

# THE MERU NATIONAL POLYTECHNIC **TECH MAGAZINE**

VOL. 1 ISSUE 1













## MERU NATIONAL POLYTECHNIC **TECH MAGAZINE**

## **Published By:**

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# **VISION**

To be an International Center of Excellence in Technical and Vocational Educational and Training (TVET).

# **MISSION**

To provide Technical and Vocational Education and Training (TVET) for producing dependable and skilled **Human Resource for Commerce and** Industry.

# MOTTO

Technology for Innovation and Development.







## EDUCATION AND TRAINING



I am delighted to be part of this great institution. The economic growth and development in Kenya is anchored on Vocation and Technical Education and Training. The government has continued to increase the number of TVET institutions to expand opportunities for the youth to acquire technical skills.

The TVET frame work underscores the youth equipping them not only with current skills but also future skills to spur research and innovations.

I celebrate the Meru National Polytechnic for the accomplishments made in the field of academia.

The collaborations and linkages

existing between Meru National Polytechnic and industries has enhanced the exposure of trainees to the practical aspect of training.

The state department of Technical and Vocational education and Training, Ministry of Education commits to providing the necessary support to the polytechnic in its endeavors to achieve its mandate



Dr. Esther Thaara Muoria **Principal Secretary State Department** for Technical VocatiOnal Education and Training

#### COUNCIL CHAIR - MERU NATIONAL POL

Welcome to the newest edition of our polytechnic magazine, where we embark on a journey of exploration, inspiration, and transformation. In the pages that follow, you will discover the vibrant tapestry of experiences, ideas, and aspirations that define our institution's ever-evolving landscape.

We firmly believe that education is not just about acquiring knowledge; it is about empowering our trainees to make a positive difference in the world. As we witness the transformative impact of our collective efforts, we are reminded of the boundless potential that resides within each and every one of us.

In this magazine, we celebrate the remarkable stories of our trainees. academic staff, non-academic staff and alumni who embody the spirit of Meru National Polytechnic. They are the torchbearers of innovation, breaking barriers, and challenging the status quo. Through their endeavors, they push the boundaries of human understanding, ignite the spark of creativity, and embrace the imperative of social responsibility.

Our institution thrives on fostering a culture of inclusivity and diversity, where ideas from different



perspectives collide and intersect, creating a fertile ground for innovation to flourish. We take pride in the richness of our



Dr. Anthony Njagi COUNCIL CHAIRPERSON

community, where individuals from various backgrounds come \_\_\_ together to engage in dialogue, debate, and collaboration.

In the face of complex global challenges, Meru National Polytechnic remains committed to being a catalyst for positive changes.

Thank you for joining us on this transformative journey. May this magazine inspire you to dream big, embrace new possibilities, and be the change you wish to see in the



Dear Readers,

It is with great pleasure and excitement that I welcome you to the first edition of our esteemed Meru National Polytechnic Tech Magazine. This publication serves as a window into the diverse and dynamic world that our institution represents—a world brimming with skills,knowledge, innovation, and the relentless pursuit of excellence.

United by our shared passion for learning and growth, we

find ourselves at a pivotal moment in our collective journey. In the face of unprecedented challenges and rapid transformations, Meru National Polytechnic stands as a beacon of resilience and adaptability. Together, we have weathered COVID 19 storms, embraced change, and emerged stronger, reaffirming our commitment to shaping a brighter future.

Within the pages of this magazine, you will uncover stories that highlight the extraordinary accomplishments of our trainees, faculty, and

alumni.

Their jo<mark>u</mark>rney<mark>s i</mark>nspire us, serving as a testament to the transformative power of education. From groundbreaking research breakthroughs

to impactful community initiatives,. These narratives embody our institution's ethos of empowering individuals and fostering societal progress.



Mr. Mutembei Kigige Chief Principal

Beyond the stories of individual triumphs, this magazine celebrates the collaborative spirit that infuses every aspect of our institution. It showcases the synergistic relationships that exist between various disciplines, the cross-pollination of ideas that sparks innovation, and the vibrant tapestry of cultures and perspectives that enrich our institution community.

As we navigate the uncharted waters of the 21st century, Meru National Polytechnic remains at the forefront of cutting-edge knowledge and discovery.

Through the relentless pursuit of intellectual curiosity, we strive to tackle the grand challenges facing humanity—be it climate change, social inequality, or the digital revolution.

By fostering an environment that fosters creativity, critical thinking, and compassion, we equip our trainees with the tools to become future leaders, problemsolvers, and changemakers.



The polytechnic magazine serves as a testament to our unwavering commitment to knowledge dissemination, sharing stories of success. innovation, and impact. It is a medium through which we can forge connections inspire one another, and deepen our sense of belonging to this remarkable community.

I extend my heartfelt gratitude to everyone who has contributed to this edition. Your dedication, talent, and passion have made this magazine a true reflection of our institution's spirit. I encourage all readers to engage with its content,

share their own stories, and continue being active participants in our collective journey.

Together, let us celebrate the achievements of the past, embrace the

challenges of the present, and forge ahead towards a future that holds infinite possibilities.

Thank you as I welcome you to our great institution.



### DEPUTY PRINCIPAL - ADMINISTRATION AND FINANCE

It's with great honor and pleasure that I address you through this page of our esteemed institution's magazine. Looking ahead, Meru National Polytechnic is committed to continuously enhancing the experience for its trainees and staff. We invest in imparting the right skills, attitudes, Cutting-edge technologies and resources. We strive to create an atmosphere of inclusivity and diversity where every trainee and staff feels valued, respected and empowered to achieve their fullest potential

I commend our trainees for their unwavering dedication and commitment to their education. They have shown remarkable resilience, adaptability and a true hunger for knowledge. Their eagerness to learn, both within and outside the classroom, is an inspiration to us all.

To our esteemed staff continue being the pillars of our institution, tirelessly guiding and nurturing our trainees' growth. Your passion for teaching, combined with your expertise in your respective fields, ensures that our trainees receive a well-rounded education that goes beyond text books and workshops. You create an environment that encourages critical thinking, creativity, innovation and empathy, empowering our trainees to become global citizens and future leaders.

In addition to our academic pursuit, MNP has always emphasized holistic development. We firmly believe that education extends beyond classroom walls. Our extracurricular activities and clubs provide trainees with opportunities to explore their passions, discover new talents and develop crucial life skills such as teamwork, leadership and time management. I encourage all trainees to actively participate in these activities and make the most of their time.

I express my gratitude to the parents and guardians who entrust us with their sons and daughters' education, their unwavering support, involvement and partnership with our institution is invaluable. Together, we can create a nurturing and inclusive learning environment that fosters academic excellence and personal growth.

I challenge all trainees to dream big. Our learning institution is not just a place for education, it is a



Mercy Kirimi Deputy Principal Administration and **Finance** 

community that celebrates achievements, fosters lifelong friendships and prepares trainees for the world beyond these walls

In conclusion, I would like to express my utmost pride in being part of this incredible institution. Together let us continue to inspire, learn and grow as we shape the future generation of leaders, thinkers and visionaries

Wishing you all a successful and fulfilling life ahead.





#### **DEPUTY PRINCIPAL - ACADEMIC AFFAIRS &**



he Meru National Polytechnic is located in a serene environment some four kilometers from Meru Town along the Meru Nanyuki Highway. We border Mt.Kenya on the west and are surrounded by valuable neighbors with whom we enjoy a cordial relationship: making the learning environment superb.

The Meru National Polytechnic was licensed as a qualification awarding institution (QAI) by the Kenya National Qualifications Authority (KNQA). This mandate has empowered the institution to develop a host of CBET programs drawing large input from the industry inorder to equip trainees with skills aligned to the

industry needs.

The wide range of market driven courses offered at the Meru National Polytechnic have opened doors to all Kenyans regardless of their KCSE qualifications. Additionally, through Recognition of Prior Learning(RPL), also referred to as PLAR, uncertified skilled workers have an opportunity to be assessed and certified.

At the Meru National Polytechnic we give equal opportunities to all regardless of gender, colour, creed including those abled differently.

We have curved our niche in TVET ready to offer skills that are competitive in the global arena of work. We feel honour to have you all onboard as we celebrate our achievements & experiences through this Tech Magazine.

Thank you and God bless you all.



Joseph W. Ng'ang'a **Deputy Principal Academic Affairs** and Research

#### **REGISTRAR - ACADEMIC AFFAIRS & RESEARCH**



he Registrar's office in Meru National Polytechnic is responsible for several important roles. These include overseeing the admission process for tainees at all levels of study, monitoring the progress of trainees throughout their academic journey, facilitating the clearance process for trainees upon completion of their courses, and securely maintaining all results, and certificates of graduates.

The registrar's office also carries responsibility of marketing processes within the polytechnic. This employ various strategies, including targeted marketing techniques such as sending invitations to events where potential trainees and parents can interact and engage with marketing personnel from the institution.

The office coordinates curriculum development process on the polytechnic and thereafter, ensures due process for accreditation and



Dr. Joshua Mburugu Registrar Academic Affairs

registration of curriculums with the **Technical Vocational Education** and

Training Authority (TVETA) and Kenya National Qualifications Authority (KNQA).

The registrar's office serves as the central hub for all tainees' data within the Institution, functioning

the location for the data office responsible for regularly updating the MNP data.

In summary, the registrar's office is the most central office where most of the clients to the polytechnic are addressed before being referred to other departments within the institution for specialized services.







#### DEAN OF STUDENTS



Dear trainees.

As you go through this stage of your life, I would like to urge you to believe in what you can do, and you will overcome any obstacles in life. Being successful is easy if you choose to do it.

Mistakes are inevitable, it's okay to make them sometimes. Making mistakes is one of the great ways to learn since you will remember every single one of them and won't repeat them.

As a department, we are committed to trainee welfare within the institution. Some of the activities at the dean's office include:

- Supervision of trainees elections, train the elected leaders and work closely with them in trainees governance.
- Assisting trainees to apply and follow up on HELB loans/ bursaries to supplement fees payment
- Encouraging trainees especially the needy to practice intrapreneurship by running small businesses in the polytechnic to raise up keep money
- 4. Registering various trainees' clubs to help nurture their talents

- 6. Organizing sporting activities to keep trainees busy e.g. interdepartmental athletics or ball games
- 7. Organizing and supporting major entertainment events i.e. fresher's night, cultural night and leaver's night
- 8. Supporting co-curriculum activities such as drama, music and sports/games.

As you endeavor in your curriculum and co-curriculum activities, i wish you all the best.



Hellen Mwanje Dean of Sudents



#### MANAGEMENT REPRESENTATIVE



The Meru National polytechnic has for the last 14 years enjoyed the great fruits of Consistency that Breeds Quality through its interpretation of ISO 9001:2015 in the Implementation of its QMS (Quality Management System)

ISO 9001:2015 Certification is crucial for all Institutions as it provides a globally recognized framework for establishing and maintaining a high-quality management system. technical institutions that achieve this certification demonstrate their commitment to delivering excellence in education and related services.

Firstly, ISO 9001:2015 emphasizes the implementation of a quality management system (QMS) that focuses on meeting customer requirements and continuously improving processes. By adhering to the standard's requirements,

technical institutions can streamline their operations, enhance efficiency, and optimize resource allocation. This leads to cost savings, improved performance, and better utilization of faculty, staff and infrastructure.

Secondly, ISO 9001:2015 certification enhances the credibility and reputation of technical institutions. It provides external validation of an institution's commitment to quality, making it an attractive choice for trainees, parents, employers, and other stakeholders. The certification serves as evidence of the institution's ability to consistently provide a high-quality educational experience.

