

# INTERNATIONAL RESEARCH AND DEVELOPMENT CONFERENCE (IRDeC)

## PROGRAMME

### 18/10/2023 - Opening Ceremony

TIME	ACTIVITY
09:00 - 09:45	Arrival of Participants, Registration and Breakfast
09:30 - 9:45	Arrival of Guests and Participants
10:00 - 10:05	Introduction of Guests
10:05 - 10:15	Welcome Remarks – Professor M. Mpezamihigo (KIU VC)
10:15 - 10:25	Opening Remark – Hon. Oleru Huda
10:25 – 10:35	Good will Message - Al- Hajj Dr. (Hon) Hassan Bassajjabalaba (Chariman, BoT)
10:35 - 11:20	Keynote Paper - Professor Waswa Balunywa (Reading of Citation – Prof. Israel O. Obaroh)
11:20 - 11:40	Interactive Session
11:40 - 12:10	Lead paper I – Dr. Peter Samuels (Reading of Citation – Assoc. Prof. Peter A. Betiang)
12:10 - 12:30	Interactive Session
12:30 - 01:00	Lead paper II – Ass. Prof. Janice D. Busingye (Reading of Citation – Assoc. Prof. M. Kareyo)
01:00 - 01:20	Interactive Session
01:20 – 01:25	Vote of Thanks – Prof. Ijeoma B. Anumaka
01:25 - 01:00	Lunch Hour
02:00 - 05:00	Technical Session

### 19/10/2023 - Technical Session

TIME	ACTIVITY
08:00 - 09:00	Breakfast
09:00 - 10:00	Plenary Session - Dr. Umar Yahaya (Chairperson)
10:00 - 01:00	Technical Sessions - Paper Presentations
01:00 - 01:30	Lunch Hour
01:30 - 05:00	Technical Sessions - Paper Presentations

### 20/10/2023 - Technical Session

TIME	ACTIVITY
08:00 - 09:00	Breakfast
09:00 - 10:00	Plenary Session – Prof. Ijeoma B. Anumaka (Chairperson)
10:00 - 01:00	Technical Sessions - Paper Presentations
01:00 – 01:50	Lunch Hour
01:50 - 04:00	Technical Sessions - Paper Presentations
04:00 – 05:30	Issuance of Certificates and Closure



## About KIU

**Kampala International University (KIU)** is a private, not-for-profit institution based in Uganda. It was established in 2001 and assumed chartered status in 2009..

In pursuit of the dream to raise the next generation of problem solvers for the East African region and indeed the whole of Africa, the University operates a multi-campus system which consists of two campuses in Uganda (The **Main campus** in Kampala and the **Western Campus** in Ishaka-Bushenyi); one other university in Dar Es Salaam, Tanzania, while a third one is being developed in Nairobi Kenya.

The University which started as a typical degree-awarding institution has now grown into the number one Private University in Uganda and is currently ranked number 5 in the country according to the 2019 Webometric Ranking, out of 50 universities. It is a member of the Association of Commonwealth Universities, the Association of Africa Universities as well as the Inter University-Council of East Africa.

The University offers a variety of programmes in Health Sciences, Science and Technology, Engineering, Business and Management, Law, Humanities and Education.

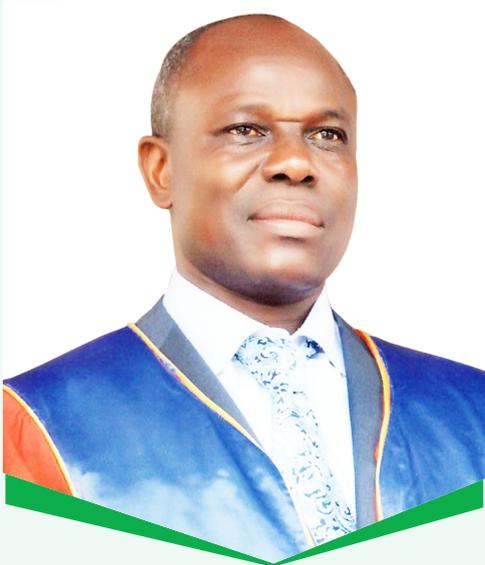
## About the Conference

**International Research and Development Conference (IRDeC)** is an academic conference, which main focus is to serve as an avenue through which scholars gather in order to discuss contemporary issues, innovations, technologies and challenges, with a view to proffer possible solutions. The advantages of an international conference cannot be over stretched, more so, the hosting of such a conference. It has tremendous benefits to the host institution, immediate community and the world at large.

### Objective

- i. To bring together scholars from different geographical locations in order to share common ideas.
- ii. To show case the academic prowess of KIU.
- iii. To showcase ground-breaking researches presentations.
- iv. To create a perfect atmosphere for fresh thought, ideas and insight.
- v. To create an atmosphere through which KIU Postgraduate students, and the research community can interact.

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Kampala, Uganda.

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Chancellor



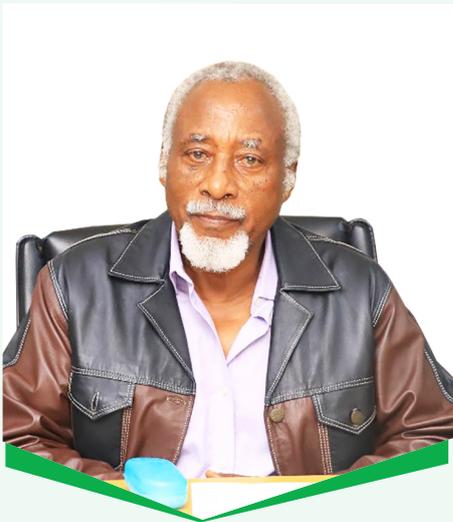
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#### Master of Ceremony

Dr. Isabirye Joel

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- I. Prof. Ijeoma B. Anumaka  
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Member
  - III. Assoc. Prof. Peter A. Betiang Secretary

**Panelists for online presentations**

- I. Dr. Kibuuka Muhammad
- II. Dr. Malinga Ramadhan
- III. Dr. Ekpang Joseph
- IV. Dr. Ganatusanga Haroon Sinan
- V. Dr. Afam Uzorka

**KEYNOTE SPEAKER**

**AFRICAN LEADERSHIP AND DEVELOPMENT CHALLENGES: THE ROLE OF RESEARCH, INNOVATION AND NEW TECHNOLOGIES**



**Professor Waswa Balunywa**

Director, Balunywa Foundation and Leadership Academy

**Abstract:**

Following the transformation of China into an economic super power, it was believed and said that the next was Africa. It continues to be said that Africa is the next economic Hotspot. But what is happening on the ground. It seems nothing! This has become a challenge to African Leaders. It was believed that with independence, Africa's Economic fortunes would be improved, however Africa has not been able to do so despite years of independence. Africa has sought solutions in Pan Africanism. Hoping that by coming together Africa would be able to use that strength to transform its self. Unfortunately, this has not been the case. It is true Africa will not transform unless if it gets a correct formula. Africa can only transform when it puts attention to education, especially science education and with emphasis on technical and vocational education. Africa can transform if it gets a level playing ground in world trade.

The powerful economies today, China, Germany, Japan are able to churn out goods because of their emphasis

on technical and vocational education and good trade agreements. But this can only come through research by universities in these countries and strength at the negotiating table.

Unfortunately, in Africa, research is funded by foreigners. The foreigners who fund research have their interests and as they seek information and solutions to their problems they fund African researchers. Africa will not overcome poverty unless if it starts funding its own research and puts emphasis on education. Educating the entire population with more emphasis on science education and still more emphasis on technical and vocational education. African must also come together to negotiate better trade terms.

**LEAD PAPER I**

**EARLY CAREER RESEARCHER CAPACITY BUILDING: DOCTORAL PROPOSAL WRITING TRAINING IN EAST AFRICA**



**Dr Peter Samuels**

Graduate School of Management, Birmingham City University, UK

**Abstract**

Most countries in the world are seeking to increase their capacity of doctorally qualified researchers. This is especially true in developing countries such as Uganda where this supply can be viewed as a bottleneck to the expansion of its knowledge-based economy. Developing a high-quality research proposal is generally regarded as a key gateway into undertaking a successful doctoral degree. However, for many students, this requires improving their academic writing, especially for those writing a proposal in a non-native language, or researching a non-literary subject. Students often struggle with the creative process of selecting, refining and communicating a narrow, viable research topic along with other elements of proposal writing, such as literature reviews, methodological plans and work schedules. Proposals are also usually the subject of doctoral students' first experiences when working

with their supervisors who may not be sufficiently sensitive or experienced in supporting their academic writing development needs.

In this presentation the provision of contextualised training in academic writing and research methods is promoted along with the use of formative feedback to assist in doctoral proposal writing and research methods development. This approach is based on the author's experiences of coordinating over 1,000 dissertation students each year and leading a doctoral programme at Birmingham City University and his voluntary and project work with several East African higher educational institutions and networks. These partnerships have enabled him to develop highly successful intensive doctoral proposal writing training courses which have been delivered both in person and online. Attendees will be invited to share their experiences of supporting newly enrolled doctoral students in proposal writing and research methods development so that good practice in this area can be encouraged and improved.

## LEAD PAPER II

### THE FUTURE OF PEDAGOGY IN A COMPLEX AI CONTEXT: WHAT EDUCATORS NEED TO KNOW



**Assoc. Professor Janice Desire Busingye**

*Janice D. Busingye is the Deputy Vice-Chancellor, Finance and Administration and University Secretary at Kampala International University (KIU), Uganda for the last 8 years.*

*She is an Associate Professor of Education with a bias towards Adult and Community Education and holds a Doctorate and Master's Degree from the University of KwaZulu Natal in South Africa.*

*An experienced, passionate, skilled educationist and an astute administrator with over 16 years' experience in leadership and management, she played a prominent*

*role in the emergence of KIU as the leading private university in Uganda, and the second-best university in Uganda. Prof Busingye is experienced in strategic leadership and planning, corporate governance, organizational and community development. She has mentored and supervised students and staff from diverse backgrounds and nationalities. Recently in June 2022, she was among the global leaders that spoke at the EduData Summit held at the United Nations Headquarters in New York. In 2023, she was one of the trainers of University leaders on digital learning at the ZAMREN annual conference in Livingstone, Zambia. At the 2021 Uganda Anniversary celebrations organized by the Uganda High Commission in Kenya and the Uganda Consulate General in Mombasa, Prof Busingye gave an inspiring presentation on Affordable, Accessible and Quality Education.*

*She is a member of Forum for African Women Educationists, and the Vice Chairperson at the Research and Education Network of Uganda (RENU).*

#### Introduction

The art of teaching and learning has evolved overtime, guided by various occurrences in the world. Through philosophy, political economy and technology, pedagogical practices have evolved as a response or as engineered by different drivers and enablers. Currently, as the world is learning to adapt to emerging technologies, artificial intelligence has emerged as one of the biggest drivers of change in education, especially higher and adult/community education. In its nature, human agency has always been geared towards engineering solutions in all sectors to respond human challenges, thereby setting the stage for innovations and new and efficient ways of doing things. From the "automatic teacher" in 1924, to the World Wide Web in 1989, through to the current innovations in pedagogy, delivering content to learners in a convenient manner has always been at the center of technological revolutions.

In this paper, I will argue that, even with unprecedented academic, ethical and legal challenges that face artificial intelligence, it is here to stay and educators will have to unlearn and adapt. AI has already revolutionised the way we recruit students, tutor them, create learning content, monitor teaching and learning, assess learning and administer education institutions. As educators, it will require that we walk the talk and rethink our pedagogical practices and the processes through which our students pass to gain their qualifications from a lifelong learning perspective. It is a complex process to undertake, especially for the BBC (born before computers) generation, and yet, it is quite necessary if we are going to remain relevant in the current pedagogical spaces, but most importantly, to our students.

## 01 DYNAMIC COST CONSIDERATION OF LOCAL MATERIALS FOR MASS HOUSING CONSTRUCTION IN NIGERIA

<sup>1</sup>Nnadi Ezekiel Ejiofor and <sup>2</sup>Egeonu Jude Chiedozie

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### Abstract:

There are lots of building materials that can be sourced locally for building construction purpose. Material is a major component of construction cost and a reduction in the cost of material can also result to reduction in overall construction cost. The cost of building materials poses a significant threat to both the construction industry and people aspiring to own houses. One major way to bring down the cost of materials for affordable housing is a shift toward the usage of local materials. This study therefore investigates the dynamic cost consideration of local materials for mass housing construction in Nigeria. The objectives are to ascertain the available local materials used in housing construction in Nigeria, the factors affecting the use of local building materials for housing construction in Nigeria, and examine the benefits of using local materials for housing construction in Nigeria. The study utilized a literature and field survey research design. The population of the study was the construction professionals that are involved in the usage of local materials. Purposive sampling technique was used to select a sample of 46 from the frame. Frequency and percentage were used to analyze the data. The study reveals 11 local materials in Nigeria but most of the materials are either "rarely used" or "seldom used" with the exception of just eight of them that are "often used". The literature survey also reveals that earth or soil local materials are largely used for housing construction floor finishing. Durability and cost of production contribute most among 14 factors that contribute to the usage of local materials with 57% while air quality properties have least contribution. The result equally showed that provision of affordable housing and reduced construction cost stand top among the eight benefits of local materials highlighted in this study from 65% of the responses. The study recommends that government should formulate policy that should play down the agitations on the use of imported building materials by encouraging research in the production of local building materials. Producers of

local materials should also take cognizance of the factors that contribute to the usage of local materials and ensure that they are incorporated in the materials to enhance their usage. The study will contribute significantly to the usage of local materials and improvement of their qualities.

**Keywords:** *Building Materials, Cost, Benefits, Housing Construction, Local Materials.*

## 02 A REVIEW OF RADIATION PROTECTION APRON FOR HEALTH FACILITIES: WITH FOCUS ON LEAD APRON

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### Abstract:

In medical diagnostic and therapeutic procedures, ionizing radiations are commonly used. The major radiations used are the X-rays and Gamma rays. The personnel working in the radiological facilities to carry out these procedures are supposed to be properly shielded from the harmful effects of these radiations. The currently used aprons are made up of Lead which is a heavy metal. Several studies have been documented showing that Lead aprons provide appropriate shielding against ionizing radiation. This is basically due to its chemical property being a heavy metal hence radiopaque. However, Lead apron has its disadvantages. This review is therefore focused on the disadvantages that come with the use of Lead apron in medical procedures. Several literature reviews have highlighted these disadvantages which include; bulkiness as a result of Lead being a heavy metal, very expensive and therefore difficult for the government to avail to every radiological personnel across the country. Furthermore it is toxic and hence eco – unfriendly due to its chemical nature, the texture of Lead apron also inconveniences the wearer. These, in turn results into compromise amongst the radiological personnel by not putting them on during these procedures. Thus exposing their bodies to these ionizing radiations which may cause either deterministic or stochastic effects. In conclusion, this paper suggests the need to investigate an alternative radiation shielding apron which is lighter, cheaper, ecofriendly and convenient to the wearer by using different materials and methods, such as the use of barium which provides a better radiation shielding as Lead.

**Keywords:** *Radiation, Radiation Shielding, Apron, Lead, Health Facilities and Disadvantages.*

### 03 SOCIAL MEDIA AND SERVICE DELIVERY: A REVIEW OF SELECTED HEALTH FACILITIES

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#### Abstract:

Social media is an essential digital tool designed fundamentally to facilitate communication in the social spheres. It ranges from Facebook, WhatsApp, Twitter, LinkedIn, YouTube, Zoom, Instagram and Tiktok. The significance of these platforms includes; ease of communication in business, virtual meetings, learning purposes, entertainment, and connectedness. When appropriately utilized, they promote service delivery. However, social media has been tremendously abused in workplaces hence affecting service delivery negatively. This paper focuses on the negative impact of social media on service delivery in medical facilities. Information was obtained from previously published journals, magazines, and periodic. Reports showed medical personnel have become obsessed with social media usage while at work, and this is done without due consideration to the patients in their care. The doctor can save some lives if he spends time attending to his clients instead of being glued to social media. Reports from medical workers have shown that most spend a greater part of their time on social media than the time they spend attending to their clients. Patients' deaths have resulted which could have otherwise been prevented. Furthermore, what they watch on social media has effects on their psychological wellbeing. There are communication gaps and unprofessional conduct with their patients due to the influence of some video streams they watch on social media. Conclusively, social media has an incredibly negative impact on service delivery in health facilities. Therefore this review suggests strong administrative monitoring and accountability for medical personnel and restriction of social media usage during working hours.

**Keywords:** *Social Media, Health Facilities, Service Delivery, Unprofessional Conduct and Communication*

### 04 RURAL ELECTRIFICATION USING WIND-SOLAR PV HYBRID SYSTEM IN MAKERA VILLAGE, BIRNIN KEBBI, NIGERIA

<sup>1</sup>Maiyama B.A, <sup>2</sup>Argungu G. M. and <sup>1</sup>Nasiru S.

<sup>1</sup>Waziri Umaru Federal Polytechnic, Birnin Kebbi;

<sup>2</sup>Usman Danfodio University, Sokoto, Nigeria

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#### Abstract:

Renewable energy resources are among the best options for rural electrifications programmes in Nigeria because of their availability and environmentally friendly nature. Wind-PV hybrid energy system was analysed for Makera village in Kebbi State, Nigeria. Ten (10) years of Solar radiation data and wind speed records from Nigerian Meteorological Agency (NIMET), Abuja, Nigeria, were validated using one calendar year data measured at the location. The site has an approximate population of 350,000 people basically into mini trading and farming profession in need of access to clean energy source for developmental activities. The Weibull probability distribution function and Hybrid Optimization Model for Electric Renewables (HOMER) software were employed to analyse data and determine the most feasible system configuration. The average wind speed of about 4.7m/s was obtained for the site. The minimum values were in October (3.92m/s), while the maximum was 4.71m/s in May. The maximum mean solar radiation was about 6.76kWhm<sup>-2</sup>day<sup>-1</sup> in April and the minimum was 5.25kWhm<sup>-2</sup>day<sup>-1</sup> in December. For the most feasible system configuration, the total net present cost (NPC) was \$236,415 and the cost of energy was \$ 0.413/kWh. The wind-solar PV energy contribution was 74.75% to 24.75% with zero greenhouse gas emission level. It was identified that for this hybrid system the changing price of PV panels and batteries were major sensitive components.

**Keywords:** *Wind energy, solar energy, Hybrid system optimisation*

### 05 A REVIEW OF FACTORS AFFECTING MOBILE NETWORKS DEPLOYMENT

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#### Abstract:

Mobile networks have revolutionized communication, enabling individuals and businesses to connect and access information more efficiently. However, the deployment and management of these networks are influenced by a range of factors. Its deployment is challenged due to emerging technologies, security and privacy concerns and other related factors such as poor infrastructure, spectrum availability, power supply, and business factors such as competition, limited access to resources, and regulatory barriers and taxation. Investigating these challenges will provide insights into how to address them and improve network quality and coverage. Understanding

these factors will also allow to identify strategies to enhance the quality of services provided, provide valuable information for anticipating and preparing for future technology adoption. Hence improve network coverage, reliability, speed, spectrum management. The review will evaluate the effect of Network Infrastructure sharing, effect of backhaul technologies and emerging technologies, effects of security and privacy and effects of spectrum allocation and utilization on mobile network deployment. Literature research have shown that several authors adopted a mixed-methods approach, primarily quantitative, supplemented by qualitative data methods. This approach provided a comprehensive understanding of the technical factors affecting mobile network deployment. In conclusion there will be a need to design a mobile network framework that will provide solution to the factors affecting mobile networks deployment.

**Keywords:** *Mobile network, backhaul, future technology and spectrum.*

## 06 BRIDGING THE DIGITAL DIVIDE: INCREASING INTERNET ACCESS IN REMOTE EAST-AFRICAN REGIONS FOR SUSTAINABLE DEVELOPMENT

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### Abstract:

The digital gap is a global issue that is still quite noticeable in remote parts of Africa, where geographic, infrastructural, socioeconomic, and cultural restrictions continue to make it difficult to use the internet. This research examines a wide range of strategies designed to improve internet connectivity in these unserved regions. This study offers insights into how stakeholders may close the digital divide, empower people and communities in remote African regions. The development of infrastructure, efforts to make housing more affordable, digital literacy projects, regulatory changes, the creation of local content, and community involvement are among the key strategies covered. The study highlights the significance of sustainability and inclusivity in digital inclusion initiatives, acknowledging the transformative potentials of internet access in promoting social inclusion, enabling economic development, and strengthening healthcare and education. The outcome derived from this study will serve as a resource for policymakers, researchers, and practitioners committed to increasing digital inclusion and connectivity for all because remote African regions will work to seize the opportunities of this digital era. For sustainable development.

*International Research and Development Conference (IRDeC)*

**Keywords:** *Digital divide, Internet access, remote African regions, digital inclusion, infrastructure development*

## 07 DISEASE DETECTION ON SOME SELECTED PLANTS USING CONVOLUTIONAL NEURAL NETWORK (CNN)

**Ogbonna Onyedikachi Benjamin, Hashim Ibrahim Bisallah**

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### Abstract:

Food security is seriously threatened by crop diseases, yet due to a lack of essential infrastructure in any areas of sub-Saharan Africa, it is still difficult to identify them quickly. Smartphone-assisted detection is now possible thanks to the growing popularity of smartphones and recent developments in computer vision made possible by deep learning. Using a locally collected dataset of 268 images of diseased and healthy plant leaves of maize, beans, rice, guinea corn, and sunflower, collected under controlled conditions, we trained a deep convolutional neural network to identify crop diseases. The trained model's accuracy on a held-out test set was 71%–81%, proving the viability of this method. Overall, a clear road toward smartphone-assisted crop disease identification and management in Nigeria and on a gigantic worldwide scale is presented by the strategy of training deep learning models on ever larger and publicly available image datasets.

