

# Mount Kenya University

## 5TH INTERNATIONAL INTERDISCIPLINARY RESEARCH CONFERENCE 2018



### Conference Theme

Digital Innovation and Knowledge Economy: Opportunities and  
Challenges towards Achieving Sustainable Development Goal

## CONFERENCE REPORT AND PROCEEDINGS 2019

### Partner Institutions



**Kyambogo University**  
Knowledge and Skills for Service



**University of  
Eldoret**  
Home of knowledge and innovation

**Mount Kenya**



**University**



**CHUKWUEMEKA ODUMEGWU OJUKWU  
UNIVERSITY**

# Mount Kenya University



## VISION

To be a Global Centre of Excellence in Education, Research and Innovation in Science and Technology

## MISSION

To Provide World-Class Education, Research and Innovation for Individual Transformation and Sustainable Global Development

## PHILOSOPHY

To harness knowledge in applied Sciences and Technology for the service of humanity

## CORE VALUES

Innovation • Excellence • Integrity • Unity of Purpose

## ACADEMIC CHARACTER

With an emphasis on science, technology and humanities, Mount Kenya University offers an all-rounded education including moral and professional education to all persons irrespective of religion, race, gender or political affiliation, social or cultural background. It endeavours to develop well-trained manpower equipped with technological scientific knowledge and capacities from certificate, diploma, undergraduate and postgraduate degree courses





A photo of MKU Alumni Plaza



Mount Kenya University Alumni Plaza is a State of Art infrastructure located at the heart of the University, it hosts the University Administration block, University Senate Boardroom, Centre for Professional Development ,recreation centre among other facilities.

## Preface

Mount Kenya University (Kenya) in collaboration with Kyambogo University (Uganda), Chukwuemeka Odumegwu Ojukwu University (Nigeria) and University of Eldoret (Kenya) under the auspices of the Inter-Universities Research Consortium hosted the 5<sup>th</sup> International and Interdisciplinary conference (2018) on 17<sup>th</sup> -19<sup>th</sup> October, 2018 at Thika Campus, Kenya.

The world is facing a new frontier of information age that has created a spin in all spheres of the economy. There is a paradigm shift from the resource-based economy to the knowledge economy-where there is creation of value from human intelligence (human capital). It is in cognizant of the aforementioned that the consortium convened the 5<sup>th</sup> International and Interdisciplinary Research 2018 Conference (5IIRC2018) under theme: *Digital Innovation and Knowledge Economy: Opportunities and Challenges towards Achieving Sustainable Development Goals*.

Digital innovation and knowledge explosion can be credited with innumerable gains but also associated with numerous risks and challenges. Consequently, this raises fundamental questions such as: *is digitization helpful to the global village or is it a big threat? How does the digital era impact on pertinent issues of climate change, pedagogy, equality, poverty eradication, health and many other emerging concerns. How do all these realities impact on the African continent?*

The 5<sup>th</sup> International and Interdisciplinary Research Conference 2018 (5IIRC2018) brought together practitioners, professionals, industry, academicians, policy makers, governmental and non-governmental organizations in a single platform to dialogue and dissect the opportunities and challenges that digital innovation and knowledge economy portends.

## Conference Objectives and sub-themes

### Conference Objectives:

1. To provide an opportunity for regional and sub-regional organizations to share results of their research findings.
2. Promote collaborative and joint research in relevant and emerging thematic areas
3. To provide a platform to exhibit academic innovations and products
4. To provide a forum where members of the public, policy makers and other stakeholders can engage the scholars
5. To promote networking between scholars and other professionals

### The conference sub-themes:

1. Climate Change, Energy and Environmental Sustainability
2. Globalization and Domestic Legal Systems in Africa
3. Fake News and Cyber Crime
4. Shared Security and Community Policing for Sustainable Development
5. Role of Financial Literacy in Knowledge Based Economy
6. Innovations on Digital Health Care and Community Health
7. Role of Digital Technology in Disease Control
8. Integration of ICT in Education
9. Role of Artificial Intelligence (AI) in the 21<sup>st</sup> Century
10. Knowledge Economy and Entrepreneurial Innovation
11. Public-Private Partnership Towards Achievement of SDGs
12. Innovations in Destination Marketing and Management
13. Digital Revolution: New Frontier in Peace & Security

# BACKGROUND

## INTER-UNIVERSITIES RESEARCH CONSORTIUM

The Inter-Universities Research Consortium members include University of Eldoret (Kenya), Chukwuemeka Odumegwu Ojukwu University (Nigeria), Kyambogo University (Uganda), ) and Mount Kenya University (Kenya).

The Consortium mandate includes hosting joint conferences as a way of dissemination of research findings, conducting joint publications and undertaking various activities that promote interdisciplinary research.

This Consortium is driven by a basic objective and desire to achieve a common goal through collaborative academic engagements for the greater public good. The consortium has so far organized four international and interdisciplinary conferences since 2014 and the proceedings have been published in refereed, interdisciplinary journals.

The consortium publishes quality papers presented during the conference in the African Journal of Education, Science, and Technology (AJEST) <http://www.ajest.info/> .

The consortium steering committee is hosted at University of Eldoret.

### Consortium Members



## CONFERENCE PARTNERS



### Others

- Mount Kenya University School of Hospitality, Tours & Travel Management
- Modern Tent



## List of organizers

### Organizing committee

1. Dr. Vincent Gaitho	Chairperson
2. Prof. Peter Wanderi	Secretariat
3. Dr. Evans Mwiti	Secretariat
4. Dr. Peter Kirira	Secretariat
5. Dr. Jackline Nyaberi	Secretariat
6. Ms. Lilian Makandi	Secretariat
7. Ms. Dolly Mavuta	Secretariat
8. Dr. Samuel Karenga	Member
9. Dr. John Kariuki	Member
10. Dr. Benson Njoroge	Member
11. Dr. Phelista Njeru	Member
12. Ms. Rose Macharia	Member
13. Mr. Fredrick Mulei	Member

### Abstract Reviewers

1. Prof. Kennedy Mutundu
2. Dr. Mary Mugwe
3. Dr. Ruth Thing'uri
4. Dr. Benson Njoroge
5. Dr. Henry Yatich
6. Dr. Samuel Karenga
7. Dr. John Kariuki
8. Dr. Phelista Njeru
9. Dr. Jackline Nyaberi
10. Dr. Peter Kirira
11. Dr. Godfrey Keru
12. Dr. Mary Muriuki
13. Dr. Erastus Thoronjo
14. Dr. Martin Onsiro Ronald
15. Mr. Boniface Malala

### Technical support

1. Mr. Godfrey Ngotho	Website
2. Mr. Bonface Malala	Programme and Book of Abstracts



## Acknowledgements

The 5th International and Interdisciplinary Conference (2018) was held at Mount Kenya University, Main Campus, Thika-Kenya on 17-19th October, 2019. The success of the Conference was the tireless effort of a number of key players.



As the Chairperson of the Organizing Committee, I wish to recognize with utmost appreciation the consortium of the partnering Universities: Mount Kenya University (Kenya), Kyambogo University (Uganda), Chukwuemeka Odumegwu Ojukwu University (Nigeria) and University of Eldoret (Kenya) who conceived the idea of joint conferences among other collaborative activities. I also appreciate Mount Kenya Board of Directors and Management effectively hosting the 5th

International and Interdisciplinary Research Conference. Special gratitude goes to the sponsors Mighty Tours and the exhibitors; Bonfire Ventures and Urithi Housing Cooperative society.

The conference would not have been successful without the tireless efforts of the Organising committee and abstract reviewers; thank you great team for the good work well-done. It was a great pleasure working with you. Special appreciation go to the organizing committee that consisted of Prof. Peter Wanderi, Dr. Evans Mwiti, Dr. Peter G. Kirira, Dr. Jackline Nyaberi, Ms. Lilian Makandi, Ms. Dolly Mavuta, Dr. Samuel Karenga, Dr. John Kariuki, Dr. Benson Njoroge, Dr. Phelista Njeru, Ms. Rose Macharia and Mr. Fredrick Mulei. The conference reviewers and the technical support team are highly appreciated.

My appreciation also goes to the various guests and key note speakers for gracing the conference. Notable among these were: Prof. Pankaj, G. Jani - President of the College of Surgeons of East, Central and Southern Africa (COSECSA), Prof. Teresa A.O. Akenga-V.C Eldoret University, Prof. Elly Katunguka -VC Kyambogo University, H.E. Amb. Sheidu Omeiza Momoh-Nigeria High Commissioner, Sis Rev. Prof Felicia - COOU, Prof. Bitange Ndemo-Chairman- Block chain and Artificial Intelligence Taskforce, Dr. Ezekial Mutua- CEO Kenya Film Classification Board, Hon. Kimani Wamatangi-Senator Kiambu County and Dr. Manoah Esipisu- Kenya High Commissioner Designate to the UK. Many thanks also goes to the panelist for ably contributing in the plenary sessions. My attention cannot escape the various able Round Table Discussants for their contributions in the plenary sessions: They included Dr. Salome Guchu-CEO Kenya National Innovation Agency, Dr. Eusebius Mukhwana, CEO-KNQA, Mr. John Matogo - IBM East Africa, Mr. Kelvin Muriungi - Oracle, Mr. Simon Kabu - Bonfire Adventures, Mr. Andrew Gakiria - Tabarin Consulting Ltd, Mr. Linus Kaikai - Royal Media Services, Prof. Meoli Kashorda - KENNET, Mr. Authur Wasonga Onyange - RAY NGO, Mr. Antony Ndegwa - Winstar Security and Mr. P.K Security Peace Building & Disaster Response. The chairpersons of sessions, rapporteurs, security personnel and

various service providers ensured the seamless flow of the conference activities; Thank you. In addition, I appreciate the School of Hospitality, Mount Kenya University for the excellent catering services during the conference. My gratitude also goes to Modern Tent for organizing the conference venue and making it colourful.

I am also indebted to the management of Mount Kenya University, particularly the Vice - Chancellor, Prof. Stanley Waudu for his advisory role and moral support during the organization and hosting of the conference.

**Dr. Vincent Gaitho, PhD**  
Chairman, Conference Organizing Committee

## ABOUT THE CONFERENCE



With the paradigm shift to the knowledge economy where digital innovations and knowledge are the key drivers, Higher Education Institutions (HEI) are centrally placed to spearhead these economies as they the epitomes of knowledge and epicenters of knowledge creation. It is recognition of this pivotal role that HEI play in the knowledge economy that Mount Kenya University (Kenya) in collaboration with Kyambogo University (Uganda), Chukwuemeka

Odumegwu Ojukwu University (Nigeria) and University of Eldoret (Kenya) under the auspices of the Inter-Universities Research Consortium hosted the 5<sup>th</sup> International and Interdisciplinary Conference (2018) at Thika Campus under the theme: *Digital Innovation and Knowledge Economy: Opportunities and Challenges towards Achieving Sustainable Development Goals*

According to the World Bank (2012), education and training are some of the fundamental pillars of a knowledge economy. Universities are today becoming aware of the essential role that higher education plays in the construction of knowledge-based economies. In the HEI, research results in generation of high end-knowledge and innovations; the ingredients of knowledge economies. This makes universities the best breeding ground for knowledge creation and innovation- as they offer teaching in a research setting.

Digital innovation and knowledge explosion can be associated with many gains but also comes with numerous risks and challenges. Consequently, the 5<sup>th</sup> International and Interdisciplinary Research 2018 Conference (5iIRC2018) brought together practitioners, academicians, policy makers, governmental and non-governmental organizations to interrogate the opportunities and challenges of digital innovation and Knowledge economy.

On behalf of the partnering Universities and the entire MKU fraternity, I wish to thank all the guest speakers, key note speakers, delegates, sponsors, well-wishers for their singular contribution towards the success of the conference.

**Prof. Stanley W. Waudu, PhD**

Vice-Chancellor,  
Mount Kenya University

# CONFERENCE REPORT





## Conference Summary Report

### DAY 1: 17<sup>th</sup> October, 2018

**Plenary session:** Wednesday October 17, 2018, at the Indoor Arena

**Sub-Theme:** Innovations in Higher Education Sector: What we can learn from each other

**Chairperson :** Dr. Vincent Gaitho, Vice - Chairman, Mount Kenya University council

**Rapporteur:** Dr. Samuel Karenga

#### Panelists

1. Dr. Eusebius Mukhwana, CEO KNQA
2. Dr. Salome Guchu, CEO KENIA
3. Mr. Sylvance Sange, MD KIPi
4. Prof. Eli Katunguka, Kyambogo University
5. Prof. Gregory Nwakoby, Chukwuemeka Odumegwu Ojukwu University
6. Prof. Philip Raburu, Rep. Vice-Chancellor, University of Eldoret.
7. Prof. Francis Muregi, Rep. Vice-Chancellor, Mount Kenya University

#### Major highlights

- Universities must transform the communities around them. As such, the big question should be what their graduates are doing after graduating from the University
- Members of staff should be allowed time to conduct research and spur innovations. This could be achieved through incentives such as less teaching workload for those involved with research.
- Universities should encourage innovations by for example starting innovation centers.
- There need to promote technology and especially in the area of climate change
- There is need to strengthen postgraduate training at the Universities to promote research
- Universities should endeavor to put aside some funds to promote research amongst students and members of staff

- Currently training at the Universities is focused on teacher training (arts), Business and social sciences. Less focus is on ICT, medicine and engineering.
- Due to diminishing resources and increasing demands for goods and services, there is need to manage and develop an innovation system which nurtures innovators
- Institutions must work together to transform knowledge into resources

**Parallel Session:** Wednesday October 17, 2018

**Venue:** Indoor Arena

**Sub-Theme:** Integration of ICT in Education

**Chairperson:** Dr. Susan Macharia, Mount Kenya University School of Education

**Rapporteur:** Samuel Mungai Mbugua

PRESENTER		Title
1.	Arphaxad Nguka Owange	An evaluation of Rusinga's collaboration/outsourcing strategy on improving integration of ICT in education, Kenya-media and cyber harassment among the youth in Kenya.
2.	Vincent Olema	Adoption of ICT English language literacy in Uganda Basic Education Curriculum
3.	Joseph Rwothunio	Effectiveness of ICT community outreach for International Education Funding for Africa
4.	Wilson Okaka	Enhancing ICT readiness to improve inclusive education for sustainable development
5.	Ssendagire Lubega Dorothy	Working capital financing as a mediator of working capital level and profitability of manufacturing firms? A research paper.

