

29 OCTOBER - 02 NOVEMBER

2018

RESEARCH AND INNOVATION CONFERENCE

CONFERENCE BOOKLET

Looking into the Future: Solving
Tomorrow's Problems with Today's
Research



Strathmore
UNIVERSITY



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INTRODUCTION

About the Conference

The 2018 Strathmore University Research and Innovation Conference takes place from 29th October to 2nd November, 2018. It is open to researchers from within and outside the University. It is intended to provide a platform for celebrating the research activities of the staff and students of the University and to deepen the University's research partnerships.

Aims of the Conference

The Conference seeks to:

- Improve the quality and increase the number of publications by faculty and students
- Showcase achievements resulting from academia-industry linkages
- Showcase the impact of research conducted by faculty and students on society
- Showcase undergraduate research, which is the pipeline of future researchers
- Showcase innovations resulting from the utilisation of research

Organising Team

- Prof Izael Pereira Da Silva - DVC Research and Innovation
- Prof Ismail Ateya - Dean Research and Innovation
- Cavin Opiyo - Administrator, Research Services Office
- Esther Awino - Executive Assistant, DVC Research and Innovation
- Mathew Otieno - Communications Assistant, DVC Research and Innovation
- Michael Muli - Grants and Proposals Manager
- Annefelicitas Ojowa - Intern, Research Services Office

Track Leaders

- Dr Bernard Shibwabo (FIT) - ICT, Mobile Applications and Cyber-Security
- Sarah Odera (SERC) - Renewable Energy and Energy Efficiency
- Gillian Kimundi (SIMS) - Mathematical Applications and Economics
- Joyce Riungu (SIPPG) - Public Policy, Governance and Integrity
- Dr David Chiawo (STH) - Tourism and Hospitality
- Mukami Wangai (SLS) - Law and Justice
- Sylvia Anyika (IHM) - Health, Healthcare Management and Research Ethics
- Dr Magdalene Dimba (SHSS) - Humanities and Social Sciences
- Judah Waweru (SUBS) - Entrepreneurship, Business Innovation and Management

WELCOME NOTE

I closed my remarks during the 2017 Strathmore University Research Symposium by inviting you to the 2018 Strathmore University Research and Innovation Conference. It is now my singular pleasure to welcome you to this latter event. My promise was that it would be an even bigger research and innovation event. And it is in every way.

In the following pages, you will get a glimpse at over 150 scheduled presentations. These have been culled from almost 180 submissions by staff members and students from Strathmore University and beyond, as well as from our industry and research partners. 46 of these submissions were from undergraduate students. We accepted all of them for presentation over the first two days, which we have reserved exclusively for students. You will also see entries for several side events and plenary sessions. Worthy of mention is the Keynote Address, which will be given by Dr Jemimah Onsare, the Ag. CEO for the National Research Fund. The plenary panel discussion, which will explore the central theme of the conference (“Looking into the Future: Solving Tomorrow’s Problems with Today’s Research”) is a must-attend.

Also worth mentioning is the fact that the Tourism and Hospitality thematic area will this year host the African Conference on Tourism and Hospitality (ACoST), which is a biennial conference convened by the School of Tourism and Hospitality. Last but not least, I am pleased to inform you of the inaugural Food Energy Water Nexus Forum, organised by Penn State University, which will take place on Thursday and Friday on the sidelines of the conference.

Even more than last year’s symposium, this event advances Strathmore University’s tradition of celebrating research and innovation. I believe that you will find in it valuable insights into the work that we do, alone and with our partners, and that, from it, even more flames of research will fan out. And while you are at it, make sure you enjoy all that Strathmore University has to offer.

Izael

Prof Izael Pereira Da Silva
DVC - Research and Innovation



GENERAL TIMETABLE

MONDAY | 29.10.2018

THEMATIC AREAS

ICT, Mobile Applications and Cyber-Security 9:00 am - 4:00 pm	TRANSCENTURY AUDITORIUM, SUBS
Mathematical Applications and Economics 9:00 am - 4:00 pm	JACARANDA ROOM, SUBS
Tourism and Hospitality 9:00 am - 4:00 pm	MICROSOFT AUDITORIUM, STMB
Humanities and Social Sciences 9:00 am - 4:00 pm	B-03, STMB
Renewable Energy and Energy Efficiency 9:00 am - 10:30 am	B-04, STMB
Law and Justice 2:00 pm - 3:30 pm	B-04, STMB

PLENARY EVENTS

Roundtable on Youth Leadership 11:00 am - 12:30 am	MAIN AUDITORIUM
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TUESDAY | 30.10.2018

PLENARY EVENTS

Roundtable on Entrepreneurship and Innovation 9:00 am - 10:30 am	MAIN AUDITORIUM
Presentation of Innovation Challenge Entries 11:00 am - 12:30 pm	TRANSCENTURY AUDITORIUM, SUBS
Talent Show 2:00 pm - 4:00 pm	MAIN AUDITORIUM
Exhibition of Innovations 9:00 am - 4:00 pm	MAIN AUDITORIUM
Award Ceremony 4:00 pm	MAIN AUDITORIUM

WEDNESDAY | 31.10.2018

THEMATIC AREAS

Humanities and Social Sciences 9:00 am - 4:00 pm	B-03, STMB
Health, Healthcare Management and Research Ethics 9:00 am - 4:00 pm	MVULI ROOM, SUBS
Tourism and Hospitality (ACoST) 9:00 am - 4:00 pm	MICROSOFT AUDITORIUM, STMB
ICT, Mobile Applications and Cyber-Security 9:00 am - 4:00 pm	TRANSCENTURY AUDITORIUM, SUBS
Law and Justice 9:00 am - 4:00 pm	B-04, STMB
Renewable Energy and Energy Efficiency 2:00 pm - 4:00 pm	JACARANDA ROOM, SUBS

PLENARY EVENTS

Keynote Address 11:00 am - 12:30 pm	MAIN AUDITORIUM
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THURSDAY | 01.10.2018

THEMATIC AREAS

ICT, Mobile Applications and Economics 9:00 am - 4:00 pm	TRANSCENTURY AUDITORIUM, SUBS
Health, Healthcare Management and Research Ethics 9:00 am - 4:00 pm	MVULI ROOM, SUBS
Humanities and Social Sciences 9:00 am - 4:00 pm	B-03, STMB
Tourism and Hospitality (ACoST) 9:00 am - 4:00 pm	MICROSOFT AUDITORIUM, STMB
Public Policy, Governance and Integrity 9:00 am - 4:00 pm	JACARANDA ROOM, STMB
Business Innovation and Management 9:00 am - 4:00 pm	B-04, STMB
Food-Energy-Water (FEW) Nexus Forum 9:00 am - 4:00 pm	MAIN AUDITORIUM

PLENARY EVENTS

Plenary Panel Discussion 11:00 am - 12:30 am	MAIN AUDITORIUM
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FRIDAY | 02.10.2018

THEMATIC AREAS

Health, Healthcare Management and Research Ethics	MVULI ROOM, SUBS
Mathematical Applications and Economics	JACARANDA ROOM, SUBS
Food, Energy and Water (FEW) Nexus Forum 9:00 am - 5:00 pm	MAIN AUDITORIUM
Public Policy, Governance and Integrity (Benefit Sharing) 9:00 am - 10:30 am	MICROSOFT AUDITORIUM, STMB

PLENARY EVENTS

Closing Ceremony 4:00 pm	MAIN AUDITORIUM
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29.10.2018

MONDAY

THEMATIC AREAS

ICT, Mobile Applications and Economics 9:00 am - 4:00 pm	TRANSCENTURY AUDITORIUM, SUBS
Mathematical Applications and Cyber-Security 9:00 am - 4:00 pm	JACARANDA ROOM, SUBS
Tourism and Hospitality 9:00 am - 4:00 pm	MICROSOFT AUDITORIUM, STMB
Humanities and Social Sciences 9:00 am - 4:00 pm	B-03, STMB
Renewable Energy and Energy Efficiency 9:00 am - 10:30 am	B-04, STMB
Law and Justice 2:00 pm - 3:30 pm	B-04, STMB

PLENARY EVENTS

Roundtable on Youth Leadership 11:00 am - 12:30 am	MAIN AUDITORIUM
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MAIN AUDITORIUM

ROUNDTABLE ON LEADERSHIP

11:00 Welcome address

DR VINCENT OGUTU - Vice Chancellor Designate

11:10 Thematic Talk: Virtuous Leadership

DR GEORGE NJENGA - Dean, Strathmore University Business School

11:30 Panel Discussion

Virtuous Leadership for the Future of Africa

PANELISTS:

MARGARET MLIWA - Program Officer, Ford Foundation

KEVIN MWENDWA - Chair of Student Council, Strathmore University

STEPHEN NG'ANG'A - University Registrar, Strathmore University

JUNE KURIA - Member of County Assembly, Nairobi City County

DR OCHIENG' KAMUDHAYI - Lecturer, School of Humanities and Social Sciences

ANGELA GITHUTHU - Youth Segment Lead, Safaricom

MODERATOR:

DR ALFRED KITAWI - Founder of Centre for Research in Education, Strathmore University

12:30 Lunch

SESSION I: MODERATED BY DR BERNARD SHIBWABO

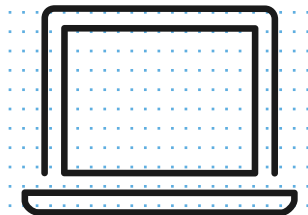
- 09**
00 DR BERNARD SHIBWABO Welcome Address
- 09**
15 COLLINS OKINDO NYAMAO; ALLAN ODHIAMBO OMONDI An Integrated Payment System for Centralized Financial Management
- 09**
30 BAKHITA NAKHERO OMTATAH; ALLAN ODHIAMBO OMONDI A Web-Based Application for Pharmaco-Courier Services in Kenya
- 09**
45 STEPHEN NDUNG'U KIHARA; ALLAN ODHIAMBO OMONDI A Web-Based System for Employee Performance Appraisal and Training Recommendation
- 10**
00 BRIEGE KAWIRA MUGAMBI; ALLAN ODHIAMBO OMONDI A Prescriptive Analytics Tool for Maximizing Production of Dairy Products
- 10**
15 SAMUEL GREG ONDUNGA Research on Blended Learning as a Way of Enhancing Learning and Redefining Teaching Roles
- 10:30 BREAK**
- 11:00 ROUNDTABLE ON LEADERSHIP - MAIN AUDITORIUM**
- 12:30 LUNCH**