**Keywords:** *Crop diseases, Detection, Management, Machine learning, Deep learning, Convolutional, Computer vision*

## 08 AI AND TELEMEDICINE: ADVANCING ACCESS TO HEALTHCARE IN REMOTE AREAS OF AFRICA

**Ademola Olatide Olaniyan<sup>1</sup>, Afam Uzorka<sup>2</sup>, Olubusayo V. Fakuade<sup>3</sup>**

<sup>1</sup>School of Natural and Applied Sciences, Kampala International University Kampala Uganda

<sup>2</sup>College of Education, Open and Distance Learning, Kampala International University Kampala Uganda

<sup>3</sup>School of Digital, Distance and E-learning, Kampala International University Kampala Uganda

### Abstract:

Telemedicine powered by Artificial Intelligence (AI) offers a possible answer to the shortage of healthcare access in Africa's remote and underserved areas. This research review looks at how AI-powered telemedicine technologies have the potential to improve

healthcare delivery in these locations. Telemedicine can promote accurate and rapid diagnoses by utilizing increased diagnostics and decision-making skills, leading to improved patient outcomes. Telemedicine deployment in underprivileged areas creates chances for enhanced healthcare infrastructure, increased access to medical expertise, and disease surveillance. However, for successful implementation, issues such as inadequate internet access, cultural hurdles, and legal frameworks must be properly addressed. Telemedicine can bridge the healthcare gap by enabling improved access to excellent healthcare for Africa's remote areas, boosting health equity and general well-being.

**Keywords:** *AI-powered telemedicine, remote areas, underserved regions, Africa, healthcare access*

## 09 KNOWLEDGE CREATION, PRESERVATION & ACCESS THROUGH OPEN, DISTANCE AND ONLINE LEARNING

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### Abstract

Because of its potential to provide flexible and accessible learning opportunities, open, distance, and online learning (ODL) have grown in importance in the field of education. ODL is important in the context of knowledge generation, preservation, and access. Objective: To investigate knowledge creation, preservation, and access via open, distance, and online learning. Methods: In this study, the qualitative research method was used. The philosophical assumption of interpretivism sparked this investigation. The design of the content analysis study was adopted. The researcher employed non-probability sampling. Convenience sampling was utilized as a sample strategy. The overall sample size was eighteen written pieces. The data was analyzed using content analysis. Results: Collaborative Learning: Through conversations, group projects, and virtual teamwork, online learning platforms frequently allow collaborative learning environments in which individuals from various backgrounds can join together to share their viewpoints and develop new knowledge. Global Access: ODL provides individuals with access to education and information resources who would not otherwise have had the opportunity owing to geographical, economic, or physical barriers. ODL institutions can develop and manage digital repositories to save and preserve educational content, research findings, and institutional knowledge, ensuring that it is accessible over time. Conclusion:

These modes of delivery make use of technology to promote collaborative learning, preserve information in digital formats, and give flexible, worldwide access to educational resources. They do, however, present issues that must be addressed in order to optimize their effectiveness and inclusivity. Keywords: Collaborative Learning, Global Access, Open Distance and Online Learning

**Keywords:** *Open, Distance, Online learning, Technology and Digital*

## 10 ENHANCING AGRICULTURAL DEVELOPMENT IN SUB-SAHARAN AFRICA THROUGH EFFECTIVE DIGITAL RECORD-KEEPING SYSTEMS: LEADERSHIP CHALLENGES AND ADOPTION STRATEGIES

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### Abstract:

Sub-Saharan Africa faces significant challenges in its food security and agricultural development. This study investigated how the agricultural landscape of the area could change because of the revolutionary potential of digital record-keeping technologies. Digital technologies provide promising solutions, including farm management software and mobile information collection, which enable effective data management and data-driven decision-making. The extensive implementation of digital record-keeping systems in sub-Saharan Africa is hampered by leadership issues. This study thoroughly examined these issues, including everything from developing policies to creating infrastructure and capacity. This provided a tactical plan for removing these obstacles. This essay not only clarifies the possibilities of digital systems but also offers insightful contributions to the area. It directs stakeholders towards a more successful and effective future by reviewing the governance, policy creation, and adoption approaches.

**Keywords:** *Adoption strategies, Agriculture, Digital record-keeping systems, Leadership challenges, Sub-Saharan Africa, sustainable development.*

## 11 A REVIEW OF DESIGNING AN ALGORITHM FOR IMPROVING SOFTWARE DEFECT PREDICTION USING CLUSTER UNDERSAMPLING IN UNBALANCED DATASET

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**Abstract:**

Class imbalance is a naturally occurring problem in most real-world machine learning domains such as fraud detection, network intrusion detection, risk management, medical datasets, and software defect prediction among others. It occurs as a result of the limited number of examples of a particular class, mostly the class the process is set to identify, due to the rarity of the phenomenon the class represents. A key motivation of class imbalance learning is the utmost importance attached to the correct classification of the rather minority instances because they carry a higher cost if they are wrongly classified as compared to the majority instances. As prediction models are usually set to optimize the overall classification accuracy, in most cases they fail to correctly classify the minority instances due to rarity of the instances in the data used to train them. Balancing a dataset makes training a model easier because it helps prevent the model from becoming biased towards one class. In other words, the model will no longer favor the majority class just because it contains more data. Data sampling is one of the techniques of minimizing class imbalance problem prior to training classification models, but most of the existing techniques cause other problems in the course of sampling and mostly do not take other data quality issues into consideration. This work is therefore, aimed at designing an efficient sampling algorithm that improves the performance of classification algorithms using a simple logical framework. This research contributes to both the academia and practice by presenting a comprehensive literature review on class imbalance learning and further proposing and implementing a new under sampling technique (Cluster Under sampling Technique (CUST)) that has been shown to significantly improve the performance of common classification techniques such as C4.5 decision tree and OneR when learning from imbalance datasets.

**Keywords:** *Software Defect Prediction, Unbalanced Dataset, Cluster Under Sampling Technique, C4.5 Decision Tree, OneR*

**12 MACHINE LEARNING ALGORITHM FOR USERS' INTERACTIONS IN VIRTUAL LEARNING ENVIRONMENT**

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**Abstract:**

This study reports analysis in the implementation of machine learning in an indigenously designed virtual learning platform for the delivery of lecture in Nigeria during the COVID-19 and lockdown. Two quality metrics: learnability and satisfaction, and how the corresponding scores of the matrices are calculated. Though ratings are not intended as an objective assessment of the quality, but they do allow for a quantitative comparison of the user experiences while interaction with the virtual learning platform. Data from 92 students' offering introduction to cyber security were extracted. The users' data and correlated types data were collected from the platform starting from the sign-in on the platform, prior knowledge data, historical records, learning disposition data, and platform utilisation data which are system logs were used to predict their performances from their interaction with the platform to examine the two observed quality matrices. It was therefore suggested that the success or failure of the student's assessment would have been able to be determined if learners' qualitative as well as quantitative opinions had been able to precisely define the learning impacts on students, and if correct, had the procedure been implemented on the virtual learning platform been replicated in other platforms for generalisation.

**Keywords:** *Machine learning, Big data, COVID-19, lockdown, virtual learning platform, Open and distance learning.*

**13 BIG DATA ANALYTICS OF TOMATO LEAF DISEASE CLASSIFICATION USING CONVOLUTION NEURAL NETWORK IN FOOD SECURITY**

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**Abstract:**

Tomato is one of the most widely consumed and commercially significant crops worldwide but the leaf diseases pose a significant threat to agriculture and food security globally. Early detection and accurate classification of these diseases are crucial for effective disease management. Traditional methods

of disease diagnosis can be time-consuming, labor-intensive, and expensive. In recent years, deep learning techniques, particularly convolutional neural networks (CNNs), have shown great potential to automate and improve the accuracy of disease detection in crops. With increase availability of big data analytics and advancements in deep learning techniques, opportunities exist to automate disease classification using CNNs. This paper focuses on the development of the model for accurate classification of diseases to enhance food security and utilize a dataset consisting of images of healthy and infected tomato leaves diseases like bacterial, fungi and viruses. The model takes images of tomato leaves as inputs and train the CNN using large dataset of annotated images, including samples of various disease types and evaluate the performance of the proposed model by comparing its accuracy, sensitivity and other metrics to diagnosis the system for a non-invasive, cost-effective, and reliable solution which would ultimately help to optimize management strategies, reduce pesticide use and protect food security. The performance evaluation will be conducted by comparing the model's prediction with the actual disease status of the leaves. The outcome of this paper will contribute to the development of accurate and automated systems for early detection and classification of tomato leaf diseases, ultimately enhancing food security.

**Keywords:** CNNs, tomato leaf, deep learning, classification, diagnosis

## 14 APPRAISAL OF FIXED-SUM CONTRACTS ON THE TIME PREFERENCE OF TETFUND SPONSORED BUILDING PROJECTS IN PUBLIC UNIVERSITIES IN SOUTH EAST NIGERIA

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### Abstract:

The issue of delay in the completion of projects in the construction industry is of global and common concern. Most projects are delivered behind schedule and the situation is even alarming in developing countries, of which Nigeria is not an exception. Tertiary institutions comprise universities, polytechnics, colleges of education and monotechnics that are owned by either the Federal Government, State Governments, private organizations or individuals. Thus, in Nigeria, there are tertiary institutions which are publicly or privately funded. A fixed-sum building contract is a contractual agreement with a predetermined value for the goods

or services provided. Construction contracts usually take the form of an agreement that the works will be constructed for a certain sum of money, or at least specify the way in which that sum will be computed. This study seeks to evaluate the impacts of fixed-sum building contracts on the time performance of TETFund-sponsored projects in Enugu State. 44 projects in the various beneficiary institutions were collected from TETFund's Department of Monitoring and Evaluation Projects to ascertain the time performance of the respective projects. Other information on the time performance of the projects in the selected beneficiary institutions were gathered from oral interviews of relevant professionals. Data gathered from TETFund's Department of Monitoring and Evaluation Projects documentation was majorly used for the analysis, while opinions from the oral interviews formed part of the inferences made for the study. From data gathered, oral interviews and observations made on this study, the following conclusion and recommendations were made: Fixed-Sum building contracts have affected time performance of TETFund-Sponsored projects to a large extent as none of the projects with the specified project duration was completed within the stipulated duration. From deductions on the project completion periods, it was obvious that previous intervention projects were not completed and new intervention projects were accessed by beneficiary institutions against the TETFund guidelines of completing previous intervention projects before accessing new ones. Hence, violation of the TETFund guidelines and requirements has given room for attitudes of nonchalance by all stakeholders involved in the projects. Stakeholders in the building team need to take charge of their various responsibilities to ensure that projects are delivered within specified duration.

**Keywords:** Appraisal, Fixed-Sum, Contracts, Building Projects and Public Universities.

## 15 STRENGTHENING AFRICA'S CLIMATE PREPAREDNESS THROUGH EFFECTIVE RECORDS MANAGEMENT PRACTICES

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### Abstract:

Strong climate preparedness measures are required for Africa because of the continents' increasing vulnerability to climate change. This study emphasizes the importance of sound record management

procedures in boosting Africa's climate resilience. Climate data management and recording systems have historically received little attention in many African regions. This study describes a case in which better record management can considerably improve Africa's ability to cope with climate change and natural disasters. This work illustrates how organized data preservation has aided climate adaptation and disaster response using real-world examples and best practices. Additionally, it looks at the potential and difficulties that come with improving records management capabilities in African organizations. This study offers policy suggestions to incorporate record management into climate adaptation plans. Collaboration between partners around the world, non-governmental organizations, and governments is highlighted as crucial for securing Africa's future in a changing climate. This research highlights the urgent need to recognize record management as a linchpin in Africa's climate preparedness efforts, ensuring that valuable data resources are harnessed to safeguard communities, ecosystems, and heritage in the face of climate uncertainty.

**Keywords:** *Adaptation, Africa, Climate, Preparedness, Records Management, Strengthening Top of Form*

## 16 MITIGATING TRAFFIC GRIDLOCK IN APAPA AND ITS EFFECTS ON NIGERIA'S ECONOMY

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**Abstract:** \_\_\_\_\_

This study evaluated the effect of Apapa Gridlock on the economy of Nigeria. It explored the importance of Transport Infrastructure Projects (TIPs) in the economic development of Lagos and the country at large. Empirical research was adopted to evaluate Transport Infrastructure Projects' effects on societal transformations and economic growth of the nation's economy. Data was collected using a structured questionnaire. The gathered dataset was analyzed using the Google Scholar Statistical tool and the results presented in simple graphs. The summary of the findings shows that 94% of the respondents had experienced Apapa Gridlock. 100% of the respondents agreed that it affects Lagos economy in general. While 55% posited Apapa Gridlock contributed to Lagos traffic. 76% of the respondents agreed that previous attempts did not record meaningful success on reducing Lagos traffic. The result of the T-test was lesser than 0.05, therefore, the null hypothesis was

rejected and the research upholds that there is a positive relationship between Nigeria economy and Apapa Gridlock; because Apapa traffic slows down economic activities in Lagos which is the capital base of the country. The work concluded that reforms are critical to solving Apapa Gridlock and recommended the use of a comprehensive multi-tier PPP solution.

**Keywords:** *Grillock, Economy, Infrastructure, Mitigation, Project*

## 17 THEORETICAL REVIEW OF ICT-ENABLED STRATEGIES FOR FUNDING EDUCATION: INSIGHTS FROM KAMPALA INTERNATIONAL UNIVERSITY, UGANDA

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**Abstract:** \_\_\_\_\_

Education is a fundamental human right and an essential investment for achieving economic and social development. However, financing education remains a major challenge for many countries, particularly in developing regions where resources are limited. The emergence of Information and Communication Technologies (ICTs) has opened up new opportunities for funding education by enabling innovative, cost-effective, and scalable solutions. This presentation examines the use of ICT-enabled strategies for funding education, drawing on insights from Kampala International University's (KIU) experience and global perspectives. KIU is a leading private university in Uganda that has leveraged ICTs to address funding challenges and improve access to quality education. The study will explore KIU's strategies for using ICTs to generate revenue, reduce costs, and enhance learning outcomes, as well as the key lessons learned from these initiatives. This paper will also provide a broader analysis of the role of ICTs in funding education globally, highlighting best practices, trends, and challenges in this area. The work will conclude with recommendations for how other institutions can effectively use ICTs to fund education and improve educational outcomes.

**Keywords:** *Cost reduction, Funding education, Global perspective, ICT, Learning outcomes, Revenue generation*

## 18 COMMUNITY ENGAGEMENT AND CAPACITY-BUILDING FOR RENEWABLE ENERGY PROJECTS: EMPOWERING LOCAL COMMUNITIES FOR SUSTAINABLE DEVELOPMENT

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**Abstract:**

Renewable energy initiatives are critical to tackling the serious global issues of climate change and energy security. Their effective implementation and long-term sustainability, however, are strongly reliant on the engagement and support of local communities. This review investigates the value of community participation and examines the impact of capacity-building efforts aimed at empowering local people to drive renewable energy projects. The value of incorporating local communities in the planning, implementation, and administration of these efforts is examined, with a focus on social acceptance, specialized project design, and economic prospects. Furthermore, the capacity-building initiative analysis gives insight on education and training programs, community leadership development, technology transfer, and information exchange. Collaborations between governments, NGOs, business companies, and local communities are also investigated, emphasizing the advantages of pooling resources, encouraging innovation, and pushing for favorable legislation. Renewable energy projects may genuinely become vehicles for sustainable development by embracing community participation and capacity-building, meeting local needs and ambitions while paving the path to a greener, more resilient future.

**Keywords:** *Renewable energy, community engagement, capacity-building initiatives, project design, technology transfer*

## 19 ADOPTION OF INFORMATION AND COMMUNICATION TECHNOLOGY FACILITIES AND ORGANIZATIONAL EFFECTIVENESS AND EFFICIENCY IN KAMPALA INTERNATIONAL UNIVERSITY

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**Abstract:**

This study investigated the adoption of information and communication technology (ICT) facilities

and organizational effectiveness and efficiency in Kampala international university (Main Campus). The study particularly sought to establish the correlation between ICT adoption and organizational effectiveness and efficiency. The study was based on the following objectives: i) to determine the adoption of information communication technology at Kampala international university, ii) to determine organizational effectiveness and efficiency at Kampala international university and iii) to establish the relationship between adoption of information communication technology (ICT) and organizational effectiveness and efficiency at Kampala international university. The study employed descriptive correlational design; data was collected using researcher devised questionnaires. Pearson correlation (r) was used to establish the relationship between adoption of information communication technology (ICT) and organizational effectiveness and efficiency at Kampala international university. In regard to Sex, the study revealed that majority 53% of the respondents were male while the female were 47%. In regard to age groups, majority 67% of the respondents fell in the category of 20-39 years compared to other categories of 40-59 years and 60 and above age brackets, which gave percentages of 27% and 6% respectively. In regard to academics, the study showed that majority 65% of the respondents possessed a Bachelor's Degree, followed by diploma holders 14% and those having masters were 13%, only 8% had other qualifications. The findings in regard to work experience revealed that majority 69% of the respondents had worked with the University for 6-10 years, while 18% had a 1-5 years of experience and only 13% had been employed for over 10 years within the University. The study also finding showed an average mean of 3.07 for the types and ICT equipment used at the research area. In regard to ICT usage, the study finding revealed an average mean of 2.74, meaning it was satisfactory. In regard to ICT awareness, the finding showed an average mean of (2.26) and was interpreted as fair. The research showed a satisfactory level of organizational effectiveness with an average mean of 2.82. In regard to the level of organizational efficiency, the finding revealed a satisfactory level of efficiency with an average mean of (2.60). The study also established a weak positive correlation between adoption of ICT and the level of effectiveness and efficiency ( $r=0.388$ ). The regression analysis between the dependent variable was (adjusted  $R^2=0.094$ ). The researcher concluded that employee training on ICT skills is a subject that has not been widely spread among the staff of higher institutions thus the study recommended that organizations should have obligation to offer continuous on-job training with ICT skills inclusive. This would help them to effectively deliver hence ensuring organizational effectiveness.

**Keywords:** *Organizational Effectiveness and Efficiency, Higher Education Environment*

## 20 UTILIZATION OF BLOCKCHAIN TECHNOLOGY BY UGANDA'S UPDF FOR SUPPLY CHAIN TRANSPARENCY AND TRACEABILITY

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### Abstract

To sustain ethical sourcing practices, prevent the sale of counterfeit goods, and increase consumer confidence, organizations must provide transparency and traceability in their supply chains. This case study focuses the Uganda People's Defense Forces (UPDF) and examines the creation and implementation of a blockchain-based application for improving supply chain transparency and traceability. The main goal is to look into how a blockchain application may enhance supply chain management, decrease corruption, and increase accountability in the UPDF's logistics and procurement procedures. The project will involve designing, creating, and assessing a blockchain-based application specifically catered to the needs and supply chain procedures of the UPDF. In order to provide transparency, immutability, and decentralized control, the app will use blockchain technology to record and verify each stage of the supply chain, from purchase through delivery. The investigation will take into account whether the UPDF has access to the infrastructure and training required to use blockchain technology. A mixed-methods approach will be used to combine quantitative data from transaction logs and supply chain records with qualitative data from stakeholder interviews and observations. The study will evaluate the app's effects on supply chain efficiency, transparency, and traceability as well as any risks and rewards of integrating blockchain technology into the UPDF's supply chain ecosystem. Finally this technique seeks to advance knowledge of how blockchain technology might enhance supply chain management in governmental and military contexts by examining the adoption of a blockchain-based app within the UPDF's supply chain. The results will advise policymakers, procurement officers, and R researchers on the applicability of blockchain-based apps for boosting supply chain transparency. They will offer insights into the viability, effectiveness, and potential barriers of using blockchain solutions.

**Keywords:** *Blockchain; Supply Chain Collaboration; Cyber Security; Traceability; Data Collaboration; Smart Contract*

## 21 REVOLUTIONIZING LEGAL AND BUSINESS PROCESSES OF DIGITAL AGE USING BLOCKCHAIN TECHNOLOGY

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### Abstract

Blockchain technology has transcended its origins in cryptocurrency and is now poised to transform various aspects of the legal and business landscape by implementing smart contracts. Smart contracts, which operate on blockchain networks and are self-executing, programmable contracts, have the potential to completely change how agreements are made, carried out, and enforced. In order to shed light on their benefits, drawbacks, and potential future ramifications, this article examines the development of blockchain-based intelligent contracts and their influence on legal and corporate procedures. Traditional methods of managing and carrying out contracts are frequently time-consuming, expensive, and prone to disagreements. Blockchain technology's smart contracts provide a decentralized, automated, and impenetrable means of drafting, carrying out, and upholding contracts. This article explains how smart contracts can streamline processes across multiple industries, including finance, real estate, supply chain management, and intellectual property by carefully exploring the technological foundations and real-world use cases of smart contracts. It addresses ongoing initiatives to deal with these problems and emphasizes the significance of regulatory frameworks that are flexible enough to accommodate this new paradigm. Smart contracts' potential societal and economic effects, such as decreased transaction costs, increased effectiveness, and improved. This article promotes interdisciplinary study and collaboration among legal scholars, technologists, and business professionals to fully realize the promise of blockchain-based intelligent contracts. It ends by imagining a time where smart contracts are fully incorporated into daily life, revolutionizing the way contracts are established and carried out in the digital age.

**Keywords:** *Blockchain, Smart Contracts, Legal Technology, Business Processes, Decentralization, Automation, Contract Management, Digital Transformation, Regulatory Frameworks.*

## 22 THE PROSPECTS AND CHALLENGES OF REGULATING RENEWABLE ENERGY IN UGANDA

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### Abstract

The utilization of renewable energy is a crucial step in the development of many countries. Uganda is no exception, and its future relies heavily on its ability to effectively regulate the sector. This paper examines the prospects and challenges that arise when regulating renewable energy in Uganda. To begin, there are several positives associated with a successful renewable energy sector in the country. Firstly, it is essential in driving economic growth, as it increases access to electricity in remote and impoverished parts of the nation. Additionally, renewable energy sources are becoming increasingly affordable and are not subject to the global price fluctuations of fossil fuels. Lastly, the increased availability of renewable energy reduces Uganda's carbon emissions, thus making an impactful contribution to climate change efforts. On the other hand, there are many difficulties in regulating the sector. Firstly, the lack of appropriate infrastructure and resources to store the energy often creates an unreliable and unstable grid, which can pose a great risk to the population. Furthermore, there is a lack of sufficient policies, regulations and clear guidance from the government on renewable energy initiatives, which leaves private entities in uncertainty as to the extent of their rights, responsibilities and liabilities. Lastly, the current taxation and tariff system for renewable energy is unclear and without adequate incentives to invest in the sector. In conclusion, there are many challenges that need to be overcome, but also many prospects to the effective regulation of renewable energy in Uganda. While there are no specific laws on renewable energy, there is a general framework in the National Environment Act that provide a basis for some kind of regulation. It is thus essential that the government adopts a comprehensive and well-defined legal framework to attract investment in the sector while appropriately protecting citizens and the environment. This paper offers recommendations in this regards.