**Parallel session:** Wednesday October 17, 2018

**Venue:** 1:2 A

**Sub-Theme:** Integration of ICT in Education

**Chair:** Dr Ronald Onsiro

**Rapporteur:** Racheal Kimani

Presenter		Title
1.	Mr. Joseph Hokororo	The contribution of ICT in teaching and learning tone of Tanzanian Bantu language
2.	Dr Emily Nyabisi	Utilization of ICT in Postgraduate Studies by Students in Kenyan Universities
3.	Dr Beth Mwelu	Digital Platform for E-learning Delivery in Private Universities in Kenya
4.	Alice Wambui Ngunju	Teachers' training: A critical component in information Communication Technology Integration in Secondary Schools in Kenya: A review
5.	Annrose Gakenia	Study of financial Literacy in Relation to economic empowerment among Self Help group members in Kisii, Kenya

**Parallel session:** Wednesday October 17, 2018

**Venue:** C.T 2.4A

**Sub-Theme:** Innovations on Digital Health Care and Community Health

**Chairperson:** Prof. Linnet Gohole

**Rapporteur:** Ms. Maria Wambui Mung'ara

Presenter		Title
1.	Elisabeth Ernings	The importance of scientific Foundation in M-Health and the influence of enjoyment on the outcome.
2.	Purity Kagwiria Mureithi	Gender breach in sport participation.

## Conference Summary Report

**DAY 2: 18<sup>th</sup> October, 2018**

**Chairperson:** Dr Phelista Njeru

**Rapporteur:** Mr Bonface Joel Malala

### **Keynote Speaker**



**Prof. Eli Katunguka– Vice-Chancellor, Kyambogo University**

**Topic:** *Digital innovation and knowledge economy: Insights from Kyambogo University*

**Summary of the presentation:** Research is a planned structured investigation to gain new knowledge aimed at discovering new facts, corrects interpretation and solving problems especially in academic fields. Studies are aimed at solving identified problems within a society. On the other hand, capacity is the ability or power to do, experience, or understand something. Members of staff are expected to have capacity to conduct research and five correct findings based on their interpretations. Culture refers to customary beliefs, social forms and material traits of a social group. Basically is the set of shared attitudes, values. Goals and practices that characterize a company or corporation. Members of staff must develop research culture to be able to embrace research activities at any institution. They must be able to think about research even when they are at home or when not at work i.e they must think about uncompleted proposal, manuscript, publications, grant opportunities etc. Employers must be able to account for their time at work. Researchers must be able to under environment both internal and external and rules governing universities. Universities need to have many PhDs with capacity to conceptualize concepts for research throughout the year. Universities should stop teaching theoretical but should embark on research focusing on technical areas instead of common arts, social sciences, business courses etc. Countries should fund researchers including university staff members through specific research agencies/organization. All Universities must fulfill its three mandates of teaching, research and community outreach. Members of Universities should be able to write proposals, win grants and build capacity at institutions. Universities



must conduct research that address societal problems such as health, education, food and security etc.

### **Models to build research capacity at the University (A case of Kyambogo University)**

- In-house capacity building trainings
- Subscribe to data bases e.g Research Africa to access research opportunities
- Teach staff members how to look for extra money through research
- Teach staff on good budgeting
- Scientific writing and communications (manuscripts)
- Focus on postgraduate students during trainings to capacity build young generation through recruitment of graduate students.
- Train on writing good proposals (think about the idea, share with other people and let it be criticized and improved)
- Departmental research seminars involving both senior and juniors to discuss proposals and share experience among them
- Have clear policies on research
- Good ICT infrastructure e.g wifi hotspots
- Invest in Library resources including e-resources to allow sharing among institutions
- Funding for research internally i.e small competitive grants among members of staff attaching graduate students
- Proper supervision of students
- Support members of staff to attend conferences for research dissemination
- Encourage institutional collaborative projects/grant proposal writing
- Engage development partners and work with their institutional partners
- National Research Fund bodies
- Develop more graduate programmes/active graduate school
- Mentorship programmes
- Good incentives with researchers
- Reduced workload
- Promotion based on research
- Institutional Journals

**Mr. Syndoph P. Endoni** – Representative of Nigeria High Commissioner in Kenya (Amb. Sheidu Omeiza Momoh)

**Title of address** : Shared Security and Community Policing for Sustainable Development

**Summary of the presentation** : Mr Syndoph who represented Amb. Sheidu Omeiza Momoh in his opening remarks thanked MKU fraternity for the good relationship with Nigeria and for hosting the 5iiRC conference that drew delegates from all over the world. He noted that choice of conference them was timely since it focused on the role of institutions of higher learning has mutual role to play in putting the world on the right path through Research and Development. He also congratulated MKU motto '*Unlocking Infinite Possibilities*'. Today the world has experienced several challenges such as terrorisms experienced in USA, Kenya, Somalia, and Nigeria etc that have had severe challenges to the societies majorly deaths. It is in this regard that am excited about the conference topic on the sustainable developing as stipulated in the 3<sup>rd</sup> SDGs agenda that encourages countries to mobilize resources/efforts to solve issues on poverty, inequality, climate change, insecurity etc while ensuring that no one is left behind. It is on this aspect of ensuring that no one is left behind that make us look at the issue of community policy. Through the community policy, countries will ensure that by 2030 all citizens have access to good safety and affordable housing among other basic services. This is inclined to the President of the Republic of Kenya, President Uhuru Kenyatta that focuses on; Housing, Manufacturing, Food Security and Health. By 2030, countries focuses to reduce deaths significantly, tackle environment challenges and access to affordable housing. Community policy is used by the UNA as a philosophy that promote organizational strategies promoting partnership to solve related problems. Shared problems requires shared solutions. Countries are encouraged to employ diplomatic approaches to solve challenges within communities. Shared security is relevant in community partnership to solve problems within communities. For instance; citizen and police officers working together easily solves community problems based on mutual understanding. Therefore security is a responsibility for all and not just Police alone. Shared security emphasizes policing by consent rather than co-existence. Therefore, shared community and policing will provide among other things; crime prevention, peace preservation, corporation of the community, monitoring and controlling Police activities, neighbourhood watch, increased officers to protect civilians etc. In summary; terrorism, road traffic, human trafficking, cyber criminality etc which immensely contributes towards achievement of the 2030 SDGs goals can only be achieved through shared community. The community including Police should be able to monitor and

report all crime scenes/incidences. In Nigeria, the entire country shares common security responsibility. In conclusion, peace and security can only be achieved where war and violence does not exist.

## **Round Table Presentation**

**Thursday 18/10/2018 at Indoor Arena**

**Sub-Theme:** Digital Transformation – Opportunities & Challenges

**Chairperson:** Dr. Peter Kirira

**Rapporteur:** Mr. Samuel Mungai

### **PANELISTS**

1. Mr. Francis Mukuria : Oracle
2. Mr. Kelvin Kabuye : Oracle
3. Mr. Andrew Gakiria : Tabarin Ltd
4. Mr. Collins Omwenga : Tabarin Ltd
5. Mr. Simon Kabu : Bonfire Adventures
6. Dr. John Kamau : Mount Kenya University

### **Major highlights**

The university is at the forefront of automation of several university systems that has resulted in faster/easier processing of several university services with emphasis on the digital uptake model. There is need to engage stakeholders in order to achieve set targets. Digital transformation creates several opportunities for data mining. Challenges have been experienced with the integration with systems from different vendors with some systems being easier especially open source systems. Data migration and security of stored information offer major challenges.

### **Discussion Points**

**Presenter: Francis Mukuria (Oracle) & Kelvin Kabuye (Oracle)**

**Topic: Transition of research by enabling knowledge**

Emphasized on streamlining of student enrolment by personalization of information by changing the model. Cycle management of students, empowerment and provision of tools necessary for education is vital. Digital transformation facilitates achievement of objectives and simplification of knowledge availability. Digital transformation supports data management and analytics. Infinity loop-in life cycle management identifies the need of a student, how to enroll, how to achieve my course? Other regions are advantaged by technology uptake. In Kenya, technology uptake is improving hence Oracle's increased investment through knowledge empowerment and a fully-fledged higher education section.

### **Simon Kabu : Bonfire Adventures**

The Company won best tourism company in Africa in 2018 and last 2 years the best digital company in Kenya. The company was started by social media when there was no WhatsApp but were organizing team buildings using Facebook.

Technology has impacted greatly where clients want real time information. When the company started with 10 branches, there was physical meetings unlike nowadays where the company conduct online meetings through WhatsApp, video calls or Skype. Social media has helped to improve services since people are able to either complain or compliment services online.

People are also able to network and book services online therefore engaging machines more than physical meetings.

### **Presenter: Andrew Gakiria & Collins Omwenga: Tabarin Ltd**

#### **Topic: Collegial Experience in digital transformation/technology**

Integration and improvement of learner experiences. There are three main pillars with a requirement for a guiding pillar. There is need for creation of capacity in digital transformation as well as inclusivity (inclusion of various stakeholders). Partnerships with institutions that have digital/technological experience is crucial. Need for creation of learning pathways and multimedia assessment. Technological designs are essential with platforms and collaborative tools so as to e.g. streamline lectures. MKU is making major strides in this with the signing of an Education transformation agreement. Professional certifications are available with Microsoft imagine technologies. Faculty development is vital towards digital transformation of learning institutions. Content delivery- the Kenya Education Cloud is instrumental providing a multi-platform approach for helping students upload content, curation of content, approval, e-commerce portal, digital learning platform for dissemination of knowledge using a digital interactive system.



## Dr. John Kamau (Mount Kenya University)

MKU teach various causes in ICT. The University has embossed technology to solve challenges like missing marks. Students are also taught transformation to enable them be market prepared and help solve several challenges being experienced by the community. By teaching students digital implementation, the University is opening up market for new innovations that can be useful. The university is also collaborating with other institutions on ICT projects.

### Key Highlights: -

- ✓ Community policing should not be paced in the same level with vigilantism, these two have different connotations.
- ✓ Integration of community policing and technology is imperative. We shouldn't just Africanize everything.

## PARALLEL SESSIONS

**There were three main sessions with four different Sub-themes:** - Integration of ICT in Education, Knowledge Economy and Entrepreneurial Innovation, Climate Change, Energy and Environmental Sustainability and Shared Security, and Community Policing for Sustainable Development.

Parallel Session 2: Held on Thursday 18/10/2018 at CT1:2A & 2:5A

**Sub-Theme:** Integration of ICT in Education

**Chair:** Dr. Ruth Thinguri, and Dr. Sr. Kaahwa M. Gorett,

**Rapporteur:** Mr. Harrison Waweru, and Dr. Godffrey Kamitha Keru

Presenter	Abstract Title
1. Dr. Gikandi Joyce	Enhancing Accessibility and Active Engagement in E-Learning Through Integration Of Mobile Learning and E-Portfolios
2. Mafabi Lenard Wasukira	Parents' Oral Tales and Children's Literacy Outcomes In Uganda: A Case of Sironko District
1. Muhamad Aisa	Reward Management and Teacher's Performance in Selected

	Private Secondary schools in Busiro County, Wakiso District
2. Helen C.A.	Emotional intelligence and academic achievement
3. Rose Khamusali Okwemba	Effects of ICT Integration on Curriculum Implementation
4. Ann Muiru	Influence of digital educational resources on learning of chemistry practical's in Secondary Schools in Ugenya sub-County,
5. Issak Maalim	Influence of procurement committees on management of secondary school resources in Mandera County, Kenya
6. Dr. Johannes Njoka	Assessment of Challenges facing ICT integration in managing Public Secondary Schools: A Comparative Study of Day and Boarding Secondary Schools in the South Rift Region, Kenya
7. Dr. Samikwo D. Wambuke	Improving students attitude towards biology through Computer Assisted Learning
8. Dr.Ezeogamba Anthony Ikechukwu	Digital Technology: Catalyst for the fulfilment of the great commission for sustainable development

Parallel Session 2: Held on Thursday 18/10/2018 at Indoor Arena CT2:4A

**Sub-Theme:** Knowledge Economy and Entrepreneurial Innovation

**Chair:** Dr. Lucy Kibe and Dr. Godfrey Ejuu

**Rapporteur:** Mr. Dr. Jackson Ndolo and Ms. Elizabeth Mwaura

Presenter	Abstract Tittle
1. Josephine M. Mulei	Ethnobotanical survey of medicinal plants in Nyamila Village in Siaya County
2. Catherine Nguli	Knowledge Management and Competitiveness of Kenyan Private Universities
3. Ibrahim M. Adam	Formal credit and poverty reduction among small holder farmers in Jigawa state, Nigeria

4. Adbikadir Adan Alio	Influence of M&E practices on Financial management in public secondary schools in Mandera county, Kenya
5. Ronoh,E.K.	Combinations of Lime and Phosphorus Fertilizers Promote Maize Growth in Degraded Soils of Western Kenya
6. Adela Rucecerwa	Use of Local language and childrens perfoamance Literacy: A case of Kabale Municipality, Uganda
7. Rotich Kipkoech Victor	Effect of Grain Amaranth (Amaranthus Hypochondriacus L.S) and Nitrogen Fertilizer Rates on Striga (Striga Hermonthica) Infestation, Yield and Yield Components In Maize (Zea Mays L.) L.) as Compared to Tested Soy Bean at Siaya County, Western Kenya

