and challenging, and our commitment to your success extends beyond graduation day. Graduation doesn't mean saying goodbye to the resources and connections you have built here. Our office provides a lifelong network offering ongoing support and services to help you thrive, whether you are looking to secure your first role, advance your career, or pivot to a different industry.

Inaugural Career Fair

We were thrilled to host the DeKUT Inaugural Career Fair this past September. This landmark event brought together leading employers from different industries, all eager to connect with our talented students and faculty. Held over 3 days from the 25th to 27th of September, the Career Fair provided an invaluable platform for students to network directly with industry professionals, explore potential career paths and secure exciting job opportunities and internship opportunities.

Hundreds of students engaged in meaningful conversations with recruiters and learned about opportunities they may not have previously considered. Employers in attendance were equally impressed, commenting on the students' turnout, preparation and enthusiasm. We look forward to making the Career Fair an annual tradition, building on this year's success to offer more targeted opportunities to future graduates.



Old Mutual gives a Financial Literacy & career talk during the 2024 Career Fair



BBW Gruppe delivers a career talk on skilled workforce migration to Germany at the 2024 Career Fair

Opportunities Abroad

The career landscape constantly evolves; we are here to ensure you are prepared. From tech-skilled-driven development to workshops on emerging trends, we aim to help students become agile and resilient professionals. We continue to strengthen our partnerships with players in various industries and position DeKUT students and graduates as candidates for recruiters. We are pleased to have partnered with **Bildungswerk der Bayerischen Wirtschaft e.V. (BBW Group)** based in Bavaria, Germany. The BBW Group is a service provider in education, consulting, human resources, and social affairs, providing solutions for businesses and society. They provide a pathway to employment in Germany for skilled workers with select backgrounds. These are typically in-demand skills by German companies, and BBW bridges this gap for them by sourcing talent and creating a match to ensure the candidate and company are right for each other. The BBW team visited DeKUT twice in 2024, meeting the University management and making the case for skilled worker migration to Germany. Later, during the Career Fair, the team had an opportunity to explain to the students in detail the migration process from application up to and including language requirements. The students were thrilled about working abroad and had a very interactive session with the German team.

DeKUT UNIVERSITY LIBRARY

Vision

To be an information centre that provides access to quality information that enhances research, training and technology advancement.

Mission

To provide competent, adequate and relevant information services in support of learning, teaching and research.

INTRODUCTION

The Dedan Kimathi University of Technology Library is located on the third floor of the New Ultra-Modern Resource Centre. The library is rapidly growing as a global information access and dissemination centre. Its primary role is to assist its users in transforming information into knowledge. The library has a sitting capacity of over 400 students and is fully furnished with ultra-modern facilities and equipment.

CORE FUNCTIONS OF THE LIBRARY

The University library plays the following functions and roles:

- It acts as a centre of information collection, storage, retrieval and dissemination for students, lecturers and administrative staff.
- Actively provide and disseminate information for academic excellence and quality while aspiring to remain relevant and vital in the University.
- It also acts as a centre of education and research services to the clientele. It creates and nurtures a reading culture through the expansive information resources housed in the library.

LIBRARY ORGANIZATION

To provide practical, user-centred, friendly, and quality service to our users, the Dedan Kimathi University Library has been divided into various sections to help provide personalized services. The sections cater to the particular needs of the users. These sections are currently the technical, circulation, and reference sections. The digital section and other specialized service sections assist the users in accessing the specialized e-materials to which the library subscribes (which includes a wide range of e-journals and eBooks accessible through various databases). Users can access these to supplement the available information resources in the library.

All users undergo library orientation after registration. They are also issued with copies of library rules and regulations. Library users will be sensitized on fire exits during orientations. However, even after the orientation period, the users are still welcome for further training on library usage.

TECHNICAL SECTION

This library section is charged with acquiring and processing information materials for circulation and use.

CIRCULATION SECTION

This is the main section of the library. The section deals one-on-one with library users, commonly referred to as the library's show window. This section of the library is charged with the following duties and responsibilities:

- Registration of library users
- Orientation of new users and visitors
- Issuing
- Receiving books and other information materials, including periodicals
- Generation of user statistics

NB: It is important to note that every registered user has a library account whereby the user can keep track of the happenings within the account, including fines/penalties levied due to non-observance of the library rules and regulations.

REFERENCE AND INFORMATION SECTION

This section is in charge of offering general and specific information to readers. The librarian in this section does the following:

- To educate users on accessing reference information from reference sources, e.g. Encyclopedias, Dictionaries and Directories.
- Charging and discharging of past examination papers and course syllabuses.
- Handle any other information query from users. Thus, the reference librarian judges what information is required, by who, in what form, how quickly it is needed, what details are necessary and from which source.

LOANING POLICY

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CENTRE FOR FOOD SAFETY AND NATUROPATHY (CEFONA)



Dr. Monica Mburu

Director, CeFoNa

The Centre for Food Safety and Naturopathy (CeFoNa), hosted in the Institute of Food Bioresources Technology, is a one-of-a-kind applied food science research consortium comprised of Dedan Kimathi University of Technology and the food industry. In collaboration, we allow stakeholders to develop and exchange experience and expertise in food production and processing, food safety, food defence, food fraud, food hygiene pre-requisite programs and quality management.

The Centre mandates

- Commercialization of products rich in bioactive compounds, including Chia and Oyster mushroom products
- Coordinate food safety and naturopathy research relevant to Kenya under the Institute of Food Bioresources Technology.
- Develop and commercialize natural functional foods to the innate healing power of nature.
- Conduct training on food safety that is relevant to the modern food industry.
- Research to protect and promote the right to safe food and the environment.

Food safety is central to public health, food security and improved livelihoods through trade facilitation and sustainable development. Access to safe food is a fundamental right as prescribed in Article 43, as read with Article 46 of the Constitution of Kenya. Food safety is vital for achieving food and nutritional security in Africa. Unsafe food contains microbiological, chemical or physical hazards that can make people sick, causing acute or chronic illness that, in extreme cases, can lead to death or permanent disability.

CeFoNa Mandate

1. Patronage of Agricultural Clubs for students

Through the patronage of Dr Monica Mburu, the Green Thumb Movement, a student-led agricultural club, was established, and it has been actively involved in setting up the therapeutic garden at the CeFoNa Demo facility. They have established applicable food crops, including yacon, herbs, fruits, and vegetables, which are used to process different therapeutic products and nutraceuticals, spearheaded by Dr. Monica Mburu. The movement comprises students from different faculties in the University who are passionate about smart agriculture for sustainable development.

2. Research food-nutrition security and safety

A demo farm has been established to grow chia and oyster mushrooms. The chia-oyster mushroom demo is under the project " Integrated Chia and Oyster Mushroom System for Sustainable Food Value Chain in Africa (CHIAM)," funded by NRF under the ERA-NET Cofund on Food Systems and Climate (EU Horizon 2020). The project is under the partnership of research institutions in six countries: Hungary, Germany, Egypt, Morocco, Algeria and Kenya.







3. Commercialization of Innovations

CeFoNa is commercializing various ideas, innovations, and prototypes for "Alternative foods and production" through the Afyalishe Ltd. Wellness Startup Company.

Afyalishe Wellness Ltd. is a DeKUT startup that produces and processes functional food products (nutrient-dense) that are innate to the healing power of nature.



4. ***Chia seeds***

CeFoNa contributes to the DeKUT's vision of leading agricultural innovation and sustainable development through food science and technology.

Afyalishe Products

Therapeutic nutrient-dense products developed through the **Afyalishe Wellness Startup Company.**



1. Herbal Probiotic Immune Boost



2. Chia yoghurt



3. Hibiscus Tea

DeKUT PARTICIPATES IN INTERNATIONAL NETWORKING FORUMS

Erasmus+ Networking Forum

About 120 University representatives from East Africa and Germany took part in a two-day conference from 12th-13th September 2024 held at Safari Park Hotel in Nairobi. The 'Erasmus+ Networking Forum' was organized by the National Agency for Erasmus+ Higher Education Cooperation at the DAAD and the DAAD Regional Office in Nairobi. Representatives of higher education institutions from the seven East African countries of Ethiopia, Burundi, Kenya, Rwanda, South Sudan, Tanzania, Uganda, and Germany were invited.

During the forum, DeKUT was represented by Dr. Ann Kirugumi, Head of Department, International Office. The goal of the Erasmus+ Networking Forum was to strengthen German-East African partnerships within the framework of EU university cooperation. Participants were exposed to the EU's instruments and diverse funding lines for cooperation with sub-Saharan Africa. The European Liaison Office of the German Research Organisations (KOWI) also highlighted the opportunities for EU research funding in the East African region, as well as 'Tips on Project Application,' which offered insights into the practicalities of the application process.