Thirdly, ISO 9001:2015 promotes a systematic approach to quality management, encouraging technical institutions to

identify and address areas for improvement. This leads to continual enhancement of educational programs, support services, and administrative processes. It also fosters a culture of innovation and a focus on customer satisfaction.

Moreover, ISO 9001:2015 certification ensures regulatory compliance for technical institutions. It helps institutions align their practices with relevant regulations and accreditation requirements, simplifying the process of audits and inspections.

In conclusion, ISO 9001:2015 certification holds immense importance for technical institutions. It helps them establish a robust quality management system, enhances credibility, fosters continual improvement, ensures regulatory compliance, and promotes effective resource allocation. These benefits contribute to the overall success and competitiveness of technical institutions in providing quality education.



Grace Eva Mutuiri Management Representative

#### RESEARCH AND INNOVATION COORDINATOR

Since its inception, The Meru National Polytechnic has sustained a magnificent culture of providing world class training and skills development. This is evidenced by numerous courses being offered at the polytechnic by various departments. Through Research Development and Innovation, the polytechnic has several collaborations with industries and organizations both local and international.

Further, through application of applied research and other interventions, the polytechnic desires to have a continual development of digital skills and technologies that will offer major improvement on quality skills. The development and research innovation department is developing its own journal and will soon be online.

The Meru National Polytechnic journal of Africa Journal of Technology, Innovation and Management (AJTIM) will be milestone to the researchers at polytechnic who will be assured of prompt dissemination of their research findings. Further, many Kenyan scientists will have an portunity to publish their op work in the same journal. The Polytechnic, through research development and innovation department has patented several innovations to safeguard them. The department is very active in TVET fair competitions and project exhibitions.



Philiph Karobia Research, Development and Innovation Coordinator

Today, we will also launch the polytechnic magazine, an initiative of the department. It will be published annually to give opportunity to staff and trainees to own their writing skills and further offer a great avenue to publish

important polytechnic events.

We call upon organizations to partner with us through advertising their products and services in the magazine at subsidized rates. As a department we feel greatly honoured by the Polytechnic Management that has entrusted us with this noble task.

We sincerely thank our Chief Principal, Mr. Mutembei Kigige for his visionary leadership that has made the publication of this magazine a success. We would also like to thank our Council Chair, Dr. Anthony Njagi and the entire Polytechnic Council for their great support.

We welcome you our reader to walk with us this journey.



#### AGRICULTURE & ENVIRONMENTAL SCIENCE



he provision of quality education and training is fundamental to the Government's overall strategy for social economic development. Quality education and training will contribute to achievement of Kenya's Vision 2030 and UN's Sustainable Development Goals (SDGs). Reforms in education are necessary to align the sector to the provisions of the Constitution of Kenya 2010.

Agriculture as a department has leveraged existing capacities to integrate knowledge generated through research, into teaching, learning, community engagement and the world of work in order to maximize impact. There have been efforts in

engaging the government in funding our programmes through the Trainees HELB Loan Scheme, CDF and other direct funding mechanisms. The Department has leveraged its premier position in creating a critical mass of graduates to act as a base for knowledge generation and transfer.

The department pride itself of a conducive environment that provides opportunities for trainees and staff. It also enables them to engage with other relevant stakeholders as part of their research. The trainees' trade projects, emphasis have been placed on large-scale, multidisciplinary, multi-institution research activities. This aims at promoting the generation and utilization of research results for sustainable development.

The Department is now set to offer competence-based education training (CBET) programmes which are responsive to trainees' and industrial needs and expectations. The programmes are now learnercentred with flexible study options, support and advice. It also promotes participation, experimentation and collaborative learning hence enabling them to take on societal challenges.

The Department is in the process of initiating Open, Distance and e-Learning (ODeL) programmes to enhance access and address





#### **AGRICULTURE & ENVIRONMENTAL SCIENCE**



Peter Kariuki H.o.D Agriculture & Environmental Sciences

the increasing demand for higher education. The adoption of ODeL and/or blended learning strategies will further act as the innovation for the development of techniques demanded by the current market.

In order to contribute towards development of new-edge techniques, the department intends to introduce Climate smart agriculture, Animal health, Dairy Farm Management and Horticulture production. To realize this, the department has already acquired state of the art training resources with help from Canadian partners under Kenya Education For Employment Program (KEFEP) and Young Africa Works (YAW) among other partners.

Agriculture Department offers equal and gender responsive opportunities and in line with

institutional cohesion, networking and transparency with clear organizational development processes.

Meru National Polytechnic intends to produce versatile and competent graduates that will effectively harness emerging local and global opportunities. To achieve this objective,

The Department has enhanced partnerships with industry players in order to leverage on their experience. It has enhanced community outreach programmes and revitalized Polytechnic open days in our MNP Giaki Demonstration farm where state of the art Agricultural Machinery and Equipment are domiciled. It has also enhanced her collaboration with other institutions of higher learning and research regionally and globally.



#### APPLIED SCIENCES



he Applied Sciences Department at the Meru National Polytechnic produces labor force geared towards working in Research Institutions, Animal &Plant Breeding Institutions, Secondary & Tertiary institutions' Laboratories & now moving forward, in the Junior Secondary Schools' Labs. The graduates too are absorbed in Food Production & Processing Plants, Institutions dealing with quality control like KEBS, KEPHIS among others.

The Department has been offering 3 Diploma Courses; Analytical Chemistry, Applied Biology & Food Processing Technology & 1 Certificate Course (Science Laboratory Technology); all examined by the KNEC, but with elevation of the Polytechnic to a QAI, the Department has already put mechanisms in place to develop curricular in:

 Science Laboratory Technolo-Levels 5 & 6 gy

- 2. Applied Biology Levels 5 &6
- 3. Water & Sanitation Levels 5 & 6.
- 4. Analytical Chemistry Levels 5 &6
- 5. Food Processing & Technolo-Levels 5 & 6 gy
  - 6. Petroleum Engineering Levels
- 5 &
  - 7. Biotechnology Levels 5 &6
  - 8. Applied Statistics Levels 5 &6
  - 9. Chemical Engineering Levels

5 & 6

Performance in the department is quite impressive and a number of trainees end up securing jobs in the industries that offer them Industrial Attachment. With a very dedicated and passionate team of 11 trainers,1 Technician and 1 administrative assistant, the department is confident of an upward trajectory in terms of enrollment, retention & transition.



Catherine Kirimi H.o.D Applied Science







#### **BUSINESS & ACCOUNTANC**

elcome to the department of Business Management and Accountancy in the Meru National Polytechnic, one of the biggest academic departments in the institution. With personnel of about 60 trainers and 9 different programmes, the department is the largest in the Polytechnic, not only in staff membership but also in the number of programmes offered. Currently, the department has a trainee population of about 1300.

The role of the department is to provide quality technical and vocational training in the management of business, trade and industry sectors, in furtherance of the polytechnic's mission. This has ensured a constant supply of the very crucial management skills in the labour market for the desired industrial growth and development in the country.

The department has been offering courses examinable by three different examination bodies namely, Kenya National **Examinations Council** (KNEC), Kenya Accountants and Secretaries National **Examinations Board (KASNEB)** and TVET Curriculum Development Assessment and Certification Council. (TVET CDACC).

However, moving forward the Polytechnic has been accredited by the Kenya National Qualifications Authority (KNQA) as a **Qualifications Awarding Institution** 



(QAI) and therefore, the Business Management and Accountancy department is in the process of developing market driven curricula on which the Polytechnic will train the content, administer exams and award certificates.

Curriculum development panels



Michael Munene H.o.D Business & Accountance

are already in place, working on the following curricula:

- Office Assistant Level 3 1.
- 2. Office Administrator Levels 5 &6
- Accountant Level 5 &6 3.
- Supply Chain Management Levels 5 &6
- Social Work and Community Development Levels 5 &6
- Human Resource Management Levels 5 &6
- Business Management Officer Levels 5 &6
- Credit Management Officer Levels 5 &6
- Project Management Levels 5 & 6
- Marketing Management (Sales) and Marketing)Levels 5 &6



#### BUILDING AND CIVIL ENGINEERING



he construction and infrastructure sector in Kenya plays a vital role in the country's economy, contributing a significant portion to the gross GDP of 12.4 percent. At the forefront of this industry is the Building and Civil Engineering Department at Meru National Polytechnic. With its strategic location and remarkable initiatives,

the department has established itself as a national center of excellence in Kenya and aims to become a key player in the region.

### **Key milestones**

One of the notable achievements of the department is hosting the EASTRIP (East Africa Skills for Transformation and Regional Integration Project), a World

Bank-funded initiative. This project aims at positioning the department as a leading institution for training skilled manpower not only in Kenya but also in the wider region. By equipping trainees with the necessary skills, EASTRIP empowers them to contribute to the development of infrastructure projects and strengthen the construction industry.

The Building and Civil Engineering Department boasts an impressive array of workshops and laboratories, comprising a total of seven fully equipped and functional spaces. These facilities including: soils, concrete and water laboratories with plumbing workshops which play a crucial role in training and providing hands-on experience to trainees. The emphasis on practical exposure prepares trainees for self-employment and instills in them a deep understanding of the industry's demands.

### **Collaborations and Partnerships**

Recognizing the importance of collaboration in enhancing the quality and competitiveness of graduates, the department has established partnerships both locally and internationally. Notably, the department collaborates with technical colleges in Tanzania, such as The Arusha technical college and Daresalam institute, enabling trainees to engage in exchange programs for international exposure.







#### BUILDING AND CIVIL ENGINEERING



Furthermore, partnerships with Kunming Metallurgy College and Sunmaker Oil and Gas in China have been established to train graduates with world-class skills required for Chinese infrastructure and construction projects both locally and internationally. These collaborations are timely and set to expand opportunities for graduates both within the region and on a global scale.

#### Programs and Enrollments.

The Building and Civil Engineering Department offers a comprehensive range of programs to cater to various interests and career paths. These programs include civil engineering, building construction technology, quantity surveying, land surveying, architecture, plumbing, masonry, gypsum, among others. Trainees can pursue these courses at different levels, including higher diploma, diploma (level 6),

certificate (level 5), artisan (level 4), and trade test (level 3). Currently, the department accommodates over 2000 trainees, supported by an experienced staff establishment of 45 trainers.

### Why choose our department:

The Building and Civil Engineering Department at Meru National Polytechnic stands as a beacon of excellence in the construction industry in Kenya and the region. With its world-class facilities, emphasis on practical training, and strong collaborations, the department continues to produce high-caliber professionals equipped with the skills necessary to drive infrastructura development.

As the construction and infrastructure sectors continue to grow, the department remains committed to its mission of empowering trainees and

contributing to the nation's economic prosperity.



Jared Matoke H.o.D Building & Civil Engineering

he Electrical and Electronics Department at the Meru National Polytechnic has been at the forefront of equipping trainees with the necessary skills to excel in the ever-evolving technology industry. The department has made strides in providing quality education and training to engineering trainees. The recent launch of the Refrigeration and Air Conditioning Short Course is a testimony to the department's commitment to developing highly qualified professionals in the field.

After recognizing the limited number of experts in the Meru region and surrounding areas, the decision was made to launch a short course in Refrigeration and Air Conditioning. This course provides trainees with the knowledge and skills necessary to work in the refrigeration and air conditioning industry. Trainees with prior knowledge in the fields of mechanical engineering, electrical engineering and automotive engineering can enroll in short courses.