Parallel Session 2: Held on Thursday 18/10/2018 at CT2:2A

**Sub-Theme:** Climate Change, Energy and Environmental Sustainability

**Chairperson:** Dr. Samuel Karenga

**Rapporteur:** Ms. Margaret Wangari

Presenter	Title
1. Geoffrey Obara., Francis Mwaura	Prioritizing Agricultural extension intervention for Sweet Potato in Homa Bay County
2. Etomaru Irene., Kasule George Wilson	Nutritional Quality of Vermicast as Influenced by E. Eugeneae and E. Foetilda for Environmental Conservation
3. Oliy Omondi	Entrepreneurial Opportunities in Climate Change Education and Mitigation for Sustainable Development in Nigeria
4. Elekalachi C. I., Okoli N., L. Ezenwa I. A	Prediction of Regression Coefficients for Estimation of Global Solar Radiation of Some Cities in South West Nigeria

5. Gertrude Ndanu	Genetic Basis of Plasmodium Falciparum Resistance to Artemisinin and Field Isolates from Busia Kenya
6. Wanderi, E., W. Barasa, J.	Length Weight Relationship and Relative Condition Factor of Clarias Liocephalus from University of Eldoret Reservoir, Kenya.
7. Dr. Thaddeus C. Eze	Corporate Social Responsibility and Environmental Protection in Nigeria
8. Negassa Chali, Kariuki Jhon	Examining the Status of Water, Sanitation and Hygiene in Primary Schools of Kawangware Slums, Nairobi Kenya.
9. Henry Kiptum Yatich	Attaining Competitive Advantage Through Energy Efficiency Practices: A Cooperative Strategic Perspective
10. Christine K. Onkeo Francis Mwaura	Prioritizing Agricultural Extension Intervention On Dairy Farming in Kisii County

Parallel Session 2: Held on Thursday 18/10/2018 at CT2:4A

**Sub-Theme:** Shared Security and Community Policing for Sustainable Development

**Chair:** Dr. Joyce Muchemi

**Rapporteur:** Ms. Anne Wahito

Presenter	Abstract Tittle
1. Justice Mutua	Need for Shared Security and Community Policing for Sustainable Development in Kenya; Case Study of Kibera
2. Charles Amone	Community policing, Vigilantism and shared Security in Uganda, 1986 to 2018.
3. Mmoneke Samuel Ifeanyi	Shared Security and Community Policing: A Solution for Sustainable African Development
4. Peter Agole.	Adopting Digital Technology for Indigenous Herbal Health Communication Services in Uganda



## Conference Summary Report

**DAY 3: 19<sup>th</sup> October, 2018**

**PLENARY SESSION: THURSDAY 19/10/2018 AT THE INDOOR ARENA**

### **GUEST SPEAKER**



**H.E Manoah Esipisu** - Kenya High Commissioner, United Kingdom

**Title of the guest speaker's speech** - How communication Drives Business Performance and innovation

**Summary of the presentation:** Mr. Esipisu strongly stated that relevant, accurate and timely information is a cornerstone of any democracy. He further indicated that business can thrive if communication can meet such criteria. However, he stated there is need for related agencies to support business performance on other aspects, since businesses are not exempt from other factors such as resources and space.

### **KEYNOTE SPEAKERS**

**Prof. Bitange Ndemo** – Professor, Business School, University of Nairobi



**Title of address:** Role of financial literacy in knowledge-based economy

**Summary of the presentation:** Prof. Ndemo in his address emphasized the need for financial and credit institutions to be involved directly at the grass root level in providing information to aspiring and existing entrepreneurs. In addition, Prof. Ndemo emphasized that those in academia should be at the fore-front in providing local-based solutions to the community through research activities.



**Dr. Ezekiel Mutua, MBS** - CEO, Kenya Film Classification Board

**Title of address:** Fake news and Cyber crime

**Summary of the presentation:** Dr. Mutua informed the delegates that fake news is real and there is need to remain alert and be able to identify such news. In addition, he added that there is need to countercheck / verify information that are doubtful with main stream media. He assured the audience that government and related agencies are working

round the clock to minimize the spread of such news. Dr. Mutua underscored the challenge posed by fake news from bloggers and non-main stream media outlets which are difficult to regulate. In addition, he however stated that media related policies are being adhered to by media houses.

## **ROUND TABLE PRESENTATION AT THE INDOOR ARENA**

**Sub-theme:** Fake News, Cyber Crime and Security

**Chairperson :** Dr. Joyce Muchemi

**Rapporteur :** Dr. Henry Yatich

### **Panelists**

1. **Dr. Ezekiel Mutua,** CEO, Kenya Film Classification
2. **Mr. Linus Kaikai,** Royal Media Services
3. **Mr. Wycliffe Momanyi,** Kenya Commercial Bank

### **Key Highlights;**

- ✓ The media has to confirm its sources by ensuring there are witnesses or authorities as corroborators so as to make it genuine news
- ✓ Users should be careful on the websites that they visit and avoid opening unknown attachments
- ✓ We can distinguish fake news from real news by considering the credibility of sources
- ✓ There is need to ensure that the children are most protected from exploitative films
- ✓ The programming code which is governed by CCK, is also in use to enable responsible airing
- ✓ Freedom of unrestricted access to online content such as youtube can be

beneficial and in some cases detrimental especially when children are able to access adult materials

### DAY 3: PARALLEL SESSIONS

**There were five main sessions with seven different Sub -themes:** - Knowledge Economy & Entrepreneurial Innovation, Role of Artificial Intelligence (AI) in the 21<sup>st</sup> century, Public-Private partnership towards achievement of SDGs, Digital Innovation and Knowledge economy: Opportunities and challenges towards achieving sustainable development goals, Globalization and domestic legal systems in Africa, Fake news, cyber-crime and digital revolution: New frontier in peace & security, and Financial Literacy.

#### PARALLEL SESSION 1: FRIDAY 19/10/2018 AT CT 1:2A

**Sub-Theme:** Knowledge Economy & Entrepreneurial Innovation

**Chairperson:** Dr. Peter G. Kirira

**Rapporteur:** Ms. Rose Macharia

	Presenter	Title
1	Elizabeth Wanderi	Some biological characteristics of smooth head catfish, <i>Clarias liocephalus</i> (Boulenger 1898) from the University of Eldoret reservoir, Kenya
2	Dr. John Kariuki	Examining the status of water, sanitation and hygiene in primary schools of Kawangware slums, Nairobi Kenya
3	Christine K. Onkeo	Prioritizing agricultural extension intervention on dairy farming in Kisii County
4	Dr. Catherine Wandera	ICT for rural climate information services in agricultural for food security in Uganda
5	Wilson Okaka	Enhancing ICT - Led Communication Information Services (CIS) for Effective District Climate Change Community Adaptation Response Strategies in East Africa

6	Monica Jepkosgei Yator	Evaluation of commercial and compounded supplementary diets for milk production in western Kenya
7	Makau wa Mutua	Eco Criticism: Use of literature texts for advocacy on conservation of environment
8	Dr. Henry Yatich	Attaining Competitive Advantage Through Energy Efficiency Practices: A Cooperative Strategic Perspective

## **PARALLEL SESSION 2: FRIDAY 19/10/2018 AT CT 1:4A**

### **Sub-Themes:**

- a) Role of Artificial Intelligence (AI) in the 21<sup>st</sup> century
- b) Public-Private partnership towards achievement of SDGs

**Chairman:** Prof. Gregory Wanyembi

**Rapporteur:** Ms. Fiona M. Oyatsi

	<b>Presenter</b>	<b>Title</b>
1.	Daniel Mutegi Giti	Application of Public Private Partnerships (PPPs) in Kenya for the Achievements of Sustainable Development Goals
2.	Michael Odongo	Drawing with House-Hold Bleach to Create Sustainable Income Generating Art
3.	Lynette Muthoki	Determinants of the Quality HIV /AIDS Data Among Health Care Providers in Shinyalu Sub-County, Kakamega County
4.	Dr. Lucy Kibe	Public Private Partnerships as an Innovative Tool Towards Achievement of Sustainable Development Goals In Nairobi, Kiambu And Machakos Counties

## **PARALLEL SESSION 3: FRIDAY 19/10/2018 AT 2:5A**

**Sub-Theme:** Digital Innovation and Knowledge economy: Opportunities and challenges towards achieving sustainable development goals

**Chairperson:** Dr. Mary Muriuki

**Rapporteur:** Ms. Rose Nyambura

	<b>Presenter</b>	<b>Title</b>
1.	Dr. Susan Macharia	Budgeting Behavior and Financial wellbeing among students in selected Secondary Schools in Ngong Sub-County
2.	Rachel Kimani	African Cultural practices and implementation of donor – funded health project; implications of negative cultural practices among Abaluhya of Western Kenya on Neonatal Mortality
3.	Kipkogei Chemitei	Economic importance of Agave plant in Kenya; with a special focus on alcohol production
4.	Dr. Phelista Wangui & Jesse Ndegwa	Investigating extent to which integrated security strategies and policy response to cybercrime affect E-commerce in Kenyan banking Sector
5.	Emmy Kerich	Reduction of teratogenic Effects of 2, 4-DichlorophenoxyaceticAcid using ascorbic Acid
6.	Mutisya Teresia Kalekye & Phelista Wangui Njeru	Analysis of effects of value innovation strategies on performance of commercial banks in Nairobi- Kenya

## **PARALLEL SESSION 4: FRIDAY 19/10/2018 AT 2:4A**

**Sub-Theme:** Globalization and domestic legal systems in Africa / Fake news, cyber-crime and digital revolution: New frontier in peace & security

**Chairperson :** Bonface Malala

**Rapporteur:** Anthony Kamau

	<b>Presenter</b>	<b>Title</b>
1.	Leah W. Marang'a	Communication as a pillar to marriage stability
2.	Kobingi Nyakeya	The dynamics of selected limnological data along a land use gradient in River Molo, Kenya
3.	Kwamboka Evelyn Makori	Factors affecting food selection intake and the nutritional status of the elderly in Mathare Slums
4.	Dr. Wilson Okaka	The politics and relevance of fake news in the African societal development agenda

## PARALLEL SESSION 5: FRIDAY 19/10/2018 AT CT 1:5A

**Sub-Theme:** Financial Literacy

**Chairperson:** Ms Elizabeth Mwaura

**Rapporteur:** Mr Kevin Mwangi

1.	James Kizza	Financial literacy and financial performance of Small and Medium Enterprises in Uganda
2.	Josephine Ndanu and Velma Mideva	Role of financial literacy in knowledge-based economy

### POSTER PRESENTATIONS

The Conference poster presentations were showcased at the indoor games arena, this was the main venue for the conference hence the poster presentation were able to attract a huge number of conference attendants to view and hear from the presenters.



On overall the poster presentation attracted 25 presenters



Conference participants following a poster presentation from a students from Kyambogo University



## VICE-CHANCELLORS SUMMIT

The Vice-Chancellors summit consisted of the four Vice-Chancellors from the consortium and AJEST members

### Preamble

On 19<sup>th</sup> October, 2018 the Vice-Chancellors of the four partnering universities held a meeting in the Executive Boardroom on 11<sup>th</sup> floor, Alumni Plaza. The meeting was chaired by the Prof. Eli Katunguka, Vice Chancellor of Kyambogo University. Also present were: Prof Stanley Waudu (VC MKU), Prof Philip Raburu (DVC PRE, Representing VC UOE) and Prof. Rev. Sr Mary Felicia Opara (Representing VC COOU). The others present were Prof Ahmed Ferej (Secretary, UOE), Prof Linnet Gohole (UOE), Prof Peter Wanderi (MKU), Prof Joyce Ayikoru (KyU), Sr.Dr. Kaahwa Maria Goretti (KyU), Dr. Mmoneke Samuel (COOU), Fr A.I. Ezeogamba (COOU), Dr. Phelista Njeru (MKU), Dr. Samuel Karenga (MKU) and Dr. Benson Njoroge (MKU)

### Proceedings

	Issue	Resolutions
1.	Preliminary	The Chairman thanked the host institution, Mount Kenya University, for the great organization of the 5IIRC. He expressed appreciation for the wonderful hospitality of MKU.
2.	Next meeting	COOU was willing to host the annual gathering of consortium members, 6IIRC, but the final affirmation would be communicated to members after her debrief with her VC upon returning to Nigeria.
3.	Timing of the conferences	Hosting institutions should date conferences between 1 <sup>st</sup> and 31 <sup>st</sup> August. COOU shall confirm the dates for the 6IIRC as soon as possible.
4.	VCs Summit 2019	VCs Summit should convene in 2019, preferably, not beyond March 15, 2019 at a location to be mutually agreed upon to further discuss this matter. This should be preceded by a meeting of the Technical Committee, which will synthesize the issues to be considered by the VC's in their Summit.
5.	Publishing of Vol.5	KyU reported that they successfully published

	<b>issue 1</b>	Vol 5 Issue 1 of the journal.
6.	<b>Establishment of AJEST secretariat at UOE</b>	Members agreed on the establishment of AJEST secretariat at UOE. The conference hosting institution would play the primary role of sending out calls for papers, vetting and preparing them for the conference. After the conference the host will assemble and vet the papers and send those papers that meet eligible criteria to the Secretariat for review and subsequent publishing. It was agreed that the Secretariat involves all Consortium members in the editorial and publishing process.
7	<b>AJEST Secretariat</b>	It was agreed that the AJEST and Consortium Secretariat should be established in the same location due to logistical and cost considerations. Since it had been agreed that UOE hosts the AJEST Secretariat, it follows that the Consortium Secretariat should also be hosted by UOE. Members also agreed that the location of the Secretariat would be reviewed every four years.
8.	<b>Running costs</b>	The running costs of the Secretariat will be presented to the VC's in their next Summit meeting
9.	<b>Consortium Policy</b>	Sr Felicia was tasked with coordination of the drafting and to circulate the draft to members through email or WhatsApp by end of January, 2019.
10	<b>Registration and annual subscription fee</b>	The idea of introducing a registration and annual subscription fee was discussed. The idea was endorsed and the technical team was asked to propose the fees that should be charged. This fee will among others contribute towards the budget of running the Secretariat and other related costs.
11	<b>Website</b>	It was agreed that the Consortium should have single Website and a link should be created to access AJEST from this website. All participating institutions would be linked to the Consortium Website. MKU was given the responsibility for

		developing and administering the Consortium Website by January 15, 2019
12	<b>Application by the University of Bosaso in Puntland, Somalia</b>	The Summit agreed to defer all such interests until the Consortium policy was developed and the registration and annual fee agreed upon during the next VC Summit meeting to be held in March 2019.
13	<b>Handing over chairpersonship</b>	The outgoing Chairman of the Consortium, Prof Eli Katunguka, VC KyU, handed over to the incoming Chairman, Prof Stanley Waudu, VC, MKU.