In addition, German and African participants exchanged their project ideas during the forum, intending to launch future partnerships. A wide range of topics were represented, including health, peace education and democracy, environmental and engineering sciences, business and entrepreneurship.

The networking will continue with a virtual follow-up meeting to deepen contacts.



Fig.1 Participants during the forum



Fig.2 Participants pose for a group photo

Celebrating a Decade of Achievements: The DIES Course "Management of Internationalization"

The DIES Course "Management of Internationalization" On September 23rd-24th, 2024, proudly marked the 10th anniversary of the DIES Training Course "Management of Internationalization". This significant milestone celebrated a decade of transformative impact, jointly coordinated by Leibniz University Hannover (LUH), the German Academic Exchange Service (DAAD), the German Rectors' Conference (HRK), and the German Federal Ministry for Economic Cooperation and Development (BMZ). DeKUT was represented during the forum by Dr. Ann Kirugumi, Head of Department, International Office.

The Course has guided participants in assessing, reforming, and enhancing internationalization management within their universities, emphasizing sustainability, continuous quality management, and extended networking. Over the past decade, participants have developed and implemented projects addressing key areas such as international recruitment, structuring international offices, formulating strategic plans for internationalization, enhancing student mobility, and integrating international dimensions into research and curricula. DeKUT is a partner university in the DIES Training Course "Management of Internationalization" and has hosted four Regional Training Workshops for African participants to support the training programme. DeKUT will host the next Africa Regional Training Workshop in September 2025.



Fig. 3 Participants pose for a group photo in Hannover, Germany



Fig. 4 Participants during the forum

DIES NATIONAL MULTIPLICATION TRAINING (NMT) ON COLLABORATIVE ONLINE INTERNATIONAL LEARNING (COIL)

Dedan Kimathi University of Technology, in collaboration with the University of Nairobi, Maseno University, Kibabii University (Kenya) and Leibniz University Hannover (Germany), jointly organized two workshops on "The Role of Collaborative Online International Learning (COIL) and Virtual Exchanges in promoting Internationalization at Home in Higher Academic Institutions in Kenya" on 13th to 16th February 2024 at the Heron Portico Hotel in Nairobi and 12th – 14th June 2024 at the Kisumu Hotel. The training course is part of the National Multiplication Trainings (NMT) of the DIES programme (Dialogue on Innovative Higher Education Strategies) coordinated by DAAD.

The course is jointly initiated by the German Academic Exchange Service (DAAD) and the German Rectors Conference (HRK) with funding from the German Federal Ministry for Economic Development Cooperation (BMZ). The workshops aimed to provide an in-depth application of COIL, illustrating how virtual exchange can enable geographically distant students and staff to team up and develop core competencies and skills required for internationalization. The workshop also offered an opportunity to explore the possibilities of combining the lessons learned in online education and international collaborations and linkages.

The first workshop, held from 13th February 2024 to 16th February 2024 at the Heron Portico Hotel in Nairobi, drew participants from 17 universities from Kenya and outside Kenya. Key Speakers were drawn from the Inter-University Council of East Africa (IUCEA), the Commission for University Education in Kenya, Leibniz University of Hannover, Germany, Cardina Herera University, Spain, Thomas More University Belgium and Stellenbosch University, South Africa.





Fig 1 & 2 Participants engage in discussions during the workshop

During the workshop, the DeKUT Vice Chancellor, represented by the Deputy Vice-Chancellor, Prof. Esther Magiri, a DIES Alumni, hailed the DIES courses and encouraged participants to enrol in the various programmes organized by the DAAD as they contributed significantly to the development of one's professional career. During the event, the DeKUT Drama Club performed multiple items, with the show stopper being a poem written by Timothy Toywa, a fourth-year computer science student which was titled 'Static Dynamic' and whose theme was 'online collaborations a scholarly tide, international collaborations, a boundless embrace.'



Fig 3. DeKUT Deputy Vice-Chancellor during the workshop



Fig. 4. Participants take a group photo

This second workshop occurred at the Kisumu Hotel from 12th – 14th June 2024.

The topics discussed included Revitalizing Performance of Technical and Vocational Education and Training Institutions in Internationalization at Home Programs in Kenya, The Challenges and Sustainability of COIL Programs in Higher Academic Institutions; AUAS experience, Advancing and Sustaining Internationalization at Home Programs in Higher Academic Institutions, Monitoring and evaluation of Institutions Capacity for Sustaining and Expanding COIL Virtual Exchange Modalities, Practical Skills and Competencies, among other areas affecting internationalization.

The Chief Guest for the workshop was Prof. Qin Xia, the Programme Manager of DIES "National Multiplication Trainings" of The Department of Higher Education Studies, Center for Quality Development (ZfQ), University of Potsdam.



Fig. 5 Participants take a group photo

BRIDGING GLOBAL EXPERTISE AND LOCAL TALENT: IEEE DeKUT HOSTS THE CASS SEASONAL SCHOOL



The Institute of Electrical and Electronics Engineers (IEEE) is the leading global engineering and technology community for professionals, graduate fellows, and also students in the engineering and technological fields. Regarding students, IEEE is organized into student branches run by different Universities worldwide. In Kenya, there are ten student branches in various Universities, of which DeKUT is part of.

Despite being among Kenya's recently established student branches, our student branch has made significant strides in its growth, which has seen it become one of the top-performing branches in Kenya and Africa. IEEE is a hub for professional, technical, and technological growth among its members. Here at DeKUT, IEEE has collaborated with the Innovators Club in its operations, thus seeing the two clubs flourish in their activities.

The IEEE DeKUT Student Branch & Innovators Club has emerged as the leading Tech club in DeKUT due to its consistency in student engagement since its inception at the end of 2022. This has been achieved through various trainings in engineering and technological fields and different events, giving students opportunities to showcase their skills and helping improve their social interactions. One such event is the IEEE CASS Seasonal School, which was recently planned and initiated at DeKUT.

Highlight: CASS Seasonal School on Wearable Technology 2024

The actualization of the CASS Seasonal School here at DeKUT is a significant milestone for our student branch, being the first of its kind here in Kenya and Africa. The Seasonal school was dedicated to Wearable Technology and, thus, the integration of circuit-based technologies in various fields of wearables such as smartwatches and gaming.

The event occurred from March 21st to 23rd, 2024, at DeKUT's Wildlife Conservancy. It brought together students from across the country, including 40 participants from DeKUT and 15 from other Universities such as the University of Nairobi, Kenyatta University, Multimedia University of Kenya, the Technical University of Kenya, and Laikipia University.

The event was graced by the University Vice Chancellor, who offered a keynote address on the second day of the event, emphasizing innovation, not forgetting entrepreneurship. The VC, Prof. Eng. Peter. N. Muchiri also highlighted some opportunities DeKUT has established for innovation-oriented students through the DeKUT Start-up Centre.

The Seasonal School provided an exclusive opportunity for attendees from around the globe to interact with experts across different domains revolving around the field, physically and virtually. The participants gained invaluable insights into the innovation world through the various sessions and interactive workshops, equipping them with the necessary skills to thrive in this rapidly evolving field.

The attendees also got to experience the current and emerging technological advancements in the wearable field, keeping them updated with the latest developments. We were privileged to have 18 renowned speakers drawn from different countries, in the continent and globally. The presentations were mainly physical, while a few were presented virtually. The topics covered were done with a keen emphasis on imparting profound comprehension of the fusion of circuit systems and technology.

The participants also enjoyed direct engagement with leading experts in the field, thus fostering networking opportunities. The Seasonal School was a centre for knowledge exchange and professional growth.

The Seasonal School's success is attributed to the dedication and commitment of the Seasonal School's organizing committee members, who are generally volunteers of the student branch, in collaboration with some of the staff who are members of IEEE, the IEEE Kenya Section leadership, and the support accorded to us by the DeKUT fraternity at large.

MY EXPERIENCE AT THE SUSTAINABLE MOBILITY SUMMER ACADEMY (SMSA) IN TH WILDAU, GERMANY

This September, I had the incredible opportunity to attend the Sustainable Mobility Summer Academy in Germany. As a final-year Civil Engineering student at Dedan Kimathi University of Technology, the two-week program immersed me in practical lessons on sustainable infrastructure and mobility solutions—concepts I had previously only encountered in textbooks.