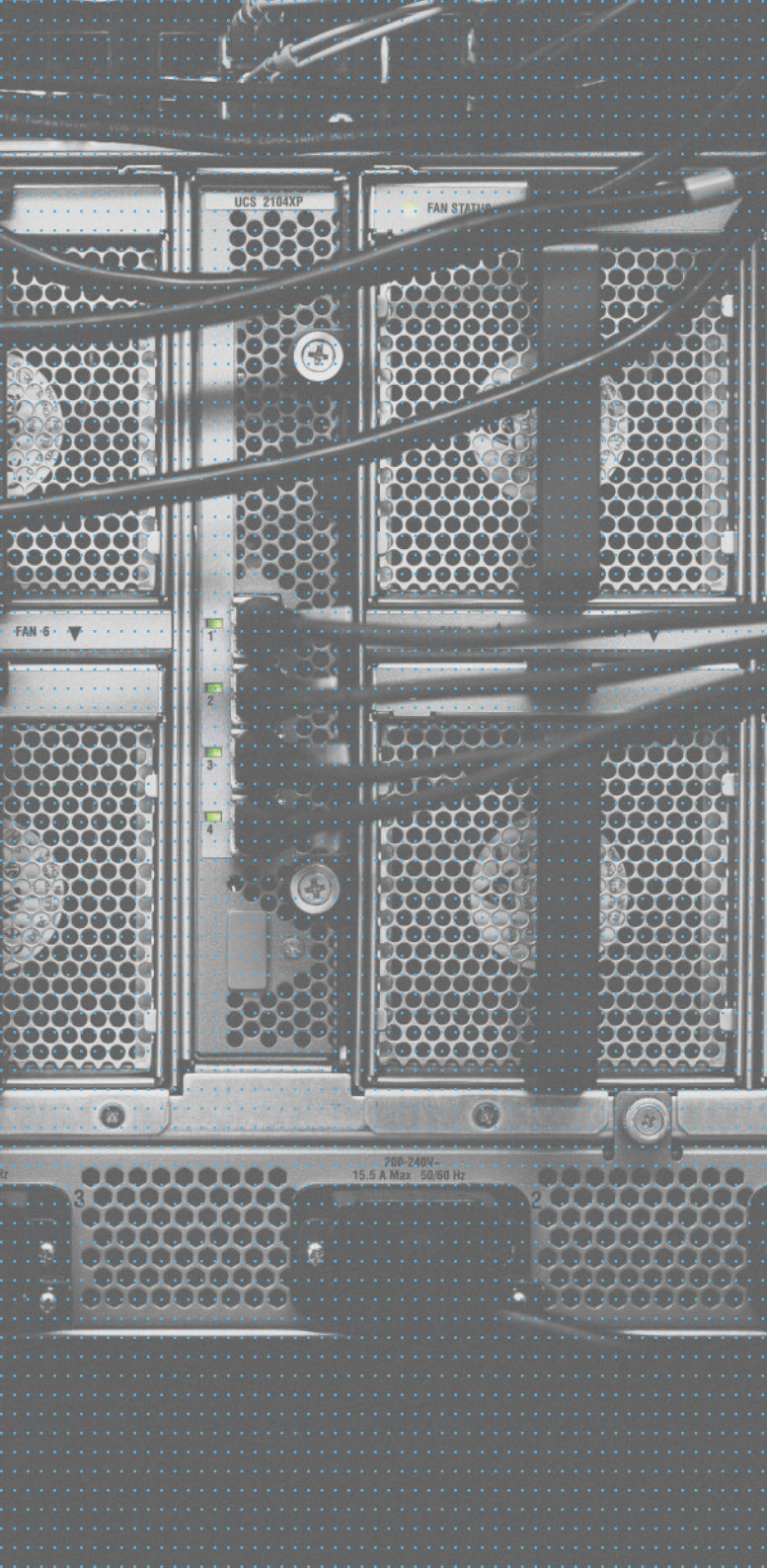
SESSION II: MODERATED BY PROF ISMAIL ATEYA AND VICTOR ROP

- 02**
00 JOY MUOTI; DANNY NYATUKA A Mobile Application for professional home maintenance services
- 02**
20 VICTORIA KANGOGO SOGOMO Intelligent Traffic Lights Control System
- 02**
40 KENNEDY CALVINS ODHIAMBO; BRIAN MUTINDA MAINGI Secondary School Football League Management System
- 03**
00 HILLARY KIPCHUMBA BARAIYWO; ALLAN ODHIAMBO OMONDI An Organ Donation and Receipt System beyond Pair-Wise Matching of Patients

DAY 1 | TRANSCENTURY AUDITORIUM - SUBS

ICT, MOBILE APPLICATIONS AND CYBER-SECURITY





03
20

MICHAEL OGADA OWINO;
VICTOR BARAKA; IAN
KOOME KIRINYA

Human Exploits in Cybersecurity

03
40

BETTY KUVUNA BONGO;
ALLAN ODHIAMBO OMONDI

A System Development Methodology Guidance Tool
for Supervision of IT Projects

04
00

OLIVER TIMOTHY THUKU;
ALLAN ODHIAMBO OMONDI

Demand Forecasting in Inventory Management for
Fishing Flies: Case Study of Neptune Flies Company in
Kiambu County, Kenya

04:15 END OF CONFERENCE DAY

FEATURED ABSTRACT

A Prescriptive Analytics Tool for Maximizing Production of Dairy Products

Briege Kawira Mugambi and Allan Odhiambo Omondi

Small-scale dairy farmers in Kenya face the common problem of low milk production. Low milk production may be caused by many factors such as ill health of the herd and inadequate or wrong type feed. Farmers require to employ a veterinary doctor to ensure good health and fertility of the cows in order to maximise the milk production. This problem exists because in as much as most farmers are experienced, they can still benefit from knowing what will happen in the future if they perform a certain activity in the present time. For example, if they know that if they wean a calf from its mother at time "x" then in future the mother cow will produce more litres of milk per day. Other farmers are only concerned with the production and not with the proper health of the animals. The dairy industry is a significant contributor to the national economy contributing 40% to the agricultural GDP and 4% to the overall Kenya GDP. This means that developing the dairy industry would meaningfully contribute to the food crisis caused by high consumer prices of key consumable. This project proposes to develop a mobile-based application to enable dairy farmers to maximize the production of dairy products based on foreknowledge. The application will give weekly reports on the milk production, welfare of the herd and notifications on treatment, cleaning and feed. It will give the farmers advice on the best practices to ensure maximum milk production. The application will allow the farmer to view reports per cow and per the whole herd to know which cows need special treatment. This project will use the Rapid Application Development methodology. This is a software development methodology that uses minimal planning in favour of rapid prototyping. A prototype is a working model or a rough model of the system that is functionally equivalent. In this model, the functional modules are developed in parallel as the prototypes and merged to make the complete product delivered faster. With this methodology, it is easy to incorporate changes since there is minimal planning involved.

SESSION I: MODERATED BY DR EVAN WANJIRU

- 09:00** ARAFA ABDALLAH NDOPE Lightrine
- 09:30** ALEX OSUNGA ET AL. A collaborative Solar Energy Adoption Platform for Households
- 10:00** MALVIN MUTHONI; PROF IZABEL DA SILVA; IGNATIUS MARANGA Alternative Housing Using Bamboo, compressed Earth Blocks (CEBS) and Rammed Earth in Kenya
- 10:30** **BREAK**
- 11:00** **ROUNDTABLE ON LEADERSHIP - MAIN AUDITORIUM**
- 12:30** **LUNCH**
- 12:30** **PRESENTATIONS IN OTHER THEMATIC AREAS**
- 04:00** **END OF CONFERENCE DAY**

FEATURED ABSTRACT

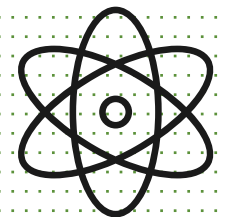
A Collaborative Solar Energy Adoption Platform for Households

Alex Osunga; Christine Gitau; James Kimani; Sofie Bokfors; Dr Bernard Shibwabo

Energy efficiency awareness is one of the most important steps to achieving the final goal of having a sustainable environment in the country. Together with a good energy policy and regulations, this goal can be achieved as it will help consumers make more rational decisions when it comes to new technology. The main problem nowadays is the lack of awareness, inadequate finances and strict government energy policies which hinders investors and individuals from tapping the solar energy. This eventually leads to a dwindling economy due to insufficient electricity in the country. Kenya's current installed grid connected electricity capacity is 1,429 MW. The major sources of electricity supply is hydro and fossil fuel sources. The generation energy mix comprises 52.1% hydro, 32.5% fossil fuel, 13.2% geothermal, 1.8% biogas congestion and 0.4% wind. The current electricity demand stands at 1,600 MW and it is projected to grow to 2,600-3600 MW by 2020. Currently, Strathmore University produces 600 KW from its roof top PV Solar power plant. This accounts to a very small percentage of solar energy produced in the country. This project is targeted at developing an ICT solution that combines banks, households and solar experts to educate people on importance of solar energy. On the platform, banks will support people who are interested in installing solar energy system but cannot afford to fund the project. In conclusion, this project is important so as to ensure higher economic growth in rural areas due to availability of electric energy provided by the sun.

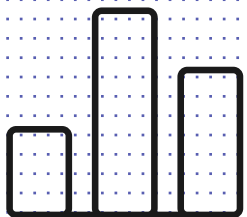
DAY 1 | B-04 - STMB

RENEWABLE ENERGY AND ENERGY EFFICIENCY



DAY 1 | JACARANDA ROOM - SUBS

MATHEMATICAL APPLICATIONS AND ECONOMICS



SESSION I: MODERATED BY DR PURITY NGINA

- 09**
00 DR CAROLINE KARIUKI Welcome Address
- 09**
20 JASPER OKOTH Predictive Analysis of the Nairobi Securities Exchange Based on Momentum Investing
- 09**
40 MUIRURI EVELYN WAGITHI Effect of Exchange Rate Volatility on Money Demand: Perspectives from Financial Innovations in Kenya
- 10**
00 CAROL JEROP RUTO Empirical Analysis of the Ricardian Equivalence in Kenya, Uganda & Tanzania

10:30 BREAK

11:00 ROUNDTABLE ON LEADERSHIP - MAIN AUDITORIUM

12:30 LUNCH

SESSION IV: MODERATED BY DR VINCENT OMWENGA

- 02**
00 JEFFREY MURERWA Cryptocurrency as an Emerging Asset Class: A Multivariate GARCH Analysis of the Diversification Capabilities of Ether
- 02**
20 GITAU ERIC NG'ANG'A Pro Cyclical Mortality Modelling Based on Macroeconomic Factors
- 02**
40 KELLIE CHARLOTTE A Statistical Analysis on the Impact of Free Maternal Coverage on Infant and Maternal Mortality
- 03**
00 MENYA MILLICENT ATIENO Estimating the Cost of Universal Health Coverage: Case of Kenya
- 03**
20 KETER CHEBICHII MAURINE Pricing of Group Long Term Disability Insurance with a Bid of Reducing Poverty Levels
- 03**
40 BRENDA NYOKABI KARANJA Risk-Based Capital Requirements: Could They Trigger A False Alarm?