## **CONFERENCE CLOSING CEREMONY AT MAXLAND HOTEL, JUJA ON FRIDAY 19<sup>TH</sup> OCTOBER, 2018**

The conference organizing committee hosted a dinner ceremony at Maxland Hotel, Juja. The dinner was the



culmination of the three day conference. Guests from Kenya, Uganda and Nigeria graced the evening ceremony. Dr. Francis Njong'e, a member of the University council was the chief guest. In his speech, Dr. Njong'e encouraged the spirit of partnership between the four Universities. He also challenged the

institutions to expand the areas of engagement to include joint research, staff and student exchange. Prof. Stanley Waudu, the Vice-Chancellor Mount Kenya University, presented gifts to representatives of the partnering institutions. Dr. Vincent Gaitho, the chairman conference organizing committee, thanked the conference organizers and delegates for the quality of the presentations during the conference. He also encouraged the delegates to take advantages of the networks that have been developed so that they can give rise to future joint research projects.

## **EXHIBITIONS**

### **Exhibitor 1: Mount Kenya University**

*Mount Kenya University (MKU) is a premier private university committed to a broad-based, holistic and inclusive system of education. With 15 campuses in Kenya, Rwanda and Somaliland, the University has an overall goal of promoting human capital development for society's progressive good.*

*Mount Kenya University was the conference host and they exhibited their academic programs and they sold their branded merchandise to conference participants*

### **Exhibitor 2: Urithi Housing Cooperative Society Limited**

*Urithi Housing provides affordable and quality housing at a subsidized cost per unit to our members. Most importantly, we acquire development projects and negotiate land at a low price just for you! Consequently, our members are drawn from all walks of life, with our current membership standing at over 28,000 members, who have each invested in different projects.*

*Urithi Housing Cooperative Society Limited exhibited their housing properties solutions.*

### **Exhibitor 3: Bonfire Adventures**

*Bonfire Adventures & Events Limited is a well established tours, travel and Events Company with over 10 years experience in handling inbound and outbound holidays not only for domestic tourists but also international tourists from all over the world. Bonfire Has been Voted Africa and Kenya's Leading Travel Agency by World Travel Awards The company had customised safaris and excursions to Nakuru and Nairobi National park for the delegates which they sold at their stand*

### **Exhibitor 4: Synergies Limited**

*This company is owned by a Mount Kenya University Alumni who specialises in selling pieces of land and plots in Kitui and Machakos county.*

The company exhibited for 2 days

## SIIRC2018 CONFERENCE PUBLICITY REPORT



Daily Nation Tuesday October 17, 2018



KBC News reporting on the conference



Digital literacy has revolutionized Kenya to a digital economy facilitating advanced education, high-tech conduction of surgical operations and modern innovations, an ICT specialist have said.

Ministry of ICT Secretary Katherine Getao said the revolution has helped the society to best deal with emerging issues.

Speaking during the fifth International Interdisciplinary Research Conference held at Mount Kenya University, Dr Getao urged universities to enhance digital literacy to spur economic growth.

"We must use digital literacy for positive initiatives that transform the world around us," she told delegates at the conference.

Getao said universities should partner with industrialists to develop solutions and improve lives.

She also rooted for education that not only transforms but makes learners active.

The three-day conference has brought together practitioners, academicians, policy-makers, governmental and non-governmental organisations to discuss modalities of enhancing the achieving Sustainable Development Goals through research.

People Daily Newspaper:



K24 Television Journalist interviewing Dr. Vincent Gaitho, Chairman Conference Organizing on live stream during the conference



Daily Nation Digital coverage on conference proceedings



Digital coverage summary for the conference on KBC, Latest News, Coro and Hivi Sasa

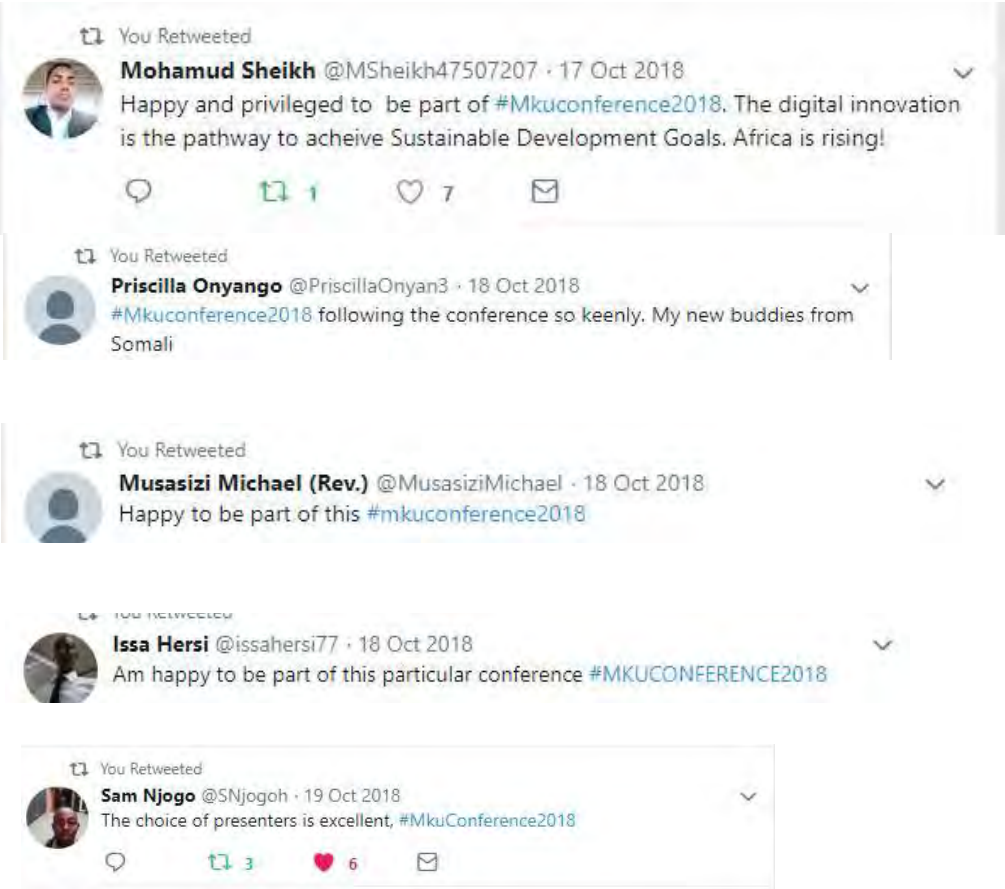


# CONFERENCE PARTICIPANTS FEEDBACK

“It is crucial to teach the populace financial literacy” Prof. Bitange Ndemo

“Consumers of information are exposed to unverified content, misleading information and are at the mercies of cyber bullies and pseudo journalists. The media is a double edged sword, and more so in the arena of social media. The media is the watchdog for the society. In the era of social media, we must however ask ourselves who is watching the watchdog. The internet has redefined the ways of accessing information given there were 4,208,571,287 internet users in June 2018 (Minimartals Marketing Group).” @EzekielMutua.

Digital Transformation, Strategic Planning and City Development: Challenges for the Next Decade. Kenya should embrace shared security and community policing in attaining sustainable development .Hon. KIMANI Wamatangi





## List of attendance

<b>NO.</b>	<b>ORGANIZATION</b>
1.	Mount Kenya University
2.	Chukwuemeka Odumegwu Ojukwu University
3.	Kyambogo University
4.	University of Bosaso
5.	College of Surgeons of East, Central and Southern Africa
6.	Institute of Judicial Administration (Tanzania)
7.	University of South Africa
8.	Makerere University
9.	Uriithi Housing Cooperative
10.	Jaramogi Oginga Odinga University of Science and Technology
11.	Family and Social Services Administration
12.	Moi University
13.	Kenya National Innovation Agency
14.	University of Eldoret
15.	Karatina University
16.	Federal University of Nigeria
17.	Wote Technical Training
18.	Jomo Kenyatta University of Agriculture and Technology
19.	Media from Royal Media , Biashara TV, K24, Kenya News Agency
20.	Price Water Coppers

21.	Oracle
22.	Bonfire Adventures
23.	Miyabi Africa
24.	Tabarin
25.	Kamiti Maximum Prison
26.	Kamiti Prisons Service
27.	Kenya Commercial Bank

## Attendance Summary

S/no.	Days	Number of Participants
1	Day 1	202
2	Day 2	175
3	Day 3	173

## Challenges

1. Delay in receiving revised abstracts from the delegates
2. Delay in payment of conference registration fee hence making it difficult to know how many delegates will be participating
3. Low start during the first day of the conference due to travel arrangements of delegates

## Recommendations

1. Group payment of delegates supported by the partnering institution before the conference date
2. The conference organizers should consider automated abstract management system with prompt reminders

# CONFERENCE PROCEEDINGS



**5TH INTERNATIONAL INTERDISCIPLINARY RESEARCH CONFERENCE HELD AT MOUNT KENYA UNIVERSITY  
THIKA CAMPUS ON 17TH - 19TH OCTOBER 2018**



## ABRIDGED CONFERENCE PROGRAMME

<b>DAY 1: Wednesday, 17<sup>th</sup> October 2018</b>		
<b>ACTIVITY</b>	<b>TIME</b>	<b>VENUE</b>
<b>Plenary Session 1</b> Poster presentations (Poster numbers 1-21) Exhibitions Artistic presentations Keynote Addresses 1-2	0800 - 0930	INDOOR ARENA
<b>Official Opening Ceremony</b> i) Preliminary Remarks ii) Address by the Chief Guest	0930 - 1100	INDOOR ARENA
<b>Plenary 2</b> Round Table: <b>Innovations in Higher Education Sector: What we can learn from each other</b>	1200 - 1300	INDOOR ARENA
<b>Parallel Sessions</b>	1400 - 1700	INDOOR ARENA CT 1:2 A, CT 1:4 A, CT 2:2 A, CT 2:4 A, CT 2:5 A
<b>Sub-Theme :</b> Integration of ICT in Education	1400 - 1700	INDOOR ARENA CT 1:2 A
<b>Sub-Theme :</b> Knowledge Economy and Entrepreneurial Innovation	1400 - 1700	CT 1:4 A CT 2:2 A
<b>Sub-Theme :</b> Climate Change, Energy and Environmental Sustainability	1400 - 1700	CT 2:5 A
<b>Sub-Theme :</b> Innovations on Digital Health Care and Community Health	1400 - 1700	CT 2:4 A
<b>DAY 2: Thursday, 18<sup>th</sup> October 2018</b>		
Poster presentations (Poster numbers 22-44) Keynote Addresses 3-5	0800 - 1100	INDOOR ARENA
Round Table: <b>Digital Transformation – Opportunities &amp; Challenges</b> Poster presentation (Poster numbers 45-64)		
<b>Parallel Sessions</b>	1400 - 1700	INDOOR ARENA CT 1:2 A, CT 1:4 A, CT 2:2 A, CT 2:4 A, CT 2:5 A
<b>Sub-Theme :</b> Integration of ICT in Education	1400 - 1700	INDOOR ARENA CT 1:2 A

		CT 2:5 A
<b>Sub-Theme :</b> Knowledge Economy and Entrepreneurial Innovation	1400 - 1700	INDOOR ARENA CT 1:4 A
<b>Sub-Theme :</b> Climate Change, Energy and Environmental Sustainability	1400 - 1700	CT 2:2 A
<b>Sub-Theme :</b> Shared Security and Community Policing for Sustainable Development	1400 - 1700	CT 2:4 A
<b>DAY 3: Friday, 18<sup>th</sup> October 2018</b>		
Keynote Addresses 8 – 11 Plenary session	0830 - 1100	INDOOR ARENA
Round Table: <b>Fake News, Cyber Crime and Security</b>	1200 - 1300	INDOOR ARENA
<b>Parallel Sessions</b>	1400 - 1700	INDOOR ARENA CT 1:2 A, CT 1:4 A, CT 2:2 A, CT 2:4 A, CT 2:5 A
<b>Sub-Themes</b> <ul style="list-style-type: none"> <li>• Knowledge Economy and Entrepreneurial Innovation</li> <li>• Role of Digital Technology in Disease Control</li> <li>• Fake News, Cyber Crime and Digital Revolution: New Frontier in Peace &amp; Security</li> </ul>	1400 - 1700	CT 2:5 A
<b>Sub-Theme :</b> Integration of ICT in Education	1400 - 1700	INDOOR ARENA
<b>Sub-Theme :</b> Knowledge Economy and Entrepreneurial Innovation	1400 - 1700	CT 1:2 A
<b>Sub-Themes</b> <ul style="list-style-type: none"> <li>• Role of Artificial Intelligence (AI) in the 21<sup>st</sup> Century</li> <li>• Public- Private Partnership Towards Achievement of SDGs</li> </ul>	1400 - 1700	CT 1:4 A
<b>Sub-Theme :</b> Role of Financial Literacy in Knowledge Based Economy	1400 - 1700	CT 2:2 A
<b>Sub-Themes</b> <ul style="list-style-type: none"> <li>• Globalization and Domestic Legal Systems in Africa</li> <li>• Fake News, Cyber Crime and Digital Revolution: New Frontier in Peace &amp; Security</li> </ul>	1400 - 1700	CT 2:4 A