John Meeme H.o.D Electrical & Electronics Department

A unique feature of this course is the opportunity for trainees to visit industry and academic trip to further their exposure in this field. This gives you hands-on experience and exposes you to systems you don't see in school. This hands-on experience is of great benefit as it prepares trainees for the real-world challenges they will face in their careers. The department offers several courses such as Diploma in Electrical and Electronic Engineering



(Power Options), Craft in Electrical and Electronic Engineering (Power Options), Technician in Electrical Installations, Instrumentation and Control Level 4, Solar PV Level T2 It offers. The department's commitment to providing quality education and training has led to excellence in robotics. The department has excelled in the following areas: Diploma in Electrical and Electronic Engineering (Power Options), Craft in Electrical and Electronic Engineering (Power Options), Technician in Electrical Installations, Instrumentation and Control Level 4. Photovoltaic Level T2 It offers.



#### ELECTRICAL & ELECTRONICS ENGINEERING



The Diploma in Electrical and Electronic Engineering (Power Options) is a comprehensive program that prepares trainees for careers in the fields of power generation, transmission and distribution. The program covers various aspects of electrical engineering including power systems, control systems, and renewable energy analysis.

The Craft in Electrical and Electronics Engineering (Power Option) is a practical-based program that provides trainees with the skills necessary to work as engineers in electrical and electronics industry. The

program covers areas such as electrical installations. maintenance and repairs.

The Artisan in Electrical Installations, Instrumentation and Control Level 4 program is designed for individuals who want to acquire practical skills in electrical installation and maintenance. The program covers areas such as electrical safety, electrical circuits, and instrumentation and control systems.

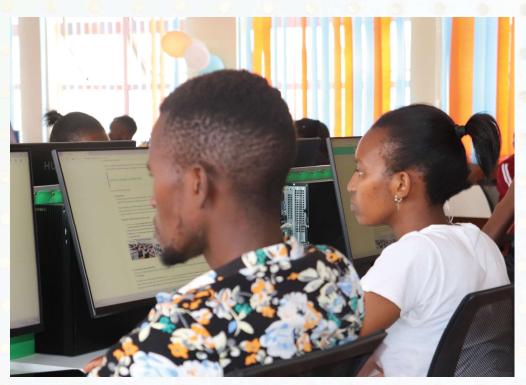
The Solar PV Level T2 program is designed to equip trainees with the knowledge and skills necessary to work in the solar energy industry. The program covers areas such as solar panel installation, maintenance and repair.

In summary, Meru National Polytechnic's Department of Electrical and Electronic Engineering is committed to providing quality education and training to engineering trainees. The recently launched Short Course in Refrigeration and Air Conditioning is a testimony to the department's commitment to developing highly qualified professionals in this field. Other short courses are in the pipeline as we are also developing curriculums for their launching. With excellence in robotics and TVET trade fairs, the department is well on its way to becoming a leader in engineering education.

The department has started offering MNP programs following the accreditation of MNP as the National Qualification Awarding Institution by KNQA as follows:

- Electrical Engineering Technology level 6
- Electrical Installation level 5
- Electrical Installation level 4

#### COMPUTING & INFORMATICS



•he Computing & Informatics Department is made up of two (2) sections i.e. the computing initially known as ICT & the second is Informatics which handles library science.

The department produces labour force geared toward working in various careers namely; system administrators, software development, technicians, data base analyst, network analyst, project managers, graphics designers, librarians, library assistants, information architectures, archivists, data analyst just to mention a few.

The department has been offering the following courses:

- Diploma in ICT
- Certificate in ICT
- Diploma in information science

- Certificate in information science
- Short Courses ranging from:-Computer Aided Design, Computer Application, ICDL, Graphics Design, Computer Repair & maintenance, Networking & Web Design.



Milkah Maina H.o.D Computing & Informatics



We have been having the following examining bodies;

- **KNEC** 1.
- 2. Meru National Polytechnic
- 3. **HUAWEI**
- ICDL

The institution has been accredited as a Qualification Awarding Institution (QAI) and given the mandate to deliver curriculum, assess and certify trainees. So far, the department has developed six (6) curricula. The department has a team of thirty (30) trainers training in the department as the core department and others servicing other department in ICT as a unit. It also has one (1) administrative assistant & four (4) technicians. The department works closely with other two (2) departments, i.e. Management Information Systems (MIS) that handles ICT related infrastructure and ODEL that handle online & distance learning.

We currently have a population of about 1,200 trainees.



#### MECHANICAL AND AUTOMOTIVE ENGINEERING

he Mechanical Department is among eight academic departments of the Meru National Polytechnic. The department consists of four major options of mechanical engineering namely Mechanical Engineering (Production), Mechanical Engineering (Automotive), Mechanical Engineering (Plant) and Agriculture Engineering. Currently the department offers the following courses;

## **KNEC Programme**

- Diploma in Automotive Engineering
- Diploma in Mechanical Engineering (Production)
- Diploma in Mechanical (Industrial plant) Engineering
- Craft Certificate in Automotive Engineering
- Artisan Certificate in Motor Vehicle Mechanics



- Agriculture Engineering Technician Level 6
- Automotive Engineering Technician Level 6
- Mechanical Engineering Technician Level 6
- Production Engineering Level 6 Technician
- Automotive Technology Technician Level 5
- Lathe Operator level 4
- Manual Metal arc welding Level

The department is in the process of finalizing the Meru National Polytechnic curriculums in readiness of converting all its programmers with a population of 750 trainees to CBET based programme after our institution became a qualification awarding institution

The department also has a driving section with modern training vehicles and competent driving instructors to train our trainees and also other customers to be competent drivers. We also have a section for servicing and repairing all the polytechnic and staff vehicles.



Nyaga Michael Murithi H.o.D Mechanical & Automotive

We have participated in national competitions in Africa Tech Challenge earning international recognition and attracting scholarships to China for our trainees. In the last Africa Tech Challenge the mechanical trainees emerged winners where the institution was awarded a tender of producing components using CNC lathe machine for China market. We have also produced skilled graduates for the market around the country eq. Isuzu East Africa limited, Toyota Kenya Mutindwa dealership, CMC Meru, CMC Nanyuki, Meru central afya millers and Meru central milk processing factory among other



#### HOSPITALITY AND INSTITUTIONAL MANAGEMENT DEPARTMENT

elcome to our renowned department at The Meru National Polytechnic, where educational brilliance thrives and extraordinary possibilities unfold. We invite you to embark on an enriching Hospitality and Institutional Management journey that will shape your future and unlock your true potential.

### **Enrollments**

At our department, we pride ourselves on fostering a dynamic and inclusive learning environment. Our department has portrayed exceptional performance in the previous examinations and this has resulted to a population of more than 1000 trainees. Our exceptional team of 35 trainers, comprised of distinguished experts and passionate educators, are dedicated to empowering trainees with the knowledge and skills needed to succeed in a rapidly evolving world.



Susan Gikunda H.o.D Hospitality and Institutional Management

Our comprehensive curriculum



offers a diverse range of cuttingedge programs, designed to cater to the interests and aspirations of every trainee. From Food and Beverage, Catering and Accommodation, Nutrition and Dietetics, Tourism Management, Tour Guiding Operations, Beauty therapy we provide a holistic education that combines theoretical foundations with handson experiences, ensuring our graduates are competent and wellprepared for the challenges of the modern workforce.

## **CBS Programs**

Our CBS (Competency based Skilling) programs encompass a wide range of disciplines, including Catering and Accommodation( Level 3 5 6), Baking Technology (level 4 5 6), Hair Dressing (all levels), Beauty Therapy (all levels), Laundry and Dry Cleaning (level 4), Housekeeping (level 5), Food and beverage Sales (Level 5), Tour

Guiding (level 5) and Food and beverage Production (Level 5). With state-of-the-art facilities, fully equipped workshops, our expert faculty, who bring a wealth of industry experience, you will learn the intricate nuances of the artistry world, master the touch of hospitality and culinary art, and acquire the skills to create unforgettable experiences for the dynamic world, you will have access to real-world experiences and opportunities to showcase your talent.

### Why us?

Join a vibrant community of ambitious learners who are driven to make a difference. Experience the support and comradeship of fellow trainees, engage in thought-provoking discussions, and participate in extracurricular activities that promote personal growth and leadership development







Dr. Anthony Njagi Getambu Council Chairperson



Jenu John **Council Member** 



Suleyman Boru Dida Council Member



Susan Kinya Mwebia **Council Member** 



Callista Kina Gitobu **Council Member** 



Irene Leshore Serina **Council Member** 



Mutembei Kigige **Council Secretary** 



Mutembei Kigige **Chief Principal** 



Mercy Kirimi **Deputy Principal Administration & Finance** 



Joseph Ng'ang'a **Deputy Principal Academic Affairs** & Research



Douglas Kimathi Registrar Administration & Finance



Hellen Mwanje Dean of Students



Dr. Joshua Mbijiwe Registrar Academic Affairs





Peter Kariuki H.o.D Agriculture & **Environmental Science** 



Catherine Kirimi **H.o.D Applied Sciences** 



Jared Matoke H.o.D Building & Civil **Engineering** 



Michael Munene H.o.D Business & Accountancy



John Meeme H.o.D Electrical & **Electronics** 



Morris Murianki **Examination Officer** 



Susan Gikunda H.o.D Hospitality & Institutional Management



Milkah Maina H.o.D Computing & **Informatics** 



Michael Murithi H.o.D Mechanical & **Automotive Engineering** 



Joseph Orina Makori H.o.D ODeL



Nancy Kangangi **Human Resource Officer** 



lan Mutwiri **Procurement Officer** 



Margret Ruguru Farm Manager



Wachira Judy H.o.D M.I.S



**Timothy Munene** Estate Manager

### **COORDINATORS**



Joseph Rarama **Farms Coordinator** 



Stephen Ndiira **Industrial Liaison Officer** 



Lucy Gacheri Internal Quality Assurance Officer



Salesio Kirima **Security Officer** 



Gitonga Magambo Giaki Farm Coordinator



Grace Eva Mutuiri Management Representative



Salome Mutembei Office of Career Services



Stanley Njuguna **RPL Coordinator** 



Samwel Mwaniki **Guidance & Counselling** Coordinator



Karanu Mbaka **EASTRIP Coordinator** 



Philiph Karobia Research, Development & **Innovation Coordinator** 



John Kiura **Performance Contracting** Coordinator



#### MANAGEMENT INFORMATION SYSTEM



he Management Information System (MIS) Department is one of the core departments of the Meru National Polytechnic. The department is responsible for providing a backbone infrastructure that implements and facilitates the flow of information within the Polytechnic and externally. The department provides technical support too, that is, optimal application of available resources and the ability to create and deliver high-quality Information Communication Technology (ICT) services in line with the Polytechnic's mission. These services are delivered through an ICT infrastructure that is comprehensive, up-todate, responsive, reliable, and available. Thus, through these basic functions; infrastructure, functionality and governance, the

department continues to achieve its objectives successfully.

Today, we are living in a world that is embracing technology. We continuously lean towards Information Communication Technology (ICT) and embracing technological advancement to aid in completion of processes/tasks and making critical business decisions, thus as a department within an educational institution; it continues supporting teaching, learning, and management processes.

Explicitly, ICTs are enablers in the acquisition of 21st Century skills in the implementation of the Competency Based Curriculum (CBC) as well as Competency Based Education and Training (CBET). Seamless integration



WACHIRA JUDY H.o.D M.I.S

of ICT in education and training has improved learning outcomes across all levels.

Additionally, by recognizing Kenya's long-term development blue print, Vision 2030, the department is identified as an enabler for socioeconomic transformation.