## AGRICULTURE, BIOLOGICAL SCIENCES AND HEALTH

### 23 ECTOPARASITES INFESTATION OF LIVESTOCK REARED WITHIN BIRNIN KEBBI METROPOLIS, NIGERIA

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### Abstract

This study was designed to assess the level of ectoparasites infestation on livestock (cattle, sheep and goat) reared in selected areas in Birnin Kebbi metropolis. The hand picking technique was combined with the body brushing method to search for ticks, lice, fleas and mite. A total of 400 livestock (190 cattle, 110 sheep and 100 goats) were examined, 185 livestock reared within the residential area of Nasarawa II had an infestation rate of 97(52.4%), while 215 of the livestock from Bulasa area had an infestation rate of 131(60.9%). The overall infestation rates was 228 (57.0%) out of 400 animal examined. A total of 386 ectoparasites were collected from 228 animals. Ticks accounted for 52.6% of all ectoparasites while lice, fleas and mites accounted for 30.8 %, 5.7 %, and 10.9 % respectively. The adult animals had the highest infestation rate of 71.1%, while the young ones was 28.9%. Chi-square test shows no significant relationship between the rate of infestation and sex of animals ( $p > 0.05$ ). The predominant genera encountered for ticks were *Amblyomma* (55.8% in male and 44% in female cattle; 58.6% in male and 41.4% in female sheep), *Hyalomma* in goat which accounted for 54.5% in male and 45.5% in female. For the lice, mites and fleas genera *Linognathus*, *Psoroptes* (in cattle and goat) while *Sarcoptes* in sheep and *Pulex* species respectively. *Boophilus* species (found on cattle, sheep and goat) were the lowest species of tick encountered in the study. For the urban livestock farmers, interactive health education, regular treatment of these livestock and improved hygiene of where they are kept is highly advocated to reduce or prevent these infestations if this is done, there will be increase in their economic output and values.

**Keywords:** *Ectoparasite, Livestock, Infestation, Hygiene and Sheep*

## 24 TO IMPROVE THE COMMUNITY LIVELIHOOD IN JOWHAR MIDDLE SHABELLE REGION SOMALIA CLIMATE CHANGE ADAPTATION STRATEGIES

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### Abstract

Somalia is highly susceptible to the effects of climate change and extreme weather. Without anticipatory preventive approaches, these factors are likely to exacerbate existing vulnerabilities and reduce the people's livelihood options, which in turn may have negative impacts on stability and security in Somalia. More frequent and intense droughts and floods undermine food security and worsen livelihood conditions in Somalia. This has complex and interlinked implications for the peace and security situation in Somalia, including climate-related displacement and migration are likely to increase, particularly for those whose livelihoods are influenced by droughts and floods. This study used a cross-sectional research design. The study employed both quantitative and qualitative approaches. Quantitative methods were used in data collection and analysis and general information on the subject matter was collected from the different stakeholders involved in the study. The qualitative approach is used to climate change and the livelihoods of communities. The study used questionnaires as the main primary source of data collection and an interview guide was used in this study. The study findings show that climate change strategies that can be employed to improve the community livelihood in Jowhar Middle Shabelle region Somalia are campaigns on disaster risk management, resettlement of people to less climatic hazards, climate change awareness campaigns, and afforestation campaigns developed.

**Keywords:** *Climate Change, Livelihood, Jowhar and Risk Management*

## 25 ISOLATION, CHARACTERIZATION AND IN VIVO EFFICACY OF LYTIC BACTERIOPHAGES FROM SEWAGE-TREATMENT PLANTS AGAINST CIPROFLOXACIN-RESISTANT SALMONELLA TYPHI IN MBARARA DISTRICT, UGANDA

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### Abstract:

The emergency of ciprofloxacin-resistant Salmonella Typhi infection among majority of the developing countries has elevated morbidity and mortality rate. The present study aimed at determining the in vivo efficacy against ciprofloxacin-resistant Salmonella typhi of lytic bacteriophages from sewage treatment plants in Mbarara district, Southwestern Uganda. A laboratory based experimental study was conducted. Twelve samples obtained from two sewage treatment plants within Mbarara district, Southwestern Uganda; Kakoba and Taso were used for isolation of bacteriophages using the double agar overlay plaque assay. The isolated phages were assayed for both biological and physico-chemical characteristics. A mice infection model that included; bacteria + phage, bacteria + SM buffer, bacteria + ciprofloxacin antibiotic groups and phage only were used to assess the in vivo efficacy of bacteriophage cocktail against ciprofloxacin resistant Salmonella typhi after intraperitoneal administration. The bacterial loads and phage titres from the lungs, intestines, liver, and kidney were determined using surface spreading and double agar overlay plaque assay. Data was analyzed using SPSS-26 to compute descriptive statistics and statistical significance was considered at  $P \leq 0.05$ . The four isolated phages exhibited lytic activity against the ciprofloxacin-resistant S. typhi with an average host range limited to S. Typhi species with exception of phage TA001 with activity against Shigella species. The adsorption time of phages ranged from 5-15 minutes, with latent period of 10 – 20 minutes and burst sizes ranged from 286 to 163 PFU/ml. The phages exhibited high stability at temperatures up to 60 °C and pH 4 -12. The phage had an average host range of 8.3% to 50.0%. The phage cocktail rapidly decreased the S. Typhi counts in blood, liver, spleen intestines and kidney to 0 CFU/mL within 48 h as compared to ciprofloxacin treated mice. The phages were completely cleared at a rapid rate in the spleen, kidney, and blood within 60h, 96 h and 120 h respectively. Treatment with phage cocktail caused a significant reduction in the weights of liver and intestines as compared to ciprofloxacin treated mice. Sewage harbored virulent lytic phages against ciprofloxacin resistant S. Typhi and the cocktail exhibited potent in vivo therapeutic efficacy in mice model. The study recommends molecular characterization, pharmacokinetic, histological effects and immunological responses in order to establish their safety for therapeutic usage in humans.

**Keywords:** *Isolation, characterization, in vivo, efficacy, lytic and Salmonella Typhi*

## 26 IMPACTS OF CLIMATE CHANGE ON WATER SECURITY IN UGANDA: A REVIEW

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### Abstract:

Billions of people globally live in countries experiencing high water stress attributable to growing climatic changes with greater impacts on water resource sustainability, increase in water user conflicts, growth in newly inundated land, rapid declines in surface water area of rivers, lakes, reservoirs, wetlands, floodplains and seasonal water bodies. The extreme climatic variability leads to serious water insecurity with the poorest and most vulnerable people to water scarcity particularly at risk since water availability was likely to become more variable and unpredictable, unsustainable access to adequate quality water for human health and the rising association between water insecurity to food insecurity and gender-based violence particularly in Africa. Uganda's over reliance on direct rainfall has not been spared by climatic variability that threatened the distribution of rainfall and water availability. This review seeks to establish the implications of climate change on water security in Uganda. Literature search of online resources and databases on implications of climate change on water security was used. The findings will contribute to a better understanding of the impacts of climate change on water security and the measures that can be taken to address these challenges with the view to provide policymakers and stakeholders with insights on the specific actions to be taken to enhance water security and build resilience to climate change.

**Keywords:** *Climate change, Water security, Uganda, Rainfall and Sustainability*

## 27 PREVALENCE OF POST CAESAREAN WOUND INFECTIONS AND ASSOCIATED FACTORS AMONG MOTHERS DELIVERING FROM KAMPALA INTERNATIONAL UNIVERSITY TEACHING HOSPITAL

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### Abstract:

Caesarean section simply is an operative technique by which a fetus is delivered through an abdominal and uterine incisions after a minimum period of 28 weeks of amenorrhea, whilst a post caesarean section wound infection (PCWI) is an infection that occurs after a C- section, usually due to a bacterial infection in the surgical incision site.

The purpose of this study was to determine the prevalence of post caesarean wound infections among mothers who delivered from KIU-TH, and to identify common factors associated with post caesarean wound infections among these mothers. Descriptive statistics were used to characterize and highlight the difference among the post-caesarean patients. Data was entered and analyzed using SPSS version 16. The analyzed data was then presented using tables and charts. The results indicate that the prevalence of post-caesarean wound infection at Kampala International University-Teaching Hospital is still low (3.2%) but may increase if the steps are not taken to initiate its prevention and eradication. The results indicate that post-caesarean wound infection is positively and significantly associated with age ( $X^2 = 10.747$ ,  $P < 0.05$ ), the cause/reason of caesarean section ( $X^2 = 62.000$ ,  $P < 0.05$ ), color of liquor ( $X^2 = 45.983$ ,  $P < 0.05$ ), duration of labor ( $X^2 = 10.067$ ,  $P < 0.05$ ) and amount of blood lost ( $X^2 = 3.844$ ,  $P < 0.05$ ). The prevalence of PCWIs at KIU-TH was 3.2% and the factors associated were the reason for caesarean section, color of liquor, duration of labor, amount of blood lost. Based on the results and the findings, the study recommends that recognition of the consequences and the building of the strategies to prevent and treat Post-caesarean wound infections at Kampala international university-teaching hospital is essential for reducing post-caesarean maternal morbidity and mortality. In addition, the study also recommends the Recognition of the associated risk factors particularly the modifiable and their modification to reduce the occurrence of Post-caesarean wound infection.

**Keywords:** *Prevalence, Post Caesarean, Wound Infections and Mothers Delivering*

## 28 THE COVID-19 VACCINES, AND GLOBAL HEALTH INEQUITIES: A COMPREHENSIVE REVIEW

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### Abstract:

The COVID-19 pandemic has had a profound impact on global health, exposing and exacerbating existing inequities in healthcare systems worldwide. This review aims to provide a detailed analysis of the interplay between COVID-19 Vaccines and global health inequities. The origins and characteristics of the COVID-19 pandemic were discussed and also explore the Zoonotic transmission of the virus, its rapid global spread, and the impact it has had on various populations. The disproportionate burden of the COVID-19 on marginalised communities and vulnerable population is highlighted, emphasizing the existing health inequities that have contributed to these disparities. An overview of the different types of Vaccines available, including mRNA-based Vaccines, viral Vector Vaccines, and protein subunit Vaccines provided. It provides an overview of the different types Vaccines available, including mRNA-based Vaccines, viral Vector Vaccines, and protein subunit Vaccines. The review discusses the challenges associated with Vaccines development, including safety concerns, efficiency, and the need for equitable access. The role of global collaborations, such as COVAX, in ensuring fair distribution of Vaccines is also explored. It analyzes the socioeconomic factors, such as poverty, lack of access to healthcare, and systemic racism, that contribute to these inequities. The review also discusses the impact of COVID-19 on other health outcomes, such as routine immunizations, maternal and child health, and mental health, in low- and middle-income countries. Furthermore, the review highlights the importance of addressing these global health inequities in the context of COVID-19. It emphasizes the need for comprehensive strategies that go beyond Vaccines distribution, including strengthening healthcare systems, improving health literacy, and addressing social determinants of health. The role of international organizations, governments, and civil society in promoting equitable access to healthcare is also discussed. The review appraises some scientific reports on COVID-19 Vaccines, and global health inequities.

**Keyword:** COVID-19, Vaccines, global health, inequities.

## 29 TOXICOLOGICAL ASSESSMENT OF HEAVY METALS IN FISH AND WATER OBTAINED AT YAURI AXIS OF RIVER NIGER IN KEBBI STATE, NIGERIA

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### Abstract:

The Yauri axis of River Niger in Kebbi State, Nigeria is a beehive of activities as it provides important ecosystem services such as fishing, transportation, farming, and water for drinking and domestic use. Unfortunately, these ecosystem services can impact the quality of water and fish, necessitating periodic monitoring. This study evaluated the safety of heavy metals in water as well as tilapia fish (*Oreochromis niloticus*) and catfish (*Clarias gariepinus*) obtained from the river. Samples of the water and fish were treated and analyzed for the presence of cadmium (Cd), lead (Pb), copper (Cu), and zinc (Zn) using atomic absorption spectroscopy (AAS). The potential health hazards associated with the heavy metals were evaluated based on their non-carcinogenic and carcinogenic risks. The AAS of the water revealed non-tolerable concentrations of Cu (2.23-6.11 mg kg<sup>-1</sup>), Pb (2.39-5.53 mg kg<sup>-1</sup>), and Cd (0.81-1.23 mg kg<sup>-1</sup>). The average daily intake (ADI), hazard quotient (HQ), and carcinogenic risk (CR) of all the heavy metals exceeded the permissible limits. The fish samples had non-permissible levels of Cu (4.73±0.01 mg kg<sup>-1</sup>), Pb (3.01±0.12 mg kg<sup>-1</sup>), Cd (1.50±0.02 mg kg<sup>-1</sup>), and Zn (20.90±3.08 mg kg<sup>-1</sup>). The estimated daily intake (EDI), HQ, and CR of the heavy metals through the consumption of the fish were above the recommended limits. Considering the identified non-permissible levels of the heavy metals and potential health risks, it is evident that the fish and water pose health hazards to consumers. Therefore, it is imperative to implement decontamination measures to mitigate these risks and ensure the provision of safe water and fish.

**Keywords:** Catfish (*Clarias gariepinus*), Estimated daily intake (EDI), Hazard quotient (HQ), Heavy metals, Lead (Pb).

## 30 RESPONSE OF SWEET POTATO (*Ipomoea batatas* L.) ECOTYPES TO SWEET POTATO LEAF CURL VIRUS (SPLCV) IN ALIERO, KEBBI STATE, NIGERIA

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#### Abstract:

The experiment was conducted during dry season of 2020/2021 at the Screen House of Kebbi State University of Science and Technology Aliero. (Lat.12°18'17.61'N; Long.4°29'51.371'E; Altitude 268m above sea level) which is located in Sudan Savanna agro-ecological zone of Nigeria. The aim of the study was to evaluate the response of sweet potato (*Ipomea batatas* L.) ecotypes to Sweet Potato Leaf Curl Virus (SPLCV) infection in the study area. The treatment consists of three (3) sweet potato ecotypes namely Dangote, Dangoronyo, and Danmadakali (designated as V<sub>1</sub>, V<sub>2</sub> and V<sub>3</sub>) respectively. The experiment was laid out in Completely Randomized Design (CRD) with three (3) replications. A single diseased-free vine of about thirty (30cm) for each treatment was used. The transplanting was carried out in a plastic pot containing sterilized soil. The leaves of sweet potato infected with Sweet Potato Leaf Curl Disease were mechanically inoculated to the healthy sweet potato plants by the use of carborandum and cotton wool to cause wound to the plants one week after transplanting. Sap-inoculation experiments were conducted mechanically and each treatment comprised of 9 plants for each ecotype giving a total number of 27 inoculated plants. Plants inoculated with buffer alone serves as controls. The efficiency of transmission of SPLCV was determined by visual assessment of the presence of the virus in inoculated plants. The results obtained from the experiment revealed that, all the ecotypes used for the study were Sweet Potato Leaf Curl Virus (SPLCV) infected after inoculation which indicated that all the ecotypes were susceptible to SPLCV infection as none of the ecotype had been recorded with symptoms severity score of one (1-symptoleless) and disease incidence free but Danmadakali has some degree of resistance to SPLCV.

**Keywords:** Sweet potato, Ecotypes, Inoculation, Transmission, SPLCV

### 31 INFLUENCE OF SODIUM (NaCl) AND POTASSIUM CHLORIDES (KCl) CONCENTRATIONS ON GROWTH AND YIELD OF TOMATO (*Solanum lycopersicum* L.) IN KEBBI STATE, NIGERIA

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#### Abstract:

An experiment was conducted at Kebbi State University of Science and Technology, Aliero, Teaching and Research Fadama Farm located at Jega, during 20014/2015 dry season, to assess the effects of different concentrations of salts on growth and yield of tomato. The experiment consists of four treatments including control which were designated as SA<sub>1</sub>=NaCl (5g), SA<sub>2</sub>=NaCl (10g), SB<sub>1</sub>=KCl (5g), SB<sub>2</sub>=KCl (10g) and S<sub>0</sub>= (0g) laid out in Randomized Complete Block Design (RCBD) replicated three times. Data collected on growth parameters encapsulated (Plant height, Number of branch per plant) while yield parameters included (flowering percentage %, Mean fruit diameter, Marketable yield (t ha<sup>-1</sup>) and Total yield t ha<sup>-1</sup>. Data collected were subjected to analysis of variance (ANOVA) and significant difference were separated using least significance difference (LSD) at 5% level of probability. The results on soil nutrients revealed a significant difference before and after the application of the treatments, while growth and yield parameters were statistically the same except on plant height which differed significantly. On plant height at 6WAT, SB<sub>1</sub> treatment recorded the highest value (26.587cm), followed by SA<sub>2</sub> (25.26cm) and S<sub>0</sub> (25.23cm) while SA<sub>1</sub> and SB<sub>1</sub> revealed the lowest values of 21.63cm and 22.847cm, respectively.

**Keywords:** Potassium chloride, Sodium chloride, Plant height, Tomato, leaf length,

### 32 ASSESSMENT OF GARLIC OIL AND BITTER LEAF EXTRACT IN MALARIA MODEL: Plasmodium berghei-INDUCED WISTAR RATS

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#### Abstract:

Anti-*Plasmodium-berghei* activity of garlic oil and bitter leaf ethanol extract in malaria model, "*Plasmodium berghei*"-infected rats was assessed. A total of 24 Wistar rats were randomly distributed into four groups (n =6). The infected rats were treated after *Plasmodium-berghei* inoculation and an infection period of three days, with 140 mg/kgbw of garlic oil (GO), 140 mg/kgbw of bitter leaf ethanol extract (BLEE) and 140 mg/kgbw=t of a standard drug (Lokmal), respectively. I<sub>0</sub> (Group 1) was not infected, Group 2 was infected and treated with GO, Group 3 was infected and treated with BLEE and Group 4 was infected and treated with

a standard drug (Lokmal). *P. berghei* inoculation of the experimental rats was carried out by injecting  $2 \times 10^{-1}$  ml of blood containing approximately  $1.0 \times 10^5$  *P. berghei* per unit, intraperitoneally, into each rat in the infected groups. Antiplasmodial effects of GO and BLEE against standard drug were assessed on *P. berghei*, haemoglobin, packed cell volume (PCV) levels, and body temperature. A reduction in *in-vitro* *P. berghei* count in a concentration-dependent pattern was observed. *In-vivo* studies on haemoglobin (Hb), PCV levels, and temperature change of the experimental rats revealed that treatment with GO, BLEE and standard drug reversed the abnormalities in the selected parameters towards  $I_0$  level, though at a slower rate with GO. The BLEE exhibited a higher antiplasmodial potential, same as with the standard drug than GO. The usage of bitter leaf could be employed in the treatment of malaria, and GO could be used in combination therapy.

**Keywords:** Anti-*Plasmodium berghei*, bitter leaf extract, haemoglobin, malaria

### 33 A REVIEW OF ANTIMICROBIAL AND ANTIBIOTIC RESISTANCE OF KLEBSEILLA PNEUMONIA

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#### Abstract:

Antimicrobial resistance (AMR) is a phenomenon whereby micro-organisms that formerly were susceptible to medicines advance to become less or unresponsive to these treatments, increasing the risk of infection transmission, treatment failure, severity illness which eventually culminates into death. The escalating emergency of antimicrobial resistant (AMR) bacteria has imposed a huge burden on patients and health care systems mainly in low and middle-income countries. Of the gram-negative bacteria, multi-drug resistant *Klebsiella pneumoniae* is still ranked among first priority superbugs causing clinical infections. *K. pneumoniae* is a Gram-negative rod measuring  $2 \mu\text{m}$  by  $0.5 \mu\text{m}$ , encapsulated, non-motile, lactose-fermenting and facultative anaerobic bacterium belonging to the Enterobacteriaceae family. The emergency of AMR in *K. pneumoniae* has been declared by WHO as the greatest threat to global health with a prevalence rate of 80.1%. Escalating AMR bacteria in such hot springs found in developing countries could be due to poor hygienic levels, unsanitary environments and poor sewage management. The pathogenicity exhibited by *K. pneumoniae* has been associated with the presence of a capsule around its cell (K antigen) which protects it from immune invasion by phagocytosis during the course of infection.

**Keywords:** Antimicrobial, antibiotic, resistance and *Klebsiella pneumonia*

*International Research and Development Conference (IRDeC)*

### 34 CLIMATE RISK SCREENING FOR FOOD SECURITY IN KARENGA AND KAPCHESOMBE DISTRICTS, EVIDENCE FOR POLICY, UGANDA

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#### Abstract:

The climate change risk analysis is focused geographically on Karenga and Kapchesombe districts, among communities adjacent to Kidepo Valley and Mount Elgon National Parks respectively. This study identifies the impact of climate change on food security and techniques used by small-scale farmers to adapt to climate change with regard to food needs at households level in the two districts. The effects of climate change and seasonal variability on food security include: decline in crop production, in fodder production; and rainfall variability was pointed out as the major factor affecting households' food security. 74.4 percent of the respondents were able to adapt to addressing challenges related to food shortages through buying less expensive food; having meals for 4 days in a week, and reducing the size of meals in 7 days, and restricting consumption to certain times, but more respondents reported reducing the number of meals. In Karenga, meals were not regular and majority missed critical meals such as breakfast and lunch which was replaced by local brew. The main barriers to food security were: inadequate financial resources, not being knowledgeable, looked at climate change as natural calamity, lack of skills of adaptation, and inadequate labour to produce more food.