Starting in Berlin, the program showcased the city's blend of history and sustainability. Highlights included a boat tour along the Spree River, a bike tour, and a visit to the Bundestag. I saw how this iconic building harmonizes tradition with eco-friendly design. Berlin's efficient transit system also sparked ideas on tackling mobility challenges in Kenya, where urban congestion and limited transit networks persist.

Throughout the two weeks at TH Wildau, we worked on group projects on mobility hubs, which we presented to the mayor of Wildau and a panel of mobility experts on the final day of the academy. As we explored sustainable logistics and inclusive mobility alongside participants worldwide, I understood that sustainable mobility is about more than just eco-friendly options; it also requires affordability and inclusivity—principles I'm eager to bring into future projects.

The academy strengthened my commitment to sustainable engineering and broadened my vision for infrastructure in Kenya. Inspired by Germany's advancements, I'm motivated to apply these insights to my final year research project on enhancing concrete durability with graphene oxide.

Attending the Sustainable Mobility Summer Academy was transformative, enriching my professional outlook and renewing my purpose. I returned to Kenya with both technical knowledge and a vision for sustainable, inclusive infrastructure for the future.

The WFP Career Fair

On October 25th 2024, I had the exciting opportunity to attend the World Food Programme (WFP) Career Fair. The event was an eye-opener for my colleagues and me regarding the array of career paths within the United Nations and its affiliated organizations, where professionals from diverse backgrounds are working to tackle global issues such as hunger, poverty, and inequality. As a Civil Engineering student in my final year at Dedan Kimathi University of Technology, this fair gave me new perspectives on how engineering skills can contribute to sustainable development.

One of the most valuable aspects of the career fair was learning about how engineering expertise can make a difference in humanitarian work. Civil engineers play an essential role in WFP projects, from designing resilient infrastructure to ensuring food security to creating systems for safe water access in vulnerable areas. This experience inspired me as I saw how my engineering skills could one day contribute directly to impactful global solutions.

The fair also provided a platform to interact with WFP representatives and professionals from various fields. They shared insights into WFP's internship and entry-level programs, many focusing on nurturing young talent and offering hands-on experience in logistics, supply chain management, and project management. I appreciated the opportunity to ask questions and hear about their daily challenges and achievements, especially in remote or conflict-affected regions where WFP operates.

Attending the WFP Career Fair broadened my understanding of how global organizations work toward sustainable solutions in complex environments. This experience has also inspired me to consider pursuing an internship in humanitarian work after graduation, where I can contribute to creating resilient infrastructure for communities in need. The event underscored that civil engineering extends beyond traditional construction; it can be a powerful tool for social impact.

The WFP Career Fair was an invaluable experience, connecting me with professionals committed to solving pressing world challenges. It was a reminder that as we strive for excellence in our fields, we can also make a meaningful difference on a global scale.










KCO CAREER FAIR
#CareerFair




STRENGHTS & WEAKNESSES


KariBUNI

ERASMUS+ EXCHANGE PROGRAM AT THE JOHANNES KEPLER UNIVERSITY LINZ, AUSTRIA

By Bernard Wambua Makau

Master of Science in Chemistry

Johannes Kepler University (JKU) Linz, Austria, Department: Institute of Polymeric Materials and Testing (IPMT)



Introduction

The opportunity to travel to Austria was a lifelong dream that fulfilled the goal of being outside Kenya and visiting Europe. Arrival in Austria in September 2024 was marked by the seasonal transition from summer to autumn and a switch to a culturally diverse world with exchange students from all over the world, including Kenya, Ghana, Egypt, USA, Canada, Asia and the entire European continent.

Research and Studies

The main aim of this Erasmus+ exchange program was to bring insight into the intriguing world of polymers, including their applications, properties, processing and sustainability management. During my Erasmus+ exchange in Austria, I pursued specialised courses and seminars taught by materials science experts, which gave me excellent insights into polymers. The structure, properties, applications, and the growing need for sustainable applications of polymers in many fields, from packaging to medicine and engineering, were all discussed and captured well in the curriculum. I got the excellent opportunity to delve further into the field of polymers, which had long piqued my interest but had been studied superficially back home. The course gave me access to top-notch labs and innovative materials chemistry research. Working with professors and researchers focused on sustainable materials was one of the most rewarding experiences. My host university's labs were equipped with cutting-edge testing equipment that enabled us to synthesise and analyse polymer characteristics such as chemical composition, tensile strength, rheology, flexibility, surface morphology, thermal stability, and biodegradability much more thoroughly than I had ever done previously. Finally, this exchange program allowed me to carry out the remaining part of my research to fulfil the partial requirement for the award of Master of Science in Chemistry.

General Experience

The experience in Austria was memorable and exciting. The Austrian Community generally speaks German. However, English has dived into this country to a greater extent, so our lectures and seminars were administered in English. The International Welcome Centre (IWC) is a very active department in JKU-Linz. It ensured a smooth flow of information, organised several events for the exchange students, trips, tours, learning and information sessions, scavenger hunts, and introduced us to Cultural Sensitivity Training and Introduction to German Language and Culture.

Having learnt A1 level in German, I could interact and communicate with many people and interpret information during the program. During the exchange program, I could visit several places, including Steyr, Linz City Museum, Vienna, Solar City, Plus City, Nettingsdorf, Auwiesen, Siegen and Munich. The Austrian government had offers when purchasing various products, and this was not limited to a 15.80 Euro monthly Aktivpass, which allowed travel throughout Linz City.

Conclusion

In conclusion, I appreciate Dedan Kimathi University of Technology through the Erasmus+ program, Johannes Kepler University Linz and the International Office for giving me the excellent opportunity to participate in an exchange program in Austria. I urge all students to take advantage of programs like Erasmus+ and those offered by the international office, such as IAESTE, to broaden their horizons. Learning overseas provides more than just academic advancement; it also gives new insights, experiential learning, and a global network of motivating peers and mentors.

STEPHANIE KINYANJUI ERASMUS+ EXCHANGE PROGRAMME IN GERMANY

It dawned on me that it was happening when the pilot announced that the plane had started descending to Frankfurt International Airport, Germany. I had never travelled this far from my home country, especially alone. A mix of excitement and nervousness flooded over me. The next few months would transform my life in various ways, even in those I did not anticipate. I was about to learn more about every aspect of a new culture, invaluable insights into research and even more about myself. Every moment was a lesson in openness and adaptability.

Arriving in Germany was both exciting and overwhelming. The culture shocks surprised me; the most striking were the numerous types of bread available and how Germans could live off the bread. It is very typical to have bread for breakfast, bread for lunch, and, yes, bread for dinner. I had the chance to explore a variety of local German dishes, from Schnitzel (pork) to currywurst (sausage stew), among many others. I could also interact, make international friends, and meet other Kenyans during my stay. Connecting with people from Kenya also brought a comforting sense of familiarity: talking in Swahili and sharing familiar stories over meals of Chapatis or ugali became a cherished part of my experience.

Located in the North Rhine Westphalia German state, the University of Siegen is a hallmark of professional and scientific education and an international outlook. I had the privilege of joining the research group in Physical Chemistry. Working under Prof. Dr. Holger Schönherr's supervision, I ventured into a new area of research outside my previous studies in chemistry. I was able to work on biopolymers to detect bacteria. Specifically, I compared the sensitivity of different Chitosan morphologies in detecting Escherichia coli. The research group's expertise, support, guidance and insights played a massive role in helping me tackle every research phase.

Exploring this new area broadened my skills, such as biosensor development and fluorescence microscopy. During my research, I also had the opportunity to attend a one-week summer school in Hirschegg, Austria, where I interacted with different researchers from Europe.



(Photo: working in the lab at the Physical chemistry department)

This experience broadened my horizons. I learned new skills, remember German, gained cherished moments, and now have a deeper appreciation for diverse perspectives. I owe a tremendous thank you to the ERASMUS exchange program, the University of Siegen (host university), DeKUT, my supervisors both in University of Siegen and DeKUT, the international office (DeKUT), the international office (Universität Siegen) for their dedication, support, and guidance which allowed me to immerse myself in this unforgettable and transformative experience fully.

IAESTE INTERNSHIP ARTICLE

My name is Moses Mwangi Kangethe, and I am a fourth-year Mechatronics Engineering student. In June of this year, I embarked on a four-month adventure in Merseburg, Germany, as a mobile robotics intern at Merseburg University of Applied Science, which was a stint initially meant to last just three months but was so good that I got an additional month. This internship was pivotal in my career, allowing me to develop critical robotics and project management skills.