The Polytechnic, under the umbrella namely the Ministry of Education State department for Technical and Vocational Education and Training (TVET) continues providing quality education and training with the objective of preparing learners and trainees to competitively thrive within a highly integrated, technology-oriented, and information-based global economy



#### RECOGNITION OF PRIOR LEARNING (RPL)



he Meru National Polytechnic has embarked on a remarkable journey to establish a sustainable and affordable RPL system. This innovative approach aims to provide a streamlined and efficient process for recognizing the prior learning of potential candidates, promoting lifelong learning, and nhancing access to education and skills development. RPL assessments are conducted against a well-defined curriculum, which ensures that candidates' prior learning is thoroughly evaluated and mapped against the learning outcomes, competencies, and standards of the respective programs or courses.

Additionally, the institution is committed to establishing a

robust ICT infrastructure dedicated to RPL, which will serve as a technological backbone for the system, facilitating smooth operations and seamless integration of the RPL process within the institution. The introduction of modern information and communication technologies (ICT) at Meru National Polytechnic has significantly enhanced convenience for potential candidates.

This infrastructure ensures efficient data management, storage, and retrieval, allowing for the systematic collection, organization, and maintenance of candidate information, evidence portfolios, and assessment records.

Additionally, it provides a secure and centralized platform for candidates to store and manage their evidence portfolios, ensuring that their prior learning is accurately documented and readily accessible for assessment purposes.



Stanley Njuguna RPL Coordinator

#### PERFORMANCE CONTRACTING

erformance Contracting is a Contract entered between the Government of the Republic of Kenya through the Cabinet Secretary Ministry of Education and the governing Council of the Meru National Polytechnic; it is a Management tool which has been embraced by The Meru National Polytechnic since the time it was rolled out to Tertiary Institutions in FY 2007/2008. Through the implementation of PC Targets the Institution has experienced tremendous growth in all aspects.

After vetting the PC with the Public Service Performance Management and Monitoring Unit (PSPMMU) a work plan that gives the road map

to the achievement of the target is drawn and cascaded to various target coordinators.

The Work plan is divided into Four Quarters: Quarter one (July -September) Quarter two (October -December), Quarter three (January to March) and Quarter four (April to June). At the end of every quarter the quarterly reports are submitted to various agencies 15 days after the end of the quarter. Finally at the end of the financial

year the annual evaluation is done by the Public Service Performance Monitoring Unit and institutions are rank as per their category.



John Kiura Performance Contracting Coordinator

## INDUSTRIAL LIAISONS OFFICE



Stephen Ndiira **ILO Officer** 

Industrial attachment is a major requirement by the Kenya National Examinations Council (KNEC) for a trainee to be considered to have completed his/her studies successfully. This is due to the fact that attachment is a classroom extension work out in the industry.

This is due to the fact that attachment is a classroom extension work out in the industry.

As the Industrial Liaison Office (ILO), the department is entrusted with the work of preparing trainees for attachment, assessing them while on attachment and eventually issuing them with the attachment

attendance certificates upon completion of the same. These certificates are of great importance when trainees go out seeking for employment since they are a proof of having been attached in their respective industries. The department also assists in placing trainees who may find difficulties in securing places of attachment on their own.

WITED



ITED is an Acronym for Women in Technical Edu-**Key Activities** cation & Development. It's a global phenomenon whose broad objective is to enhance Enrollment, ship Programs Retention and Transition of Women (Ladies & Girls), in STEM Courses. STEM Stands for Sciences, Tech-

TARGET GROUPS

Courses.

1.Women & Girls in both Formal & Informal Sector

nical, Engineering & Mathematical

- 2.School-Going Girls
- 3.School Leavers
- 4.Like-Minded & Interested Males

Yoghurt Making in the Polytechnic

- **Demystify STEM courses** through role modelling and mentor-
- Create awareness of Courses, Career Opportunities, additional Skills, Government& other Funds through Sensitization of Females in Schools, Churches, and Social

Meetings etc.

Create awareness to persons with direct link to females like parents, school heads etc.

- Lobby for resources to maintain & sustain WITED project activities.
- Campaign for STEM Courses through Social & Mass media, face to face engagement.
- Come up with simple & flexible courses to in addition to existing ones to suit those interested.
- Collaborate with other offices e.g. Guidance & Counseling Gender Mainstreaming Committee, Dean of Trainees & Office of Career Services
- Encourage multi-skilling/ soft skills
- Train on income generating activities
- Encourage institutional visits by school going children



Catherine Kirimi WITED COORDINATOR

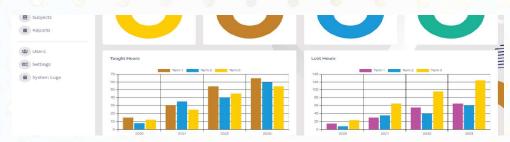


#### **ENSURING QUALITY AT THE MERU NATIONAL POLYTECHNIC**

he Meru National Polytechnic (MNP) is A TVET Institution established through legal notice no.94 of 2016. The Mandate of Meru National Polytechnic is training in TVET, Research & Innovation and community service as spelt out in the TVET act of 2013 and The Meru National Polytechnic order No.94 of 2016.

At MNP, there are already established systems and regulations to monitor quality performance in various processes. One of them is the Internal Quality Assurance office which plays a critical role in making sure the polytechnic delivers highquality instruction and lives up to trainees' expectations. To track and improve the teaching and learning processes, this office works closely with academic departments and other offices. The Quality Assurance Office is crucial in reporting to and advising the Management on areas for improvement and maintaining high standards of curriculum delivery through thorough monitoring, auditing, and customer surveys.

The Internal Quality Assurance Office's main duties include overseeing trainee and trainer class attendance. The key to successful teaching and learning is consistent attendance. The office ensures that irregularities or patterns that might impede learning are carefully monitored through continual reporting. This makes it possible to take action quickly, such as



dealing with trainee absenteeism or making sure that trainers attend their duties as required in time and consistently.

Audits are a crucial tool for determining how well a curriculum is delivered. The Internal Quality Assurance Office regularly audits teaching practices to gauge how well they adhere to predetermined standards, are relevant to the curriculum, and are of a generally high caliber. Areas for improvement are found, and best practices distributed among academic departments, through audits. The institution is able to adapt and improve its teaching techniques through continuous evaluation and feedbacks.

The Internal Quality Assurance Office surveys clients' levels of



Lucy Gacheri Internal Quality Assurance Coordinator

satisfaction each term to make sure that trainees' expectations are being met. These polls give crucial information about how satisfied trainees are with the way that the curriculum is delivered, the ways that trainers train and the support services they receive. Through this the office can find areas for improvement, potential gaps in the curriculum, or places that require more resources and support by asking trainees for their feedback. This feedback is essential for preserving a traineecentered philosophy of education and consistently improving the educational process.

A crucial part of reporting findings and making recommendations to management is played by the Internal Quality Assurance office. The office compiles information from audits, customer surveys, and class attendance monitoring to produce detailed reports that identify the office's strengths, weaknesses, and potential areas for improvement. The management can use these reports to make well-informed choices, allocate resources, and make the necessary adjustments to improve curriculum delivery.

ne of my favorite movie is called Hidden figure, it advocated for female representation in STEM and shares the struggles women face in gender stereotyped courses. Something I picked from the movie is that "Genius has no race, strength has no gender and courage has no limit."

Under-representation of women in STEM continues to draw concerns. There is greater gender imbalance in these fields, therefore it is paramount to address this problem and come up with systematic intervention in the education system and measures that will encourage more female in STEM.

STEM stereotype and gender stereotype collides head to head, as STEM programs are considered masculine or hard, while gender stereotype come in when females are perceived to be weak, very dependent and intellectually incapable than their male peers. Due to this collision female are driven away from enrolling in STEM programs

Social constructionists hold the thought that characteristic like gender are human definition and interpretation shaped by cultural and historical contest. Questions like: Will we achieve gender quality even in the patriarchal community? Why should we not make stem discipline attract more female domain? runs through my mind. It possible to achieve this if only we



Victoria Kennedy Trainer Building and Civil Engineering.

cease the discriminatory practice.

I did Design in the school of Architecture. I was amongst the five girls in a class of fifty. The class felt like a boy's club. The course was considered masculine as it involves production of construction drawings, lots of math and structure calculation. Sadly, three of us graduated. This meant the retention rate was like 60% compared to 98% male retention. Navigating in the construction industry has been bitter sweet. I have been overcoming hurdles and experienced rollercoaster of stereotyped notions. I had to deconstruct the narrative that male peers are better than me.

Honestly my journey was cumbersome but I have overcome. I had to be visible, do extra work more than my male peers and let my portfolio speak on my behalf. I'm a phoenix who rose out of ashes. Let my story be an encouragement to any female.

pursuing male dominated courses I believe women and STEM coexist. I'm always intrigued when I spot a girl in building and civil engineering class. At Meru national polytechnic, building and civil engineering department, there is growth in enrollment of women in Civil engineering which is commendable therefore we can all agree that the established fact that boys are smarter than girls can be old news. However, Gender equity strategies need to be placed through gender policies, scholarship for women to pursue STEM programs, pre-science remedial programs for females, more female representation, positive attitude to be instilled to female at their young age that STEM is not hard nor is it masculine and girls' self-esteem need to be boosted.

The future of STEM depends on diversity. Kenya 2030 government roadmap to industrialization require manpower in STEM so this is an opportunity we need to grab.

LET'S CREATE STEM **ARMY OF WOMEN!!!** LET'S ADVOCATE FOR INCLUSION IN STEM!!!





#### ROLE OF BUILDING AND CIVIL ENGINEERING IN ACHIEVING SDGs



Steve Monyancha Trainer Building and Civil Engineering.

uilding and civil engineering play a crucial role in achieving the Sustainable Development Goals (SDGs) outlined by the United Nations. The SDGs encompass a broad range of global challenges, from poverty eradication and access to clean water and sanitation to sustainable cities and climate action. Building and civil engineering professionals have the expertise and knowledge to contribute significantly to these goals and drive positive change.

One of the key areas where building and civil engineering contribute to the SDGs is in providing infrastructure and basic services. SDG 9 focuses on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation. Civil engineers play a pivotal role in designing and constructing infrastructure such as roads. bridges, and buildings that support

economic growth, improve connectivity, and enhance access to education, healthcare and other essential services

SDG 6, which aims to ensure availability and sustainable management of water and sanitation for all, is another area where building and civil engineering make a substantial impact. These professionals design and implement water supply systems, wastewater treatment plants, and sanitation infrastructure that promote clean and safe water access, improve sanitation practices, and protect public health. Their expertise is vital in addressing water scarcity, pollution, and inadequate sanitation facilities.

Sustainable cities and communities (SDG 11) are a significant focus of building and civil Engineering. As the world's population continues to urbanize rapidly, the design and development of sustainable cities become critical. Civil engineers contribute to urban planning, creating environmentally-friendly and inclusive cities that prioritize efficient land use, low carbon emissions, and the well-being of residents. They work on projects that enhance transportation systems, green spaces, affordable housing, and disaster-resilient infrastructure.

Building and civil engineering also play a vital role in climate action

(SDG 13). These professionals contribute to the design and construction of energy-efficient buildings, renewable energy installations, and sustainable transportation systems that reduce carbon emissions. They incorporate sustainable practices such as green building materials, rainwater harvesting, and energyefficient technologies into their projects, promoting a low-carbon and climate-resilient future.

Furthermore, building and civil engineering professionals contribute to SDG 8, which focuses on promoting sustainable economic growth and decent work. They create employment opportunities through construction projects, promote inclusive workforce practices, and ensure safe working conditions. Their projects contribute to local economies, driving economic development and supporting livelihoods.

In conclusion, building and civil engineering play a vital role in achieving the SDGs. Through their expertise, these professionals contribute to the development of resilient infrastructure, access to basic services, sustainable cities, climate action, and economic growth. By incorporating sustainable practices and innovative approaches, building and civil engineering professionals drive positive change and contribute to a more sustainable and equitable future for all.