**Keywords:** Climate change, Food security, Adaptation, Barriers

### 35 IMPACT OF DROUGHT ON SORGHUM PRODUCTION IN HUDUR DISTRICT, BOKOOL REGION OF SOMALIA

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#### Abstract:

Sub-Saharan Africa (SSA) is ravaged with droughts that contributes to more than 70% of the economic losses. Somalia, a country in SSA, has a semi-arid climate condition and has been faced with huge drought, most of the population depend on rain fed crops. The study sought to investigate the impact of drought on sorghum production in Hudur district, Bokool region, of Somalia. Cross sectional study

design was used and data were collected using structured questionnaire and interviews from 318 and 12 respondents, respectively. The results of this study showed that there was a high prevalence of drought which seriously affected sorghum crop production ( $\chi^2 = -4.605$ ,  $p = 0.040$ ) in Hudur district, Bokool region, of Somalia. This means that the presence of drought in Hudur district has adverse effect on the income generation activities in this district, especially those whose major occupation is farming of sorghum. Therefore, there is a dire need to introduce crops that have less need for water and drought resistant crop varieties.

**Keywords:** *Drought, Somalia, Sorghum, Hudur and Income*

### 36 A REVIEW OF MODELS ON THE IMPACT OF CLIMATE CHANGE ON THE CROP YIELDS

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#### **Abstract:**

Climate change poses substantial threats to global food security, especially in staple crop production. This review examines diverse strategies for modeling the effects of climate change on crop yield. Analyzing a variety of research, it seeks to comprehend complex interactions between changing climate patterns and production outcomes. The drivers of climate change and their impacts on cultivation are elaborated upon. Various modeling techniques used to anticipate yield variations under varying climate conditions are appraised, encompassing crop simulation models that integrate temperature, precipitation, and soil data, as well as statistical models identifying historical yield-climate correlations. Consistent trends across models are identified in the review, underscoring the susceptibility of crops to elevated temperatures, altering precipitation patterns, and extreme weather occurrences. The interplay between biophysical factors and socio-economic variables is explored, highlighting the pivotal role of comprehensive modeling approaches. Existing adaptation strategies for mitigating climate change's adverse effects on crop production are evaluated, encompassing agronomic practices, genetic modifications, and water management strategies. Despite advancements, research gaps are identified, encompassing enhanced spatial resolution in models, an improved grasp of genotype-climate interactions, and the incorporation of socio-economic dynamics into predictions. The review underscores the pivotal role of modeling in forecasting and mitigating the repercussions of climate change on crop yield. Synthesizing existing knowledge furnishes valuable insights for policymakers, researchers, and stakeholders striving

to ensure global food security amidst an evolving climate.

**Keywords:** *Model, Climate Change, Socio-economics and Food Security*

### 37 COMPREHENSIVE REVIEW OF CLIMATE CHANGE EFFECTS ON CROP YIELDS AND MITIGATION STRATEGIES

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#### **Abstract**

The review article comprehensively explores the intricate interplay between climate change and crop yields, emphasizing the heightened vulnerability of agriculture in the face of global climate shifts. The authors present a comprehensive overview of the impacts of climate change on crop growth, development, and overall productivity. The article elucidates how alterations in temperature, precipitation, and extreme weather events have brought about significant changes in agricultural systems. These changes directly influence crop growth and development, leading to varied yield outcomes that are contingent upon factors such as geographical location, crop type, and local agricultural practices. The discussion highlights the accelerated phenological stages of plants due to rising temperatures. This acceleration affects critical phases like flowering, pollination, and ripening, potentially disrupting the synchronization between crop growth and optimal pollination conditions. The exacerbated water stress resulting from elevated temperatures is also emphasized, as it triggers drought conditions that impair crop productivity. Furthermore, the authors delve into the impact of changing precipitation patterns on crop yields. The negative consequences of excessive rainfall, such as waterlogging and soil erosion, are discussed, alongside the detrimental effects of prolonged droughts that can lead to crop failure and reduced yields. The article also addresses the physical damage inflicted on crops by intensified extreme events like hurricanes and heatwaves, underscoring the consequential production losses. The intricate relationship between elevated carbon dioxide (CO<sub>2</sub>) levels and crop yields is examined in the review. The authors explore how increased CO<sub>2</sub> concentrations can potentially enhance photosynthesis and water-use efficiency. However, they emphasize that these benefits are contingent on the availability of other essential resources, such as water and nutrients. Additionally, the review draws attention to the potential decline in nutritional quality of crops under elevated CO<sub>2</sub> levels, with potential implications for both food security and human health. The review offers a range of mitigation

and adaptation strategies to counteract the adverse impacts of climate change on crop yields. These strategies encompass advanced breeding techniques and genetic engineering to develop heat-tolerant and drought-resistant crop varieties. Precision agriculture practices, including enhanced irrigation systems and real-time weather monitoring, are discussed as effective means to optimize resource utilization. The review also highlights the importance of sustainable land management and agroforestry in bolstering soil health and resilience to climate-induced stressors. In conclusion, the article underscores the multifaceted challenges posed by climate change to global food security through its complex influence on crop yields. It emphasizes the necessity of interdisciplinary efforts spanning agriculture, climatology, genetics, and policy-making to effectively address these challenges. By adopting and implementing these strategies while fostering international collaboration, the article remains optimistic about the potential to mitigate the adverse impacts of climate change and secure a sustainable future for global food systems.

**Keywords:** *Climate Change, Crops, phenology and Food Security*

### 38 A REVIEW OF THE EFFECTS OF BIOGAS DIGESTATES ON CROP GROWTH AND YIELD

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#### **Abstract:**

Biogas digestate is a residue obtained after anaerobic digestion (AD) of organic waste in a bio-digester. It is an excellent organic fertilizer because it contains significant amounts of Nitrogen, Potassium and Phosphorus which are important plant nutrients necessary for growth and leaf production. Conversely, mineral fertilizer is problematic because it leads to poor agricultural practices such as monoculture which exhausts the soil of its nutrients and leaves it barren unless more chemical fertilizer is added. Some of the causes of this problem are lack of alternative organic fertilizers and even lack of willingness to practice sustainable agriculture. This paper therefore reviewed the effects of using biogas digestate on crop growth and yield. The methods used involved analysis of secondary data from online sources such as Academia, ResearchGate and ScienceDirect using the keywords “biogas digestate” and “plant growth”. The results show that digestate significantly improves seed germination in rice cultivation. More so, when applied at 3.5kg/m<sup>2</sup> it causes an increase in growth of *Solanum scabrum* (Huckle berry) to a maximum height of 27.5cm between 1-8 weeks compared to control, urea and NPK batches and also causes a higher leaf yield than other batches. This study shows a promising

future for biogas digestate commercialization as a substitute for mineral fertilizers.

**Keywords:** *Biogas, Digestate, Organic fertilizer, Crop growth and Germination.*

## LAW AND GOVERNANCE

### 39 AN EXAMINATION ADEQUACY OF UGANDA'S LEGAL FRAMEWORK ON ADDRESSING COMPENSATION FOR OIL SPILL DAMAGES

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#### **Abstract:**

This study analyzed the legal framework of Uganda in compensating the victims of oil spill pollution caused by the oil and gas industry of Uganda. The researcher applied doctrinal research involving qualitative approaches to the available legal framework including the Constitution, statutes, case law, and legal principles. Its analytical framework was based on equity and deterrence theories with the result that if the gaps in the laws are not quickly addressed the victims of oil spills in Uganda will continually suffer injustice that will turn into an Oil curse with its negative consequences. The researcher depicted gross insufficiencies in the available laws in regard to what and how much compensation should be due to the victims. There is no law on the polluters regarding how much exactly they have to pay for compensation for total economic loss and material loss to private individuals and the public in given situations. The courts have no specific laws to base on in awarding compensation for the victims. There are no alternative dispute settlement policies proposed that can top up insurance claims in case they are inadequate or to expedite compensation claims by avoiding court delays. There is no alternative fund provided in case the claims exceed the available provisions. The following recommendations are proposed; a special supplementary fund financed from contributions of operators, an insurance scheme that widely compensates the victims. A clear and dependable scale for compensation for total economic loss and material loss separately for individuals and public.

**Keywords:** *Oil Spill, Legal Framework, Compensation, Uganda.*

## 40 LEGAL FRAMEWORKS FOR ENCOURAGING RESEARCH, INNOVATION AND TECHNOLOGY TRANSFER IN AFRICA: CHALLENGES AND OPPORTUNITIES

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### Abstract

Africa has been facing significant challenges in its development process, including limited access to research and innovation. However, research, innovation, and technology transfer can play a crucial role in transforming African economies and addressing key developmental challenges. It is therefore essential to have legal frameworks that encourage and facilitate these activities. This paper examines the legal frameworks that exist in Africa for encouraging research, innovation, and technology transfer. It analyses the challenges and opportunities that these legal frameworks present and provides recommendations for how they can be improved. One of the key challenges in Africa is the lack of a comprehensive legal framework for intellectual property protection. This has resulted in a situation where innovative ideas and technology are not adequately protected, leading to limited incentives for research and innovation. Furthermore, there is a lack of clarity on how intellectual property rights can be transferred from one country to another, which has created barriers to technology transfer. Another challenge is the lack of a supportive regulatory environment. The absence of clear and consistent regulations for research and innovation has created uncertainty for investors and entrepreneurs. Additionally, the lack of a regulatory framework to govern technology transfer has resulted in the slow uptake of new technologies in many African countries. The paper suggests that the legal frameworks for research, innovation, and technology transfer need to be improved to address these challenges. This includes the development of comprehensive intellectual property protection laws, the establishment of regulatory frameworks for research and innovation, and the creation of mechanisms for technology transfer. The paper concludes by stating that, legal frameworks play an essential role in encouraging research, innovation, and technology transfer in Africa. Addressing the challenges facing the existing legal frameworks will require a coordinated effort between governments, the private sector, and international organizations. By developing more supportive legal frameworks, African countries can unlock the potential of research, innovation, and technology transfer to drive economic development and address key developmental challenges.

**Keywords:** *Legal Frameworks, Research, Innovation,*

*Technology, Transfer*

## 41 LEGAL PERSPECTIVES ON THE USE OF EMERGING TECHNOLOGIES IN GOVERNANCE IN AFRICA

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### Abstract:

This paper investigates the reception, assimilation, and use of new technologies in selected areas of government and private activities in Africa. The deployment of new technologies has elicited mixed reactions, concerns, results, and presents new challenges for law, order and governance. No doubt, technological breakthroughs have made the world a much better place and opened up new vistas of opportunities. From the invention of computers, smartphones, paperless money, and electronic voting to varieties of virtual transactions, the promise of social transformation is as impressive as the downsides of these innovations are disconcerting. Although, the adoption and penetration of emerging technologies remain promising for now. However, the legal environment within which they operate is misinformed or poorly understood. This paper, through the adoption of doctrinal research methodology, uses some criteria, including digital privacy, e-voting, e-banking, e-court rooms, and counter-terrorism to explore the penetration and regulation of new technologies across selected countries in Africa.

**Keywords:** *Emerging technologies, Governance, Africa, Social transformation, Law.*

## 42 CORPORATE SOCIAL RESPONSIBILITY AS A MECHANISM FOR SOCIO-ECONOMIC DEVELOPMENT IN EMERGING MARKETS: CALL FOR COMPREHENSIVE LEGAL FRAMEWORK

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### Abstract:

The role of companies in promoting socio-economic development in emerging markets such as Nigeria through Corporate Social Responsibility cannot

be over-emphasized. Nigeria is faced with some socio-economic challenges such as unemployment, poverty, insecurity and corruption which contribute to its underdevelopment. Companies like citizens therefore play a critical role in addressing some of these socio-economic challenges. While corporate governance ensures that the company is run effectively with the objective of realizing maximum returns for shareholders, Corporate Social Responsibility enables the company to give back to the host community by providing certain social amenities and job opportunities. This paper employs the doctrinal method to examine the concept of Corporate Governance and the role of Corporate Social Responsibility in Emerging Markets. The objective of this paper is thus to determine whether there is a legal obligation and standard for Corporate social responsibility in Nigeria. This paper argues that although companies in Nigeria play significant role in ensuring Corporate Social Responsibility by providing social amenities to their host communities, there is no legal obligation and standard for Corporate Social Responsibility. It is thus recommended that there is urgent need for government to set the agenda for Corporate Social responsibility in Nigeria by enacting a legislation that will set the standard for Corporate Social responsibility that is in tandem with international best practices.

**Keywords:** *Corporate Governance, Corporate Social Responsibility, Emerging Market.*

### 43 FEMALE EDUCATION IN UGANDA: AN ISLAMIC LAW PERSPECTIVE

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#### **Abstract:**

Shariah is a divine law which emerged with provisions that against women discrimination. The available data illustrate that female net enrollment rates in tertiary institutions lag upon the efforts of the government. The paper examines the primary cause of the lag behind female education in the country. It also looks into traditional norms, poverty, and cultural beliefs, at the core of which are hold-back religious values, that impede female education. After all Islamic principle encourages both men and women to seek knowledge. However, the modern view of women's status in Uganda regards women as members of the family

and society whose task is to remain active in the domestic, social, economic, cultural, educational, and political spheres. It is when women are educated that equality in access to educational opportunities and the attainment of educational qualifications can pave the road to women's participation in the decision-making process in the country. The paper concludes with the finding that educating a woman is as if you educated a nation.

**Keywords:** *Female education, Tertiary institutions, traditional norms and religious values*

### 44 THE REGULATORY REGIME FOR PUBLIC PARTICIPATION IN THE UPSTREAM PETROLEUM SUB-SECTOR IN UGANDA

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#### **Abstract:**

This paper examines the role of public participation in the petroleum industry in Uganda in the context of the regulatory paradigm. It provides an overview of the petroleum industry in Uganda, including key players, legal frameworks, and the impact on citizens and the environment. It also provides an analysis on the role of the public in the petroleum industry, highlighting the opportunities and challenges that arise from their involvement. The paper then examines the various strategies for public participation, for example. public awareness campaigns, consultations, and legal reform, and how they can be used to shape the industry in Uganda. The research will establish that that public participation in the petroleum industry in Uganda is essential in order to ensure sustainable access to resources and secure the well-being of citizens and the environment. Public participation in the petroleum industry in Uganda is regulated by a complex regime. The paper summarizes the regulatory environment in Uganda, showing the different regulatory frameworks applicable to petroleum exploration and production in the upstream sector. It will particularly discuss the roles of the National Petroleum Authority (NPA), Uganda National Oil Company (UNOC) and Petroleum Exploration and Energy Department of (PEPD) of the Ministry of Petroleum and Energy in regulating and enforcing the legal framework. The Government of Uganda has enacted various laws, regulations, and policies that cover all facets of the petroleum industry. The Petroleum Exploration and Production Act, 2013 (PEPA) is the principal legislation that governs exploration and production activities in Uganda. The regulatory regime applicable to public participation in the petroleum industry is primarily determined by the PEPA and related regulations. The Act provides for the enforcement and oversight of this regime by the PEPD, the UNOC and PAU. The PEPD is responsible

for the setting of standards and enforcement of legal requirements in the petroleum industry. The UNOC is the principal regulator of exploration and production activities and has the power to conduct inspections, investigate violations and impose penalties for non-compliance. The PAU's main function is to promote and regulate the production, processing, storage, transportation and distribution of petroleum products in Uganda. Through doctrinal legal analysis of the relevant instruments, this paper will examine the regulatory roles of these institutions in endangering public participation in the sector.

**Keywords:** *Regulatory regime, Petroleum, Public Participation and Enforcement*

## 45 CRIMINAL RECIDIVISTIC TENDENCIES AND THE EFFECTIVENESS OF REFORMATORY PROGRAMMES OF CORRECTIONAL INSTITUTIONS IN NIGERIA

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### Abstract:

In the light of seemingly increasing recidivism rates amongst inmates, this study investigates the effectiveness of reformatory programmes in correctional institutions and the trigger factors of recidivistic tendencies amongst ex-convicts in South-South, Nigeria. The study adopts the descriptive survey design, where the purposive and snowball sampling techniques were further adopted in the administration of the research instruments to the relevant respondents for the study. It draws from Robert Agnew's general strain theory to present an explanation of the act of recidivism amongst ex-convicts. An in-depth interview guide was adopted to serve as the research instruments for eliciting relevant information from the respondents. A total of 43 ex-convicts were utilized as respondents for the study. Findings from the study suggests that although the reformatory programmes of correctional institutions in South-South Nigeria were well designed and structured to achieve criminal reformation, rehabilitation and reintegration; however, factors such as endemic prison subculture, reintegration labelling effects, and employability redundancy of ex-convicts were significantly implicated as the primary causative factors of criminal recidivistic tendencies. Consequently, the study recommends intensive community sensitization and re-orientation via awareness campaigns to facilitate acceptability and reintegration; immediate provision of gainful employment opportunities for ex-convicts; and the adoption of non-custodial sentences as an alternative

to criminal incarceration.

**Keywords:** Recidivism, Reformatory Programmes, Correctional Institutions, Ex-convict.

## 46 RESURGENCE OF MILITARY TAKEOVER IN AFRICA'S SAHEL REGION: IMPLICATIONS FOR DEMOCRACY IN AFRICA

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### Abstract:

For over three decades, coup staging or the forceful overthrow of democratically elected governments, by the Armed Forces, has been seen as an aberration in Africa. Democratic government has, thus, become the accepted form of government that is considered the most suitable in addressing the multidimensional socio-economic problems that beset African states. However, in the past three years, there have been forceful overthrow of democratic political orders in some countries in the Sahel region of Africa. Countries such as Guinea, Burkina Faso, Mali, Chad, the Sudan, Niger and lately, Gabon, have witnessed military putsches resulting in the overthrow of elected presidents. The paper examines this development against the backdrop of its implications for constitutional democracy in the rest of Africa. Anchored on the Failed State Theory, data for the study was generated from both primary and secondary sources. Primary data was generated from key informants through interviews, and secondary data was derived from published materials. The data, so generated was analyzed descriptively in line with the objectives of the study. Findings show an inextricable nexus between France's malevolent post-colonial imperialistic strangle-hold on her former colonies and the resurgence of military takeover in some French speaking African countries. Secondly, leadership failure, especially that presidents in French speaking countries are tied to the apron strings of France, which has led to their inability to address the myriad of socio-economic problems that afflict their citizens. Thirdly, the findings show that mass poverty, poor infrastructural facilities, in spite of rich natural resource endowments of these countries; mass unemployment, etc, are at the core of these military putsches. Fourthly, the inability of the political leadership to organize free, fair and credible elections in some of these countries, leading to discontent among the populace, was found to be one of the reasons for the resurgence of military coups in these African countries. The study recommended that France should loosen her vile grip on her former colonies and allow them a free

rein to operate. Secondly, African leaders must open up the democratic space to allow the people elect their leaders. Also, the sit-tight syndrome, which has become an anathema, should be done away with. Finally, African leaders should prioritize their citizens in the governance of their respective states, so as to address the vexed issues of poverty, unemployment, infrastructural shortfall, health, security, etc.

Keywords: military takeover; democratic governments; Sahel region; Resurgence

## ECONOMICS AND MANAGEMENT

### 47 IMPACT OF FISCAL POLICY ON FOREIGN DIRECT INVESTMENTS INFLOWS IN TANZANIA: 2015 - 2022

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#### Abstract:

This study investigated whether Foreign Direct Investments (FDIs) inflow in Tanzania is significantly influenced by fiscal policy instruments such as Corporate Income Tax rate (CIT) and Government Expenditure (GEX) from 2015 to 2022. The study aimed to examine the causal link between CIT rate and FDIs inflows and GEX and FDIs inflows. The study employed Augmented Dickey-Fuller (ADF) Unit-root test to investigate the stationarity of variables and then utilized Co-integration and Error correction model (ECM) to estimate both short-term and long-term effects of one time series on another. The results show a negative short-run and long-run relationship between CIT, GEX and FDI but, the relationship between CIT and FDI is not significant. Therefore we fail to reject the null hypothesis of the relationship between CIT and FDI because the observed outcome is contrary to the expected results. The study revealed that fiscal policy incentives are not important determinants of FDI inflows. Therefore, the policy options are, the government should rely mostly on non-fiscal policy incentives such as good-quality infrastructure, low administrative costs of setting up and running businesses, political stability, and predictable macroeconomic policy in attracting FDI inflows in Tanzania.

**Keywords:** *Fiscal Policies, Foreign Direct Investments, Corporate Income Tax and Government Expenditure*

### 48 MANAGEMENT STYLES AND PERFORMANCE OF INTERNATIONAL NON-GOVERNMENT ORGANIZATIONS IN KAMPALA UGANDA A CASE STUDY OF CATHOLIC RELIEF SERVICES

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#### Abstract:

The concept of Human Resource Management has gradually replaced the traditional concept of personnel administration. This has necessitated the strategic integration of new management styles into the effective management of the human capital. The effective leader must be a good diagnostician and adapt style to meet the demands of the situation in which they operate. The amount of direction and social backup a manager gives to subordinates depends on their styles to fit the context. International Organizations have been in existence for several years yet the exodus of talent from these organizations reflects an administrative phenomenon where the possibility of leadership, style, situation, and performance criteria have been left to suffocate on their own. As a result, Organization performance has been affected due to lack of proper direction and application of strategic style in managing daily duties. The purpose of this study was to investigate the effect of Management Styles on the performance of International Non- Government Organizations in Kampala Uganda. This was achieved by two objectives; to assess the effect of the Participative/ Democratic Management style on the performance of International Non-Government Organizations in Kampala, Uganda; and to assess the effect of the laissez-faire style of leadership on the performance of International Non-Government Organizations in Kampala, Uganda. The study adopted a mixed methods approach viz; quantitative and qualitative approaches. A sample of 90 (Managers and any other top administration staff) was selected from a population of 400 staff. Structured and unstructured questionnaires were used to collect data from the respondents in addition to structured interviews. The researcher found out that management styles have an effect on organizational performance and if not properly handled, it will affect employee performance which will also affect the overall organizational performance. **Keywords:** *Management styles, Organizational Performance, and Non-Government Organization*

## 49 FOREIGN DIRECT INVESTMENT INFLOW AND ITS DETERMINANTS IN UGANDA FROM 1996 TO 2022

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### Abstract:

Foreign Direct Investments (FDIs) World-wide have been determined by a number of factors which include; Market Size, Quality of Labour Force, FDIs Regulations, Fiscal Policies, Government Expenditure, Political, Social, and Economic Stability of the host country among others. This study examines the relationship between FDIs as a dependent variable and its determinants (Market Size, Human Capital, Country Risk, Domestic Capital Formation and Infrastructural Development) as independent variables in Uganda. Time Series Annual data have been used for the period between 1996 and 2022. The study used Correlation Analysis and Error Correction Model (ECM) to estimate both short-term and long-term effects of one time series on another. Results revealed that there is a positive and significant relationship between Market Size, Domestic Capital Formation, Human Capital and Infrastructural Development and FDIs inflows in Uganda. But the relationship between Country Risk and FDIs is negative. The study suggests the improvement in the Quality of Labour Skills, Infrastructure Development and creation of a conducive investment climate and economic policies that will attract FDIs.