## KEYNOTE SPEAKERS

No.	Name	Designation/Affiliation
1.	Prof. Stanley W. Waudo	Vice-Chancellor, Mount Kenya University
2.	Prof. Pankaj G. Jani	President, College of Surgeons of East, Central and Southern Africa (COCESCA)
3.	Prof. Teresa A. O. Akenga	Vice-Chancellor, University of Eldoret
4.	Prof. Elly Katunguka	Vice-Chancellor, Kyambogo University
5.	H.E Amb. Shedu Omeiza Momoh	Nigerian High Commission, Kenya
6.	Prof. Gregory C. Nwakoby	Vice-Chancellor, Chukwuemeka Odumegwu Ojuku University
7.	Prof. Bitange Ndemo	Chairman, Blockchain and Artificial Intelligence Takforce
8.	Dr Ezekiel Mutua	Chief Executive Officer, Kenya Film Classification Board
9.	Hon. Kimani Wamatangi	Senator, Kiambu County
10.	Hon. Manoah Esipisu	Kenya's High Commissioner Designate, United Kingdom



## ROUND TABLE/PLENARY SESSION

### DAY ONE

#### Keynote Speakers

1. Prof. Bitange Ndemo: Chairman, Blockchain and Artificial Intelligence Taskforce
2. Dr. Paul Kimani: CEO, Tech in Africa
3. Dr. Katherine Gitao: Ministry of Information and Communication
4. Prof. Mwenda Ntarangwi: CEO, Commission for University Education

**Discussion Topic:** Innovations in Higher Education Sector: What We Can Learn From Each Other

#### Major highlights

Universities must transform the communities around them. As such, the big question should be what their graduates are doing after graduating from the University. Members of staff should be allowed time to conduct research and spur innovations. This could be achieved through incentives such as less teaching workload for those involved in research. Universities should encourage innovations through establishment of Innovation Centres. For example Mount Kenya University runs the Graduate Enterprise Academy that mentors innovators to transform them to be job creators. There has been too much talk about technology but nothing is being done to promote technology and especially in the area of climate change. There is need to strengthen postgraduate training at Universities to promote research. Both Postgraduate students and members of staff should be trained on how to write fundable research proposals. Universities should endeavor to put aside some funds to promote research amongst students and members of staff. For instance; University of Eldoret has a programme that generate information useful to monitor both staff and students on resource mobilization and management. The University is also promoting the transfer of knowledge through extension and outreach services with particular interest to target the youth who don't consider agriculture as an alternative to formal employment.

Currently, training at the Universities is focused on teacher training (arts), Business and social sciences. Less focus is on ICT, Medicine and Engineering. There is need to revamp University training to respond well on where Kenya would want to be in respect to the vision 2030, SDGs and the big four agenda. The Kenya Industrial Property Institute (KIPI) is promoting innovation through technology & innovation support centres. KIPI allows institutions access to about 5 data bases at an affordable cost. KIPI is also sensitizing the public on how to commercialize intellectual property. Due to diminishing resources and increasing demands for goods and services, there is need to manage and develop an innovation system which nurtures innovators.

The *Kenya National Innovation Agency* is working on national innovation that will not only reward innovation but one that will support product commercialization. In addition, Institutions must work together to transform knowledge into resources.

**Round Table Discussions: Interaction between discussants and the audience**

No.	Question	Feedback
1.	What is the role of Ministry of Education (MoE) in whatever Kenya National Qualifications Authority (KNQA) is doing?	<ul style="list-style-type: none"> <li>• There was need to establish KNQA as an independent body from MOE since the numbers currently are high. KNQA has a qualification framework that is addressing the problem of lack of defined qualifications in the country. In so doing KNQA defines the skills, knowledge and competencies expected entry requirements and outcomes for each level starting with the lowest to the highest (PhD).</li> <li>• In equation of an international credential, KNQA looks at the following:               <ol style="list-style-type: none"> <li>i) Is the University accredited in the country it is located?</li> <li>ii) Is the programme approved by the regulator in that country?</li> <li>iii) Did you qualify to be admitted?</li> </ol> </li> <li>• If the answer to all these questions is yes, then KNQA equates your qualifications to an equivalent level in Kenya</li> </ul>
2.	It was a good idea to establish the National Research Fund (NRF) in Kenya but where is the implementation fund?	<ul style="list-style-type: none"> <li>• NRF, KENIA and NACOSTI were all established under one Act of Science, Technology and Innovation. NRF funds research, KENIA nurtures innovators and NACOSTI regulates, advises on and promotes STI.</li> <li>• The University mandate is Training, Research and Community engagement. Therefore, the role of implementation and utilization squarely lies on the institutions under the third mandate</li> </ul>
3.	For how long has MKU Graduate Enterprise Academy (GEA) been active and what are the numbers?	<ul style="list-style-type: none"> <li>• The first cohort (9) of GEA graduated 3 years ago, the second cohort had 22 and the 3<sup>rd</sup> cohort is ongoing.</li> </ul>

## ROUND TABLE/PLENARY SESSION

### DAY TWO

#### Session 1: Keynote Speakers

1. Prof. Elly Katunguka: Vice-Chancellor, Kyambogo University
2. Amb. Sheidu Omeiza Momoh, Nigeria High Commissioner in Kenya

**Speaker 1:** Prof. Elly Katunguka: Vice-Chancellor, Kyambogo University

**Topic:** Building sustainable research culture using limited resources

Research is a planned structured investigation to gain new knowledge aimed at discovering new facts, corrects interpretation and solving problems especially in academic fields. Studies are aimed at solving identified problems within a society. On the other hand, capacity is the ability or power to do, experience, or understand something. Members of staff are expected to have capacity to conduct research and five correct findings based on their interpretations. Culture refers to customary beliefs, social forms and material traits of a social group. Basically is the set of shared attitudes, values. Goals and practices that characterize a company or corporation. Members of staff must develop research culture to be able to embrace research activities at any institution. They must be able to think about research even when they are at home or when not at work i.e they must think about uncompleted proposal, manuscript, publications, grant opportunities etc. Employers must be able to account for their time at work. Researchers must be able to under environment both internal and external and rules governing universities. Universities need to have many PhDs with capacity to conceptualize concepts for research throughout the year. Universities should stop teaching theoretical but should embark on research focusing on technical areas instead of common arts, social sciences, business courses etc. Countries should fund researchers including university staff members through specific research agencies/organization. All Universities must fulfill its three mandates of teaching, research and community outreach. Members of Universities should be able to write proposals, win grants and build capacity at institutions. Universities must conduct research that address societal problems such as health, education, food and security etc.

#### **Models to build research capacity at the University (A case of Kyambogo University)**

- In-house capacity building trainings
- Subscribe to data bases e.g Research Africa to access research opportunities
- Teach staff members how to look for extra money through research
- Teach staff on good budgeting
- Scientific writing and communications (manuscripts)
- Focus on postgraduate students during trainings to capacity build young generation through recruitment of graduate students.

- Train on writing good proposals (think about the idea, share with other people and let it be criticized and improved)
- Departmental research seminars involving both senior and juniors to discuss proposals and share experience among them
- Have clear policies on research
- Good ICT infrastructure e.g wifi hotspots
- Invest in Library resources including e-resources to allow sharing among institutions
- Funding for research internally i.e small competitive grants among members of staff attaching graduate students
- Proper supervision of students
- Support members of staff to attend conferences for research dissemination
- Encourage institutional collaborative projects/grant proposal writing
- Engage development partners and work with their institutional partners
- National Research Fund bodies
- Develop more graduate programmes/active graduate school
- Mentorship programmes
- Good incentives with researchers
- Reduced workload
- Promotion based on research
- Institutional Journals

**Speaker 2:** Amb. Sheidu Omeiza Momoh, Nigeria High Commissioner in Kenya

**Topic:** Shared Security and Community policing for sustainable development

The representative who represented Amb. Sheidu Omeiza Momoh in his opening remarks thanked MKU fraternity for the good relation with Nigeria and for hosting the 5iiRC conference that drew delegates from all over the world. He noted that choice of conference them was timely since it focused on the role of institutions of higher learning has mutual role to play in putting the world on the right path through Research and Development. He also congratulated MKU motto 'Unlocking Infinite Possibilities' that says it all. Today the world has experienced several challenges such as terrorisms experienced in USA, Kenya, Somalia, and Nigeria etc that have had severe challenges to the societies majorly deaths. It is in this regard that am excited about the conference topic on the sustainable developing as stipulated in the 3<sup>rd</sup> SDGs agenda that encourages countries to mobilize resources/efforts to solve issues on poverty, inequality, climate change, insecurity etc while ensuring that no one is left behind. It is on this aspect of ensuring that no one is left behind that make us look at the issue of community policy. Through the community policy, countries will ensure that by 2030 all citizens have access to good safety and affordable housing among other basic services. This is inclined to the President of the Republic of Kenya, President Uhuru

Kenya that focuses on; Housing, Manufacturing, Food Security and Health. By 2030, countries focus to reduce deaths significantly, tackle environment challenges and access to affordable housing. Community policy is used by the UN as a philosophy that promotes organizational strategies promoting partnership to solve related problems. Shared problems require shared solutions. Countries are encouraged to employ diplomatic approaches to solve challenges within communities. Shared security is relevant in community partnership to solve problems within communities. For instance; citizen and police officers working together easily solves community problems based on mutual understanding. Therefore security is a responsibility for all and not just Police alone. Shared security emphasizes policing by consent rather than co-existence. Therefore, shared community and policing will provide among other things; crime prevention, peace preservation, incorporation of the community, monitoring and controlling Police activities, neighborhood watch, increased officers to protect civilians etc. In summary; terrorism, road traffic, human trafficking, cyber criminality etc which immensely contribute towards achievement of the 2030 SDGs goals can only be achieved through shared community. The community including Police should be able to monitor and report all crime scenes/incidences. In Nigeria, the entire country shares common security responsibility. In conclusion, peace and security can only be achieved where war and violence does not exist.

## Session 2: Keynote Speakers

7. Francis Mukuria: Oracle
8. Kelvin Kabuye: Oracle
9. Andrew Gakiria: Tabarin Ltd
10. Collins Omwenga: Tabarin Ltd
11. Simon Kabu: Bonfire Adventures
12. Dr John Kamau: Mount Kenya University

## Major highlights

The university is at the forefront of automation of several university systems that has resulted in faster/easier processing of several university services with emphasis on the digital uptake model. There is need to engage stakeholders in order to achieve set targets. Digital transformation creates several opportunities for data mining. Challenges have been experienced with the integration with systems from different vendors with some systems being easier especially open source systems. Data migration and security of stored information offer major challenges.

## Discussion Points

**Presenter: Francis Mukuria (Oracle) & Kelvin Kabuye (Oracle)**

**Topic: Transition of research by enabling knowledge**

Emphasized on streamlining of student enrolment by personalization of information by changing the model. Cycle management of students, empowerment and provision of

tools necessary for education is vital. Digital transformation facilitates achievement of objectives and simplification of knowledge availability. Digital transformation supports data management and analytics. Infinity loop-in life cycle management identifies the need of a student, how to enroll, how to achieve my course? Other regions are advantaged by technology uptake. In Kenya, technology uptake is improving hence Oracle's increased investment through knowledge empowerment and a fully-fledged higher education section.

**Andrew Gakiria & Collins Omwenga: Tabarin Ltd**

Company deals with Microsoft. It is currently working on the project of implementing digital transportation in Africa. Majority of people are currently digital immigrants that help to make to improve ones life, technology, provide services etc. Users want easy platforms to easier services. Artificial Intelligent (AI) has come to existence as a result of technology and make people have now impressed it.

**Simon Kabu: Bonfire Adventures**

Company last week and last month won best tourism company in Africa and last 2 years the best digital company in Kenya. The company was started by social media when there was no watsup but were organizing team buildings using facebook. The first organizers organized first event and was successful. Technology has impacted greatly where clients want real time informations. When the company started with 10 branches, there was physical meetings unlike nowadays where the company conduct online meetings through watsup, videocalls or skype. Social media has helped to improve services since people are able to either complain or compliment services online. People have also become anti-social but making people easier through easier networking. Pepole are also able to book online therefore engaging machines more than physical meetings.

**Presenter: Andrew Gakiria & Collins Omwenga**

**Topic: Collegial Experience in digital transformation/technology**

Integration and improvement of learner experiences. There are three main pillars with a requirement for a guiding pillar. There is need for creation of capacity in digital transformation as well as inclusivity (inclusion of various stakeholders). Partnerships with institutions that have digital/technological experience is crucial. Need for creation of learning pathways and multimedia assessment. Technological designs are essential with platforms and collaborative tools so as to e.g. streamline lectures. MKU is making major strides in this with the signing of an Education transformation agreement. Professional certifications are available with Microsoft imagine technologies. Faculty development is vital towards digital transformation of learning institutions. Content delivery- the Kenya Education Cloud is instrumental providing a multi-platform approach for helping students upload content, curation of content, approval, e-commerce portal, digital learning platform for dissemination of knowledge using a digital interactive system.



## Dr John Kamau (Mount Kenya University)

MKU teach various causes in ICT. The University has embossed technology to solve challenges like missing marks. Students are also teaching transformation to enable them be market prepared and help solve several challenges being experienced by the community. By teaching students digital implementation, the University is opening up market for new innovations that can be useful. The university is also collaborating with other institutions on ICT projects.