#### GUIDANCE AND COUNSELLLING DEPARTMEN



beings of all health issues at one point in time. Cognizant of this fact the department fully commits itself to service to all without discrimination. Issues of national interest like alcohol and drug abuse, HIV/AIDS. non-communicable diseases, cancer among others have been taken by the department with the seriousness they deserve. Frequent sensitizations by qualified personnel are done to address these issues as we advocate for behavior change

The growing trainee population has come with myriads of diverse issues. We are grappling with a sizeable number of very needy trainees. Thanks to the government for the various categorization of trainees in need and we are hopeful that these trainees will get help. In our own small way with a few philanthropic members of Meru national polytechnic and others of good will we have been touching the very needy. Upcoming is the establishment of a day care center which is in its final stage. This is indeed a game changer where our staff and others with small babies can have their children taken care of by our well able nannies at an affordable fee. This is to enhance efficiency at work knowing their babies are comfortable

uidance and counseling in Meru National polytechnic has undergone various milestones since its inception. It started small with a tiny office offering services to a handful of trainees and staff, then to a fully furnished office handling large numbers of clients. Increase in number of clients' necessitated employment of a full time counselor who works hand in hand with trained peer counselors in order to reach out as many clients as possible. Great strides have been made in reaching out to trainees, staff, surrounding communities and regions beyond. The department basically offers psychosocial support to its clients in order to have a mentally healthy trainee population and staff. Mental health is an issue of national concern hence the department with the support of the polytechnic administration has put in place programs to address this concern. Human beings of all

The department lauds the polytechnic for its immense support towards realizing its objectives



Samwel Mwaniki Guidance & Counselling Coordinator



#### THE MERU NATIONAL POLYTECHNIC FARM

he Meru National Polytechnic farms are managed by a committee made up of 9 members drawn from various department both academic and non- academic. It composes of two farms one situated at the main campus and another at Giaki. Farm manager and assistant farm manager who runs dayto-day activities manage the main campus farm. It has two sections; crop section and livestock section. The main crops grown on crop section includes variety of vegetables such as kales, cabbages, onions, spinach, tomatoes among others. Livestock reared include chicken layers, dairy cows, fish and pigs.

A farm coordinator, a specialist from department of agriculture manages Giaki farm. The farm acts as a training and demonstration center for trainees



taking agriculture courses and field day center, where different companies show case their products and demonstrations of Good Agricultural Practices to the community around the farm.

Giaki farm also has a variety of machineries, which enables trainees to learn different farming technologies.

The farm has a sales outlet at the main campus where farm produce from both farms are sold to Meru National Polytechnic Fraternity and the surrounding community at subsidized price.

The farm also offers visitors' an opportunity to bench-mark the Good Agricultural Practices at a reasonable fee.

Welcome to The Meru National Polytechnic farm and enhance your farming skills.



Joseph Rarama Chairman - Farms



#### AFRICA TECH CHALLENGE



he Meru National Polytechnic participated in the Africa Tech Challenge (ATC), a competition targeting youth in Technical Training institutions from six African countries. Meru National Polytechnic trainees, who represented Kenya in this year's competition, emerged third after Luyanzi Institute of Technology from Uganda, which took the first position, and Zambia's Northern Technical College which was ranked second. The award is a boost to the Kenyan Technical and Vocational Education and Training.

ATC is an initiative of the Ministry of Education and AVIC International, a Chinese

multinational, in which participants compete on various technical skills with the winners securing scholarships to pursue further studies at top institutions in China. Meru National Polytechnic has so far won position one two times. Two trainees have so far benefited from Chinese scholarships. One has completed master of advanced manufacturing technology and another one is in china pursuing bachelor's degree in Mechanical Engineering. Other participating trainees got opportunities for internships and employments in Chinese companies in Kenya.

By: John Njue.

We the trainees, are proud to be associated with Meru National Polytechnic. The institution has provided us with ambient environment for our studies with modern training facilities. Our trainee parliament is always involved in Polytechnic activities through career days, corporate social responsibilities and trainee affairs. We believe we are in the best tertiary Institution

where the graduates are well equipped with modern day skills and technology to compete effectively in the modern day society. The Meru National Polytechnic is the place to be!



Peter Kamau President -Students Parliament Of Meru National **Polytechnic** 

The Polytechnic offers wide range of courses that are globally competitive

thus enabling trainees to fit well in the job market. The Polytechnic offers secure learning environment. In addition, the Polytechnic provides facilities for extracurricular activities such as drama, sports, among others.



Macharia Ann Nyambura Diploma in Catering & Accomodation Management

#### WHY MERU NATIONAL POLYTECH

The Meru national polytechnic is my institution of choice because of the following reasons:

#### Reputation and Accreditation:

Meru National Polytechnic is a well-established institution with a good reputation for providing quality technical and vocational education. It is accredited by the relevant government bodies, ensuring that the programs offered are recognized and respected in the job market.

Wide Range of Programs: The polytechnic offers a diverse range of programs in various disciplines such as engineering, business, agriculture, hospitality, information technology, and more. This allows trainees to choose a program that aligns with their interests and career goals.

Practical Focus: Meru National Polytechnic emphasizes practical skills development alongside theoretical knowledge. The curriculum is designed to provide hands-on training, industry attachments, and internship opportunities. This practical approach prepares trainees for the real-world challenges they may encounter in their chosen profession.

State-of-the-Art Facilities: The polytechnic is equipped with modern facilities and equipment necessary for effective learning. From well-equipped laboratories National Polytechnic boasts a

team of and workshops to computer labs and libraries, trainees have access to resources that facilitate their academic growth.

**Experienced Faculty:** The Meru qualified and experienced faculty members who are experts in their respective fields. Their expertise and guidance contribute to a comprehensive learning experience for the trainees.

### **Entrepreneurship and Innovation:**

The polytechnic promotes entrepreneurship and innovation among its trainees. It provides support and resources to help trainees develop their entrepreneurial skills, start their businesses, or contribute to innovation within existing organizations.

Affordability: Compared to some other institutions. The Meru National Polytechnic offers competitive tuition fees and flexible payment plans. This makes it a more affordable option for trainees seeking quality education.

## **Networking and Career**

**Opportunities:** The polytechnic often collaborates with industry partners, creating opportunities for trainees to network with professionals and potential employers. This can lead to internships, job placements, and mentorship programs that enhance trainees' career prospects.



Rebecca Machio **Diploma in Nutrition & Dietetics** 

Trainee Support Services: The Meru National Polytechnic offers various support services to assisttrainees in their academic journey. These services include counseling, academic advising, mentorship programs, and trainee organizations, fostering a supportive learning environment

#### Location: Situated in Meru County,

The Polytechnic is located in a serene and conducive environment for learning. The region also offers various recreational activities and opportunities to experience the rich cultural heritage of the Meru people.



EASTRIP

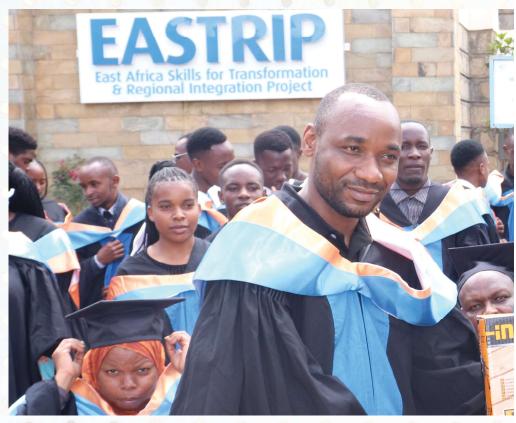
e are delighted to provide you with an update on the progress of the construction of the Building Technology Flagship Centre at Meru National Polytechnic. This institution has been making significant strides in improving the quality and relevance of Technical and Vocational Education and Training (TVET) programmes, enhancing its institutional readiness, and creating a conducive international enabling environment for TVET in the region. Let's delve into the details:

#### Institutional Readiness:

Meru National Polytechnic has demonstrated its commitment to becoming a Qualification Awarding Institution (QAI) by collaborating with other TVET institutions in the region to prepare and implement Competency-Based Education and Training (CBET) programmes. This upgrade has increased enrolment in short courses, particularly in the field of Building Technology, where several curricula have been developed. Furthermore, strategic partnerships with the Meru County Government and the National Youth Service have been established to train recruits from various disciplines, thus fostering industry linkages.

## Strengthening Governance and Management:

To ensure effective governance and management, the project has established a functional Project Implementation Unit (PIU)



with a dedicated secretariat. All management staff have been trained, trainers skills upgraded and the council inducted. Renovations and equipping of the PIU offices, including modern teleconferencing facilities, have been completed. Additionally, benchmarking visits to reputable technical colleges, such as the Arusha Technical College and the Arab Academy, have taken place, allowing for knowledge sharing and best practice adoption.

## Institutionalising Industry Linkages:

Meru National Polytechnic has prioritised industry linkages by engaging the Industrial Advisory Board (IAB) and Skills Standards Assessment and Certification System (SSACS) in the

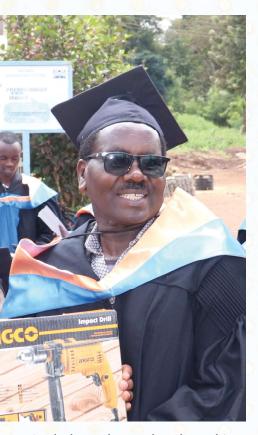
development and validation of curricula. Lecturers and technicians have been provided with opportunities for industrial attachment, promoting practical knowledge and skills transfer. The development of attachment policies, labour market information surveys, occupational health and safety policies, and gender mainstreaming policies further demonstrate the institution's commitment to comprehensive industry integration.

## Developing Market-Relevant and **Competency-Based Training Programmes:**

The project has made significant progress in developing marketrelevant and competency-based training programmes. Seventeen







curricula have been developed in collaboration with industry experts and stakeholders, with a focus on disciplines such as formwork technology, tile laying technology, scaffolding installation technology, gypsum installation technology, balustrade safety technology, steel/concrete fixing technology, and water treatment and recycling technology. Professional Learning and Recognition of Prior Learning (PLAR/RPL) assessors and verifiers have been trained, ensuring the quality and assessment of these programmes.

## Training of School Managers and Teachers:

Meru National Polytechnic has invested in the professional development of trainers, teachers

and managers. They have participated in exchange programmes and received training in relevant areas from esteemed institutions such as the Dar es Salaam Institute of Technology, Arusha Technical College, and the Holeta Polytechnic in Ethiopia. This exchange of knowledge and expertise strengthens the institution's capacity to deliver high-quality education and training.

#### **Upgrading of Key Training Facilities and Equipment:**

The project has undertaken efforts to upgrade key training facilities and equipment, providing trainees with a conducive learning environment and access to state-of-the-art resources. These improvements enhance the



Karanu Mbaka **Project Coordinator** 

effectiveness of practical training and align the institution with industry standards.

## **Environment and Social** Safeguards:

Meru National Polytechnic prioritises environmental sustainability and social safeguards. The institution has implemented policies for health and safety, gender mainstreaming, gender-based violence prevention, and environmental sustainability. These policies are supported by measures such as waste disposal infrastructure, a man-made forest with 10,000 trees, and the beautification of the compound with ornamental plants.

Meru National Polytechnic remains committed to providing quality TVET programmes and developing skilled professionals who meet industry demands. With strong institutional readiness, strategic partnerships, and a focus on market relevance, the institution is becoming a leading centre for **Building Technology education and** training.

We will continue to keep you updated on the progress of the Design of the Building Technology Flagship Centre and the positive impact it has on TVET in the region.