**Keywords:** *Foreign Investments, Market Size, Domestic Capital, Country Risk, Human Capital, Infrastructural Development.*

## 50 THE PLACE OF BUSINESS INCUBATION ON ENTREPRENEURSHIP DEVELOPMENT AMONG MICRO BUSINESSES IN KAMPALA, UGANDA.

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### Abstract:

Business incubation is being viewed by most policy makers as an essential means of arresting the high mortality rate of small and medium-size enterprises. This category of businesses forms over 70% of the entire businesses operating in the country. The adoption of Business incubation is belief to have the capacity to enable competitive enterprises, create

sustainable jobs and as a source of catalyst for national economic growth which brings innovation and creativity. But there is limited evidence on how business incubation has really help micro businesses in Kampala. The paper seeks to determine if most of the micro business owners are aware of the existence of these institutions, if business incubators has impacted on the success of these category of businesses, to examine the challenges faced by these businesses using business incubation theory. The researchers made use of questionnaires to solicit for information from a sample of micro businesses owners in Kampala, Uganda and the data was analyzed using descriptive statistics. The findings showed that most of the respondents are not even aware of the existence of such bodies that can assist them, the few that are aware, have not benefitted from their services. These invariably means most micro businesses are yet to benefit from business incubation concept as a frontier for accelerating entrepreneurship development in the country. It is recommended that the government should step up its enlightenment campaign to educate micro business owners and other classes of businesses on the importance and role of business incubators as a catalyst for development.

**Keywords:** *Business Incubation, Micro businesses, Catalyst for national economic growth, Entrepreneurship.*

## 51 INTRA-AFRICAN TRADE OPENESS AND ECONOMIC GROWTH IN NIGERIA

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### Abstract:

This study examined the impact of intra-African trade openness on Nigeria's economic growth for the period of 1990 to 2021. Real GDP is used as a proxy for economic growth and it is regressed against intra-African imports, intra-African exports, unemployment and openness (a proxy for liberalization) by OLS technique. Intra-African imports and exports had a significant impact on Nigeria's economic growth in the long run and short run respectively. For instance, a 1% change in imports and exports resulted in 20.7units and 76.98units increase in GDP respectively in the long run. In the long run, a 1% change in openness caused a 97units decrease in GDP. The study recommended an increase in Nigeria's intra-African trade if at all and to practice openness especially to help conserve foreign exchange. The Nigeria first mindset (meaning openness which hurts Nigeria must be avoided) must be adopted.

**Keywords:** *Economic Growth, Intra-Africa, Export, Foreign exchange*

## 51 TECHNOLOGICAL INNOVATION, TRADE AND DEVELOPMENT IN AFRICA

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### Abstract

Africa has faced several challenges in terms of harnessing the potential of technological innovation to achieve trade and development. Some of these challenges include poor infrastructure, high cost of technology, skills gap, and weak intellectual property protection. In recent times, Africa has recognized that massive technological development is indispensable for sustainable economic development. Improvement in technology can help to boost trade, increase productivity, create new markets, and enhance Africa's economies towards development. This study empirically examines the effect of technological innovation and international trade on economic development in selected African countries. The selected countries are based on the availability of comprehensive and reliable data. A system generalized method of moments (GMM) is adopted to analyze the dynamic effect of the independent variables on the dependent variable. This technique is superior to other panel data estimation procedures because it enables to correction for endogeneity and ensures the robustness of parameter estimates in the regression. Technological innovation is captured using three proxies, namely, research and development as a percentage of GDP, Intellectual Property Index, and number of patents registered. Trade is measured by utilizing the sum of exports and imports as a percentage of GDP. Two proxies are used to capture development, namely, per capita income and Human Development Index (HDI). These data are collected from the World Bank's World Development Indicator and Intellectual Property Rights Alliance's publication. It is expected that technological innovation will exert a positive and significant effect on trade and development in Africa.

**Keywords:** *Technology, International Trade, Development, Property and Innovation.*

## 52 CAREER PLATEAUGING AND EMPLOYEE PERFORMANCE AMONG MIDDLE MANAGEMENT STAFF IN THE KENYA POWER COMPANY

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### Abstract:

This study established the relationship between career plateauging and employee performance in Kenya

Power Company in Kenya. The study was guided by five objectives, determine; profile of respondents, level of career plateauging, level of employee performance, whether there significant difference in level of career plateauging and employee performance of Kenya Power Company and whether there was significant relationship in the level of career plateauging and employee performance of Kenya Power Company. A descriptive research design was used to collect data from 116 respondents using self administered questionnaires as the main data collection instruments in the four administrative regions of Kenya Power Company. The findings established that there were high level of career plateauging, high level of employee performance, and no significant difference between career plateauging and employee performance and there was no significant relationship between career plateauging and employee performance, accepting the Null hypothesis. Arising from the findings, appropriate conclusions, recommendations, and areas of further research were made. Conclusions were made in line with the purpose of the study; the study concurred with Maslow's (1954) theory of needs which asserts that indeed there are factors influencing career plateauging. The theory of needs, which holds that within every individual, there exists a hierarchy of five needs and that each must be satisfied before an individual pursues the next higher level of need, no significance difference ( $F= 113.34$ ,  $Sig=0.000$ ), significant relationship between career plateauging and employee performance was established ( $r= 0.656$ ,  $sig.0.000$ ) and regression indicated by high adjusted R squared of 66% was established. Recommendations based on findings were that Kenya Power Company; enrich jobs for staff, develop a mentoring program, differentiate between plateauged and permanently stalled staff, develop system of participative / consultative performance review and identify causes of career plateauging. Research on identifying other dimensions of career plateauging and effects of self consolidation as a factor of human resource on employee performance are suggested as areas of further study.

**Keywords:** *Career, Employment, Staff and performance*

## 53 CULTURAL DIVERSITY AND PERFORMANCE OF INTERNATIONAL NON-GOVERNMENT ORGANIZATIONS IN KAMPALA UGANDA: A STUDY OF CATHOLIC RELIEF SERVICES

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## Abstract:

International Non-Government Organizations are still facing low organization performance due to serious obstacles in the world. International Non – Government Organizations still perform poorly. Most International organizations do not live to see their second birthdays and those that live to see them still face performance challenges, yet they perform a significant role in the economy as they employ majority of the population and serve the most vulnerable people in the economy. Managing Cultural diversity is one of the practices underpinning the performance of International Non-Government organizations by providing great potential to survival and prosper. The purpose of this review is to establish the effect of Cultural diversity on the performance of International Non- non-governmental organizations in Kampala Uganda. This was achieved by three objectives; To establish the effect of ethic diversity on performance of International Non-Government Organizations in Kampala Uganda, To determine the effect of Gender diversity and the performance of International Non- Government Organizations in Kampala Uganda and to ascertain the impact of Education diversity on the performance of international Non-Government Organizations in Kampala Uganda. This study adopted mixed methods approaches where quantitative and qualitative approaches guided by research designs a sample of 100(Managers and any other top administration staff) was selected from a population 500 staff. Structured and 1unstructured questionnaires were used to collect date from the respondents plus interviews.

**Keywords:** *Cultural Diversity, Organizational Performance and Non-Government Organization*

## 54 THE EFFECT OF HUMAN RESOURCE MANAGEMENT PRACTICES ON ORGANISATIONAL COMMITMENT AND WORK ENGAGEMENT IN THE UGANDA PUBLIC SERVICE.

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## Abstract:

The study investigated the effect of Human resource management (HRM) practises on employee work engagement and organisational commitment in the Uganda Public Service. The study used a mixed methods study approach to obtain quantitative data via a questionnaire and qualitative data via interviews and focus group discussions. A cross-sectional survey design was used to sample 358 of 3,429 civil

servants deployed by the Ministry of Public Service in six ministries. The HRM practices evaluated included recruitment and selection, training and development, placement, and compensation. Employee engagement was assessed by examining aspects of vigour, dedication, and absorption, while organizational commitment was gauged by considering employees' affective, normative, and continuance commitment. The quantitative data was analysed using the Statistical Package for Social Sciences (SPSS). The study found HRM practices affects employee work engagement and organizational commitment. Training and development, as well as compensation and rewards, emerged as key HRM practices that enhanced employee work engagement and organisational commitment. Monetary compensation and rewards were proven to be better boosters of employee commitment and engagement. The findings underscored the significance of HRM practices, particularly training and development, as well as compensation and rewards, in fostering employee engagement and commitment. The research recommended the government of Uganda, enhance organizational commitment and work engagement by addressing perceived injustices and equality concerns. Additionally, it recommended ensuring fair and competitive compensation for all employees, implementing training and professional development programs, and creating growth opportunities to attract and retain motivated employees within the Uganda Public Service, ultimately enhancing employee productivity and efficiency.

**Keywords:** *Human resource management practices, organizational commitment, work engagement and Statistical Package for Social Sciences (SPSS).*

## 55 A REVIEW OF ECONOMIC IMPLICATIONS OF WASTE MANAGEMENT PRACTICES IN UGANDA

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## Abstract:

This review investigated the economic dimensions of waste management in urban areas, with a focus on Uganda. Urbanization and population growth in Uganda have led to increased waste generation, presenting economic challenges. This research aimed to comprehensively evaluate the economic costs and benefits associated with waste management practices, ultimately contributing to sustainable urban development. The research was based on the Environmental Kuznets Curve (EKC) theory, which posits that environmental degradation initially rises with economic development but declines as societies

adopt eco-friendly practices. Urban and environmental economics concepts informed the study's analysis within an urban context. Data reviewed involved both quantitative and qualitative. The literature reviewed targeted households, waste management agencies, and local businesses, gathering economic data on waste generation, collection, and disposal. In-depth interviews and focus group discussions provided qualitative insights. The findings indicated that inefficient waste management in Uganda incurred significant economic costs, including heightened healthcare expenditures, environmental degradation, and missed opportunities for recycling. In contrast, sustainable waste management alternatives showcased potential economic benefits that could contribute to the city's economic growth. The study's recommendations included modernizing waste management infrastructure, promoting waste reduction and recycling initiatives, implementing policies for sustainable waste management, raising public awareness, and continuous research to monitor economic implications and inform policy adjustments. In conclusion, this review article contributes valuable insights into the economic aspects of waste management in Uganda, guiding policy decisions for sustainable urban development.

**Keywords:** *Waste Management, Recycling, Economics, Uganda*

## 56 EXTERNAL DEBT AND UGANDAN ECONOMY: A VECTOR ERROR CORRECTION MECHANISM

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### Abstract:

The study examined the effect of external debt on economic growth in Uganda, using annual data spanning from 1986 to 2022. The data used were sourced from World Bank Development Indicator (2023). The study employed Vector Error Correction Mechanism as the econometric tool to estimate the model of this study. The Vector Error Correction Mechanism (VECM) results revealed that the coefficient of external debt was non-statistically significant at 5% level; while, public capital investment and exchange rate (EXR) were significant and indirectly related to economic growth. This implies that external loan received in Uganda has not translated to increase in economic growth; while the public

capital investment was not productively utilized and it worsens the economic growth of Uganda. More so, the real depreciation of domestic currency increases export that result into increased in aggregate output. Also, trade openness was significant with a positive link with economic growth which implies that trade liberalization increased aggregate output. Based on these findings, it was concluded that Ugandan economic growth is worsened by the ineffective utilization of external loans on public investment. Therefore, it is recommended that policy makers should ensure the utilization of foreign loan towards productive capital investment and provision of physical infrastructure to enhance aggregate output of Ugandan economy.

**Keywords:** *Economic growth, external debt, public capital investment, exchange rate and trade openness Vector Error Correction Mechanism (VECM)*

## 57 FAMILY BUSINESS IN THE COVID 19 ERA AND PERFORMANCE: A STUDY OF MULTIPLE NUCLEI PATTERN IN KABAROLE DISTRICT, UGANDA

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### Abstract:

The study focuses on family Business in the COVID-19 era and performance: A study of multiple nuclei pattern in Kabarole District, Uganda. Survey research design was used and data were generated through primary and secondary sources. Effect of access to funds, business infrastructure, financial knowledge and organisational culture were evaluated. Survival and growth were measured in terms of profitability, years of existence and family commitment. During the period under review, population of this study were twenty (20) family-owned businesses based in Kabarole District, Uganda. The data was analysed using multiple regression technique applying Statistical Package for Social Sciences (SPSS) software version twenty. The findings reveal that access to funds (loans, financial support from family members, low interest rate on loans and grants) has significant effect on survival and growth. Financial knowledge (use of basic accounting practices, summary of report, proper record keeping and well trained book keeper) and business infrastructure (electricity, good road, portable water supply and security) all had significant impacts on survival and growth and so did organizational culture (values, norms, beliefs and succession plan). We there-

fore recommended that government should ensure increased access to funds for family businesses by creating low interest loans and grants. Management and owners of family businesses should also adopt standard accounting practices, reduce the influence of family members in financial decisions and institute a succession plan sooner than later. Government's provision of adequate business infrastructure such as constant electricity among others will drive down running cost of businesses thereby ensuring their survival and growth of family businesses in the Covid – 19 era.

**Key word:** *Family businesses; Covid -19; multiple nuclei pattern, profitability, commitment.*

## 58 LIQUIDITY MANAGEMENT AND PERFORMANCE OF SMALL MEDIUM ENTERPRISES (SMEs) IN KAMPALA, UGANDA

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### **Abstract:**

This study sought to investigate the effect of Liquidity management on the performance of SMEs in Makindye Division, Kampala - Uganda. Pearson's linear correlation coefficient and regression analysis were conducted to test the hypothesis, and the study adopted quantitative and qualitative approaches with descriptive and cross-sectional survey designs. The study used a respondent sample of 327 SMEs operating in Makindye Division, Kampala - Uganda whose managers and owners/managers were the unit of enquiry. The study confirmed efficient Liquidity management practices improve the performance of SMEs. Policymakers, SMEs owners, academicians and future researchers may use these findings; as they provide a better understanding and deeper insights into Liquidity management practices and present recommendations that in turn bring improvements in the performance of SMEs in Makindye Division, Kampala - Uganda. Hence, to increase the profitability of SMEs in Kampala, Uganda, the study recommended owners and managers of SMEs plan and control Liquidity management efficiently in such a way as to maintain the Liquidity management components at an optimum level to balance the trade-offs between the benefits and costs of short term financing.

**Keywords:** *Liquidity Management, Performance, Small and Medium Enterprises*

# HUMANITIES AND SOCIAL SCIENCES

## 59 THEORY OF CHANGE MODEL IN EVALUATING RESULTS OF DEVELOPMENT PROJECTS IN UGANDA

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### **Abstract:**

The study intended to measure the effectiveness of the theory of change model in evaluating results of development projects with key emphasis on the donor funded projects in Uganda. Theory of change is a theory-based approach to planning, implementing and evaluating change at an individual, organizational or community level. It articulates explicitly how a project or initiative is intended to achieve outcomes through actions, while taking into account its context. In this study, a cross-sectional study design was adopted using both qualitative and quantitative research methods. Purposive sampling technique was used to select respondents from the selected USAID projects. Data analysis involved frequencies, percentages and inferential statistics such as correlations and the coefficient of determination. The study revealed that the theory of change model is a vital tool in evaluating results of USAID projects. Respondents unanimously confirmed that the theory of change tool is useful for strategic planning of developmental projects; the tool is also used for monitoring and evaluation of developmental projects. In conclusion, this is evident in the results of the study that clearly note that the tool can be useful for evaluation of developmental projects. Findings revealed that the theory of change model enables strategic planning, monitoring, evaluation, tracking activities, testing hypothesis, communication, efficiency, effectiveness and building development projects, hence making the tool significantly reliable.

**Keywords:** *Theory of change model, development projects, efficiency, impact and sustainability.*

## 60 INFLUENCE OF FAMILY TYPE, JUVENILE DELINQUENCY AND ADULT CRIMINALITY AMONG UNIVERSITY STUDENTS IN PUBLIC AND PRIVATE UNIVERSITIES IN UGANDA

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**Abstract:**

Families serve as one of the strongest socializing forces in a person's life. They help teach children to control unacceptable behavior, to delay gratification, and to respect the rights of others. Conversely, families can also teach children aggressive, antisocial, and violent behavior. In adults' lives, family responsibilities may provide an important stabilizing force. Given these possibilities, family life may directly contribute to the development of delinquent and criminal tendencies. The research on the influence of family type, juvenile delinquency and adult criminality is important to unearth interventions to adolescents at risk of becoming latent criminals when adults. The following null hypothesis, that children raised in supportive, affectionate, and accepting homes are less likely to become deviant. Children rejected by parents are among the most likely to become delinquent, and that the child's disposition plays a role in this causal chain. A troublesome child or adolescent is more likely to be rejected by parents, which creates an escalating cycle that may lead to delinquency. Results show that, children who come from families with high expectations but low interactions involve in delinquent behaviours and once they are not counseled or corrected at early stage, they are likely to involve in adult criminality. Since then practitioners, policymakers, and researchers have attempted to learn more about the role families play in the delinquent or criminal behavior of their offspring. Experts have developed a multitude of theoretical models and analyses linking family structure and relations to subsequent delinquency and later criminality. Criminologists suggest that a child who grows up in a dysfunctional family may learn aggressive or antisocial behavior; may not be taught to control unacceptable behavior, delay gratification, or respect the rights of others; or may not be adequately supervised to preclude association with antisocial or delinquent peers. As a consequence, they say, the child becomes inadequately socialized and unable to constrain his or her behavior within acceptable boundaries.

**Keywords:** *Family Type, Juvenile Delinquency, Adult Criminality*

## 61 THE CHANGING PATTERNS OF GENDER ROLES AND DEVELOPMENT IN ZARIA LOCAL GOVERNMENT AREAS OF KADUNA STATE, NIGERIA 1999 – 2020

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**Abstract:**

The paper will examine the changing patterns

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of gender roles and development in the eleven administrative units of Kwarbai A, Kwarbai B, Kaura, Anguwan Jumah, Anguwan Bishar, Limancin Kona, Gyallesu, Tudun Wada, Tukur-Tukur, Kufena, Dutsen Abba, Dambo and Wuciciri respectively that constitute Zaria Local Government Area of Kaduna State during the Fourth Republic 1999 – 2020. The paper will examine the roles and contributions of non-governmental organizations and civil-society organizations in the various administrative unit in Zaria through different projects and programmes introduced geared towards reshaping and reorientation the minds of the people and thinking faculty of the community on the importance of involving in partisan politics, economics and social programmes of the state and non-state actors in the development of their respective society. The paper aims to bring to light the massive participation of the population in the different administrative units in Zaria in Political economics and social programmes 1999 – 2020 as a result of the response to the activities of the different civil society organizations operating in their communities in Zaria Local Government Area of Kaduna State, Nigeria. This paper relies on secondary material as well as oral interviews.

**Keywords:** *Gender, roles, development, contribution, programmes, projects.*

## 62 FACTORS ASSOCIATED WITH BANDITRY CRISIS IN ZAMFARA STATE, NORTHWEST, NIGERIA

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**Abstract:**

Nigeria's Northwest is affected by the banditry crisis lingering for many years. This has affected the socioeconomic condition and well-being of the population. The study investigated the factors contributing to the banditry situation in Zamfara State, Nigeria, and its impact on public health. The research aimed to analyze the relationship between social, institutional, and economic factors and banditry from a public health perspective. The study used a quantitative approach, employing structured

questionnaires for data collection from 400 willing respondents between June and August 2023. Multiple regression analysis was used to examine the data, revealing that social, institutional, and economic factors significantly influenced banditry activity in Zamfara State. Recommendations include the establishment of community-based dispute resolution committees, vocational training for former bandits, improved law enforcement collaboration, education campaigns against banditry, and economic empowerment initiatives. These efforts aim to create a safer environment, foster community development, and enhance overall public health outcomes. The study's significance lies in its empirical insights into the elements driving banditry in the region, highlighting the need for a comprehensive approach to addressing public health challenges associated with insecurity and violence. While the study's scope is limited to Zamfara State, its findings can inform broader strategies.

**Keywords:** *Banditry, Insecurity, Economic factors, Well-being, Institutional factors, Social factors*

### 63 NATURE OF TRADITIONAL FORMS OF SOCIAL SOLIDARITY AMONG THE JOPADHOLA

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#### Abstract

The nature of traditional forms of social solidarity among the Jopadhola people, Eastern Uganda constitutes collective responsibility which influences community development. Traditionally, African ethnic groups have got means and ways of collaboration to collectively overcome community development challenges in a bid to achieve community development. Following that there are community development challenges in Uganda, and entirely in the African continent. It is important to bring on board some traditional forms of social solidarity in the community development planning as a way forward for steering development in local communities. There is no way the nation can develop without serious development activities taking place at the grass roots. The nature of traditional forms of solidarity among the Japadhala for examples can be utilized in the implementation community development programmes, thereby making it easy for the government to reach out to the people without employing too much cost and time. This form of development approach is in conformity with the up-ward or bottom –up strategy of carrying out development programs. In a situation where government development programmes are wrongly perceived by the local people could be in terms of political perspectives, there is need to employ community participation and thus giving due respect

and consideration to the nature of traditional forms of social solidarity for that particular community. In anticipation for the success of community development programmes, traditional forms of social solidarity should take priority in overcoming community development challenges. This is because traditional forms of social solidarity have got particular cultural beliefs embedded in them that are strongly being cherished by particular ethnic groupings and could work as the best tool for implementing of development programmes.