### Round Table Discussions: Interaction between discussants and the audience

No.	Question	Feedback
1.	For the case of Uber, is the physical security past the digital phase?	<ul style="list-style-type: none"><li>• The solutions come from multiple sectors. There is need to evaluate/validate software vendors and whether they work with open standards. Do they have a proven track record in data security?</li><li>• Enterprise solutions in security are crucial.</li><li>• Block chain is about ensuring trust.</li><li>• Security consciousness</li></ul>
2.	What is the authenticity of e-learning? Assessments? Remuneration?	<ul style="list-style-type: none"><li>• There is need for trained personnel and utilization of biometrics.</li><li>• Human interaction experience in technology design is also important.</li><li>• Blended learning (technology plus face-to-face interaction) is instrumental towards fostering learning.</li></ul>
3.	How can the issue of fake news be handled?	<ul style="list-style-type: none"><li>• Improve protection security in terms of passwords</li></ul>
4.	Is our data really secure based on recent technological challenges faced?	<ul style="list-style-type: none"><li>• Screen addict rehabilitation.</li><li>• Need for responsible digital consumption</li><li>• Need for research into the impact of digital transformation</li><li>• How do we capture the human psyche in digital interaction?</li><li>• Having digital free days.</li><li>• Viewing technology as an enabler, not an enemy. Use technology to limit the amount of time spent using devices.</li></ul>

## ROUND TABLE/PLENARY SESSION

### DAY THREE

#### Keynote Speakers

- |                                |  |
|--------------------------------|--|
| 1. Prof. Bitange Ndemo         | University of Nairobi                              |
| 2. Hon. Paul Kimani Wamatangi  | Senator, Kiambu County                             |
| 3. Dr. Katherine Getao,EBS ICT | Secretary, Ministry of Information & Communication |
| 4. Manoa Esipisu, MBS          | Kenya High Commissioner                            |
| 5. Dr. Ezekiel Mutua, CEO      | Kenya Film Classification                          |
| 6. Sr. Prof Rev Felicia        | COOU   |
| 7. Mr.Linus Kaikai,            | Royal Media Services                               |
| 8. Mr. Wycliffe Momanyi,       | Kenya Commercial Bank                              |

There is need for financial and credit institutions to directly be involved at the grass root level in providing information to aspiring and existing entrepreneurs. That academicians should provide local-based solutions through research activities.

#### Key highlights

There is need to countercheck/verify information that are doubtful with main stream media. The government and related agencies are working round to clock to minimize the spread of such news. The media related policies are being adhered to by media houses but there remains a challenge with bloggers and non-main stream media which are becoming a challenge to manage and control owing to its online activities

Relevant, accurate and timely information is a cornerstone of any democracy. That business can thrive if communication can meet such criteria. However, there is need for related agencies to support business performance on other aspects, since businesses are not exempt from other factors such as resources and space.

That they are working closely with related agencies to minimize the spread of fake news and cybercrime challenges. That relevant systems are currently being deployed to assist in mitigation measures with continuous monitoring so as to address any emerging issue

#### Round Table Discussions: Interaction between discussants and the audience

No.	Question	Feedback
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1.	What is the role of government in assisting implementation of solutions to entrepreneurial challenges	<ul style="list-style-type: none"> <li>• Big data is available on MSMEs online for analysis to inform policy</li> <li>• The government is slow in implementing and using available data</li> </ul>
	Can education be used to eliminate cultural challenges facing women entrepreneurs considering that the government is banning the offering of certificate and diploma courses by universities yet this is an avenue to the problem	<ul style="list-style-type: none"> <li>• That yes, education plays a key role in disseminating knowledge, however, changing education policies in Kenya is an uphill task</li> <li>• That ICT and internet can be used to complement the sharing of knowledge and information too</li> </ul>
2.	What are the solutions to women cultural challenges in entrepreneurial ventures?	<ul style="list-style-type: none"> <li>• That lenders ought to provide information to women at grassroots level</li> <li>• That scholars and academicians ought to provide problem based solutions to the entrepreneurs and not theoretical applications</li> <li>• That business startups should be based on business/entrepreneurial opportunities rather than copycat/duplication of SMEs</li> </ul>
3.	What is the role of financial ministry in supporting entrepreneurial opportunities in Kenya compared to Nigeria	<ul style="list-style-type: none"> <li>• That there is need to promote cross-border investment where investors are freely able to invest in other countries with limited restrictions</li> <li>• That land resources in Nigeria is underutilized and there is need to promote development of these farms and make them productive</li> </ul>
5.	How does the media fraternity mitigate against the spread of fake news	<ul style="list-style-type: none"> <li>• The media has to confirm its sources by ensuring there are witnesses or authorities as corroborators so as to make it genuine news</li> </ul>
6.	Shed light on measures being put in place and stakeholder collaborations to ensure cybercrime is arrested in the banking sector	<ul style="list-style-type: none"> <li>• It is important to be technically up to date so as to overcome the challenges that are being occasioned by new and emerging crop of threats</li> <li>• Set up of function to detect, investigate and prosecute cybercrime cases</li> <li>• Be careful on sites visited</li> <li>• Avoid opening software's or downloading</li> <li>• Avoid opening unanimous emails or open attachments</li> </ul>

		<ul style="list-style-type: none"> <li>• Avoid plucking in flash drives anyhow</li> <li>• For financial transactions use HTTPS</li> <li>• Avoid downloading games in play store by children</li> <li>• Be careful on what we post on</li> <li>• Collaboration is ongoing with relevant stakeholders such as DCI, give talks, etc</li> </ul>
7.	How do you distinguish the branch of fake news considering Uganda president on April fool's day introducing social tax (thought to be April fool's day joke) only to be implemented later, Donald Trump etc.	<ul style="list-style-type: none"> <li>• That some persons like trump have used the term to represent news that do not favour them</li> <li>• We can distinguish fake news from real news by considering the credibility of sources, fact checking and confirmation of authenticity</li> </ul>
8.	What is the board doing differently in preventing unclassified films in the economy	<ul style="list-style-type: none"> <li>• The board is trying implementing the existing acts and trying to protect public from uncensored films and movies especially the children</li> <li>• That children are the most vulnerable and there is need to ensure that the children are most protected from exploitative films</li> <li>• That we adhere to the watershed period principle</li> <li>• The programming code which is governed by CCK, is also in use to enable responsible airing</li> <li>• The challenge is the freedom of access to online content such as you tube content, and people posting on their own images or videos of unethical nature, Netflix among others</li> <li>• Editorial content is governed by guidelines adhered to by the media houses also so as to ensure</li> <li>• Internet can be regulated as a stop gap measure</li> </ul>
9.	How do you prevent wrongly posted or published information and not just offering profuse	<ul style="list-style-type: none"> <li>• The challenge with such information is that such information comes from blog media and not from mainstream media</li> <li>• You can always countercheck with the mainstream media to be assured</li> <li>• Cyber-squatting can be used to assist avoid</li> </ul>

10.	What is the danger with competition from media in reporting from becoming fake news in product adverts? What are the solutions?	<ul style="list-style-type: none"> <li>• Commercialization is the challenge that hurts true news or commercial.</li> <li>• However, there is need to adhere to the code of ethics</li> </ul>
11.	Which values are you referring? Which cultural aspects are you referring to? How do we manage the half-baked laws? What is the input of media to education?	<ul style="list-style-type: none"> <li>• The government has always had kneejerk reaction</li> <li>• In established governments, there is need to involve academia in disseminating solutions to fake news challenges</li> </ul>

# BREAKAWAY SESSION

## DAY 1

**Sub-theme:** Innovations on Digital Health Care and Community Health

**Chairperson:** Linnet Gohole

**Rapporteur:** Maria Wambui Mung'ara

**Topic:** The importance of scientific Foundation in *m*-health and the influence of enjoyment on the outcome.

**Presenter:** Elisabeth Ernings

The presenter indicated that there is increased number of mental apps available for use currently. The available apps have several advantages and disadvantages in comparison to the traditional interventions. One of the major disadvantage of lack of apps is that it takes too long to consult a doctor unlike using an app. However, some advantages includes; m-health is quick and offer more privacy however, there are no regulations on its usage and users of apps make their own decisions unlike the traditional form. The study, compared two apps namely; the scientifically sound app *kelaa* was compared to the unsound app *Anti-stress Quotes* concerning their effectiveness in reducing stress and improving mental wellbeing. The study also looked at the role on enjoyment to give direction to future research. The study found that enjoyment did not influence change in wellbeing and resilience but influenced the development of stress. However, several factors would have influenced the outcomes eg, data collected from students towards end of semester, technical problems, use of control group, short-time.

**Topic:** Gender breach in sport participation.

**Presenter:** Purity Kagwiria Mureithi

The presenter noted that women are not given equal opportunities like the men in sporting activities. Traditional gender roles makes women reaffirm their feminist roles as wives, sisters, mothers, caregivers etc, Media coverage also tender to give more prominence to men sporting activities unlike women sporting activities e.g the Harambee stars ( not always doing very well and the national women hockey team( doing very well). Statistics that show gender inequality for example, the Olympic games in 1900 only 22 women in comparison to 997 men participants participated. In 1924, International Olympics Committee declined women to use the word "Olympic" in the women games. Language used in sports upholds men for example use of men and girls. Among key recommendations included; equal leadership, restructuring sports committees and institutions, to stop media bias and early stage in sport participation.



## **Sub-Theme: Integration of ICT in Education**

**Chairman:** Dr. Susan Macharia

**Rapporteur:** Mr. Samuel Mungai

**Topic:** An evaluation of Rusinga's collaboration/outsourcing strategy on improving integration of ICT in education, Kenya-media and cyber harassment among the youth in Kenya

**Presenter:** Arphaxad Nguka Owange

Outsourcing and collaboration helps organizations reduce labour costs, avoid expenses associated with overhead, equipment and technology. Rusinga Technology Classroom is a solar powered mobile computer lab that simultaneously provides interactive e-learning programs to learners and conserves the environment in Rusinga Island. Collaboration/Outsourcing indicated a positive impact on all the ICT curriculum integration performance indices with P values less than 0.05 and positive correlation coefficients, indicating the positive impact on ICT integrated curriculum's information quality, service quality, system usage and net benefits indices.

**Topic:** Adoption of ICT English language literacy in Uganda Basic Education Curriculum

**Presenter:** Vincent Olema

ICT plays a pivotal role in enhancing English language literacy learning and teaching in basic education curriculum regarding learning labs in Ugandan education system. The Learning Labs have been designed with colorful materials and stocked with different hands-on learning materials. The use of Learning Labs have so far helped to improve educational outcomes. Learning Labs have facilitated increased English language literacy and it is imperative that this concept is enhanced by public – private partnerships and international collaboration for research for inclusive quality education.

**Topic:** Effectiveness of ICT community outreach for International Education Funding for Africa

**Presenter:** Joseph Rwothunio

University outreach activities are pivotal for showcasing the relevance of any university research, education, and training to the local communities, private sector industries, and civil society organisations. Most outreaches were still unplanned in the target communities and most outreaches have failed to bring change among the beneficiaries. Inadequate internal funding of strategic research plan; low access to ICTs, and poor university research culture and low dissemination of research outputs hamper the achievements of the sustainable development goal

**Topic:** Enhancing ICT readiness to improve inclusive education for sustainable development

**Presenter:** Wilson Okaka

Digital information and communication technology can be effectively employed to create, raise, promote, and sustain public awareness for social equity. The current challenges include: wrong attitudes, behaviour, methods, perceptions, communication, and project implementation strategies. Policy outreaches are vital if well planned, implemented, monitored, and evaluated for participation, transparency, effectiveness, trust, sustainability, gender equality, and local ownership.

**Topic:** Working capital financing as a mediator of working capital level and profitability of manufacturing firms? A research paper

**Presenter:** Ssendagire Lubega Dorothy

The study employed positivism paradigm where a pooled panel data analysis of cross sectional and time series data were employed. The study found out that working capital financing could not mediate the relationship and therefore the null hypothesis was supported.

### **Sub Theme: Climate Change, Energy and Environmental Sustainability**

**Chairperson:** Dr Samuel Karenga

**Rapporteur:** Ms Margaret Wangari

**Topic:** Climate change perception among the pastoralist women in Narok County

**Presenter:** Ms Janet N. Mashara

The presenter outlined that Kenyans experience most vulnerable climate change with impacts on livestock rearing, agriculture and tourism which are sources of livelihoods. She urged that Kenya's mean annual temperatures are expected to increase by 1-28<sup>0</sup>c by 2060s and 1.3.4.5 by 2090. The research aimed to assess climate change among the pastoralist women in Narok County and had collected the data between December 2007 and January 2018 and a sample of 51 respondents were interviewed. The coping mechanisms employed by pastoralist women were being examined. The response strategies employed to women to mitigate climate change were; Diversification of livelihoods, purchasing tanks, planting trees, changing plantation season and paying attention to reports on weather forecasts. The conclusion was that climate change affects different group population and majority of women interact with environment on daily changes to meet their needs. A number of women have little knowledge of climate change. Ms Mashara recommend that the Government through Ministry of Environment to enhance climate change awareness through various platforms.

**Topic:** Determination of effects of Niger Plant Secondary Metabolites on Weeds

**Presenter:** Ms Leah Oimbo M

The presenter stated that in Kenya Niger plant is a weed but in Counties like Ethiopia and Nigeria is a crop production that provides oil. There is need to control weed using environmentally friendly methods. Four dominants weeds were studied namely; Niger

plant, field Mustard, double thorn, broom weed and glass. She outlined that Niger plant has been observed to be negatively allelopathic to certain weeds. Her objective for carrying out the study was to determine the effects of Niger plant on weed abundance in a common bean field

The recommendation was that further study do be done on more weeds so as to widen understanding on the effectiveness of Niger plant in suppressing weeds. She concluded that in weedy plantation the present of Niger plant suppressed the germination and growth of weed and indeed Niger plant can be used to control weeds.

**Topic:** Planning effective community responses to climate change disaster risks in Uganda

**Presenter:** Ms Judith Irene Nagasha.

The presenter stated there is a Ugandan Climate Change Policy which aims in mobilizing people on climate change and variability disaster resilience adaptation. The objective of the study were to highlight local community context of climate change and to find out the role of climate information services for local community. The current Ugandan climate policy focusses on climate change at local communities. Communication strategies targets policy makers, civic makers, technical officers and local people. Media plays an important link between policy makers and public, the gap between knowledge is caused by in appropriate institutional framework, finance limitations, poor attitudes among communities, limited or no information. She concluded that communication information strategy helps to shape attitude and policy makers who are affected by climate change and there is need to increase development budgets to cater for digital communication.