04:00 END OF CONFERENCE DAY

SESSION I: MODERATED BY HAGGAI COLLINS

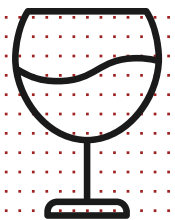
- 09**
00 DR DAVID CHIAWO Opening Remarks
- 09**
10 TAMARA S. MOPEL The Socio-economic impacts of tourism to local community in Amboseli, Kenya
- 09**
30 ANGELLAH KHALAYI KHISA Impact of Customer Service on Customer Satisfaction in Fast Food Service Outlets in Nairobi's Central Business District
- 09**
50 ALL PARTICIPANTS Open Q&A on Research
- 10:30 BREAK**
- 10:30 ROUNDTABLE ON LEADERSHIP - MAIN AUDITORIUM**
- 10:30 LUNCH**

SESSION II: MODERATED BY COSMAS KIMANZI

- 02**
00 CAMILLA AWUOR OKELLO Effects of Service Quality on Customer Loyalty via Customer Satisfaction: A Case Study of the Students' Centre at Strathmore University
- 02**
20 JANET JACQUELINE WAKUZE Determinants of Restaurant Employees Performance on Service Delivery in Five Star Hotels in Nairobi Central Business District
- 02**
40 SHARON AKUMU Assessing the Impact of Cost Control and Menu Pricing on Profits in Selected Institutional Catering Operations in Nairobi
- 03**
10 PANELISTS Panel Discussion on Student Research Experience
- 04:00 END OF CONFERENCE DAY**

DAY 1 | MICROSOFT AUDITORIUM- STMB

TOURISM AND HOSPITALITY



DAY 1 | B-04 - STMB

LAW AND JUSTICE

- 09:00 PRESENTATIONS IN OTHER THEMATIC AREAS**
- 10:30 BREAK**
- 11:00 ROUNDTABLE ON LEADERSHIP - MAIN AUDITORIUM**
- 12:30 LUNCH**

SESSION I: MODERATED BY MUKAMI WANGAI

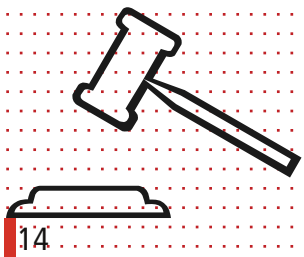
- 02**
00 ADRIAN NYIHA; MUNENE WANJAU A Smart Democracy: Changing African Elections Through Civic Education and the Blockchain
- 02**
30 ALEX OSUNGA; DR BERNARD SHIBWABO Computer and Cybercrime Laws in Kenya: The Impact of Computer and Cybercrime Laws in Kenyan Digital Economy
- 03**
00 MUSAU EVANS MUTHUSI Implementation of Article 159 Bit by Bit: A Place for E-Dipsute Resolution in the Kenyan Bar

- 03:30 PRESENTATIONS IN OTHER THEMATIC AREAS**
- 04:00 END OF CONFERENCE DAY**

FEATURED ABSTRACT

A Smart Democracy: Changing African Elections Through Civic Education and the Blockchain Adrian Nyiha and Munene Wanjau

In numerous nations in sub-Saharan Africa, national elections are accompanied by allegations of – if not actual – malpractices, including electoral fraud, imprisonment of opposition candidates, and constitutional amendments to extend the limits of leaders' terms in office beyond what the electorate seems to desire. Often, these serve to exacerbate ethnopolitical and other tensions and conflicts among multiple factions. Such blemishes on the voting process reduce the legitimacy of the government in the eyes of the populace. If these elections were watertight, and, more importantly, were seen to be watertight, the governments elected through them would gain a measure of legitimacy. Consequently, sub-Saharan African States could move closer to lasting peace. This article proposes blockchain technology as a solution. Since the emergence of the cryptocurrency Bitcoin, the spotlight has slowly shifted towards the vast potential of its underlying technology: the blockchain. Where elections are concerned, this 'trustless' system has the capability to solve four critical issues in the voting process: lack of transparency, lack of election system security, constitutional amendments to change presidential term limits and the cost burden of the election process. However, the blockchain is not without its challenges. A legal framework acknowledging it as a tamper-proof source of truth where votes are concerned will be necessary. Regulations will also have to be crafted to ensure the network's independence, voter anonymity, and the equal say of every citizen. Other pertinent issues are the assignment of liability for errors, and of responsibility for updating the blockchain's code.



SESSION I: MODERATED BY DR OCHIENG KAMUDHAYI

- 09**
00 SAMUEL GREG ONDUNGA Research on the Perspectives and the roles of writing Centers in Universities
- 09**
30 CHELSEA RACHEL ONYANGO The Curriculum for Human Development
- 10**
10 FADHILI DECHE On the Portrayal of the Messiah

10:30 BREAK

10:30 ROUNDTABLE ON LEADERSHIP - MAIN AUDITORIUM

10:30 LUNCH

SESSION II: MODERATED BY DR WANJIKU KANIARU

- 02**
00 LILY WANJIKU Making African Humanities Matter
- 02**
30 FADHILI DECHE Meditations and the Philosophy of Christ
- 03**
00 VICTORIA SHALOM WANJIRU Innovation for Social Good

03:30 PRESENTATIONS IN OTHER THEMATIC AREAS

04:00 END OF CONFERENCE DAY

FEATURED ABSTRACT

Making African Humanities Matter

Lily Wanjiku Kamau

Philosophy, law, religion, history, all from part of the humanities. Statistics from the Ministry of Education in Kenya place these courses in the arts as the most offered in universities, with them enrolling the most students. However, students usually never end up pursuing arts related careers with many of them opting for other fields of practice. This study seeks to show the importance humanities have to play in the development of a country and the disconnect between study and practice. The African continent, rich in its culture and heritage, firmly entrenched in religion cannot take up an education system from the west, so drastically different from ours and put in in our schools and claim to bring up the future leaders of tomorrow. What this will do is to make us idolize these other countries, hoping for a future that seems better than ours there. We first need to understand our history, rewrite it if we must, see how the past has played a role in our present situation and how we can better our future. Teach everyone, whether studying medicine, architecture, business administration of our history so that they can have the full picture of the country they are going to be future leaders of, cement the importance of humanities as much as the sciences, encourage research in the field of the humanities, show the importance of how the merge between the humanities and sciences would yield a much beautiful world.

DAY 1 | B-03 - STMB

HUMANITIES AND SOCIAL SCIENCES





30.10.2018

TUESDAY

PLENARY EVENTS

Roundtable on Entrepreneurship and Innovation 9:00 am - 10:30 am	MAIN AUDITORIUM
Presentation of Innovation Challenge Entries 11:00 am - 12:30 pm	TRANSCENTURY AUDITORIUM, SUBS
Talent Show 2:00 pm - 4:00 pm	MAIN AUDITORIUM
Exhibition of Innovations 9:00 am - 4:00 pm	MAIN AUDITORIUM
Award Ceremony 4:00 pm	MAIN AUDITORIUM

MAIN AUDITORIUM

ROUNDTABLE ON ENTREPRENEURSHIP AND INNOVATION

09:00 Welcome address

IAN WAIRUA - Lecturer, School of Humanities and Social Sciences, Strathmore Univeristy

09:30 Panel Discussion

Transforming Africa through
Entrepreneurship

PANELISTS:

DR JOSEPH SEVILLA - Director, @iLabAfrica

JOHN MATOGO - University Relations, IBM East Africa

RONALD OSUMBA, Chairman, Youth Enterprise Development Fund

VICTOR IKAWA - Head of Research, Safaricom

MODERATOR:

IAN WAIRUA - Lecturer, School of Humanities and Social Sciences, Strathmore Univeristy

10:30 Tea

31.10.2018

WEDNESDAY

THEMATIC AREAS

Humanities and Social Sciences 9:00 am - 4:00 pm	B-03, STMB
Health, Healthcare Management and Research Ethics 9:00 am - 4:00 pm	MVULI ROOM, SUBS
Tourism and Hospitality (ACoST) 9:00 am - 4:00 pm	MICROSOFT AUDITORIUM, STMB
ICT, Mobile Applications and Cyber-Security 9:00 am - 4:00 pm	TRANSCENTURY AUDITORIUM, SUBS
Law and Justice 9:00 am - 4:00 pm	B-04, STMB
Renewable Energy and Energy Efficiency 2:00 pm - 4:00 pm	JACARANDA ROOM, SUBS

PLENARY EVENTS

Keynote Address 11:00 am - 12:30 pm	MAIN AUDITORIUM
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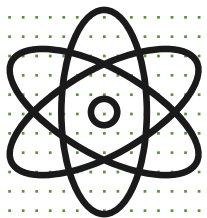
DAY 3 | MAIN AUDITORIUM

KEYNOTE ADDRESS

- | | |
|--|---|
| 11:00 Opening Remarks | PROF IZABEL DA SILVA – DVC, Research and Innovation |
| 11:10 Vice Chancellor's Remarks | PROF JOHN ODHIAMBO – Vice Chancellor |
| 11:25 Keynote Address | DR JEMIMAH ONSARE – Ag. CEO, National Research Fund |
| 12:00 Question and Answer Session | |
| 12:30 Lunch | |

DAY 3 | B-04 - STMB

RENEWABLE ENERGY AND ENERGY EFFICIENCY



09:00 PRESENTATIONS IN OTHER THEMATIC AREAS

10:30 BREAK

11:00 KEYNOTE ADDRESS - DR JEMIMAH ONSARE - MAIN AUDITORIUM

12:30 LUNCH

SESSION II: MODERATED BY DR REBEKAH SHIRLEY

- 02**
00 JOB CHESAKAS SIMOTWO Optimal control as solution towards Cheaper inverters for Renewable Energy Application
- 02**
20 JOSEPH N. MATHENGE Grid Integration of large Capacity Wind Power in Inter-regional AC/DC Hybrid System
- 02**
40 COLLETA KOECH Comparison of SVC and STATCOM Performance on Voltage stability of Power System Integrated with Solar PV Generation
- 03**
00 IGNATIUS MARANGA ET AL. Performance Evaluation of the 600 kW Grid-Tied Solar Photovoltaic System in Strathmore University
- 03**
20 COLLETA KOECH Identification of the Maximum level of Solar PV Generation Penetration required on a Power System
- 03**
40 IRENE MUISYO Role of Facts Devices in Enhancing Integration of Renewable Energy Sources to the Grid. A review
- 04:00 END OF CONFERENCE DAY**

FEATURED ABSTRACT

Performance Evaluation of the 600kW Grid – Tied Solar Photovoltaic System in Strathmore University

Prof Izael da Silva; Ignatius Maranga; Mwaura Njogu; Anne Wacera; and Christopher Nyarotso

This paper presents the performance of the 600kW grid-tied solar PV system installed at Strathmore University. The plant is in two systems, one a 420kW and the other 180kW connected to two independent transformers. The system comprises of 2,400 solar PV panels of 250W each and 30 inverters of 17kW each. The solar PV modules are spread across the rooftops of six buildings within the university. 20kW solar PV capacity has been separated from the 600kW for a hybrid system of solar PV, battery storage and diesel generator which is used for training at the Strathmore Energy Research Center (SERC). The daily energy generation data for three years was collected and analyzed to identify the Performance Ratio (PR) and Capacity Utilization Factor (CUF) of the 600kW system. The performance analysis is then compared to a range of PR and CUF values for well performing grid-tie solar PV power plants.