My days were filled with hands-on work in teleoperation, navigation, and sensor integration, working on projects with the TurtleBot3 Robotics Kit and AuRa, an autonomous cargo bike, which was a collaborative project with another German University, Otto-von-Guericke University Magdeburg. I am considering developing a more or less self-aware bicycle that can navigate unmanned, through busy streets and drive up to your location or any other set location! I was working on bleeding-edge technology, a level of exposure that I would not have otherwise attained. I was neck-deep in the (Robotic Operating System) ROS2 framework, orchestrating complex data from Lidar and RGB-Depth cameras, simultaneously mapping and localizing (SLAM) with all the finesse of a self-driving car. Each challenge I encountered and solved fueled my fascination for autonomous systems and proved that real-world robotics is equal parts thrill and troubleshooting.

But the true adventure went far beyond robotics! Working with colleagues from Germany, Ghana, Bulgaria, and China, I immersed myself in a rich cultural mix that made every day an exciting blend of perspectives. From learning the quirks of German efficiency to navigating daylight hours that seemed to last forever (a





shock to someone more accustomed to punctual sunsets), the cultural experience was eye-opening. I learned that "on time" could have slightly different meanings depending on where someone was from since the German version meant being 10 minutes earlier. Our collaboration and cultural exchange brought depth to my work beyond technical knowledge.

I didn't just see Merseburg thanks to IAESTE, which organized various social weekends. I also explored some of Europe's most iconic cities: Munich-Germany, Ljubljana-Slovenia, Prague-Czech Republic, Krakow-Poland, Vienna-Austria, Rome-Italy, and beyond. These weekends were packed with international interns worldwide, each bringing their own stories, dreams, and career ambitions. The network I built across Europe is something I'll cherish, and I'm already looking forward to collaborating with some of these friends in the future. We bonded over everything from robotics discussions to misadventures in local cuisine, all while soaking up the unique charm of each city. It was also a unique opportunity



to represent Dedan Kimathi University of Technology, sparking enough curiosity among them that a few even promised to apply for future internships in Kenya. It was a rewarding chance to break down some of the stereotypes they held about Kenya and Africa, although convincing them that we don't keep lions as pets took some work!





Looking back, my internship at Hochschule Merseburg was much more than a technical deep dive; it was an experience that broadened my perspective and reshaped my ambitions. Working with people from around the world, representing my University, and even debunking myths about my country gave me a new appreciation for the power of international collaboration and cultural exchange.



The support from IAESTE made it all the more remarkable, allowing me to build connections across Europe that will spark future collaborations. I left Germany not just with more vital technical skills but with a global network and an open mind, which are invaluable for my career and personal growth. I wholeheartedly recommend this experience to anyone seeking professional development and a journey that expands horizons in every possible way.



Moses Socials

BREAKING BARRIERS IN EDUCATION: MY JOURNEY AT DeKUT

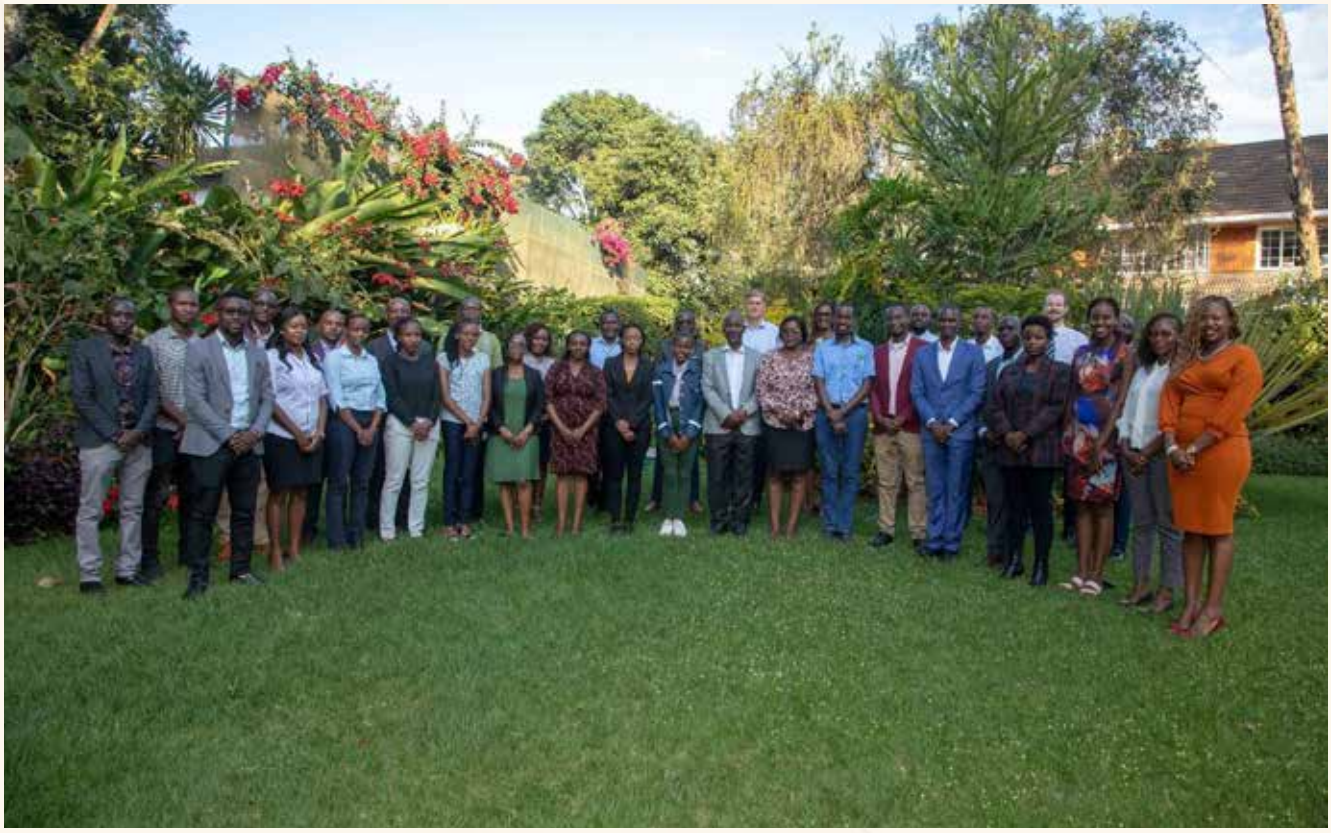
Growing up, it was uncommon for girls to get involved in STEM, as many opportunities were not encouraged. My parents, however, had bigger dreams for us. They didn't just want us to get by but to be the best. That vision became my motivation, pushing me to pursue things others might have thought impossible. Fueled by my parents' belief in education as a transformative tool, I was determined to break barriers in education. When I received the letter from DeKUT, it felt like the perfect opportunity to turn my dreams into reality. The University's reputation and modern facilities made it an ideal place for my education, offering the resources I needed to grow academically and personally.

My undergraduate studies in civil engineering provided a strong foundation for my Master's program. Though the early days were challenging, the technical knowledge and problem-solving skills I gained proved essential throughout my graduate studies. DeKUT also offers top students a Master's scholarship, which I was fortunate to receive after earning First Class Honors. This motivated me to aim higher and strive for even greater success in my graduate studies.

My experience as a Master's student has been academically enriching and professionally transformative. The mentorship from my supervisors, Prof. Silvester O. Abuodha, Dr. Erastus Karoki, and Dr. Kevin Achieng, exceeded expectations. They were always willing to meet online, even outside working hours, for consultative discussions on my thesis, making my research journey seamless.

During this period, I participated in two challenges sponsored by DTU Skylab-Denmark at the Danish Embassy in Nairobi, developing real-world solutions alongside other teams from different countries. The program's flexibility allowed me to attend various conferences, including the IEK Annual event in 2022 and 2024, where I served as a rapporteur for the events using the skills I learnt from research.

In conclusion, I recommend DeKUT to students interested in civil engineering or other fields. With excellent academic support, access to modern resources, supportive faculty, and a focus on professional development, DeKUT truly prepares students for success in today's competitive workforce.






NTERNATIONAL CONVENTION

GROUNDING INTERVENTIONS IN THEORETICAL FRAMEWORKS: THE THEORY OF PLANNED BEHAVIOUR AND ITS IMPACT

By Joshua Gichana
The GTM Alumni Board



As we celebrate the successes of our graduates at Dedan Kimathi University of Technology, this becomes one of those moments when one reflects on how well-designed interventions in most areas would contribute much to sustainable practices. Such is only possible if the interventions are premised on sound theoretical frameworks that accord insight into the behaviour and guide effective change. A specific example of such a framework is the Theory of Planned Behaviour, which significantly impacts how we design agriculture, health, and education interventions.