**Topic:** Environmental management and sustainability technology for a Green Environment

**Presenter:** Ms Lydia Nyawira

The presenter indicated that energy conservation is one of the key that leads to achieving sustainable development and environment sustainability. Green energy technologies have been crucial in reducing greenhouse gas emissions. The aim of the study was to examine the objective between green technology and environmental sustainability and management for a green economy. There are 3 pillars of green technology policy for a green environment which include; economic development, social development and environment protection. The aim was to advance knowledge as regards green technology for environment suitability. The practical green technologies applied at Wote Technical Training Institute to enhance environmental sustainability included, building and construction using waste plastic bottles, conservation of agriculture using water retainer fertilizers and biological treatment for septic tanks. The conclusion was that conservation and taking care of the environment is for everyone.

# **BREAKAWAY SESSION**

## **DAY 2**

**Sub-theme:** Shared Security and Community Policing for Sustainable Development

**Chairperson:** Dr Joyce Muchemi

**Rapporteur:** Anne Wahito

**Topic:** Community Policing, Vigilantism and Shared Security in Uganda 1986 to 2018

**Presenter:** Charles Amone

The presenter highlighted the role of community policing in the society in the perspective of vigilantism and Holy Spirit. Vigilantes are organized groups that offer community policing on the behest of the government. Rebels are criminal groups that fight the government. Rebels are people or groups who don't follow the morals of the community therefore doing against the wish of the society or community. Presenter noted that Holy Spirit was not Christian based. The situation of insecurity resulted to emerging of insecurity groups. Some recommendations included; community policing should not be placed in the same level with vigilantism, these two have different connotations and secondly, the government should not form and arm vigilante groups for any reason whatsoever.

**Presenter:** Mr. Justice Mutua and Dr. Lucy Kibe

**Presentation Title:** Need for shared security and community policy for sustainable development in Kenya: case of Kibera slums.

There is a relationship between communities policing a sustainable development. There is development where there is no peace because there will be no humble environment. The link is very close; a person would rather go to the civil society than to the armed society. The ability of different entities in the society to come together and work for sustainable development.

**Topic:** shared security and community policing a solution for solution for sustainable development

**Presenter:** Mmoneke Samuel Ifeanyi

Integration of community policing and technology is imperative and have advantage for sustainable development and there no need to Africanize everything. Community can be small and has potential to bring globalization where people can work closely for sustainable development. For instance, Nigeria has had community policing for several years and has shown to be relevant. For instance, the Government of Nigeria used the community policing to fight Boko Haram, however, the originators are the Fulani people who are mostly Muslim. African countries can employ similar strategies to fight insecurity in Africa.

**Topic:** Adopting digital technology for indigenous herbal health communication services in Uganda

**Presenter:** Mr. Peter Agole

The presenter noted that there is a lot of potential for the traditional herbs to act as alternative to synthetic drugs in Kenya. Digital technology when properly integrated in the traditional medicine can revolutionize the field and thereby contribute to sustainable development. Most villagers in the rural areas in Uganda have mobile phones. Ethical consideration is a major component of traditional herbs in globally and therefore all researches involving traditional herbs must consider the ethical aspect. Recommendations included; the research should be geared more towards technology and ICT and less towards herbal medicine.

### **Sub-Theme: Integration of ICT in Education**

**Chairman:** Dr. Ruth Thinguri

**Rapporteur:** Mr Harrison Waweru

**Topic:** Assessment of Challenges facing ICT integration in managing Public Secondary Schools: A Comparative Study of Day and Boarding Secondary Schools in the South Rift Region, Kenya

**Presenter:** Dr. Johannes Njoka

The research aimed to provide empirical data that could inform policy and provide practical solutions on how to integrate ICT in secondary schools in Kenya. There is need for institutions and enterprises to embrace ICT in the execution of their functions in this digital era to increase efficiency and effectiveness in service delivery. According to UNESCO report of 2014 many developing countries have neglected expansion of their internet and electricity connectivity rendering ICT integration in schools almost impossible. Inadequate training, weak infrastructure, lack of maintenance and technical support were also highlighted as major drawbacks. There is need to conduct a study to unravel hindrances of ICT integration in public secondary schools in the South rift region

**Topic:** Enhancing accessibility and active engagement in E-learning through integration of Mobile learning and E-portfolios

**Presenter:** Dr. Gikandi Joyce

The success of e-learning is centered on accessibility, flexibility and active engagement by users. There is little consideration for structured mobile supported learning despite the heavy mobile usage in schools and mobile learning has great potential to enhance accessibility and flexibility. To stimulate engaged learning, there is need to integrate e-portfolio and mobile learning in order to stimulate engaged learning. E-Portfolios make learning active by stimulating teacher and learners to focus on new designs and effective application of e-portfolios integrated with mobile learning environment can increase learners' active engagement and support development of robust knowledge and transferable competences.

Innovative use of e-portfolio within a mobile learning environment offers a pedagogical strategy that forms a foundation for shifting from the culture of rote learning to facilitating active and deep learning. Effective integration of e-portfolios and m-learning will offer universities an authentic way to operationalize of integration ICT and promote digital literacy

**Topic:** Improving students attitude towards biology through Computer Assisted Learning

**Presenter:** Dr. Samikwo D. Wambuke

The study was aimed at establishing the influence of computer assisted learning on students attitudes towards biological knowledge. The presenter indicated that computers is rapidly advancing in the domain of educational technology as a preferred and relevant media for instruction in our classrooms. Computers as an instructional tool can create an enhanced learning context that can contribute to students' academic growth and computer-assisted learning in Biology can increase students' interest in the subject matter while motivating them to learn. The presenter quoted a study by Veselinovska (2014) that showed classes were more exciting and encouraged student's activities by use of interactive whiteboard. The presenter said that KNEC (2017) students' performance in Biology in secondary schools recorded consistently poor. The findings of the study established that CAL influenced students' attitude positively towards Biology

**Topic:** Digital Technology: Catalyst for the fulfilment of the great commission for sustainable development

**Presenter:** Dr.Ezeogamba Anthony Ikechukwu

The paper aimed at presenting digital innovation as catalyst for the propagation of the Christian faith which was brought by Christ. Jesus came into the world for the welfare and salvation of mankind. He was fully aware of the vastness of the mission area - the world. He knew he would not be able to cover it alone. He began by calling disciples. These he made known his mission and prepared them so that the children of God could develop into their full potential. Jesus traversed Palestine on foot, used canoes and donkeys. The disciples mandated to spread the gospel have not covered the whole world till today. This is due to the vastness of the ground to cover and those earlier converted to Christianity relapsing to other religions because the conversion was not sustained. Digital innovation would have provided opportunity whereby in the comfort of a room Jesus either with or without his followers processed and transmit the message of salvation just by using fingers to press a button or sets of buttons. If these days people spend more time on their laptops, tablets, iPhone, televisions, radios, as they interact with their friends in the Facebook, WhatsApp, internet, Imo, etc digital innovation would be a veritable alternative for effective obedience to the great commission: "Go and make disciples of all nations" (Matt 28:19). Digital innovation is the answer for effective dissemination of the good news to all parts of the world



**Topic:** Role of Management practices on Teachers performance in selected private secondary schools in Busiro County, Wakiro District

**Presenter:** Muhamad Aisa

The study explored the use of non-monetary reward for retaining staff in selected private secondary schools in Busiro County Wakiso District. Organizations need to maintain staff morale to avoid high labor turnover. Teachers often move from one school to another looking for greener pastures. The global financial crisis and competition among organization's necessitated the innovation of other means of attracting, retaining and training teachers. The presenter quoted the Herzbergs theory that states factors that cause job satisfaction and dissatisfaction in the workplace. Workers feel happy when they take part in decision making in school activities and non-monetary rewards are important for teacher's advancement, professional growth, recognition and achievement. Teachers are of different background therefore it is difficult to determine the type of reward each one deserved. The level of income of the school posed a challenge on offering food baskets, medication, computer training and corporate wear.

**Topic:** Emotional intelligence and academic achievement among university upgrading teachers students

**Presenter:** Helen C.A

Another research sought to investigate the relationship between emotional intelligence and achievement (academic). Academic achievement (AA) refers to attainment, accomplishment, triumph, realization, reaching and getting whereas emotional intelligence (EI) is the most important intelligence that considers feelings, connectedness and knowledge that adds value for success with other people. Successfully using emotional intelligence as a part of assessing emotional style depends in large part on our desire and ability to understand ourselves. Understanding the handling of specific emotions is very important in the teaching and interactions of the Teacher Students' activities. No matter how old you are, you can still take up EI and make the rest of your life better and happier

**Topic:** Parents Oral Tales and Children's Literacy Outcomes in Uganda: A Case of Sironko District

**Presenter:** Mafabi Lenard Wasukira

The purpose of the study was to establish strategies that enhance parents' use of oral tales to improve children's literacy outcomes. The study was guided by the objectives; to examine the current oral telling practices; to enrich parents' oral tales practices; to establish the relationship between parents' oral tales practices and literacy aspects. Literacy is a human right (UNESCO 2000). Literacy is necessary for a child to benefit in digital innovation and knowledge economy. Many rural parents are illiterate, yet tell stories since stories enhance metalinguistic development which is critical to literacy. As it is currently, parents' role in children's literacy is ignored

## **Sub-Theme: Integration of ICT in Education**

**Chairman: Mr John Muhia**

**Rapporteur: Dr. Godfrey Keru**

**Topic:** Influence of procurement committees on management of secondary school resources in Mandera County, Kenya

**Presenter:** Issak Maalim Adow

The purpose of this study was to analyze the influence of procurement committees on management of secondary school resources in Mandera County, Kenya. The presenter noted that the influence of procurement practices is an essential component in the management of secondary school resources. It was noted that procurement practices enhance prudent use of resources, accountability, financial controls and institutional efficiency. The study found out that that half (50.0%) of the members of school Board of Management indicated that they are often trained on tendering skills, slightly more than a quarter (25.5%) indicated training on procurement rules and regulations whereas 24.5% indicated that training is often done on skills to adhere to procurement procedures. Quite a good number of sampled School Board of Management (61.3%) strongly agreed with the view that training of procurement committees on skills on tendering has not enhanced financial prudence, staff relations, curriculum implementation and infrastructural development in secondary schools. The study recommended training programs in schools to ensure that all the school staffs are trained on new procurement rules and regulations and competence increased in order to perform better. Additionally, training should be conducted to all non-teaching staff on the importance of adherence to procurement rules and regulations.

**Topic:** Effects of Information and Communication Technology Integration on Curriculum Implementation: A Case of Moi Girls' High School-Eldoret in Uasin Gishu County-Kenya

**Presenter:** Rose Khamusali Okwemba

The study was to find out the effect of integrating ICT in secondary school curriculum implementation and performance of students. The study was undertaken in Moi girls Eldoret. The study used descriptive research design with a target population of 84. Questionnaires were the tools of data collection. The study results show that secondary schools should embrace ICT integration so as to acquire better curriculum implementation results. 94.1% of the respondents strongly agreed that there was improvement in the learning outcomes. Additionally, a majority 69.1% of the respondents agreed that ICT integration contributes to the development of teaching and learning processes. The following conclusions were drawn from the study ICT integration is a useful tool for curriculum implementation and Teachers are very key in process, blended curriculum with ICT is effective in delivering the content to the learners. The study recommends that Ministry of education should invest more in computers and related technology as this enhances the implementation process of curriculum.

**Topic:** Influence of digital educational resources on learning of chemistry practicals in secondary schools in Ugenya Sub-County

**Presenter:** Ann Muiru

The study established that most public secondary schools rarely have such as animations, digital videos, simulations, teachers guides, experimental procedures and reactions and results but where they are available and are frequently used students register impressive grades in chemistry practical since they are motivated in learning. In chemistry practical's, media can be used to map abstract concepts, represent stages of chemical processes or to give sequential description of experimental procedures among several others uses which would eventually lead to better performance. That chemistry teachers and schools should be made to understand that these are educational media serve to enhance teaching concepts in chemistry practical. Secondary school management should provide these resources and the chemistry should vary the use of different computer simulations to breakdown monotony of learning by theory. On projected digital images, the study established that these resources are commonly available in schools, but are rarely used to teach and learn chemistry practical. The study recommends that chemistry teachers be encouraged to use these resources as part and parcel of teaching and learning of chemistry concepts.