SESSION III: MODERATED BY NELSON OCHIENG

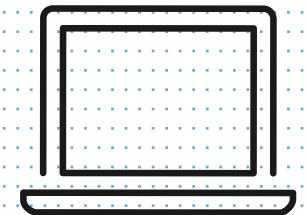
- 09**
00 DR JOSEPH ORERO Opening Remarks
- 09**
15 BRENDA OGETONTO; STEPHEN MOKORO Sports Information Management System
- 09**
30 CHANTAL ANITA A Recommender System for Students Career Selection
- 09**
45 ELINOR KAGUONGO; STEPHEN MOKORO Macheo Programme Information Management System
- 10**
00 MERVYNE KIMANI; DANNY NYATUKA A Web-based Employee Time Tracking System: Enhancing Operational Efficiency in the Workplace
- 10**
15 CHARLES MUATHE NDIRANGU Towards High-Impact Community-Based Projects through Data-Driven Monitoring
- 10:30** **BREAK**
- 11:00** **KEYNOTE ADDRESS - DR JEMIMAH ONSARE - MAIN AUDITORIUM**
- 12:30** **LUNCH**

SESSION IV: MODERATED BY DR VINCENT OMWENGA

- 02**
00 ROBERT OWINO OPONDO Enhancing the Security and Privacy of Internet of Things (IoT)
- 02**
20 MALOMBE VICTOR Secure Plugin for Automated Software Updates using Public Key Infrastructure for Embedded Systems
- 02**
40 SHARON MUGAMBI ET AL. A Deep Learning Approach to Domestic Water End Use Classification
- 03**
00 KENNEDY MUMO; CARRIE KAUMBULU; EMMACULATE AWOUR Range: A Proximity and Context Based Marketing System
- 03**
20 MOSES BAUMA Integrated Storage and Multimedia System for the Home Environment
- 03**
40 EUNICE MANYASI ET AL. Performance of LORA and ZigBee on IOT based Smart Water Meter
- 04**
00 RICHARD OTOLO; DR JOSEPH SEVILLA; EUNICE MAINGI Using Distributed Ledger Technology to Digitize Academic Certificates in order to Curb Fraud
- 04:20** **END OF CONFERENCE DAY**

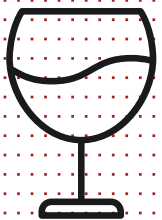
DAY 3 | TRANSCENTURY AUDITORIUM - SUBS

ICT, MOBILE APPLICATIONS AND CYBER- SECURITY



DAY 3 | MICROSOFT AUDITORIUM- STMB

TOURISM AND HOSPITALITY (ACoST)



SESSION III: MODERATED BY DR LUCY GIKONYO

- 08**
40 DR DAVID CHIAWO Opening Remarks
- 08**
50 CHRISTINE NYANG'AYA Remarks by Conference Partner (AFEW)
- 09**
00 DR JAMES MACGREGOR Keynote address
- 09**
20 DR ISABELLA CHELOTI
MAPELU; DR DOROTHY
ONYANGO The Role of Personal and Premises Hygiene in the
assuage of Food Safety In Selected Hotels within
Eldoret Town
- 09**
40 PETER KIBE Human resource management practices and
organizational resilience in star rated hotels in Nairobi
County, Kenya
- 10**
00 PRIYA BHALLA Visitor Perceptions of Ecotourism related Resource
Impacts using visual-approach method: Case Study of a
Protected Area in the Indian Himalayan Region
- 10**
15 DR BONFACE ODIARA
KIHIMA Analysis of Constraints to Community Participation in
Tourism Development in Conservation Areas
- 10:30 BREAK**
- 10:30 KEYNOTE ADDRESS - DR JEMIMAH ONSARE - MAIN AUDITORIUM**
- 10:30 LUNCH**

SESSION IV: MODERATED BY DR ISABELLA CHELOTI MAPELU

- 02**
00 PETER HETZ Keynote Address: Conservation and Tourism
- 02**
25 STELLA C. BARSULAI Effect of Work-Family conflict and Employee
Productivity in star-rated hotels in Kenya
- 02**
45 EMMANUEL ADUKU OCHOLI The influence of Destination Image on Sustainable
Tourism Development in Nigeria
- 03**
05 COLLINS HAGGAI Phenomenological study of the transition experience
from training to the workplace- the case of Kenyan
Hotel sector

03
25

DR. ERICK V.O. FWAYA

Panel Discussion on Student Research Experience

03
45

JUDY KEPHA-GONA

Thematic Speech

04
05

PANELISTS

PANEL DISCUSSION

- Prof Richard Makopondo
- Dr James MacGregor
- Dickson Kaelo (KWCA)
- Ms Christine Nyang'aya
- David Gitonga
- Ms Judy Kepher-Gona
- Peter Hetz

MODERATOR: Dr David Chiawo

04:50 END OF CONFERENCE DAY

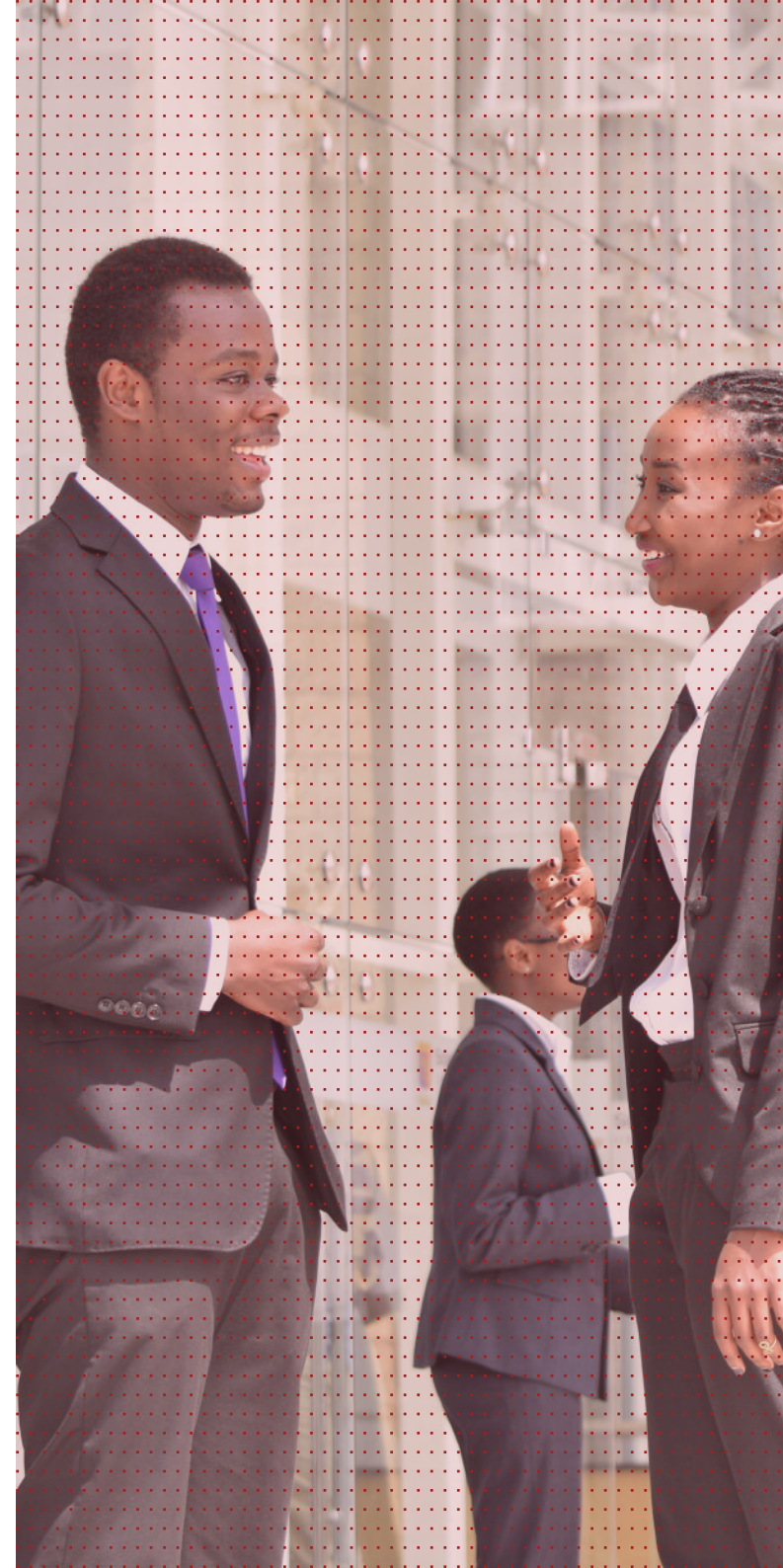
FEATURED ABSTRACT

The Role of Personal and Premises Hygiene in the assuage of Food Safety In Selected Hotels within Eldoret Town

Dr Isabella Cheloti Mapelu; Dr Dorothy Onyango

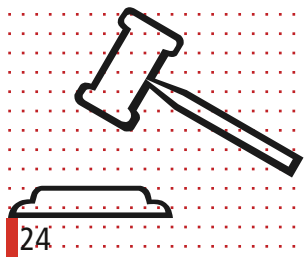
In the last two to three years there have been reported cases of Cholera and other other outbreaks related to food which necessitates the need to find out if personal hygiene may have a role to play in all these cases. Consequently, this study was carried out in order to investigate the food handlers' practice of food safety management with respect to personal hygiene, temperature control, prevention of cross contamination, purchasing and storage, food safety training and rules, and kitchen physical features. The study adopted both descriptive and explanatory research designs. Twelve conventional hotels were purposively selected and all 106 food handlers in the hotels were recruited into the study. Data was collected by use of structured questionnaires, interviews and observation. Quantitative data was analyzed with the help of Statistical Package for Social Sciences (SPSS) version 21 and excel. Pearson Chi-square test of independence and Pearson Correlation analysis were performed to test association between the various variables under study. Content analysis was used to analyze qualitative data and results presented in narrative form. The results of the study have been discussed as relates to personal hygiene, temperature control, cross contamination, purchase and storage, following of food safety rules and physical appearance of food safety premises. Conclusions and recommendations have been drawn as pertains to this study.