#### ARTIFICIAL INTELLIGENCE



On the flipside, trainees, who are quite informed technologically, could use AI tools to misrepresent their abilities, thus making it difficult for their tutors to effectively assess them. For example, they could use Al tools to do assignments without having to bother with rigorous reading and research. It therefore behooves all stakeholders in the learning arena to learn a thing or two about Al and how it may very soon impact our various roles in our institution. And the time to do that - if you haven't done it already - is now. It will both be fun and an eye opening experience.

As an institution seeking to be an International Center of Excellence in Technical and Vocational Educational and Training (TVET), Meru National Polytechnic should not be left behind in the debate about AI, how it affects us and how we can positively leverage on it.

e always live in interesting times, and every generation has something intriguing to talk about. Thanks to research and the ever-advancing technology, the world is currently faced with the interesting phenomenon of Artificial Intelligence, or simply Al.

Over time, learning in colleges and universities has had to contend with disruptions caused by emerging technological trends. Currently, Al is probably the most disruptive phenomenon.

There is both excitement and apprehension about the effects of AI on college learning. Maybe sooner than later, as an institution we will have to contend with the use of artificial intelligence tools such as ChatGPT in our day-to-day activities: trainees could use Al to write exams, AI tools could be used to enhance efficiency in the institution's administration or help trainees easily choose the right courses as they prepare for the job market among other uses.



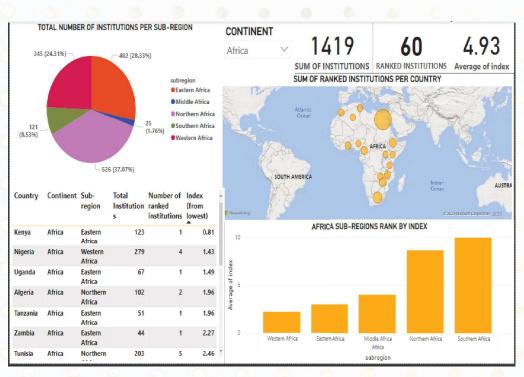
Karuana Wachira Office Admin Assistant **Performance Contracting** Management Representative Office of Career Services



#### THE NEED FOR RAW DATA

ata Science is an interdisciplinary field which uses statistical and machine learning methods to extract insights from data sets and provide data-driven solutions. Clive Humbly compares data to oil by stating that "Data is the new oil. Like oil, data is valuable, but if unrefined, it cannot really be used." Oil and data are rarely used in their raw form. To provide data-driven solutions, data has to undergo data processing stages such as data cleaning and data transformation. It is then analyzed to detect patterns. Depending on the data used, organizations can use data scientists to build predictive models which depending on their accuracy, can be reliable in providing insights for decision making processes.

The major challenge data scientists in Kenya face is the scarcity of data on key issues faced in the country. Many organizations and institutions are trying to solve many problems that can be solved by data scientists using data driven approaches but data is not publicly available for them to use. For instance, Kenya is ought to increase funds for climate change research. If the relevant authorities and organizations make the necessary data publicly available, data scientists will swiftly devise data-driven solutions to address the climatic challenges in the country as well as address the issues of food security. Data can be made publicly available



ANALYSING AFRICAN UNIVERSITIES RANKED IN THE WORLD UNIVERSITY RANKINGS 2022-2023 BY: FARIDAH NYAGA.

in many forums where it can be accessed by scientists. i.e. Kaggle. Keeping data protection in mind, organizations have the option to remove personal identifiers from any dataset before making it available The education sector must not be left behind in unveiling the complete potential of data science. There are various ways in which data science can be applied within the education sector to extract valuable insights that can drive transformative changes in education such as; leveraging machine learning algorithms to analyze the efficiency of learning platforms or developing predictive models to anticipate trainee dropout rates, among other possibilities.

It is crucial for stakeholders across

sectors in Kenya to collaborate and share data, so as to work towards creating an ecosystem that harnesses the local challenges and drive sustainable development

gatwirifaridah@gmail.com



Faridah Nyaga Data Analyst

#### EFFECTIVE TEAM ORGANIZATION & MANAGEMENT

ay 25th, 1961, President John F. Kennedy declared America's ambitious goal of reaching the moon within a decade. Despite seeming impossible at the time, the Apollo program successfully achieved this feat through effective team organization and management. Today, scholars recognize the valuable lessons in team collaboration and leadership exhibited by the Apollo program. The same principles can be applied in the management of Technical and Vocational Education and Training (TVET) institutions.

#### The Power of Teams:

President Kennedy understood the importance of organizing tasks based on difficulty, em-phasizing that challenging endeavors drive progress. The Apollo program exemplified this principle by assembling thousands of people into specialized teams, each with a specific task. Meritocracy played a key role, ensuring the best individuals led each team. The pro-gram's success relied on teamwork, with the shared objective of realizing Kennedy's dream of landing a man on the moon. It not enough to working together, team work and leadership must interfuse. Resources with managers with no leadership can be liked to heard of lions whose leader is sheep

## Leadership and Teamwork:

Leaders are able to dream of impossibilities nor intimidated

by barriers. Effective leaders like Kennedy inspire ordinary individuals to work together to accomplish extraordinary goals. To achieve meaningful progress, leaders must have faith in their staff, workers, and systems. The Apollo program demonstrated the power of teamwork, where credit was secondary to the collective effort. Great leaders see beyond their time and engage their teams in pursuing a common vision.

#### **Lessons for TVET Institutions:**

TVET institutions can draw inspiration from the Apollo program and its principles of effective team management. Scholars like Belbin and Tuckman provide valuable insights into understanding and utilizing teams. By adopting these insights, TVET

institutions can enhance team performance and foster excellence.

## **Achieving Optimal Productivity** and Quality Output:

the diverse strengths and personality traits of team members, as highlighted by Belbin's theory, can help in assigning roles and tasks that best utilize individual capabilities

#### Division of Labor and Collaboration:

By dividing tasks and promoting collaboration, TVET institutions can optimize efficiency. Each team member should contribute their expertise to achieve common goals. Encouraging diversity of skills and backgrounds leads to a stronger and more effective workforce. Do not surround



#### EFFECTIVE TEAM ORGANIZATION & MANAGEMENT

yourself with kinsmen. Allow for diversity in opinion

#### **Building Cohesive Teams:**

Creating a sense of unity and cooperation within teams is crucial. TVET institutions should foster a supportive environment, where individuals trust and respect one another. This cohesion strengthens teamwork and enables greater success.

#### Identifying and Leveraging **Different Roles of Team Members:**

Recognizing the unique roles and strengths of team members is essential. TVET institutions should assign tasks that align with individual capabilities, promoting a sense of ownership and empowerment.

#### **Establishing Effective Teamwork** Structures and Processes:

TVET institutions need to establish clear structures and processes that facilitate effective teamwork. Regular communication, feedback mechanisms, and collaborative decision-making contribute to a cohesive and productive team environment.

#### **Diversity and Collaboration in Industry Partnerships for TVET:**

Embracing diversity, both within the institution and in collaboration with industry partners, can lead to innovative solutions and enhanced learning opportunities. TVET institutions should actively seek partnerships that bring together diverse perspectives and expertise



Tirimba Manani Trainer Building & Civil Engineering

#### **Conclusion:**

The Apollo program serves as an exemplary model of effective team organization and management. TVET institutions can learn from this historic achievement by implementing principles such as recognizing individual strengths, fostering collaboration, and establishing effective teamwork structures. By doing so, TVET institutions can propel themselves towards excellence, just as the Apollo program propelled humanity to the moon. Embracing these lessons will contribute to the growth and development of the TVET sector, ensuring that it remains relevant and impactful in the face of evolving challenges.



#### INTERNET, THE GAME CHANGER



Lewis Muchiri ICT OFFICER

one are the days when paper balls and jerry can toy vehicles interested children. Today it's all about computer games and TikTok videos. Ladies and gentlemen the internet is here with us to stay and as they say; if you can't beat them join them.

I know most of us at least once our mind has wandered off and asked themselves how they would complete or solve a certain task if the internet didn't exist, it's as if they are back in 1999(well it existed but in our country only a handful of people had interacted with it). In my case it was how I would be able to see my cousin's new born since my cousin had relocated to the United Kingdom. If it was back in 1999 I would have had to write a letter to my cousin inquiring about the baby pictures and by the time I got a response months would have passed, that's assuming that my cousin received my letter. Fast forward to 2023, am literally a button away from seeing my nephew anytime I want to through a WhatsApp video call.

The entertainment industry through the internet has been revolutionized especially in Africa. Gone are the days where we used to watch 25 year old movies since the day of premiering. Today a movie premiers anywhere in the world and literally within seconds we can sit and watch it from across the other side of the globe. The internet as literally turned the world into a small village when it comes to the sharing of information.

But with modern technology comes

new forms of problems. Let's take the case of bullying. In the past for one to bully you both of you needed to be physically present in the same space, that's not the case today. A stranger from a different part of the world can bully someone in a different country by just a few strokes of the keyboard thanks to social media. Cyber bullying has become a menace in our modern society due to the anonymity factor where in most cases laws don't exist to punish offenders.



#### INTERNET, THE GAME CHANGER & MY CHOICE

But there's hope as more governments each day are trying to come up with policies and regulations that govern us on how we interact online

Education, lifestyle, travel, research, income, human interaction and entertainment just to name a few these are areas that wouldn't have grown into what they are now if it wasn't because of the internet.

People are trainees of universities of countries they aren't

residents of, or ever set a foot in thanks to the internet. No more needs for harambees to facilitate travel and living expenses.

- We are able to experience and explore lifestyles of different countries and cultures all because of the internet. There's more to offer than the 42 tribes we have.. It is possible to travel virtually to any part of the world thanks to the internet. Travel is not cheap but that will do for now.
- The amount of information for research at our disposal through the internet is just unquantifiable. Exposed to materials that we never dreamt of possessing.
- The internet has become a source of income for a greater percentage of people in the modern world. People have literally become rich because of content they put up on the internet.
- Human interaction is like that of a small village thanks to the internet. It is possible to communicate with anyone from any part of the world through the internet.
- 75% of our entertainment comes from the internet. If the internet didn't exist we wouldn't know how much more talent we have in our country. But with great power comes great responsibility. Each one of us has a responsibility and duty of ensuring that they positively utilize this power (internet) that we have been given and not use it for evil or malice since there are countless unimaginable evils that lie in the shadows of the internet.

griculture is our wisest pursuit, because it will in end contribute most to real wealth, good morals and happiness. Agriculture département has been among the best performing department over the years, this having made possible by the hard work and commitment among the lecturers/trainers led by the team leader Mr kariuki

Traînées commitment and hard work too with their slogan "without hard work, there's no success in life" has made everything easier to achieve. They are never lazy and lethargic, they always have something to do or find something unique and beneficial to do and solve problems making things Smart in agriculture

The success around agriculture département has been in conjunction with the Meru national polytechnic administration that have ensured trainees are offered with all the necessities needed to facilitate their learning. This has made sure trainees attain skills of highest degree. The Meru national polytechnic has proved to be the the best in equipping the trainees with the best skills among other polytechnics around Kenya



Daniel muriuki gatobu Diploma in Agriculture





#### FASHION DESIGN PRODUCTION UNIT | MESSAGE FROM AN ALUMNI

he garment production unit came into effect in July, 2020 during the COVID 019 Pandemic outbreak. The Meru National Polytechnic sought to put into use skills garnered from the Fashion Design section of the Applied Sciences, Fashion Design& Cosmetology department.

As a result a staff member and four graduate trainees were facilitated with materials, accessories and sewing machines to produce in mass face masks to cater for all MNP members.