**Keywords:** *Traditional, community, social solidarity, community development, development programmes.*

### 64 AUTOMATED DECISION- MAKING AND ARTIFICIAL INTELLIGENCE: THE CONSEQUENCES FOR PUBLIC ADMINISTRATION

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#### Abstract:

Automated Decision-Making Systems (ADMs) and Artificial Intelligence (AI) are increasingly being used by governments to improve the efficiency, effectiveness, and quality of public services and policies. However, the use of ADMs and AI also poses significant challenges and risks to the principles and values of administrative law, such as transparency, accountability, legality, fairness, and human rights. This study explores the complex interplay between Automated Decision-Making Systems (ADMs) and Artificial Intelligence (AI) in the field of public administration and the integration of ADMs and AI technology into administrative procedures is becoming more prevalent as advancements in this field continue to occur. This integration has the potential to significantly alter decision-making paradigms and the significant implications of the integration, including the possibility of improved effectiveness, precision, and decision-making based on data. Nevertheless, the examination also explores the complexities presented by artificial intelligence, including concerns pertaining to transparency, accountability, and the possibility of prejudice. This paper investigates case studies and regulatory frameworks in order to provide valuable insights into the dynamic nature of artificial intelligence (AI) within the realm of public administration.

Furthermore, there is a need to improve the transparency and comprehensibility of algorithmic procedures and results, as well as to establish efficient mechanisms for evaluation and remedy. The article continues to discuss the need for responsible

adoption of Automated Decision-Making Systems (ADMs) and Artificial Intelligence (AI) in the field of public administration and highlights the necessity of developing comprehensive strategies that include the ethical, legal, and societal aspects associated with AI.  
**Keywords:** *Automated Decision-Making, Artificial Intelligence, Public Administration, Administrative Processes and Data-Driven Decision-Making.*

## 65 GENDER EQUALITY AND REPRESENTATION OF FEMALE RAP ARTISTS IN NORTH-WEST NIGERIA

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### Abstract:

The conservative nature of the North-West society of Nigeria regarding gender roles has curtailed the participation of women in many aspects of society, including communication. This study investigated the gender equality and representation of female rap artists of North-West Nigeria in the music industry and the society at large. The aim of the study was to find out the level of access of female artists to participatory communication in their society. The female gender are marginalized and discriminated against in many aspects of their lives, so the researcher wanted to discover whether they have a stake in the development of their society through participatory communication. The study was guided by the following research objectives: To determine whether there is adequate representation of Hausa female rap artists in the music industry, and to determine whether Hausa female rap artists have equal access to opportunities as male rap artists. The study applied the feminist communication theory as the theoretical framework. This theory argues that women are often excluded from communication processes and that this can have a negative impact on their participation in society. The study found that there is inadequate representation of Hausa female rap artists in the music industry. However, the study also found that female rap artists are using their music to challenge gender norms and empower women. Hence the study concludes that more needs to be done to promote gender equality and representation in the North-West Nigerian rap scene.

**Keywords:** *Gender, Participatory communication, Development, Rap artist, Gender discrimination, Social justice, Empowerment*

## 66 ENTREPRENEURSHIP AND GENDER DISPARITY: BREAKING BARRIERS FOR INCLUSIVITY IN AFRICA VIA NEW COMMUNICATION AND INFORMATION TECHNOLOGIES

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### Abstract

Entrepreneurship embodies the fusion of art and science, entailing the discernment of opportunities, resource orchestration, and deliberate risk-taking in the pursuit of pioneering solutions. It manifests as the transformation of conceptualizations into tangible realities, catalyzing paradigm shifts within industries through novel products, services, or business paradigms. Entrepreneurship plays a pivotal role in dismantling the preconceived confines of gender roles, offering an inclusive platform for individuals of all genders to venture into diverse domains and vocations. In parallel, inclusivity stands as a foundational pillar upon which a just and harmonious society is constructed. Conventional gender stereotypes are steadily receding into obsolescence, facilitated by technology's leveling effect, which extends equal opportunities to individuals, transcending gender, age, geographical boundaries, and ethnic backgrounds. This study delves into the premise that entrepreneurship is inherently agender, spotlighting women entrepreneurs not only in the world but particularly in Nigeria. These astute entrepreneurs adeptly harness their entrepreneurial, information, and communication competencies to carve out niches in their respective domains. These competencies serve as their instruments of empowerment, erasing the notion of gender superiority in today's global landscape. This research employs a conceptual and exploratory approach, drawing insights from personal observations, experiential knowledge, and secondary sources. It ardently advocates for universal access to equitable opportunities in a fiercely competitive global arena, thereby enabling individuals from all walks of life to contribute meaningfully to the pursuit of sustainable development.

**Keywords:** *Entrepreneurship, gender, communication, information technologies, sustainable development*

## 67 CULTURAL DIVERSITY AND PROMOTION OF NATIONAL UNITY IN NOLLYWOOD'S FILMS: UP NORTH IN PERSPECTIVE

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### Abstract:

This study examines the impact of Nollywood movies in promoting National unity using the movie *Up North* (dir. Tope Oshin, 2018) as a case study. Movies as medium of communication are influential tool that can address national unity. Like other media of communication, movies can shape behaviors negatively or positively, which is achieved through the texts, images and portrayals of characters that make up the content of the movie. The study used Thematic Content Analysis Method to generate primary data. Findings have established that *Up North*, is among the Nollywood films that have potentials of promoting Nigeria's cultural values, uniting people of diverse religion and culture and also creating employment and building the talents of the youth. This could be achieved through its narrations of stories that focus on peaceful coexistence of Nigeria's population. Other positive portrayals in the film include stories that criticizes corruption, stories on good governance, stories that frowns against religion and cultural stereotypes and many others. The study, based on its findings, recommends that the National Film and Video Censors Board (NFVCB) should be more rigorous in scrutinizing films before they are sent out for viewing by the larger audience. Scriptwriters should also try to be mindful of Nigeria's diversity and culture when writing a piece of script for filming.

**Keywords:** *National Unity, Nollywood, Development, culture*

## 68 ACCESSING THE DETERMINANTS OF SUCCESSFUL PROJECT MANAGEMENT IMPLEMENTATION OF TETFUND-SPONSORED PROJECTS IN THE SOUTH-EAST, NIGERIA (2011-2021)

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### Abstract:

Infrastructure in Tertiary Education is as essential as the knowledge gained from the teaching and learning process in Tertiary Institutions. This is so because, one of the facilities that aids the teaching and learning process is majorly the infrastructure. Tertiary Education in Nigeria over the years has suffered and is still suffering various challenges, one of which is infrastructural decays as well as deficits and insufficiency of requisite infrastructure for both professional and National University Commission (NUC) accreditation. one of the major challenges encountered in the implementation of TETFund-Sponsored Projects is the lack of appropriate implementation of project management and the non-integration of the services of the professional project manager in various TETFund Intervention Projects. The implication of this has led to unsuccessful delivery of TETFund-Sponsored Projects. The quantitative research method was applied for this research work. Documented records of Annual Intervention Projects in 10 public beneficiary universities in South-East Nigeria were obtained for this research. From this result obtained and analyzed, this study concludes that all the identified factors are determinants of successful project management with mean ratings above 2.5 The grand mean rating was 2.9 which is also above the criterion mean. Hypothesis testing revealed the value of the t-statistics (0.049) to be below 0.05; hence we reject the null hypothesis and conclude that there is no significant relationship between the variables of completed within time, not completed within time, completed but delayed, not completed yet behind schedule

**Keywords:** *Determinants, Implementation, Infrastructure, Project, Management.*

## 69 CONFLICT MANAGEMENT MECHANISM IN AFRICA: A CRITICAL ANALYSES OF UGANDA'S INVOLVEMENT IN THE CONFLICT OF DEMOCRATIC REPUBLIC OF CONGO

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### Abstract:

Africa as a continent has been affected by several conflicts. Some of them have been classified as protracted conflicts. In East Africa, the conflict in DRC has been the deadliest one with regards to loss of lives and properties. The conflict in DRC has devastating and painful effects which included but not limited to displacements, loss of innocent lives and destruction of infrastructures. Uganda being one of the neighboring countries to the DRC, there are roles that Uganda has undertaken towards the resolution of the conflict. The persistent occurrence

of conflicts in Africa warrants the existence of a mechanism aimed at resolving conflicts by application of different measures. African Union has developed mechanisms within its system to deal with conflict in its members by involving its member states. African Union under certain circumstances triggers regional cooperation bodies to be involved in the resolution of the conflicts in terms of peace initiatives, military forces etc. Uganda, which is the case of this paper has been involving in the resolution of the conflict in DRC. The paper seeks to critically analyze the involvement of Uganda by making reference to the mandate given by mechanisms developed by African Union and East African Community.

**Keywords:** *DRC, Conflict, Uganda, East African Community*

## 70 THE RELATIONSHIP BETWEEN DECENTRALIZATION AND SERVICE QUALITY IN BWERA DISTRICT LOCAL GOVERNMENT HOSPITAL; KASESE DISTRICT.

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### Abstract:

This study aims to investigate the relationship between decentralization and service quality in Bwera District Hospital. The study is guided by three major objectives namely: to explore the relationship between fiscal decentralization and service quality in Bwera District Hospital; to examine the relationship between political decentralization and service quality in Bwera District Hospital and To determine the relationship between fiscal decentralization and service quality in Bwera District Hospital. The target population of this study was the health workers of Bwera District Hospital. The simple random technique was used to reach at the sample. The researcher used the closed open questionnaires in order to investigate the relationship between decentralization and service quality in Bwera District Hospital. The questionnaire was designed to collect quantitative data. The analysis of the data was done using the Statistical Package of Social Sciences (SPSS) as it offers comprehensive and extensive data handling capacity. The findings of the study conclude that: fiscal decentralization has improved service quality in Bwera District Hospital; political decentralization

has empowered community members on matters of improving service quality in Bwera District Hospital and; administrative decentralization has a significant influence on improvement of service quality in Bwera District Hospital. The recommendations of the study states that: there is need for more debate and bargain on the degree of balanced distribution of fiscal resources among different districts of the country. Local governments should control their own-source revenues sufficient to allow some discretion in matching the needs of citizens and the taxes paid. It is also recommended that government of Uganda in partnership with its agencies should ensure to build capacity at lower levels of the communities through better intergovernmental transfers.

**Keywords:** *Decentralization, Service Quality, Bwera , Hospital and Kasese District*

## 71 STRATEGIC LEADERSHIP: A KEY TO ORGANIZATIONAL EFFECTIVENESS AND IMPROVEMENT

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### Abstract:

Strategic leadership plays a very critical role in promoting effectiveness and organizational development through the execution of strategy at the organization. Its role stirs commitment among people within the organization to embrace change and implement strategies intended to achieve the strategic vision. This paper examines strategic leadership by looking at its principles, the necessary skills and character needed by a strategic leader to galvanize support and necessary things needed to organizational effectiveness and improvement. The paper used purely qualitative desk research of literature documents in analyzing strategic leadership. The paper concludes that leaders must craft a strategy to put that vision into action. The strategy should map out the steps an organization needs to take or the changes it needs to make in order to get from its current state to its desired state.

**Keywords:** *Strategic leadership, principles, skills, character and organizational effectiveness*

## 72 RISK MITIGATION STRATEGIES AND GENDER BASED VIOLENCE IN KWEEN DISTRICT PUBLIC SECONDARY SCHOOLS, UGANDA

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### Abstract:

This study examined the effect of school management risk mitigation strategies on gender-based violence in public secondary schools in Kween district, Uganda. The study was based on the cross-sectional research design and the population of the study consisted of students, teachers, and head teachers in public secondary schools in Kween district. Data was collected using a questionnaire survey and interview on a sample of 255 respondents. The sample techniques used were census inquiry and simple random. Quantitative data was analyzed using descriptive statistics: frequencies, percentages, and means, and inferential analyses included linear regression. The findings indicated that school management risk mitigation strategies (mean = 3.34), sexual harassment against girls (mean = 3.31), physical violence against girls (mean = 3.34) and rape against girls (mean = 3.44). Regression analysis revealed that school management risk mitigation strategies ( $\beta = 0.389$ ,  $t = 6.461$ ,  $p = 0.000 < 0.05$ ) have a positive and significant effect on sexual harassment against girls. Also, school management risk mitigation strategies ( $\beta = 0.408$ ,  $t = 6.828$ ,  $p = 0.000 < 0.05$ ) have a positive and significant effect on rape against girls and school management risk mitigation strategies ( $\beta = 0.245$ ,  $t = 3.858$ ,  $p = 0.000 < 0.05$ ) has a positive and significant effect on physical violence against girls. Therefore, it was concluded that school management risk mitigation strategies are essential in addressing gender-based violence in schools. Thus, it was recommended that schools and different stakeholders should exercise school management risk mitigation strategies to minimize gender-based violence against girls in schools.

**Keywords:** *Gender, Violence, Risk, stakeholder and Girls*

## 73 SOCIO-ECONOMIC AND DEMOGRAPHIC FACTORS ON WELFARE AMONG HOUSEHOLDS OF BUNGOKHO SUBCOUNTY IN MBALE DISTRICT, EASTERN UGANDA

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### Abstract:

The study investigated the effects of Socio-Economic and Demographic Factors on Welfare among

households of Bungokho Subcounty in Mbale District, Eastern Uganda. The specific objectives were (i) to examine the effect of socio-economic factors on welfare among households in Bungokho Sub-County, Mbale district, (ii) to establish effect of demographic factors on welfare among households in Bungokho Sub-County, Mbale District and (iii) to examine the effect of mediating factors such as policy implementations, investment climate on welfare among households in Bungokho Sub-County, Mbale-District. Based on a descriptive research design data was collected from a sample of 184 households using self-administered questionnaire. Possession score index was used to evaluate and estimate the household welfare. Data was processed and analyzed with the aid of Statistical Package for Social Sciences and STATA software using frequency counts, ANOVA and regression. Main findings of the study showed that welfare in the Bungokho Subcounty was associated with gender, education level, marital status and employment of the Households. The study also revealed that female headed households were found to have poor welfare than males. Married household heads had good welfare as compared to other classifications. Household heads below 35 years and 45 years and above had poor welfare. Household heads who were employed, such as civil servants, had a better welfare than the peasant and casual workers' households. Household heads who had attained higher levels of education with degrees and diploma, were found to have good welfare as compared to other levels like certificates and household heads who did not attend any school. Factors such as occupation of household and Gender were statistically significant at 5% level (sig. value < 0.05). However, most of other factors like household age, marital status, education level and household size were statistically insignificant at 5% level (sig. values > 0.05) to determine welfare level of the households in Bungokho subcounty. The study recommended that there is the need to design policy strategies that would increase welfare in the Subcounty through investment in education, monitoring and evaluation of major government programmes; provide budget planning assistance, accessibility of credit finance to households and creation of employment. This result implies that the Ugandan government must accelerate and improve the development of rural areas, especially in less developed regions like Bungokho subcounty Mbale district. Thus, a better rural development status would attract more opportunities to grow rural economic activities and improve the community welfare. Key words. Socio-Economic and Demographic Factors, Welfare of households, Bungokho Subcounty, Mbale District, Eastern Uganda

**Keywords:** *Welfare, Household, Mbale, Demographic and employment*

## 74 AN INVESTIGATION OF THE ROLE OF REGULATORY GOVERNANCE ON SERVICE QUALITY IN BWERA DISTRICT HOSPITAL, KASESE DISTRICT OF WESTERN UGANDA

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### Abstract:

The purpose of the study was to investigate the role of regulatory governance on service quality in Bwera District Hospital. The major objectives of the study include: to determine the relationship between rule of law and service quality in Bwera District Hospital ; to identify the relationship between voice and accountability on service quality in Bwera District Hospital and ; to assess the relationship between government effectiveness and service quality in Bwera District Hospital . The target population was the health workers of Bwera District Hospital. The researcher collected data using closed ended questionnaires. Quantitative data was collected from the questionnaires sent to the field. The researcher used the statistical package for social sciences (SPSS) to analyze data. The findings from the study concluded that: the rule of law, voice and accountability and government effectiveness has some laxity. The recommendations are: the rule of law, voice and accountability and government effectiveness should be more vigilant in ushering a new era of responsibility that improves service quality in Bwera District Hospital.

**Keywords:** *An Investigation of the Role of Regulatory Governance on Service Quality in Bwera District Hospital, Kasese District of Western Uganda.*

## 75 EXPLORING THE IMPLICATIONS OF THE LAND CONFLICTS ON THE ECONOMIC DEVELOPMENT OF KASESE DISTRICT

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### Abstract:

This paper examines the relationship between land conflicts and socioeconomic progress. The research focuses mostly on how land disputes affect Kasese district's economic growth. The author agrees that a number of land disputes have consistently hindered the Kasese district's ability to maintain peace, stability, and economic growth. The author's reviews of various publications lend credence to this viewpoint. The amount of poverty in Kasese, which is 55.2%, makes it one of Uganda's worst regions, according to the literature assessment. Therefore, the never-ending land disputes have hampered sustainable environmental usage, diverted people's energy and time away from developing efforts, and resulted in several deaths of the physically fit who could support development, to name a few. As a result, recognizing this problem and finding a solution may benefit from a careful review of the land issue. In order to address this land issue sustainably, the article finally makes several suggestions.

**Keywords:** *Exploring, Implications, Land, Conflicts, Economic development and Kasese District*

## 76 COMPENSATION MANAGEMENT AND EMPLOYEE PERFORMANCE:

Nalunkuma Milly

### Abstract:

Effective compensation management is a crucial determinant of employee performance and organizational success. This study explores the intricate relationship between compensation strategies and performance outcomes, underscoring the value of a well-structured compensation framework comprising both financial and non-financial incentives. Such a framework not only motivates employees but also amplifies job satisfaction, resulting in enhanced performance. The study investigates diverse compensation models like performance-based pay, bonuses, benefits, and recognition programs, analyzing their impact on employee engagement and productivity. Challenges faced by organizations in designing equitable compensation systems aligned with individual and collective goals are also discussed. Drawing on recent research and real-world examples, the article emphasizes the necessity for comprehensive compensation strategies that attract top talent, foster high performance, and facilitate continuous growth. Employing a mixed-methods approach, the research delves into the intricate interplay between compensation management strategies and their effect on employee performance in modern organizations. It integrates a comprehensive literature review with empirical analysis of industry-diverse data. The study establishes a conceptual framework by synthesizing theories and models from the literature, followed by a

quantitative survey targeting employees across various organizational levels and qualitative interviews with HR managers. Findings spotlight the critical role of compensation management in influencing performance and engagement, linking performance-based incentives like variable pay and bonuses to heightened individual and team performance. Moreover, non-monetary aspects like recognition programs and career development significantly contribute to job satisfaction and motivation, advocating a tailored compensation approach for diverse employee segments. Recommendations emanating from the research advise a balanced mix of monetary and non-monetary rewards, transparent communication of compensation decisions, real-time feedback in performance assessments, and adaptable compensation strategies. In conclusion, this study underscores the pivotal connection between compensation management and employee performance, offering practical insights for leveraging compensation strategies to elevate engagement, motivation, and overall performance.

**Keywords:** *Compensation management, Employee Performance, Incentives and Organization*

## 77 EDUCATION ATTAINMENT AND WOMEN ENTREPRENEURSHIP IN BUNYORO SUB-REGION, UGANDA

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**Abstract:** This study investigated the nexus between education attainment and women's entrepreneurship in Bunyoro sub-region, Uganda. The study examined the influence of education attainment on women's engagement in entrepreneurial activities. The study hinged on human capital theory, and adopted descriptive and correlation research designs, using mixed methods approach. From a target population of 1,025,038 women, a sample of four hundred (400) respondents was derived using Slovene's formula. Choice of respondents was by stratified random and purposive sampling techniques. Data collection methods were questionnaire survey, interviews and Focus Group Discussions while data collection tools included questionnaire, interview guide and focused group discussion guide. At a response rate of 91.5%, 364 questionnaires were used to collect quantitative data. Qualitative data were elicited from 25 key informants and analyzed using content analysis while quantitative data were analyzed using descriptive statistics comprising means, standard deviation, and inferential statistics. Findings revealed that aggregatedly, education attainment was significantly

correlated with women's entrepreneurship, which invariably enhances their economic empowerment with a prediction power of 28.2%. Conclusively, the null hypothesis that there is no significant influence of education attainment on women's entrepreneurship was rejected while the alternate hypothesis that education attainment significantly influences women's entrepreneurship was accepted. The study recommended that government should establish a special fund for women's education, District Land Commissions of inquiry, and extend affirmative action to lower levels of education. The study made contextual, conceptual and theoretical contributions to knowledge and suggests investigation into other determinants of women's empowerment in Uganda.

**Keywords:** *Education, Entrepreneurship, Women and Bunyoro Sub-region.*

## EDUCATION

### 78 AFROCENTRIC, EDUCATION, ENTREPRENEURSHIP AND ECONOMIC EMPOWERMENT IN AFRICAN COMMUNITIES

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**Abstract:**

This review examines the complex interaction between Afrocentric education and its contribution to the growth of entrepreneurship and economic empowerment in African communities. Deeply based in cultural heritage, historical awareness, and communal values, Afrocentric education has evolved as a dynamic educational paradigm with significant implications for the continent of Africa's economic independence and prosperity. Afrocentric education is seen as a revolutionary force that has the power to promote sustainable economic growth, give people and communities more power, and reawaken a feeling of cultural pride and identity throughout the African continent. This paper therefore, traverses the complicated issues surrounding the implementation of Afrocentric education. In the context of this review, resource limitations, quality assurance, socioeconomic inequities and fair access to Afrocentric education and its contribution to the advancement of social inclusion and gender equality shall be highlighted. Policy issues which are calling for curricular revision, career development, and community projects, that adhere to its tenets shall also be discussed. Afrocentric education is the key factor in determining a better economic future for African communities through

teamwork, creative thinking, and evidence-based policymaking.