### **Sub-Theme: Integration of ICT in Education**

**Chairman:** Dr Ronald Onsiro

**Rapporteur:** Racheal Kimani

**Topic:** The contribution of ICT in teaching and learning tone of Tanzanian Bantu language

**Presenter:** Joseph Hokororo

The presenter pointed out the main benefits of ICT in teaching. In the study, he sampled postgraduate students studying languages, tonology and phonetics. The study found out that ICT can facilitate tonal rule derivation and it enables tone recording and variation

**Topic:** Utilization of ICT in Postgraduate Studies by Students in Kenyan Universities

**Presenter:** Dr Emily Nyabisi

In this study, the level of proficiency in ICT by Postgraduate students was determined and data was collected in form of questionnaires and interviews using mixed method approach. According to the presenter, there was a huge discrepancy between class performance and research performance amongst students in Kenyan Universities. In postgraduate studies, students perform exemplary well in course work but when it comes to research and utilization of ICT there is inadequacy. The findings of this study were used to make recommendations for the integration and enhanced utilization of ICT in postgraduate training

**Topic:** Digital Platform for E-learning Delivery in Private Universities in Kenya

**Presenter:** Dr Beth Mwelu

The presenter stated that internet communication has been adopted for curriculum delivery in the institutions. The study was investigating the effectiveness of e-learning in private Universities in Kenya. The researcher evaluated infrastructural based factors towards effective digital learning. -Accessibility of e-learning materials toward effective digital learning and skill related factors towards effective digital learning were assessed. Findings were that accessibility by students are still low due to challenges such as poor WiFi CONNECTIVITY, inconsistent LAN. -A significant number of students disagreed that materials are sufficient, updated, and relevant and review should be considered to reduce bulk. A significant number of students felt that instructors were not competent enough and not easily accessible

**Topic:** Teachers' training: A critical component in information Communication Technology Integration in Secondary Schools in Kenya: A review

**Presenter:** Alice Wambui Ngunju

According to the researcher Kenya has emphasized on the importance of ICT integration through its Education Sector Support Programme. Most teachers in the Education Programme have reasonable knowledge on use of ICT during their preservice training. However ICT integration in the education sector faces many challenges e.g. inadequate resources particularly in rural areas. The study recommended more ICT exposure in preservice training of students as well as in service students. Theoretical training to teachers should be curbed

**Topic:** Study of financial literacy in relation to economic empowerment among Self Help group members in Kisii, Kenya

**Presenter:** Annrose Gakenia

Study of financial Literacy in Relation to economic empowerment among Self Help group members in Kisii, Kenya. The researcher assessed levels of financial literacy amongst women in selfhelp groups in Kisii County and investigated the influence of financial literacy through microfinances on economic empowerment of selfhelp group members. The study found out that financial literacy levels are still low. Many women still do not fill ledger books or do simple book keeping. The researcher recommended rampant financial literacy and Education in Kisii County

# **BREAKAWAY SESSION**

## **DAY 3**

**Sub-theme:** Role of Artificial Intelligence (AI) in the 21<sup>st</sup> Century

**Chairman:** Prof. Gregory Wanyembi

**Rapporteur:** Ms Fiona Oyatsi

**Topic:** Application of Public Private Partnerships (PPPs) in Kenya for the Achievements of Sustainable Development Goals

**Presenter:** Daniel Mutegi Giti

The presenter defined Public Private Partnerships (PPPs) as the collaboration between public and private players to deliver public goods and service and that it's not privatization or nationalization; it's in between and allows for government control, access to finance, technology, managerial infusion, risk transfer and government focus on outputs. The presenter argues that there are lots of infrastructural development demands and requirements for the achievements of the SDGs, Kenya Vision 2030 and the Constitutional demands as per CoK 2010, Kenya Vision 2030 and the Big Four Agenda. The study states that the private sector is well resourced, organized, possess modern technologies, managerial prowess, efficiency and effectiveness in project delivery. The study noted that according to the African Development Bank (2014) the Kenya private sector contributes 97% of the GDP and 80% of all employment opportunities in the country and as such, Partnerships through PPPs can deliver much needed services. The study pointed out that effectiveness of PPPs was brought about by: increased efficiency, expertise and innovation, adequate identification, quantification, costing and apportionment of risks to the party best able to handle such risks. The study findings identified that 81% were aware and supported the application of PPPs in achieving the SDGs in the Nairobi Metropolitan region; while 19% were unsure or were not aware of the applicability of PPPs in achieving the SDGs, the study also found that PPPs were likely to be used in roads and associated infrastructure (43.9%), Housing infrastructure (25.5%), Telecommunications and ICT (21.9%) and Security and energy (8.7%). The study recommended that the Nairobi Metropolitan Region should embrace application of PPPs in infrastructure and service delivery, because they are cost effective, leverage on technology, makes installation of infrastructure and service delivery affordable to developing regions by availing financing through privately raised capital away from the budgetary constraints of government. The presenter noted that the national and county governments should build more capacity of PPPs application, create more awareness and address the challenges which hamper application like inadequate laws and regulations.

**Topic:** Drawing with House-Hold Bleach to Create Sustainable Income Generating Art  
**Presenter:** Michael Odongo

The presenter stated that there was a need to explore new and sustainable materials and techniques for producing art. The presenter identified some of the conventional art drawing materials today as pencils, dry/oil pastels, water colours. Some of the unconventional art drawing materials he identified were local charcoal and household bleach. The presenter stated that household bleach could be a viable alternative for creative drawing as it was readily available in retail shops within local communities unlike conventionally used art materials. The study outlined the significance of using household bleach as: provision of sustainable income for talented artists, improved access for art materials and enhanced students'/artist overall creativity. The study identified that despite having plenty of unorthodox materials in our surroundings creativity among artists had been restricted to processed and manufactured items on the market. The study sought to explore possibilities of using household bleach for creative drawings and the viability of bleach on drawing for sustainable income. The study found that drawing using household bleach could be used to generate sustainable income generating art. The study further pointed out that usage depended on understanding the characteristic of bleach and creativity of the artist. The study recommended that artists needed to investigate the properties of a number of items be it at home or within the environment because mediums that created drawings were countless but just needed to be tried and tested.

**Topic:** Determinants of the Quality HIV / AIDS Data among Health Care Providers in Shinyalu Sub-County, Kakamega County  
**Presenter:** Lynette Muthoki

The presenter stated that good quality health information was essential for planning and implementation of health policies in all countries. The study identified that the major issue faced in the developing countries was the inability to quantify and analyze the crisis situation using credible data. The study also pointed out that although firms were improving data quality with practical approaches and tools, their improvement efforts tend to focus narrowly on accuracy. The presenter cited that there was inconsistency of about 30% in the quality of HIV data among health care workers in Shinyalu sub-county. The presenter argued that this was due to total neglect by health professionals on the utilization of data at various levels of health system. The study sought to determine factors influencing quality of HIV/AIDS data among Health care workers in Shinyalu Sub-county. The study identified the major causes of poor data quality as follows: Data entry errors, Poor documentation, Incorrect counting of data from the registers and Lack of understanding of HIV reporting indicators. To improve the quality of HIV data in Shinyalu sub-county, the study noted that mentorship was mentioned by the respondents 63.6% as the most appropriate approach of improving data quality, followed by data review at 60% then quality Audit and training at 58%. The presenter also highlighted some of the suggestions of improving the quality of HIV



data made by the Shinyalu sub-county health management team as follows: On-job mentorship on HIV reporting tools, Training on the HIV reporting tools, Employment of more records Officer in high volume sites to manage the information, Data review both at the facility level and the sub-county level and Data cross check and verification at the facility and sub-county level. The study noted that there were only 62% of the facilities who verified their reports before submission to the next level, that there were only 9% of the staff who had the knowledge on awareness on HIV data management SOPs. Also, only 2% of the respondents were able to mention correctly data correction procedure. The presenter reported that there was poor quality of HIV data in Shinyalu Sub-county with a variance of 11% between the source register and the summary tools, and 8% between the summary tools and the DHIS2. The study recommended that data verification should be done at the facility level and the sub-county level, that while emphasizing on multiple approaches on data quality improvement, that priority should be given to mentorship on reporting tools. In addition, the study stated that staff should be motivated to enable them change their attitude towards reporting of HIV data and the documentation of services at the facility level should be promptly done with page summaries done to reduce the discrepancies between the primary data source and the summary tools.

**Topic:** Public private partnerships as an innovative tool towards achievement of sustainable development goals in Nairobi, Kiambu and Machakos counties

**Presenter:** Dr. Lucy Kibe

The presenter stated that Public private partnerships have become a super model through which developing countries can achieve sustainable development. Developing countries have laid a continuous emphasis on Public-Private Partnerships (PPPs) as a superlative tool to achieving Sustainable Development Goals (SDGs). Under the PPPs model, significant risks such as; designing, delivering, operating, monitoring and maintaining and partly financing the related projects are transferred to the private partner. The study identified some of the challenges as; Environment within which PPPs are implemented, Failure in implementing successfully the PPP policy, Failure to link the PPP policy to SDGs and Lack of information on the need to use PPPs for SDGs. In addition, some of the knowledge gaps the study identified in the study were that: There was scarce literature on the need and use of PPPs to achieving SDGs in Kenya and lack of information to citizens, policy makers and the private sector on the need to use PPPs to attain SDGs. The presenter stated that the theoretical framework used for the study was; Capital Structure Theory which assumes that the benefit that a project derives from the infusion of proper financing structures determines the viability and efficiency of a project, Theory of Change which is a comprehensive theory addressing capacity building as an initiative to bring about continuous improvement in performance of a project, Information Theory for Data management that is fundamentally about harnessing data to extract information , analysing to discover new patterns to deduce structure. The presenter noted that capital planning; availability of budgets and other financial resources, was the strongest determinant of

the achievement of PPP goals and She stated that capacity building; acquisition of skills, knowledge, and other competences were also key to achieving SDGs. The presenter pointed out that data management: collection, storage, processing, analysis, interpretation and dissemination of data rated closely as key influencing determinants to the use of PPPs for sustainable development.

### **Sub-Theme: Role of Artificial Intelligence (AI) In The 21<sup>st</sup> Century**

**Chairman:** Ms. Elizabeth Mwaura

**Rapporteur:** Mr. Kevin Mwangi

**Topic:** Financial literacy and financial performance of Small and Medium Enterprises in Uganda

**Presenter:** James Kizza

Dr Kizza defined financial education as the process of improving the individuals' knowledge and understanding of financial concepts, service and products. Financial literacy is the ability to use knowledge and skills to manage one's financial resources. Components of financial literacy are; money literacy (management of cash and non-cash money), price literacy (understanding prices and time value of money) and budget literacy (ability to manage budget). Financial literacy is measured through financial knowledge (awareness of financial concepts), financial skills and financial experience (real-life experiences on using money). That financial performance is a measure of how well a firm can use its assets and generate revenues. For the purpose of his study, financial performance is expressed in terms of business survival, profitability and growth. Most SME's are not able to live beyond the first two years due to lack of awareness of financial literacy.

The objective of the study was to examine the relationship between financial literacy and financial performance of SME's in Kikuubo shopping center in Uganda. Findings highlighted a strong positive correlation between financial literacy and financial performance. Financial skills were possessed by SME's in credit management, saving and investment but lacking in participatory budgeting. SME's through experience are able to make judicious decisions concerning their resources but face challenges in risk management. The researcher recommends financial institutions to take their services nearer to SME's by advising them on various financial concepts.

Encouraging a comparative study isolating SMEs with adequate financial literacy and SMEs with limited financial literacy.

**Topic:** Role of financial literacy in knowledge-based economy

**Presenter:** Josephine Ndanu and Velma Mideva

The presenters defined financial literacy as the ability to understand and acquire skills necessary to manage cash and non-cash transactions. The objective of the study was to obtain levels of financial literacy in Kenya, its role in knowledge-based economy and determining ways of improving financial literacy for a better economy. Behavioral finance theory explains how people make decisions based on information around them and in this study decisions that people take on how to utilize money. Its two indicators are financial knowledge and financial attitude. Financial knowledge is the possession of

a set of skills and information allowing and individual to make informed and effective financial decisions. Financial attitude is one's concept, beliefs and values related to finance concepts. Dimensions of Knowledge based economy are; economic and institutional regime, educational and skill of human resource population & information and communication infrastructure (for effective communication, dissemination and processing of information). It is the role of financial policy literacy to equip the knowledge-based economy with money literacy, price literacy and budget literacy. The presenters argued that financial literacy plays a very critical role in helping to ensure that stability, financial health and prosperity is achieved in a knowledge-based economy. The research was conducted on four different age-groups of sample population, aging between 18 and above 65 years. Findings highlighted that only the youthful of age seemed ready and interested in how to manage their financial matters and readily accepted advice on how to handle their money from financial experts. The other groups indicated some difficulties in being open and readily accepting to change their financial behavior and attitude to money management from the experts. Concluded that financial literacy is crucial in all dimensions of knowledge-based economy and promotion of financial literacy be encouraged in all forums of the economy. The researchers encouraged for financial literacy education be included in all levels and forms of education.

**Sub Theme:** Globalization And Domestic Legal Systems In Africa / Fake News, Cyber Crime And Digital Revolution: New Frontier In Peace & Security

**Chairperson:** Bonface Malala

**Rapporteur:** Anthony Kamau

**Topic:** The dynamics of selected limnological data along a land use gradient in River Molo, Kenya

**Presenter:** Kobingi Nyakeya

The presenter stated that Riparian Law is in the Constitution of Kenya and it should be implemented across the country. It's based on a minimum of 6 metres and up to a maximum of 30 metres on either side of a river bank. Carbon emissions have affected the climate adversely as well as inappropriate land uses.

**Topic:** Factors affecting food selection intake and the nutritional status of the elderly in Mathare Slums.

**Presenter:** Kwamboka Evelyn Makori.

The presenter indicated that gender disparity considered was 50% men and 37% were women. A list of meals was provided to create nutritional awareness. The study focused on Vision 2030 and Sustainable Development Goals 1, 2 and 3 for a healthy nation. She stated that the real aim of the study was to create nutritional awareness in unprivileged communities.

**Topic:** The politics and relevance of fake news in the African societal development agenda.

**Presenter:** Dr. Wilson Okaka

The presenter defined fake as false or fabricated information. Fake news has gained more traction in modern power politics due to faulty policy, strategy, deception, ploy or gimmicks weapon. The impacts of fake news have wide variances and can have negative, positive or sorrow impacts based on the intention. It causes a mix of reactions but not limited to joy, wild, excitement, chaos etc. This can lead to low, *medium or serious* impacts. Fake news is the DNA of everyone but can be suppressed, i.e. controlled through highlighting name and shame sources and promoters of fake news using ICT services available, also by Promoting ethical standards. Fake news can have a positive and permanent impact in the society by providing temporary solutions to solving problems. However, it is still unethical and should not be promoted. Policies should be put in place to govern the use of fake news.

## GALLERY



Poster Presentation



H.E Manoah Esipisu, Dr. Vincent Gaitho and Prof. Waudo



Prof. Waudo & Prof. Ndemo



Dr. Vincent Gaitho





H.E. Manoah Esipisu



H.E. Manoah Esipisu and Linus Kaikai



Hon. Kimani Wamatangi



Madam Jane Nyutu, Member MKU  
Board of Directors



Round Table discussion



Prof. Ndemo and Dr. Mutua



Poster Session



Panel Discussion





## Mount Kenya University

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