Understanding the Theory of Planned Behavior

The Theory of Planned Behavior, developed by Icek Ajzen in 1991, suggests that an individual's intention to engage in a behaviour is influenced by three key components: **attitudes**, **subjective norms**, and **perceived behavioural control**.

1. **Attitudes** refer to the individual's positive or negative evaluation of the behaviour.
2. **Subjective norms** encompass the perceived social pressures to perform or not perform the behaviour.
3. **Perceived behavioural control** reflects the individual's belief in their ability to execute the behaviour.

Because interventions address one or more of these components, they can be appropriately targeted to bring about the desired changes in behaviour. Yet, even with this theoretical foundation, far too many interventions fail to yield the desired results.

Evidence of Intervention Failures

Statistics on effectiveness also show a worrying trend in interventions:

- A meta-analysis found that no more than **30% of health behaviour change interventions** had resulted in people changing their behaviour continuously Michie et al. (2009).
- In educational settings, less than **50% of educational treatments** positively affect learning outcomes. These were interventions not informed by well-established pedagogical theories Hattie (2009).
- Environmental programs are equally at risk; more than **60% of all community-based environmental projects** fail to achieve noteworthy behaviour change due to the lack of theoretical underpinning (Kollmuss & Agyeman, 2002).

These statistics illustrate that, as much as theoretical frameworks, such as TPB, may underlie potentially helpful insights, they are not a surefire path to success if not implemented with care and supported appropriately.

Case Study: The Green Thumb Movement

A notable example is the **Green Thumb Movement**, which promotes regenerative agricultural practices through community engagement in partnership with **CeFoNa** and **Dedan Kimathi University of Technology.** The initiative utilizes TPB principles by focusing on changing attitudes toward sustainable practices and enhancing perceived behavioural control through education and resources.

The movement's **Formula-7 Programs, especially the ABMTS Summit**, have shown promise in fostering skills and knowledge among participants (www.venturedev.thegtm.or.ke). However, evaluations reveal that while participants gained valuable insights into sustainable practices, only **40% reported applying these practices** after the sessions. (Burner & Veal, 2022). This gap illustrates that even well-grounded interventions can only fall short with adequate support systems.

The Path Forward

Looking into the future, it is essential to recognize that interventions must be grounded in theoretical frameworks, such as TPB, to understand and influence behaviour. On the other hand, through various studies and case examples like the Green Thumb Movement, it is evident that applying a framework alone can assure success. To have more effective interventions:

1. **Align Interventions with Theory:** The design must be aligned to be as close as possible to the theoretical framework chosen.
2. **Develop Support Systems:** The support systems through education must be complemented with resources and community support.
3. **Monitor and Adjust:** There is a continuous need to assess the outcome for adaptation, change in strategy, and feedback.

Addressing such issues would help ascertain better whether the interventions have been successful and if behavioural change actually comes into play, which is integral to sustainable and resilient communities. So, as you go into the next stage in your careers beyond graduation, think about how you can use these insights within your own subject specialisms or career paths. We can all do our part to promote a far more sustainable future.

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OF ZAINA FALLS

By Victor Cedric Ng'ang'a

Bsc Geology student, GeTRI



I woke up excruciatingly early that Saturday. I tried putting more hours under the blankets, but the excitement slowed my sleep. I put on a Saturday morning chill playlist and turned to infinite doom-scrolling on Twitter to pass the time. *Weekend* by Mac Miller was playing. After hours of nonsensical internet content, it was time for the meetup. I washed up, dressed up and locked up. I put on my wired earphones and walked to the rendezvous point. I arrived at the school's roundabout on time (at 0946 hours). I met a couple of friends who were there earlier than I. We said our hellos, had a couple of Saturday morning laughs, and it was geared to be a great day. The sun came out, and the sky was clear and dotted with white cumulus clouds. It was neither hot nor cold. It was perfectly balanced, as everything should be. At 10, our transport vehicle arrived, and the eight of us became eleven as we started to roll down the road. The car's speakers banged on a DJ mix of relatively upbeat music (but I probably have my music reservations).

We had our first stop. We were to pick some of ours, and we had to wait a little longer. In the wait, someone in the group handed us coffee-flavored biscuits (we couldn't tell if it was out of genuine generosity or to relieve himself from the burden of carrying awful-tasting treats). Luckily, our treasurer noticed this and got us real-tasting biscuits (that's why we trust you with our money). After a while, the group of eleven grew, and every space of our transport vehicle was filled. We relaunched our travels. The banter was turned on, and everyone was in high spirits. The landscape was also in the mood, with limited architectural designs against a green backdrop on the sides of sprawling hills, and the looming silhouette of Mount Kenya was awe-inspiring scenery.

We rode till the literal end of the road. We got out of our old 14-seater. On the ground, there were well-camouflaged KWS rangers that took me a while to notice, and there was also a newly placed board that read 'adults-232/='. This was new information to us. When contrasted with this new information, our prior knowledge almost made it look like we wanted to enter the newly guarded nature trail for free (thank you, inflation). Anyway, with the power of compounded friendship and bargaining, we raised enough to be let in. Inside, we split ourselves into three factions. The first faction was of the enthusiastic ones, who ran to see everything. The second faction was the cool ones, us, calm and collected in our strides. Then the third one, 'the dumbfounded by the beauty of this place and we shall take photos every inch of the way.

We realized it was better if we continued the hike in a single file, navigating the twisting path with an air of adventure. Along the way, we pointed out wild plants, gathered berries, and chatted loudly, which only intensified the heat. Breathless at times, we climbed over mud and thorny brush, careful not to slip. The anticipation grew as small glimpses of the waterfall teased us, like a preview of an unforgettable scene. Finally, after pushing past stinging nettles, rocky slopes, and the muddy trail, we arrived at Zaina Falls. Towering before us, the cascade of white water spilt down black rock, encircled by lush greenery and adorned with mini rainbows dancing in the mist. Everyone was transfixed, captivated by this natural marvel. Phones and cameras were quickly drawn, capturing group shots, portraits, and every creative angle we could find. Some of us waded into the plunge pool, braving the current solid and muddy bed to capture a memory of the falls' pure energy.

The area buzzed with activity as some swam, others dried off, and photos continued. But all good things must give way to more adventure, so we packed up, retraced our steps along the trail, and started the return journey. Nothing could ruin this day despite a tumble into a mud stream and a brush with nettles. We stumbled upon a clearing with rock-formed pools, shallow but inviting. While some swam, others relaxed or played cards, sighting a crab sparked our curiosity. The playful shouts of "Let's eat it!" quickly died as we realized the crab was already deceased. So, we returned it to the water for its family to find.

Finally, it was time to eat. We shared food and drinks; a feast enjoyed so long past lunchtime that it seemed timeless. Balloons were blown up, and we invented team games where the only rule was to keep the balloons intact. Laughter echoed through the air as regulations were broken and chaos reigned. When the games waned, we huddled around a bonfire for warmth. The icy Chania River became an impromptu challenge for those who felt brave enough. Floating on the current, my swimming skills left me half-walking on the riverbed and half-drifting downstream. Shivering from the cold, I returned to shore, where we started another fire to shake off the chill.

We gathered, dried off as night fell, and awaited our ride. Before leaving, the club president gave a speech, thanking everyone for making the day what it was. We hiked back to the entrance and squeezed into the van; our numbers mysteriously multiplied. I enjoyed the music as the DJ mix played, closing the day as it had begun and the day had come full circle, leaving us tired, content, and grateful for the journey.

FROM STUDENTS TO MENTORS: A JOURNEY OF GROWTH AND LEADERSHIP AT DeKUT

Blood may be thicker than water, but for me, that does not describe family. As part of Dedan Kimathi University of Technology, I found a family with one agenda: to acquire knowledge and necessary skills to propel my team and me to the next level; as my director said, "We do it for the next guy." At DeKUT, I got more than I signed up for. I vied and was elected as the Campus Secretary (2024) and got the opportunity to lead my comrades in the best way possible.

Through the director as our patron, we were the first University to launch the Ethics and Integrity Club (DeEIC) under the Ethics and Integrity Ambassadors Network (EAN), UNODC, with our own Feisal Abdi Hassan as the president, representing over 12 universities. He has so far represented the club and the University in many events, including the UNCAC Youth event at UN headquarters at Gigiri and a dynamic roundtable discussion at the American Centre-US Embassy Nairobi. We later went ahead and visited the DeKUT main campus in Nyeri for a sensitization program from the Directorate of National Cohesion and Values and laid a foundation for the DeEIC charter.