**Keywords:** *Afrocentric education, entrepreneurship, economic empowerment, African communities, policy issues.*

## 79 EFFECT OF FLIP TEACHING APPROACH ON COLLEGE OF EDUCATION STUDENTS' INTEREST AND ACHIEVEMENT IN ORDINARY DIFFERENTIAL EQUATION IN SOUTH-SOUTH GEO-POLITICAL ZONE, NIGERIA

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### Abstract:

The study investigated effect of flip teaching approach on College of Education students' interest and achievement in Ordinary Differential Equation (ODE) in South-South Geo-Political Zone, Nigeria. Two research questions and two hypotheses guided the study which adopted pretest posttest non-equivalent group quasi-experimental design. The sample comprised 78 NCE III students in 2 intact and control classes drawn using purposive sampling technique. Data were gathered using ODE Interest Scale (ODEIS) and ODE Achievement Test (ODEAT) whose reliability indices were 0.75 and 0.73 obtained using Cronbach Alpha and Kuder-Richardson-20 methods. Mean and standard deviation were used to answer the research questions while ANCOVA was used to test the hypotheses at .05 level of significant. Results showed that flip teaching approach had a significantly positive effect on students' interest and achievement in Ordinary Differential Equation than traditional teaching approach. It was thus recommended that flip teaching approach should be used in the teaching and learning of Ordinary Differential Equation in College of education.

**Keywords:** *Flip teaching approach, Interest, Achievement, Ordinary Differential Equation*

## 80 DETERMINATION OF THE EXTENT TO WHICH PEOPLE'S ATTITUDE INFLUENCES SOLID WASTE MANAGEMENT IN CROSS RIVER STATE, NIGERIA

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### Abstract:

This paper examined the determination of people's attitude on Solid Waste Management in Cross River State, Nigeria. To achieve the purpose of this study, one hypothesis was formulated to guide the study. Literature review was carried out accordingly. Survey research design was adopted for the study. A sample of one thousand, one hundred and six (1,106) respondents were randomly selected from a population of 6,923 for the study. The sample was selected through stratified, simple random sampling and accidental sampling techniques. The questionnaire was the instrument used for data collection titled determination of people's attitude on Solid Waste Management Questionnaire (DPAXWM). The questionnaire was validated by two experts in Measurement and Evaluation and one from the Department of Continuing Education and Development Studies. The reliability estimate of the instrument was established through split half reliability method. Independent t-test, was the statistical techniques employed to test the hypothesis under study. The hypothesis was tested at .05 level of significance. The result of the study indicated that, attitude significantly influences solid waste management. Based on the findings of the study it was recommended that there should be urgent re-introduction of the bi-monthly or monthly environmental sanitation programme and proper awareness should be created on the dangers of indiscriminate waste disposal methods adopted by the residents of Cross river state. Above all, the state government should also provide waste management facilities to enable residents properly dispose of the waste to enhance their health safety.

**Keywords:** *Determination, Attitude, Solid Waste, Waste Management, Cross River State.*

## 81 A REVIEW OF HEAD TEACHERS' LEADERSHIP STYLES AND BURNOUT OF TEACHERS

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### Abstract:

All parties involved in the education industry should be concerned about the problem of teacher burnout since it interferes with their ability to think clearly, makes them feel helpless, and causes them to withdraw psychologically. In the majority of countries,

burnout is a significant problem among educators and is recognized as a significant factor in absences, staff turnover, decreased productivity and job contentment, poor physical and mental health, and problematic interpersonal connections. Additionally, it is widely acknowledged that head teachers' leadership beliefs can help reduce educator burnout, however it is uncertain whether some views are more effective than others at achieving this. This paper examined the research on burnout and head teachers' leadership philosophies to ascertain the relationship between the two elements. Journal articles and dissertations were among the associated literature that the researcher looked for using search engines including ProQuest, Google Scholar, and Connected Papers. According to the evaluation, additional research needs to be done on the leadership styles of head teachers and teacher burnout in order to fill the many gaps that have been found. In order to address the high levels of teacher burnout in the area, the researcher suggests conducting an empirical study on head teachers' leadership styles and burnout in secondary schools in Ibanda Municipality, Ibanda District, Uganda. To date, no such study has been conducted on the two variables in the region.

**Keywords:** *Head Teachers' leadership styles, burnout, teachers*

## 82 THE INEFFICIENCY OF STUDENTS' READING AND COMPREHENSION SKILLS AND THE WAY FORWARD AMONG ENGLISH LANGUAGE STUDENTS IN SELECTED DEPARTMENTS IN ADAMAWA STATE POLYTECHNIC, YOLA NIGERIA

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### Abstract:

The study investigated the Inefficiency of Students' Reading and Comprehension Skills among English language students in selected departments in Adamawa State Polytechnic, Yola Nigeria. The two selected departments are Diploma in English Language Education and Diploma in Business Administration and Management. Indeed, the ability to read efficiently in English is deemed an important skill to be acquired for academic, business and other purposes. In Nigeria, English is a compulsory subject in all schools. However, some students in Nigerian tertiary institutions, especially those in Nigeria are unaware of or do not have effective strategies to comprehend English reading materials. The objective of the study investigated the inefficiency of Students' Reading and Comprehension Skills and The Way Forward in Adamawa State Polytechnic, Yola. The underlying theory for this research is Schema

theory. More so, to achieve this objective, the study looked at what the SQ3R method for reading texts and the benefits of using it. Experimental technique was employed as a design of the study. Then the purposive sampling was used to select the two departments and simple random sampling technique was also used to determine the sample size of the study. The target population of this study was 200 on the basis of 100 students from each department. The sample size of this study was 114 respondents obtained by using the Sloven's formula. To get the sample size for each department, 114 were divided by 2= 57. The instrument used for the exercise was an extract from their recommended Diploma 1 English textbook (Understanding Use of English for Schools and Colleges). The reading topic is, 'BRIDE PRICE'. Besides, a 5 -point liker scale was designed by the researcher to extract data from the respondents. The finding of the study revealed that both students performed poorly before the intervention with SQ3R method of teaching reading. After the intervention, the performance improved significantly. More efforts should be made to improve reading for better comprehension. The Study recommends i) that teachers of English language should equip themselves with effective reading strategies and to master the SQ3R method of teaching reading at all levels of learning before embarking on the task. ii) head of departments of the tertiary institution across the state and the country at large should encourage the use of appropriate reading materials for their students; and iii) government should ensure that, the teachers attain rigorous training after every two years and recruitment agency should ensure that those to be recruited are professional in their various disciplines. More so, the National Board of Technical Education (NBTE) should ensure that appropriate curriculum have been designed and reviewed after every five years; so as to enable the polytechnic grandaunts to have the capability of confronting challenges in the labour market after graduation.

**Keywords:** *Reading, Comprehension, Inefficiency, SQR3, Reading proficiency, Schema theory.*

## 83 BEYOND RHETORIC AND IDEALISM: PROPELLING A PRAGMATIC AND SUSTAINABLE TOURISM INDUSTRY IN NIGERIA. APPLICATION TO INDUSTRIAL LABOUR STUDIES

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### Abstract:

Tourism has emancipated the economies of many nations in the world. This article which is opinion based is reasoning why tourism should be rhetoric instead of being idealistic in spite of the natural endowment of tourist sites in Nigeria. The article is of the view that if proper management, development and trained manpower is put in place, tourism would become a sustainable industry in Nigeria that will earn the country a reasonable capital that will promote comparative advantage in terms of foreign exchange

**Keywords:** *Tourism, sites, comparative advantages, economic driver, sustainable, industry.*

## 84 DELPHA TECHNIQUE FOR REFINING OF SCIENCE LESSONS, ACTIVITIES AND LOCAL RESOURCES FOR THE DEVELOPMENT OF SCIENCE MODULE FOR NIGERIAN SENIOR SECONDARY II FEMALE STUDENTS

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### Abstract:

This article outlines how topics and related activities based upon elements related to interest and anxiety for Nigerian senior secondary school two (SS II) science textbooks were identified, which was part of greater study conducted which was aimed to ascertain the elements and contents related interest and anxiety in science learning of SS II science curriculum in Nigeria. First, initial list of the elements, topics related activities and local materials related to interest and anxiety was identified. Second, using this list and a framework for relevancy and not relevancy of the elements, topics and related activities and local materials for SS II science Curriculum and School Textbooks were analysed. Third, based on this content analysis, a possible list of 40 different topics and their related activities for the inclusion of elements related to interest and anxiety was arranged. The list of the elements, topics related activities and local materials were refined by applying two-round Expert consensus which has been considered consistent in Delphi technique. The Expert's consensus survey technique was employed to reach the level of consensus from the experts in the field of science education regarding the suitability of the items of the study (that is elements topics related activities and local materials in the SS II Nigerian science textbooks) that need to be included. The results showed that of the element and 6 topics and related activities were 22 statements with options of "Yes" and "No" the higher percentages (%) of the experts responded "Yes" for round one. The

results also indicated that of 24 statements for the suitability of the topics and related activities there are higher percentages (%) of "Yes". This confirmed that the topics their related activities and local community learning materials could be included in the development of the Science Education module for Nigerian SS II female Students.

**Keywords:** *Delphi Technique, Science Lessons, Activities, Local Resources, Female Students*

## 85 THE EFFECT OF LEADERSHIP COMPETENCE AND ADMINISTRATIVE LEADERS IN HIGHER EDUCATION

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### Abstract:

Situational leadership style is more directly linked to leadership effectiveness, according to research from universities and other global settings. Following is a study of situational leadership theories by Hersey, Blanchard, and Yetton-Vroom. According to Hersey and Blanchard, effective academic leaders use the four leadership modes of "telling, selling, participating, and delegating". These techniques must be used in consideration of the followers' ability and preparedness to perform their obligations. The evaluation also showed that academic leaders need to have a specific set of abilities and assume specific duties in order to lead effectively. In conclusion, effective academic leaders were selected with the appropriate backgrounds and positions. Additionally, they employed several leadership philosophies according to the situation. Designing organized programs for leadership development is essential if strong academic leadership is to be ensured. The study's goal is to analyze existing research on leadership abilities and administrative leaders in higher education institutions around the globe. With the advent of web-based providers like Science Direct, Web of Science, Emerald, Google Scholar, Scopus, Springer, Education Resources Information Centre (ERIC), Taylor and Francis, the researcher heavily relied on ProQuest to accomplish this. To find published articles in social science, management education with relation to leadership competencies, and administrative leaders in higher education, all databases were searched. The results of the review revealed that change management in the actual world had a number of problems. Overall, the results of the interviews indicate that administrative executives struggle to adopt new methods of doing their duties when it comes to change management.

In addition, the administrative leadership finds it difficult to resolve conflicts by utilizing the positive parts of conflict. Administrative executives deal with prioritizing in order to make the best decisions.

**Keywords:** *Leadership, Competences, Administrative, Higher Education*

## 86 FEMALE SECONDARY SCHOOL STUDENTS' REACTION TOWARDS LEARNING SCIENCE RELATED TO INTEREST AND ANXIETY: THE EFFECT OF SCIENCE MODULE

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### Abstract:

Over the past decade, science has been recognised as a critical area for the upon which the scientific and technological progress depends. As a result, there has been enormous research in this area. By providing a means that can be used to boost teaching and learning where students will become more interested and less anxious at different levels. Particularly to stimulate female students to be more interested and less anxious in learning science at different levels. This paper is part of a more critical study conducted. It presents an avenue (Module) by which the secondary school female students' reaction towards learning science can be changed to a better one through active involvement during the science lessons. Six different lessons from a developed module were taught to the students by a trained female teacher. Also, students acted the role play activities for all the related lessons. The lessons and play role activities were carried out in the science laboratory of Government Girls' Day Secondary School Shinkafi Zamfara State, Nigeria, where the more prominent study was conducted. The lessons in the module are designed using Gagne's nine events of instruction. The six lessons taught to the female students in the module include; Alimentary canal and digestion of food in Humans; Application of lenses and plane mirror; Nutrient cycling in nature (water cycle); Pollution (Water pollution); Natural and treated water; Water (Hardness of water). The data were qualitatively collected using interviews and observations. The data was audiotaped, videotaped and writing notes. The data were transcribed, coded and themed emerged. The results show that female students' reaction to learning science about interest and anxiety has changed. For future research for using this means and make female students more interested in learning science were recommended. This study is essential in enhancing the interests lessen the anxiety of female students in learning science at the secondary school level so that they can

have better results and get a chance to be admitted to tertiary institutions to study different scientific fields in the future.

**Keywords:** *Anxiety to Fun, Science Module, Female Students.*

## 87 A REVIEW OF SCIENCE AND MATHEMATICS EDUCATION RESEARCH ON GENDER FROM 2008-2015: A NIGERIAN PERSPECTIVE

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### Abstract:

This study was aimed at exploring the research conducted in Nigeria in science and mathematics education which mainly concern on gender. We choose eight years published articles from 2008 to 2015. The areas of emphases were on pinpointing five science and mathematics education: chronological distributed; areas of research; type of participant; research design; method of data collection and finally the sources of data for the reviewed articles. We choose different journals articles published on the website based on the discussion of the original authors in science and mathematics education. The findings sum up the essential logical coherence of science and mathematics education literature in the three areas of science, mathematics and science and mathematics education disciplines for the whole years. Finally, the findings were briefly discussed.

**Keywords:** *Science education, Mathematics Education, Science and Mathematics, Gender and Review*

## 88 ORGANIZATIONAL STRUCTURE AND ACADEMIC STAFF PERFORMANCES IN PRIVATE UNIVERSITIES IN UGANDA

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### Abstract:

The decision to organize and restructure institutions have become crucial due to dynamics of the Academic environment in private Universities. Organizational structure is the most important structural choice a leader must make as it establishes the formal categorization, coordination, and division of work duties in an organization, The authors assert that the organizational structure and level of employees dedication among academic staff members are very

crucial. The decision to organize and restructure institutions has become crucial due to the dynamics of the academic environment in private universities. Organizational structure is the most important structural choice a leader must make as it establishes the formal categorization, coordination, and division of work duties in an organization. The authors assert that the organizational structure and level of employee's dedication among academic staff members are very crucial. The study is aimed at reviewing literature on organizational structure and academic staff performance in private universities in Western Uganda. In order to achieve this, the researcher used ProQuest significantly with the appearance of web-based providers which includes: Science Direct; Web of Science; Emerald; Google Scholar; Scopus, Springer; Education Resources Information Centre (ERIC), Tylor and Francis. All the databases were scanned to retrieve the published articles in social science, management education with regard to Organizational structure and academic staff performance in private universities in Uganda. I used a computer laptop and internet gadgets and downloaded 100 articles and some journals related to the research topic under review. Review findings indicate that organizational boundaries and hierarchical layers have a substantial impact on academic staff performance and promote dedication among academic staff members in universities. It was also found that organizational structure and service delivery are positively correlated. On the basis of the literature reviewed, empirical evidence shows that organizational structure has a significant impact on academic staff performance in private universities in Uganda.

**Keywords:** *Organizational structure, academic staff performance, private universities*

## 89 AFROCENTRIC EDUCATION AND SUSTAINABLE DEVELOPMENT

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### **Abstract:**

AFROCENTRIC EDUCATION AND SUSTAINABLE DEVELOPMENT Eutyclus Ngotho Gichuru College Of Education And External Studies Makerere University P.O Box 7062, Kampala, Uganda [ngothogichuru@gmail.com](mailto:ngothogichuru@gmail.com) +254795449960 Abstract Afrocentric education and sustainable development are two concepts that are intertwined and emphasize the value of African ancestry, culture, and knowledge in accomplishing sustainable development goals. Here's a summary of both concepts and how they interact: Cultural Preservation: Afrocentric education

is critical for maintaining and celebrating African cultural history, which is a necessary component of long-term development. Cultural variety strengthens communities' resilience and increases their ability to adapt to change. Afrocentric education fosters social equity by providing marginalized populations with information and a feeling of self. This is consistent with the goal of eliminating inequities, which is an important part of sustainable development. Environmental Awareness: An Afrocentric education that incorporates a study of traditional African ecological knowledge helps create a greater appreciation for the environment and the implementation of sustainable behaviors. Global Citizenship: Afrocentric education and sustainable development both encourage global citizenship and a sense of responsibility for people and the planet's well-being, emphasizing the interdependence of all communities. Finally, cultural preservation, social fairness, environmental awareness, and global cooperation are all shared aims of Afrocentric education and sustainable development. There is potential for increased inclusivity and cultural richness in the quest of sustainable development by incorporating Afrocentric viewpoints into educational systems.

**Keywords:** *Cultural Preservation, Social Equity, Environmental Awareness, Global Citizenship*

## 90 EDUCATION COMMUNITIES: FOSTERING ENGAGEMENT AND COLLABORATION THROUGH CONTEMPORARY INSTRUCTIONAL PEDAGOGY

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### **Abstract:**

In the ever-evolving landscape of education, the role of community and collaboration has gained unprecedented significance. This abstract presents an innovative exploration of "education communities" as a contemporary instructional pedagogy that capitalizes on the principles of collaboration, inquiry, and inclusivity. Grounded in the dynamic interactions between learners, educators, and diverse stakeholders, this pedagogical paradigm redefines traditional classroom boundaries to cultivate an environment where active participation and shared responsibility for learning flourish. Education communities are built upon a foundation of collaborative learning strategies, inquiry-based approaches, and seamless integration of technology. Through interactive group activities, students delve into open-ended questions and harness digital tools to facilitate communication and resource exchange. Project-based learning initiatives provide students with the opportunity to

apply acquired knowledge to real-world scenarios, stimulating creativity and honing problem-solving abilities. This pedagogy extends beyond the confines of the classroom, embracing parents, experts, and local organizations to enrich learning experiences and establish tangible connections between academia and reality. Learners are encouraged to shape their educational journeys, define personalized goals, and engage in reflective practices. The incorporation of peer feedback and self-assessment mechanisms fosters metacognition and skill refinement. The inclusive nature of education communities ensures that diverse perspectives are celebrated, promoting an environment where every student's voice is valued. This contemporary pedagogy yields a multitude of benefits. Students experience heightened engagement and motivation as they collaborate with peers, cultivating a sense of ownership and belonging. Critical thinking and problem-solving skills flourish as students tackle intricate challenges and real-world complexities.

**Keywords:** *Education communities, Pedagogy, Learners, Educators, Collaborative learning*

## 91 IMMIGRATION AND BRAIN DRAIN EDUCATION

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### **Abstract:**

When it comes to education and the worldwide mobility of people, immigration and brain drain are two closely related but often competing notions. Positive Impact: Immigration can benefit education in the receiving country. Skilled immigrants, such as teachers, professors, and researchers, can benefit the educational system by providing new viewpoints, information, and expertise. They may also fill gaps in labor markets, such as those in education. Immigration frequently results in a more diversified student body, which can enrich the educational experience by exposing pupils to other cultures, languages, and views. This variety has the potential to promote tolerance, understanding, and global consciousness. Problems: Managing immigration in education can be difficult. It takes resources to accommodate, support, and integrate immigrant pupils into the educational system. Language difficulties and cultural differences might also be problematic. The exodus of highly trained and educated persons from one country to another, frequently to pursue better opportunities or living conditions, is referred to as brain drain. This problem has the potential to have a substantial impact on the country's education sector, which is losing talent. Brain drain can have a negative impact

on the education system in the country of origin. When highly educated persons, such as professors, researchers, and educators, move for better chances abroad, schools, colleges, and research institutes may face a scarcity of trained employees.

**Keywords:** *Scarcity, Labor Market, Expertise, Immigration, and Brain drain*

## 92 PARTICIPATORY COMMUNICATION: HOW PARTICIPATORY IS PARTICIPATORY?

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### **Abstract:**

In participatory communication, the degree of participation lies on a continuum that is largely determined by the power holder. This paper points out key areas in the implementation process of a participatory development communication (PDC) initiative that took place between Uganda's national banana researchers, and banana farmers, with funding from IDRC. This is in a bid to task readers to ascertain how participatory was the participatory communication between the national banana researchers, and banana farmers. PDC is a ten-step process that mobilizes communities to take part in their development by involving them in joint identification of an objective, and in implementing, monitoring and evaluating activities all aimed at achieving the identified objective. The banana researchers resorted to PDC after their dissatisfaction at the low rate of farmers' uptake and sustained utilization of researched banana information. IDRC facilitated NARO banana researchers to employ participatory development communication with the hope of improving both natural resource and banana management. The objective of the initiative was to try out a participatory communication methodology that promised to result in small scale farmers' sustainable adoption of researched banana information and technologies. Researchers later reported that the PDC initiative had led to achievement of the initiative's objectives. In conclusion, the paper proposes that considering the kaleidoscopic nature of participatory communication, there is need for guidelines to be explicitly specified regarding its implementation, so as to prevent its negative or positive manipulation. Key words: Participatory Communication, researchers, banana farmers

**Keywords:** *Participatory, Communication, Development, Information and Banana*

## 93 ADVANTAGES AND DISADVANTAGES OF FUNDING RESEARCH IN EDUCATION MANAGEMENT AND ADMINISTRATION

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### Abstract:

Pedagogy is important in educational administration and management because it informs the concepts and practices that guide teaching and learning in educational institutions. Education administrators and managers are responsible for cultivating a climate conducive to effective pedagogy, ensuring that students obtain a high-quality education. Here are some significant pedagogical aspects in educational administration and management: Curriculum Development: Education administrators and managers are involved in the design and implementation of curriculum that adhere to pedagogical principles and educational objectives. They collaborate with

educators to determine the best curriculum, teaching methods, and evaluation procedures. Administrators encourage teacher development by offering chances for training and professional development. Workshops, seminars, and continuing coaching are available to help teachers enhance their pedagogical skills. Effective administrators serve as role models for effective pedagogical practices and give instructional guidance to instructors. They set high standards for high-quality teaching and assist teachers in meeting those standards. Administrators employ pedagogical ideas to build assessment instruments and procedures that accurately measure student development. They also evaluate data to find areas for improvement and alter educational tactics as appropriate. Creating a good and inclusive learning environment is an important part of administration and management education. Administrators are responsible for making ensuring that schools are secure, welcoming, and conducive to learning.