Key words: Food safety, Personal Hygiene, Food Safety Management.



DAY 3 | B-04- STMB

LAW AND JUSTICE



SESSION II: MODERATED BY DR ROBERT MUTHURI

09
00

ISAAC NDARWA

International Co-Operation: The New Frontier in Combating Cybercrime in Kenya

09
30

DR JENNIFER GITAHI

Improving Access to Quality Education in Kenya

DAVID WANJOHI

Evaluation of the Impact of the Expansion of the Big Four Accounting Firms on the Legal Services Market and Mid-Sized Law Firms

10
00

10:30 BREAK

10:30 KEYNOTE ADDRESS - DR JEMIMAH ONSARE - MAIN AUDITORIUM

10:30 LUNCH

SESSION III: MODERATED BY DR JENNIFER GITAHI

02
00

FRANCIS ONYANGO

Security and Privacy Issues in Budget Smart Phones

02
30

MAKORY JADE CYNTHIA

Where the Legal Profession Stands in the Wake of Artificial Intelligence Use in Kenya

03
00

KELVIN KARANJA; PATRICK KIMANI

Taxation of the digital economy: the legal, ethical and regulatory challenges

03:30 PRESENTATIONS IN OTHER THEMATIC AREAS

04:00 END OF CONFERENCE DAY

FEATURED ABSTRACT

Improving Access to Quality Education in Kenya

Dr Jennifer Gitahi

The right to education is a fundamental human right that is entrenched in the Universal Declaration of Human Rights. This is echoed in Article 43 of the Constitution of Kenya. The HE sector in Kenya is undergoing a metamorphosis. One of the major causes of this transformation is the growing number of enrolled university students. This number has risen from 67,558 in 2003/2004 to 769,550 in 2015, and continues to rise. As at 2017, Kenya prided itself of having 71 registered HE institutions. While this scenario portrays a positive step towards improving access to quality education – indispensable in guaranteeing the right to education –, it brings with it a myriad challenges. Indeed the sector has been hard hit by overcrowding, reduced funding and poorly stocked libraries as well as a dearth of well-trained academic staff. Globally, technology and innovation has taken centre stage in seeking solutions to the aforementioned challenges. More specifically, OER (Open Educational Resources) have been presented as an effective key to opening the gates to quality education. Educational materials for teaching, learning and research, residing in the public domain or released under an intellectual property license that permit their use freely and openly for educators and learners, OER offer academics and learners access to high-quality material at low cost. Moreover, they promote a learner-centred approach in education. This paper seeks to explore the use of OER in improving access to quality education in HE in Kenya.

FEATURED ABSTRACT

LIFE PROJECT; An evaluation of serious mobile games to improve health workers' knowledge and skills in emergency neonatal and paediatric care in Kenyan teaching hospitals

Conrad Wanyama; Hilary Edgcombe; Naomi Muinga; Chris Paton; and Mike English

Childhood mortality in Kenya remains unacceptably high¹, currently at 52 per 1,000 live births. Neonatal mortality contributes approximately 43% of these deaths. Every year, 1 million babies die in Africa within 28 days of life. Two thirds of these deaths can be avoided with adequate training and resources³. Typical training programs are associated with knowledge decay over time, and require frequent refresher for remembrance. Life-Saving Instruction for Emergencies (LIFE) is a digital learning platform supporting scenario-based interactive 3D simulation trainings delivered through low cost smartphones and Virtual Reality (VR). LIFE teaches health-care-workers how to manage medical emergencies in very sick infants/children based on the Emergency Triage, Assessment and Treatment plus admission care (ETAT+) training approach, previously developed in Kenya. This level of innovation promotes continuous learning. The objective of LIFE is to evaluate the usability and acceptability of the mobile and VR technology in learning among health-care-workers on a first scenario, neonatal resuscitation, at 4 Kenyan Teaching Hospitals (Kenyatta National Hospital, University of Nairobi, KMTC Nairobi, Gertrude's Children's Hospital). We have already undertaken alpha testing to develop a minimum viable product for the first scenario: Neonatal Resuscitation. Beta testing on this scenario is ongoing till November 2018. Developing a prototype mobile game is likely to increase health-care-workers' access to learn and remember ETAT+ course material, and therefore improve paediatric healthcare outcomes. Serious games may also be adapted in other medical fields for teaching and learning.

DAY 3 | MVULI ROOM - SUBS

HEALTH, HEALTHCARE MANAGEMENT AND RESEARCH ETHICS



SESSION I: MODERATED BY DR JOSEA RONO

- 09:00** DR JOSEPH ONYANGO; ANNETTE MARUNGA; GILBERT KOKWARO Utility of Challenge Model for Service Delivery in Health Sector; Analysis and Classification of Project Implemented by County Governments through HRH Mechanism Kenya
- 09:20** DR FRANCIS WAFULA ET AL. Understanding the Impact of Innovations in the Regulation of Kenya's health facilities
- 09:40** RAHAB MBAU; EVELYN KABIA; EDWINE BARASA Examining Multiple funding flows to public healthcare providers a case study from Kenya
- 10:00** LABAN BWIRE Genomics and Precision Medicine

10:30 BREAK

10:30 KEYNOTE ADDRESS - DR JEMIMAH ONSARE - MAIN AUDITORIUM

10:30 LUNCH

SESSION II: MODERATED BY DR DR JOSEPH ONYANGO

- 02:00** ANITA MUSIEGA ET AL. Health Center Efficiency; A comparative Study of Vihiga and Kakamega Counties using Data Envelopment Analysis
- 02:30** TIMONA PEPELA Engaging communities; An approach to strengthen health systems
- 03:00** MARY NYIKURI ET AL. "I train and mentor, they take them" : Nurses' perspectives on quality of inpatient care for sick newborns across sectors in Nairobi, Kenya
- 03:30** CONRAD WANYAMA ET AL. LIFE PROJECT; An evaluation of serious mobile games to improve health workers' knowledge and skills in emergency neonatal and paediatric care in Kenyan teaching hospitals

04:00 END OF CONFERENCE DAY

SESSION III: MODERATED BY DR JOHN BRANYA

- 09**
00 PAUL TINDI ODERA Rugby as a Rehabilitation and Reintegration Tool for Prisoners and Offenders
- 09**
20 OTIENO MATHEW The Role of Culture in the Formation of Individual Identity
- 09**
40 LYDIA MUTHUMA Kenya's new National Curriculum 2017- nurturing every learner's potential
- 10**
00 DR WILFRED MARUBE A Normative Reflection on Public Relations and or Corporate Communications Practice

10:30 BREAK

10:30 KEYNOTE ADDRESS - DR JEMIMAH ONSARE - MAIN AUDITORIUM

10:30 LUNCH

SESSION IV: MODERATED BY DR MAGDALENE DIMBA

- 02**
00 DR JANE WATHUTA What is human dignity? Insights from Article 1 of the Universal Declaration of Human Rights and recent case law
- 02**
20 PATRICK JOHN MICHENI The need for Critical Thinking in Kenyan Political Leadership
- 02**
40 IAN WAIRUA Collaborative Blended learning in African Universities - Early Lessons from the PEBL Project
- 03**
00 SANDRA MUTUTI Behind the Screen; A look into the issues that may arise from from online social behaviour
- 03**
30 CHRISTOPHER MOMANYI Unity in plurality in Aristotle; A Thomistic critique in application to the Basic education act no.14 of 2013

04:00 END OF CONFERENCE DAY

DAY 3 | B-03 - STMB

HUMANITIES AND SOCIAL SCIENCES





FEATURED ABSTRACT

Collaborative Blended learning in African Universities - Early Lessons from the PEBL Project

Ian Wairua

Connected information technology in higher education provides a wide array of means for teaching and learning beyond traditional methods. Leveraging on these technology choices, blended learning is an approach which takes advantage of the best that both the face-to-face and online learning can provide. The Partnership for Enhanced and Blended Learning (PEBL) is a regional project that addresses the critical academic staff shortages many East African universities are currently facing. It seeks to enable universities to share teaching resources through quality assured, credit-bearing degree courses, delivered through blended learning. PEBL is funded by the UK Department for International Development (DFID) through the SPHEIR (Strategic Partnerships for Higher Education Innovation and Reform) programme. This paper addresses the early challenges and successes of the project that arise from both similar and different governance and structural contexts. The findings of the study are useful for planning and managing future similar multi-institutional collaborative blended-learning projects in higher education.

01.11.2018

THURSDAY

THEMATIC AREAS

ICT, Mobile Applications and Economics 9:00 am - 4:00 pm	TRANSCENTURY AUDITORIUM, SUBS
Health, Healthcare Management and Research Ethics 9:00 am - 4:00 pm	MVULI ROOM, SUBS
Humanities and Social Sciences 9:00 am - 4:00 pm	B-03, STMB
Tourism and Hospitality (ACoST) 9:00 am - 4:00 pm	MICROSOFT AUDITORIUM, STMB
Public Policy, Governance and Integrity 9:00 am - 4:00 pm	JACARANDA ROOM, STMB
Business Innovation and Management 9:00 am - 4:00 pm	B-04, STMB
Food-Energy-Water (FEW) Nexus Forum 9:00 am - 4:00 pm	MAIN AUDITORIUM

PLENARY EVENTS

Plenary Panel Discussion 11:00 am - 12:30 am	MAIN AUDITORIUM
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MAIN AUDITORIUM

PLENARY PANEL DISCUSSION

11:00 Welcome address

PROF ISMAIL ATEYA - Dean, Research and Innovation

11:30 Panel Discussion

Looking into the Future: Solving
Tomorrow's Problems with Today's
Research

PANELISTS:

PROF IZAEL DA SILVA - DVC, Research and Innovation

DR ISAAC RUTENBERG - Director, CIPIT

DR JPR OCHIENG-ODERO - DFID-EARF, NRF

PROF REUBEN MARWANGA - Chairman, Kenya National Innovation Agency

JOSEFINA STUBBS - Enel Foundation

DR ENG. JOHN MATIVO - Senior Technical Advisor, KETRACO

MODERATOR:

DR JOSEPH ONYANGO - Institute of Healthcare Management, SUBS

12:10 Launch of 2017 Research and
Innovation Report

DR SUSAN KIBUE - Chair, Oversight Committee of the University Council

12:30 Lunch

SESSION V: MODERATED BY DR VITALIS OZIANYI

- 09**
00
EVALYNE KEMUNTO; PAUL WEKESA Predictive Analysis of Proper Waterpoint Locations in The Arid and Semi-Arid Areas of Kenya
- 09**
30
LORNA MUTEGI; DR JOSEPH SEVILLA; TIRUS WANYOIKE Unlocking the Supply of Open Government Data for SDGs: A Case of Kenya National Bureau of Statistics (KNBS)
- 09**
50
BERNARD CHIIRA ET AL. Promoting Women ICT Start-Ups to Accelerate Women's Economic Empowerment: A Case of Strathmore University-@iBizAfrica
- 10**
10
REGINA NKONGE; IRENE GITANGU Technology Learning: Providing Employability Skills for Students with Autism Spectrum Disorders

10:30 BREAK

11:00 PLENARY PANEL DISCUSSION - MAIN AUDITORIUM

12:30 LUNCH

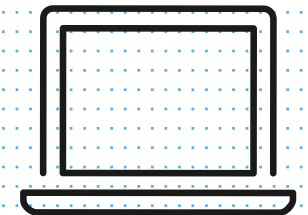
SESSION VI: MODERATED BY DR BERNARD SHIBWABO

- 02**
00
LEONARD MABELE Leveraging LPWAN to Gain Proper Agricultural Data Insights
- 02**
20
PATRICK SHABAYA; ISMAIL ATEYA; GREGORY WANYEMBI Addressing the Complex and Dynamic Nature of Technology Assimilation Process through System Dynamics Modelling
- 02**
40
TRACY WERU; DR JOSEPH SEVILLA Children and Teenagers Information Communication Technology (ICT) Learning using Holiday Camps: A Case Study of @iLabAfrica, Strathmore University
- 03**
00
JADIEL MAJOR OLUMO; HUMPHREY OWUOR OTIENO Traffic Engineering in Openflow-Based Software-Defined Networks
- 03**
30
CASTROL MUTINDA An Android Mobile Ad Hoc Network Application Using Wi-Fi Direct

04:00 END OF CONFERENCE DAY

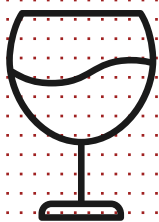
DAY 4 | TRANSCENTURY AUDITORIUM - SUBS

ICT, MOBILE APPLICATIONS AND CYBER-SECURITY



DAY 4 | MICROSOFT AUDITORIUM- STMB

TOURISM AND HOSPITALITY (ACoST)



SESSION V: MODERATED BY DR BONFACE KIHIMA

- 08**
40 DR DAVID CHIAWO Introduction
- 08**
45 DR. BETTY RADIER Keynote address
- 09**
20 LABAN K. ROTICH Investigating the relationship between climate change, natural resources and tourism sustainability in Maasai Mara National Game Reserve
- 09**
40 ELIZABETH OCKEYOH OTIENO Effect of Social Media Use on Guests' Post Purchase Evaluation and Loyalty in 4 And 5 Star Hotels in Kenya
- 10**
00 DR. OTENGEI SAMSON OMUUDU Linking Innovative Capabilities with Sustainable Food Tourist influx to African-ethnic Restaurants: An application of Dynamic Capabilities Philosophy using Owner-managers' Logic
- 10**
15 ESTHER OLAITAN ADEBITAN Classified Hotels' Contribution to Sustainable Tourism in Bauchi State, Nigeria

10:30 BREAK

10:30 PLENARY PANEL DISCUSSION - MAIN AUDITORIUM

10:30 LUNCH

SESSION VI: MODERATED BY PROF JOCKEY BAKER NYAKAANA

- 02**
00 PROF NOAH SITATI (WWF) DR NOKUTHULA CELE Keynote Address: Community and Conservation Subsistence fishing as a response to the management of living marine resources on public spaces in Durban, South Africa
- 02**
25 SAMWEL IKWAYE Influence of Hotel Enterprises' Social Cultural Practices on Community Empowerment along the Coastal Tourism Circuit in Kenya
- 03**
05 PROF JOCKEY BAKER NYAKAANA Hidden Tourism Treasure: The Past meets the Present in Community Museums in Uganda

03
25

DR JORAM NDLOVU

Unravelling the complex layers of governance, capacity and coordination in the Management of coastal and coastal tourism in South Africa

03
45

STEPHEN MALUNGA MUSEE

Determinants of tourism destination competitiveness in Kenya: destination stakeholders perspective

03
55

JOSEPHINE NTHENYA MULI

Determinants of hotel selection by millennials , Nairobi county, Kenya

04
05

SALOME GACHAGO (KWS)

Keynote Address: Tourism and Rural Development

04
25

DR DAVID CHIAWO

Conference Chair Closing Remarks

04:00 END OF CONFERENCE DAY

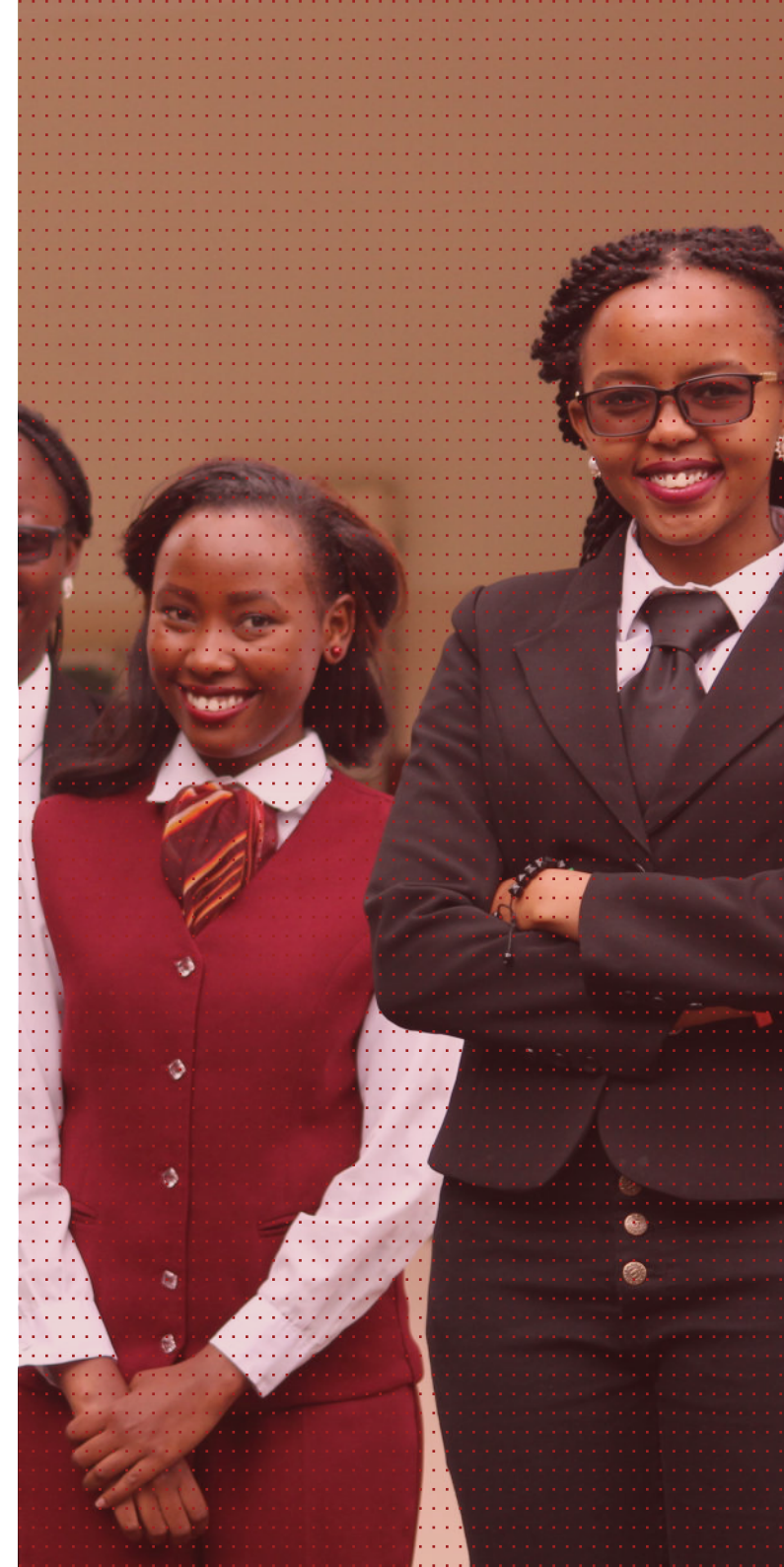
FEATURED ABSTRACT

Influence of Hotel Enterprises' Social Cultural Practices on Community Empowerment along the Coastal Tourism Circuit in Kenya

Samwel Ikwaye

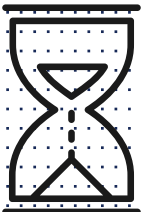
The study sought to assess the influence of socio-cultural practices on community empowerment along the coastal tourism circuit in Kenya. Data was obtained from 210 who included hotel managers, employees from the local community, suppliers of goods and services to the enterprises including beach operators as well as civic leaders from Mombasa, Kwale and Kilifi counties. Hotel managers, employees, suppliers and beach operators completed a self administered questionnaire while the civic leaders were interviewed. Results showed that socio-cultural practices adopted by the hotel enterprises influenced community empowerment, the influence of promotion of local heritage being significant. At the same time, it was illustrated that social innovation partially mediates the influence of the practices on community empowerment. Based on the findings, the study recommends enhanced adoption of elements of preservation of local culture and adherence to legal frame work to improve on the influence of socio-cultural practices on community empowerment. Lastly, it recommends enhanced adoption of elements of social innovation so as to improve its mediating effect.

Key words: Community Empowerment, Social Innovation, Socio-cultural Practices.