Approximately 30,000 face masks were produced and were distributed to churches, primary school, and local community, county government other government institutions under corporate social responsibility.

Some face masks were sold to hawkers on wholesale terms.

With a drop in the spread of the COVID-19 virus, production of face masks was halted and the unit acquired ultra-modern labor saving sewing machines, commercial ironing machines and cutting machines and embarked on production of uniform for Tourism and Hospitality departments trainees, staff (trainers, casual workers, grounds personnel, drivers, office administrative assistants, HODS, DHOD) etc.

This has reduced immensely on the costs of contracting external suppliers. Since then the unit has expanded and reached individual internal and external clientele for fashion design needs.

n behalf of the Meru National Polytechnic former trainees, it's my pleasure to thank the almighty God for the opportunity he has given me to be part of the Meru National Polytechnic family.

I joined the institution in the year 2014 as a trainee to do a three year course in computerized Secretarial Studies. The polytechnic has imparted a lot of knowledge and skills to me and I affirm that the institution provides high quality technical and vocational education and training to its trainees that makes them become dependable and skilled Human Resource for Commerce and Industry.

I want to sincerely thank the institution for the sacrifice and the commitment they do to their trainees to better their future. The institution offers attachment, internship and jobs to its trainees and many trainees from different department have benefited from the institution and today some of them are staff of the Meru National Polytechnic. Personally I have gained a lot of skills and experience both as an attachee, as an intern and as a staff of the Meru National Polytechnic.

Finally, I want to thank the management for giving back to their own, a factor that is highly motivating the current trainees.

Thank you.

Kamwara Makena Susan Office Administrative Assistant Computing & Informatics Department The Meru National Polytechnic



Rosemary Kanyatta Fashion Design Production Unit Coordinator





My name is Mark Murangiri, and I am an innovator at Meru National Polytechnic. I would like to share my journey of how this institution has played a significant role in enhancing my talent and skills in the field of innovation, specifically in embedded systems. The opportunities provided by the polytechnic have not only expanded my knowledge but have also enabled me to travel to foreign countries and explore the world of cutting-edge technology.

## **Upskilling in Embedded Systems:** At Meru National Polytechnic, I found a nurturing environment that encouraged me to explore my pas



sion for innovation in embedded systems.

Through a combination of theoretical learning and practical hands-on experience, I gained a deep understanding of microcontrollers, circuit design, and programming languages. The institution's state-of-the-art labs and experienced faculty members were instrumental in honing my technical skills and pushing me to new heights.

#### Real-World Applications:

The education I received at Meru National Polytechnic was not limited to the classroom. The institution actively promoted industry collaborations and encouraged us to participate in innovation competitions and projects. This exposure to realworld applications of embedded systems enabled me to develop solutions for various industries, including healthcare, agriculture, and transportation.

#### **International Opportunities:**

The recognition of my talent and dedication in the field of embedded systems opened doors to international opportunities. Meru National Polytechnic facilitated my participation in international conferences, workshops, and exchange programs. These experiences not only exposed me to global perspectives and emerging trends but also allowed me to network with experts and professionals from around the world.



#### FOSTERING FAITH, COMMUNITY & SERVICE



elcome to the vibrant and enriching world of the St. Dominic Savio Chaplaincy, where faith, community, and service come together to create a nurturing and inspiring environment for all.

Inspired by the life and teachings of our patron saint, St. Dominic Savio, we strive to empower individuals to grow in their spiritual journey and develop a personal relationship with God. Through regular Holy Masses, prayer days, recollections, and spiritual guidance, we provide opportunities for our members to nourish their souls and embrace the richness of Catholic traditions.

But our chaplaincy is not just about personal spiritual growth; it is also a vibrant community that fosters fellowship, friendship, and support. We believe in the power of authentic connections and the

strength that comes from shared experiences. Through various activities, such as Charity works, social events, and Small Christian Community (SCC) discussions, we create a welcoming space where individuals can forge lasting friendships, find support in times of need, and celebrate together in times of joy.

Equally important is our dedication to serving others. Guided by the example of St. Dominic Savio, we encourage our members to embody the spirit of selflessness and compassion; making a positive impact and a source of hope and love in the world around us.

Our chaplaincy also embraces the unique gifts and talents of each individual. We provide platforms for members to explore and share their skills, whether it be through music, art, drama, or other creative expressions in our zonal talent

shows. These opportunities not only enrich our community but also provide avenues for personal growth and self-discovery.

As we move forward, our chaplaincy remains committed to upholding our core values and continuing our mission of fostering faith, community, and service. We invite all individuals seeking spiritual nourishment and growth and the opportunity to make a difference to join us in this exciting journey. We extend a warm welcome to you, as we embark on this path together as members of the St. Dominic Savio Chaplaincy. Let us embrace the transformative power of faith, cultivate deep connections, and bring light to the world through acts of service and love. We look forward to welcoming you into the St. Dominic Savio Chaplaincy family.

In Faith and Fellowship



Onesmus Masila Ndiku Nzingila YCS Patron.



COURSE NAME AND ENTRY REQUIREMENTS	\ PTMI	ENIT		
ELECTRICAL AND ELECTRONICS ENGINEERING DEPARTMENT Competency Based Education and Training (CBET) Courses				
Electrical & Electronics Engineering Level 6 KCSE Mean grade C- (Minus) & above	Jan & Sept	2 Years	MNP	
Electrical & Electronics Engineering Level 5 KCSE Mean grade D (Plain) & above	Jan & Sept	1Year	MNP	
Electrical Installation Level 5 KCSE Mean grade D (Plain) & above	Jan & Sept	1 Year	MNP	
Electrical Installation Level 4 KCSE Certificate	Jan & Sept	6 Months	MNP	
Instrumentation & Control simple Automation Control Inspector Level 4 KCSE Certificate	Jan & Sept	6 Months	MNP	
Electrical Operation (Power Option) Level 5 KCSE Mean grade D (Plain) & above	Jan & Sept	1 Year	MNP	
RECOGNITION OF PRIOR LEARNING (RPL)  COMPETENCIES AND SKILLS  Motor rewinding & control * Electrical installation  * Solar PV Installation * Refrigeration & air conditioning				

Open Distance and eLearning (ODeL) Centre Competency Based Education and Training (CBET) Courses	Э		
Diploma Information Technology (DIT) Level 6 eLearning Mode KCSE Mean grade C- (Minus) & above	Jan & Sept	2 Years	MNP
COMPUTING AND INFORMATICS DEPARTMENT			

Competency Based Education and Training (CBET) Course	S		
Information Technology Level 6 KCSE Mean grade C- (Minus) & above	Jan & Sept	2 Years	MNP
Information Technology Level 5 KCSE Mean grade D (Plain) & above	Jan & Sept	1 Year	MNP
Computer Repair & Maintenance Level 3 CCSE Certificate	Jan & Sept	3 Months	MNP
IT <b>Technician Level 6</b> CCSE Mean grade C- (Minus) & above	Jan & Sept	2Years 1 Year	MNP
IT Technician Level 5 KCSE Mean grade D (Pain) & above	Jan & Sept	1 Year	MNP
Computer Repair and Maintenance Technician Level 4 KCSE Certificate	Jan & Sept	6 Months	MNP
Data Communication and Computer Networks Technician Level 5 KCSE Mean grade D (Plain) & above	Jan & Sept	1 Year	MNP
Graphic Design Level 6 KCSE Mean grade C- (Minus) & above	Jan & Sept	2 Years	MNP
<b>Graphic Design Level 5</b> KCSE Mean grade D & above	Jan & Sept	1 Year	MNP
Computer Applications Level 3 KCSE Certificate		3 Months	MNP
Library and Information Manager Level 5 KCSE Mean grade D (Plain) & above Library and Information Science Level 5 KCSE Mean grade D (Plain) & above	Jan & Sept	1 Year	MANID

BUILDING & CIVIL ENGINEERING DEPARTMENT			
Competency Based Education and Training (CBET) Courses	5		
Masonry Level 3 KCSE Certificate	Jan & Sept	3 Months	MNP
Plumbing Level 5 KCSE Mean grade D (Plain) & above Plumbing Level 4 KCSE Certificate Plumbing Level 3 KCSE Certificate.	Jan & Sept	1 Year. 6 Months 3 Months	MNP
Highway Engineering Technician Level 6 KCSE Mean grade C- (Minus) & above	Jan & Sept	2 Years	MNP
Carpentry and Joinery Level 5 KCSE Mean grade D (Plain) & above	Jan & Sept	1 Year	MNP
Building Technician Level 6 KCSE Mean grade C- & above	Jan &	2 Years	
Building Technician Level 5 KCSE Mean grade D & above	Sept	1 Year	MNP
Formwork Technology Level 4 KCSE Certificate	Jan & Sept	6 Months	MNP
Scaffolding Technology Level 4 KCSE Certificate	Jan & Sept	6 Months	MNP
Tile Laying Technology Level 4 KCSE Certificate	Jan & Sept	6 Months	MNP
Balustrade Technology Level 4 KCSE Certificate	Jan & Sept	6 Months	MNP
Concrete Reinforcement Technology Level 4 KCSE Certificate	Jan & Sept	6 Months	MNP
Gypsum Installation Technology Level 4 KCSE Certificate	Jan & Sept	6 Months	MNP
Water Treatment and Recycling Technology Level 6 KCSE Mean Grade C- (Minus) & above	Jan & Sept	2 Years	MNP
Civil Engineering Level 6 KCSE Mean Grade C- (Minus) & above	Jan & Sept	2 Years	MNP
RECOGNITION OF PRIOR LEARNING (RPL)			
COMPETENCIES AND SKILLS			
*Scaffolding Painting * Gypsum installation technology *Balustrade installation technology *Carpentry & Joinery *Tiling and Cabro Laying * Masonry *Plastering * Plumbing			

<b>BUSINESS STUDIES AND</b>	) ENTREPRENEURSHIP			
Competency Based Education and Training (CBET) Courses				
Office Assistant Level 4 KCSE Certificate		Jan & Sept	6 Months	MNP
Office Administration L KCSE Mean grade C- (Minus)		Jan & Sept	2 Years	MNP
Addante Addictant Edver o		Jan & Sept	2 Years	MNP
Social Work Level 6	KCSE Mean Grade C- (Minus) & above	Jan &	2 Years	MNP
Social Work Level 5	KCSE Mean Grade D (Plain) & above	Sept	1 Year	
Accountancy Level 6		Jan &	2 Years	LAND





#### **BROCHURE**

Library and Information Science Level 6 Library and Information Manager Level 6 KCSE Mean grade C- (Minus) & above	Jan & Sept	2 Years	MNP
Data Communication & Computer Technician Level 5 KCSE Mean grade D (Plain) & above	Jan & Sept	1 Year	MNP
RECOGNITION OF PRIOR LEARNING (RPL)			
COMPETENCIES AND SKILLS			
*Computer repair and maintenance *Graphics design *Website design *Computer packages			