The campus also had the opportunity to hold a career and mentorship luncheon that allowed students to network and be mentored by different security professionals. It gave them a broader picture of the significance of studying Criminology and Security Management and what may be expected of them in their future career.

The director's intentions were evident when he treated the students to a thorough CCTV workshop led by CCTV technicians from a recognised institution. We were able to assemble the equipment, record and retrieve recordings practically. In addition, we got certificates to grace the occasion.

At DeKUT, we have had the chance to go international through Collaborative International Learning (COIL). A learning program that brought together students from Florida International University (United States of America), Universidad Panamericana (Mexico) and Dedan Kimathi University of Technology (Kenya) to explore and compare the criminal justice systems in the three countries.

At DeKUT, we came in as students and are now coming out as mentors!



DeKUT STAFF INDUCTION – WELCOME NEW TEAM MEMBERS

By Immaculate Kaihu

(Assistant Registrar - HR)



At Dedan Kimathi University of Technology, the success of our Institution is built on the talent, dedication and diverse perspectives of our staff. As part of our commitment to fostering an inclusive and supportive work environment, we proudly offer comprehensive staff induction programs that help new employees settle in, connect with the University community and hit the ground running.

A Smooth Transition to University Life

The staff induction ensures that all new staff members feel welcome, informed and prepared to contribute to the University's mission and vision from the time they set foot at DeKUT. The induction process introduces policies, procedures, and resources available to staff, and it is an excellent opportunity to embrace the University's culture and values.

Among the key components of the Induction Program include:-

Welcome and Introduction to University Leadership: New staff members begin their induction with a warm welcome from the University leadership team. During this session, they learn about DeKUT's history, strategic vision, mission, and core values guiding our day-to-day work.

Overview of University Policies & Procedures: Understanding the University's policies and expectations is vital for all staff. The induction process enlightens the staff members on the governing policies and procedures such as the Statutes, Terms and Conditions of Service, Code of Ethics for Public Officers, Workplace Health and Safety and all other University Policies. This session is designed to ensure that new staff have all the tools they need to navigate their roles successfully and comply with the University's guidelines.

Introduction to Campus Services and Facilities: Our orientation program also includes a guided tour of crucial University facilities such as libraries, cafeterias, and the health and wellbeing centre / medical centre. The new staff also receive practical information on accessing support services departments such as ICT, HR and Security.

Peer Support & Networking Opportunities: One of the highlights of the induction process is the opportunity to meet new staff members and establish early connections with colleagues from different departments. Social events, group discussions, and networking allow new staff to build relationships and feel like they are part of the University community.

Training & Development: At DeKUT, we strongly emphasize continuous professional development. The induction process introduces the staff to the wide range of training and development opportunities available, from workshops and seminars to sponsorship towards different academic programs. Staff members are encouraged to take full advantage of the University's commitment to lifelong learning.

Mentorship and Ongoing Support: The new staff are assigned to mentors who are their Heads of Department or Chairmen of the Department to ensure a smooth transition into their roles. The mentor provides guidance and support to the staff and helps to create a sense of belonging within the team.

Induction a Collaborative Effort!

The staff induction program is more than just a one-time event. Creating a positive, engaging, and inclusive workplace environment is part of a more significant effort. New staff are encouraged to ask questions, share feedback, and actively engage with the resources and opportunities presented throughout the process. By creating a welcoming and informative environment, we aim to ensure that every new staff member feels equipped, supported and excited to contribute to the University's ongoing success.

As we continue to grow and evolve as an institution, we recognize that our University's strength lies in our staff's collective efforts. The staff induction program plays a crucial role in setting the tone for a positive and fulfilling career journey at DeKUT, and we are excited to support our new colleagues as they embark on this exciting chapter with us.

Welcome aboard! We are thrilled to have you as part of our team.

DIRECTORATE OF GENDER DISABILITY & EQUITY AFFAIRS

By Njeri Muthoni



A few days ago, on 3rd December 2024, the world celebrated the International Day of Persons with Disabilities (IDPD). The annual International Day of Disabled Persons was established in 1992 by United Nations General Assembly Resolution 47/3. The purpose of the Day is to raise awareness of disability issues and mobilize support for the dignity, rights, and well-being of people with disabilities. It also aims to raise awareness about the benefits of integrating people with disabilities into all aspects of political, social, economic, and cultural life. This year's IDPD theme is "Amplifying the leadership of persons with disabilities for an inclusive and sustainable future." This theme is powerful and timely. It emphasizes the critical role that individuals with disabilities play in developing inclusive policies, practices, and innovations that benefit everyone. Let us delve deeper into analyzing what this theme means and the impact it intends to have.

The theme acknowledges that persons with disabilities provide unique perspectives and life experiences essential for good leadership. By elevating their perspectives, we disrupt old power relations and emphasize that people with disabilities are more than just recipients of inclusive policy; they are the architects of a more inclusive future. People with disabilities are the actual carriers of their stories and experiences. We can, therefore, not leave decisions that will affect their lives to be made by people who do not belong or directly relate to their experiences. They have to be directly involved in decisions that affect their lives.

People with disabilities provide inclusive leadership that is consistent with sustainability goals. When people from various backgrounds, including those with disabilities, lead and participate in decision-making, emerging solutions are more comprehensive, meeting the unique needs of diverse communities. This method is critical for creating resilient communities that prosper in the long run.

This theme also calls attention to the barriers that often limit access to leadership roles for people with disabilities, such as biases, lack of accessible environments, and limited networking opportunities. By confronting these systemic issues, societies can create pathways for disabled individuals to engage in leadership fully. Disabilities do not disable; it is the inaccessible environments that limit people with disabilities' interactions and independence.

Many people with disabilities experience intersectional identities, such as gender or socioeconomic background, that add layers to their experiences and insights. Recognizing these intersections enriches the leadership landscape, allowing policies and practices to reflect and serve a broader range of voices.

Prioritizing the leadership of people with disabilities inspires younger generations to envision themselves as leaders. This is especially true for young people with disabilities. This ripple effect benefits entire communities, fostering environments where every person is seen as a potential leader regardless of ability.

Reflecting on this theme can inspire organizations, governments, and communities to act by creating mentorship programs, ensuring accessible workplaces, or integrating disabled leaders into governance structures. It's a call to rethink inclusion as a checkbox and a foundational principle for a sustainable and just world. This theme recognizes the critical role that persons with disabilities play in creating a more inclusive and sustainable world for all. It also emphasizes the importance of the participation of persons with disabilities in decision-making processes that affect their lives. In the communities we belong to, like our University, our religious communities, families, and others, we can be inspired to build inclusive communities, especially in leadership.

FAITH GROUPS IN DeKUT: CELEBRATION OF A VIBRANT MULTI-RELIGIOUS ENVIRONMENT

By Rev. Fr. Dr. Vincent Wambugu

Head of University Chaplaincy in collaboration with Faith Group Leaders

Within the vibrant and multi-religious landscape in DeKUT, the faith groups have become the beacon for spiritual growth and upholding moral values among the students and staff. The University Chaplaincy ensures a conducive environment for each faith group to worship in freedom, spirit, and truth.

Each registered faith group is home primarily to like-minded students who unite to express their faith through worship, fellowship, and prayer. The faith groups are pivotal in nurturing their faith, a sense of belonging, and personal spiritual development.

There are four official faith groups registered and recognized in DeKUT. As the names suggest, these groups bring together students of the same faith for worship.

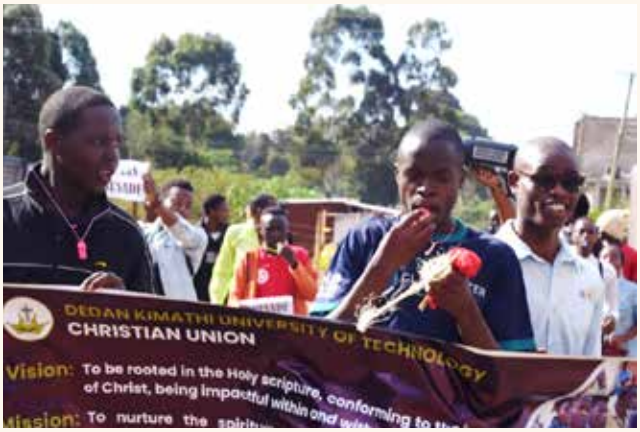
- DeKUT Christian Union (DeKUTCU)
- DeKUT Catholic Students (DeKUTCS)
- DeKUT Seventh Day Adventists Church (DeKUTSDA)
- DeKUT Answar Muslims (AMDeKUT)

Here, we highlight some initiatives confined to particular faith groups and beyond, such as opening up to the neighborhood in the spirit of charity and related outreach.