**Keywords:** Curriculum Development, Professional Development, Assessment Instruments, Data Evaluation

## Next Year's Conference Date, October 2024

## KIU ACADEMIC PROGRAMMES - AT MAIN CAMPUS

PROGRAMME	COURSE DURATION
<b>COLLEGE OF ECONOMICS AND MANAGEMENT</b>	
National Certificate in Business Administration	2 Years
National Certificate in Procurement and Logistics Management	2 Years
National Certificate in Secretarial and Office Management	2 Years
Diploma in Business Administration	2 Years
Diploma in Tourism and Hotel Management	2 Years
Diploma in Human Resource Management	2 Years
Diploma in Procurement & logistics Management	2 Years
Diploma in Secretarial Studies	2 Years
Bachelor of Business Administration	3 Years
<b>Areas of Specialisation: a) Finance &amp; Banking b) Accounting &amp; Finance c) Marketing</b>	
Bachelor of Arts in Economics	3 Years
Bachelor of Entrepreneurship & Business Management	3 Years
Bachelor of Economics and Applied Statistics	3 Years
Bachelor of Tourism and Hotel Management	3 Years
Bachelor of Human Resource Management	3 Years
Bachelor of Procurement & logistics Management	3 Years
Bachelor of International Business Administration	3 Years
Bachelor of Business Computing	3 Years
Postgraduate Diploma in Human Resource Management	1 Year
Postgraduate Diploma in Business Administration	1 Year
Postgraduate Diploma in Project Planning and Management	1 Year
Master of Arts in Economic Policy and Planning	2 Years
Master of Business Administration	2 Years
<b>Areas of Specialisation: a) Finance &amp; Banking b) Finance &amp; Accounting c) Human Resource Management d) Information Technology e) International Business Management f) Marketing g) NGO Management h) Supplies &amp; Management i) Management</b>	
Master of Arts in Human Resource Management	2 Years
Master of Arts in Economics	2 Years

Master of Arts in Project Planning & Management	2 Years
PhD in Economics (by Course Work and Research)	4 Years
PhD Management Science in Business Management	3 Years
<b>Areas of Specialisation:</b>	
<b>a) International Business b) Finance and Accounting</b>	
<b>COLLEGE OF HUMANITIES AND SOCIAL SCIENCES</b>	
National Certificate in Public Administration	2 Years
National certificate in Guidance and counselling	2 Years
National Certificate in Journalism and Media Studies	2 Years
Diploma in Mass Communication	2 Years
Diploma in Counselling and Guidance	2 Years
Diploma in Development Studies	2 Years
Diploma in Public Administration	2 Years
Diploma in International Relations and Diplomatic Studies	2 Years
Diploma in Social and Community Development	2 Years
Diploma in Social Work and Social Administration	2 Years
Bachelor of Arts in Mass Communication	3 Years
Bachelor of Development Studies	3 Years
Bachelor of Arts in Public Administration	3 Years
Bachelor of Arts in International Relations & Diplomatic Studies	3 Years
Bachelor of Counseling Psychology	3 Years
Bachelor of Social Work & Social Administration	3 Years
Bachelor of Social and Community Development	3 Years
Postgraduate Diploma in Public Administration	1 Year
Postgraduate Diploma in Development Studies	1 Year
Master of Arts in Conflict Resolution and Peace Building	2 Years
Master of Arts in Counseling Psychology	2 Years
Master of Arts in Development Studies	2 Years
Master of Arts in Human Rights and Development	2 Years
Master of Arts in Public Administration	2 Years
Master of Arts in Social Work and Social Administration	2 Years
Masters in International Relations and Diplomatic Studies	2 Years
Master of Science in Mass Communication	2 Years
PhD in Counselling Psychology	3 Years

## THE LEADING PRIVATE UNIVERSITY IN UGANDA

PhD in Conflict Resolution and Peace Building	3 Years
PhD Management Science in Public Management	3 Years
PhD in Development Studies	3 Years

**SCHOOL OF DIGITAL, DISTANCE AND E-LEARNING**  
(Tuition fees is paid per trimester) i.e 3 times in a year)

Diploma in Business Administration	2 Years
Diploma in Commerce	2 Years
Diploma in Development Studies	2 Years
Diploma in Human Resource Management	2 Years
Diploma in Supplies and Procurement Management	2 Years
Diploma in Public Administration	2 Years
Bachelor of Business Administration	4 Years
Bachelor of Development Studies	4 Years
Bachelor of Guidance and Counselling	4 Years
Bachelor of Human Resource Management	4 Years
Bachelor of Arts in Public Administration	4 Years
Bachelor of Supplies and Procurement Management	4 Years
Bachelor of Commerce	4 Years
Postgraduate Diploma in Business Administration	1 Year
Postgraduate Diploma in Public Administration	1 Year
Master in Business Administration:	2 Years
<b>Areas of Specialisation: a) Finance &amp; Banking b) Finance &amp; Accounting c) Human Resource Management d) Information Technology e) International Business f) Management g) Marketing h) NGO Management i) Supplies &amp; Management</b>	
Master in Educational Administration and Management	2 Years
Master of Arts in Human Rights and Development	2 Years
Master of Arts in Conflict Resolution and Peace Building	2 Years
Master of Arts in History	2 Years
Master of Arts in Public Administration	2 Years
Master of International Relations and Diplomatic Studies	2 Years

**COLLEGE OF EDUCATION**

Diploma in Primary Education (Inservice)	2 Years
Bachelor of Arts with Education	3 Years
Bachelor of Arts with Education - Fine Art	3 Years
Bachelor of Science with Education	3 Years
Bachelor of Computer Science with Education	3 Years
Bachelor of Education in Special Needs Education(Inservice)	2 Years
Bachelor of Education in Special Needs Education (Regular)	3 Years
Bachelor of Education Arts Primary (Inservice)	2 Years
Bachelor of Education Science Primary (Inservice)	2 Years
Bachelor of Education in Early Childhood and Primary Education (Inservice)	2 Years
Bachelor of Education Arts Secondary (Inservice)	2 Years
Bachelor of Education Science Secondary (Inservice)	2 Years
Postgraduate Diploma in Education	1 Year
Postgraduate Diploma in Educational Management & Administration	1 Year
Master of Arts in English	2 Years
Master of Arts in Geography	2 Years
Master of Arts in History	2 Years
Master of Arts in Linguistics	2 Years
Master of Science in Biology	2 Years
Master of Education in Early Childhood	2 Years
Master of Education in Educational Administration and Management	2 Years
Master of Education in Special Needs Education	2 Years
PhD Management Science in Educational Management	3 Years

**Areas of Specialisation:**

a) Education Administration b) Educational Planning

**SCHOOL OF LAW**

Diploma in Law	2 Years
Bachelor of Laws - Weekend	4½ Years
Bachelor of Laws (Day&Evening)	4 Years
Master of Laws in Commercial Law	2 Years
Master of Laws in Criminal Law and Criminology	2 Years
Master of Laws General	2 Years
Master of Laws in Natural Resources	2 Years
Master of Laws in Public International Law	2 Years
Master of Laws in International Economic and Trade	2 Years
Master of Laws in Banking and Financial Services	2 Years
Master of Laws in Intellectual Property	2 Years
PhD in Law	3 Years

**SCHOOL OF MATHEMATICS & COMPUTING**

National Certificate in Information Communication Technology	2 Years
National Certificate in Library and Information Science	2 Years
Diploma in Computer Science	2 Years
Diploma in Library and Information Science	2 Years
Diploma in Information Technology	2 Years
Bachelor of Science in Statistics	3 Years
Bachelor of Computer Science	3 Years
Bachelor of Information Technology	3 Years
Bachelor of Library and Information Science	3 Years
Bachelor of Science in Mathematics	3 Years
Postgraduate Diploma in Computer Science	1 Year

Master of Science in Information Technology	2 Years
Master of Science in Information Systems	2 Years
Master of Science in Computer Science	2 Years
Master of Science in Software Engineering	2 Years
Master of Science in Statistics	2 Years
Master of Science in Mathematics	2 Years
<b>Areas of Specialisation: a) Applied Mathematics b) Pure Mathematics</b>	
PhD Management Science in Information Systems	3 Years
PhD in Computer Science	3 Years
PhD in Information Technology	3 Years
PhD in Mathematics	3 Years
PhD in Applied Statistics	3 Years

**SCHOOL OF NATURAL AND APPLIED SCIENCES**

Diploma in Environmental Management	2 Years
Bachelor of Science in Environmental Management	3 Years
Bachelor of Science in Wildlife Management & Conservation Management	3 Years
Bachelor of Science in Industrial Chemistry	3 Years
Bachelor of Science in Chemistry	3 Years
Bachelor of Science in Physics	3 Years
Master of Science in Chemistry	2 Years
Master of Science in Conservation Biology & Wildlife Management	2 Years
Master of Science in Environmental Management	2 Years
Master of Science in Physics	2 Years
PhD in Environmental Science	3 Years
PhD in Physics	3 Years
PhD in Chemistry	3 Years

**SCHOOL OF ENGINEERING SCIENCES - Upcoming Academic Programmes**

Bachelor of Science in Telecommunication Engineering	<b>Ordinary Diploma</b>
	3 Years
Bachelor of Science in Electrical Engineering	3 Years
Bachelor of Science in Mechanical Engineering	3 Years
Bachelor of Science in Civil Engineering	3 Years
Bachelor of Science in Computer Engineering	3 Years
Bachelor of Science in Telecommunication Engineering	<b>Higher Diploma</b>
	2½ Years
Bachelor of Science in Electrical Engineering	2½ Years
Bachelor of Science in Mechanical Engineering	2½ Years
Bachelor of Science in Civil Engineering	2½ Years
Bachelor of Science in Computer Engineering	2½ Years

**SCHOOL OF HEALTH SCIENCES**

Bachelor of Public Health	4 Years
Master of Public Health	2 Years
PhD in Public Health (by Research)	3 Years

**AT WESTERN CAMPUS**

PROGRAMME	COURSE DURATION
<b>FACULTY OF CLINICAL MEDICINE AND DENTISTRY</b>	
Bachelor of Medicine and Bachelor of Surgery	5½ Years
Bachelor of Dental Surgery	5½ Years
Master of Medicine in Internal Medicine	3 Years
Master of Medicine in Psychiatry	3 Years
Master of Medicine in Surgery	3 Years
Master of Medicine in Obstetrics and Gynecology	3 Years
Master of Medicine in Paediatrics and Child Health	3 Years
<b>UPCOMING ACADEMIC PROGRAMMES</b>	
Masters of Medicine in Radiology	3 Years
Master of Medicine in Orthopedic Surgery	4 Years
Master of Medicine in Ophthalmology	3 Years
Master of Medicine in Otorhinolaryngology (ENT)	3 Years
Masters of Medicine in Emergency Medicine	3 Years
Master of Medicine in Anaesthesia and Critical Care	3 Years
Masters of Medicine in Pathology	3 Years
<b>FACULTY OF BIOMEDICAL SCIENCES</b>	
Bachelor of Science in Microbiology	3½ Years
Bachelor of Science in Physiology	3½ Years
Bachelor of Science in Anatomy	3½ Years
Bachelor of Science in Biochemistry	3½ Years
Master of Science in Microbiology	2 Years
Master of Science in Physiology	2 Years
Master of Science in Anatomy	2 Years
Master of Science in Biochemistry	2 Years
PhD in Microbiology (by Research)	3 Years
PhD in Physiology (by Research)	3 Years
PhD in Anatomy (by Research)	3 Years
PhD in Biochemistry (by Research)	3 Years
<b>SCHOOL OF ALLIED HEALTH SCIENCES</b>	
Diploma in Clinical Medicine & Community Health	3 Years
Diploma in Medical Laboratory Technology	3 Years
Bachelor of Medical Laboratory Science (Direct)	4½ Years
Bachelor of Medical Laboratory Science(Extension)	3 Years
Bachelor of Clinical Medicine and Community Health (Direct)	4½ Years
Master of Medical Laboratory Science	2 Years
Master of Public Health	2 Years
PhD in Public Health (by Research)	3 Years
<b>UPCOMING ACADEMIC PROGRAMMES</b>	
Diploma in Radiography	3 Years

Diploma in Dental Surgery	3 Years	Masters in International Relations and Diplomatic Studies	2 Years
Diploma in Medical Radiography	3 Years	Master of Science in Mass Communication	2 Years
Diploma in Physiotherapy	3 Years	Master of Business Administration	2 Years
Bachelor of Science in Medical Radiography and Imaging Technology	4 ½ Years	<b>Areas of Specialisation:</b> a) Finance & Banking b) Finance & Accounting c) Human Resource Management d) Information Technology e) International Business Management f) Marketing g) NGO Management h) Supplies & Management	
Master of Science in Medical Imaging	2 Years	Master of Arts in Human Resource Management	2 Years
<b>SCHOOL OF NURSING SCIENCES</b>			
Certificate in General Nursing	2½ Years	Master of Arts in Economics	2 Years
Certificate in Midwifery	2½ Years	Master of Arts in Project Planning & Management	2 Years
Diploma in Midwifery (Extension)	1½ Years	PhD in Economics (by Course Work and Research)	4 Years
Diploma in Nursing Sciences (Direct)	3 Years	PhD Management Science in Business Management	3 Years
Diploma in Nursing Sciences (Extension)	1½ Years	<b>Areas of Specialisation:</b>	
Bachelor of Nursing Sciences (Direct)	4 Years	a) International Business b) Finance and Accounting	
Bachelor of Nursing Sciences (Extension) - Weekend	3 Years	PhD in Counselling Psychology	3 Years
Master of Nursing Sciences	2 Years	PhD in Conflict Resolution and Peace Building	3 Years
<b>SCHOOL OF PHARMACY</b>			
Diploma in Pharmacy	3 Years	PhD Management Science in Public Management	3 Years
Bachelor of Pharmacy	4½ Years	PhD in Development Studies	3 Years
Bachelor of Science in Pharmacology	3½ Years	<b>FACULTY OF SCIENCE AND TECHNOLOGY</b>	
Master of Science in Pharmacology	2 Years	Diploma in Computer Science	2 Years
Master of Science in Pharmaceutical Analysis & Quality Control	2 Years	Diploma in Information Technology	2 Years
Master of Pharmacy in Pharmaceutics	2 Years	Bachelor of Information Technology	3 Years
PhD in Pharmacology (by Research)	3 Years	Bachelor of Computer Science	3 Years
PhD in Pharmacy (by Research)	3 Years	Master of Science in Information Technology	2 Years
<b>FACULTY OF EDUCATION</b>			
Diploma in Secondary Education (Arts)	2 Years	Master of Science in Information Systems	2 Years
Bachelor of Arts with Education	3 Years	Master of Computer Science	2 Years
Bachelor of Arts with Education (Fine Art)	3 Years	<b>SCHOOL OF LAW (UPCOMING)</b>	
Bachelor of Science with Education	3 Years	Diploma in Law	2 Years
Bachelor of Education in Special Needs Education (Inservice)	2 Years	Bachelor of Laws	4 ½ Years
Bachelor of Education Arts Primary (Inservice)	2 Years	<b>SCHOOL OF ENGINEERING SCIENCES</b>	
Bachelor of Education Science Primary (Inservice)	2 Years	Diploma in Civil Engineering	2 Years
Bachelor of Education Arts Secondary (Inservice)	2 Years	Diploma in Electrical Engineering	2 Years
Bachelor of Education Science Secondary (Inservice)	2 Years	Diploma in Mechanical Engineering	2 Years
Bachelor of Education in Early Childhood and Primary Education (Inservice)	2 Years	Diploma in Telecommunication Engineering	2 Years
Bachelor of Education with Guidance and Counseling (Inservice)	2 Years	Bachelor of Science in Telecommunication Engineering	4 Years
Postgraduate Diploma in Education	1 Year	Bachelor of Science in Electrical Engineering	4 Years
Postgraduate Diploma in Educational Management and Administration	1 Year	Bachelor of Science in Mechanical Engineering	4 Years
Master of Education in Educational Management and Administration	2 Years	Bachelor of Science in Civil Engineering	4 Years
Master of Science in Pure Mathematics	2 Years	Bachelor of Science in Computer Engineering	4 Years
Master of Science in Applied Mathematics	2 Years	Postgraduate Diploma in Civil Engineering	1 Year
Master of Science in Chemistry	2 Years	<b>Areas of Specialisation:</b>	
<b>FACULTY OF BUSINESS AND MANAGEMENT</b>			
National Certificate in Business Administration	2 Years	a) Construction Management b) Environmental Engineering c) Water Resources Engineering d) Structural Engineering e) Transportation Engineering f) Geotechnical Engineering	
National Certificate in Procurement and logistics Management	2 Years	Postgraduate Diploma in Electrical Engineering	1 Year
National Certificate in Secretarial and Office Management	2 Years	Postgraduate Diploma in Mechanical Engineering	1 Year
National Certificate in Public Administration	2 Years	Master of Science in Renewable Energy	2 Years
National certificate in Guidance and counselling	2 Years	a) Photovoltaics and Solar Thermal Energy b) Bio-Energy Technology	
National Certificate in Journalism and Media Studies	2 Years	Master of Science in Electrical Engineering	2 Years
Diploma in Business Administration	2 Years	<b>Areas of Specialisation:</b> a) Power Systems Engineering b) Energy Systems Engineering c) Renewable Energy	
Diploma in Tourism and Hotel Management	2 Years	Master of Science in Civil Engineering	2 Years
Diploma in Human Resource Management	2 Years	<b>Areas of Specialisation:</b>	
Diploma in Supplies and Procurement Management	2 Years	a) Construction Management b) Environmental Engineering c) Water Resources Engineering d) Structural Engineering e) Transportation Engineering f) Geotechnical Engineering	
Diploma in Secretarial Studies	2 Years	Master of Science in Mechanical Engineering	2 Years
Diploma in Mass Communication	2 Years	<b>Areas of Specialisation:</b> a) Mechanical Engineering (General) b) Industrial Engineering c) Renewable Energy	
Diploma in Counselling and Guidance	2 Years	Master of Science in Telecommunications Engineering	2 Years
Diploma in Development Studies	2 Years	PhD in Renewable Energy	3 Years
Diploma in Public Administration	2 Years	PhD in Civil Engineering	3 Years
Diploma in International Relations and Diplomatic Studies	2 Years	PhD in Mechanical Engineering	3 Years
Diploma in Social and Community Development	2 Years	PhD in Electrical and Electronics Engineering	3 Years
Diploma in Social Work and Social Administration	2 Years	PhD in Telecommunications Engineering	3 Years
Bachelor of Business Administration	3 Years	PhD by Research; a) Engineering b) Architecture c) Surveying	3 Years
<b>Areas of Specialisation:</b> a) Finance & Banking b) Accounting & Finance c) Marketing d) International Business		<b>UPCOMING ACADEMIC PROGRAMMES</b>	
Bachelor of Arts in Economics	3 Years	Diploma in Automotive Engineering	2 Years
Bachelor of Entrepreneurship & Small Business Management	3 Years	Bachelor of Science in Manufacturing Systems Engineering	4 Years
Bachelor of Economics and Applied Statistics	3 Years	Bachelor of Science in Biomedical Engineering	4 Years
Bachelor of Tourism and Hotel Management	3 Years	Bachelor of Architecture	5 Years
Bachelor of Human Resource Management	3 Years	Bachelor of Science in Petroleum Engineering	4 Years
Bachelor of Supplies & Procurement Management	3 Years	Bachelor of Science in Surveying and Land Information Systems	4 Years
Bachelor of International Business Administration	3 Years	Bachelor of Science in Agricultural Engineering	4 Years
Bachelor of Mass Communication	3 Years	Master of Science in Manufacturing Systems Engineering	2 Years
Bachelor of Development Studies	3 Years	Master of Science in Biomedical Engineering	2 Years
Bachelor of Arts in Public Administration	3 Years	Master of Architecture	2 Years
Bachelor of Arts in International Relations & Diplomatic Studies	3 Years	Master of Science in Petroleum Engineering	2 Years
Bachelor of Guidance and Counseling	3 Years	Master of Science in Surveying and Land Information Systems	2 Years
Bachelor of Social Work & Social Administration	3 Years	Master of Science in Agricultural Engineering	2 Years
Bachelor of Social and Community Development	3 Years	<b>Department of Technical and Vocational Education and Training</b>	
Postgraduate Diploma in Human Resource Management	1 Year	National Certificate in Building Construction	2 Years
Postgraduate Diploma in Business Administration	1 Year	National Certificate in Plumbing	2 Years
Postgraduate Diploma in Project Planning and Management	1 Year	National Certificate in Woodwork Technology	2 Years
Postgraduate Diploma in Public Administration	1 Year	National Certificate in Welding and Fabrication	2 Years
Postgraduate Diploma in Development Studies	1 Year	National Certificate in Automotive Mechanics	2 Years
Master of Arts in Economic Policy and Planning	2 Years	National Certificate in Electrical Installation Systems and Maintenance	2 Years
Master of Arts in Conflict Resolution and Peace Building	2 Years	National Certificate in Electronics Technology	2 Years
Master of Arts in Counseling Psychology	2 Years	National Certificate in Fashion and Garment Design	2 Years
Master of Arts in Development Studies	2 Years		
Master of Arts in Human Rights and Development	2 Years		
Master of Arts in Public Administration	2 Years		
Master of Arts in Social Work and Social Administration	2 Years		

## CONTACT THE DIRECTOR OF ADMISSIONS

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