Competency Based Education and Training (CBET) Courses			
Dairy Farm Management and Dairy Cattle Attendant Level 3 KCSE Certificate	Jan & Sept	3 Months	MNP
Dairy Farm Management Level 4	Jan &		MNP
K. C.S.E Certificate or National Skills Certificate in Dairy Farm Management Level 3 or Equivalent Qualifications as determined by Kenya National Qualifications Authority (KNQA)	Sept	6 Months	
Horticultural Nursery Management Level 4 KCSE Certificate	Jan & Sept	6 Months	MNP
Agricultural Extension Technician Level 4 KCSE Certificate	Jan & Sept	6 Months	MNP
Agricultural Extension Technician Level 5	Jan &	1 Years	MNP
KCSE Mean grade D (Plain) & above or pass in Level 4	Sept	6 Months	12000 140
Soil Management Level 3	Jan &	3 Months	MNP
KCSE Certificate	Sept		
Irrigation and Drainage Engineering Level 6 KCSE Mean grade C- (Minus) & above	Jan & Sept	2 Years	MNP
Agricultural Extension Technician Level 6	Jan &	1 Years	MNP
KCSE Mean grade C- (Minus) & above or pass in Level 5	Sept	6 Months	
RECOGNITION OF PRIOR LEARNING (RPL)			
COMPETENCIES AND SKILLS			
*Irrigation system installation and management Nursery management			
*Agricultural machinery operation *Dairy management *Poultry			
management *Aquatic farming *Agriculture extension services *Apiculture			
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses			
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses Manual Arc Welding Level 4	Jan &	6 Months	MNP
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses Manual Arc Welding Level 4 KCSE Certificate	Sept		
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses Manual Arc Welding Level 4	DEC. 0000000 2000	6 Months	MNP MNP
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses Manual Arc Welding Level 4 KCSE Certificate Mechanical Technology Lathe Machine Operator Level 4 KCSE Certificate Agriculture Engineering Technician Level 6	Sept Jan &		
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses Manual Arc Welding Level 4 KCSE Certificate Mechanical Technology Lathe Machine Operator Level 4 KCSE Certificate	Sept Jan & Sept	6 Months	MNP
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses Manual Arc Welding Level 4 KCSE Certificate  Mechanical Technology Lathe Machine Operator Level 4 KCSE Certificate  Agriculture Engineering Technician Level 6 K.C.S.E Mean Grade C- or Level 5 certificate in a related course with one year of continuous work experience or Equivalent Qualifications as determined by Kenya National Qualifications	Sept Jan & Sept Jan &	6 Months	MNP
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses Manual Arc Welding Level 4 KCSE Certificate  Mechanical Technology Lathe Machine Operator Level 4 KCSE Certificate  Agriculture Engineering Technician Level 6 K.C.S.E Mean Grade C- or Level 5 certificate in a related course with one year of continuous work experience or Equivalent Qualifications as determined by Kenya National Qualifications Authority (KNQA)	Sept Jan & Sept Jan & Sept	6 Months 2 Years	MNP MNP
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses Manual Arc Welding Level 4 KCSE Certificate  Mechanical Technology Lathe Machine Operator Level 4 KCSE Certificate  Agriculture Engineering Technician Level 6 K.C.S.E Mean Grade C- or Level 5 certificate in a related course with one year of continuous work experience or Equivalent Qualifications as determined by Kenya National Qualifications	Sept Jan & Sept Jan &	6 Months	MNP
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses Manual Arc Welding Level 4 KCSE Certificate  Mechanical Technology Lathe Machine Operator Level 4 KCSE Certificate  Agriculture Engineering Technician Level 6 K.C.S.E Mean Grade C- or Level 5 certificate in a related course with one year of continuous work experience or Equivalent Qualifications as determined by Kenya National Qualifications Authority (KNQA)  Mechanical Engineering Technician (Plant) Level 6	Sept Jan & Sept Jan & Sept Jan & Sept	6 Months 2 Years	MNP MNP
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses Manual Arc Welding Level 4 KCSE Certificate Mechanical Technology Lathe Machine Operator Level 4 KCSE Certificate Agriculture Engineering Technician Level 6 K.C.S.E Mean Grade C- or Level 5 certificate in a related course with one year of continuous work experience or Equivalent Qualifications as determined by Kenya National Qualifications Authority (KNQA) Mechanical Engineering Technician (Plant) Level 6 KCSE Mean grade C- (Minus) & above Mechanical Engineering Technician (Production) Level 6	Sept Jan &	6 Months 2 Years 2 Years	MNP MNP
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses Manual Arc Welding Level 4 KCSE Certificate  Mechanical Technology Lathe Machine Operator Level 4 KCSE Certificate  Agriculture Engineering Technician Level 6 K.C.S.E Mean Grade C- or Level 5 certificate in a related course with one year of continuous work experience or Equivalent Qualifications as determined by Kenya National Qualifications Authority (KNQA)  Mechanical Engineering Technician (Plant) Level 6 KCSE Mean grade C- (Minus) & above  Mechanical Engineering Technician (Production) Level 6 KCSE Mean grade C- (Minus) & above	Sept Jan & Sept	6 Months 2 Years 2 Years 2 Years	MNP MNP MNP
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses Manual Arc Welding Level 4 KCSE Certificate  Mechanical Technology Lathe Machine Operator Level 4 KCSE Certificate  Agriculture Engineering Technician Level 6 K.C.S.E Mean Grade C- or Level 5 certificate in a related course with one year of continuous work experience or Equivalent Qualifications as determined by Kenya National Qualifications Authority (KNQA)  Mechanical Engineering Technician (Plant) Level 6 KCSE Mean grade C- (Minus) & above  Mechanical Engineering Technician (Production) Level 6 KCSE Mean grade C- (Minus) & above  Automotive Engineering Technician Level 6 KCSE Mean grade D (Plain) & above  Automotive Engineering Technician Level 5 KCSE Mean grade D (Plain) & above	Sept Jan & May Jan &	6 Months 2 Years 2 Years 2 Years 2 Years	MNP MNP MNP MNP
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses Manual Arc Welding Level 4 KCSE Certificate  Mechanical Technology Lathe Machine Operator Level 4 KCSE Certificate  Agriculture Engineering Technician Level 6 K.C.S.E Mean Grade C- or Level 5 certificate in a related course with one year of continuous work experience or Equivalent Qualifications as determined by Kenya National Qualifications Authority (KNQA)  Mechanical Engineering Technician (Plant) Level 6 KCSE Mean grade C- (Minus) & above  Mechanical Engineering Technician (Production) Level 6 KCSE Mean grade C- (Minus) & above  Automotive Engineering Technician Level 6 KCSE Mean grade D (Plain) & above  Automotive Engineering Technician Level 5 KCSE Mean grade D (Plain) & above  Automotive Engineering Technician Level 4 KCSE Certificate	Sept Jan & May Jan & May Jan &	6 Months 2 Years 2 Years 2 Years 2 Year 1 Year	MNP MNP MNP MNP MNP
MECHANICAL & AUTOMOTIVE ENGINERING DEPARTMENT Competency Based Education and Training (CBET) Courses Manual Arc Welding Level 4 KCSE Certificate  Mechanical Technology Lathe Machine Operator Level 4 KCSE Certificate  Agriculture Engineering Technician Level 6 K.C.S.E Mean Grade C- or Level 5 certificate in a related course with one year of continuous work experience or Equivalent Qualifications as determined by Kenya National Qualifications Authority (KNQA)  Mechanical Engineering Technician (Plant) Level 6 KCSE Mean grade C- (Minus) & above  Mechanical Engineering Technician (Production) Level 6 KCSE Mean grade C- (Minus) & above  Automotive Engineering Technician Level 6 KCSE Mean grade D (Plain) & above  Automotive Engineering Technician Level 5 KCSE Mean grade D (Plain) & above	Sept Jan & Sept Jan & Sept  Jan & Sept  Jan & Sept Jan & May Jan & May Jan & May May May May	6 Months 2 Years 2 Years 2 Years 2 Year 1 Year 6 Months	MNP MNP MNP MNP MNP MNP MNP

APPLIED SCIENCES & COSMETOLOGY DEPARTMENT Competency Based Education and Training (CBET) Courses			
Science Laboratory Technology Level 5 KCSE Mean grade D (Plain) & above	Jan & Sept	1 Year	MNP
Science Laboratory Technology Level 6 KCSE Mean Grade C- (Minus) & above or pass in Level 5	Jan & Sept	2 Years	MNP
Water & Sanitation Technology Level 6 KCSE Mean Grade C- (Minus) & above	Jan & Sept	2 Years	MNP
Food Technology Level 5 KCSE Mean grade D (Plain) & above	Jan <sub>&amp;</sub> Sept	1 Year	MNP
Food Technology Level 6 KCSE Mean Grade C- (Minus) & above or pass in Level 5	Jan & Sept	2 Years	MNP
HOSPITALITY, INSTITUTIONAL MANAGEMENT, FASHION AND DE Competency Based Education and Training (CBET) Courses	SIGN		
Laundry and Dry-Cleaning Level 4	Jan &	6	MNP
KCSE Certificate  House Keeping Level 3	Sept Jan &	Month:	S
KCSE Certificate	Sept	Months	MNP
Food and Beverage Sales Level 3 KCSE Certificate	Jan & Sept	3 Months	MNP
Food and Beverage Production (Culinary Art) Level 3 KCSE Certificate	Jan & Sept	3 Months	MNP
Housekeeping Manager Level 6 KCSE Mean Grade C- (Minus) & above	Jan & Sept	2 Years	MNP
Baking Technologist Level 6 KCSE Mean Grade C- (Minus) & above	Jan & Sept	2 Years	MNP
Front Office Operator Level 3 KCSE Certificate	Jan & Sept	3 Months	MNP
Hair Dressing and Beauty Therapy Level 3 KCSE Certificate	Jan & Sept	3 Months	MNP
Beauty Therapy Level 6 KCSE Mean Grade C- (Minus) & above Beauty Therapy Level 5 KCSE Mean Grade D (Plain) & above	Jan	2 Years 1 Year	MNP
	& Sept	0.00000	
Beauty Therapy Level 4 KCSE Certificate Beauty Therapy Level 3 KCSE Certificate	<b>Ј</b> СРГ	6 Months 3 Months	
Hair Dressing Level 6 KCSE Mean Grade C- (Minus) & above	Jan	2 Years	
Hair Dressing Level 5 KCSE Mean Grade D (Plain) & above	&	1 Year	MNP
Hair Dressing Level 4 KCSE Certificate	Sept	6 Months	IVIII
Hair Dressing Level 3 KCSE Certificate		3 Months	
<b>Tour Guiding Level 5</b> KCSE Mean Grade D (Plain) & above	Jan <sub>&amp;</sub> Sept	1 Year	MNP
Baking technology level 6 KCSE Mean Grade C- (Minus) & above	Jan <sub>&amp;</sub> Sept	2 Years	MNP
Tour guiding Level 5 KCSE Mean Grade D (Plain) & above	Jan & Sept	1 Year	MNP
Catering and accommodation level 6 KCSE Mean Grade C- & above		2 Years	
Catering and accommodation level 5 KCSE Mean Grade D & above	& Sept	1 Year	MNP
Catering and accommodation level 4 KCSE Certificate		6 Months	
Home management Level 3 KCSE Certificate	Jan <sub>&amp;</sub> Sept	3 Months	MNP
Nutrition and Dietetics level 6 KCSE Mean Grade C- (Minus) & above	Jan & Sept	2 Years	MNP





Nutrition and Dietetics level 5 KCSE Mean Grade D (Plain) & above



#### **EDITORIAL TEAM**

# **TECH MAGAZINE**



Mutembei Kigige Chief Principal



Mercy Kirimi **Deputy Principal Administration & Finance** 



Joseph Ngʻangʻa **Deputy Principal Academic Affairs & Research** 



Philip Karobia Research, Development & **Innovation Coordinator** 



John Meeme H.o.D Electrical & Electronics



John Njue **Trainer Mechanical & Automotive Engineering** 



Tirimba Manani **Trainer Building & Civil Engineering** 



Faridah Nyaga Data Analyst



Lucy Gacheri Internal Quaility Assurance Officer



Catherine Kinoti **Trainer Business &** Accountancy



Flaviah Kajuju Office Admin Assistant



John Kiura **Performance Contracting** 



Mburia Michael ICT Officer





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