The DeKUT Christian Union

The DeKUT Christian Union is home to multiple protestant faiths. They celebrate a unity in diversity that blends into a beautiful fellowship of people who have discovered a common way of worshipping.

This faith group has initiatives such as Publicity Ministry Training, Fellowships, Worship Nights, and the FOCUS Leadership Summit. These initiatives equip their members with vital outreach skills for evangelism and community engagement, building lasting connections. They also empower aspiring leaders by providing essential training and resources to help them make a positive impact within the University community and beyond.









The DeKUT Catholic Students

The DeKUT Catholic Students emphasize spiritual growth and community service through various initiatives. Their Pilgrimage (Walk) to Blessed Irene Stefani *Nyaatha* Shrine in Gikondi, Mukurwe-ini, gave the participants a profound spiritual experience and renewal. At the same time, the *Inua* Comrade Welfare Initiative continues to support fellow students facing financial challenges. The Catholic Students' St. Cecilia Choir showcases their musical talents, enhancing their evangelization through musical performances and production. Participating in *Talanta* and Cultural Festivals provides an opportunity to celebrate the diversity of its people across various cultures and cultural expression within the community, a celebration of unity in diversity that develops inter-cultural cohesion.









The DeKUT Seventh Day Adventist Church

The DeKUT Seventh Day Adventist Church is a vibrant group with several initiatives contributing to community bonding and spiritual enrichment. The Music Sabbath, where they usually invite external choirs to worship, promotes collaboration among various musical talents. Their social events focus on strengthening relationships through shared meals and fellowship, fostering an atmosphere of warmth and fraternity among members.





The Answar Muslim DeKUT

The Answar Muslim DeKUT remains dedicated to nurturing unity and charitable action in sports events and charity activities such as the recent prominent visit to Thunguma Children's Home. This initiative is inspired by the teaching of Prophet Muhammad (SAW), who used to tell the early believers that every act of kindness is *sadaqah* and that it shall be paid in multifold ways in the life hereafter.







The chaplaincy department continues to support and coordinate the faith groups as a primary duty to ensure a safe and conducive environment for worship. The Chaplaincy is grateful to the University Management, which recognizes the place for God in a fast-changing academic world. By establishing a chaplaincy department, the University affirms its intention to ensure spiritual and moral formation to complement academic formation, resulting in holistic formation. The product, an all-around professional, is what the community out there yearns for ethical, morally upright, and selfless public servants.

DeKUT ENTERPRISES COMPANY
NYERI – MWEIGA ROAD, P.O BOX PRIVATE BAG – DEDAN KIMATHI, NYERI, KENYA
Mobile: 0110 912 738 Email: DeKUTes@dkut.ac.ke, md-DeKUTes@dkut.ac.ke

DRIVING TRANSFORMATION IN BOTH EDUCATION AND ECONOMIC LANDSCAPES

By Dr. Paul Sang
Managing Director, DeKUTES

Introduction

DeKUT Enterprises Company (DeKUTES), the commercial arm of Dedan Kimathi University of Technology, has significantly impacted students by equipping them with practical skills through a hands-on approach to innovation, value addition, and the commercialization of University-developed products. This transformative experience is driven by DeKUTES' integration within DeKUT's multiple schools, institutes and departments, each contributing to the income-generating activities that support and enhance student learning and revenue generation.

By anchoring its income-generating units within departments, DeKUTES ensures that students gain direct exposure to real-world product design, manufacturing and quality assurance processes. This setup fosters a learning environment where students can apply classroom concepts to industry-aligned projects, preparing them for future careers and equipping them for real-world applications.

Fabricated Machinery and Devices



Students in the School of Engineering, particularly those in Mechatronic Engineering, have collaborated on projects addressing local needs. For instance, students work alongside experienced faculty members to design and manufacture essential community-focused tools like maize dryers and hand sanitizer dispensers. This exposure helps students with hands-on engineering experience from concept to finished product, fostering their ability to develop innovative solutions by fabricating equipment and machinery.

DeKUT Premium Coffee

Students pursuing Coffee Technology are deeply involved in the coffee value addition cycle, from sourcing green coffee beans on campus farms to roasting, grinding, and packaging premium DeKUT coffee in the University's coffee lab. This immersive experience equips students with knowledge and skills in coffee cupping, tasting, and quality control, culminating in producing DeKUT's branded premium coffee, sold in local outlets and brewed in popular restaurants.



Detergents and Sanitizers

In the Chemistry Department, students contribute to producing multipurpose detergents, hand wash, and sanitizers. Students gain insights into chemical manufacturing and product safety through practical involvement in the formulation and testing stages, directly applying their academic knowledge to produce on-demand products. This practical experience enables students to apply chemical knowledge to develop valuable products in future, reinforcing their formulation and quality assurance skills.



DeKUT Yoghurt





The Institute of Food Bioresources Technology offers students hands-on involvement in producing DeKUT's yoghurt line, learning about the intricacies of milk value addition, preservation techniques, and packaging. With various flavours such as vanilla, chia, coffee, and strawberry, students develop a nuanced understanding of food processing, quality assurance, and innovation within the food industry, enhancing their employability in the food industry.

Conferences











At the Institute of Tourism and Hospitality Management, students access hands-on experience in conference and events management. They also gain practical skills in guest accommodation management at Munyeni House and catering services for DeKUTES-hosted events, acquiring skills essential for hospitality management careers. Conferences are available in small and large groups.

Clothing and Fashion Design



The Institute of Technical and Professional Studies empowers students in Fashion and Design to create a variety of garments, including dust coats, aprons and graduation gowns. DeKUTES has produced over 1,500 graduation gowns, enabling Dedan Kimathi University of Technology to be self-reliant in providing gowns for diploma, degree, master's, and PhD graduates. This exposure to full-cycle garment production equips students with practical expertise, elevating their employability and entrepreneurial prospects in Kenya's growing fashion and textile industry. Student protective gear, including dust coats and overalls, are available for sale at the DeKUTES outlet.

Design and Production of Innovative Adaptive Graduation Gown



DeKUTES has made a meaningful impact with its adaptive graduation gowns designed for students with mobility challenges. To achieve this, various stakeholders were involved across disciplines, setting a standard for collaborative problem-solving in academia. This project began as a cooperative effort among the University's Fashion and Design Unit, Directorate of Gender, Disability and Equity Affairs, and DeKUTES, aiming to address the unique needs of students who face difficulties with conventional graduation attire. The team created adaptive gowns through extensive consultations that promote comfort, independence, and dignity during the graduation celebrations.

During the graduation ceremony, the adaptive gowns introduced by DeKUTES for students with mobility challenges combined functionality with an appealing design. These gowns incorporate practical features like Velcro and zip closures, side openings, and breathable fabrics that comfortably accommodate medical devices, allowing for easy dressing with minimal help. Beyond functionality, the gowns are a powerful source of empowerment, helping individuals navigate their daily lives with enhanced independence and confidence. The design has received widespread appreciation, as it addresses physical challenges and supports emotional and psychological well-being.

The Company aims to expand production and explore additional adaptive designs for other special needs, collaborating with Universities nationwide to scale this initiative. The success of DeKUT's adaptive graduation gowns reflects the potential for educational institutions to foster societal change through entrepreneurship and innovation, setting a benchmark for inclusivity in higher education and beyond.

Parting SHOT

Through DeKUTES, Dedan Kimathi University of Technology is creating products and services with real-world impact and preparing its students to become capable and innovative professionals with a clear understanding of the demands and intricacies of their chosen industries. This model of anchored income generation units across departments exemplifies how universities can drive transformation in educational and economic landscapes.

To place an order and additional information

Visit: *DeKUTES @ Dedan Kimathi University of Technology, Munyeni House*

Call: *0758 563586, 0110912738*

Email: *salesDeKUTes@dkut.ac.ke*;
DeKUTes@dkut.ac.ke; md-DeKUTes@dkut.ac.ke

PROGRAMMES OFFERED AT DeKUT

Dedan Kimathi University of Technology (**DeKUT**) is a Chartered Public University that has two campuses: the **Main Campus** located within Nyeri County, 160 kilometers North of Nairobi City and **Nairobi CBD Centre** located on the 13th floor of Pension Towers. We invite applications from suitably qualified applicants.