DAY 4 | MVULI ROOM - SUBS

HEALTH, HEALTHCARE MANAGEMENT AND RESEARCH ETHICS



SESSION III: MODERATED BY DR BEN NGOYE

- 09:00** DR JOSEPH ONYANGO Position Analysis of Leadership Competencies for Healthcare Organizations; A comparative Assessment of Global Benchmarks and Understanding of Participants in Healthcare Executive Leadership and Development Program in Kenya
- 09:30** TECLA CHELAGAT ET AL. Impact of Leadership Development on Sustainable Health System Performance in Kenya: Assessment of Institutional Priority Improvement Projects using the Challenge Model
- 10:00** MARY BETH ADAM; ANGELA J. DONELSON Trust is the engine of change: A conceptual model for trust building in health systems

10:30 BREAK

11:00 PLENARY PANEL DISCUSSION - MAIN AUDITORIUM

12:30 LUNCH

SESSION IV: MODERATED BY DR FRANK WAFULA

- 02:00** NICODEMUS NZOKA Disease Modeling and analysis using Artificial Intelligence techniques
- 02:30** MAINGI; PROF MATILU MWAU Using Visual analytics to answer data related challenges in healthcare process mining
- 03:00** KENNEDY ONDIMU ET AL. Effects of Working Environment on Job Satisfaction among Physicians in Public Health Sector of Nairobi County
- 03:30** STELLA WAIRIMU Adoption of the Online Proficiency Testing System for the Kenya HIV Serology Proficiency Testing Program

04:00 END OF CONFERENCE DAY

SESSION I: MODERATED BY PROF ROBERT MUDIDA

- 09**
00 DR ELIZABETH MUTHUMA; WANGUI MURAGE Assessing Citizen perceptions of service quality at huduma centres in Nairobi County Kenya
- 09**
30 ROSEMARY OKELLO Unpacking the disruptive potential of Big Data and & Blockchain Technology on public policy for development.
- 10**
00 ALFRED ONG'ERA The need for integrity training at the county level

10:30 BREAK

11:00 PLENARY PANEL DISCUSSION - MAIN AUDITORIUM

12:30 LUNCH

SESSION II: MODERATED BY DR THOMAS KIBUA

- 02**
00 MARY MUTINDA Confidence in retirement: How well are kenyans prepared for retirement?
- 02**
30 WAIRIMU GAKUO The complexity of Institutional logics in the context of regional economic organizations
- 03**
00 DR NANCY NJIRAINI Transformative learning and building capacity through critical thinking as a core competence
- 03**
30 MARY MUTINDA Transitioning into retirement: engagement, planning, financial resources

04:00 END OF CONFERENCE DAY

DAY 4 - TRANSCENTURY AUDITORIUM - SUBS

PUBLIC POLICY, GOVERNANCE AND INTEGRITY



FEATURED ABSTRACT

Assessing Citizen Perceptions of Service Quality at Huduma Centres in Nairobi County, Kenya

Wangui Murage and Elizabeth Muthuma

The Kenyan government has identified public service delivery, efficiency and innovation as one of its key focus areas specifically through the use of Citizen Service Centres otherwise known as Huduma Centres. In order for Huduma Centres to deliver efficient, transparent and innovative services for citizens, service quality needs to be assured. Citizen involvement in upholding service quality is important as the citizens typically act as co-producers in their service encounters. Citizen perceptions of service quality can serve to inform service providers in the public sector how to improve the design, delivery and service standards of public services. This study sought to assess citizen perceptions of service quality at the Huduma Centres in Nairobi County. It also sought to ascertain if there was a correlation between service quality and citizen satisfaction. A descriptive survey research design was applied with 384 structured questionnaires for the citizens and key informant interviews with service providers. The findings of the study reveal that citizens were generally satisfied with the services at the Huduma Centres and that the services were of fairly reasonable quality. A multiple regression model established there was a positive and significant relationship between service quality and citizen satisfaction at the Huduma Centres. Recommendations for the Huduma Kenya Programme (HKP) include a redesign of the service offering to reduce the turnaround time for citizens receiving services; investment in stable Information Communications Technology (ICT) systems and improved connectivity with the mother ministries; continuous customer service training for staff at the Centres; and innovative use of alternative service channels to reduce physical visits to the Centres. Areas of further study include similar studies in more counties to establish if there are significant differences with Nairobi County as well as comparative studies with other Citizen Service Centres around the world.

FEATURED ABSTRACT

Intrinsic motivation and organizational citizenship behavior as predictors of performance; an empirical study

Juvy H. Eleda

To sustain organizational success, it is primordial to have highly motivated people who perform at their optimum level. Thus, it is key that managers know how to spur their workforce to high productivity and excellent output. This paper explores Intrinsic Motivation (IM) and Organizational Citizenship Behavior (OCB) as predictors of performance and if there exists a correlation between them. IM is the interest to engage in a task for the joy and the sense of fulfillment that can be derived from it. The impetus comes from oneself and inheres in the respective activity and not from a separable and distinct reward. OCB, on the other hand, is an extra-role behavior, i.e., it is not prescribed by one's job description; hence, no imputable reward can be claimed for it; yet is pivotal for the organization's effectiveness. The respondents are 330 teaching and non-teaching staff from two private and coeducational academic institutions in Metro Manila. This study employs quantitative methodology with descriptive-predictive approach. The data were analyzed using structural equation modeling (SEM) with SPSS 20 in AMOS 16. Adopted scales consisting of 21 items, 24 items, and 7 items were utilized for intrinsic motivation ($\alpha = 0.84$), organizational citizenship behavior ($\alpha = 0.86$), and performance ($\alpha = 0.74$) respectively. All hypotheses were tested at 5% level of significance. The results reveal that both IM ($\beta = .258, p = .005$) and OCB ($\beta = .476, p = .000$) have significant impact on performance. The findings also indicate that IM and OCB are significantly correlated ($r = .538, p = .000$). Implications and recommendations are discussed.

FEATURED ABSTRACT

Leadership Development: Examining synergistic effects of leadership training, networks & development assignment

Agnes Ruoro

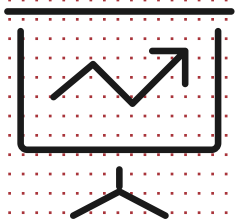
Today's complex organisations need developmental strategies that not only enhance the effectiveness of the individual leader, but also those that enable organisational members to connect and leverage each other's' capabilities to adapt quickly to unpredictable and dynamic business environments. Part of the reason leadership development practices (particularly formal training) are not keeping pace with the leadership capabilities required is that in addition to being implemented as offsite standalone interventions, the interventions are leader centric as they emphasize development of leader's intellectual capabilities and skills, yet such interventions could have synergistic effects when integrated with stretch assignments through ongoing work context. By building and leveraging leadership relationships in their networks, leaders can access information, advice and support necessary to achieve desired results in stretch assignments. This paper seeks to examine the synergistic effects of three developmental interventions namely leadership training, stretch assignments and networking in their ability to contribute to individual leaders' human capital individually and in combination as well as development of social capital. The study will be carried out through a survey questionnaire on a sample of 200 bank managers, selected purposively from local banks known for their integrated approach to development of leadership. Findings of this research will be useful to senior executives, leadership program design specialists and human resource professionals who are keen to enhance leadership capacity within their organisations. It will also be beneficial to scholars in the leadership development field particularly in incorporation of social and leadership networks in the development process.

Key Words: Leadership development, social networks, human capital, social capital



DAY 4 | B-04 -STMB

ENTREPRENEURSHIP, BUSINESS INNOVATION AND MANAGEMENT



SESSION I: MODERATED BY DR STELLA NYONGESA

- 09:00** JOAN NDUGU Optimizing on Social Media Usage on Lecturer's Performance
- 09:30** HILDERLITH OGUTU Academia in the lead: Succession Planning in Private Universities in Kenya
- 10:00** WENDE ROBERT; DR JAMES NGUGI NJUGUNA The Influence of Relationship Marketing on Customer Loyalty in the Telecommunication Industry in Dar es Salaam Tanzania
- 10:30** BREAK
- 11:00** PLENARY PANEL DISCUSSION - MAIN AUDITORIUM
- 12:30** LUNCH

SESSION II: MODERATED BY DR HELLEN OTIENO

- 02:00** EDWARD CLEMENT Influence of Financial Literacy Trainings on the Performance of Village Savings and Loan Associations Supported by NGOs in Kenya
- 02:30** STELLA NYONGESA; PROF FRANCIS KIBERA; PROF RUTH KIRAKA The Joint Influence of relationship marketing, social performance management and firm IT Characteristics on Customer Retention by Micro - Finance Institution in Kenya
- 03:00** AGNES RUORO Leadership Development: Examining synergistic effects of leadership training, networks & development assignment
- 03:30** JOSEPH ADEA; ANGEL LIU YIQIAN In-store shopping experience: Effects on Customer Experimental Value
- 04:00** END OF CONFERENCE DAY

SESSION V: MODERATED BY DR MUKAMI NJORGE

- 09**
00 GABRIEL DINDA Creative ways of ensuring Family Bond against Dynamism and Changes
- 09**
20 DORCAS CHEPKOECH; SHADRACK CHEPKOWNY Effect of revenue diversification on financial sustainability in state Universities in Kenya, Case of Strathmore
- 09**
40 JUVY H. ELEDA Intrinsic motivation and organizational citizenship behavior as predictors of performance; an empirical study
- 10**
00 ONYANGO JOSEPH; OGOLO EUNICE Analysis of Talent Management Strategies and its Influence on the Performance of Non- Governmental Organizations in Kenya
- 10:30 BREAK**
- 10:30 KEYNOTE ADDRESS - DR JEMIMAH ONSARE - MAIN AUDITORIUM**
- 10:30 LUNCH**

SESSION VI: MODERATED BY DR ARBOGAST AKIDIVA

- 02**
00 JOTHAM NJORGE The causal relation between art and its maker
- 02**
30 IAN WAIRUA Institutional Governance and Readiness for Blended Learning
- 03**
00 ANNE MAUREEN SYALLOW Media as an Instrument
- 03**
30 IAN WAIRUA Institutional Governance Readiness for Blended learning
- 04:00 END OF CONFERENCE DAY**

DAY 4 | B-03 - STMB

HUMANITIES AND SOCIAL SCIENCES



02.11.2018

FRIDAY

THEMATIC AREAS

Health, Healthcare Management and Research Ethics	MVULI ROOM, SUBS
Mathematical Applications and Economics	JACARANDA ROOM, SUBS
Food, Energy and Water (FEW) Nexus Forum 9:00 am - 5:00 pm	MAIN AUDITORIUM
Public Policy, Governance and Integrity (Benefit Sharing) 9:00 am - 10:30 am	MICROSOFT AUDITORIUM, STMB

PLENARY EVENTS

Closing Ceremony 4:00 pm	MAIN AUDITORIUM
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DAY 5 - PUBLIC POLICY, GOVERNANCE AND INTEGRITY - MICROSOFT AUDITORIUM, STMB

ROUNDTABLE ON BENEFIT SHARING

09:00 Welcome address

KATE MAVUTI - Ag. Director, SEIC

09:10 SEIC Policy and Legal Experience

DR MELBA WASUNA - Expert Advisor on Programs, SEIC

09:25 Benefit Sharing Landscape Overview

NKIROTE KOOME - Program Assistant, Ford Foundation

09:50 Panel Discussion

Virtuous Leadership for the Future of Africa

PANELISTS:

MARGARET MLIWA - Program Officer, Ford Foundation

GEOFFREY KERECHA - Program Manager, Extractives Baraza, SEIC

SUSAN MUNYORI - Local Content Manager, Tullow Oil BV

CHARLES WANGUHU - Coordinator, Kenya Civil Society Platform on Oil and Gas

DR KORIR SINGOËI - Legal Advisor, Executive Office of the Deputy President

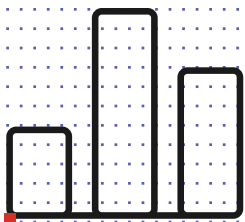
MODERATOR:

MOHAMED RUWANGE - Lecturer, Strathmore University Law School

10:30 Break

DAY 5 | JACARANDA ROOM - SUBS

MATHEMATICAL APPLICATIONS AND ECONOMICS



SESSION III: MODERATED BY DR RACHEL MBOGO

- 09**
00 FERDINAND OTHIENO Dean's Presentation: Advances in Asset Pricing, Microstructure and Quantitative Risk Management
- 09**
30 NJAU KEVIN NGUGI Risk Exposure of African Emerging and Frontier Markets: An ICAPM Based Approach
- 09**
50 KIMUNDI GILLIAN NDUKU Bad Beta, Good Beta and Stochastic Volatility in an Inter-temporal Asset Pricing Model for the Kenyan Stock Market
- 10**
10 RICHARD RODROT The Effect of M-Bima on Microinsurance Sales in Kenya: CIC Insurance Ltd, A Case Study

10:30 BREAK

SESSION IV: MODERATED BY DR GODFREY MADIGU

- 11**
00 ODHIAMBO PAULINE ALUOCH The Interconnectedness of Banks in Kenya and its Implication on Systemic Risk
- 11**
20 MUTHURI CINDY JOY KINYA Risk Based Premium System for Deposit Insurance Using Option Pricing Method: A Study of Publicly Listed Banks in Kenya
- 11**
40 MERCY KANO Effect of Biases on Financial Process and Outcomes of Investment Groups in Kenya
- 12**
00 HELEN HOKA OSILO Does renewable electricity generation affect electricity tariffs? An econometric panel data model

12:30 LUNCH

SESSION V: MODERATED BY DR DR LINDA CHABA

- 02**
00 GETUNO CHRISTINE NYABATE Fundamental Probability of Default for Commercial Banks in Kenya
- 02**
20 JEAN GITHAE Banking efficiency in Kenya: A comparative analysis of two-stage Data Envelopment Analysis and TOPSIS

02
40

NAFTALY MOSE

Inflation Rate Convergency and Exchange Rate Volatility in East Africa

03
00

SAMUEL GREG ONDUNGA;
DR JOHN OLUKURU

Research on the Implementation of Assignment and Transport Models within the Transport Industry to Maximise on Profits and Efficiency

03
30

HUSSEIN LUQMAN BAKARI

Viability of a Bus Rapid Transit System in Nairobi

04:00 END OF CONFERENCE DAY

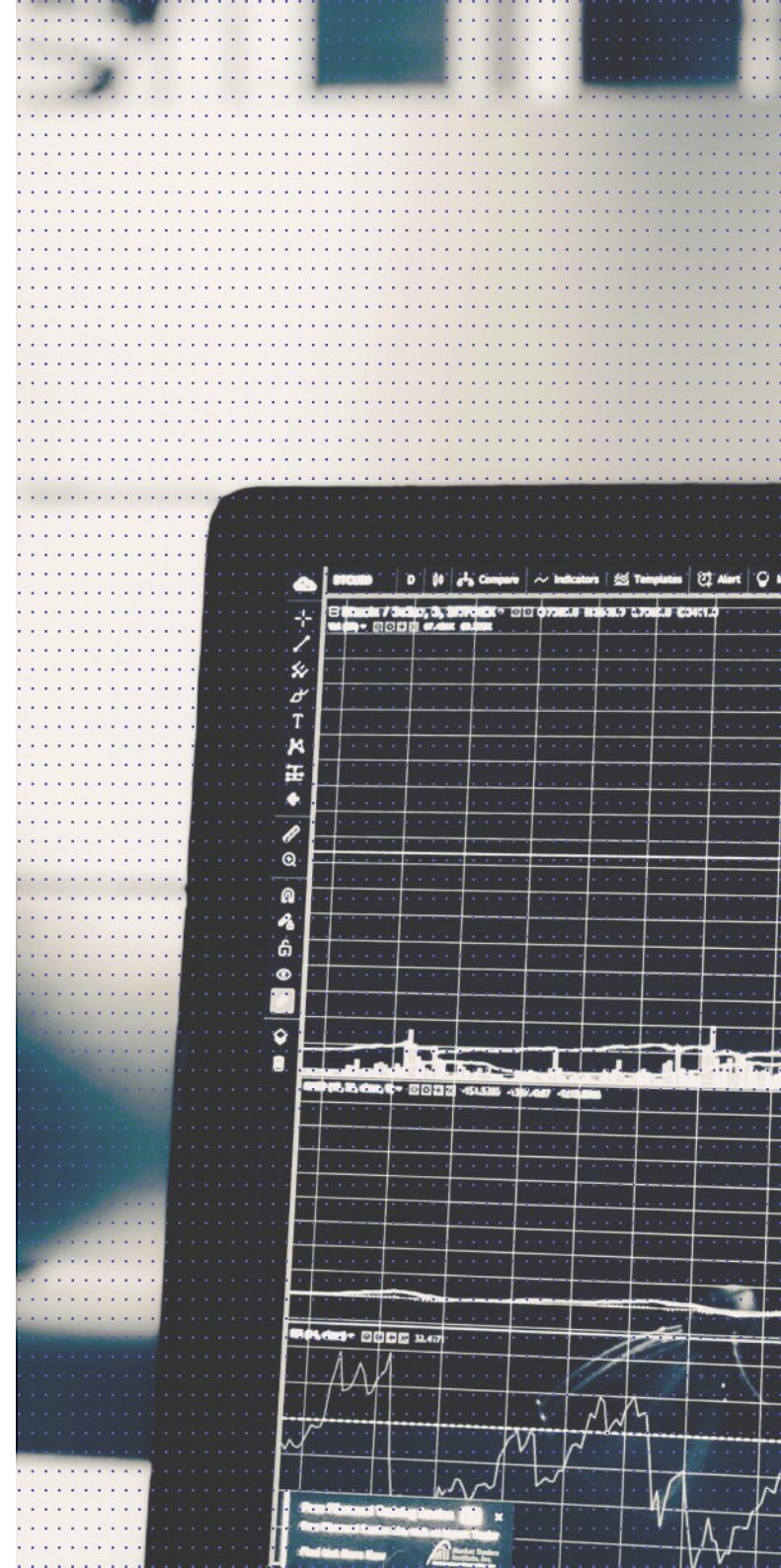
04:30 CLOSING CEREMONY - MAIN AUDITORIUM

FEATURED ABSTRACT

Does renewable electricity generation affect electricity tariffs? An econometric panel data model

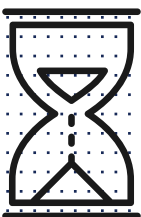
Helen Hoka Osiolo

Generating electricity from renewable energy sources is an important step that goes beyond attracting investment, creating employment, enhancing good health and environment to cleaning up and modernizing our energy systems. Kenya is experiencing high electricity tariff across electricity consumers, for instance among residential consumers, the electricity tariffs almost doubled increasing from a low estimate of 14.2 Kshs/Kwh in September 2009 to 22.8 Kshs/Kwh in July 2017. When compared to electricity generation, the share of renewable electricity generation continued to be high. In 2017, renewable electricity generation was about 73% of the total electricity generated; with geothermal generation contributing the highest share of 45.9 percent followed by hydro (26.8%). Thermal power and other sources of power generation were estimated to take a share of 24.1% and 2.8% of the total electricity generated respectively. Though, the electricity tariffs depend on several different market conditions, including the network costs, severe weather conditions, environmental protection costs, geopolitical situation, and levels of excise and taxation among others. It is however, uncertain how increase in renewable electricity generation impact on electricity tariffs. To our knowledge, no existing studies have been done to analyze how renewable electricity generation from wind, geothermal, cogeneration and hydro sources affect electricity prices across both residential and commercial consumers. Using an econometric panel data model this study seeks to establish how renewable electricity generation from different sources influence electricity tariffs across consumers and more specifically on surcharges on electricity tariffs such as FCC, FERFA, IA and WARMA.



DAY 5 | MVULI ROOM - SUBS

HEALTH, HEALTHCARE MANAGEMENT AND RESEARCH ETHICS



SESSION V: MODERATED BY DR CHARLES OYAYA

- 09:00** RAHAB MBAU ET AL. Strategic purchasing in healthcare in Kenya; Examining reforms by the National Hospital Insurance Fund
- 09:30** NELLIE WAMAITHA; MARY BETH ADAM What is the role of the Church When a National Government Has Internal Healthcare Policies that Fail its own Citizens
- 10:00** ALAKA O. BENARD; PROF ISMAIL ATEYA LUKANDU A Q-Learning Model for Cognitive Behavioural Therapy of Insomnia Patients

10:30 BREAK

SESSION VI: MODERATED BY DR CHARLES OYAYA

- 11:00** MARY BETH ADAM ET AL. Paediatric and obstetric outcomes at a faith -based hospital during the 100 day public sector physician strike in Kenya
- 11:30** EUGENE BREEN THE BIG FIVE – The Five Pillars of Mental Health North and South of the Equator
- 12:00** DR COLLINS ODHIAMBO Evaluating the Effects of Isoniazid Preventive Therapy(IPT) on HIV/AIDS Disease Progression using Non-Homogeneous Semi-Markov Process

12:30 LUNCH

SESSION VII: MODERATED BY ANITA MUSIEGA

- 02:00** JACQUELINE OLUOCH ET AL. Developing attributes and attribute levels for a Discrete Choice Experiment on Kenyan women’s preferences for place of delivery in Embakasi North & Naivasha sub counties, Kenya
- 02:30** JOHN MWAI; KORIR BELINDA; NGUGI CAROLINE Preventive Approaches in Healthcare; An Examination of Non- Communicable Diseases Regulatory Framework
- 03:00** JOSEPH ADEA; KUAN WENG U A Study on Consumers’ Attitude towards Unhealthy Food Advertising

03:30 PRESENTATIONS IN OTHER THEMATIC AREAS

04:30 CLOSING CEREMONY - MAIN AUDITORIUM

PARTNERS

PLATINUM



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BY GUARANTEE



GOLD



SILVER



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