SCHOOL OF ENGINEERING

- PhD In Mechanical Engineering
- PhD In Civil and Environmental Engineering
- PhD In Electrical and Electronic Engineering
- MSc in Telecommunication Engineering
- MSc in Civil Engineering
- MSc in advanced manufacturing and Automation Engineering
- MSc in Electrical and Electronic Engineering
- MSc in Industrial Engineering and Management
- MSc in Machine Tools Design and Manufacturing
- MSc in Mechanical Engineering
- MSc in Biomedical Engineering
- Post Graduate Diploma in Technical and Vocational Education
- Bachelor of Science in Electrical and Electronic Engineering
- Bachelor of Science in Civil Engineering
- Bachelor of Science in Mechatronic Engineering
- Bachelor of Science in Mechanical Engineering
- Bachelor of Science in Chemical Engineering
- Bachelor of Science in Telecommunication Information Engineering
- Bachelor of Education in Technology (Civil Engineering)
- Bachelor of Education in Technology (Electrical and Electronic Engineering)
- Bachelor of Education in Technology (Mechanical Engineering)
- Bachelor of Technology in Building Construction
- Postgraduate Diploma in Technical and Vocational Education

SCHOOL OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

- PhD In Computer Science
- MSc in Computer Science
- Post Graduate Diploma in Animation and Visual Effects
- Bachelor of Science in Computer Science
- Bachelor of Business Information Technology (BBIT)
- Bachelor of Science in Information Technology (IT)

SCHOOL OF BUSINESS MANAGEMENT AND ECONOMICS

- PhD In Business Administration &Management
- Post Graduate Diploma in Project Management
- Master of Business Administration
- Master in Innovation and Entrepreneurship
- Master of Business Analytics
- MSc in Supply Chain Management
- Msc In Economics
- Bachelor of Purchasing and Supplies Management (BPSM)
- Bachelor of Commerce (BCOM)
- Bachelor of Business Administration (BBA)
- Postgraduate Diploma in Project Management
- Diploma in Business Administration (DBA)
- Diploma of Purchasing and Supplies Management (DPSM)

SCHOOL OF NURSING

- Bachelor of Science in Nursing (Direct Entry)
- Bachelor of Science in Nursing (Upgrading)

SCHOOL OF SCIENCE

- PhD In Chemistry
- MSc in Applied Statistics
- MSc in Leather Technology
- Msc In Chemistry
- Bachelor of Science in Industrial Chemistry
- Bachelor of Science in Leather Technology
- Bachelor of Science in Actuarial Science
- Bachelor of Science in Mathematics and Modeling Processes
- Bachelor of Science in Polymer Chemistry
- Diploma in Leather Technology

INSTITUTE OF TOURISM HOSPITALITY MANAGEMENT

- MSc in Sustainable Tourism and Hospitality Management
- Bachelor in Sustainable Tourism and Hospitality Management
- Diploma in Sustainable Tourism and Hospitality Management
- Certificate in Institutional Accommodation and Catering Operations
- Mountaineering and Outdoor Expeditions Guiding

INSTITUTE OF FOOD BIORESOURCE TECHNOLOGY

- PhD In Food Science and Technology
- MSc In Food Science and Technology
- Bachelor of Science in Food Science and Technology
- Bachelor of Science in Nutrition and Dietetics
- Diploma in Food Science and Technology
- Diploma in Coffee Technology and Cupping
- Certificate in Coffee Technology and Quality Management

GEOTHERMAL ENERGY TRAINING AND RESEARCH INSTITUTE (GETRI)

- MSc in Forensic and Security Management
- Post Graduate Diploma in Geothermal Energy Technology
- Bachelor of Science in Geology

INSTITUTE OF GEOMATICS, GIS & REMOTE SENSING (IGGReS)

- PhD In Geomatics and Geospatial Information Science
- MSc in Geospatial Information Systems and Remote Sensing
- Bachelor of Science in Geomatics Engineering and Geospatial Information Systems
- Bachelor of Science in Geospatial Information Science and Remote Sensing

INSTITUTE OF CRIMINOLOGY, FORENSICS AND SECURITY STUDIES (ICFoSS)

- Bachelor of Science in Criminology and Security Management
- Diploma in Security Management

INSTITUTE OF TECHNICAL AND PROFESSIONAL STUDIES (ITPS)

- Diploma in Building Technology
- Diploma in Fashion Design & Interior Decoration
- Diploma in Electrical &Electronics Engineering (Power Option)
- Certificate in Building Technology
- Certificate in Fashion Design and Interior Decoration
- Certificate in Electrical and Electronics Engineering (Power Option)

CERTIFICATIONS

- Siemens Certified Mechatronic Systems Assistants (Level 1-3)
- Cisco Certified Network Associate (CCNA 1-3)

PICTORIALS



DeKUT VC Prof. Eng. Peter .N. Muchiri during the collaboration agreement signing with the Indian Institute of Technology (IIT) Hyderabad.



His Excellency Dr. William Samoei Ruto, C.G.H the President of the Republic of Kenya, briefly stopped at the University on his way to the Nyeri National Polytechnic for the TVET.



Hon.Simon Chelugui, Cabinet Secretary, Co-operatives and Micro, Small and Medium Enterprises (MSME), the Chairman of the New KPCU

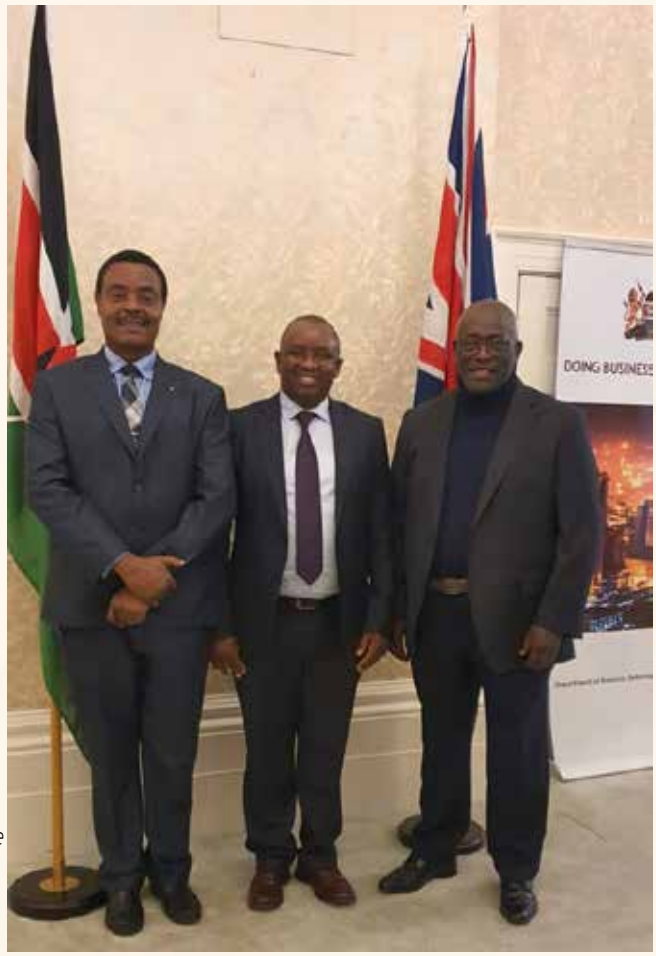
Right: *The Vice-Chancellor DeKUT, Prof. Peter Muchiri, visited the Kenya High Commission in London and met the Ambassador to the UK, Amb. H. E Manoah Esipisu EBS and Education Secretary, Mr. Willie Machocho.*



Dr. Juma Mukhwana, the Principal Secretary of the State Department for Industry in Kenya's Ministry of Trade, Investment, and Industrialization during the 3rd AUEA Conference



Enoh. T. Ebong, the Director of the U.S. Trade and Development Agency (USTDA), during her visit to Semiconductors Technologies Limited





The DeKUT Chancellor, General (Rtd) Dr. Julius Waweru Karangi EGH, CBS, DCO, LOM during the launch of the Robotic and Virtual Reality Infrastructure



Some of the participants during the 3rd Forum of the Alliance of Entrepreneurial Universities in Africa



The DVC A&F pose for a photo during the Mental Health and Psychiatric Nursing Book Launch



The East African Community Scholarship Monitoring and Evaluation team pose for a photo during a courtesy visit.



Left: *The DCI Reforms Research Innovation and Department and the DeKUT Nairobi Campus team pose for a photo*



Prof. Chakanetsa Mavhunga and four students from Massachusetts Institute of Technology, USA pose for a group photo.



The DeKUT Council Chairman, Dr. James Kariuki and the Vice Chancellor, Prof.Eng. Peter Muchiri, paid a courtesy visit to the Nyeri Governor, Hon. Mutahi Kahiga



Better Life through Technology

DeKUT is ISO 9001: 2015 Certified

For inquiries on Programmes:

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For more details visit our our social media handles:

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